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AN ANALYSIS OF SMALL BUSINESS LOAN GUARANTEE FUNDS

by

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AN ANALYSIS OF SMALL BUSINESS LOAN GUARANTEE FUNDS

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Small businesses are considered important engines for job growth and economic development by policy makers worldwide. One of the most commonly cited constraints of small businesses is a lack of access to capital. To address this constraint, small business loan guarantee programs have been established in over 100 countries. There are a variety of types of guarantee funds, with the most significant differences being which borrowers are eligible for guarantees, and how borrowers are approved for guarantees. There is currently no clear delineation between types of programs and the economic conditions they operate in, though some trends are becoming apparent. However, these trends may not be leading to the best economic outcomes possible. By better matching the structure of the guarantee fund to the economic conditions it operates in, the program's success in meeting economic development goals may be greatly improved. Many programs in developing countries may not be taking advantage of bank expertise and may be limiting the scope of their effectiveness. At the same time, programs in developed countries may be wasting resources by scattering their efforts too thinly and subsidizing less competitive firms to the detriment of local economic development.

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Chapter 1

Introduction

Economic development efforts come in many forms, but almost all such programs share the common goals of increasing economic activity and promoting employment growth.

Economic development programs that target small businesses and entrepreneurs are extremely common in both the United States and internationally. While the number of small businesses worldwide is enormous, their fragmentation and small individual sizes leaves each very vulnerable to market forces beyond their control. However, because small businesses, as a group, are recognized by governments worldwide as powerful economic forces and major engines of job creation, these governments seek to address constraints that small businesses face. Loan guarantee funds targeted at small and medium sized enterprises (SMEs) is one such program, and is meant to address SME's difficulties in obtaining bank loans. The definition of an SME varies by country, with some basing status on solely on the number of employees or total revenue, while others have different thresholds for employment or revenue depending on the industry.

Therefore the statistics and research regarding SME's may not be consistent. However, the most common trait for inclusion in this group is having fewer than 500 employees, and, unless otherwise noted, that will be considered the standard for this paper.

While loan guarantee funds are common worldwide, they vary greatly in their structure and operation. Furthermore, efforts to accurately measure their impact, and thus better

implement the most effective forms, have been sparse. The purpose of this research is to better understand guarantee funds, as well as to try to identify which approaches or program structures may be best suited for countries at different levels of economic development. This will be accomplished by exploring the nature of the banking industry in relation to small businesses, the international experience in guarantee fund programs, and examining why there exists a need for such programs amongst small businesses.

Research Questions

The purpose of this research is to develop an understanding of small business loan guarantee funds, as well as their role in economic development, particularly in less developed countries. To this end, the various operating structures that exist internationally will be explored, with particular emphasis on differences in structure between developed countries and less developed countries. The role of banking in small business development will also be explored in order to understand the allocation of credit by banks.

The overarching research question is whether certain guarantee fund structures are better suited for different levels of economic development, or for meeting different types of economic development goals. Furthermore, if the structure does matter, can a system be developed to help policy makers choose the structure that best fits their unique circumstances and economic development goals?

A variety of topics will be explored in order to answer these questions. These include describing the general nature of guarantee funds, how they operate, their intended impact,

and the theoretical support basis for why they are needed. Furthermore, the variety of different structures will be examined, including their strengths and weaknesses, in order to better understand which structure best fits particular situations.

Methodology

As there are great difficulties quantifying and measuring the impact of an economic development program, such as a loan guarantee fund, a qualitative approach that first pursues an understanding of loan guarantee programs and then arrives at some conclusions as to their effectiveness based on perceived performance is followed. Based on these observations, it finalizes with recommendations. The literature on the topic, including empirical research, statistics, program materials, and other writings on the subject, will be studied in order to develop an understanding of the different types of guarantee funds, as well as the nature of the operations and desired outcomes. With the major types of guarantee fund programs identified, a review of each type will be undertaken to better understand their strengths and weaknesses, specific requirements and the situations in which they appear to be most effective.

To place all of this information into context, the role of credit and banking in small business development will also be examined. The literature on this subject is more widespread and more quantitative. This should lend itself to creating a more objective determination of what is needed, in terms of credit assistance, for small business development in various situations.

Literature Review—A Brief Overview

The following section is a brief overview of the literature and research on small business loan guarantee funds used to create this paper. A more detailed discussion of the various topics and outcomes of the research will follow in later sections.

While the research on loan guarantee based mechanisms for small business development is not extensive, it does provide a useful base of literature to draw from. However, a recurring theme throughout the literature is the need for more research to provide better direction for practitioners. Due to the relatively small size of most of these programs relative to their national economy, accurately measuring their outcomes is a continuing difficulty. Much of the literature has been centered on the theoretical workings of these programs, or on studying the structure and general metrics of existing funds. While this research has helped to develop a body of literature, a fair amount has been contradictory, and very little consensus exists as to what funds are genuinely successful, or if guarantee funds are even an effective development tool at all. Furthermore, the way in which funds are typically categorized in the literature is very broad and does not adequately address the differences between fund types within a category. This leaves practitioners in an extremely difficult position, as they often have incomplete information, as well as little concrete evidence, to draw from when structuring a guarantee fund.

Several large international organizations have published reports regarding Guarantee Funds. One of the most thorough was published by the International Labor Organization (a specialized agency of the United Nations) entitled “Guarantee Funds for Small

Enterprises: A manual for guarantee fund managers” (Molenaar and Deelen 2004). This manual provides a comprehensive overview of the operations, processes and procedures of a Guarantee Fund. However, it only offers a very brief and generalized summary of the different models in use and does not go into sufficient detail regarding their strengths and weaknesses. While it does cover the operations of two different categories of funds, it does so in an extremely generalized way, giving no guidance to the practitioner on other options available, or how to adapt the program to their specific situation. The World Bank published a large report entitled “Finance for All: Policies and Pitfalls in Expanding Access” that includes a section on Guarantee Funds (World Bank 2008). While this report presents many of the positives and negatives of Guarantee Funds in general, particularly as they relate to developing countries, it does not go into detail about the various forms of Guarantee Funds or any significant details about their operations. A report created by USAID entitled “Designing Loan Guarantees to Spur Growth in Developing Countries” also offers an overview of guarantee funds in less developed countries (Freedman 2004). While this report does have a section regarding loan guarantees to SME’s, the majority of the report is focused on larger guarantees, such as for infrastructure projects. However, the report does offer a very thorough analysis of the poor state of credit availability in less developed countries, why this inhibits their growth, and how guarantee funds of any type can address this issue.

Unfortunately, much of the work regarding measurements of the economic impact of loan guarantees has been conducted by a small body of authors and is relatively limited. The most relevant of this research is a recent study of the Small Business Administration’s

loan guarantee programs by the United States Federal Reserve. This study examined extremely detailed data within areas of cities and found a correlation between the presence of SBA loans and higher employment levels, particularly in low income areas (Craig, Jackson and Thomson 2008). Other studies by the same authors though found weaker correlations between SBA loans and other indicators, such as per capita income, and the authors pointed out that their results were not conclusive. To date, this is the only research I have found that has empirically measured the economic impact of a guarantee fund.

Several research articles exist seeking to compare Guarantee Funds across various countries and to compare their results empirically. The most thorough of these is a World Bank working paper entitled “The Typology of Partial Credit Guarantee Funds Around the World” (Beck, Klapper and Mendoza 2008). This paper includes the results of a survey of 76 guarantee funds around the world regarding a large variety of characteristics (though the survey data was refined to 46 useable samples). The research showed the level of government involvement in programs, the level of pricing, which borrowers were eligible, the processes used by the fund, and the use of risk management techniques among many other elements. A correlation analysis was also performed using the survey data alongside GDP data for each respective country. While the data is exhaustive, and a broad picture of guarantee funds around the world can be formed, the author’s are unable to draw many conclusions aside from the prevalence of government support and the lack of risk management techniques. They state the primary reason for this is the difficulty in comparing programs across diverse economies without time series or loan level data.

Furthermore, while the authors attempted to categorize funds by a variety of factors, there were still gaps in this data, including eight funds claiming not to fit in any category, and two funds claiming to fit into all categories. A similar, but more geographically focused report was prepared by the Go Network (a European Union funded project) entitled “Benchmark Analysis of the Credit Guarantee Organizations in the Central, Adriatic, Danubian and South-Eastern European Space (CADSES)” (Go Network 2006). This report attempts to establish benchmarks for the roles of Guarantee Funds throughout 18 countries in Europe. The countries are grouped into peer groups based on GDP level and comparisons are conducted utilizing a range of statistics, such as number of guarantee fund organizations, number of small businesses, and amount of loans guaranteed, among others. The report also offers individual country analysis. While there is some discussion of different types of guarantee funds, this is mostly limited to contrasting programs with public support versus those primarily supported privately. Another comparison report was created by the Asian Development Bank entitled “People’s Republic of China: Development of Small and Medium-Sized Enterprise Credit Guarantee Companies” (Davies 2007). In creating the report, the author studied the 25 largest SME guarantee funds worldwide and compared them on a variety of factors. This report reiterated many of the common findings of the other studies, which are that governments are heavily involved and risk mechanisms are rare. While the report is valuable in comparing large programs in developed countries, it does not explore programs in developing countries.

Other research on guarantee programs has typically involved either a case study or empirical research on a single guarantee program or a small cohort of programs. The most common areas of empirical research involve trying to determine whether the loans are actually additional, that is they would not have been made without the guarantee (Cowan, Drexler and Yanez 2008; Cukauskiene 2006; Riding, Madill and Haines 2007; Zecchini and Ventura 2009), and the economic impact of guarantee funds (Anuchitworawong, Intarachote and Vichyanond 2006; Benavente, Galetovic and Sanhueza; Bradshaw 2002; Park 1995; Oh et al. 2009) or both of these factors (Boocock and Shariff 2005). These papers come to widely differing conclusions regarding the outcomes of guarantee funds.. For example, Riding, et al, estimates that in a Canadian fund almost 75% of loans would not have been made at the same terms without the guarantee, while Zecchini, et al. find that only 12% of the total loan amounts in an Italian fund were actually additional. Regarding the economic impact of guarantee funds, for example, Bradshaw finds that a California fund helped recipients avoid cutting 14% of their workforce, while Oh, et al, call into question the long term economic impact of a South Korean fund, since guarantees seemed to be aimed at helping less productive firms survive rather than helping firms grow or innovate. These differences can likely be contributed to differences in the structure of the guarantee fund, differences in the economy they operate in, and differences in research methodology between the studies.

Capital access programs (CAP's) are a type of guarantee based mechanism to support SME lending, but differ from traditional guarantee funds in how their funds are handled. They are most prevalent in the United States, with the first program being created in

Michigan in 1986. Though more than 20 states and several municipalities operate CAP's, there is a dearth of literature on the subject, particularly recent research. These types of programs, though directed at the same problem and utilizing essentially the same mechanism, are also almost never mentioned in the general guarantee fund literature. The United States Treasury published several comprehensive reviews between 1998 and 2001 of CAP's operating in the United States (United States Treasury 2001), however no reviews or further research has been completed since then. The Treasury report concluded that CAP's were able to reach borrowers that are otherwise poorly served by other lending programs, and that CAP's were responsible for some level of job retention and creation. The Michigan Strategic Fund and the Michigan Jobs Commission funded a report on the Michigan Capital Access Program in 1998 (Hamlin 1998). This report found that 88% of recipients of CAP loans met the criteria of being "almost bankable" and likely would not have received the loan otherwise. Furthermore, the research found that the program did promote job growth and economic development in excess of its costs.

While the literature does not provide a consensus as to the effectiveness of guarantee funds, it does provide extensive research material and can be greatly utilized in detailing how funds operate, as well as in differentiating between types of funds. Though there are various attempts to categorize guarantee programs by broad criteria, there is very little to describe the differences within these categories. More importantly, there is little guidance involving what characteristics of a fund may make it suitable for a particular situation or level of local economic development. Furthermore, a significant gap in the

literature exists in relation to Capital Access Programs. The following research seeks to fill these gaps by more thoroughly examining the variety of guarantee fund mechanisms, and by including capital access programs in the comparison

I will now detail what a guarantee fund is, how it works, why it is used, and the most common types. Furthermore, the strengths and weaknesses of the different types of funds, as well their outcomes will be explored to identify what can be learned from these experiences, particularly for countries at different levels of economic development.

Finally, the nature of small business in an economy, as well as the role of banking in small business development will be explored to provide important background for better understanding the role of guarantee funds.

Chapter 2

Guarantee Fund Basics

A guarantee fund, in its most common form, is an independent entity that acts as a third party between a lending bank and a borrower who does not meet all of the bank's qualifications, but are otherwise considered a good credit risk. The guarantee fund provides the bank security, in the form of a guarantee for a portion of the loan, in order to enable the borrower to obtain a loan. In an international survey, guarantee programs in both developed and developing countries were rated as the government program that most influenced the bank's involvement with SME's (Beck, Demirg-Kunt and Pera 2008)

Guarantee Funds (GF) are typically targeted toward a specific group of potential borrowers that are seen as being underserved by the formal credit markets, but whose success is deemed to be important to the development of a group of people, an industry or a region (Honohan 2008). Although guarantee funds exist to cover many different kinds of borrowers, including large corporations, and even governments, the focus of this research is on those targeted at small and medium sized businesses. However, though they can also be targeted toward more specific SME borrowers, such as borrowers in inner cities or rural areas, borrowers in certain industries such as agriculture or technology, or toward borrowers in certain demographics, such as women or ethnic minorities. In any of these instances, there will often be potential borrowers who have strong business plans and are otherwise good credit risks, but do not quite meet all of a

bank's requirements to obtain credit, most typically regarding collateral. This is particularly true of smaller borrowers. A review of over 50,000 Italian loans found that smaller firms are typically required to post more collateral than larger firms (Pozzolo 2004). Unless they can overcome the missing requirements, the borrower must find financing elsewhere, often at a drastically higher cost, if it is available at all.

A guarantee fund helps borrowers to overcome this credit gap by providing the bank a loan guarantee as a substitute, or in some cases, in addition to, any collateral required by the bank. This mechanism allows borrowers to utilize the formal banking sector, which not only lowers their costs, but as the bank and GF will require more extensive reporting, it typically helps move the company toward more professional practices. Furthermore, the borrower will begin building a formal credit history which will make gaining future loans more likely. From the banks side, they gain new customers, as well as experience in lending to new sectors (Honohan 2008).

How does a Guarantee Fund Operate?

The creation of a guarantee fund begins with an initial investment of capital. This capital is often provided by a government (from the city level to the national level), or by a non-governmental organization or donor with an interest in promoting development in a specific sector or region.

The Guarantee Fund then creates partnership agreements with banks that lay out specific operating arrangements. These agreements may vary amongst partner banks, but will

typically include items such as the types of borrowers eligible for guarantees, the size, duration and purpose of loans, and the mechanism for paying the guarantees in the event of a default.

There are a variety of guarantee fund structures, but a typical series of steps a borrower will take are as follows:

- A borrower first applies directly to a bank for a loan
- The bank will review the application and recommend approval or denial
- If the application is approved as is, the loan will be granted and the GF will not be involved
- If the loan is not approved because the borrower's application is inadequate in some way, such as lacking a required level of collateral, and they meet the criteria for borrowers laid out in the agreement between the bank and the Guarantee Fund, they will be referred to the Guarantee Fund
- The application will be forwarded to the guarantee fund (by the bank or by the borrower), for their review
- The GF will independently review the loan application for approval or denial. The level of investigation will vary with the type of program.
- If the loan application is approved, the GF provides the bank a guarantee for the required amount of collateral, and the loan is issued

- The borrower will repay the bank, and will also pay the guarantee fund an annual fee (typically between 2-5% of the loan value which can be included in the loan payments)
- If the borrower repays the loan, the GF is released from its guarantee
- If the borrower defaults on the loan, and the bank meets all of its obligations in attempting to collect on the debt, the GF will reimburse the bank for the agreed amount.

Advantages of a Guarantee Fund

There are several advantages, in terms of economic development, to employing capital in a guarantee fund rather than in typical lending entities (even those providing very low interest loans). The biggest advantage is that a GF is able to highly leverage its capital, allowing much greater impact from the investment. Because a GF doesn't actually make loans, but instead issues guarantees against its capital, as long as partner banks agree, the GF can issue far more in guarantees than it actually holds in capital, typically from 5 to 10 times the amount of capital. For example, the Thailand Guarantee Fund operates at a multiple of 7 (Anuchitworawong, Intarachote and Vichyanond 2006). However, in some industrialized countries, leverage can reach 20-25 times (Davies 2007; Levitsky 1997)

A well operated fund operating for 5 years should reasonably expect to have a multiple of 5, meaning \$1 million in capital can realistically translate into \$5 million in guarantees to banks. Depending on the operation of the fund, the guarantee will typically be for

between 50-80% of the loan amount. This means that the actual amount loaned to SME's, based on \$1 million in guarantee capital may be between \$6.25 million and \$10 million. Many well established guarantee funds can reach a multiple of 10 after 7-10 years of operation, and adding a re-guarantee program, as exists in Japan and Germany can increase the multiple to 20 or more (Davies 2007). As the loans are repaid, the fees earned will increase the amount of capital available, further increasing the amount of loans made available.

This powerful multiplier is just one of the advantages of guarantee funds though. Another advantage is access to the formal credit markets for underserved groups. For example, when many small businesses need credit, their only option is the informal, or grey, market, which may range from family and friends, to less than scrupulous money lenders. While borrowing from family and friends may have a low monetary cost, it comes with other costs, such as emotional stress, as well as putting a heavy strain on a family's financial security. Borrowing from a grey market money lender is also problematic because it will often come at prices 2 – 5 times higher than banks (Wattanaputtipaisan 2003; Colwell 2008). By accessing the formal credit market through the use of guarantees, borrowers can lower their costs of capital and their risks significantly (Arping, Lyrønth and Morrison 2008). Furthermore, the business practices of both borrowers and existing financial institutions are improved. The higher degree of reporting that a bank may require can help push the business to more professional practices, while the bank will gain experience working with a new type of borrower that they otherwise would not have engaged. Finally, creating a relationships with a bank will

not only improve the borrowers chances of getting future loans with less security, but will also create a credit history for them to present to other lenders.

Another advantage of guarantee funds is that they provide a business solution to a social problem, rather than simply a charitable solution. Because it is not a low interest loan, there is a better chance that businesses with an actual need to access credit will receive the assistance. The reason for this is that low interest loans have significant competition for limited funds, some of which will inevitably go to people who don't need cheap money (whether through fraud, insufficient credit appraisals, or personal connections with the lender). While low interest loans certainly have their place, and are an extremely valuable development tool, a guarantee fund provides an option for borrowers that can borrow at market prices, thus freeing up more low interest loans for those that they are truly targeted toward.

What type of credit is guaranteed

Guarantees are used to facilitate access to a variety of different kinds of credit, including for starting a new business from scratch, expanding or purchasing new equipment for an existing business, and providing working capital to finance the day to day operations of a business. While this is a little explored area of guarantee fund operations, but it may be instructive to examine the issue.

The majority of guarantee funds do not place a great deal of restrictions on the use of the loan (with the exception of common disclaimers barring their use for such things as

illegal activities or stock speculation). However, there is one notable exception. The largest Canadian guarantee fund, the Canadian Small Business Financing Program (known as the CSBF), for example, does not allow guarantees for working capital (Riding, Madill and Haines 2007; Heron & Company 2007). This is in sharp contrast to Japanese guarantee funds that have the vast majority of their guarantees (85%) covering working capital (Levitsky, Prasad and Ranga N. 1995). The CSBF chose to restrict working capital loans from the program because of the fear that they would have higher default rates than asset backed loans, though they have continued to explore the subject since at least 1998.

The CSBF commissioned a report specifically regarding working capital in 2006. The report found that SME borrowers seeking working capital loans were not likely to be turned down at a higher rate by banks, and that banks did not take the type of loan (investment or working capital) into consideration when making the appraisal, leaving the author to conclude that there was no clear funding gap for SME's needing working capital (Riding 2006). The report did conclude that it was likely that a certain class of relatively risky firms, such as startups and young firms with little collateral, do have difficulties in receiving working capital loans, and these would be the most likely recipients of guarantees. The report generally had an unfavorable view of expanding the program to include working capital loans, based primarily on the lack of a demonstrated funding gap, as well as the increased riskiness of the borrowers likely to receive the guarantee. The report relied heavily on interviews with bankers, and statistics regarding rejected applications. This seems to give a very narrow view of the issue. An analysis of

default rates on the different types of loans or by different types of borrowers would have seemed beneficial, as well as a discussion on the role of working capital versus investment loans for economic development.

There was an interesting contradiction in the report however, regarding how banks regard working capital loans. The author finds that banks do not judge loans based on their purpose (working capital or investment), stating in the report's conclusion:

Both qualitative and quantitative data reflect that the use of the proceeds of loans do not figure into commercial lenders' decisions on loan applications. (Riding 2006, pg. 22)

However, in an earlier section describing interviews with bankers, there are several quotes from different bankers that point out the riskiness of working capital loans. For example: "working capital loans are much riskier" and "working capital is the most risky loan you can do." (Riding 2006)

It would have seemed prudent to explore this contradiction further, since it would seem obvious that if bankers consider them more risky, they would certainly take that into account in their approval decisions.

A later report conducted for the CSBF regarding administrative functions pointed out that there did not seem to be a reason for the differentiation in loan types by the guarantee fund, and recommended that the CSBF change its rules to allow working capital loans

(Heron & Company 2007). As of March 2010, the CSFB does not allow loans for working capital (Canada Small Business Finance Programkotec 2010).

As most funds have little restrictions on the type of credit they will guarantee, there are few other mentions in the literature on the distinction between types of credit. An exception is research on the UK Small Firms Loan Guarantee program that found guaranteed loans for working capital defaulted at a higher rate than loans made for investments (though no distinction was made for startups versus existing businesses; Cowling and Mitchell 2003).

Chapter 3

Types of Guarantee Funds

There are currently a wide variety of guarantee funds operating all over the world. In their earlier forms, most programs followed one of a few common models, typically retail or portfolio; however, as the programs have evolved, many have developed unique traits to suit their specific needs, and several hybrid models have been introduced as well. Therefore categorizing guarantee funds has become something of a challenge. While there are still several broad categories of operations, many other factors play a prominent role in the structure of a guarantee fund as well, making it important to not become too encumbered by old labels.

All of the guarantee programs described here have the same basic objective, to allow a creditworthy SME or entrepreneur, who does not quite meet a bank's lending requirements, to be able to receive a loan. This is accomplished by a third party, the GF, offering to guarantee a significant portion of the loan in the event of a default. Typically, no collateral is actually issued by the guarantee fund to the bank; instead the bank accepts a claim on the guarantee fund's capital or the full faith and credit of the government supporting the fund. In the event of a default, a contract between the bank and the GF will spell out the steps a bank must take to receive payment, including what steps the bank must have taken to collect on the loan. After payment is made to the bank, the GF

may continue to seek to collect from the borrower. Many parts of this process are virtually identical, regardless of the structural differences of the funds.

Traditionally, the major difference in GF's was in their interactions with banks and with borrowers. A retail guarantee fund will typically have some form of public presence and will often have significant interaction with the borrower. Borrowers are typically referred to the GF by a bank in the event their loan application does not meet requirements; though in some cases a borrower may apply to the GF first. Independent loan appraisals are a key trait of retail GF's and are conducted before the guarantee is approved. The time necessary for the loan appraisal varies depending on the program, as well as the complexity of the loan. As an example of the time necessary, Kafalat, the Lebanese SME guarantee program, states that a decision will be made in a maximum of 3 weeks, though smaller loans tend to receive decisions quicker, usually in 7 days (Kafalat S.A.L. 2010). This time frame seems relatively standard for most retail GF's. Interaction during repayment can also vary greatly among retail GF models, but often there is at least some extra degree of monitoring.

Due to the duplication of services, particularly the independent loan appraisal and monitoring, retail GF's are considered the most costly model. This cost is considered justified by many GF practitioners because of the extra layer of oversight, as well as the fact that the GF may have a special knowledge of a group of borrowers which allows it to conduct a more accurate appraisal than a bank (Colwell 2008). Another significant advantage of retail GF's is the personal contact with the borrower. This not only improves the appraisal of the loan, but a retail GF can also require the borrower to

perform certain actions to receive a guarantee, such as attending educational events or receiving mentoring or counseling that will increase their likelihood of success.

Retail guarantee funds were traditionally the most common form of GF, however, as value of the extra oversight has been questioned, many GF's have moved to a portfolio model. A portfolio guarantee fund creates partnerships with banks that allow for an automatic guarantee mechanism essentially invisible to the borrower. A contract between the bank and the GF details which borrowers are eligible for a guarantee, as well as fees and other operating procedures. The bank chooses which eligible loans to apply for guarantees and forwards the request to the guarantee fund. Depending on the arrangement, the GF may do a cursory review, or in many cases, the guarantee will be automatically granted in order to speed up processing time. The GF will typically perform a regular review of the portfolio to insure compliance with the contract. A portfolio approach is typically the least costly since it does not duplicate services with the bank, and is often the most attractive to borrowers since it is the fastest and makes the least requirements of them. Many portfolio models require very little time for approval such as 2 days or less, and some don't require any prior approval at all, delegating the responsibility to the bank which registers the loan after it is issued.

The prevalence of retail appraisals has been shrinking as more retail GF's have come to rely on the bank's appraisal with only a cursory review of the application to ensure it meets eligibility requirements. Many GF's also operate both retail and portfolio operations simultaneously as well. In these hybrid models, banks typically begin a relationship with the GF and have all of their applications independently reviewed at the

beginning. After the bank has shown sufficient capacity in utilizing the program and following guidelines, the bank may be allowed to use abbreviated applications, or granted outright authority to make credit decisions. The United States' Small Business Administration (SBA) is a large example of a hybrid fund. While the SBA still performs individual loan reviews on a large number of applications, it has also created several programs in which banks can simply submit abbreviated applications for qualified loans. Depending on the program and the type of loan, these applications may be evaluated within 1 day or in some cases automatically approved (Small Business Administration 2010). Other programs allow loans under a specific threshold to be approved automatically on a portfolio basis, while loans over the threshold have to be independently reviewed.

Variations of Guarantee Funds

Within these major categories of guarantee funds exists a multitude of variations. While guarantee funds all over the world tend to operate in generally similar ways, many also have unique aspects that differ greatly, even among otherwise very similar funds. While several studies have examined the variations in major areas of the funds, such as governance and funding, other unique aspects, such as how the guarantee level is set have been little studied. As most of the guarantee fund literature from the major international organizations tends to offer fairly generalized guidance, guarantee fund practitioners may not realize all of the options they actually have available to them. What follows is a

discussion of some of the variations of guarantee funds around the world, along with examples of the variation in practice.

Highly Targeted Guarantee Funds

All of the guarantee funds discussed in this paper are targeted toward SME's, and many have little or no restrictions about which SME borrowers qualify for guarantees.

However, some funds have much more specific targets within the SME group. Common targets may be the type of industry (agriculture, technology), borrower demographics (women, minority), and location (rural, urban centers). The primary benefit of targeting is that economic development efforts can be sharply focused to promote growth in an area policy makers deem necessary and important. Another potential advantage is that the guarantee fund may have specialized knowledge about its target group that allows it to make a better analysis than a bank would be able to. For example, South Korea operates the Korea Technology Finance Corporation (KOTEC), which is part of a larger organization named Kibo. This program provides guarantees to SMEs involved in technology related fields. The GF has developed a specialized system of Technology Appraisal Centers (TAC) in order to provide guarantees based on the potential of new and emerging technologies, rather than more common financial metrics. The fund states:

Kibo focuses our guarantee support on those technology-based enterprises, start-up companies and venture firms which, in spite of their somewhat poor prior achievements, we consider to have excellent technological power as well as the potential to create Korea's future economic growth

engines and to generate new employment. (Korea Technology Finance Corporation, 2008, pg 13)

Traditional bank lenders would rarely, if ever, be willing to base a loan on an unproven technology. However, by specializing in this area, KOTEC has been able to support technology companies with high growth potential, while remaining sustainable and not incurring an excessively high default rate. Similar evaluations are also made by rural and agriculture based GF's as well.

The primary disadvantage of highly targeted GF's is that risk management is compromised by having the loan portfolio concentrated in one area. A common risk management technique among lenders is to diversify their portfolio in a variety of areas. In this way the lender is not at risk of excessive losses if something adversely affects a specific group of borrowers. By committing to supporting one group of borrowers, a targeted GF will bear the full brunt of any diminished performance by the sector, regardless of how well they screened their borrowers. Even without adverse conditions, targeting has other risks. Depending on the size of the target, the GF may have difficulty finding an adequate number of qualified borrowers, and thus may offer guarantees to borrowers that they normally would not accept. This may be particularly true if there is political pressure from leaders seeking to show that they are supporting a disadvantaged community.

In choosing to target a fund very specifically, management should likely take the increased risk into account and plan for increased support from those contributing to the

fund. While it also may be possible to charge higher fees to compensate for the risk, the higher cost of capital may well increase the default rate, forcing increased support anyway. It would seem wiser to temper expectations and accept that some level of future support will be necessary to continue to promote development of the target group.

Other examples of highly targeted guarantee funds exist as well. For example, Morocco operates several targeted GF's, including the FGIC, which is aimed at small and medium-size enterprises involved in the art and entertainment industry, as well as a GF targeted at young entrepreneurs (Morocco Ministry of Economy and Finance 2010). Lithuania operates the Rural Credit Guarantee Fund which only offers guarantees for small businesses involved in agriculture or located in primarily agricultural areas (Rural Credit Guarantee Fund-Lithuania 2010).

Mutual Guarantee Institutions

Mutual Guarantee Institutions (MGI's) are organizations made up of companies from the same industry or region, which join together in order to seek more favorable credit terms and availability. These programs are often created and administered by trade associations or chambers of commerce. Member companies pay fees or pledge collateral which are pooled together to form a guarantee fund. Contractual arrangements are then made with banks to offer credit to members, often at a lower rate than they could receive without the guarantee. When members receive these loans, they pay an additional fee, usually a percentage of the loan amount, to the guarantee fund.

Italy is widely recognized as having the most prevalent network of MGI's, though they are also found in smaller numbers in Germany, France, Spain and other areas around the world. Approximately 12% of SME loans in Italy are made with the backing of a MGI (Columba, Gambacorta and Mistrulli 2009).

Mutual Guarantee Institutions are typically not funded solely by members. In fact, in many cases, only 1/3 of the guarantee's capital is from members, with the rest being contributed by governments or NGOs (Columba, Gambacorta and Mistrulli 2009). MGI's have been shown to both decrease the cost of capital and increase access to capital, although not by particularly significant amounts (Columba, Gambacorta and Mistrulli 2008). Furthermore the authors find that the size of the MGI is important to determining the improvement in interest rates offered to members. As an MGI grows, banks are more willing to offer better terms. However, at some point, membership grows too large for the MGI to adequately monitor members and defaults will rise, thus making banks insist on higher interest rates to compensate for the increased risk (Columba, Gambacorta and Mistrulli 2008).

Mutual Guarantee Institutions have the advantage of a built in screening mechanism through membership in the organization. The greater knowledge that the MGI has about its members, both before the loan and during repayment, has the potential to greatly improve default rates. The MGI may restrict certain members from accessing the guarantee fund if there are concerns about its finances. While these organizations are typically far too large for members to police each other during repayment (such as in many micro lending schemes like the Grameen Bank), members still have incentives to

insure the administration of the program is diligent in its duties, because any default will put the group's capital at risk and could result in worse borrowing conditions for companies in the future. The MGI also has the advantage of needing less government or donor funding due to the member contributions.

A typical example of how a Mutual Guarantee Institution works in Italy is Fidindustria, which supports small businesses in the Bari province of southern Italy. To apply, local SMEs must submit 3 years worth of financial records and make a one-time payment of 500 Euro. They also must provide a 3000 Euro letter of credit that is added to the guarantee fund capital. When the member wants to take a loan, they pay a fee (based on risk, maturity and loan amount) to the guarantee fund. The coverage ratio for all loans is 50% (Fidindustria 2010).

Capital Access Programs

A Capital Access Program (CAP) is a unique form of loan guarantee mechanism. While the objectives are identical to other GF's, allowing nearly qualified SME borrowers to access credit by providing banks with a guarantee of partial repayment on default, the methodology is quite different. A CAP is similar to a portfolio guarantee fund in allowing banks to make the credit appraisal, but differs greatly in how loans are guaranteed and how the program operates and is funded. Capital Access Programs have elements of an insurance program, loan loss reserve account and economic development program.

Banks choose which borrowers they will include in the program, and the only paperwork involved is typically a short application form enrolling the loan and certifying that it qualifies for the program (in many cases this can be filed after the loan has already been made, meaning there is no delay for the borrower). The bank charges the borrower a fee, which is a percentage of the loan amount, and could be thought of as an insurance premium paid by the borrower in order to obtain the loan. This percentage is negotiated between the borrower and lender and depends on how risky they judge the borrower to be; typically the fee will range from 1% to 5%. At this point, the process is identical to a bank charging a risk premium to a borrower and creating a private loan loss reserve. However, under this program, the CAP then matches the fee amount dollar for dollar, or occasionally by a higher multiple. These funds are then deposited into an account owned by the CAP (but often held at the lending bank). The funds deposited in this account are not tied to a specific loan, but rather grow over time and can be used to cover any CAP loans that default. The bank can only access these funds in the event a CAP loan default (it remains the CAP's money otherwise), and only under the contractually agreed upon terms. If a defaulted loan is for more than the amount held in the CAP account, the bank is liable for the rest of the loss. However, as the bank enrolls more loans, the CAP deposits can grow large enough to provide a strong cushion against defaults.

Capital access programs are almost exclusively found in the United States and run by individual states, although several large cities have implemented programs as well.

Eligibility for the program is normally fairly broad and covers most small businesses.

However, CAP's often adjust their match multiple, depending on the borrower, to better

accomplish economic development goals. For example, Illinois increases its match to 1.5 for loans to women, minorities and the disabled, and to 2 times for loans in Federal Enterprise Zones, while Connecticut contributes an amount equal to 30% of the loan for borrowers in designated urban areas (United States Treasury 2001), and Ohio has recently begun offering a contribution equal to 80% of the loan amount for state certified minority businesses (Ohio Dept of Development 2009).

There are several key advantages to capital access programs. From the bank and borrower's perspective, the speed and simplicity of the program are almost unmatched. From an economic development perspective, the program is able to focus its efforts on specific targets to better accomplish policy goals. From the state or municipality's perspective that is funding the program, they have a defined financial risk that cannot change, unlike conventional guarantee funds that could face unexpectedly high defaults that would require substantial additional state funds to cover. Capital access programs are also generally considered to have much lower operational costs, since they typically have very low administrative overhead and do not need to perform any of the loan review or collection activities that a traditional GF conducts. The average state run CAP only employs the equivalent of 1.3 full time workers (United States Treasury 2001).

Capital access programs should also have a high probability of increasing the amount of loans that would not have been made otherwise, which is known as financial additionality or incrementality. While banks may prefer to have borrowers pay the highest fee allowed by the CAP in order to build their loss reserve quickly, borrowers may reject a high fee if they can receive the loan at a lower cost elsewhere. This helps to insure additionality

because practitioners assume that borrowers know their options and would not accept a higher price to participate in a CAP when they could get a loan at a lower rate elsewhere. However, the assumption that borrowers are always well informed may not be accurate, as was pointed out in a study of the Michigan CAP that found almost one third of borrowers did not know they were participating in the program or were paying extra fees (Hamlin 1998). While these loans may well be truly additional, it also may be possible that borrowers do not adequately explore their options prior to accepting the loan, simply accept the price their banker offers without negotiating, or may be taken advantage of by unscrupulous bankers. This issue is not confined to CAPs, as the same thing could occur with portfolio guarantee funds as well. However, due to the speed, simplicity and virtual invisibility of CAP's versus GF's, there is a greater likelihood of a borrower being unaware they were not receiving a standard loan. Requiring disclosure of fees and some level of borrower education would seem to be a prudent move to insure that banks aren't simply enrolling loans they would have made outside the program simply because they know they can charge an unwitting borrower a higher fee and build up their loss reserve account.

Capital access programs have drawbacks as well. A conventional guarantee fund is often politically popular because it requires an early investment that promises to support a much greater amount of loans with very little follow up support (at least in theory), while a CAP requires substantial investments by the funding authority for at least the early years of the fund, and in some cases into perpetuity. Programs differ in how they allow funds to re-circulate, which in turn impacts the program's level of self-sustainability. For

example, in the Hawaii Capital Access Program, when a bank's loss reserve fund reaches 33% of its outstanding CAP loans, any excess can be withdrawn and re-circulated to support new loans by any bank in the program. Furthermore, the state also withdraws all interest earned by the reserve account and can re-circulate those funds as well (Hawaii Dept of Business 2002). However, in the Arkansas CAP, banks are allowed to let their loss reserve balance grow indefinitely (which means they can be well over 100% of outstanding loans), and banks are allowed to keep half of the interest earned (Arkansas Development Finance Authority 2010). This means that the CAP must always rely on state funding for new loans.

Therefore, particularly in the early years, CAP's are always in danger of being shut down due to budget issues or political shifts, and this uncertainty may dissuade banks from participating. Furthermore, poor economic conditions may cause an increase in default rates which could dramatically decrease the level of the bank's loss reserve accounts. In this case the program would almost certainly require extra funding to replace the excess funds they had expected to withdraw and re-circulate.

Banks also may be unwilling to take on risky loans through the program when first starting because the funds deposited would only cover a small fraction of the loan in the event of a default. Several states have addressed this by providing a significantly higher matching deposit for a bank's first several loans. For example, Ohio contributes 50% of the loan amount for a bank's first 3 loans, allowing them to build a loan loss reserve very quickly (Ohio Dept of Development 2009). Other states have offered credit lines to

cover early defaults; these credit lines are then repaid with future bank contributions to the CAP deposit (United States Treasury 2001).

Capital access programs also leverage their invested capital differently than traditional guarantee funds. For comparison, consider a traditional GF which has \$10 million in capital that they are able to leverage 5 times at a 75% coverage ratio. Thus they can guarantee a total of \$66.6 million in SME loans at any one time. Given an average maturity of 3 years, the GF would provide approximately \$22 million a year in guaranteed loans (loan maturity greatly alters this figure, making a comparison such as this purely for illustration purposes). A capital access program by contrast may receive funding of \$1 million a year. If the average fees paid by the bank and borrower were a combined 4%, and the matched dollar for dollar by the CAP, the program could cover \$25 million in loans per year. For illustration purposes, assume only one bank is involved in the CAP. After one year the loss reserve deposit would total \$2 million, or 8% of the total loans (well above most SME default rates anywhere in the world).

After 10 years, the CAP would have had \$10 million invested by the government, funding approximately \$250 million in loans. Over this time the loan loss account would have had \$20 million deposited. Even assuming a very high default rate of 6%, equaling \$15 million in losses, the reserve fund would still have a \$5 million balance, plus any interest earned over the 10 year period and no future loss risk to the government. In contrast, the traditional guarantee fund with its initial \$10 million dollar investment could have guaranteed around \$223 million in SME loans. However, this figure could be highly variable depending on the amount of leverage the fund was able to use, the costs

incurred by the fund and the maturity of the loans. If the loans had long maturities, the fund would not have been able to turn them over quickly, thus reducing its total loan amount. Furthermore, if the default rate was unexpectedly high, the government could face substantial future liabilities.

Though starting and funding a CAP comes with the added political difficulty of indefinite continued funding, the CAP model offers several distinct advantages to a traditional GF. Most notable are the reduced risk undertaken by the government, the more certain financial projections available, and the low cost of operations.

Market Based Funds

While a variety of funds adjust their pricing and coverage ratio based on targeted borrowers or bank performance, these are arbitrary figures arrived at by the organization and may not be efficient. The Chilean guarantee fund, FOGAPE, is unique in that it uses market mechanisms to set coverage ratios and allocations for the amount of guaranteed loans participating banks can make. The coverage ratios and allocations are determined through an auction in which banks bid on the level of coverage they will accept. For example, if a bank is willing to accept coverage for 65% of its guaranteed loans, rather than 70%, it can receive a higher allocation (Cowan, Drexler and Yanez 2008). While one research study has shown that the guarantee coverage level can affect default rates (Cowling 1998), it is likely that this is at least partially tied to economic conditions, as well as other factors, such as the type or maturity of a loan. Given that economic conditions change, and that different banks will choose to make different loans, it makes

sense that this should be flexible helps to insure that FOGAPE is operating in as efficient manner as possible. Why provide 75% coverage for a loan if a bank would be willing to make it for 65% coverage and take some of the burden off of the guarantee fund or government? While the Chilean guarantee fund has received a good deal of international attention and interest, it is unclear whether other guarantee funds have actually adopted a similar bid system.

Chapter 4

Guarantee Fund Operations

Choosing Guarantee Recipients

A key element that distinguishes guarantee schemes from other government development programs, such as loans or grants, is that they rely on banks to determine recipients.

Since banks have specific experience in judging the credit worthiness of borrowers, the guarantee fund can leverage this expertise to help avoid bad borrowers (Arping, Lyr6nth and Morrison 2008). While some schemes rely almost totally on the banks to determine recipients, such as portfolio schemes and Capital Access Programs, many guarantee funds, such as the United State's Small Business Administration, perform their own credit appraisal on a large portion of their guarantees.

While the assessment increases the guarantee fund's costs, it is considered justified if the fund has an information advantage that allows it to conduct a better review and thus lower the default rate of guarantee recipients (Honohan 2008). However, many funds that do not conduct independent assessments have very low default rates as well. These funds rely on the bank's assessment to make the credit decision, as well as regulations that penalize a bank for having excessive defaults. By penalizing banks, often by restricting future guarantees, charging higher fees, or rejecting the guarantee claim in

cases of non qualified loans being enrolled, the GF can provide incentives to the bank to provide diligent monitoring and not attempt to exploit the program.

Banks and Guarantee Funds

Banks seem to certainly recognize the potential value of serving the SME market; however, the potential profit is offset by the increased costs that come with serving this market, and, therefore, banks find it necessary to develop new mechanisms and structures to work with SMEs, as well as to adapt their business and risk models to reduce the risks and costs of serving SMEs (De la Torre, Peria and Schmukler 2008; Davies 2007).

Guarantees can be an important part of a bank's plan to work with the SME market.

Banks have several incentives for involvement with a SME guarantee fund. Many banks recognize the potential value of the SME market and see the use of guarantees as a way to gain experience with the market. In the case of SBA guarantees, banks are able to securitize the guaranteed portions of their loans and sell them on the securities market. Rather than hold the loan themselves, the bank sells it to an investor who pays the bank a lump sum in exchange for receiving the future payments. This allows the bank to quickly regain capital that they can loan out again.

However, there are also several disincentives for banks to utilize guarantees. The most commonly cited problems for banks are the additional bureaucratic tasks, such as applications, and oversight, as well as difficulties in getting paid through the guarantee in

the event of a default. Smaller banks seem to have the most trouble with repayments. (Bradley and Kirtley 2008)

How Banks Utilize Guarantees

A recent survey (Temken and Theodos 2008) of lenders utilizing SBA guarantee programs found that the lenders felt the guarantees allowed them to serve borrowers who did not quite meet their conventional underwriting standards, but they still considered attractive clients. The most common reason cited in the survey for a company's use of an SBA guarantee is that company does not have adequate net operating income (NOI) to meet the debt service coverage ratios (DSCR) required for a conventional loan term. By utilizing the guarantee, lenders could extend the length of the loan beyond their normal term to make the payments affordable to the borrower. The study's authors do not provide survey statistics, but they do state that collateral constraints are the second most common reason borrowers are referred to an SBA guarantee, particularly when the borrower is purchasing specialized equipment that would be hard to liquidate in the event of a default.

While some banks may prefer to have more of their borrowers covered by a guarantee, competitive pressures are cited as the prime reason why borrowers do not utilize a guarantee (Temken and Theodos 2008). Since utilizing a guarantee will virtually always cost more than conventional financing, a rational borrower that can obtain a loan without a guarantee will choose to do so. Therefore banks realize the risk of losing the client if they require a guarantee when another bank would not. This phenomenon is also cited as

evidence that guaranteed loans are truly additional, since companies would not pay a higher rate if they did not have to. However, the evidence on additionality is inconclusive. One possible explanation is that borrowers do not adequately shop for loans, or fully understand their credit terms (see the section on financial additionality for further discussion of borrower understanding).

Interest Rates and Fees for Guaranteed Loans

Interest rates for guarantee fund borrowers are determined in a variety of ways. Some guarantee funds cap the interest charged on loans. For example, the SBA caps the rate at a certain percentage above the prime rate (SBA 2010), though most leave it to the bank and the borrower to negotiate. Nonetheless, total borrower costs are almost always higher than conventional loans due to the Guarantee Fund's fee. For example, in the Thailand Guarantee Fund, guaranteed borrowers do receive a lower rate, by about 1% , than they would have otherwise; however, after the loan fee is included, total costs are still higher (Anuchitworawong, Intarachote and Vichyanond 2006). Members of Italian Mutual Guarantee Institutions also were shown to receive a lower cost of capital than similar non member borrowers; about 1.5 points lower interest rate than the bank average for similar firms (correlating to 16-20% reduced borrowing costs; Zecchini and Ventura 2009). However, the authors do not state whether this savings was before or after the guarantee fee, though it appears to be before the fee, meaning at least some, and possibly all, of the savings are negated by the guarantee fee.

While utilizing a guarantee will typically cost more for an SME than if they obtained conventional financing, the relatively small difference is negligible when compared to the higher costs many would be forced to pay if they accessed the grey market. This is particularly true in developing countries, where informal lending rates can run as high as 30% per month for short term loans, and 10% per month for longer term loans (Davies 2007; Colwell 2008; Wattanapruttipaisan 2003). However, the same could be said for the US market, given that many small business owners tap high interest credit cards for their unmet funding needs (NSBA 2009).

While banks see the potential profit in serving the SME market, they often have greater interactions with SME's in areas outside of conventional lending by offering other services that entail less risk. For example, banks are more apt to offer short term secured loans, as well as more use of immovable and personal guarantees. Furthermore, many banks main interactions with SME's are through non lending products, such as payment services, savings accounts, and advisory services (De la Torre, Peria and Schmukler 2008).

Chapter 5

Measuring the Success of Guarantee Funds

There are enormous difficulties in measuring the success of virtually any economic development efforts, and guarantee funds are no exception. A common theme in the guarantee fund literature is that there is no consensus on the effectiveness of guarantees, few good evaluations of guarantees have been completed, and that better evaluations are necessary in the future (Bartik and Bingham 1995; Boocock and Shariff 2005; Cressy 2002; Green 2003; Levitsky 1997). While measurements such as the total loans distributed are easy to obtain, these are not considered particularly useful without being put in the context of the cost of the loans and the outcome in the economy. Default rates, which are an area researchers and policy makers are highly interested in, are often the most difficult statistic to find, if they can be found at all. In the recent World Bank survey of guarantee funds, only 7 of the 45 entries included both the figures for amount of loans guaranteed and the amount paid out to banks in claims (Beck, Klapper and Mendoza 2008). Even when they are reported, they often vary greatly from fund to fund as to how they are determined, making comparisons very difficult. However, while default rates are very important for determining the sustainability of a fund, they may be a poor gauge for the effectiveness of a fund. A fund may have a high default rate, but it also may be supporting fast growing businesses that contribute far more to the economy than the fund sustains in losses.

Ultimately, metrics like loans made and default ratios have to be judged in the context of the economy and what effect the fund has had on the economy. While these metrics are very important for determining the sustainability of the fund, they don't necessarily say anything about the impact of the fund on the economy. The most common metrics for judging the impact of a guarantee fund are typically economic additionality, which is the improvement in the overall economy above the cost of the program, and financial additionality, which measures the increase in credit available.

Economic Additionality

Economic additionality refers to the improvement in the overall economy of the area studied, and is thus typically the main goal for any economic development effort. For a government to put taxpayer funds at risk in support of private businesses there must be a potential gain for the populace. Most commonly these gains will be in the form of increased employment or wages for workers, increased profits for owners, and increased tax revenue for the government, both through direct taxes paid by the business as well as indirect taxes from increased employment and production.

However, even as a primary goal, there is very little definitive research on the economic additionality of guarantee schemes. This is due to several often mentioned factors in the research, including lack of adequate data, the relatively small scale of guarantee programs, and the difficulty controlling for the multitude of variables at work in any economy. As a simple example of this last point, firms in fast growing regions or industries are more likely to have higher growth rates, regardless of their quality.

Therefore, providing economic development assistance of any kind will allow for positive results to be shown in terms of economic growth. However, the firms may well have had equal growth without assistance (thus leaving the development resources to be saved or spent elsewhere). On the other hand, slow growing regions that are most in need of development assistance will have poorer overall results, but the actual impact of the program may be much more positive, as without assistance, results could be much worse. Some evidence of this comes from a Polish guarantee fund, LFP, in which the guarantee fund's default rate and number of applications accepted closely tracked the national economy (Bennett, Doran and Billington 2005). During a period of high growth in Poland from 1998-2000, the fund issued a large number of guarantees with no losses. However, as the economy became depressed after 2000, defaults rose and the fund denied more applicants than in the previous period. Therefore, the overall economy seems to play a particularly strong role in the perceived success of a guaranteed fund, and thus should be considered when assessing a fund.

Difficulties notwithstanding, multiple attempts have been made to measure the economic additionality of guarantee programs, with somewhat positive results. Some of the most relevant studies of guarantee funds, with regard to this paper, have been conducted through the Federal Reserve Bank of Cleveland on the SBA's loan guarantee programs. These are the most rigorous studies to date that attempt to determine the economic impact of loan guarantees. However, like most other studies, the authors take great pains to caution readers regarding their research. Most notably the authors cite their inability to control for other small business lending at the local market level, as well as their inability

to test whether the SBA programs materially increase the volume of small business lending in the market. Nonetheless, even given the constraints of their study, the authors still conclude the following:

...we are still led to the strong possibility that at the margin, additional credit allocation to low-income areas has a relatively higher level of economic impact on employment. (Craig et al. 2008, pg. 357)

While the authors did not find a positive relationship between SBA lending in a market and per capita income in the market, they did find a positive, although small, and significant relationship between the level of SBA lending in a market and future personal income growth, as well as a larger correlation on the average annual level of employment (Craig, Jackson and Thomson 2007). A positive and significant correlation was also found between the average annual level of employment in a local market and the level of SBA guaranteed lending in that local market. Furthermore, the intensity of this correlation is much larger in low-income markets. The authors point out that their results suggest that this correlation is positive and significant only in low-income markets (Craig et al. 2008).

Boocock & Shariff found that some levels of economic additionality, primarily through employment growth, were observed in companies taking part in the Malaysian Guarantee Corporation (Boocock and Shariff 2005). While the authors find that guarantee recipients outperform the Malaysian SME sector in regard to employment growth, they also point out that their methodology probably overstates the importance of the guarantee

fund. Furthermore, the small sample size makes the data relatively suspect. Finally, most of the employment gains were made by a very small number of firms (a phenomenon that recurs in the GF literature). Removing just one of the top firms would dramatically alter the results. On a macroeconomic scale, the guarantee fund was credited with helping to stabilize the economy during the Asian crisis by increasing its guarantee multiple from 9 to 15 in order to increase lending. However, the default rate rose as well, requiring the government to eventually need to invest more capital in order to lower the multiple and retain the confidence of lenders.

Boocock and Shariff also discuss the difficulties of enhancing economic additionality because banks and governments have differing incentives. Banks are primarily interested in loan repayment, not with building the economy, thus structuring a program to do both becomes difficult.

A similar study was performed on the Small Business Credit Guarantee Corporation of Thailand. Guarantee recipients were compared with a cohort of 41 non guaranteed small firms to determine differences in employment levels based on employment elasticity. Although data availability limitations prevented results from being certain enough to strongly infer that additional funds provided through guarantees directly help increase employment opportunities, the overall results did suggest a positive relationship between employment and total loan amount (Anuchitworawong, Intarachote and Vichyanond 2006).

Bradshaw (2002) performed an analysis of the California State Loan Guarantee Program to determine its economic impact. By tracking actual employment changes at over 1000 firms over a 6 year period, the author found that employment increased in firms receiving loan guarantees by 40% (4633 jobs by 759 firms, or 6 jobs per company). A group of sample firms were surveyed and asked how many workers would have lost their jobs were it not for the loan guarantee. Respondents reported an estimated 14.5% employment loss without the guarantee. The smallest firms (those with fewer than 20 employees) credited the loan guarantee with helping to retain 16% of employment, whereas larger firms retained 9%. The program also increased state tax revenue by \$25.5 million, which was much greater than the \$13 million cost of the program (Bradshaw 2002).

Further findings from this study found that employment gains were distributed among 370 firms, which increased total employment by 7,654 jobs (an average of 20 per firm), whereas the losses were distributed among 297 firms, which lost 1,919 jobs (an average of 6.5 per firm). The remaining 92 firms did not change. However, a relatively small number of firms accounted for much of the actual job growth, whereas the majority of firms contributed just a few jobs to total employment growth. Twelve firms grew by 100 or more jobs each; in total, these firms accounted for 2,879 (50.2%) of the jobs gained. This means that 12 firms created the same number of jobs as the other 358 firms combined. During this same time period though, small businesses in the state lost about 11% of jobs, meaning guarantee recipients did fare much better than other firms, even exempting the high growth firms.

The authors also point out that even if loans don't necessarily equate to employment growth, they can still provide value to the economy. They cite the example of a surveyed company that received a loan to implement a new labor saving technological process that allowed them to remain competitive. The company said that without the loan, they would have gone out of business and would have lost all 8 of their employees, but with the loan they were able to retain 5 employees (Bradshaw 2002).

One of a recent series of studies commissioned by the SBA and performed by the Urban Institute seek to determine the impact of the SBA's programs, including the loan guarantee programs (Brash and Gallagher 2008). The study was conducted by obtaining detailed firm level data on guarantee recipients for a period of three years before and after receipt of an SBA guaranteed loan. The authors immediately point out that a definitive answer to the question of whether SBA assistance helps the firms that receive it cannot be obtained without an impact analysis that is outside the scope of their project. However, they did find firms receiving an SBA guaranteed loan did have average sales and average employment increases. Further findings showed that younger firms receiving loan guarantees tended to have greater growth than older firms, and that industry and region of the country were significantly related to changes in sales and employment.

For both sales and employment, a large percentage gain was typically seen in the first year after the loan, with a slightly smaller gain in the second year, and a significantly smaller gain seen in the third. However, when compared to the three years before the loan, these results are not as positive. For example, the authors found that while sales increased in the three years immediately following the loan, they actually grew at a

slower rate than the three years before the loan. The same was true of employment growth, which occurred at a faster rate before the loan than after. Mean employment for 7(a) loans only increased by one employee per firm three years after loan receipt (Brash and Gallagher 2008).

In other research, a study of the Canadian Small Business Fund (CSBF), though focused on loan additionality, estimated the program was responsible for creating approximately 22,000 jobs per year in Canada (Riding, Madill and Haines 2007). Case studies of four guarantee funds that were anecdotally judged to be successful found that they deserved some credit for the deepening of the financial sector in their respective countries (Egypt, Poland, Chile, India), and that guarantee funds are valuable in opening SME lending, but their impact diminishes over time (Bennett, Doran and Billington 2005).

A particularly rigorous analysis of two South Korean guarantee programs that were studied from 2000 to 2003, just after the Asian financial crisis, found that while guarantees did have positive short term benefits, the study called into question the long run benefits of the program. The guarantees were shown to help recipients maintain their size, increase their hiring and sales, and improve their chances of survival (Oh et al. 2009). However, the authors also found that, compared to a matched group of firms that did not receive the guarantees, recipients did not show productivity growth, nor did they invest in research & development (R & D) at the same rate.

The authors of the South Korean study cited above concluded that guarantees were tending to go to support less productive firms in order to improve their chances of

survival. While this may have been beneficial to maintain employment in the wake of a crisis, ultimately it resulted in overcapacity in the SME sector and allowed less competitive firms to survive. This in turn would make the process of creative destruction less efficient, which could hinder the economy as innovative firms struggle or are forced out of the market by less competitive firms subsidized by guarantees.

Financial Additionality

Financial additionality, also known as incrementality, refers to the amount of loans made under guarantees that would not have been made otherwise. In the present case, this refers specifically to creditworthy SME's that would not have received a loan without the participation of a guarantee fund. Essentially, financial additionality is considered necessary in order for a guarantee fund to itself be necessary. If the borrower could have received the loan for much the same terms as without the guarantee, then the government is essentially subsidizing lenders by taking on risk when the same outcome would have been the same anyway.

Research regarding financial additionality has found mixed results. Utilizing a methodology that is similar to credit scoring, a model was created through an analysis of the Canadian Small Firms Loan Guarantee program which found incrementality estimated at 74.8%, plus or minus 9% (with 95% confidence; Riding, Madill and Haines 2007). While this was a very rigorous study, it only relied on survey data from one year (2001), which somewhat limits the conclusions that can be drawn. None the less, this is easily the highest empirically derived estimate in the literature. This study was updated

in 2009 and applied the previously created model to survey data from 2007. The author found that the program seemed to be backing riskier loans, and estimated that additionality had increased to between 80-85% (Riding 2009).

A study on the Chilean loan guarantee program found a significant impact on the availability of credit for SME's because of the existence of the guarantee fund. Furthermore, they found no significant effect on the default rates of borrowers utilizing a guarantee. The authors state the following about these results, specifically noting what type of borrower is most likely to be helped:

The explanation for this finding is that PCG (Partial Credit Guarantees) alleviates a market failure in the equity markets, increasing the availability of financing for entrepreneurs with low level of wealth. (Cowan, Drexler and Yanez 2008, pg. 3)

A study of an Italian SME Guarantee program found a causal relationship between utilization of a guarantee and an increase in the amount of debt held. The authors conclude that total SME credit additionality was 12.4% (Zecchini and Ventura 2009). This study is notable because the authors did not try to determine how many of the loans were additional, but rather what the total amount of additional credit was due to the guarantee. This method has many advantages because a large number of very small loans cannot skew the figures. Furthermore, as many studies have pointed out, the borrower may have been able to receive a smaller loan at the same terms, so therefore the entire loan was not additional, just a portion of the loan.

For example, in a study of the Malaysian Guarantee Corporation, no firms using the guarantee were found to be 100% additional, as all could have obtained some level of formal financing outside the guarantee. However, most would not have been able to borrow the same amount under the same terms as they were able to with the guarantee. Through detailed interviews with a sample of 15 borrowers that utilized the guarantees, additionality was calculated at 37%. This figure is lower than what was reported through a survey of a larger number of borrowers in Malaysia, again bringing into question the understanding of borrowers regarding loans (Boockock and Shariff 2005).

Difficulties in Determining Additionality

As all of the studies point out, most borrowers can obtain at least some credit without the guarantee. However, if the smaller amount available was not sufficient to meet the investment needs of the business, for example, to buy new machinery, than the firm may have decided not to take a loan at all. In these cases, since the loan would not have been made without the guarantee, additionality could be viewed as 100% for these firms. Boockock and Shariff (2005) attempt to measure this phenomenon by examining a panel of 15 guarantee recipients. They determined that 8 of the 15 likely could not have completed their investment plans without the guarantee. However, they point out that since there is no way to be certain what borrowing decisions the firm would have made in the absence of the guarantee, accurately measuring this figure is difficult.

Discrepancies between what borrowers state and what lenders state in surveys and interviews demonstrates another difficulty in determining financial additionality, that is

‘how certain is it that the loan could not have been obtained without a guarantee?’ This is particularly acute when surveys are the principal source of information, and also calls into question how well informed borrowers are about their loans. The issue of difficulties with surveys, particularly due to requiring recollection, and of the innate optimism of entrepreneurs possibly coloring their responses, has been mentioned in the literature as well (Riding 2009).

Several of the research articles have also highlighted either a lack of information by the borrower, or a discrepancy between what the borrowers thought versus what the lender stated. For example, in a survey of Palestinian SME’s, 70% of respondents said they were denied a loan due to lack of collateral, though bank credit officers in the same study said that only between 27-42% of loans are rejected due to lack of collateral, a fairly significant gap. While the authors do not explore the reasons for this discrepancy, they did seek additional opinions from banks not included in the survey, and these confirmed the bank officer’s figures (Makhool et al. 2005). While there are a variety of possibilities for this discrepancy, it seems likely that part of the reason is a lack of communication between the borrower and the lender, or a lack of understanding by the borrower. This is a similar result to the finding that over 50% of the participants in the Michigan Capital Access Program did not know what program they were in, and 30% were not aware they were paying extra fees or even participating in any sort of program at all (Hamlin 1998). As further evidence of the borrower’s lack of understanding, the author also pointed out that many borrowers did not know what types of additional collateral they had pledged,

saying they left such matters up to their accountants (though presumably the accountant hadn't negotiated the loan contract).

As more evidence that surveys are difficult to rely on, a study for the Canadian Small Business Financing Program surveyed approximately 1000 borrowers, half of whom had received guaranteed loans in the last year, and asked each if they had applied for a loan in the last 12 months; only 66% of the guaranteed borrowers group responded that they had applied for a loan. While it may be possible that a portion of the borrowers actually had applied for their loan over 12 months ago, but received it within the last 12 months (which was how the group was selected), it seems unlikely that a full third would fall into this category. The reason for this discrepancy is not explored; however, the authors point out that it is consistent with a similar previous survey in which 18% of borrowers denied having ever applied for a loan, when in fact they had received a guaranteed loan in the recent past (Phoenix Strategic Perspectives 2007). It may be possible that the person responding to the survey does not have full knowledge of the firm's operations, or, for whatever reason, does not wish to disclose anything about their credit, or that they have even received credit. Regardless of the reason, it should be a cause for concern to researchers using interviews to base their studies upon.

Chapter 6

Banking and SME's

Small and Medium Enterprises

Small and medium sized enterprises (SME's) are targeted by government interventions worldwide to support their growth and development. The reasons for these interventions are often quite similar, and generally revolve around two ideas, which are also the two most commonly cited reasons for the existence of SME guarantee programs worldwide:

- 1) SME's are tremendous engines of job creation and thus have an extremely important impact on the overall economy,

- 2) SME's tend to lack access to formal credit at a level commensurate with their contribution to the economy.

There is strong evidence on both counts. Statistics generally tend to support the notion that SME's, as a group, are extremely important to employment in an economy, whether developed or developing. For example, in India, SME's produce 40% of manufacturing output and 36% of direct exports (CGTSI 2003) and in Thailand, SME's are credited with creating about 60% of total jobs in the country (Anuchitworawong, Intarachote and Vichyanond 2006), a figure very similar to the 50% they are credited with creating in the United States (Headd 2010).

While most data is positive, much of it is also inconclusive. For example, surveys across 45 countries found a strong, positive association between the importance of SMEs and GDP per capita growth. The authors point out, however, that the data does not confidently support the conclusions that SMEs exert a causal impact on growth. It may in fact be the case that a growing economy creates better conditions for small businesses to flourish, and not the other way around. Furthermore, the authors point out that they find no evidence that SMEs alleviate poverty or decrease income inequality (Beck et al. 2005).

A British study examining entrepreneurship asked a random sample of workers, who had previously indicated that they had considered becoming self-employed, why they had not become entrepreneurs; the most common answer was a shortage of money or capital. A separate British survey on entrepreneurship found that most small businesses were begun with personal or family funds, rather than with a bank loan, indicating that personal or family wealth was a major factor in starting a small business. Furthermore, the same study found that most entrepreneurs felt they needed help with finance, and that the biggest concern of potential entrepreneurs was obtaining capital. Finally, receipt of an inheritance or a gift seems to increase a person's likelihood of becoming self employed (Blancheflower and Oswald 1998).

Information Asymmetry and Credit Rationing of SME's

On the topic of access to credit for SME's, there is a long body of literature examining the phenomena of "credit rationing", which occurs when a bank chooses not to loan out

all available funds, although they have adequate opportunity to do so. In this scenario credit is not equally available to all qualified borrowers. There are a variety of reasons why this occurs, though in the case of SME borrowers, the prevailing reason is that banks cannot adequately determine which borrowers are creditworthy, and choose to limit their exposure. This is often referred to as information asymmetry, and means that one party has access to more information than the other party. In this case, information asymmetry refers to the fact that a lender has much less knowledge of the potential borrower's likelihood of default than the borrower does.

The issue of information asymmetry is not unique to SME's, though it is likely more pronounced than for large corporations that can provide more detailed information. Furthermore, the age of the firm also greatly affects the information available, meaning new and relatively young firms have less historical data to provide in support of their loan application. Research has shown that the financial assessment of the business is the most important factor in whether a loan is approved, regardless of whether a country is developed or developing (Beck, Demirg-Kunt and Pera 2008).

Large companies can provide financial statements and a history of loan repayments that the bank can use to determine their creditworthiness. Large companies can also typically pledge collateral to mitigate the bank's losses in the event of a default, as well as to show that the borrower has enough confidence in their business to risk property. However, since many SME borrowers can provide neither financial statements nor collateral, banks do not have enough information to judge creditworthiness and often sharply limit SME loans.

For instance, although a World Bank Survey of banks in 45 countries found that banks perceive the SME segment to be highly profitable, regardless of the country's level of development, they still limit their interactions with the sector. One of the principle reasons is macroeconomic risk; banks feel small businesses are more sensitive to a downturn than larger businesses. This is particularly true in developing countries, with 39% of developing country banks calling it a major obstacle versus only 9% of developed country banks. Another prominent reason banks avoid SME lending is because they tend to have much higher default rates (7.4% for small firms, 5.7% for medium firms) than larger firms (4%) when averaged across all countries (Beck, Demirg-Kunt and Pera 2008).

According to the aforementioned surveys, 45% of banks in developed countries cited competition for SME clients as a major reason why they do not have more SME business, while in developing countries, this figure was only 15% (Beck, Demirg-Kunt and Pera 2008). This difference illustrates the vastly different circumstances facing SME's in a developing country, versus those in the developed world. While it gives great credence to the idea that SME's lack access to credit in the developing world, it calls into question this same claim about SME's in the developed world.

While the barriers to accessing capital may be higher in developing countries, they do still exist in developed countries as well. For example, increased and timely access to capital was the most consistent and pronounced of the recommendations of at least 12 state and regional economic development studies in California, and 15 of the top 60

recommendations adopted at the 1995 White House Conference on Small Business (Bradshaw 2002).

Differences in the banking systems in developed and developing countries also may play a role in credit rationing. Developed countries often have more specialized lenders than developing countries, with smaller community banks and credit unions that target SME borrowers. These lenders may offer better rates and service than a larger bank (a potential fault of the World Bank survey is that it only included large institutions, not taking these smaller players into account). In developing countries, the banking sector is often made up of a few large banks whose primary business is lending to the government and large industries. While these banks may lend to individuals and smaller businesses, this is usually a small fraction of their total business. Therefore, by offering guarantees the bank's risk can be mitigated and they can be exposed to the SME market. The expectation is that banks will learn about the SME market, view it as potentially lucrative and expand their activities without need for guarantees.

While the notion of credit rationing is cited almost universally in the guarantee fund literature, there are arguments against its validity. Most notably, De Rugy argues that there is no failure by the private sector to allocate loans efficiently (De Rugy 2006). She also argues that the very small share of the United States SME market covered by SBA guarantees (less than 5%), serves to illustrate her point that almost all small businesses are able to obtain conventional financing. Research on the UK Small Firms Loan Guarantee Fund (SFLG) also finds little evidence of credit rationing (Cowling 2007). However, the authors do point out that there is a pool of small firms, such as startups,

who will always find it more difficult to raise funds due to information asymmetry from the credit market, particularly when macroeconomic conditions are worsening, even if collateral is available. A similar sentiment was expressed by a survey of SBA guaranteed lenders which found that most banks considered SBA loans to be a small fraction of their business, but felt they were important for increasing the share of lending to particular market niches, such as startups and businesses within certain industries (Temken and Theodos 2008). This seems to suggest that guaranteed loans, particularly in developed countries may be better used to target a particular group of underserved borrowers, rather than SME's as a whole.

While the extent of the credit rationing phenomenon may be debated, it nonetheless is often cited as a key reason for the existence of SME guarantee funds. An economy is not reaching its full potential if investment plans that can increase employment growth and profitability are denied credit. Interventions, such as guarantees, can allow creditworthy small businesses to access the formal loan market and contribute to economic growth. This seems particularly true in developing countries that often have a limited banking sector and where macroeconomic risk and information asymmetry are major obstacles to SME lending.

Lack of Collateral

One of the most common reasons given for SME's inability to access credit is that they cannot provide collateral. In many cases, and as noted previously, this directly relates to the personal wealth of the borrower. In a survey of Palestinian SME's, 70% of

respondents claimed their loan application was rejected due to lack of collateral, and 100% of the respondents who had been approved for a loan but did not take it cited the onerous collateral requirements (Makhool et al. 2005).

Collateral serves to lessen the risk to the lender in the event of a default, and is a typical requirement of SME borrowers, with small firms tending to be required to pledge more collateral than larger firms (Pozzolo 2004). Though a survey of SME lenders found that collateral trailed far behind the financial assessment of the firm in terms of importance for loan approval, 90% of the banks in the survey indicated that they required collateral of SME borrowers (Beck, Demirg-Kunt and Pera 2008). Therefore, a business that passed the first test of the financial assessment may still be denied the loan due to lack of collateral (but a firm with full collateral would likely not get a loan if they had a poor financial assessment). The same survey found that developing countries actually tend to use less collateral than developed countries (likely due to poor property registration), but not in greatly different amounts.

Due to a variety of factors collateral is often unavailable for a SME borrower to pledge. For example, a credit worthy small businesses may be a startup, or may simply not have enough assets to pledge. Furthermore, many developing countries lack reliable property registration systems, such that even if a borrower has assets, they may have no clear title to pledge, thus effectively barring them from the credit market.

Hanson, (as cited by Cowling), expresses the point in the following way:

Entrepreneurial talent is not the prerogative of the wealthy, but is broadly distributed throughout the population as a whole. Without reasonable access to financing, many of our countries' most talented and aggressive entrepreneurs will be cut out of the economic system. Innovation and business development will become a luxury reserved for the wealthy, and the economy as a whole will suffer. (Cowling, 2007 Pg. 4)

Further evidence to show that borrower wealth directly relates to access to credit is presented in a study of the UK's Small Firm Loan Guarantee Scheme, in which regions which had rising home values had lower rates of loan guarantee usage, presumably because borrowers were able to obtain conventional loans using their personal property as collateral (Cowling 1998).

This lack of collateral by otherwise credit worthy borrowers is often the justification for intervention in the credit markets through guarantee schemes (Park 1995; Bulgaria National Guarantee Fund 2010). Research has also shown that as firms build longer and better relationships with banks, collateral needs are lessened (Cowling 1999). However, beginning these relationships is often very difficult for small firms, new firms, and poorer firms, thus the opportunity to start a banking relationship through a guarantee can be very valuable.

Transaction Costs and Adverse Selection

Another often cited reason for why banks do not lend to SME's is the higher transaction costs involved relative to the size of the loan (Davies 2007). Making many small loans is much more costly than providing a smaller number of large loans. To overcome this cost, banks may charge a premium to smaller borrowers. However, research has shown that an increase in the cost of capital can raise the default rate (Cowling and Mitchell 2003). Defaults may increase because the higher rates are onerous to the borrower, or, if the rate becomes too high, borrowers may feel the need to use the funds in high risk/high return projects to repay the debt.

Adverse selection occurs when the terms offered by a loan will primarily attract riskier borrowers, and thus a bank will tend to only have risky borrowers to choose from. For example, if a bank only offers loans at a relatively high rate, safe borrowers that can obtain funding at a lower cost elsewhere will choose to do so. This will leave the bank with only applicants that have high risk/high reward projects and are more willing to pay a higher rate. Therefore, if a bank charges SME borrowers a considerably higher rate to compensate for their riskiness, the bank may only attract risky borrowers. Higher costs of borrowing are directly related to higher default rates, and while this may partly be due to the higher costs of servicing the debt, this is also seen as evidence of adverse selection at work (Cowling and Mitchell 2003).

This issue is also important for the pricing of guarantee fund fees. The fund must charge a high enough fee to cover its costs and maintain its loss reserve. However, if it charges

too high of a fee, safer borrowers will either be able to find funding at lower costs elsewhere without the guarantee, or they may forego the loan entirely because it is too costly. This will only leave the guarantee fund with high risk projects to support, and because these will likely have a higher default rate, the fund may be unsustainable. Therefore, charging high rates to mitigate default risks may actually increase the default rates, creating a vicious circle that leads to the fund's demise.

Chapter 7

Conclusion and Recommendations

Small and medium sized businesses are recognized worldwide as being engines of job creation and vitally important for promoting economic growth. A key limiting factor for SME's though is access to credit. To alleviate this constraint, over 100 countries have established guarantee funds to help enable creditworthy SMEs to obtain loans. While the programs are widespread, their effectiveness has received relatively little study, and opinions are mixed regarding their overall benefits. One reason for the mixed results may be that a guarantee fund's structure is not well suited for the particular situation in which it operates.

This research has attempted to answer the question of whether the economic environment and particular economic development goals of a country should be taken into account when choosing the structure of a guarantee fund. The weight of the research does show that different structures do affect how well a fund can target guarantee recipients, as well as how efficiently the fund's resources are used. Therefore, policy makers should utilize a deliberative process whereby they use their particular circumstances and goals to choose the structure that suits them best, rather than simply following the prevailing trends. To aid in this process, comparison tables have been created through this research to serve as a guide in comparing different structures.

Analysis

To date, guarantee funds in developed and less developed countries have generally been structured in different ways, based primarily on the perceived lower level of interest in small business lending by LDC banks, as well as their loan assessment ability. Retail funds that require more oversight, have stricter borrower limitations and perform costly independent loan appraisals seem to be more prevalent in less developed countries. Portfolio funds that offer broader eligibility, limited loan appraisals and allow more independence for banks tend to be located in developed countries, and more funds in developed countries seem to be shifting to this model. The justification for this is that developing country banks may not have the expertise necessary to deal with the SME market, they may not be interested in the SME market, and the risk of exploitation is greater, thus necessitating the extra involvement by the retail guarantee fund. Developed country banks, in contrast, are considered to have higher interest in the SME market, as well as better knowledge and procedures, and thus can be trusted to make loan decisions independently.

While these assumptions may be true, they do not seem to take the economic development goals of the guarantee fund programs into account. In most developed countries, guarantees only support a small portion of SME loans, usually from 5-10%, and many of these borrowers may well have been able to get some level of credit without the guarantee anyway. Furthermore, the most commonly cited reason for getting a guarantee is to extend the maturity of the loan in order to lower payments, rather than substitute for missing collateral. This raises questions of the government essentially

subsidizing businesses and creating unfair competition for similar companies that did not get a guarantee and had to make higher payments. There may be justification for this if the program was targeting specific groups of borrowers that could support economic development goals, but almost universally, guarantee funds have been moving toward broader eligibility. If the main effect of a guarantee fund is to increase loan maturity, it seems that this should be broken out as a separate benefit and made more widely available to all SMEs. As this could lower expenses quite dramatically for the SME sector, and likely at little cost to the government, it could have a big boost on the national economy.

The argument that developing country banks are not in a position to adequately assess the creditworthiness of SMEs may be accurate in many cases. However, if this is the case, then a guarantee fund would be quite valuable in the initial stages of operation, but should decline over time as banks gain more knowledge of the SME market. This is a hard point to judge, but there does not seem to be any evidence of guarantee funds shutting down due to banks not needing their services anymore. It seems likely that banks probably do benefit from the exposure to the SME market, but due to the nature of the borrowers, they are still not willing to lend to many due to a lack of collateral. If this is true and banks can adequately appraise SME borrowers, but collateral is the binding constraint, then developing countries would be better served to move to portfolio models in order to lower costs and improve sustainability. This would also ease any unconscious bias the guarantee fund's independent appraisal may have. While this is not a topic that has garnered much attention in the literature, it seems that it could be a risk,

particularly in countries with sharp ethnic or religious divides, or even if the guarantee fund officers are simply more comfortable approving loans to one industry or region but not another.

Therefore, the prevailing system may benefit from being shifted 180 degrees. Developed countries may not be getting significant benefits from their scattershot approach and would be better served by highly targeting their resources toward specific economic development goals. On the other hand, developing countries that have a sufficiently capable banking system likely would benefit from lowering costs and administrative burdens in order to more widely support SMEs.

Where capital access programs fit into this equation is a little more difficult to determine. It is somewhat surprising that they have not expanded beyond the United States, but as SMEs will continue to remain a policy priority worldwide, it seems possible that they may begin to spread soon. It would seem likely that developed countries would be the first to adopt a CAP scheme, as their banks have the most capacity to judge SME borrowers. Furthermore, at some point it would not be surprising to see a developed country shift its guarantee fund operations into a capital access program. Not only would it lower administrative overhead, but it would also remove a large potential liability from the government.

Capital access programs may have a place in developing countries as well though.

Certainly their low risk structure should appeal greatly to developing countries that fear taking on an inordinate amount of risk, and their low administrative costs make initiating

a program relatively simple. Convincing policy makers to commit continuing support may be the biggest difficulty, but as the figures are relatively small on a national budget basis, this may not be a high hurdle. The initial funding would need to be higher than future funding in order to attract banks and help to accelerate the growth of their loan loss reserves, but this may be accomplished through foreign aid or grants that provide funds targeting support for SMEs.

Another consideration for developed countries is if guarantee funds are the best tool to accomplish economic development goals, particularly when not highly targeted. A World Bank survey of SME lenders worldwide found that in developed countries, competition for SME loans was the main reason banks cited for not making more SME loans (Beck, Demirg-Kunt and Pera 2008). If, in fact, competition is the main obstacle to banks offering SME loans in developed countries, rather than risk, then it seems possible that banks simply don't view it as profitable enough to pursue, regardless of how safe the loans are. This makes sense, as smaller loans are always going to be more expensive to service, regardless of their default ratio. To make them profitable, banks would have to charge higher interest rates, which the SME borrowers may view as too high (or would only attract risky borrowers causing a high default rate). Perhaps addressing this through interest rate subsidies or other pricing mechanisms, rather than guarantees, would be more effective in increasing the amount of SME credit.

Tools for Choosing a Guarantee Fund Structure

There are a wide array of guarantee fund structures, and no one structure can be considered the best. Each structure has different variables, and finding the right combination of these variables to fit a particular economy can greatly improve the outcomes the guarantee fund will produce. Policymakers may be well served to ask and answer the following questions when choosing a guarantee fund structure.

1. What is the level of engagement of local banks with SMEs, and what is their ability level in regards to assessing SME loans? This answer will strongly determine whether secondary assessments are used, and how much support banks will require.
2. Are we seeking to help a specific group of borrowers or all SMEs through the guarantee fund? This answer will strongly determine what method of targeting is used.
3. What level of risk is the government willing to accept? This answer can give policy makers another dimension to compare structures by, instead of simply choosing based on perceived benefits.

After answering these questions, policymakers can use the results to find a guarantee fund structure that will best fit their particular situation. The following table may be helpful in that regard. The table provides descriptions of the most common structures, as well as several indicators that will closely correspond to the questions above.

Structure	Description	Average Speed of Approval	Operational Costs	Level of Targeting	Default Risk	Development Goals
Secondary Assessment <i>General Purpose</i>	Provides a secondary assessment to support bank's assessment. Open to all SMEs.	Slow	High	Low	Low	Promoting broad economic development, while providing support for banks to encourage interaction with SMEs.
Secondary Assessment <i>General Purpose w/ Targeted Incentives</i>	Provides a secondary assessment to support bank's assessment. Open to all SMEs, but with incentives for banks to include targeted groups, such as women business owners, or businesses located in under served areas, such as rural or inner city.	Slow	High	Medium	Low	Promoting broad economic development, but with special emphasis on under served borrowers, such as minorities, or rural businesses. Provide support for banks to encourage interaction with SMEs & the under served. The secondary assessment does not have to be specialized in these targeted areas, but will often have added experience to better screen applicants.
Secondary Assessment <i>Eligibility restricted to Targeted borrowers</i>	Provides a secondary assessment to support bank's assessment. Only open to SMEs that meet eligibility requirements. Borrowers may be targeted by demographics of business owner, industry, or by specific geographic areas.	Slow	High	High	Medium	Promoting economic development of targeted groups of borrowers, or of targeted geographic areas. Provide support for banks to encourage interaction with SMEs & the under served. The secondary assessment may not be highly specialized, but will often have added experience with target groups to better screen applicants.
Secondary Assessment <i>Highly Targeted Specialized Assessment</i>	Provides highly specialized expertise to evaluate applications or business plans that banks are unable to evaluate due to lack of expertise.	Slow	High	High	Medium	Promoting the development of industries or regions that are deemed economically important, but are under served by banks because they lack the expertise to make assessments. Examples may be technology or agriculture, or any industry that the gov. wants to support, but is difficult for banks to assess.
Portfolio <i>General Purpose</i>	Banks screen applicants for eligibility and choose which applicants to enroll. Open to all SMEs.	Fast	Medium	Low	Medium	Promoting broad economic development, while taking advantage of banks expertise, but with special emphasis on under served borrowers, such as minorities, or rural businesses.
Portfolio <i>General Purpose w/ Targeted Incentives</i>	Banks screen applicants for eligibility and choose which applicants to enroll. Open to all SMEs, but with incentives for banks to include targeted groups, such as women business owners, or businesses located in under served areas, such as rural or inner city.	Fast	Medium	Medium	High	Promoting broad economic development, while taking advantage of banks expertise, but with special emphasis on under served borrowers, such as minorities, or rural businesses.
Portfolio <i>Eligibility restricted to Targeted borrowers</i>	Banks screen applicants for eligibility and choose which applicants to enroll. Only open to SMEs that meet eligibility requirements. Borrowers may be targeted by demographics of business owner, industry, or by specific geographic areas.	Fast	Medium	High	High	Promoting economic development of targeted groups of borrowers, or of targeted geographic areas, while taking advantage of bank's expertise.
CAP <i>General Purpose</i>	Banks screen applicants for eligibility and choose which applicants to enroll. Open to all SMEs.	Fast	Low	Low	Medium	Promoting broad economic development, while taking advantage of banks expertise, but with special emphasis on under served borrowers, such as minorities, or rural businesses.
CAP <i>General Purpose w/ Targeted Incentives</i>	Banks screen applicants for eligibility and choose which applicants to enroll. Open to all SMEs, but with incentives for banks to include targeted groups, such as women business owners, or businesses located in under served areas, such as rural or inner city.	Fast	Low	Medium	High	Promoting broad economic development, while taking advantage of banks expertise, but with special emphasis on under served borrowers, such as minorities, or rural businesses. Reducing long term budget risk by limiting liability to allocated funds.
CAP <i>Eligibility Restricted to Targeted Borrowers</i>	Banks screen applicants for eligibility and choose which applicants to enroll. Only open to SMEs that meet eligibility requirements. Borrowers may be targeted by demographics of business owner, industry, or by specific geographic areas.	Fast	Low	High	High	Promoting broad economic development, while taking advantage of banks expertise, but with special emphasis on under served borrowers, such as minorities, or rural businesses. Reducing long term budget risk by limiting liability to allocated funds.
Combination Secondary Assessment & Portfolio	Partner banks begin by having all loans go through a secondary assessment. May graduate to portfolio program if criteria is met to show bank has adequate assessment skills. Secondary assessment may also be used for all loans over a certain size.	Medium	Medium	Medium	Medium	Promoting broad economic development, while providing support for banks to encourage interaction with SMEs. Taking advantage of bank's expertise, while lowering risk by performing secondary assessments on large loans.

Notes:

Structure: While most funds utilize incentives, the strength of these incentives vary widely. Therefore, for comparison purposes, a fund whose incentives are not actively utilized can be considered similar to one that does not have incentives. Any structure could also restrict eligibility to only certain groups of borrowers, thus being highly targeted, but this is rare due to the need for a large pool of borrowers to diversify risk.

Average Speed of Approval: Based on typical procedures required for approval

Operational Costs: Includes office overhead, staff, customer service, and loan collection requirements. Does not include guarantee capital.

Level of Targeting: The degree to which a fund can deliver benefits to specific groups of borrowers deemed important for economic development

Default Risk: Due to the variety of factors that can affect defaults, and the limited data available, this measure is not empirically derived. Instead it is based on both the level of loan oversight & assessment, as well as how diversified the borrower pool is.

Conclusion

The use of guarantee funds to promote SME development through credit access is unlikely to abate. While many of these programs operate in relative obscurity, only getting attention when politicians wish to tout their support for small business, they still play an important economic development role. However, whether this role is mostly positive, in that they are helping good businesses to grow, or negative, in that they are supporting struggling businesses that ultimately stifle innovation and may actually force out other businesses, is somewhat of an open question. In any case, companies all over the world are currently receiving loans thanks to guarantee funds, and as such, policy makers should consider if the companies receiving the guarantees, and the way in which they are awarded is best promoting their economic development goals.

In order to determine how well different guarantee fund structures are tailored to meet specific development goals however, better tools for measuring their effectiveness need to be developed. The most common metrics currently, default rate, economic additionality, and financial additionality can tell a great deal about a guarantee fund; however, because there is no consistent standard of measurement for any of these metrics, accurate comparisons are impossible. Creating an internationally accepted series of standards would not only allow for better comparisons, but with the standards set forth, GF's could better target their data collection. These standards could be constructed by an international organization with an interest in GF's, such as the World Bank, or by an association of GF's, such as the AECM, which represents 34 GF's in Europe.

Guarantee funds are currently used by many less developed countries and can be important partners in microfinance development efforts. Most notably, guarantee funds can serve as a bridge for borrowers between microfinance and conventional finance. Most microfinance efforts revolve around very small loans made by specialized microfinance institutions (MFI's) to individual entrepreneurs. These borrowers would typically not be considered by a conventional bank due to the size of the loan and the lack of credit history. However, as the entrepreneur's business grows and expands, they may outgrow the capabilities of the MFI, but they don't yet qualify for a conventional bank loan. In this case, a guarantee is the ideal tool to transition a successful entrepreneur from microfinance to conventional finance. A GF and an MFI can also be valuable partners for each other. The GF will often have information about the small business environment that can be very valuable for microfinance recipients, and may also be able to encourage business relationships between the MFI and GF borrowers. The MFI can also provide the GF valuable information about the credit worthiness of a borrower, as well as their business prospects, based on the MFI's past experience with the borrower.

In conclusion, guarantee funds have been shown to have a positive impact on both employment and economic growth, particularly in low income areas and less developed countries. While the degree of this impact, as well as the cost, is still being debated, guarantee funds have proven to be an important tool for helping entrepreneurs start and grow businesses all over the world. However, it does not appear that most guarantee funds have reached their full potential for increasing job creation or promoting competition and innovation. To accomplish this, better tools for measuring the

effectiveness of guarantee funds must be developed and policy makers must begin to more tightly tie the operation of their guarantee fund to their particular economic development situation and their economic development goals.

Areas for further study

There are a multitude of topics for further research into guarantee funds. On a general basis, there is no ongoing effort to track guarantee funds or to create comparable measures with which to compare them by. Furthermore, there are a significant lack of case studies regarding guarantee funds, particularly any that include details of their inception, funding (initial and ongoing), and operations, so that more accurate assessments of them can be made. This is particularly true for many smaller programs and those in developing countries, since many do not provide any information in English, making research on them difficult, even with the aid of services such as Google Translate. Case studies detailing the history of the program, how it is funded and operates, who its primary beneficiaries are, as well as any insights into strengths and weaknesses would be highly valuable.

While several studies mention a distinction between the type of credit guaranteed (startup, expansion, working capital, etc...), there is very little discussion of which is the most advantageous. Knowing what type of credit to guarantee to promote various kinds of economic development would seem to be invaluable information.

Many states offer higher match multiples in their CAPs for specific borrowers. However, it is unclear how this affects banks willingness to make these loans. While in the early stages of participation, a bank may be highly attracted to more quickly building its loss reserve and make a more risky loan, but once the reserve reaches a certain level, that same attraction may not exist. If the extra match does not encourage banks to make these loans, then that portion of the program should be reconsidered to find better incentives for the bank.

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