



LUND UNIVERSITY

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**Master's Programme in Economic Growth,
Innovation and Spatial Dynamics**

Credit Guarantee Schemes in European Economies

The Potential Impact of Different Financial Systems

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Abstract: The access to credit for micro, small and medium enterprises is argued to be suffering from market disequilibrium with information asymmetries, adverse selection and capital rationing being present. Different instruments can and have been used by policy makers to try to battle these problems. This thesis focuses on one of them, the credit guarantee scheme (CGS). In order to establish what factors affect how and in what way credit guarantees are used, a comparative analysis is conducted on CGSs in Italy, Germany and the United Kingdom. This research relates the findings to the different financial systems of the three countries. In line with previous research, this paper finds Germany's capital regimes to follow a bank-based system, Italy's showing signs of a more state-oriented approach, and the United Kingdom operating a market-based financial system. It is concluded that institutional factors that have developed along with these different systems suggestively could have had an impact on the structural aspect of the CGSs currently being in use.

Key words: Credit guarantee scheme, SME, financial system, capital market.

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List of Abbreviations

aecm	European Association of Guarantee Institutions
BaFin	Bundesanstalt für Finanzleitungsaufsicht
CGS	Credit Guarantee Scheme
DTI	Department of Trade and Industry
EC	European Commission
EIB	European Investment Bank
EU	European Union
ISMEA	Instituto di Servizi per il Mercato Agricolo Alimentare
LGS	Loan Guarantee Scheme
NLGS	National Loan Guarantee Scheme
OECD	Organisation for Economic Co-operation and Development
SBA	Small Business Act
SFLG	Small Firms Loan Guarantee
SGFA	Society for the management of funds for the agricultural and food sector
SME(s)	Small and Medium Enterprise(s)
UK	United Kingdom
US	United States of America
VDB	Verband Deutscher Bürgschaftsbanken

1 Introduction

Following the crisis of 2008, the demand for collateral in lending activities rose in a large number of countries. As asset prices fell, the value of existing collateral of small and medium enterprises (SMEs) declined. A consequence was that the availability of debt finance in the form of credit and bank loans to SMEs was reduced significantly (OECD, 2013). Increased adverse selection and moral hazard resulting from the larger uncertainty in SME lending during crisis times further caused banks to limit their lending (Vienna Initiative Working Group, 2014). One instrument being used more and more frequently as a way to work around these issues is the credit guarantee scheme (CGS), also referred to as loan guarantee scheme (LGS). A CGS is a tool that can be used to add security for the lender in case a borrower would not be able to fulfil its obligations. In SME lending, the borrower is a SME and the lender is most likely a bank. In most cases the guarantee is given by a guarantee institution and works as a form of collateral for the borrower, increasing the chances of being approved for a bank loan. The guarantee reduces the cost for the lender in the case of default of the borrower. With a credit guarantee, the lender can afford to be less risk averse. There are both direct guarantees, which resemble the situation just described, as well as counter-guarantees. The latter ones involve yet another actor that takes part in the process of deciding which loans to guarantee.

Much of the discussion around credit availability for SMEs starts by acknowledging the changing economic environment in the 1970s and 1980s, driven by policy changes and new agendas. The earlier idea was that as soon as interest rates were in line with the market, i.e. at a level where the aggregate demand for credit equals the supply, obstacles to SMEs receiving finance would disappear. When reality turned out not to reflect this prediction, alternative measures were needed and larger attention was directed towards the possibilities emerging with the introduction of credit guarantee schemes (Levitsky, 1997). This has been the case both in developing countries where the government backed guarantee schemes have become important instruments, as well as in more industrialised economies.

Small and medium enterprises constitute the majority of active companies in the developed world. Many theories and arguments are based on their contribution to economic development and growth. Deutsche Bank found that 85 per cent per cent of the new job opportunities that emerged from 2002 to 2010 in the European Union (EU) was in SMEs (Kaya, 2014). The constraints on small businesses compared to large have been shown to, more often than not, be higher. Small businesses are hence more reliant on their own funding sources, which in many cases are not enough. Finance is needed in order to build a successful business that will generate revenues for the business owner as well as for society (through taxes, increased production and similar), both for buying assets as well as for working capital to keep the business running (Storey & Greene, 2010).

Whether encouraging entrepreneurial activity is the best approach to job creation and economic growth is a topic that is being discussed and debated worldwide. While SMEs constitute a large part of European employers, counter-arguments point to the fact that a lot of SMEs fail or remain too small to add any contributions (Summers, 2015). Some research suggests that promoting credit to these companies with the help of credit guarantees creates imbalances in the markets and makes it harder to exit (Kang & Heshmati, 2008). Among policy makers in Europe the overall attitude has been that SMEs do play important roles and that increasing their access to finance should be one of many priorities. As will be seen further on, this is true non-the-least for the countries chosen for the comparative analysis conducted in this thesis. Today the issue of promoting finance to entrepreneurs and SMEs is not only handled on individual country level but also through EU incentives, executed by institutions such as the European Investment Bank (EIB).

1.1 Purpose and Justification

The purpose of this thesis is to analyse and compare the use of credit guarantee schemes in three European countries and discuss, based on data and previous research, how they relate to the countries' respective financial systems. The research conducted will be based on two research questions that will be assessed throughout the paper. These are as follows.

- 1) *How do credit guarantee schemes differ between Italy, Germany and the United Kingdom?*
- 2) *Can the differences in use and design be explained by the countries' financial systems and regimes?*

Based on the brief background provided in the previous section, focusing on one source of finance, debt finance, and further limit the study to one specific instrument, CGS, is justified and deemed to be a current issue in need of attention. Although many other sources of finance exist, such as equity finance and/or private capital, that is outside the scope of this thesis. Further limitations include focusing on the design and use of CGS and less on the performance aspect. Three countries will be analysed, as including more would not allow for as deep of an analysis of each individual country. Using a comparative analysis to answer and discuss the research questions is done in order to increase the knowledge of how a CGS is designed as well as what role the financial system and capital market regimes might play in this process. Moreover, as there exist a number of loan guarantee schemes in each country, when conducting the comparative analysis only the ones used most extensively in each country will be studied. The degree to which the types of financial systems' importance relate to the development and design of guarantees is limited, and this paper wishes to add to the investigation. To the author's knowledge, no article or paper using the theoretical approach chosen for this paper has been applied on the three countries of choice.

The countries in focus are Italy, Germany and the United Kingdom. Empirically, Germany has been one of the most popular countries to explore when researching topics related to bank-based financial systems. Similarly, the UK is a favourable choice for a market-based

system. Because of this it was decided that including these countries in the sample of European countries as representatives of the separate financial systems would be the best approach. Furthermore, Italy was chosen as an example of a European country that belongs neither to the bank-based nor market-based categories (Cobham, Cosci & Mattesini, 1999), but rather represents a more state-oriented capital market regime (Deeg, 2010). Italy is the European country that uses credit guarantee schemes the most and has a quite unique setup, which makes it an important country to include in the discussion and analysis of this thesis. These three countries are all major European economies, meaning that whatever happens there economically will have effects not only within their borders but also on a global, or at least European, scale. Italy and Germany are two of the founding countries of the European Union, and have been part of the European integration for a long time.

In Germany's bank based financial system, bank loans are the main source of external finance for SMEs, and the CGS plays an active role in increasing access to finance for these enterprises. The securities markets are traditionally not as developed in bank-based economies as they are in market-based. This is illustrated by the fact that the United Kingdom for a long time has had more listed companies compared to Germany and other bank-based economies of the European Union. The literature traditionally only differentiates between bank-based and market-based systems, although some attempts have been made to include a third category, state-oriented systems. Italy, as well as France, are two good examples of countries where the state historically, and to some extent also in present times, are involved in many processes regarding companies and financial markets. In this thesis Italy is characterised as a country operating a state-oriented financial system, although its similarities with a bank-based system is also taken into account. Choosing these three countries with different financial systems and different structures in their use of CGS will allow for a comparison and discussion where possible links between the two can be detected.

1.2 Definitions

In this thesis, the terms credit guarantee scheme and loan guarantee scheme (LGS) are used interchangeably. By SME is meant any business characterized as micro, small or medium according to the definition used by the European Commission. The definition is explained in detail in table 1.3.1.

Table 1.1 SME Definition (EC, n.d.)

	Staff Headcount	Turnover	Balance Sheet Total
Micro	< 10	≤ 2 m (€)	≤ 2 m (€)
Small	< 50	≤ 10 m (€)	≤ 10 m (€)
Medium	< 250	≤ 50 m (€)	≤ 43 m (€)

Furthermore, abbreviations are used for many of the names of guarantees and institutions. A full list of abbreviations can be found on page iii.

1.3 Outline of the Thesis

The thesis proceeds as follows. Chapter 2 deals with the theory behind the discussions of the topic in this paper. It starts by giving a brief overview of a couple of previous studies on CGS and their key findings. The remainder of the chapter deals with the theoretical background and framework. The concept of credit rationing is introduced, and the main arguments for bank-based, market-based, and state-oriented financial systems are laid out.

Chapter 3 gives an overview of the qualitative and quantitative data and source material used for this study, and chapter 4 explains the method and institutional stance applied when conducting the comparative analysis of financial systems and CGSs. It also briefly presents alternative approaches and motivates the choice of method for this particular research.

In Chapter 5 results regarding the developments and characteristics between the financial systems in Italy, Germany and the United Kingdom are presented. In the final part of the chapter a comparison is done and the differences are discussed. Chapter 6 presents the findings on how CGSs are designed and organised in the different countries. Reflections on the differences are presented and possible impacts of the countries' financial systems are included.

Chapter 7 consists of a discussion on the results presented in chapter 5 and 6, and relates the findings to the previous studies presented in chapter 2 in order to answer the research questions. Finally, chapter 8 summarises the main findings, what practical implications they might have, as well as gives suggestions for further research within the area of credit guarantee schemes.

2 Theory

2.1 Previous Research on Credit Guarantee Schemes

There is a fairly solid amount of studies and journal articles on the topic of CGS, but none of them clearly focus on the link between guarantees and financial systems. One example is a paper from 2001 written by Allan L. Riding and George Haines Jr. They show that guarantees can be designed in several different ways, and many times without reflecting suggestions made by economic theories and empirical research. Focusing mostly on Canada, the US and the UK, their research concludes that a well-designed credit guarantee scheme can aid economic development and create more jobs. The study is, however, not able to find support for lending markets being imperfect, meaning that government intervention might not be justified in the first place (Riding & Haines Jr., 2001).

Beck, Klapper and Mendoza (2010) conduct a study on credit guarantee schemes around the world, focusing on how they vary in areas such as organisational features. This study incorporates schemes from various continents. The study is based on surveys on 76 guarantee schemes in 46 different countries. Beck, Klapper and Mendoza find that, at the time of their research, the median age of credit guarantee schemes in the sample is 15 years. However, if looking at only high-income countries, it rises to 27 years. This might suggest that guarantee schemes have been used in developed countries for a longer time than in less developed. Beck, Klapper and Mendoza further find that most guarantees are launched with a specific goal, such as with a focus on specific sectors, geographical coverage and/or business size. The number of businesses benefitting from a CGS differs among countries. As an example, in 2006 Hungary and France guaranteed loans to more than 20,000 companies each while actions in Turkey and Estonia reached less than 150 businesses.

The authors divide their sample of credit guarantee schemes into three categories based on corporate governance. These categories are described in table 2.1.1. Generally, high-income countries tend to have a larger share of mutual guarantee institutions, while guarantees in less developed countries are rather likely to be operated by public institutions.

On the design side of the CGS, the focus of Beck, Klepper and Mendoza's (2010) paper is on guarantee mechanisms, which they divide between direct guarantees (guarantees granted directly to the bank) and counter-guarantees (includes an additional actor, counter-guarantor, and is a form of indirect guarantee). They use a regression analysis – multivariate regressions – in order to find characteristics that seem to have a negative or positive effect on the percentage of loan defaults. Due to the small sample size many of the coefficients turn out not to be statistically significant. Still, an important conclusion is that older guarantee scheme funds as well as the ones that did not actively use tools for risk management turned out to have a higher rate of default. Furthermore, insignificant correlation between the level of economic development (of the country in which the CGS operates) and loan losses suggest

Table 2.1 CGS Categorisation Based on Corporate Governance (Beck, Klepper & Mendoza, 2010)

Category	Type	Definition
1	Mutual guarantee schemes	Independent businesses/organisations that grant guarantees to their members. They are commonly backed by government support and are common in countries such as Italy.
2	Public national guarantee schemes	Publically funded guarantees, which are targeted towards actors/sectors in need – such as SMEs. Although publically owned, they can be operated by private associations.
3	Corporate associations	Funded and operated by the private sector.

that there is no significant connection between the two. The results also hint that in countries where the government is more involved in the running and set-up of the CGS, the loan defaults tend to be higher.

The main areas in which Beck, Klepper and Mendoza (2010) find variations across countries are in the organisational structure, including how involved the private and public sectors are, as well as in pricing structures and risk management approaches. The study does not take into account the job creation and the effect on the macro economy that CGS are assumed to have.

Another comparative analysis on credit guarantee schemes has been done by Paola Leone and Pasqualina Porretta (2012). They analyse differences in France, Italy, Spain, Hungary, Argentina and Chile by looking at three different aspects. The aspects include:

- 1) The legal and regulatory framework
- 2) The structure and operative framework
- 3) The financial and economic performance

Leone and Porretta conclude that the most important differences between guarantee systems are found in the regulatory frameworks, the degree of state intervention, guarantee products and beneficiaries, leverage and coverage ratios, as well as associated costs and the processes of collateral management. In other words, not too different from the previous study. Ad hoc legal regulations are present in most countries, and they further find that all countries in their comparison besides Hungary had legal framework especially for CGS. Besides legal characteristics, Leone and Porretta also analyse structures and operative frameworks of the CGSs. They find the Italian system to be different from the others mainly due to its broad use of CGS but also as a result from polarization and disintegration. A guarantee scheme's purpose is to increase capital at the same time as reducing financial costs. They argue that the organisational aspect of a scheme is correctly designed when it fulfils these two points (Leone & Porretta, 2012).

2.2 Theoretical Background: Credit Rationing

At the heart of economic theory is the concept of market equilibrium. If markets would work well, the “good” borrowers, i.e. the ones capable of fulfilling their obligations and repay the debt, should be able to get the financial means they demand and funds would be declined to the “bad” borrowers. If markets are not functioning fully, some borrowers who are not creditworthy, or for other reasons are deemed bad, will be granted finance while some good ones will be rejected. In other words, adverse selection will be present. The degree to which markets are performing is related to the available information, both the magnitude of the information as well as the accuracy of it (Storey & Greene, 2010). Granting loans to “bad” borrowers and rejecting loans to “good” borrowers are generally referred to as Type I and Type II errors, respectively (Jacobson & Roszbach, 2003). When Type I and Type II errors are present in markets, many governments see it as a call for action and choose to interfere by, for example, implementing a national credit guarantee scheme.

According to Stiglitz and Weiss (1981), disequilibrium in the capital market is connected with the concept of credit rationing. The authors point to the fact that higher risks do not solely need to stem from the borrower, but may also be affected by the bank’s interest rate choice. The interest rate will likely affect the loan uptake of good borrowers, resulting in a deeper adverse selection effect. The interest rate might also affect the company’s actions by impacting incentives (Stiglitz & Weiss, 1981). Rather than just raising the price for a loan, which would increase supply and allow market forces to find an equilibrium level, banks refuse to lend to too risky companies – or companies they deem risky due to incomplete information (Cowling, 2010). Thus, credit rationing can be argued to follow information asymmetries (Trovato & Alfò, 2006). If a CGS would manage to reduce the information asymmetries and thus the degree of adverse selection, the hypothesis would be that supply to the “right” companies would increase and reach an amount at a specific price that would meet the credit demand of businesses.

Credit rationing is, as mentioned, related to the risk exposure facing banks. Young and small companies are often seen as the most risky (Cowling, 2010), and harsh lending requirements tend to steer capital away from these types of firms and instead favour the older and bigger, or the ones with sound collateral. Credit rationing might not necessarily be bad, since it could help exclude companies with no success potential and help business closure where it is appropriate. The argument instead goes, that the type of credit rationing that is unrelated to the SME’s (borrower’s) quality is the one that distorts markets. The aim, after all, is to help small, promising firms to grow and not to sponsor the bad and risky ones (Cowling, 2010).

From a purely theoretical perspective, creating credit guarantees could solve this issue and hence would be a justified intervention for governments to perform. Whether or not it will clear the issue of credit rationing depends on the effect the implemented guarantee will have on SMEs’ demand for credit (Trovato & Alfò, 2006). In the UK, the government installed a credit guarantee scheme for similar purposes in 1981, and Cowling (2010) found support for it having been able to fulfil its purpose. The study suggests that access to debt finance to

SMEs increased, and hence the scheme alleviated the credit rationing constraints on these businesses, at least in a general sense.

The most frequent arguments against the use of CGS are probably high administrative costs in relation to the sizes of SME loans as well as the moral hazard issue. Moral hazard can be present both among the borrowers, who become less risk averse when they know someone will step in and cover most of the debt in case of default, as well as with the lenders. Lenders will be less restrictive in their lending, which is also to some extent the purpose of a CGS. However, if it starts affecting the quality of banks' risk assessment, issues with higher default rates will follow. But since banks are generally worried about their reputations, moral hazard among banks is not believed to be too much of an issue in well-developed financial markets (Levitsky, 1997).

Empirical evidence suggests that additionality exists in credit guarantee schemes. That is, some loans that would not have been possible to grant under previous circumstances are being granted with the help of a CGS. Levitsky (1997) suggests that an additionality of 60 per cent is needed in order to justify a CGS. Data and empirical evidence does not seem to show as high numbers, but then again it is hard to fully measure additionally. Nevertheless, in his studies of CGSs in the 1990s, Levitsky (1997) found additionality higher than 30 per cent.

2.3 Theoretical Approach: Financial Systems

In the Neoclassical theory, the financial sector and its institutions were not seen as a crucial development step in order to increase economic growth. Following the works of Stiglitz and others that focused on innovation and financial capital, the theoretical stance has changed (Schmidt, Hackethal & Tyrell, 1999). There are, however, differences in theories on what type of financial system works the best. If there even is such a system that can be referred to as the number one choice. Credit rationing, and hence access to external capital, depends on the available information. Some researchers argue that banks and a bank-based financial system help to cure these issues and hence make problems with credit rationing dissolve, while others argue that information and capital allocation are better in market-based systems (Beck & Levine, 2002).

In short, the term 'financial system' can be explained as the interaction between the demand and supply sides of capital and other financial services (Schmidt & Tyrell, 2004). Using the more detailed definition of Smith, Hackethal and Tyrell (2002) and Deeg (2010), a financial system can be said to take three dimensions. It includes the regulation and structural aspects of financial markets; how and to what degree credit is given from the financial sector to borrowers (government, firms and households); and lastly, the corporate government system is seen as a part of the definition as it affects firm financing patterns. Some of the main duties of a well-functioning financial system are to mobilise resources for investment, to properly select projects to be funded, as well as to create monitoring incentives for the performance of these investments (Demirgüç-Kunt & Maksimovic, 2002).

The debate over which financial system generates the best environment for businesses to emerge and foster in is not a new one. Traditionally, some countries have tended to develop

policies that orient towards bank-based financial systems, while others argue that a market-based system is superior. A third system that is not always acknowledged is the state-based financial system (Deeg, 2010). What regimes and system that are present in a country can depend on many aspects. Historical events might have forced policies in a certain way in order to handle crises such as war or economic recession. As the world becomes more globally integrated, pressures from outside a country's border might also affect the developments. At the moment a lot of regulations are set on the EU level and have effects on the regulatory frameworks of each member state.

2.3.1 Bank-Based System

The bank-based system, as the name suggests, circulates around the positive impacts of banks in economic development and industry growth. According to this view, markets might hinder the development by allowing investors to easily sell and buy company shares, giving fewer incentives to monitor the way in which the companies are run. In that sense, proponents of bank-based systems argue that banks are more suitable to run many of these processes (Beck & Levine, 2002). Germany and Japan are examples of countries that commonly are categorised as bank-based. Traditionally it has been claimed that the bank-based approach can be especially important in early developing stages of economies, when institutions are not fully matured (Levine, 2002). In a fully bank-based system, banks are in charge of all parts of the financial markets. That includes corporate governance, security markets and retail banking (Deeg, 2010). Lending tends to be more demand-driven compared to market-based systems (Kaufmann & Valderrama, 2004). In many bank-based systems today banks both lend to and are shareholders in large corporations. The equity markets are often smaller and not as liquid as those of market-based systems (Pohl, Jedrzejczak & Anderson, 1995).

Table 2.2 Arguments of the Bank-Based System (Levine, 2002)

Banks ...
<ul style="list-style-type: none"> • can get information on managers and firms → better capital allocation • can handle intertemporal, cross-sectional and liquidity risks → better efficiency of investments and economic growth • can make use of economies of scale due to their ability to mobilize capital • are better than markets at reducing post-lending moral hazard • are better than markets at getting borrowers to repay their loans
Markets ...
<ul style="list-style-type: none"> • reduce investors' incentives to search for information as well as too employ thorough control of corporates → liquid markets could reduce economic growth

Table 2.3 Arguments of the Market-Based System (Levine, 2002)

Markets ...
<ul style="list-style-type: none">• make it easier to make profits out of information due to liquidity and market size → increased incentives to gather information on companies• corporate governance is better due to a clearer link between company performance and compensation to managers• make risk management smoother• ease inefficiencies created by banks
Banks ...
<ul style="list-style-type: none">• reduce competition and limits innovative activities through their favourable actions towards established firms

2.3.2 Market-Based System

Advocates of the market-based view argue that markets are better than banks at allocating capital efficiently, since innovative companies can be fostered without being subject to the higher rent-seeking activities generally imposed by banks (Beck & Levine, 2002). This would then suggest that the need for government interference and the use of CGS would be smaller in market-based systems, relative to bank-based ones. In a market-oriented financial system the public holds company shares. This could be done either directly or with the help of investment institutions like, for example, mutual funds (Pohl, Jedrzejczak & Anderson, 1995). Examples of market-based economies are the United Kingdom and the United States (Levine, 2002), and generally market-based systems are categorised by more deal-based rather than relationship-based banking, the latter one which is more prevalent in bank-based systems. In other words, not focusing as much on building long-term relationship, but more using a case by case method.

2.3.3 State-Dominated System

Another category of financial systems was used as a definition up until the late 1990s and was known as the 'state-dominated system'. It was characterised by the state playing a larger role in aligning capital compared to the bank- and market-based systems. This could be done either through ownership in large banks or through bureaucratic monetary regulations. Italy and France, as well as many East Asian economies, have been mentioned as examples of countries whose financial systems could be thought of as state-dominated (Deeg, 2002). Whether state-domination is efficient has been debated. Governments might have the power to affect financial markets in certain directions and even limit or enforce competition, which might be used in less good ways if corruption and inefficiencies are present (Boyreau-Debray & Wei, 2005). A strong state-dominance in the financial system, intuitively proposes a hypothesis that this would be reflected in the running of the countries' CGSs, as they tend to take an active role in capital allocation. Considering that a state-dominated system is not recognised by all researchers and theories, support for either that CGSs in countries with

state-dominated financial systems are subject to tighter supervision and control or the opposite has not been possible to find among previous research.

2.3.4 The Theoretical Views Behind the Systems

Beck and Levine (2002) divide the different views behind the systems into four categories. These are bank-based, market-based, financial services view and law and finance (legal-based view). Some researchers following the bank-based view argue that state-owned banks have larger possibilities to overcome market failures (Gerschenkron, cited in Beck & Levine, 2002), as well as being suitable as financing partner for companies requiring staged financing. Advocates of the market-based view rather claim that markets are more efficient than banks in capital allocation activities (Beck & Levine, 2002). This indicates that countries with bank-based systems might have a larger share of publicly owned CGS than market-based economies.

Generally, the bank-based and market-based views perceive banks and market institutions as two ends of a debate, with a trade-off between the two. The financial services and legal views, on the other hand, suggest that the both should be thought of as complimentary rather than competitors (Levine, 2002).

Instead of sharing the previous views' focus on what category of institutions that provide the best financial services, the financial services view is all about the quality of these services. More exactly, to what extent they improve information and lessen costs of transaction (Beck & Levine, 2002). In that sense, the financial services view is consistent with markets following a bank-based financial system as well as those that are more market-based or state-oriented (Levine, 2002). The legal-based view can be perceived as a continuation on the financial services view. It puts the biggest emphasis on contract enforcement and legal rights (Levine, 2002). According to this theory, policies should be focused on enhancing a country's legal system, which in turn would increase access to external finance for SMEs (Demirgüç-Kunt & Maksimovic, 2002). The main argument is that the legal system should be designed in a way that protects outside investors, which would increase access to capital through higher financial development (Beck & Levine, 2002).

Demirgüç-Kunt and Maksimovic (2002) find, using firm-level data from 40 countries, a positive relationship between firms' use of external finance and the development of both the banking system as well as the securities market. The results do not, however, differ between bank-based and market-based countries. Instead, they point to the legal system being of utter importance, consistent with the fourth view in Beck and Levine's classification. Demirgüç-Kunt and Maksimovic further find that developments of a country's financial system beyond what can be attributed to legal characteristics and especially contracting enforcement, does not show a significant effect on firms' possibility to access external finance. Levine (2002) found similar results, including conclusions of both bank- and market-based financial systems' abilities to generate economic growth not being very impressive. The study did, however, find a positive link between the (financial) legal development and economic growth. If this view is true, the financial system does not decide the degree to which CGS are necessary, suggesting that they can be equally important in countries with bank-, market-, and state-dominated systems.

Intuitively, the demand for CGS should be higher in economies where SMEs rely heavily on bank loans. If there are a lot of alternatives, as is often the case in countries with market-based systems that have well developed equity markets, getting a bank loan might not be the one crucial aspect deciding whether or not a business will be launched. In some countries more than others, the governments focus on venture capital promotion or other types of equity finance as well as credit availability.

This thesis does not pay much attention to which system or approach is best in promoting economic growth in a general sense, but wants to explore whether or not, and explanations to why, the chosen approach affects how credit guarantee schemes are set up and used.

3 Data

The research conducted here is mainly based on existing literature, and most of the source material comes from journal articles and research by public institutions. Selected quantitative data were gathered from additional sources in order to deepen the analysis as well as to add to the discussion and results. The OECD scoreboard and the Eurostat database were used to retrieve data on lending to SMEs. A more detailed overview of which quantitative data that was collected from which source is given in table 3.1.1.

The time frame of the data ranges from 2007 to 2012, covering the 2008-2009 financial crisis. Although in exploring the origins of the financial systems, important developments and numbers all the way back to the 1970s will be touched upon. Throughout the analysis it will be evident that some data was not possible to retrieve for all three countries. This thesis has gathered information from several different sources to make up for the scarcity of the availability within one single source, but kept it to well-known and trustworthy databases and articles.

One source used for information on CGS and the ownership of the guarantee institutions (private/public) is the European Association of Guarantee Institutions (aecm), which in turn has retrieved the data from its national guarantee association members. For Italy, Germany and the UK these are: Assoconfidi; SGFA; VDB; and the British Business Bank. Some more detailed information on these associations is given in the appendix. Since these represent the biggest part of loan guarantee activity in the countries, observations and analyses on data obtained are considered to be representative for the countries. Much of the information of CGS characteristics in OECD (2013) has also been retrieved from aecm.

Table 3.1 Quantitative Data Sources

Type of data	Source
* Statistics on enterprises and business size	Eurostat (n.d.); EC (2013; 2014; 2015; 2015b; 2015c)
* Statistics on sources of finance for SMEs	OECD (2013)
* Statistics on percentage of rejected loans to companies/SMEs	OECD (2015); EC (2013; 2015c)
* Statistics on reasons for business loans being rejected and share of companies seeking finance	Eurostat (n.d.)
* Volume of guarantees granted per year	OECD (2013)

4 Methodology

The main approach of this thesis is a comparative analysis. It attempts to find a correlation and support for a causal relationship between financial systems and the use of CGS. Due to the qualitative nature of many of the elements researched in this study, designing a model that would test for causality is deemed unrealistic. It would require more quantitative data which is not the focus of this specific study. Hence, conducting a comparative analysis is concluded to be the approach best suitable to explore financial systems and how different economies use loan guarantee schemes.

The goal of the analysis is to explore and explain the possible connection between CGS and financial systems and capital regimes. Previous studies have not been focusing much on this specific issue, and the author of this paper finds it to be an important problem that could aid in the understanding of how and why CGS are used in a certain way. And whether or not this way is in line with economic theory. The comparative studies presented in chapter 2 focused on detecting differences between CGS in the form of legal and operational aspects. They did not go too deep into the reason behind why legal systems etcetera turned out to be different. Most of them do also have a clear emphasis on the performance of the CGS, while this thesis wants to focus more on underlying reasons for CGS being used in the precise way they are today in Italy, Germany and the UK. After finding out what economic theories and previous studies suggest about the connection between CGS and financial systems, the goal is to see whether or not Italy, Germany and the UK are following the theoretical implications. And if they are not, what the explanations behind this could be.

4.1 Comparative Analysis

The comparative analysis is conducted using three countries (Italy, Germany and the UK), each one of them representing a different financial system. Firstly, the financial system, markets for SME lending and guarantee systems of all three countries, separately, will be explored and analysed. The empirical analysis and discussion will try to shadow the first two areas of importance that were lifted in the comparative analysis conducted by Leone and Porretta (2012). That is, the legal and regulatory framework as well as the structure and operative framework. The last point of their comparison dealing with financial performance will be excluded from the analysis conducted here. The reason for that is connected both with data limitations as well as the choice to focus more on design aspects of CGS rather than their performances. Features of the CGSs as well as their importance for SME financing in the three countries will be compared and discussed. This is done in order to see whether there are any major differences and whether or not it seems like these originate from their separate financial systems.

In the analysis the findings are related to the theoretical framework presented in chapter two. This includes financial systems as well as their possible importance for credit guarantee schemes. This paper does not take the stance that the type of financial system is not important for economic growth. Neither does it align with any of the other extremes, but rather wants to analyse the markets from an as objective standpoint as possible.

4.2 Institutional Approach

Schmidt and Tyrell (2004) propose four approaches in analysing financial systems. These are the institutional approach, the intermediation approach, the functional approach, and the systemic approach. The institutional approach concerns the institutions and the quality of these, as well as how they change over time. In the context of financial systems, institutions of interest include banks, insurance companies, financial markets, central bank systems and similar. In the literature an institutional approach is often accompanied by analyses of the level of competition among banks, liberalisation of markets, quality of price mechanisms, and/or the quality of supervision and regulatory framework. The institutional approach is characterised by being mainly descriptive.

The intermediation approach assumes that the financial sector is made up of financial intermediaries, such as banks, and centres around how these provide liquidity. It is less descriptive than the institutional approach, and states that a financial system is better the more intermediation it provides. The core of the third approach, the functional approach, is that it views the financial system as given functions, rather than institutions. In analysing a financial system, one should then begin by describing the functions performed in different aspects of the system, as well as evaluate how they are being executed (Schmidt & Tyrell, 2004).

The last approach, known as the systemic approach, focuses on interrelations between different sections of the financial system and relates it to the impact they have on the overall quality and performance of the system. According to this view, a financial system consists of subsections, or subsystems, that are complementary (Schmidt & Tyrell, 2004).

Since it is deemed too ambitious to include all four approaches, this paper will analyse the results from the comparative analysis using an institutional approach, trying to pinpoint both institutional as well as structural changes and explanations. The institutional approach is chosen as it fits well with the comparative nature of this paper, as well as the fact that using an institutional view while analysing these kinds of topics has been common in the literature. In addition, the institutional aspect is a feature that the author finds to be particularly interesting. This thesis takes the analysis in a new direction in that it tries to find a connection between this and the use and design of credit guarantee schemes.

Another suitable method could be to apply the systemic approach. To some extent certain aspects of this view will be touched upon as well, since part of the discussion deals with how different actors within the financial system interacts with each other. However, the systemic approach is often used to evaluate processes in relation to the performance of a financial system or, in this case, of a CGS. As this thesis focuses more on the use and creation of

guarantee schemes and less on their performance, the systemic approach is concluded to not fit as well with the comparative analysis as the institutional approach.

5 Financial Systems and SME Lending

While the after years of World War II resulted in a recovery phase and changes were made in several regimes, most financial systems themselves did not experience any extensive change after the Great Depression of the 1930s. Developments on a higher scale were initiated first after the collapse of the Bretton Woods system (system of pegged currencies which also allowed restrictions on capital mobility) in the early 1970s, oil crises and other international pressures. Italy and France moved towards a system where both bank ownership and credit legislation allocated credit according to state objectives. In Germany banks took care of lending quite independently, although directly influenced by corporate governance through monitoring of boards etcetera. In the UK, on the other hand, the banks did not have a very close relationship with companies. Instead, security markets played a larger role in capital allocation and access to finance (Deeg, 2010).

The ongoing financial integration and harmonisation of European countries affects regulatory frameworks and financial systems, though they are still deemed to differ notably between countries (Schmidt, Hackethal & Tyrell, 1999). La Porta et al. (1997) find support for a link between the degree of legal protection of investors and the legal origin, which varies between economies. While English law is more referred to as a ‘common law system’ where legislation is done by judges, German (as well as French and Scandinavian) law shows a clear civil law focus closely tied to a referable code and a scholar characterisation originating all the way back to the Roman days. A well-developed legal system, which both these are deemed to be, protects investors against expropriation by business owners (entrepreneurs). This makes the investors more prone to offer financial means, especially in the cases where capital is given against securities. This conclusion adds power to the arguments of the financial services and the legal views presented in chapter 2, which state that investor protection and legal enforcement matters more than the specific orientation of the financial system. At the same time, it may be that legal aspects and financial systems somewhat go hand in hand. And if the legal aspects can explain why some markets are more developed than others, the outcome or choice of financial system might explain why some capital sources are preferred over others in the respective countries. This chapter will go more into depth of the financial systems and business environments for SMEs in Italy, Germany and the UK.

5.1 The State-Oriented System in Italy

According to research by the European Commission (EC), the Italian financial system back in the latter half of the 1970s was not as developed as those of many of its neighbours in Western Europe. Back then as well as in present time, the state is involved in Italy’s bigger companies while smaller firms are privately owned (often by families). Although large companies played a major role in Italy’s fast growth in the 1950-1960s, today it is rather the

small and medium enterprises that are of utter importance to the stability and growth of the Italian economy. Data show that Italian firms on average are smaller than in many other European countries. For example, calculations have suggested that Italian firms on average had four employees in 1990. The corresponding number for Germany was eight, and for the UK it was nine (Cobham, Cosci & Mattesini, 1999).

In 1936 an Italian bank law was introduced, and it basically remained very similar until 1993. One of its main implications was that it established a clear differentiation between banks and industries. Banks were under the supervision of the central bank, *The Bank of Italy*. The 1990s saw several changes in both these and other regulations. Administrative barriers were reduced, leading to developments in the credit markets as they had the possibilities to open up to more foreign investors. Government-owned banks were turned into joint stock companies, meaning that the government did not as closely control banking as it had been doing before. Furthermore, intermediaries also became allowed to involve themselves in banking, making possible for more financial opportunities and development. The stock market, which for long had shown slow advancement with a small number of listed firms, was also moving towards a greater degree of liberalisation during this decade (Cobham, Cosci & Mattesini, 1999). The 1990s was a decade where much change occurred everywhere in Europe, and countries became more integrated. These pressures from the outside came to change institutional and structural components also on national levels.

Being hit quite roughly by the 2008 financial crisis and not being able to fully recover, the Italian economy fell into yet one more recession in 2011. This recession was accompanied by another downfall in business lending. The percentage of SMEs being declined a loan that was applied for was 3.1 per cent in 2007. This number rose to 8.2 per cent in 2008 and 12 per cent in 2012, after which it has started to decline (OECD, 2015). Overall, the share of companies that fall under the category of micro enterprises is higher in Italy than the overall EU level. Both the number of SMEs as well as the number of employed people in SMEs have declined since the financial crisis. It is, however, expected to start rising again as the country recovers (EC, 2014; EC, 2015b).

Although here argued to belong to a state-dominated financial system, Italy also shows characteristics similar to those of a bank-based economy. Italian banks account for close to 85 per cent of all assets of the financial sector. At the end of 2012, the country had 706 banks. Many of these are small and local (IMF, 2013). Cobham, Cosci and Mattesini (1999), however, claim that there are solid arguments to the Italian financial market being neither market- nor bank-based. The amount of financial flows in organised securities markets is relatively minor, with which Cobham et al. conclude that Italy does not fulfil the characteristics of a market-based system. At the same time, since Italian banks do not involve as thoroughly in providing financial advice and involve themselves in direct equity activities as is common in bank-oriented economies, its system does not seem to be bank-based either.

5.2 The Bank-Based System in Germany

The banking system in Germany is divided into three parts, encompassing commercial banks; cooperative banks; and public savings banks. The commercial banks include mainly private and internationally well-known banks. The system is quite unique and differs from most other countries (Zimmermann, 2012; Dixon, 2014). Credit guarantees are obtained from German guarantee banks. The first guarantee bank was established in Lower Saxony a few years after the end of WWII. The unstable economic environment following several years of war called for financial aid in order to build up the business environment (Valentin, 2014).

Countries with bank-based financial systems tend to keep fewer restrictions on banking activities compared to other countries (Levine, 2002). The main source of external finance in Germany is bank loans, and the financial system does not seem to have had the tendency to move away too much from its dependence on banks (Schmidt, Hackethal & Tyrell, 1999). This is also illustrated by the fact that Germany has had one of the weakest stock markets among the OECD countries. In 1996 the stock market capitalisation (value of companies listed on the stock market as a share of GDP) was 27 per cent. Though this was higher than corresponding numbers for Italy at the time, it was less than a fourth of the stock market capitalisation in the UK (Vitols, 2005). Having such a weak stock market limits the availability to finance SME activity through equity. This could possibly relate to the legal system, which as mentioned previously is quite different to that of the UK and other common law countries. And, if studies such as the one by La Porta et al. (1997) are onto something, Germany's legal system might have hindered the development of stock markets and rather oriented the development in a bank-dependant way.

In a study from 2007, Patrick Behr and André Güttler research the environment of SME lending in Germany. The focus of their study is on the default risk of German companies, and includes a model that German companies can use to calculate their own credit risk. They find that equity ratios of German SMEs are rarely above 20 per cent, while bank debt is much greater. One possible solution to the issue of access to finance could then be to increase the equity base. However, generally German companies are not willing to surrender control rights, which makes this action harder. SMEs are not big players on organized debt markets, which means that they have to rely on banks to give them access to capital in the form of bank loans. Behr and Güttler (2007) further argue that there is a negative relationship between the size of the firm and the share of bank loans among total liabilities. In 1994, an astonishing 80 per cent of corporate borrowing came from bank loans, compared to a mere 10 per cent from German security markets (Rajan & Zingales, 2003).

Attempts have been made to change the bank-based system by incorporating more market-based principles in order to, among other things, increase finance options for high-tech start-ups (Vitols, 2005). This includes introduction of a new market (*Neuer Markt*) with higher disclosure requirements, which has resulted in increasing venture capital access and similar (Rajan & Zingales, 2003). Zimmermann (2012) claims that change in financial institutions is slow in Germany. This might be related to the different interest of decision makers, and that institutional powers act in their own best political interest. In explaining this phenomenon

clearer, Zimmermann uses the theoretical concept of ‘institutional layering’. While Germany is able to create new institutions needed as financial markets develop, they are not as good at removing old institutions that are not operating effectively. In that sense change in Germany takes time and future developments depend on current institutions that will not disappear overnight. This path-dependency concludes that historical development matter greatly for future advances.

Unlike in most other European countries, German SMEs were doing relatively well throughout and after the recent financial crisis. More than one million new jobs have been created since 2009. The average firm size is bigger in Germany than the average of the European Union, and thus the share of total employment covered by micro-businesses is smaller in Germany than the EU level. In 2014, the percentage of loan applications by SMEs that were rejected in Germany or deemed to be unacceptable offers was lower compared to the EU average (13.18 vs. 16.66 per cent). In 2012 the difference was even bigger (4 vs. 15 per cent). German banks have shown a trend of becoming less willing to lend to SMEs in the last few years (EC, 2013; EC, 2015c). Whether this is a trend that will continue will be seen in the upcoming years. German SMEs tend to be more innovative than the EU average as well. In 2008, 54 per cent of SMEs in Germany introduced some form of process or product innovation compared with the EU-average of 34 per cent (EC, 2013).

5.3 The Market-Based System in the United Kingdom

The UK has a rich set of banks operating in its financial system and many of them are present internationally as a result of London’s status as a financial centre. The banking sector in Britain is larger than in most other industrialised countries. A high share of international investment banks also operates in areas of corporate finance and securities trading. A large share of the non-bank sector of the financial system is made up of different forms of collective investment schemes. These are referred to as funds, and examples include hedge funds, unit trusts (open-ended funds) and private equity. The main purpose of the investment banks is to invest the money from savers into bonds, stocks etcetera in order to maximize the rate of return (Burrows & Low, 2015). Even though the UK is a market-based economy in the sense of its capital markets, it does still allow banks to work with few limitations on for example insurance and real estate activities (Levine, 2002).

The UK has recovered quite well from the financial crisis. Some argue that the UK’s capital-oriented financial system and its public capital markets made this possible. By issuing bonds and equity some larger companies were able to reduce the shock of the contraction in bank lending on the economy. Even though it is not many companies that issue these types of financial assets, the ones that do are large and contribute notably to the domestic investment (Pattani, Vera & Wackett, 2011).

Although official statistics point to large companies playing a higher role for value added compared to the EU average, this is not fully correct. A lot of micro enterprises are not included in the numbers, since they are not included in the Company Register. The minimum

turnover for this is GBP 82.000, which is significantly higher than in other EU countries. Banks in the UK have recently become more willing to grant business loans to SMEs. The British Business Bank was founded not too long ago, and is currently operating several schemes with the purpose of increasing access to finance for SMEs (EC, 2015).

A possible explanation to the well-functioning equity markets in the UK could be its law system, which differs from the others as mentioned in the beginning of this chapter. La Porta et al. (1997) have found a strong connection between capital market conditions and the origins of a country's legal system. They confirm that countries with common law systems such as the United Kingdom and former British colonies have bigger capital markets compared to countries whose legal system originates from civil law. The fact that their capital markets historically has been deemed more functioning could be one explanation as to why the need of guarantees are not as large there as in the other two countries. The study of La Porta et al. (1997) show support not only for equity markets performing better in common law countries, but also that the conditions are favourable to debt markets. Whether they actually are functioning better is a statement that can be questioned. It might not only be the systems and regimes themselves that make the UK and other market-based economies successful, but also historical legacies and developments. That a market-based system works better in the UK does not guarantee that it would in Germany. As has been mentioned, the German businesses are not always too keen on selling shares of their company to investors to the same extent as is done in the UK. The fact that the UK is doing very well and that its equity markets manage to fulfil their purpose, could in itself be an explanation to why the demand for CGS is lower there than in many other countries.

Market-based banking is often argued to take place more at arm's length compared to bank-based markets. In both Germany and Italy lending to SMEs resemble more of a relationship lending approach where the company usually has its "home bank" that it turns to for finance, and which already might have knowledge about the company's credibility. In the UK and many other Anglo-American economies this is often not the case. As a result, small businesses can have a hard time being approved for a bank loan (Rajan & Zingales, 2003). In 1980, the ratio of bank credit to GDP was almost the double in continental Europe compared to the UK, which further illustrates the different dependencies on bank loans. On another note, the UK has had many more listed firms than the average country of continental Europe (Rajan & Zingales, 2003).

5.4 Comparison of Capital Markets and Financial Systems

Evident from the overview of the financial systems is that SMEs are important for economic growth in all three countries as well as that increasing access to finance for new ventures is a governmental focus. The sources of finance differ, as does the availability of capital and the reasons for companies not being given access to the capital they need. In table 5.4.1 statistics of reasons for firms not receiving finance from banks are presented. Numbers for 2007 as well as 2010 are given, making it possible to compare numbers before and after the recent financial crisis.

Table 5.1 Reasons for Companies not Obtaining Finance from Banks, % (Eurostat, n.d.)

	Italy		Germany		UK	
	2007	2010	2007	2010	2007	2010
Low credit rating	12.5	6.2	14.2	13.6	4.9	5.9
Lack of capital	9.4	4.4	12.5	13.1	12.4	7.8
Lack of collateral/guarantee	6.1	3.6	15.7	13.4	17.1	13.8
Risky/insufficient potential of the business	2.7	1.7	2.2	5.2	6.1	7.2
Too much existing loans	6.6	4.3	6.3	6.2	7.3	5.2
No loan history	0.1	0.0	0.0	0.0	3.6	0.0
Bad loan history	0.4	0.3	0.2	2.1	3.6	1.2
No explanation given	6.6	4.1	4.7	9.4	3.2	8.0

Data includes statistics on the whole business economy but excluding financial and insurance activities.

In all countries the main explanations to enterprises not receiving loans are bad credit rating, lack of capital, lack of collateral and/or guarantee, and too much existing loans. In Italy, the percentage of applications that were rejected because of a lack of collateral or guarantee is a lot lower than in the other two countries. In 2010 3.6 per cent of rejected loan applications in Italy were due to too little collateral. The corresponding percentage was 13.8 in the UK. In other words more than ten percentage points higher. A possible reason for this could be the amount of guarantees issued in Italy, which is way higher than in Britain. This would add to the arguments in favour of CGS, as a smaller share of companies in Italy face the issue of not having enough collateral or a guarantee compared to the other two countries that do not use loan guarantees as much. The same goes for lack of capital. Low credit rating seems to be a bigger issue in Italy and Germany than in the UK. These numbers might be hard to compare as how banks evaluate credit quality can differ a lot not only between countries but also among individual banks that all have their own internal working guidelines.

Table 5.4.2 shows how the need for companies to search for external finance has changed from before to after the financial crisis. In all three countries, the share of companies seeking finance is higher in 2010 than in 2007. The data also suggests that companies in Italy are more dependant on external finance than in Germany and the UK.

Table 5.4.3 shows the distribution of the sizes of SMEs in the different countries. By far, Germany has the biggest share of medium companies, more than double the EU average. Italy has the largest share of micro enterprises, which is consistent with the countries tradition of tiny, family-owned businesses. The UK's share of micro enterprises amounts to less than 89 per cent. Although, as briefly mentioned, the smallest companies do not need to register which means that in reality this share should probably be somewhat higher and is not fully comparable to the numbers of Italy and Germany. But even when focusing only on the latter two, large differences are detected. Italy has more than a million more registered businesses, and almost 95 per cent of these have less than ten employees. As so large shares of all three economies fall within micro, small, and medium enterprises, it is quite clear that when there are barriers hindering access to finance for these groups it affects a large part of the countries'

Table 5.2 Share of Companies Seeking Finance, % (Eurostat, n.d.)

	Germany	Italy	UK
2007	20.4	27.1	22.2
2010	24.6	33.9	26.6

Includes the whole business economy besides financial and insurance actors

economies. Unfortunately the exact percentage for small companies in Italy was not included in the Eurostat database. The data does not say anything about how many of these businesses that are considered to be innovative companies with large growth potential worth sponsoring with approving a guaranteed loan. The highest share of the companies, though, will not be. And, as was seen in table 5.4.2, only around a fourth or a third of all companies are in need of external finance sources.

As presented in the methodology chapter, different approaches can be used to find explanations to changes occurring in financial systems. Following the explanations of institutionalists, the interaction between actors and interest groups form a large part of the foundation. Political systems can affect in which direction the capital market develops as well as what fiscal policies are implemented. In their study from 1999, Schmidt et al. did not find any support for financial systems changing in Germany and the UK. What the results of their study seems to point to, is that there might be some support of structural change within each financial system, mainly regarding an increasing significance of non-bank financial intermediaries. However, banks in Germany were still dominating, and the UK had been capital-/market-based for a long time already. The importance of banks (which is different in the two countries) did not seem to undergo any drastic transformation. A more recent study conducted by Rajan and Zingales (2003) suggests the opposite to be the case. According to their results, EU markets are moving from a bank-oriented approach to a more market-friendly orientation. The reason for changes occurring more now than during most of the 20th century could be the deeper European integration following, among other things, the introduction of a common currency union.

Table 5.3 Business Size Statistics, 2012 (Eurostat, n.d.)

	Germany	Italy	UK	EU
Total number of enterprises	2189737	3825458	1703562	22346729
Share of micro enterprises	82.31%	94.85%	88.92%	92.71%
Share of small enterprises	14.68%	data missing	9.19%	6.09%
Share of medium enterprises	2.53%	0.50%	1.54%	1.00%

6 Credit Guarantee Schemes

6.1 Operational Characteristics and Design

The guarantee scheme setup usually includes three parties, the borrower; the lender; and the guarantor. These actors have different roles as well as different degrees of power in deciding the design of the guarantee scheme. In short, the guarantor can alter levels of discretion in the credit decision process, the coverage ratio, the guarantee fees, as well as criteria for eligibility (Riding & Haines Jr., 2001). The fee for the guarantee is sometimes paid by the borrower and at other times by the lender, and the size of the fee might differ depending on the credit risk of the borrower.

The products of a credit guarantee scheme can look different depending on the focus of that specific scheme. Generally, there is a set of products that are offered. Some schemes provide all of these while some focus on only one. First of all, a guarantee can be issued to cover either one particular loan or an entire portfolio of eligible credits. While with the first type, the loan is covered separately by the guarantor on an individual basis, the guaranteed amount of the latter is calculated based on a pre-set number of loans. An important characteristic of a scheme is the coverage ratio. That is, what percentage of the credit amount that is covered by the guarantee in case of default. The pricing arrangement is another condition that can vary among schemes. A CGS is in the vast majority of cases given against a fee. Sometimes the fee has to be paid by the borrower and sometimes by the lender. There are also examples of cases where the fee is divided among the two. As for the operational routines, responsibilities can be divided between the lender and the guarantor in distinctive ways. Probably one of the first aspects that come to mind is the credit risk evaluation of the borrower. This can either be left completely to the lender, which is often the case, or can also be complimented by credit checks run by the guarantor (Vienna Initiative Working Group, 2014). Increasing the credit evaluation by involving more parties can be used as a way to try to reduce moral hazard among borrowers as well as banks. On the downside, running double checks will naturally increase costs significantly (Vienna Initiative Working Group, 2014).

Guarantee institutions have to oblige to rules and regulations, and the regulatory framework that a CGS is subject to depends on what type of organisation, institution or company it is registered as. If it is registered as financial intermediary, it is most likely under the supervision of the central bank or of another financial authority. For public loan guarantee schemes that are not classified as financial intermediaries, it is usually ministries and governmental institutions that are conducting the supervising. Often, the institution that is offering loan guarantees needs to be licenced as a credit institution. With this licence and registration come further criteria, since the guarantor is now subject to rules regarding solvency, disclosure, and minimal capital requirements. Countries' individual banking legisla-

Table 6.1 EU State Aid Regulations for Loan Guarantee Schemes (EUR-Lex, n.d.)

-
- * The borrower does not have financial difficulties that would hinder him/her from repaying the loan.
 - * The guarantee must be given for a specific transaction/purpose, and a fixed amount and duration must be specified.
 - * The guarantee cannot cover more than 80% of the loan amount (this condition does not apply to guarantees that cover debt securities, and exceptions can be given)
 - * The price of the guarantee must be market-oriented.
-

tion will have impacts in this area as well. Besides bank regulations, other legislations will have direct or indirect effects on the design of a CGS. Taxation, definitely, but also common EU laws and directives such as the EU state aid regulation. (Vienna Initiative Working Group, 2014). The EU state aid is set by the European Commission and some of its main implications regarding loan guarantees are specified in table 6.1.1. These conditions apply to public guarantee schemes, not private ones.

Guarantee schemes can be divided into different categories based on different criteria. Firstly, they can be categorised based on ownership and coverage, such as the classification by Beck, Klepper and Mendoza (2010). Secondly, CGSs can also be categorised from a perspective of financial legislation and supervision, where one distinguishes between national and international coverage, as well as supervised versus not supervised (Vienna Initiative Working Group, 2014).

6.2 Credit Guarantee Schemes in Europe

This part of the thesis returns to the two steps that were stated as the guidelines of the comparative analysis. That is, firstly discussing the legal and regulatory framework, and secondly the structure and operative framework of the CGS of Italy, Germany and the UK.

6.2.1 Guarantee Schemes in Italy

Guarantees have been around for quite some time in Italy. It started with the foundation of the guarantee system in 1957, which was running without any particular guarantee legislative framework up until 2003. In 2003 what is known as the Confidi Framework Law was created. This law regulates the fundamental regulations for Italian Confidi, including how they act as financial intermediaries and the way they are supervised by the Bank of Italy (Leone & Porretta, 2012). The first guarantee institutions in Italy were created by entrepreneurs on a very local level which then spread to become an important part of the Italian economy (OECD, 2014). This bottom-up emergence of guarantees are quite unique for Italy, and can possibly explain why the structural aspects of Italian credit guarantee schemes differ from

other European countries. The Confidi have as a result developed on a very local level with close ties between the guarantor and the borrower. In the UK and Germany the guarantee institutions operate more from a distance.

While the guarantee schemes are mainly operated by private institutions in the form of mutual guarantee associations, the government is still involved. Much of the financial means necessary comes from public funding. Italy has a national guarantee fund that gives funding to local mutual guarantee institutions known as *Confidi*. These are then referred to as counter-guarantees, as they involve another actor (the Confidi) instead of direct guarantees that are offered directly to the lending banks. The proportion of guarantees that are counter-guarantees in Italy has increased in the years following the 2008 crisis. A positive aspect of the Italian counter guarantees is that they involve an additional credit check by the Confidi. The fact that the Confidi operate on very local levels also mean that they generally have access to more specific sector knowledge. This helps to reduce the problem of asymmetric information that is the cause of many banks being hesitant to lend to SMEs. In other words, it reduces the likelihood of Type I and Type II errors (as specified in chapter 2) to occur. On the downside, the structure might result in higher moral hazard issues as the Confidi know they are likely to be bailed out by the government if they become insolvent, which may alter the quality of their analysis of borrowers' credit qualities. However, since the Confidi are owned by their members, their incentives to remain solvent is usually high (OECD, 2014).

The Confidi manage their business on a very local level and are in many ways similar to financial co-operatives where the SMEs are members. Shareholders in the Confidi can apply for loans as well as contribute with capital that is used to finance the credit guarantees. At the moment, more than 200 local mutual guarantee institutions are active in Italy. These belong to seven national Italian federations, which differ depending on the scope and sector the guarantee institutions are operation in. The seven federations are *CreditAgri*, *FederFidi*, *Fedart Fidi*, *FederConfidi*, *Fincredit*, *FederAscomFidi*, and *Asscooperfidi*.

The sum of government guaranteed loans by the central guarantee fund increased a lot during the financial crisis. In 2009 the value increased with 113 per cent from the year before, from 2.3 billion EUR to 4.9 billion. And in 2010 it amounted to 9.1 billion EUR, to be followed by a slight reduction in 2011. The amount of outstanding loan guarantees in 2011 reached 2.2 per cent of GDP in Italy (OECD, 2013).

6.2.2 Guarantee Schemes in Germany

The German guarantee banks (*Bürgschaftsbanken*) were created around 60 years ago, and one of their main purposes is to make it easier for SMEs to find capital. The guarantee banks themselves do not grant the loans to SMEs, but provides the guarantee as a form of collateral to the bank that is approving the loan (i.e. the lending bank). The lending bank is responsible for the credit check. Because of this, guarantee banks are not considered to be universal banks but credit institutions. They are organised in a federal way, meaning that each state has one guarantee bank. Guarantees cover up to 80 per cent of the loan amount, reducing the risk for the lending bank significantly (Valentin, 2014). Unlike countries in capital market-based financial systems where business lending is usually taking place at arm's length, in Germany

and other bank-based systems relationship lending is more common and apparent. This is seen in that many businesses have their “house bank” with whom they might already for some time have working with, and hence have some sort of relationship with each other (Behr & Güttler, 2007).

The funding for the guarantees granted by the German guarantee banks comes from both state level and from the national level. The shares differ somewhat between different states. As the SME gets a loan from its house bank, the guarantee institution covers up to 80 per cent of the credit risk that otherwise would fall completely on the house (lending) bank. There are some requirements on the SMEs, and the business must make economic sense and have prospects of becoming successful (Schmidt & van Elkan, 2006). Usually the maximum limit of a loan guarantee that a single company can obtain is set to 1.25 million Euro. However, this varies between the different states of Germany. Half of the guarantees are for loans of maximum 100.000 Euro, and in total the German guarantee banks provide about 50.000 companies with guaranteed loans. The German guarantee banks have been present since the 1950s and their main focus is on SMEs (VDB, n.d.). The German guarantee banks belong to the *Verband Deutscher Bürgschaftsbanken* (VDB), which is a privately owned institution (aecm, n.d.).

In Germany, credit guarantee schemes are not subject to direct supervision. This has been decided in conjunction with BaFin, which is the financial regulator, but requires that the CGS does not leverage capital (Vienna Initiative Working Group, 2014). In Germany the volume of outstanding credit guarantees as a percentage of GDP was 0.2 per cent in 2011 (OECD, 2013).

6.2.3 Guarantee Schemes in the United Kingdom

The United Kingdom has been using loan guarantee schemes backed by the government for a long time. The country is, however, not known to be heavily dependent on them since it tends to focus on many several ways for increasing access to finance for SMEs, including venture capital and other forms of financial investment options. The United Kingdom’s first large action in terms of guarantee schemes was introduced by the Department of Trade and Industry (DTI) and was known as the Small Firms Loan Guarantee Scheme (SFLG). It was launched because competition between banks was deemed to be too small and resulting in strains on the possibilities for SMEs to access finance. The scheme was active from 1981 until 2009. This relates to one of the arguments behind the market-based financial system mentioned in the theoretical approach of this thesis, namely that banks reduce competition and hence, according to this view, is not a good foundation of the whole financial system. When in use, the SFLG guaranteed 75 per cent of the total loan amount and the fee for obtaining a guarantee was paid to DTI by the borrower. The default rates in the 1980s were around 40 per cent, which are relatively high (Riding & Haines Jr., 2001).

A CGS that was operating in the after-years of the financial crisis is the National Loan Guarantee Scheme (NLGS). It was introduced in March of 2012, and its purpose was to make SMEs more prone to be granted a loan as well as to reduce the cost of taking a bank loan by one percentage point (United Kingdom Debt Management Office, n.d.). As mentioned in the theory section, interest rates set at non-market prices can also be a cause of disequilibrium.

Choosing to focus on correcting the price of taking a business loan could in these cases be seen as a justified approach by the government. In total, more than 28,000 loans with a combined value of over GBP 5.2 billion have been granted with the help of the NLGS (United Kingdom Debt Management Office, n.d.).

At the moment, the British Business Bank runs the main guarantee scheme, which is a government-owned financial institution that focuses on optimizing financial markets for small and medium enterprises in the United Kingdom. Although owned by the government it is operated detachedly. It does not invest or lend directly through SMEs, but much like the German guarantee banks collaborate with partners. Partners include commercial banks, venture capital funds, online platforms and more, and in total the British Business Bank collaborated with over 80 of these. The purpose is to increase access to finance for start-up that have the potential of becoming high-growth companies but lacking finance and/or collateral (British Business Bank, n.d.).

The program that the British Business Bank controls is referred to as the Enterprise Finance Guarantee (EFG). This is a government-backed guarantee scheme that helps to offer guaranteed loans to SMEs that are not able to get finance on their own. The credit risk assessment is conducted by the lender and not by the British Business Bank. The guarantee covers 75 per cent of the total loan amount, and the eligibility criteria that must be fulfilled in order to receive an EFG-backed loan is summarised in the table below (British Business Bank, n.d.).

Feedback suggests that the EFG is very much an example of a successful CGS. According to an evaluation done recently by the BIS, the net economic benefits after accounting for the cost of managing the scheme reached €1.3 billion. The benefit-to-cost ratio for the whole society was calculated to be 7:1 (OECD, 2014). Unlike the SFLG, the EFG is clearly adapted to the EU state aid rules in that the coverage ratio of the scheme does not exceed 80 per cent. Just like in Italy, the use of credit guarantees increased when the financial crisis hit. In Britain the sum of EFG guaranteed loans increased from 178 million GBP in 2008 to astonishing 759.5 million in 2009 (OECD, 2013).

Table 6.2 Eligibility Criteria for EFG-Backed Loans (British Business Bank, n.d.)

<u>In order to be qualified to apply for a loan guaranteed by EFG...</u>
... the company must be operating in the United Kingdom, and in one of the eligible sectors (decided by the EU State Aid regulations)
... the purpose of the loan is deemed eligible
... the requested loan amount is at least £1000 and at most £1.2 million
... the company must aim to, and be deemed able to, repay the loan (duration ranges from 3 months to 10 years)
... the company turnover does not exceed £41 million

6.2.4 Comparison of Guarantee Schemes Across the European Union

In table 6.2.2 information about the guarantee schemes talked about previously as well as some more CGS from other European countries are given. In all of them it is quite clear that the EU State Aid regulations are involved in the design. The only guarantee scheme covering more than 80 per cent of the debt is the French OSEO. This scheme is privately owned, which means that it is not subject to all the regulations that the public schemes have to follow. The same goes for the Italian Confidi, which explains why no clear maximum coverage ratio is specified. The third example of an Italian CGS in the table below is ISMEA (Istituto di Servizi per il Mercato Agricolo Alimentare), which is a public scheme focused on the agriculture and food sector, and in this case the coverage conditions are more clearly defined. This also illustrates that while mutual guarantee schemes are the most common, fully public schemes also exist in Italy. The guarantee limit and guarantee period differs a lot between different schemes. This is not something that is specified clearly in the EU State Aid regulations, which might explain why they differ more than, for example, the coverage ratio. Germany and Austria represent the countries with the schemes using the longest maximum guarantee period. Both of these countries are considered to be economies with bank-oriented financial systems. It could be that bank-based economies have a stronger liquidity in the banking sector, making it possible to operate long-term schemes. Unfortunately, though, it was not possible to find empirical evidence regarding this, and it will for now only be a speculation of the author.

Referring back to the classification by Beck, Klepper and Mendoza between mutual guarantee schemes, public national guarantee schemes, and corporate associations, it is clear that the Italian Confidi are examples of mutual guarantee schemes while the EFG can be classified as

Table 6.3 European CGS Characteristics (OECD, 2013; British Business Bank, n.d.)

Country	Credit Guarantee Scheme	Ownership	Guarantee Limit	Maximum Guarantee Period (years)	Minimum Coverage Ratio (%)	Maximum Coverage Ratio (%)
Austria	AWS	Public	N/A	20	33	80
Austria	NöBeg	Mixed Mutual	EUR 1.2 million EUR 200 thousand	10	50	80
France	SOCAMA	(private)	thousand	7	100	100
France	OSEO	Mixed	EUR 1.5 million	15	20	80
Italy	Federconfidi - Confindustria	Mutual (private)	EUR 2 million	15	n.a.	n.a.
Italy	Federconfidi - Confcommercio SFGA -	Mutual (private)	not defined	< 5	n.a.	n.a.
Italy	ISMEA	Public	EUR 2 million	not defined	30	80
Germany	VDB	Private	EUR 1 million	23	50	80
Greece	ETEAN S.A.	Public	EUR 1 million	10	not defined	80
Slovenia	SEF	Public	EUR 1.2 million	10	60	80
Spain	SGR/CESGAR	Mutual (private)	20 % of own funds	15	N/A	80
UK	EFG	Public	GDP 1.2 million	10	N/A	75

a public scheme, and Germany operate many private CGSs. Italy, Germany and the UK are all developed countries with relatively high GDP per capita meaning that differences caused by the level of development should not have too much effect in these cases.

In Italy, the Confidi are supervised by the central bank. In Germany, it is the financial regulatory authority (BaFin) that is responsible for this task, although generally the guarantee banks are not subjects of direct supervision. Being the development bank of the British government, the British Business Bank reports to them, which also is quite characteristic of a public CGS. The federal structure of Germany is evident in the use of credit guarantee schemes. The CGS are distributed on a state-level to with one guarantee bank present in each state. While they mostly operate in the same way, some aims as well as the amount of CGS issued can differ. In Italy, the Confidi distribute guarantees to its members on a local level. In the UK, the guarantee schemes are operated on a national level. It should be mentioned that national guarantee schemes as well as EU-wide loan guarantees do exist in both Germany and Italy as well, but here the focus is on the previous ones as they are all the main ways of CGS use and quite representative to each country respectively.

The results from Beck, Klepper and Mendoza hint that in countries where the government is more involved in the running of the guarantee scheme, loan losses tend to be higher. That could possibly be an explanation as to why the British scheme SFLG had a default rate of around 40 per cent throughout the 1980s. The argument does, however, lose power when observing how well the UK's current scheme is going. It is hard to fully analyse this aspect in the current state of guarantee schemes. Italian banks have been in need of bailout quite recently. Considering the external shock coming from the recent financial crisis, it is hard to pinpoint exact reasons for companies' default rates. This also spins somewhat outside the focus of the research conducted in here.

As mentioned briefly in the previous chapter, legal systems are different in Italy, Germany and the UK. Some argue that these come from historical legacies and institutional characteristics, as Italy and Germany have systems characterised more by civil law compared to the more common law practice in the UK where main legislations are closely related to the decision making of judges. This could possibly affect the way legal frameworks are designed and the way supervision is carried out. In the UK, the main distributor of public credit guarantees is the British Business Bank. While the governments in Germany and Italy are also involved heavily in CGS operations, here it is more evident.

Why have guarantee schemes and, especially, privately run loan guarantee schemes become more popular in Italy? In many ways it is believed to stem from the way that guarantees were allowed to emerge in a bottom-up way starting from ideas put together by local entrepreneurs. This is quite unique to Italy and differs from the government-imposed guarantee schemes that most countries have seen. This can be contrasted by the development in the UK where the national guarantee scheme was introduced in order to correct for market failures and with a purpose to affect the disequilibrium in the SME lending market. It is not possible to conclude that one way is better than the other, or that mutual guarantee institutions are better at handling guarantee schemes than public ones. What is of interest, though, is to see whether or

not the different financial systems can explain why the frameworks of guarantee institutions differ.

Italy has in this paper been argued to have adopted a form of state-oriented financial system. This makes it quite interesting that the main distributors of CGS are mutual guarantee institutions, as these are a form of privately owned guarantee institutions. However, they are still under the supervision of governmental agencies as large parts of the funding come from public means.

7 Discussion of Results

Beck, Klapper and Mendoza (2010) find that most guarantee schemes are launched with a specific purpose, which could either be a certain business size, a specific sector or a geographical area. In this thesis only the largest CGS of the respective countries were analysed. But all of them target SMEs specifically. The Italian public schemes are examples of schemes focused on a specific sector, agriculture. It was found that the federal structure of Germany has led to a federal division of guarantee banks, resulting in some geographical limitations. Furthermore, as the German history of two countries following WWII, eastern and western states have developed a bit differently. Hence it makes sense to have guarantors at the state-level to closer overlook the CGS supply and demand in their specific geographical region. Another conclusion from the study of Beck, Klepper and Mendoza (2010) was that high-income countries tend to have a larger share of mutual guarantee institutions, which is true for Europe as a whole.

The number one area in which Beck, Klapper and Mendoza (2010) find differences between countries' guarantee schemes is in their operational structure. One of the most important and clear differences is in how involved the public sector is in the running of the scheme. The results from this thesis also points to operational structure being an area in which large differences can be detected. First of all, in Germany the guarantee institutions are operated by the private sector, although not as mutual guarantee institutions as is the case in Italy. The German guarantee banks are as a result not objects of direct supervision by the supervising authority. The way the German guarantee banks operate might relate to the bank-based tradition, as unlike the UK, they have in total 17 guarantee banks (aecm, n.d.) that works closer to lending banks, which in turn seem to have a closer relationship with clients. The relationship-lending in Germany should, according to the literature, most likely be a result from its bank-based financial system. And this in turn seems to explain why the guarantee banks are organised the way that they are.

One hypothesis developed in relation to the financial systems in chapter 2 was that economies with bank-based financial systems should have a higher degree of publicly owned guarantee schemes than market-based. In this case the United Kingdom seems to be a special case, in that it does not operate too much privately owned CGS, but rather focuses on public ones operating nationally. However, as was concluded already by Cowling (2010), the British CGSs have nevertheless shown to be successful in creating additionality in the form of more finance to SMEs, and hence reducing credit rationing constraints. Although Riding and Haines Jr. (2001) concluded that there was not enough support of inefficient markets to justify state interventions, success stories such as the SFLG and EFG show support for the opposite view. Although many might argue that default rates of guaranteed loans often have been to high. In both Germany and Italy there is a good amount of all CGS types, and the majority of them are operated by privately owned institutions.

Leone and Porretta (2012) found differences in the degree of state intervention as well as regulatory frameworks, but also in coverage ratios. This thesis finds that most guarantee schemes in the EU seem to follow the EU State Aid criteria of 80 per cent maximum coverage ratio. The UK's CGS EFG has a maximum coverage ratio of 75 per cent, suggesting that they are not willing to cover as much of the risk as their German counterparts. Just like Leone and Porretta (2012), this thesis finds Italy to be a unique country when it comes to the use of CGSs. And it is believed that this is explained by the way the Confidi emerged in a bottom-up way, changing the deeply rooted institutions. This is very different from the government-led schemes in, for example, the UK. It is further believed that it would not be possible for neither the UK nor Germany to copy the success of Italian Confidi. It requires the community tradition that led entrepreneurs to start the Confidi in the first place. A clear case of path-dependency. Even if it were possible to introduce this system from a top-down manner, it would take a long time before it would move down the institutional layers and become a natural part of the countries' business environments.

Among the three countries, the UK is the country that uses CGS the least, as was the hypothesis from the theoretical framework. The reason for this is argued here to be the British market-based financial system with well-developed capital markets where equity finance is more easily accessible compared to in the other two countries. It is further suggested that this could be explained by a thorough common law system that clearly protects investor rights. It is also possible that the tradition of having operated a market-based financial system for a long time with many listed firms has made business owners and managers less afraid of allowing outside investors. In Germany many are still hesitant to giving up control rights of the company, which might hinder companies from exploiting the full potential of equity finance options, hence resulting in debt finance being the main source of external capital for SMEs. As was mentioned, in recent years German banks have shown less willingness to grant business loans to SMEs. If this trend continues, German companies might be forced to open up more to other forms of finance than pure bank loans. At the moment, not too much support this notion, and bank loans are still the main source of external capital.

With a higher demand for bank loans, more cases of information asymmetries develop and increase the demand for collateral or, as an alternative, CGS. As CGS increase the number of loans granted to SMEs, the issues of adverse selection should reduce. To what extent this really is the case depends on how well the credit granting institution or bank manages to correctly evaluate the credit risk of the borrower. Even though a CGS makes it possible to lend to businesses that for example lack collateral, it might not necessarily increase the information available. In many cases it is still only the lending bank that conducts the credit check, meaning that the procedures might be almost the same as without a CGS. In that sense, Type I and Type II errors could develop in either direction.

8 Conclusion

This thesis has compared credit guarantee schemes among three major European economies and attempted to find a link between how the guarantee schemes are set up and the financial system of a country. While there is no clear consensus around the world saying that CGS is an effective way of increasing access to bank loans for SMEs (Levitsky, 1997), it is definitely considered important to many European governments. Italy, Germany and the UK all use public means to promote access to finance through the use of loan guarantees. The way they do it, however, differs. The comparative analysis conducted has made it possible to find suggestions to answers of the research questions.

How do credit guarantee schemes differ between Italy, Germany and the United Kingdom?

The main differences were seen in the organisational structure and the ownership of the guarantee schemes, which is in line with results from previous studies. The CGS in the UK is 100 per cent government owned and operated by the British Business Bank, which in turn is also publicly owned. The main guarantee schemes in Germany are operated by German guarantee banks, which are all part of a privately owned guarantee association. Among the three countries, Italy is the one with the largest amount of guarantees and guarantee institutions. Most of the guarantee institutions are mutual guarantee institutions known as Confidi, who together with the national guarantee association distributes counter guarantees to its members. It has been argued that the localness of the Italian Confidis give them an advantage in credit assessment as it limits the issue of asymmetric information.

Similarities were seen in the design of guarantee schemes, as they tend to follow the EU State Aid rules. The degree of supervision differs somewhat, and overall it seems that supervision is more closely conducted in public national guarantee schemes, such as the one in the UK. A small tendency towards longer maximum guarantee periods of schemes in bank-based economies was found, but a comparison of a higher amount of CGSs is needed in order to see whether or not this is a recurring phenomenon.

Can the differences in use and design be explained by the countries' financial systems and regimes?

While the financial systems might affect how guarantee institutions and banks can operate depending on the level of supervision and the regulatory framework that is associated with the different systems, they might not directly decide the use and design of CGS. However, it appears that the traditions, institutional environment and history of the economies that shape the financial systems also shape the financial markets and the way they interact with SMEs. Hence, indirectly affecting how CGSs are being used. This definitely seems to be the case of the Italian Confidi, which are shaped by old traditions.

While it is debatable to what extent financial systems affect the characteristics and unique designs of guarantee schemes, they do seem to impact the environment in which the CGS operates and to what extent it is used. The market-based financial system of the UK seems to be at least a partial explanation as to why CGS and debt finance is not as crucial for SMEs there as in the other two countries. In Germany, bank-oriented financial system and federal institutions may well be the reason that guarantee schemes are mainly run by the guarantee banks, and the fact that a guarantee bank has been introduced in every single state. With a history of a system that circulates heavily around banks, it is intuitively natural that the guarantor works closely with the lending bank. As the German reunification is not too far back in history, some differences between eastern and western parts can still be detected. A federal structure of the guarantors allows for a closer collaboration with banks in each state, which possibly reduces information asymmetries.

The community-based legacy embedded in the deepest institutional layers (i.e. common practices and habits) has been argued by scholars to be the reason that mutual guarantee schemes work so well in Italy. It has further been suggested that the same design and operational characteristics of the Italian Confidis most likely would not be as successful in neither Germany nor Britain. The arguments for this belief does not seem to stem from Italy's government-oriented financial system (which further is a financial system that is not fully recognised by all scholars and theories) but rather from historical and institutional developments not necessarily tied to the financial system.

8.1 Suggestions for Further Research

In order to truly establish a possible connection between financial systems and CGS more research is needed. This thesis was limited in the sense that it only focused on one country from each financial system. A study that would incorporate several examples of the same systems would be able to see whether the characteristics detected here are common across all countries of similar capital market regulations. Another interesting twist could be to analyse the countries' financial systems using all of the suggested approaches by Schmidt and Tyrell (2004).

8.2 Policy Implications

This research has managed to provide possible explanations to how and why the use of CGS differs among Italy, Germany and the UK. The conclusions reached could be used both to understand the systems better as well as to build on further discussions to how a CGS should be designed.

If one wants to continue on the path taken, CGS should be designed not directly by the financial system but rather based on institutional and operational aspects that have developed along with the system and the capital regime. In Italy, the success of the Confidi suggests that

this is an approach to keep working with. Although, since it is argued to reach this success and development due to very unique Italian institutions and cultural history, it is not advised that Germany and the UK implement the same structure. Due to its well-developed equity markets, there might be possibilities to develop more privately operated CGS in the UK. An area in which the country at the moment does not seem to extract the full potential from.

References

- aecm (n.d.). Available online: <http://aecm.eu/members/our-members/>, [Accessed: 25 February 2016]
- Beck, T., Klapper, L. F. & Mendoza, J. C. (2010). The typology of partial credit guarantee funds around the world, *Partial Credit Guarantees: Experiences & Lessons Focused Issue, Journal of Financial Stability*, vol. 6, no. 1, pp. 10-25
- Beck, T. & Levine, R. (2002). Industry growth and capital allocation: does having a market- or bank-based system matter? *Journal of Financial Economics*, vol. 64, no. 2, pp. 147-180
- Behr, P. & Güttler, A. (2007). Credit Risk Assessment and Relationship Lending: An Empirical Analysis of German Small and Medium-Sized Enterprises, *Journal of Small Business Management*, vol. 45, no. 2, pp. 194-213
- Boyreau-Debray, G. & Wei, S-J. (2005). Pitfalls of a State-Dominated Financial System: The Case of China, *NBER Working Paper*, Working paper no. 11214
- British Business Bank (n.d.). Understanding the Enterprise Finance Guarantee, Available online: <http://british-business-bank.co.uk/ourpartners/enterprise-finance-guarantee/understanding-enterprise-finance-guarantee/> [Accessed: 5 May 2016]
- Burrows, O. & Low, K. (2015). Mapping the UK Financial System, *Bank of England Quarterly Bulletin*, vol. 55, no.2, pp. 114-129
- Cobham, D., Cosci, S. & Mattesini, F. (1999). The Italian financial system: neither bank based nor market based, *The Manchester School*, vol. 67, no. 3, pp. 325-345
- Cowling, M. (2010). The role of loan guarantees in alleviating credit rationing in the UK, *Journal of Financial Stability*, vol. 6, no. 1, pp. 36-44
- EC (n.d.). What is an SME? Available online: http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition/index_en.htm [Accessed: 7 February 2016]
- EC (2013). 2013 SBA Fact Sheet Germany, Available online: http://ec.europa.eu/growth/smes/business-friendly-environment/performance-review/index_en.htm#annual-report, [Accessed: 1 April 2016]
- EC (2014). 2014 SBA Fact Sheet Italy, Available online: http://ec.europa.eu/growth/smes/business-friendly-environment/performance-review/index_en.htm#annual-report, [Accessed: 1 April 2016]
- EC (2015). 2015 SBA Fact Sheet United Kingdom, *Enterprise and Industry*. Available online: http://ec.europa.eu/growth/smes/business-friendly-environment/performance-review/index_en.htm#annual-report, [Accessed: 5 April 2016]

- EC (2015b). 2015 SBA Fact Sheet Italy, Available online:
http://ec.europa.eu/growth/smes/business-friendly-environment/performance-review/index_en.htm, [Accessed: 21 May 2016]
- EC (2015c). 2015 SBA Fact Sheet Germany, Available online:
http://ec.europa.eu/growth/smes/business-friendly-environment/performance-review/index_en.htm, [Accessed: 21 May 2016]
- EUR-Lex (n.d.). Commission Notice on the application of Articles 87 and 88 of the EC Treaty to State aid in the form of guarantees, Available online: <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52008XC0620%2802%29> [Accessed: 5 May 2016]
- Eurostat (n.d.). Available online: <http://ec.europa.eu/eurostat>, (database) [Accessed: 25 March 2016]
- Deeg, R. (2010). Institutional Change in Financial Systems, in Morgan, G., Campbell, J. L., Crouch, C., Pedersen, O. K. & Whitley, R. (eds.) *The Oxford Handbook of Comparative Institutional Analysis*, Oxford: Oxford University Press
- Demirgüç-Kunt, A. & Maksimovic, V. (2002). Funding growth in bank-based and market-based systems: evidence from firm-level data, *Journal of Financial Economics*, vol. 65, no. 3, pp. 337-363
- Dixon, A. D. (2014). *The New Geography of Capitalism: Firms, Finance, and Society*, Oxford: Oxford University Press
- IMF (2013). ITALY Financial System Stability Assessment, *IMF Country Reports*, no 13/300
- Jacobson, T. & Roszbach, K. (2003). Bank lending policy, credit scoring and value-at-risk, *Journal of Banking & Finance*, vol. 27, no. 4, pp. 615-633
- Kang, J. W. & Heshmati, A. (2008). Effect of credit guarantee policy on survival and performance of SMEs in Republic of Korea, *Small Business Economics*, vol. 31, no. 4, pp. 445-462
- Kaufmann, S. & Valderrama, M. T. (2004). The Role of Bank Lending in Market-Based and Bank-Based Financial Systems, *Monetary Policy & The Economy*, Österreichische Nationalbank, no. 2, pp. 88-97
- Kaya, O. (2014). SME financing in the euro area. New solutions to an old problem, *EU Monitor: Global financial markets*, Deutsche Bank, Available online: https://www.dbresearch.com/PROD/DBR_INTERNET_EN-PROD/PROD0000000000344173/SME+financing+in+the+euro+area%3A+New+solution+s+to+an+old+problem.PDF [Accessed: 25 March 2016]
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. & Vishny, R. W. (1997). Legal Determinants of External Finance, *The Journal of Finance*, vol. 52, no. 3, pp. 1131-1150

- Leone, P. & Porretta, P. (2012). A Comparative Analysis of Credit Guarantee Systems, in Leone, P. & Vento, G. A. (eds.) *Credit Guarantee Institutions and SME Finance*, Basingstoke: Palgrave Macmillan, pp. 287-326
- Levine, R. (2002). Bank-Based or Market-Based Financial Systems: Which Is Better? *Journal of Financial Intermediation*, vol. 11, no. 4, pp. 398-428
- Levitsky, J. (1997). Credit guarantee schemes for SMEs – an international review, *Small Enterprise Development*, vol. 8, no. 2, pp. 4-17
- OECD (2013). SME and Entrepreneurship Financing: The Role of Credit Guarantee Schemes and Mutual Guarantee Societies in supporting finance for small and medium-sized enterprises, Available online: <http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=CFE/SME%282012%291/FINAL&docLanguage=En> [Accessed: 27 February 2016]
- OECD (2014). Italy: Key Issues and Policies, *OECD Studies on SMEs and Entrepreneurship*, OECD Publishing, Available online: [dx.doi.org/10.1787/9789264213951-en](https://doi.org/10.1787/9789264213951-en) [Accessed: 24 April 2016]
- OECD (2015). Financing SMEs and Entrepreneurs 2015: An OECD Scoreboard, Available online: http://www.oecd-ilibrary.org/industry-and-services/financing-smes-and-entrepreneurs-2015_fin_sme_ent-2015-en [Accessed: 25 March 2016]
- Pattani, A., Vera, G. & Wackett, J. (2011). Going public: UK companies' use of capital markets, *Bank of England Quarterly Bulletin*, vol. 51, no. 4, pp. 319-330
- Pohl, G., Jedrzejczak, T. & Anderson, R. E. (1995). Creating Capital Markets in Central and Eastern Europe, *World Bank Technical Paper Number 295*, Washington, D.C.: The International Bank for Reconstruction and Development/The World Bank
- Rajan, R. G. & Zingales, L. (2003). Banks and Markets: The Changing Character of European Finance, in V. Gaspar, P. Hartmann, O. Sleijpen (eds.) *The transformation of the European financial system*, Frankfurt am Main: European Central Bank
- Riding, A. L. & Haines Jr., G. (2001). Loan guarantees: Costs of default and benefits to small firms, *Journal of Business Venturing*, no. 16, pp. 595-612
- Schmidt, A. G. & van Elkan, M. (2006). Der gesamtwirtschaftliche Nutzen der deutschen Bürgschaftsbanken, Berlin: Lit-Verlag
- Schmidt, R. H., Hackethal, A. & Tyrell, M. (1999). Disintermediation and the Role of Banks in Europe: An International Comparison, *Journal of Financial Intermediation*, vol. 8, pp. 36-67
- Schmidt, R. H., Hackethal, A. & Tyrell, M. (2002). The Convergence of Financial Systems in Europe, *Schmalenhach Business Review*, Special Issue no. 1, pp. 7-53

- Schmidt, R. H. & Tyrell, M. (2004). What Constitutes a Financial System in General and the German Financial System in Particular? in J. P. Krahen & R. H. Schmidt (eds.) *The German Financial System*, Oxford: Oxford University Press
- Stiglitz, J. & Weiss, A. (1981). Credit Rationing in Markets with Imperfect Information, *American Economic Review*, vol. 71, no. 3, pp. 393-410
- Storey, D. J. & Greene, F. J. (2010). *Small Business and Entrepreneurship*, Harlow: Prentice Hall
- Summers, D. (2015). The economic impact of entrepreneurship: Setting realistic expectations, *Academy of Entrepreneurship Journal*, vol. 21, no. 2, pp. 99-107
- Trovato, G. & Alfö, M. (2006). Credit rationing and the financial structure of Italian small and medium enterprises, *Journal of Applied Economics*, vol. 9, no. 1, pp. 167-184
- Valentin, A. (2014). The Impact of German Guarantee Banks on the Access to Finance for SMEs, phd thesis, Edinburgh Napier University
- VDB (n.d.). Guarantee banks and SME-oriented investment companies in Germany, *Verband Deutscher Bürgschaftsbanken e.V.*, Available online: http://www.vdb-info.de/media/file/4302.flyer_guarantee_banks_and_SME-oriented_investment_companies.pdf [Accessed: 9 April 2016]
- Vienna Initiative Working Group (2014), Credit Guarantee Schemes for SME lending in Central, Eastern and South-Easter Europe. A report by the Vienna Initiative Working Group on Credit Guarantee Schemes, EBCI, Available online: http://www.eib.org/attachments/efs/viwig_credit_guarantee_schemes_report_en.pdf [Accessed: 6 March 2016]
- Vitols, S. (2005). Changes in Germany's Bank-Based Financial System: implications for corporate governance, *Corporate Governance: An International Review*, vol. 13, no. 3, pp. 386-396
- United Kingdom Debt Management Office (n.d.). Guarantee Schemes, Available online: <http://www.dmo.gov.uk/index.aspx?page=CGS/NLGS2012>, [Accessed: 5 May 2016]
- Zimmermann, H. (2012). No Country for the Market: The Regulation of Finance in Germany after the Crisis, *German Politics*, vol. 21, no. 4, pp. 484-501

Appendix A

Table A.1 *Assoconfidi Facts (aecm, n.d.)*

Assoconfidi

Active in Italy

Association of national mutual guarantee federations, which include Coldiretti; Fedartfidi; Federconfidi; FederAscomfidi; Fincredit; Federfidi

Table A.2 *SGFA Facts (aecm, n.d.)*

Society for the management of funds for the agricultural and food sector (SGFA)

Active in Italy

Founded in 2001/1999

Publically owned; state agency

Focus on agriculture

Targeted towards SMEs

Gets state support

Guarantee products: Loan default guarantees; working capital loan guarantees; bridge financing loan guarantees

Other SME support products: Subsidized loans; venture capital

Table A.3 *VDB Facts (aecm, n.d.)*

VDB

Active in Germany

Founded in 1990

Privately owned

Consists of legally and economically independent Guarantee Banks, which offer the guarantees

Targeted towards SMEs; all sectors

Gets state support

Guarantee products: Loan default guarantees; working capital loan guarantees; bridge financing loan guarantees; mezzanine financing guarantees; leasing guarantees

Other SME support products: Coaching; mezzanine financing

Table A.4 *British Business Bank Facts (aecm, n.d.)*

British Business Bank

Active in the United Kingdom

Current association created in 2012; SME loan guarantee scheme since 1981

Publically owned; government development bank registered as a public limited company

Has programmes that are created on behalf of the UK Government's Department for Business, Innovation & Skills
Targeted towards SMEs; all sectors.
