Bank risk management: How do bank employees deal with risk at the strategic and operational levels?

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To Constantin
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Glossary of abbreviations

Chef executive officer (CEO)
Chief risk officer (CRO)
Enterprise risk management (ERM)
The Financial Times Stock Exchange (FTSE)
Group of Twenty Finance Ministers and Central Bank Governors (G20)
Gross domestic product (GDP)
Global financial crisis (GFC)
Inter-organizational relationship (IOR)
Lending/loan officer (LO)
London Interbank Offered Interest Rate (LIBOR)
Management control system (MCS)
Repertory grid technique (RGT)
Research question (RQ)
Risk management (RM)
Swedish Crown (SEK)
Small and medium-sized enterprises (SMEs)
Swedish Financial Supervisory Authority (Swedish FSA)
United States (USA)
United States Dollar (USD)
United Kingdom (UK)
Abstract

Bank risk management, the subject of this dissertation, is about standards, procedures, and processes for identifying, analysing, controlling, and monitoring risks. It is affected by risk management standards, promoted by banking laws, such as the Basel Accords, which are intended to offer advantages to bank employees. These employees, however, perceive that such standards are associated with practical challenges that entail risks. Previous studies have found that different bank employees may perceive the practical challenges associated with risk management standards in different ways. However, previous studies have rarely examined bank employees’ intentions and, equally, have not examined bank employees’ perceptions after the global financial crisis (GFC), an event said to have reflected bank risk management failures and to have negatively affected bank lending. Central to the present research is the literature’s limited attention to bank lending practices in terms of bank loans to financial institutions (e.g., banks) and to companies (e.g., small and medium-sized enterprises – SMEs).

The overall research aim is to examine the perceptions and intentions of bank employees at different organizational levels during a banking crisis in order to foster understanding of bank risk management. This aim is divided into two research areas, leading to the formulation of two research questions (RQs): RQ1 – How do top bank managers deal with risk during a banking crisis? RQ2 – How do bank loan officers deal with risk during a banking crisis? In response to RQ1, three strategic-level studies were conducted. The related papers 1 and 2 explore bank lending to companies, while paper 3 explores bank lending to financial institutions. To respond to RQ2, two operational-level studies were conducted, and the related papers 4 and 5 address bank lending to SMEs.

The thesis starts from a critical realist position, employing an eclectic theoretical approach and using mixed methods in conducting the studies. The strategic-level studies collected data through 52 semi-structured interviews with top management and high-ranking officers employed at three large Swedish banks and at key banking industry institutions. The data collection also entailed reviewing the annual reports of two banks over the 1990–2010 period, government and central bank reports, as well as various statistics. The data were analysed using qualitative research techniques. For triangulation purposes, follow-up interviews and engagement with the field were incorporated into the data collection and analysis. For the two operational-level studies, data were collected using the repertory grid technique when interviewing 75 bank loan officers employed at another large Swedish bank. In addition, data were collected on the bank loan officers’ backgrounds. The data analysis included statistical analyses and related interpretations. For triangulation purposes, three pre-studies, a pilot study, six retests, and a focus group interview were conducted. In addition, the bank loan officers’ individual cognitive maps were
aggregated to provide a holistic overview of these employees’ perceptions at the group level.

The overall conclusion of the strategic-level studies is that top bank managers deal with risk through designing control system interactions and through information augmentation.

Designing control system interactions – When top bank managers implement the Basel Accords, they must make design choices regarding the interaction between various control systems. Such design considerations are important in order to ensure that the application of the standards is in line with bank business strategy. Furthermore, in designing control system interactions, top bank managers draw on various bases of trust when dealing with risk. In theory, trust arises from distinct sources; in practice, however, bank employees perceive trust to be intertwined with relationships with counterparties and third parties.

Information augmentation was evident in the way top bank managers enhanced the information-processing capacities of the group risk control office and imposed limits on this office’s interactions with operational-level employees, thereby improving information flows before decision making. Information augmentation was further evident in how top bank managers drew on network relationships in the banking industry to ensure access to and use of relevant information during a large-scale banking crisis.

The overall conclusion from the operational-level studies is that bank loan officers manage risk by adhering to procedural lending, meaning that they collectively rely on hard and future-oriented information and that they collectively downplay soft and historical information in assessing loan applications from SMEs. These findings indicate that the Basel Accords, the bank’s lending strategy, and the information system orient bank loan officers’ perceptions of the involved assessments. In contrast to previous studies, this thesis presents findings that different types of bank loans, such as those for starting up business, supporting underperforming operations, and financing business expansions, are assessed in a similar way. Procedural-based lending further implies that few distinctions were made between various groups of bank loan officers. One significant distinction was made in regard to female and male bank loan officers’ assessments.

The thesis presents theoretical, practical, and methodological implications and offers suggestions for further research into the important and developing area of bank risk management.

Keywords: Banks, Bank employees, Bank lending, Risk management, the Basel Accords, Global financial crisis.
Sammanfattning på svenska


valideras med hjälp av sex upprepade mätningar (s.k. retester) och en
fokuserad intervju.

Slutsatserna från studierna på strategisk nivå är att toppchefer primärt hanterar
risk genom att designa samspelet mellan kontrollsystem och genom att förbättra
information och beslutsunderlag.

Design av samspeelande kontrollsystem är en följd av att toppcheferna betraktade
implementeringen av Basel-standarden som något som både påverkade och
påverkades av andra kontrollsystem. En samspeelande design är viktig för att så långt
som möjligt säkerställa att användningen av riskhanteringsramverket ligger i linje
med affärsstrategierna. Vidare spelar förtroende en viktig roll när toppcheferna
hanterar risk. Enligt teori uppstår förtroende på olika grunder, men denna
avhandling visar att bankanställda på strategisk nivå uppfattar att förtroende i
praktiken är sammanflätat i relationer med direkta så väl som indirekta parter.

Resultaten visar också att toppcheferna utökade informationshanterings-
kapaciteten hos den s.k. gruppriskkontrollfunktionen på strategisk nivå och att de
samtidigt införde begränsningar i denna funktions möjligheter att påverka anställda
på operationell nivå. Härigenom ansåg toppcheferna att de uppnådde en nödvändig
informationsförbättring före beslut avseende kreditgivning på bankkontoren. Vidare
utgick toppcheferna från närverks-relationer för att säkerställa tillgången till och
användningen av relevant information för beslutsfattande avseende kreditgivning på
interbank-marknaden under den globala finanskrisen.

Slutsatserna från studierna på operationell nivå är att kredithandeläggare hanterar
risk genom att hålla sig till etablerade arbetssätt för kreditgivning. Vid
kreditbedömningar avseende små och medelstora företag tenderar kredit-
handeläggare att kollektivt förlita sig på hård och framtidsorienterad information,
samtidigt som de toner ned behovet av mjuk och historisk information. Denna
procedurbetonade kreditgivning grundar sig på betoningen på Basel-standarden,
bankens utlåningsstrategi samt styr- och kontrollsystem, vilka allt primärt styr
kredithandeläggnas uppfattning om bedömningen av låneobjekt från små och
medelstora företag. I motsats till andra studier visar resultaten också att olika typer
av lån – finansiering av nystartade verksamheter, tilläggsfinansiering för expansion
och tilläggsfinansiering för att rädda verksamheten – bedöms på ungefär samma sätt.
En procedurbetonad kreditgivning gör också att få skillnader går att sköna mellan
olika grupper av kredithandeläggare. En funnen skillnad mellan kvinnliga och
manliga kredithandeläggare diskuteras utifrån tidigare studiers slutsatser om dessa
gruppers tendens för olika riskbenägenhet.

Avhandlingen bidrar med teoretiska, praktiska och metodologiska implikationer
samt förslag på vidare forskning inom detta både viktiga och spännande område.

Nyckelord: Banker, Bankanställda, Basel-standarden, den globala finanskrisen,
Kreditgivning, Riskhantering.
List of papers

This thesis is based on the following five papers, herein referred to by their numbers:


Paper 3 Rad, A. (2017, forthcoming), The importance of trust for inter-organizational relationships: A study of interbank market practices in a crisis. Accepted for publication in *Qualitative Research in Accounting & Management, 14*(3).*


* The publishers have permitted reprints.
1 Introduction

1.1 Risk management practices in banks
Risk has always been an important research theme (Beck, 1992; Bernoulli, 1738/1954; Douglas & Wildavsky, 1983; Giddens, 1994; Jensen & Meckling, 1976; Kahneman & Tversky, 1979; March & Shapira, 1987; Markowitz, 1991; Power, 2016; Rothstein, Huber, & Gaskell, 2006) and is also a pressing matter in several industries (Huber & Rothstein, 2013; Power, 2004b; Renn, 1998; Soin, C. Huber, Sorgaard, & Wheatley, 2016; Woods, 2009). This thesis views risk in the context of banks.

In line with March and Shapira (1987), the thesis holds that risk is a phenomenon that does not exist objectively; instead, managers interpret risk subjectively in terms of negative outcomes. From this perspective, dealing with risk is about designing, implementing, and using appropriate controls as well as gathering and assessing relevant information (MacCrimmon & Wehrung, 1990). As risk is embedded in managerial processes in specific organizations, dealing with risk is context dependent. This context dependency is confirmed by studies of managers’ interpretations of risk in different industrial settings (cf. Pablo, 1999) and emphasized in accounting and management control research (Bhimani, 2009; Hutter & Power, 2005; R. S. Kaplan & Mikes, 2016).

Moreover, this thesis addresses risk management, i.e., standards, procedures, and processes for identifying, analysing, controlling, and monitoring risks in banks. In doing this, I follow the example of influential researchers (e.g., Blomberg, 2016; Blomberg, Kjellberg, & Winroth, 2013; M. Hall, Mikes, & Millo, 2015; Mikes, 2009, 2011; Wahlström, 2006, 2009b) who have recognized that, in practice, bank risk management is strongly influenced by risk management standards (hereafter, “standards”). One such standard is called enterprise risk management (ERM), which is promoted by the audit association the Committee of Sponsoring Organizations, better known as COSO.1 According to Beasley, Clune, and Hermanson (2005), this standard is intended to address various risks that appear in organizations and need to be dealt with objectively. Studies

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1 ERM is a process implemented by an entity’s board of directors, management, and other personnel and applied in strategy setting across the enterprise. It is designed to identify potential events that could affect the entity, to manage risk to keep it within the entity’s “risk appetite”, and to provide reasonable assurance of the achievement of entity objectives (Frigo & Anderson, 2011).
indicate that, relative to other industries, banks are forerunners in applying this standard (Beasley et al., 2005; Greenbaum, 2012). There are, however, indications that this standard is somewhat ambiguous (Arena, Arnaboldi, & Azzone, 2010; Arena, Arnaboldi, & Azzone, 2011; Bromiley, McShane, Nair, & Rustambekov, 2015).

Rather than on ERM, this thesis concentrates on another commonly used standard, the Basel Accords, which unlike the ERM standards are based on detailed rules set forth in banking laws imposed by regulators, which expect compliance (Gray & Hamilton, 2006). The goals of the Basel Accords are to harmonize the supervision, management, and reporting of bank risks internationally (Basel Committee on Banking Supervision, 1999, 2006, 2010; European Commission, 2016; Ojo, 2010b; Toniolo & Clement, 2005). The Basel Accords thereby operate on the basis of ideas similar to international accounting standards (cf. Stockenstrand & Nilsson, 2016).

Researchers (e.g., Arena & Arnaboldi, 2014; Arena et al., 2010, 2011; Giovannoni, Quarchioni, & Riccaboni, 2016; M. Hall et al., 2015; Mikes, 2009, 2011; Scheytt, Soin, Sahlin-Andersson, & Power, 2006; Wahlström, 2006, 2009a, 2009b) envisage standards such as the Basel Accords as an advance in accounting and management control. These advances are relevant at various organizational levels. At the strategic level, bank employees could expect interactive surveillance opportunities, beyond those of traditional financial control instruments (e.g., budgets), from using information provided by the Basel Accords. These employees could also expect opportunities for sophisticated performance control that improves alignment between strategies and operational activities. At the operational level, bank employees could enjoy efficiency in their day-to-day decision making.

Although the Basel Accords are intended to offer advantages, accounting and management control researchers (e.g., Scheytt et al., 2006; Soin et al., 2016) have emphasized the other side of the coin. They argue that the use of standards generates at least three risk themes for bank employees:

- risk that appears in the complex interactions between regulations and practice,
- (un)intended production of risk by the organization itself, and
- risk that appears through evolving and emerging events.

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2 To date, there have been four Basel Accords (i.e., Basel I–IV), two of which have been enacted.
These risk themes have already motivated some research. Among the abovementioned researchers interested in standards, Wahlström (2009b) has noted that employees of various banks did not envisage similar advantages accruing from the Basel Accords (specifically, Basel II). Employees of one bank expected that the standard would induce centralization and negatively change the bank’s management style, while employees of other banks expected positive outcomes of centralization as a result of Basel Accord implementation.

The different expectations of the Basel Accords have led to various levels of aspiration to implement the standard in banks. According to Brown, Giorgi, and Sim (2012), aspiration levels involve managerial interpretations of risk, such as the risk of not meeting targets, and play a key role in individual decision making regarding the use of externally imposed requirements. Different aspiration levels regarding the implementation of standards have also been observed in studies of the ERM standard. For example, Mikes (2009, 2011) found that employees of five investigated banks had different attitudes towards this standard, distinguished by enthusiasm or pessimism. Taken together, Wahlström’s (2009b) and Mikes’ (2009, 2011) findings confirm the relevance of the first risk theme, i.e., that risk arises in the complex interactions between regulations and practice.

Wahlström (2006) has further reported that bank employees perceive practical challenges to implementing the Basel Accords (specifically Basel I) in terms of the production of unintended risk within the organization. In a similar vein, Soin (2004) and Arena et al. (2010, 2011) found that the implementation of standards calls for integration with existing information systems, possibly interfering with existing control systems and practices. These systems can be used for various purposes, such as cost control and performance optimization. Moreover, when studying senior bank managers in the emerging phases of the global financial crisis (GFC), Wahlström (2009a) found that they faced risk that emerged during this evolving event, and therefore rejected using information provided by the Basel Accords, such as various risk-based measures. The above findings confirm the relevance of considering the second and third risk themes, i.e., (un)intended production of risk by the organization itself and risk that emerges from evolving events.

In 2009 when I began work on this thesis, influential researchers had made calls to address research gaps. For example, Hopwood (2009b, p. 549) remarked on the “growing distance of the academic finance knowledge base

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3 As will be presented, the GFC included a large-scale banking crisis in the late 00s.
from the complexities of practice and practical institutions”. While working on the thesis, I also noted that literature reviews (e.g., Gooneratne & Hoque, 2013; Harris & Durden, 2012; Wilson, Casu, Girardone, & Molyneux, 2010), and special issues (e.g., Bhimani, 2009; Scheytt et al., 2006) reiterated that the literature did not contain a substantial volume of findings about bank risk management practices. More recently, Humphries (2015) reported that the British Academy of Management had noted that elite journals 4 had yet to publish a substantive paper dealing with the GFC and I had also noted that bank risk management was said to have failed during the crisis.

It is worth mentioning that the GFC has been compared to the Great Depression of the 1930s (Reinhart & Rogoff, 2008). Public records as well as studies refer to massive unemployment, reduced productivity, and large contractions in trade volumes. Records also note numerous banking defaults and financial instability in multiple European countries, such as Portugal, Italy, Greece, and Spain (Bussière, 2013; NBER, 2010; The Crisis Inquiry Report, 2011; The Federal Deposit Insurance Corporation, 2016).

This thesis responds to indications of research gaps and related calls for research. The lack of studies of bank risk management practices, especially in the aftermath of the GFC, has already been mentioned. Moreover, Wahlström (2009b) and other accounting and management control researchers have not distinguished between the application of the Basel Accords and the associated practical challenges with respect to different organizational levels. Instead, they have collected data at one organizational level at a time. In contrast, this thesis considers both the strategic and operational levels.

Moreover, this thesis targets both the perceptions and intentions of bank employees regarding bank risk management. Since at least the 1970s, accounting and management control researchers (e.g., Hopwood, 1972) have successfully targeted employee perceptions. Previous studies of the advances and practical challenges associated with the Basel Accords (e.g. Wahlström, 2006, 2009b) have also considered bank employee perceptions. According to Tessier and Otley (2012), employee perceptions refer to interpretations of what control is for (e.g., enabling or constraining; cf. P. S. Adler & Borys, 1996), suggesting that bank risk management can be perceived in different ways by different bank employees. According to Slovic (1987), perceptions can be assumed to be stable. However, perceptions may be limited to the available information, i.e., characterized by bounded

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rationality (Simon, 1947/1997). Moreover, bank employees’ perceptions are expected to be influenced by the environment surrounding them and their organizations, and that may not be controllable in every respect (Scott, 2007).

According to Tessier and Otley (2012), employees’ intentions refer to what managers are trying to achieve by implementing a certain form of control. Intentions, unlike perceptions, are a design attribute as such and merely related to the choice of control measures (e.g., social versus technical control: cf. Alvesson and Kärreman, 2004). Intentions are also related to the goal of control measures, for example, performance versus compliance. Moreover, intentions focus on the choices regarding the intended use of the control measures, which can range from interactive to diagnostic (Simons, 1995).

1.2 Banks, bank lending, and bank employees
In the following subsections, I present the empirical rationales for researching banks, bank lending, and bank employees.

1.2.1 The importance of banks
Banks are considered important economic vehicles in Sweden and elsewhere (F. Allen & Carletti, 2008). A very simple way of understanding banks’ importance in society is to consider the extent of the business and employment that banks generate. The Swedish banking industry comprises 116 banks, and the four largest domestic commercial banks – SEB, Svenska Handelsbanken, Nordea, and Swedbank – together have around 1644 branches and employ approximately 40,000 people worldwide (The Swedish Bankers Association, 2016). The four largest Swedish banks are in focus in this thesis, although they are not mentioned by name in the various studies.

Throughout history, links between banks and economic growth have been observed in various countries (Burhop, 2006; Quinn, 1997; Rodriguez & Andersson, 2011; Smith, 1776). Given the link between banks and economic growth, the importance of banks can be estimated by measuring their contribution to economic output. The American Bankers Association (2013) reported that banks account for approximately 7.6 per cent of the gross domestic product (GDP) of the United States (USA), while the British Bankers Association (2015) reported a contribution of 4.9 per cent in the United Kingdom (UK) and the Swedish Bankers Association (2016) a contribution of 4.8 per cent in Sweden.

Another way of appreciating the importance of banks, in a way that is more interesting in the context of this thesis, is to consider the
intermediation they are involved in (F. Allen & Carletti, 2008). The output of this intermediation is credit/loans. Intermediation occurs as banks, via credit, channel money from sectors having surpluses of money (e.g., depositors) to sectors requiring money (Levine, 1997). Credit is crucial to societal development (Green, Kwong, & Tigges, 1995; Nabi & Suliman, 2009).

1.2.2 The importance of bank lending

Previous research into bank risk management practices has not concentrated on bank lending, though researchers have sometimes examined other operations such as investment banking (Blomberg, 2016; Blomberg et al., 2013). To give a sense of the importance of bank lending, it is recorded that bank lending involves colossal amounts of money. Table 1 gives an impression of the magnitude of bank lending in Sweden, showing that the total amount of Swedish banks’ outstanding domestic loans on 31 December 2015 was SEK 6128 billion (The Swedish Bankers Association, 2016).

Table 1: Bank lending in Sweden

<table>
<thead>
<tr>
<th>Sectors</th>
<th>SEK billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial institutions</td>
<td>2310</td>
</tr>
<tr>
<td>Foreign markets</td>
<td>1256</td>
</tr>
<tr>
<td>Companies</td>
<td>1249</td>
</tr>
<tr>
<td>Households</td>
<td>1138</td>
</tr>
<tr>
<td>Local governments</td>
<td>100</td>
</tr>
<tr>
<td>Other</td>
<td>75</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6128</strong></td>
</tr>
</tbody>
</table>

5 In this thesis, I use the terms credit and loans interchangeably.

6 SEK refers to Swedish Crowns.

7 “Other” includes minor domestic finance companies not classified as financial institutions.
This thesis has a dual focus: bank lending to financial institutions (i.e., interbank lending) and bank lending to companies, including small and medium-sized enterprises (SMEs). Financial institutions can be of various types. In Sweden, 95% of the transactions between domestic financial institutions take place between banks (Statistics Sweden, 2016). A company is any firm or any individual who runs a commercial business. As of January 2017, there were approximately 1,200,000 companies registered in Sweden (Swedish Statistics, 2017). Statistics indicate that SMEs—companies with fewer than 250 employees—account for over 99 per cent of the registered companies in Sweden.

I examine interbank lending and SME lending more comprehensively in subsections 2.4.3 and 2.4.4, respectively. For now it should be noted that my concentration on bank lending of these two types is motivated by the fact that financial institutions and companies require credit for similar purposes, such as funding ongoing operations and financing new investments. Because loans between financial institutions are interest bearing, they are considered liquidity creating and therefore critical for economic growth (Berger & Bouwman, 2009). When it comes to bank lending to companies, several studies (e.g., Bruns & Fletcher, 2008) have found that Swedish banks meet up to 50 per cent of SMEs’ financing needs through extending credit. In addition, as Table 1 indicates, a substantial portion of total domestic lending (approximately 58 per cent) is absorbed by these two sectors. This preponderance of lending to companies holds for other developed countries as well. For example, US banks extend $8000 billion in loans annually, of which 49 per cent is directed towards companies (The American Bankers Association, 2013).

Households and local governments (e.g., municipalities) require credit for other purposes. For example, the household sector may require loans to finance mortgages, auto purchases, and consumption. As shown in Table 1, Swedish banks are also involved in foreign lending, which includes credit extended to financial institutions, companies, households, and local governments in foreign countries.

From the perspective of business administration theories, bank lending operates under a “capitalist rationality” (cf. Schumpeter, 1934), meaning that banks pursue interest and fees and attempt to reduce costs. At the same time, bank lending can lead to losses. As confirmed by various studies (e.g.,

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8 According to the Swedish central bank: banks, mortgage institutions, financial service companies, municipal and corporate-financed institutions, securities companies, and investment funds.
many bank losses are related to bank lending. Losses (i.e., credit losses) arise when borrowers behave opportunistically and/or perform poorly in terms of stipulated repayment obligations (Stiglitz & Weiss, 1981).

1.2.3 The importance of bank employees

When I started working on this thesis, public attention was turned towards bank employees and there was ample questioning of their work and character (Jönsson, 2014). The title of Stiglitz’s (2010) Who Do These Bankers Think They Are? illustrates this to some extent. In a similar vein, Engwall (1995) argued that the “cause” of the Swedish banking crisis in the 1990s was that bank managers lacked professionalism. Accordingly, it seems to be common for the public to turn their attention towards bank employees. According to Perrow (1984), crisis “post mortems” blame operator error 60 to 80 per cent of the time. It must be mentioned that banks, to some extent, have reacted to such questioning and negative attention; for example, during the GFC, Merrill Lynch replaced its chief executive officer (CEO) (R. Smith & Lucchetti, 2007).

In terms of bank employees at the strategic level, this thesis focuses on top bank management, which comprises the management team and the board (cf. Olie & van Iterson, 2003). In terms of bank employees at the operational level, it focuses on bank loan officers dealing with commercial credit at branch offices (cf. Bruns & Fletcher, 2008; F. Wilson, Carter, Tagg, Shaw, & Lam, 2007). In the following, I present an overview of top bank managers’ and bank loan officers’ responsibilities in large banks, acknowledging that these responsibilities are formally structured around specific tasks.

According to Kipping and Westerhuis (2014), large banks assume a multidivisional organizational structure. In this structure, top management is expected to operate at the strategic level of the bank organization. Top management can have various responsibilities, about which I provide more details in subsection 2.4.2. For now it can be noted that top bank managers are generally expected to take charge of business strategy. Sutcliffe and McNamara (2001) have found that, in the bank lending context, strategy involves ensuring the predictability of decisions and introducing policies for standardization and consistency. In this context, strategy also involves adapting to contemporary business trends, such as digitalization (Knorr Cetina & Preda, 2011).

In theory, multidivisional organizational structure limits top bank management from getting involved at the operational level (Williamson,
However, studies (e.g., Argyris, 1954, 1958; Kipping & Westerhuis, 2014) have found that bank managers can get involved in particular cases when lower-level employees seek advice on and approval of decisions. Related to advice seeking, studies (e.g., DeYoung, Gron, Torna, & Winton, 2015; Westphal, Seidel, & Stewart, 2001) have found that economic turbulence may hinder lower-level employees from locating relevant information on borrowers. In such cases, top managers, via their involvement in various settings (e.g., company boards), may access relevant information more efficiently. In terms of approval, McNamara, Moon, and Bromiley (2002) found that top bank managers need to approve loans involving large amounts of money and exceed credit limits imposed on lower organizational levels.

Given the multidivisional organizational structure of banks, bank loan officers’ responsibilities are limited to a few specific tasks. In their study of bank lending, Biggs, Bedard, Gaber, and Linsmeier (1985) found that bank loan officers concentrated on gathering various kinds of information related to company loan applications, and on assessing this information following internal guidelines and regulatory policies. This finding was confirmed by later studies (e.g., Mattsson, 1993; McNamara & Bromiley, 1997; Sutcliffe & McNamara, 2001; Trönnberg & Hemlin, 2014). I explore this matter in more detail in the next chapter. For now, it can be said that such information may concern the wide range of circumstances and events that have occurred in the past and may occur in the future (Berger & Udell, 2006). Bank loan officers are also obliged to make requests for collateral (Berger & Udell, 1990; Uchida, 2011). Collateral is intended to reduce the borrower’s incentive to fail in the repayment obligations stipulated by the loan contract, and to mitigate potential credit losses due to default and bankruptcy (Berger & Udell, 2006).

1.3 Research aim and questions

Given the above discussion, I here present the overall research aim and the research questions (RQs) of this thesis. The overall research aim is:

- to examine the perceptions and intentions of bank employees at different organizational levels during a banking crisis in order to foster an understanding of bank risk management practices.
This aim is addressed by two specific research questions (RQs), formulated to address the strategic and operational levels, respectively;

- RQ1: How do top bank managers deal with risk at the strategic level during a banking crisis?
- RQ2: How do bank loan officers deal with risk at the operational level during a banking crisis?

Three papers included in this thesis address RQ1 more specifically. Paper 1 examines the top management intentions underlying the implementation and use of the Basel Accords at two banks. Particular attention is paid to the practical challenges arising from the interaction between control systems. Paper 2 examines bank employees’ perceptions of the Basel Accords and their post-GFC actions intended to deal with the perceived practical challenges. Paper 3 examines how bank employees at the strategic level evaluate and assess potential financial institution borrowers in light of the GFC. The three papers relate, in different ways, to the three previously described risk themes.

Figure 1 presents the specific research aims of these three strategic-level papers. The papers are summarized and discussed in chapters 4 and 5, and are appended at the end of the thesis.

To address RQ2 more specifically, two specific studies were conducted, reported in papers 4 and 5. Paper 4 examines how bank employees at the operational level evaluate and assess potential SME borrowers. The examination concentrates on analysing bank loan officers’ perceptions at the time of the GFC. Paper 5 analyses some of the results of paper 4 by
considering the fact that female and male bank loan officers may treat risk in different ways. The two papers relate to the second and third risk themes.

Figure 2 presents the specific research aims of these two papers. In accordance with papers 1–3, the research findings of the operational-level studies are summarized and discussed in chapters 4 and 5. The papers are appended at the end of the thesis.

Paper 4 maps and analyses how 75 lending officers view their assessments of SMEs’ loan applications. Paper 5 analyses female and male loan officers’ risk aversion in assessing different types of SME loan applications.

*Figure 2: The aims of papers 4 and 5.*
2 Frame of reference

This chapter presents literature relevant to understanding bank risk management, starting by identifying the drivers of risk management research. I then identify three inevitable contingencies in the environmental context of banks, i.e., banking laws, the Basel Accords, and banking crises, followed by a description of changes in the banking industry. This is followed by an identification of bank lending issues. In the last section of the chapter, I identify the responsibilities of bank employees at the strategic and operational levels regarding bank lending.

2.1 Risk management research drivers

In the literature, I have identified three drivers of risk management research. The first is the overall trajectory of philosophical and scientific development. As early as 3200 BCE, the Asipu people of the Tigris–Euphrates Valley sought guidance before making decisions regarding uncertain situations by looking for signs from the gods (Covello & Mumpower, 1985). During the Renaissance and later during the Enlightenment, new philosophical ideas offered humans the option of abandoning deterministic conceptions like those of the Asipue. These ideas suggested that humans are in a position to create a better world and deal constructively with dangers and perils, meaning that they need not put their fate in the hands of God (Bernstein, 1996).

Since the Renaissance and the Enlightenment, important scientific discoveries have stimulated risk management research. Among the early relevant discoveries, Hacking (1975) refers to probability theory: by identifying the regularities of past outcomes of similar events, one can estimate the probability of the outcome of an event. Since the seventeenth century, several scientific discoveries have given risk management research further momentum, including the normal distribution formula (De Moivre, 1733), utility theory (Bentham, 1879; Bernoulli, 1738/1954), and marginal theory (Marshall, 1890). There was also Knight’s (1921) thesis that to estimate the probability of the outcome of an event, one can use values between 0 and 1. Nowadays risk management research is anchored in numerous academic subject areas, including accounting (McGoun, 1995), culture (Douglas & Wildavsky, 1983), finance (Jensen & Meckling, 1976; Markowitz, 1991), managerial decision making (March & Shapira, 1987), psychology (Kahneman & Tversky, 1979), and statistics (Hacking, 1975).
The second driver is the application of risk measurement in various industrial and commercial settings, including banks. Renn (1998) noted that the first recorded instance of risk measurement was likely in the space exploration programmes, chemical plants, and power plants that emerged in the early 1950s. These industrial settings used risk measurement to become more efficient in dealing with dangers in the safety and health areas. Around this time, insurance companies were using risk measurement to define proper coverage for clients (Mehr, Hedges, & Wood, 1964). In banks and other financial institutions, risk management has been tightly linked with the shareholder value conception of the firm, which “involves an increasing technical and institutional focus on the risk measurement dimension of the risk–return relations underlying shareholder value” (Power, 2005, p. 250). Banking researchers have found that risk management can help optimize banks’ financial performance and potential financial stability, because the associated measurement and quantification can help banks decide what risks to keep in loan portfolios and what risks to transfer to other banks through, for example, securitization (Aebi, Sabato, & Schmid, 2012; Buston, 2015; Cebenoyan & Strahan, 2004).

The third driver is a growing desire for control, which Power (2004b) has captured in the descriptive title of his paper “The risk management of everything”. This desire for control emerged in reaction to a series of large-scale corporate scandals (Power, 2007) and has been observed in various industrial settings (Mikes & R. S. Kaplan, 2013) as well as in universities (Huber & Rothstein, 2013) and government institutions (Vinnari & Skærbæk, 2014; Woods, 2009). As Power (2005) argued, through risk management, internal control has been formalized. This formalization is expected to provide opportunities to enhance managerial control, for example, via improved forecasting, more sophisticated measurement indicators, faster means of negative feedback, and greater stability (Beer, 1981; Holmquist, 2008; R. S. Kaplan & Norton, 1998; Vosselman, 2002). Moreover, this formalized internal control gives rise to research more concerned with organization design and practical challenges than with opportunities for risk measurement as such. Practical challenges potentially erode the opportunities to maximize shareholder value and, moreover, may hinder the expansion of managerial control (Mikes, 2009, 2011; Power, 2009; Wahlström, 2006, 2009b). This thesis intends to stay attuned to the perceived advances and practical challenges of the third driver while examining bank risk management. Previous studies motivated by this research driver have approached practice, which is done in this thesis as well.
2.2 Environmental context

2.2.1 Banking laws

This subsection presents an overview of banking laws, which I find are multiple, have been formed in various ways, and tend to change from time to time. Bergstrom, Engwall, and Wallerstedt (1994) have presented an overview of early banking laws in Sweden. That paper states that the first banking laws appeared in Sweden in 1824, and included requirements concerning the form of bank charters and restricted interest rate charges. The aim of such banking laws is typically to protect borrowers. Banking laws are also intended to protect depositors, prevent systemic failures, and prevent periods of inflation and recession (Barth, Caprio Jr, & Levine, 2013; Flannery, 1998).

The further development of national banking laws in Sweden during the 00s came to centre on international agreements (Jackson, 1999). These agreements required that the Swedish government sign contracts with other national governments and with private institutions. For example, after the end of World War II, the Bretton-Woods Agreement was introduced. It had the objective of preventing the recurrence of the obvious effects of the Great Depression of the 1930s. As a result, national banking laws were partly replaced and partly complemented in the 44 countries that signed the Agreement. This Agreement, however, collapsed in 1973 (Larsson & Wallerstedt, 2015). It can be noted that a potential benefit of such international agreements is the international convergence of banking laws, which is intended to reduce opportunities for regulatory arbitrage, i.e., banks’ using loopholes in banking laws as a mechanism for circumventing these laws (Ambrose, LaCour-Little, & Sanders, 2005; Härle, Havas, Kremer, Rona, & Samandari, 2016; Jones, 2000).

Occasionally, governments may revoke banking laws to stimulate the banking sector. The deregulations of the 1980s were intended to spur financial integration (Merton, 1995) and remove international regulatory barriers to financial services (Grahl, 2006). The deregulations of the 1980s were motivated by political agendas emphasizing less government

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9 Hammurabi, the king of the first dynasty of Babylon around 1800 BCE, probably authored the first banking law. His intention was also to protect borrowers by restricting the maximum rate of interest that a borrower would have to pay (Veenhof, 1997).

10 Deregulations have been motivated by several agendas and have occurred through several series of actions (cf. Larsson, 2002). Therefore, I do not extensively elaborate on deregulation in this thesis.
intervention (Jönsson, 2016). According to Jönsson (2014), this political agenda received more fuel as it was established that the market economy side had won the struggle with socialist systems, symbolized by the fall of the Berlin Wall. In Sweden, the deregulations of the 1980s resulted in several old regulations, such as interest rate controls and credit limits, being removed from 1983 to 1985 (Honkapohja, 2012; Larsson, 2002).

From time to time, governments may also introduce new banking laws. Since the 1990s, national banking laws in Sweden have featured financial stability regulations (The Swedish Bankers Association, 2016). These regulations require that governments supervise banks and protect them from financial distress and default (Cihak, Demirgüç-Kunt, Peria, & Mohseni-Cheraghlou, 2013). For banks, these regulations imply more stringent demands for starting and running operations. These demands are supported by capital adequacy requirements stipulated by the Basel Accords (Chey, 2014; Ojo, 2010b). So-called stress tests are a frequent feature of the ongoing supervision of banks’ capital adequacy and resilience to bank risks (Acharya, Pedersen, Philippon, & Richardson, 2017). I come back to bank risks in subsection 2.4.1.

Moreover, during the work on this thesis, regulators around the world have reinforced old banking laws and introduced countless additional ones motivated by the GFC (Basel Committee on Banking Supervision, 2010; Härle et al., 2016; Petitjean, 2013). For example, in the USA, the Dodd-Frank Wall Street Reform and Consumer Protection Act, signed into law in July 2010, required for the first time that regulatory agencies prohibit precarious business activities in banks to prevent them from poor decision making (The Dodd-Frank Act, 2010). Various accounts (e.g., Goodhart, 2011; Wolf, 2014) confirm that banks globally have spent enormous amounts of money to comply with these additional banking laws. This also applies to the regulatory agencies supervising banks (Newlands, 2014).

### 2.2.2 The Basel Accords

In this subsection, I follow the development of the Basel Accords through four upgrades, i.e., Basel I–IV. I present an overview of these upgrades, providing details on the years they were released, their objectives, and some of their identified limitations.

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11 The actual starting dates of country-specific deregulation initiatives vary: for details of the changes in the USA, see DeYoung, Evanoff, and Molyneux (2009) and Van Hoose (2010); for details of the changes in the European Union, see Goddard, Molyneux, Wilson, and Tavakoli (2007).
Since the late 1980s, governments in more than a hundred countries, among them Sweden, have reached agreements with the Basel Committee for Banking Supervision, which promotes the Basel Accords (Basel Committee on Banking Supervision, 2004, 2006; Finansinspektionen, 2010, 2014; Jackson, 1999; Van Hoose, 2007).

In 1988, the Basel Committee for Banking Supervision presented Basel I (Toniolo & Clement, 2005). The major objective of Basel I was to ensure the stability of the international banking system after several horrendous events in the banking industry following the failure of the Bretton Woods Agreement (Ojo, 2010b). This stability was to be achieved through the international convergence of regulations targeting large international banks (Jackson, 1999). Basel I defined minimum capital requirements for banks. According to Kuritzkes and Schuermann (2010), Basel I based the minimum capital requirements solely on the total extent of credit assets, assuming them to be associated with varying risk weights. By ensuring minimum capital requirements and considering differences in the levels of credit risk, banks were expected to be in a position to absorb the highest foreseeable exposures and to offset assets, source new funding, and/or withdraw from business activities exposed to losses (Ojo, 2010a).

The benefits of Basel I, however, were not undisputed. It was found that Basel I could not eliminate opportunities for banks to get involved in uncertain deals and was not really attuned to reducing threats to the international banking system (Ambrose et al., 2005). For example, Wahlström (2006, p. 505) found that top bank managers “were convinced that they would never find a suitable solution to the problem of accurately measuring operational risk”. The seriousness of the problems were such that Wahlström (2006, p. 513) concluded that it would be a mistake to assume that the quantification of operational risk would establish greater stability in the international banking system. Moreover, it was found that risk weights may not properly reflect the magnitude of bank risks.

Banking Supervision, 1999, 2004). Basel II was motivated by banking crises such as the Asian crisis in the late 1990s (Rajan & Zingales, 1998). Basel II was also motivated by the fact that banks would benefit from relatively lower capital requirements for SME loans, suggesting that Basel I discriminated against SME lending (Altman & Sabato, 2005; Bartels, 2002). Unlike corporate loans, SME borrowers are less sensitive to systemic risk, i.e., risk that affects the entire market.

It has been found that defaults in SME loan portfolios are weakly correlated with each other in comparison with defaults in corporate loan portfolios. There are several reasons for such a finding. SMEs, for the most part, are not homogeneous with identical profiles. Besides their smaller relative size and access to multiple bank relationships, SMEs are found in various industries and vary in age, location, and performance. This results in smaller groups of SMEs captured by fewer data with which to run the statistical analyses required for measuring and quantifying potentials for defaults in loan portfolios. Consequently, Basel II included instructions to classify SME loans differently from corporate loans (Altman & Sabato, 2005; Larsen & Bjerkeland, 2005; Neuberger, Räthke, & Schacht, 2006).

Basel II called for bank capital to be connected to credit ratings by rating agencies (Ojo, 2010a). These agencies estimate publicly listed firms’ ratings expressed using a standardized set of measures. These agencies’ estimates are based on calculations, a forward-looking perspective, and the known distributions of defaults in credit portfolios (Esposito, 2011). The literature presents several approaches to estimating such default probabilities. Initiated by Black and Scholes (1973) and Merton (1974), the structural approach explains that a default occurs as the firm’s asset value falls below a threshold level. The probability of default expresses the potential losses expected from lending to a specific borrower, which should indicate the borrower’s overall creditworthiness and its capacity to satisfy its financial obligations to investors and lenders (Shapiro, 2016).

Basel II also called for bank capital to be connected to banks’ internal ratings (Jacobson, Lindé, & Roszbach, 2006). These ratings are called internal because banks were allowed latitude to measure and quantify bank risks on their own (Wahlström, 2009b). According to Beck (1992), implicitly, society is expected to rely on organizations to deal with threats. From the perspective of regulators, a bank’s internal ratings should determine how much capital it should set aside to fulfil capital adequacy requirements (Ojo,

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There are three internationally renowned credit rating agencies: Moody’s, Standard and Poor’s, and the Fitch Group (Shapiro, 2016).
Internal ratings could enable bank employees to relate to borrowers from a distance and in impersonal ways (Chen & Chiou, 1999). Management could therefore expect avoidance of cases of bank loan officer discrimination against borrowers based on non-monetary factors such as gender and ethnicity (Cavalluzzo, Cavalluzzo, & Wolken, 2002). Moreover, borrowers could expect more efficient access to credit as banks rated their own customers (Rossi, Schwaiger, & Winkler, 2009).

However, Basel II was not welcomed wholeheartedly from the start. From an academic perspective, Danielsson et al. (2001) made several remarks, for example, on the endogeneity of risk, liquidity levels in times of crisis, reliance on credit rating agencies, pro-cyclicality, and the pitfalls of quantifying bank risks. Regarding the pitfalls of quantifying bank risks, Blum (2008, p. 1706) argued that “in the lending business … there is only very low-frequency data, whose quality is difficult to verify due to the banks’ opaqueness”. The lack of sufficient data is a major drawback of the measurement and quantification of risk (McGoun, 1995). In another criticism of Basel II, Jarrow (2007) noted that the models used for quantifying internal ratings are very rough approximations, too rough to be considered the basis of ideal capital adequacy regulations, and instead suggested that the models needed further improvement.

In 2005, and in the post-Enron era, the Basel Committee on Banking Supervision issued the International Convergence of Capital Measurements and Capital Standards: A Revised Framework, and also a revised version of the Capital Accord to incorporate market risks (Basel Committee on Banking Supervision, 2006). In the European countries, Basel II was translated into European law in the EU Capital Requirements Directive, and it was expected to require three years of transition from its start in 2007. The literature review by Kaur and

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17 When prices fall and risk-averse banks have to dispose of risky assets, liquidity in the market is lower relative to the case of no regulation, since such banks’ ability to supply liquidity to other actors with lower risk-aversion has been reduced.

18 This refers to the phenomenon of banks’ holding less capital or overlending at the top of a cycle, exactly when the danger of systemic crisis is greatest, while banks will hold too much capital or underlend during the downturn when macroeconomic stabilization requires an expansion of lending.

19 In 2006, the Basel Committee issued a comprehensive version of the Basel II Framework, solely as a matter of convenience to readers, which also included minor revisions (Basel Committee on Banking Supervision, 2006).

20 The approach of the Swedish Financial Supervisory Authority (Fi) is set out in FFFS 2014:1 Finansinspektionen’s Regulations and General Guidelines regarding

In this thesis, I concentrate on Basel II and bank lending. According to Kaur and Kapoor (2015), Basel II has been fully implemented since 2010, so researchers can now study bank employees’ experiences of it.

In 2010, in a post-GFC environment, the G20\(^{21}\) and the Basel Committee on Banking Supervision put considerable energy into bringing in Basel III (Basel Committee on Banking Supervision, 2010). Part of the background was the observation that, during the GFC, banks such as Northern Rock and the Anglo–Irish Bank, which complied with Basel II, nevertheless had to be protected by their governments (Goodhart, 2011). This was interpreted by the G20 as a sign of Basel II’s failure. Among the G20’s observations was the fact that different banks used the Basel Accords in different ways. The regulators criticized such lack of uniformity in the application of the standard. The issue of regulatory arbitrage was considered by regulators to be a cause of the GFC (Basel Committee on Banking Supervision, 2010).

Consequently, Basel III was said to offer banks several improvements. In particular, Basel III was intended to improve banks’ management of liquidity risk, given the insights gained from credit market stoppages during the GFC (Basel Committee on Banking Supervision, 2010). I further describe liquidity risk in subsection 2.4.1. Basel III was introduced in 2014 and banks were given an implementation deadline of 2019 (Basel Committee on Banking Supervision, 2016). After its announcement, there were indications that Basel III would have a negative impact on bank lending (B. Allen, Chan, Milne, & Thomas, 2012).

In November 2016, a final report on a potential Basel IV was released by the European Central Bank (European Commission, 2016). Basel IV is expected to emphasize the harmonization of standardized models of risk-based measures and the models that banks use for internal rating as well as the reconsideration of minimum capital requirements. Moreover, there are expectations of revised rules changing capital and liquidity requirements, of amendments to the Bank Recovery and Resolution Directive, and of the

governance, risk management and control at credit institutions (Finansinspektionen, 2014); see also FFFS 2016:8 Regulations amending Finansinspektionen’s Regulations and General Guidelines (FFFS 2014:1) regarding governance, risk management and control at credit institutions for an updated version.

\(^{21}\) The Group of Twenty (G20) is an international forum for the governments and central bank governors of 20 major economies.
implementation of global standards for total loss-absorbing capital (Jackson, 2016; Magnus, Margerit, & Mesnard, 2016).22

2.2.3 Banking crises
Banking crises are the prime motivator of banking laws’ orientation towards financial stability regulations and the Basel Accords’ concern for capital adequacy requirements. In this subsection, I illustrate how previous banking crises have been attributed to certain causes and ascribed certain characteristics. I also present the Swedish banking crisis of the early 1990s and the GFC of the late 00s, citing examples of events observed during them and of related government actions to protect banks.

Causes and characteristics
Several banking crises have occurred over the years.23 In their simplest forms, banking crises have been explained by stock market crashes, such as Black Monday (MacKenzie, 2004), or by wrongdoings by individuals, such as Nick Leeson’s speculative activities in the case of Barings Bank (Stein, 2000).

Because of the tight coupling between banks and the financial and housing markets, periodic banking crises can be characterized as inevitable (cf. Perrow, 1984). Banking crises threaten the financial stability of nations and require action to reduce their potential impacts.

The Swedish banking crisis of the early 1990s
Banking crises typically strike specific countries. One likely cause of the Swedish banking crisis in the early 1990s was an ongoing crisis in the Swedish housing and real estate markets. Between 1990 and 1995, Swedish home prices decreased 25 per cent and commercial real estate paper lost value substantially. Moreover, by the 1990s, the deregulations of the 1980s had brought a massive increase in credit volumes, high inflation, low real wage growth, and massive public deficits (Elliot, 2015; Honkapohja, 2012). The Swedish banking crisis could have been smaller if the Swedish

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22 Details of implementation timeframes were not available from www.bis.org at the time of writing, due to the ongoing process of reaching agreements between countries.

government had not failed to protect its currency (i.e., the Swedish Crown or SEK) from speculative trading, causing the central bank to raise the interest rate to 500 per cent in September 1992 (Englund & Vihriälä, 2009). In addition, amid a wave of corporate bankruptcies, Swedish banks reported SEK 57.5 billion in credit losses for 1992, equaling 12 per cent of the national GDP (The Swedish Bankers Association, 2016).

The Swedish government initiated a rescue programme in an effort to protect national banks from default and to ensure the continuity of transactions between financial institutions (Englund & Vihriälä, 2009). This programme had access to SEK 65 billion in funds and was intended to recapitalize national banks. Among several other measures, the Swedish government eventually nationalized Nordbanken, part of the current Nordea (Englund & Vihriälä, 2009; Engwall, 1995; Honkapohja, 2012). The Swedish rescue of national banks was exported to other countries as a model for rescuing banks during the GFC (Eckbo, 2010).

*The GFC of the late 00s*

National banking crises can also affect other countries. According to F. Allen and Carletti (2010), the GFC started in 2007 when the market for bank subprime financing of US-based mortgages collapsed. The background to these mortgages was the political agenda that most Americans should own their homes (Swedberg, 2010). In the meantime, the US government had sanctioned a low interest rate policy incentivizing banks to finance these home purchases (Rajan, 2006). The resulting so-called over-lending created massive bad credit on the asset side of bank balance sheets, exposing banks to credit risk (Hall, 2008). As home prices in the USA started to diminish in late 2006 and early 2007, banks had to account for major losses from this bad credit (Bernanke, 2007, 2008).

The consequent asset devaluations had worldwide effects. Records indicate that, globally, the banking industry lost or wrote off almost USD 1 trillion in assets as a result. Country-specific impacts also occurred. Swedish banks experienced major credit losses, as illustrated by a report from the Swedish daily press: “Credit losses in the largest domestic banks are expected to reach SEK 170 billion in the next three years” (Mauritzon, 2009).

News of the asset devaluation led to bank runs. In September 2007, Northern Rock bank in the UK suffered such a run (Hall, 2008). In a bank run, depositors demand immediate access to their money. Typically, banks hold only a fraction of deposited money, lending out the majority to borrowers (Calomiris & Haber, 2014). A bank run puts considerable financial
pressure on the bank to fulfil its obligations to its depositors (Diamond & Dybvig, 1983).

As a result of such news and bank runs, series of stoppages occurred in credit markets (Carney, 2008). During the GFC, such stoppages were collectively referred to as a “credit crunch”, a situation in which capital market participants unexpectedly reduce their lending activities (cf. Gabrieli, 2009). According to Jönsson (2014), citing Gorton (2012), the history of banking crises is a story of lack of money.

In 2008, the central bank of the USA (i.e., the Federal Reserve) offered additional lending facilities for bank recapitalization (Ratnovski, 2009). Also, the US government took several actions to protect national banks, for example, by launching the Troubled Assets Rescue Program (TARP), which was given a budget of USD 700 billion (Pro Publica, 2017). It must not be forgotten that TARP was restricted to banks recognized as “too big to fail”, leaving small banks exposed to bankruptcy (Ratnovski, 2009). For example, in 2009 the US government placed the banks Fannie Mae and Freddie Mac in conservatorship, because they were considered large national lenders that could not be allowed to default (F. Allen & Carletti, 2008). However, TARP fell short when several US banks were financially distressed concurrently during the fall of 2008, and it was insufficient to protect every “too big to fail” bank, such as Lehman Brothers (Swedberg, 2010).

2.3 Changes in the banking industry

In this section, I elaborate on changes in the banking industry partly driven by contingencies in the environmental context. Since the 1980s, several changes have occurred in the banking industry as a result of events in this context. As noted, the deregulations of the 1980s were intended to promote financial integration, so that bank customers could receive lower transaction costs and have more efficient access to capital for making investments (Simpson, 2010). This resulted in lower profitability in traditional bank businesses, such as saving accounts and lending (Elliot, 2015; Engwall, 1997; Soin & Scheytt, 2008). The lower profit opportunities in traditional banking products led to an emphasis on lower production costs and economy-of-

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24 An overview of the bankruptcies of US-based banks alone found that of the 498 banks that failed between January 2000 and January 2013, 474 filed for bankruptcy after the GFC started (The Federal Deposit Insurance Corporation, 2016).
25 In the USA, corporations can be placed under conservatorship, in which the court-assigned conservator is expected to assume the rights of shareholders and managers, with the prospect that these rights will be relinquished.
scale thinking in banks (DeYoung, 2013). All this encouraged banks to pursue consolidations and to become large (DeYoung et al., 2009).

With increased size, the diversity and number of activities tend to increase in organizations, as do additional related administrative burdens (Chandler, 1962; Williamson, 1975). As noted in subsection 1.2.3, large banks have a multidivisional organizational structure (Kipping & Westerhuis, 2014). Moreover, the larger the organization, the more rational the design of tasks and responsibilities must be (Barley & Kunda, 1992). Large banks are therefore typically centralized and, as mentioned, the Basel Accords reportedly support centralization (Wahlström, 2009b).

Large banks typically favour easily disseminated information for decision making (J. C. Stein, 2002; Radner, 1993). Management can thereby expect effective goal pursuit regarding business decisions by bank employees, who may be organizationally separated by task design and responsibilities (cf. Williamson, 1975). To satisfy such requirements for information efficiency, large banks use information systems that can facilitate efficient information communication and storage within the hierarchy of the organization (Rada, 2008). The use of information systems has been encouraged by the Basel Accords (Flores, Bónson-Ponte, & Escobar-Rodríguez, 2006; Nilsson & Öhman, 2012).

The increased use of information systems has affected bank lending. Studies have found that banks began to use computer software for bank lending in the late 1980s (Kumra, Stein, & Assersohn, 2006). Such information systems can be used for loan origination (Sangster, 1995). For example, bank employees can use computer software to quantify information about borrowers and produce various financial and accounting-based ratios (e.g., current ratios, capital ratios, inventory ratios, sales ratios, and net profit ratios). Information systems can also be used to support portfolio monitoring. For example, bank employees can use sophisticated processing capabilities provided by computers to manage the vast amount of information about diversification effects in credit portfolios. These capabilities mean that bank employees will make fewer errors when processing information about borrowers and aggregating that information within the hierarchy of bank organizations. As a result, top management can expect to efficiently receive signals about credit risks in loan portfolios.

Studies have found, however, that information systems may fail in “turbulent environments” (Hedberg & Jönsson, 1978). A common failure is that these systems do not reflect the impact of emerging and evolving events (Hopwood, 2009a; Hubbard, 2009). In bank lending, the information about borrowers’ repayment behaviour retrieved from portfolio monitoring
exercises (e.g., internal ratings) may not be sufficiently up to date for loan origination purposes (Rebonato, 2010).

As another indication of changes in the banking industry, banks have been forced to cut their prices and reduce services involving personalized interactions with customers (DeYoung, 2010). For example, between 1970 and the mid-00s, the number of bank branches in Sweden declined from 4500 to 2000 (The Swedish Bankers Association, 2016). Moreover, after the deregulations of the 1980s, banks strove to achieve higher sales volumes and expanded their businesses into new product areas and markets (DeYoung, 2010). Nowadays, banks sell insurance products to their customers and give advice on savings and pension investments (DeYoung & Roland, 2001; Wahlberg, Öhman, & Strandberg, 2016). It is also common for banks to offer international banking services to their customers. Since the 1990s, numerous new Swedish and foreign banks have established businesses in Sweden, offering both standard and niche services (Engwall, Marquardt, Pedersen, & Tschoegl, 2001). Swedish banks have also opened branch offices in neighbouring countries, and in developing as well as emerging markets (Hadjikhani, Pajuvirta, & Thilenius, 2012) and, among other things, lent money to SMEs in these countries (Mauritzon, 2009).

However, the economic conditions for international banking changed with the GFC, as significantly diminished capital flows forced banks to withdraw from novel product areas and international markets (Cetorelli & Goldberg, 2011). Moreover, the period after the GFC has seen an emphasis on the enforcement of existing banking laws and the introduction of various additional banking laws, as previously mentioned. This so-called reregulation has dampened banks’ innovativeness and reduced their room to expand their lending business (Engzell-Larsson, 2016).

2.4 Bank lending

In this section, I present bank lending-related issues previously treated in the literature. First, I present the various bank risks that the literature distinguishes. In reviewing the literature, I observed that it also distinguishes among tasks involved in the practice of bank lending, including loan origination and portfolio monitoring. Second, the literature indicates that, when performing these tasks, banks use information and demand collateral. In this regard, the literature recognizes that information can have different qualities and that collateral can be sourced in various ways. I accordingly present previous research findings regarding the various ways in which banks can obtain information and collateral. This is followed
by two subsections treating bank lending to financial institutions and SMEs, respectively. In each subsection, I present previous research findings regarding information types and collateral. Each subsection ends by indicating the potential impact of a banking crisis on each type of bank lending.

2.4.1 Various types of bank risks

Bank risks are a direct result of bank businesses. According to an overview by Kuritzkes and Schuermann (2010), bank risks can be categorized as financial risk and non-financial risk. The financial risk group includes credit risk, which is the possibility of losses due to default on a financial contract for a loan. Because this thesis focuses on bank lending, credit risk will frequently be referred to.

Other financial risks, such as liquidity risk, market risk, and structural interest rate risk, will occasionally be referred to. Liquidity risk is the possibility that a bank’s creditors (e.g., financial institutions) may be unwilling to extend or renew credit to the bank, causing a lack of money for running operations. Market risk is the possibility of losses due to movements in market prices, particularly in interest rates, equities, and foreign currencies. Structural interest rate risk is the possibility of losses due to poor asset/liability management.

The non-financial risk group also includes various types of bank risks. A well-known type of non-financial risk is operational risk, which is the possibility of direct or indirect losses resulting from inadequate or failed internal processes, people, and systems or from external events (e.g., flooding). Another example of a non-financial risk is business risk, which is the residual earnings volatility when the other bank risk types are accounted for. These bank risks will also be referred to here.

2.4.2 Tasks and procedures in bank lending

Bank lending research distinguishes among tasks and procedures in credit operations. Two well-known tasks are loan origination and portfolio monitoring (Lee & Sharpe, 2009). Loan origination is the process whereby bank employees assess and evaluate the creditworthiness of potential borrowers before granting them loans (Santomero, 1997). Portfolio monitoring includes several processes to avoid and reduce credit risk (Buston, 2015; Cebenoyan & Strahan, 2004). For example, bank employees monitor ongoing events and take into account events that may materialize in the future, avoiding borrowers whose incentives to fulfil repayment
obligations may be negatively impacted by these events (Lee & Sharpe, 2009; Santomero, 1997). Regarding portfolio monitoring, bank employees can reduce credit risk in loan portfolios by securitizing all or part of loan portfolios and by acquiring other banks’ securitized loans on the financial markets (Buston, 2015; Jobst, 2006).

Research identifies two errors in loan origination. Bank employees may classify borrowers as non-creditworthy when they actually are creditworthy, in what is popularly called a type-I error (Stiglitz & Weiss, 1981). When bank employees classify a borrower as non-creditworthy, credit is not granted. Bank employees may also classify borrowers as creditworthy who are eventually found to be non-creditworthy, in what is popularly called a type-II error. This normally results in credit losses. According to Öhman, Nilsson, and Tagesson (2015), bank employees tend to concentrate on avoiding type-II errors over avoiding making type-I errors, i.e., avoiding credit losses seems more important than improving profit opportunities.

Two loan origination and portfolio monitoring procedures are 1) gathering and assessing diverse sets of information and 2) requesting collateral. In bank lending studies, researchers typically categorize information as hard and soft (Sutcliffe & McNamara, 2001). Hard information is “constructed in such a way that it is difficult for people to disagree” with it (Ijiri, 1975). Such information can be obtained from the bank itself, for example, through observing bank account activities, other financial service usage, and internal ratings. Hard information can also be obtained directly from the borrower, for example, by asking for a firm’s financial reports, and indirectly from third parties, such as credit rating agencies. Coffee (2006, p. 2) commented that such agencies act somewhat like auditors, serving as professionals who are “positioned so as to be able to prevent wrongdoing by withholding the necessary cooperation or consent”.

There are several reasons for the superiority of hard information when determining bank lending. Ijiri (1975) claimed that it is important for the bank that the borrower be able to account for how money is earned and how it is spent. Moreover, because credit rationing and pricing rely on estimates, such as net present value, the use of hard information provides the bank an

As mentioned, the Basel Accords expect banks to use internal ratings, which express the probability of borrower default using standardized signs and symbols, for example, 1–16. Because they feature numbers, internal ratings are considered hard information (Jacobson et al., 2006).
efficient way to offer credit at a competitive price (Black & Scholes, 1973). Moreover, like transacting counterparties, the bank and the borrower need to consider the enforceability of commitments stipulated in contracts and verifiability by third parties (Vosselman & van der Meer-Kooistra, 2009). Hard information suits banks that make intensive use of information systems and banks that allocate the decision authority regarding loan origination to an upper level, such as centralized banks (J. C. Stein, 2002).

In contrast, soft information is non-quantifiable and relationship based (Berger & Udell, 2002). It can be obtained privately from the borrower, for example, by inquiring about managerial competences, leadership strengths and weaknesses, and ability to handle business adversity (Boot, 2000; Ogura & Uchida, 2014). Soft information can also be obtained from relationships with enterprise owners, who may or may not be directly involved in the day-to-day business of the firm (Bruns & Fletcher, 2008; Schuppe, 1999; F. Wilson et al., 2007). Moreover, soft information can be obtained through social relationships and interactions with persons representing suppliers, customers, the surrounding community, and credit circles. Finally, such information can be found in national newspapers and/or trade journals (Galaskiewicz & Wasserman, 1989; Westphal et al., 2001). According to Ogura and Uchida (2014), soft information is usually collected by loan officers at bank branches. As previously noted, also top bank managers, by their involvement in various settings (e.g., company boards), can locate soft information about borrowers.

Arguments are made for the superiority of soft information when determining bank lending. As Berger and Udell (1998) argue, reliance on soft information is important in order to reduce borrower opaqueness. People representing suppliers, customers, and the surrounding community could potentially address critical and structural changes relevant to the borrower’s creditworthiness (Boot, 2000). Uzzi (1999, pp. 481–482) emphasized the criticality of soft information because “the embeddedness of commercial transactions in social attachments and networks affects personal dealings”. Moreover, soft information suits banks in which decision authority regarding loan origination resides at a lower level of the bank organizational hierarchy (J. C. Stein, 2002).

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27 Competitive pricing has several advantages for the business of bank lending, such as increased credit volumes, increased lending to relatively opaque and risky borrowers, increased lending in low-income areas, increased lending over greater distances, and increased loan maturities (Berger & Frame, 2007).
Collateral comprises assets, which can be obtained in various ways, that the borrower pledges as security for bank loans. These assets can be business related, such as liens on accounts receivable (e.g., factoring), inventories, or fixed assets (e.g., leasing). Collateral can also be personally related to the owner of the firm seeking credit, for example, private assets (Bester, 1994; Voordeckers & Steijvers, 2006). The smaller the company, the less strict the separation between the business and the personal risk associated with the borrower (Voordeckers & Steijvers, 2006). Bank employees accrue several benefits from requesting collateral, such as the reduction of information asymmetry (Bester, 1994) and reduced agency problems associated with borrower behaviours and incentives regarding repayment (Stiglitz & Weiss, 1981). For the bank, requests for collateral can imply less exposure to credit losses (J. H. Scott, 1977). As presented below, the reliance on collateral can vary greatly as far as interbank lending and SME lending are concerned.

2.4.3 Interbank lending

Bank lending to financial institutions (i.e., interbank lending) has been observed ever since the fourteenth-century foundation of the first family-run banks in Italy (e.g., the Medici Bank) and the establishment of the Goldsmith banks in the UK in the seventeenth century (de Roover, 1946; Jönsson, 2016; Quinn, 1997). According to Lockhart (1921), these early observations indicate the existence of a secret clearing system among banks only. With increased international trade, liberalization, and the integration of financial and capital markets (Moshirian & Bishop, 1997; Simpson, 2010), interbank lending has emerged as a critical channel for bank funding (Beaupain & Durre, 2008; Demiralp, Preslopsky, & Whitesell, 2006; Huertas, 2011; King, 2008; Popov & Ongena, 2011).

Money channelled between banks can be used to cover shortages in settlements and in netting daily trades between financial institutions and long-term investments (Kahn & Roberds, 1998; Prati, Bartolini, & Bertola, 2003). Interbank loans can be important to different extents to banks of different sizes. DeYoung (2010) reported that a typical large bank in the USA supports about 7.85 per cent of its assets with funding through interbank loans, while a typical small bank supports almost 50 per cent of its assets with such short-term funding. This suggests that small banks are much more dependent on interbank lending than are large banks.

Statistics from various countries (e.g., The American Bankers Association, 2013) indicate that interbank loans can be more or less important for funding banks in different parts of the world. According to Statistics Sweden (2016),
large Swedish banks fund approximately half of their operations through short-term deposits. Financial institutions account for 40 per cent and non-financial institutions (e.g., households) for 60 per cent of this funding. The other half of large Swedish banks' funding is obtained via various long-term capital and credit market instruments, such as bonds and derivatives. These instruments can be issued and purchased in both national and international capital markets as well as in financial markets (Greenbaum & Thakor, 1987; Huertas, 2010; Jobst, 2006).

For bank lending tasks such as loan origination, research indicates that lenders can obtain hard information from financial markets (e.g., stock prices), credit ratings, accounting-based sources (e.g., financial reports), and other sources (e.g., market analysts' reports) (Curry, Fissel, & Hanweck, 2008; Furfine, 2001a; Magnan & Markarian, 2011; Persson & Blåvarg, 2003). However, research records of the use of soft information in interbank lending are less obvious in the literature. At the same time, it can be noted that financial institutions are complex and opaque in their organizational structure, presenting their creditors and lenders (e.g., other financial institutions) with the problem of information asymmetry. As a result, financial institutions are not monitored by the lender alone (Heider & Hoerova, 2009; King, 2008). The transactions of financial institutions are also monitored by several other parties, such as indirect counterparties, which offer peer monitoring (Duff & Einig, 2009; Liedorp, Medema, Koetter, Koning, & van Lelyveld, 2010; Persson & Blåvarg, 2003), credit rating agencies (Nakamura & Roszbach, 2010), and central banks (Furfine, 2001b).

Interbank lending is not typically secured by collateral. It can be difficult to find proportionate assets to pledge because of the short durations of interbank loans (e.g., overnight) and the colossal amounts of money that these loans involve (L. Allen, Peristiani, & Saunders, 1989; King, 2008). Before the GFC, if collateral was required, it was requested in fairly subtle ways (Bernard & Bisignano, 2000). Since the regulatory enforcement in the aftermath of the GFC, however, banks have had to be more explicit about their requirements for collateral from financial institutions (Prorokowski, 2014).

Studies indicate that most transactions between financial institutions for the purpose of interbank lending are conducted repeatedly on a one-to-one basis, and that fewer transactions are made through brokers (Cocco, Gomes, & Martins, 2009). Banking researchers who have analysed transaction data

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28 “Short term” refers to funding needs for up to one year and “long term” to funding needs for more than one year.
available from capital markets and central banks hold that banks receive deposits from financial institutions with which they have reached formal business partnership agreements. In addition, banks informally invest in capital and credit market instruments (e.g., bonds) originated by other financial institutions with which they have prior relationships, in what are characterized as network relationships (Craig, Fecht, & Tümer-Alkan, 2015). According to Mayer (1976, p. 248), these network relationships can be characterized as “stable, long-standing and buttressed”.

Transacting counterparties in any market are highly dependent on the performance of other organizations (Håkansson, Kraus, & Lind, 2010). As argued by Ouchi (1980), three control mechanisms are available for such organizations: market, bureaucracy, and clan. These three ideal types of control offer different opportunities for minimizing costs in transactions and can coexist concurrently in any inter-organizational setting (e.g., networks), replacing one other in times of crisis (Ouchi, 1979). The market achieves control via competition and price, i.e., the informational requirement. A bureaucracy exerts control by exercising power and legitimate authority, while contracts fulfil the informational requirements. In a clan, control is not achieved by explicit contracts as in a bureaucracy; instead, the normative requirement in a clan is shared values and beliefs, which involve a “deep level of common agreement between members on what constitutes proper behavior, and it requires a high level of commitment on the part of each individual to those socially prescribed behaviors” (Ouchi, 1979, p. 838).

Ouchi (1980) borrowed the term “clan” from Durkheim (2014) who, in his studies of religions in pagan societies, found that forces can at times unite people who share the same thoughts, making them participants in common actions. Such events excite the participants at the individual level and unify them at the group level (i.e., collective effectiveness). In a clan, the assumption is that the clan members have functions necessary to one another, so that members generally feel group solidarity (Ouchi, 1980). One way to argue for the applicability of the clan concept and the associated solidarity to the present context is to refer to research findings on interbank lending. These banking researchers have found that network relationships in the capital markets are critical for absorbing liquidity shocks emerging during credit crunches, to the extent that interbank counterparties try to maintain transactions even during a banking crisis, for example, due to the frequent transaction settlement and netting needs between banks (Furfine, 2002).

Shared values and beliefs can facilitate trust between transacting counterparties at the relational level. Shared values and beliefs can also
facilitate trust at the institutional level or with external norm-setting institutions that operate outside the immediate transaction (Barbalet, 2009; Ouchi, 1980; Simmel, 1950; van der Meer-Kooistra & Vosselman, 2000). Banking researchers have found that banking laws impose obligations, such as decentralized liquidity allocation, on interbank lending so as to safeguard the financial stability of nations (King, 2008). In return, central banks – a type of external norm-setting institution – act as lenders of last resort in times of liquidity shock caused, for example, by credit crunches (Ratnovski, 2009).

The credit crunch that appeared during the GFC had a negative impact on interbank lending. Figure 3 shows the interbank lending of Swedish banks after the announcement of the Lehman Brothers’ default in September 2008. The figure illustrates how interbank lending to domestic banks (the upper line) and foreign banks (the lower line) was negatively affected by this default, with foreign banks taking a proportionally larger hit. The figure presents the loan amounts in SEK millions, measured on a monthly basis from August to December 2008 (Statistics Sweden, 2015).

Banks that are dependent on short-term funding provided by the interbank market are exposed to various bank risks in times of credit crunch (Rajan, 2006). For example, a bank in need of short-term funding faces liquidity risk because locating interbank counterparties for settlements becomes more difficult. Other bank risks can appear as financial institutions participating in the interbank market increase the interest rates on interbank loans (Brighi, 2002; Gabrieli, 2009; Ji & In, 2010; Munkhammar, 2011; Stinespring & Kench, 2009). For example, the London Interbank Offer Rate (LIBOR) surged significantly when Lehman Brothers filed for bankruptcy (Barajas, Chami, Cosimano, & Hakura, 2010; Ji & In, 2010; Lothian, 2009). Consequently, a bank in need of short-term money had to pay a higher cost of capital for funding its operations through the interbank market. Moreover, the failure of a financial institution to return borrowed money (e.g., due to a default) can cause credit risk, business risk, and operational risk for other financial institutions. The appearance of these bank risks can eventually destabilize the financial stability of countries and cause market risk for banks (Craig et al., 2015; King, 2008). This was the case when Lehman Brothers filed for bankruptcy (Swedberg, 2010).
Figure 3: Interbank lending in Sweden from August to December 2008.
2.4.4 SME lending

It is widely acknowledged that SMEs are important enterprises. Statistics indicate that SMEs represent the dominant form of enterprise, contributing greatly to GDP and employing millions of people (T. Beck & Demirgüç-Kunt, 2006; McCann & Ortega-Argilés, 2016). It is also acknowledged that SMEs need money to start up, fund short- and intermediate-term shortfalls in working capital, and for investments in fixed assets and business expansion (Deakins, Whittam, & Wyper, 2010; Nofsinger & Wang, 2011). The reliance on banks is particularly pronounced for start-ups and for firms in their first year of operation (Robb & Robinson, 2012).

According to Robb and Robinson (2012), firms prefer to use internal funds rather than external financing to fund working capital and investments. However, smaller and younger firms are normally financially more constrained in generating internal funding than are larger and older ones (Hyytinen & Pajarinen, 2008). Hence, many SMEs rely greatly on external financing (Berger, Cerqueiro, & Penas, 2015). According to a US-based survey by the Small Business Administration (2015), external financing is sourced from banks (51 per cent), finance companies (36 per cent), mezzanine and buyouts (9 per cent), business angels (2 per cent), and venture capitalists (2 per cent).

Banking researchers have described SMEs’ opaqueness and its likely causes. For example, financial records and documentation may not be up to date or complete due to SMEs’ generally limited operating histories (Altman & Sabato, 2005; Berger & Udell, 1998; Robb & Robinson, 2012). SMEs’ opaqueness presents banks with an information asymmetry problem, suggesting that the borrowers may have more and better information than do the banks (Akerlof, 1970).

The results of bank lending research point in different directions regarding the information used by banks for SME lending. On one hand, some banking researchers (e.g., Trönnberg & Hemlin, 2014) have found that banks rely greatly on hard information when originating SME loans. Some studies (e.g., Berry & Robertson, 2006) have singled out particular types of such information, such as cash flow statements. On the other hand, other banking researchers (e.g., Chollet, Géraudel, & Mothe, 2014; Hill & Scott, 2015) have also argued for the importance of soft information for SME lending, while still others (e.g., Bartoli, Ferri, Murro, & Rotondi, 2013) have found that hard and soft information are complementary.

Bank lending research has also found that the use of collateral can be fairly extensive in SME lending (Berger & Udell, 1990). T. Beck, Behr, and Güttler (2009) found that 96 per cent of the SME loans examined were
secured by collateral. According to Manove, Padilla, and Pagano (2001), extensive reliance on collateral might negatively affect SMEs’ efficient access to external funding and weaken banks’ incentives to monitor borrowers’ repayment behaviour through information gathering and assessment, because of the substitution effect of collateral.

Bank lending research indicates that SME lending is traditionally associated with small banks. Small banks can operate locally, thereby reaping advantages from their easy access to soft information. Small banks can, through their local presence, actively monitor the local business environment, for example, through frequent on-site visits (Berger & Udell, 1998).

Over time, SME lending has also come to be associated with large banks. There are reports that some large banks see advantages in participating in SME loan offerings (Berger & Black, 2011; DeYoung, Glennon, & Nigro, 2008), and have therefore created and introduced new loan products especially designed for SMEs (Uchida, Udell, & Watanabe, 2008). However, given that large banks normally have relatively poor local market presence in rural areas, SMEs have not been their preferred client category, as reasoned by Berger, Demsetz, and Strahan (1999, p. 166):

> It may be scope inefficient for one institution to produce outputs which may require implementation of quite different policies and procedures. These diseconomies may be most likely to arise in providing services to informationally opaque small businesses for whom intimate knowledge of the small business, its owner and its local market gained over time through a relationship with the financial institution is important.

It is further observed that SMEs face challenges in accessing bank loans in concentrated markets. In Sweden, the four large commercial and domestic banks dominate the loan markets, as reported by the Swedish Bankers Association (2016). Because few banks control the loan markets, the national banking industry in Sweden can be characterized as concentrated, as is also the case in other developed countries, such as Switzerland (Neuberger et al., 2006), Spain (Delgado, Salas, & Saurina, 2007), and the USA (Berger et al., 2015). In concentrated markets, the competition between banks is less obvious than in competitive markets (Barbosa, de Paula Rocha, & Salazar, 2015; Bikker & Haaf, 2002). Consequently, access to credit can be limited because of relatively high financing barriers for borrowers (T. Beck,

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29 The examples are loans collateralized by inventory, non-tangible assets, and accounts receivable.
Demirgüç-Kunt, & Maksimovic, 2004). This may especially work against SMEs seeking credit (Bongini, Di Battista, & Zavarrone, 2007). However, other reports indicate that a higher percentage of young firms are financed in more concentrated markets than in less concentrated markets (Petersen & Rajan, 1994).

Finally, countries that undergo lending booms have been identified as creating fewer problems for SMEs in accessing external funds than countries that undergo banking crises (Kraft & Jankov, 2005). Studies have found that the GFC affected SME lending as banks withdrew from markets and reduced their lending. This has been confirmed by later statistics that indicate a 30–40 per cent drop in SME lending in several European countries (Jiménez, Ongena, Peydro, & Salas, 2012).

Figure 4 illustrates a diminishing trend in bank lending to companies, including SMEs, in Sweden shortly after the Lehman Brothers' default. The figure presents the loan amounts in SEK millions on a monthly basis from August 2008 to December 2010 (Statistics Sweden, 2015).

Given that such a period after a banking crisis implies reduced credit volumes in general, research has specifically found that lack of access to internal funds and credit to finance working capital may subject SMEs to liquidity risk and may also cause them to forego investments (Armstrong, Craig, Jackson, & Thomson, 2014; Riding, Madill, & Haines, 2007; Udell, 2011; Varum & Rocha, 2013). SMEs run additional financial risks as banks normally increase interest rates on loans in such times (Gambacorta & Mistrulli, 2014). Statistics confirm that after such periods of reduced credit volumes, SMEs tend to default at higher rates and that governments and other institutions tend to introduce incentives to stimulate SME lending, such as loan guarantee programmes (T. Beck, 2008; T. Beck & Demirgüç-Kunt, 2006; Bennett, Güntay, & Unal, 2015).

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30 Lending booms can be identified through changes in credit/GDP ratios.
Figure 4: Company lending in Sweden from August 2008 to December 2010.
2.5 Bank employees

In this section, the first subsection is dedicated to previous research findings regarding strategic-level bank employees and their responsibilities, which have expanded with the introduction of the Basel Accords. In this subsection, I also present a framework for analysing top bank managers’ use of power. The next subsection presents previous research findings regarding bank loan officers’ tasks and responsibilities, which have been affected by changes in the banking industry, including the introduction of the Basel Accords. I also present the theoretical framework used for analysing bank loan officer cognition.

2.5.1 Bank employees at the strategic level

Strategic-level employees can be found across bank organizational hierarchies. At the top of hierarchies, bank CEOs are known for submitting to owners (cf. Pollard, 1965) and for monitoring the business in the owners’ absence (cf. Barnard, 1968). As previously mentioned, because of banks’ organizational structure, top managers mainly concentrate on business strategies (Sutcliffe & McNamara, 2001), acting as representatives towards both the external environment and the internal organization (cf. Tengblad, 2002). Inside bank hierarchies, CEOs and other top managers are assigned responsibilities for planning and coordinating tasks, and for supervising and monitoring performance (cf. Argyris, 1954; Fayol, 1990; Kipping & Westerhuis, 2014; Mahoney, Jerdee, & Carroll, 1965; Otley, 1980).

With the Basel Accords, top bank managers’ responsibilities have expanded. Survey studies have found that top bank managers perceive that, in practice, they are responsible for setting the tone when implementing standards (Beasley et al., 2005). These additional responsibilities also include active decision making. Regarding bank lending, the top managers’ responsibility for active decision making implies that they are in a position to independently assess borrowers’ creditworthiness at loan origination, regardless of who gathered the relevant information in the first place. Moreover, these managers should also in a position to participate in decision making about the diversification of potential credit risk in loan portfolios, and to act on signals of credit risk in loan portfolios. In this way, top bank managers are involved in bank lending tasks, putting such bank employees in charge of managing bank risks (cf. Rogers, 2002; Tucker, 2008).

Within the scope of top bank managers’ responsibilities, various control purposes can be identified (cf. Mintzberg, 1980). For example, top managers
minimize problems in information flows before decision making (cf. Simon, 1947/1997) and maintain hierarchies due to size and complexity issues (cf. Chandler, 1962). It is important to achieve these control purposes in the interests of “efficiency seeking” (cf. Fama & Jensen, 1983), maintaining established command structures and elite interests (cf. Littler & Salaman, 1984), and maintaining the traditions that are seldom reflected on and/or are unspoken (Zucker, 1977). A topical control purpose is for management to be in charge of certain projects (Alvesson & Willmott, 2012), such as implementing the Basel Accords. This is because of a shift from management as concerned with disciplining an unruly workforce (cf. Argyris, 1954) to a function that can adapt pre-programmed forms of behaviour. According to Power (2004a), risk management is intended to induce risk-averse behaviour in organizations. For example, in bank lending, risk aversion is connected with bank employees’ avoidance of non-creditworthy borrowers, which could potentially reduce credit losses. According to Jönsson (2014), top bank managers can be said to have been assigned responsibilities with contradictory control purposes. For example, critical scholars (e.g., Power, 2009) have noted that managers may invest in compliance with standards for window-dressing purposes only.

Bank employees at the strategic level can also be found across functional departments. Studies refer to group risk control offices (Giovannoni et al., 2016; Soin & Scheytt, 2008). M. Hall et al. (2015) have found that chief risk officers (CROs) take the lead in group risk control offices, preferably located at bank headquarters. Moreover, CROs are assigned various responsibilities, including compliance with regulatory requirements, risk modelling, controlling operations, and advising the board and executive management. In addition, CROs hire, develop, and supervise specialized management accountants who are assigned expert roles and are expected to provide independent information to strategic- and operational-level bank employees (Giovannoni et al., 2016). These management accountants are better known as risk experts, and are occupied with the measurement and quantification of bank risks (Basel Committee on Banking Supervision, 2006; Blomberg, 2016; Mikes, 2011; Power, 2004a; Wahlström, 2006).

With the emergence of group risk control offices, top bank management is not limited by the surveillance capabilities of bank loan officers and their time constraints when it comes to monitoring borrower behaviour (Lee & Sharpe, 2009). Management can also rely on signals from risk experts, for example, obtained through reports on rating migrations (McNeil, Frey, & Embrechts, 2015). Through access to such sophisticated information, top management can achieve coordination between loan origination and
portfolio monitoring; this is critical because these tasks are somewhat related, in that the origination of many bad loans could lead to large credit losses and a demand for more monitoring. However, research findings point to conflicts of interest between top bank managers and risk experts (Mikes, 2009, 2011; Wahlström, 2006, 2009b). Conflicts of interest, as an example of the (un)intended production of risk by the organization itself, may result in bank employees at different organizational levels not realizing the expected benefits of employing such specialized management accountants.

As mentioned, the Basel Accords are intended to expand top bank managers’ responsibilities and, as such, address the idea of power. For example, through active decision making, top management can obtain sufficient power to have the entire body of employees making strategic moves simultaneously. The bank can thereby enter or exit particular lines of businesses (e.g., auto leasing) in response to changes in the economy. By making such strategic moves, banks could avoid losses and target revenues efficiently. According to Foucault (1980), power represents the ability to influence reality (in this case, risk), while C. Huber and Scheytt (2013) reason that power can influence risk, but will not deal with risk.

According to Clegg (1989), metaphorically, three circuits of power, i.e., episodic, social, and systemic, are required to facilitate the adoption and institutionalization of any innovation, change, or programme (e.g., the Basel Accords). Power in its simplest form (i.e., episodic) is the idea that A makes B do something that B would otherwise not do (cf. Dahl, 1957; Lukes, 1974). While this one-way conception exists, there is the issue of “resistance” that B may reject the influence of A (Barbalet, 1985). Clegg (1989), with reference to Lockwood (1964), suggests that in more complex setups, power has both dispositional capacity and facilitative capacity. Dispositional capacity provides conditions for social integration through fixing or re-fixing relations of meaning and membership. As illustrated below, meaning is fixed to privileged membership categories that are aligned with the meanings:

A traffic police officer on a busy street ... has the power to stop the traffic, whether he actually does it or not. The dispositional power of the police officer is embedded in the shared norms that bind the institutions of traffic regulations and the police in an urban society. (Silva & Backhouse, 2003, p. 299)

The facilitative capacity provides material conditions of techniques, production, and discipline, which Clegg (1989) terms system integration. This capacity is concerned with the empowerment and disempowerment of
agencies’ capabilities to ensure the production and achievement of shared objectives:

In an organization, managers (As) could draw on different techniques to discipline employees (Bs) whose conduct is regarded as discordant to organizational objectives. In this situation, A’s actions are legitimized by her standing conditions and facilitated by the techniques available to her. (Silva & Backhouse, 2003, p. 302)

C. Huber and Scheytt (2013) argue that the GFC left us with the notion that risk is more comprehensive than power is. Moreover, the Basel Accords, as an example of innovation in control and in how information is gathered and used, ultimately require the transformation of the rules that condition social and system integration. As Clegg (1989) argues, the extent to which receptiveness to exogenous change can be expected depends greatly on the interactions between the exogenous influence of innovations (e.g., the Basel Accords) and the endogenous unit in question (e.g., practice).

The use of Clegg’s (1989) framework to inform the research findings presented here resonates with Foucault’s (1980) understanding that we would expect the coexistence of different forms of power. It can be noted that studies of power are complex and require particular considerations. For example, Foucault (1982, p. 220) reasons that studies of power should consider

that “the other” (the one over whom power is exercised) be thoroughly recognized and maintained to the very end as a person who acts; and that, faced with a relation of power, a whole field of responses, reactions, results, and possible inventions may open up. (Cited in Murray Li, 2007)

To address Foucault’s (1982) observation regarding such considerations, this thesis recognizes that the attempts of top bank managers to enact their expanded responsibility imply that such managers have become accountable to regulators and at the same time powerful over bank employees at the operational level. As we all know, regulators enjoy the legitimate authority to enact banking laws through a command-and-control strategy (Gray & Hamilton, 2006). Banking laws are typically imposed on judicially and economically independent entities and are intended to regulate their business activities. For example, the Gramm–Leach–Bliley Act of 1999 limited US banks to a range of business activities, such as securities underwriting, securities dealing, and insurance (DeYoung, 2010); in this way, regulators set the agenda for top bank managers (Hambrick & Abrahamson, 1995). At the same time, by having bank loan officers conduct
their assessments according to predetermined standards, power is removed from these operational-level employees and transferred to top bank managers, who have implemented the standards. Top bank managers thereby become even more powerful employees.

2.5.2 Bank employees at the operational level

Bank loan officers are known for being in charge of gathering and assessing information about borrowers and of setting requirements for collateral at branch offices. However, structural changes in the banking industry, accompanied by centralization and the use of information systems, have come to affect bank loan officers’ tasks and responsibilities. Studies have found that bank loan officers in centralized banks could find themselves involved in less personal communication with borrowers (Cavalluzzo et al., 2002; Moro & Fink, 2013). For example, it has been found that intuition is downplayed: intuition or “gut feelings” are, to an extent, based on personal relationships and can partially compensate for lack of information (Jankowicz & Hisrich, 1987).

The use of information systems that emphasize hard information has resulted in less emphasis on bank loan officers’ capabilities and has reduced their discretion (Nilsson & Öhman, 2012). Comparative studies have examined different groups of loan officers, focusing on junior bank loan officers’ and senior bank employees’ information processing (Andersson, 2004; Rodgers, 1999). Studies have also included additional factors, such as bank loan officers’ education, experience, and tenure (Bruns, Holland, Shepherd, & Wiklund, 2008). However, these studies have not been successful in identifying the significance of bank loan officers’ capabilities for bank lending decisions.

Other studies have examined whether bank employees’ bank lending performance is determined by their gender.31 The focus on gender is relevant as Billing and Alvesson (1989) suggest that the modernization of society and transformation of the labour market to include more women in wage labour have stimulated general interest in women in working life and employment.

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31 It should be mentioned that gender is a different phenomenon from sex, especially in the context of work and employment (Ashe & Treanor, 2011; Ely, 1995; Mirchandani, 1999; Rubin, 1975). Moreover, gender can be viewed from various perspectives. This thesis views bank loan officers’ gender as a situated rather than a static phenomenon (Gatens, 2003). This perspective is relevant, as this thesis views bank risk management practices as contextual.
These developments have been observed in various industrial settings; for example, the audit industry has seen the introduction of women auditors into the profession (Wallerstedt & Öhman, 2012).

Management control systems (MCSs) such as risk management provide planning, governance, coordination, and control on the basis of command and control (Bhimani, 2009; Billing & Alvesson, 1989). However, as noted by Hermansson (2012), risk management affects women and men differently. Literature reviews (e.g., Byrnes, Miller, & Schafer, 1999; Zeffane, 2015) often come across findings that females are more risk averse than males. However, the literature review by Bellucci, Borisov, and Zazzaro (2011) found that the issue of gendered risk aversion regarding bank lending is not settled, and that more studies are required. Female bank loan officers are found to follow the rules more strictly than do their male counterparts (Carter, Shaw, Lam, & Wilson, 2007). At the same time, studies such as that of F. Wilson et al. (2007) have found that female bank loan officers may be better positioned to understand certain segments of borrowers. Not least, female loan officers can better imagine female entrepreneurs’ situations, which may be important when assessing such borrowers’ creditworthiness. Studies have also found that female and male risk aversion manifests itself differently in evolving and emerging situations (Agarwal & Wang, 2009).

Given the changes within the banking industry, bank employees are required to translate loan origination and portfolio monitoring processes into measurement and quantification terms. Via such translations, the Basel Accords facilitate the use of risk-based measures (e.g., internal ratings). As mentioned in subsection 2.2.2, internal ratings determine a bank’s capital adequacy targets and restrict bank employees’ decision making regarding bank loans. It could thus be argued that the Basel Accords, through measurement and quantification, have affected bank loan officers’ cognition (cf. Rose, 1999), meaning the psychological processes through which they make sense of the world.

A relevant theoretical framework for studying cognition is personal construct theory. The fundamental postulate of Kelly’s (1955) personal construct theory is that a person’s processes are psychologically channelled by the ways in which he or she anticipates events. Kelly postulates that this is possible because everyone is an active construer of the world, like a scientist. Via efforts to construe the world, the person’s search for reality

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32 The clinical psychologist G. A. Kelly (1955) presented this theory in his two-volume *The Psychology of Personal Constructs*, to serve as guidelines for practitioners.
progressively approximates the universe based on anticipations of it and on
the realization of consequences. This construing is necessary in order to
make sense of the objects in the universe and of our interactions with them.

This theory represents an effort to psychologically understand the
structural features of the system of personal constructs (Kelly, 1955). A
personal construct system includes elements and constructs. An element is a
unit of reflection and meaning, such as an event, experience, object, or
person (Kelly, 1955). A construct represents the evaluative judgment one
makes of an event’s particular features and attributes, for example,
pleasantness. If it is relevant to the person, the articulation of evaluative
judgments provides an understanding of the person’s cognitive map
(Fransella, Bell, & Bannister, 2004). A person uses constructs as rules to
decide what should be done (Mischel, 1964) and to enable the person to
embark on a course of behaviour. These rules can be cultural, familial, and
scientific and represent competing alternatives for construing reality.
Accordingly, people exploit alternative rules because interpretations are
subject to revision or replacement (Kelly, 1955).

Kelly (1955) presents corollaries that he argues are basic to an
understanding of constructs. The construction corollary suggests that a
person anticipates events by construing their replications. The drive for
replication, Kelly (1955, pp. 49–50) argues, arises from people’s need to cope
with upcoming events in the world.

According to the individuality corollary, peoples’ constructions of events
are individual. For example, different bank employees may view the Basel
Accords differently based on their individual constructions of the
consequences of this standard for task performance.

According to the communality corollary, peoples’ constructions of events
also tend to rely on the constructions employed by others. This means that
construing can also be collective and based on shared meanings of events
(Adams-Webber, 1998). For example, the introduction of the Basel Accords
in a bank may feature shared meanings embedded in a unique context
comprising regulators, the banking industry, and the specific bank

33 According to Warren (2002), Kelly referred in two ways to personal construct
t theory as a theory: first, as a body of related problems or questions; second, in the
more formal sense as a logically interconnected set of confirmed hypotheses. The
latter implies that personal construct theory is propositional in nature and provides
testable propositions and hypotheses (Walker & Winter, 2007).
34 By construing, Kelly (1955, p. 50) means “placing an interpretation”. In
construing a replication, the person notes features of a series of elements that
characterize some of the elements but are particularly uncharacteristic of others.
organization. The shared meanings attributed to the Basel Accords can be understood in the way bank loan officers use similar constructions of their experiences.

The dichotomy corollary suggests that constructs are bipolar in nature. This implies that when a person experiences an event (i.e., element) for the first time, he or she might evaluate the experience of that event by using contrasting constructs (e.g., pleasant–unpleasant). A person can have several constructs, and the number of constructs in his or her personal construct system reflects the degree of complexity. A complex construing is considered superior in a complex situation (Crockett, 1982).

According to the range corollary, each of a person’s constructs is applicable within a certain range and scope of experiences as perceived by the user, i.e., within a “range of convenience”. This implies that every construct is limited in a sense.

The experience corollary suggests that when a person faces an event, he or she starts by anticipating its outcome, then experiences the event, acts, and evaluates the outcome of the event. Finally, he or she re-evaluates the predictions made, and makes revisions for sense-making purposes. In cases of mis-prediction, the person’s construing of the reality develops and changes.
3 Methodological considerations

3.1 Overview of research method
To provide the reader a logical sense of how this thesis progressed, the first row of Table 2 presents the headings “Research philosophy”, “Methodological choices”, “Research strategy”, “Data collection and analysis”, and “Research quality”, an analysis suggested by Saunders, Lewis, and Thornhill (2011). The second row in Table 2 gives an overview of the related research activities conducted and choices made. For example, the “Data collection and analysis” column details the activities and choices in the strategic-level studies, including semi-structured interviews, use of archival data, and interpretation. The activities conducted and choices made were based on my assumptions as to what constitutes pertinent research, and on the assumptions of the immediate research community as to what constitutes valid research. Table 2 also presents the subsections in this chapter, in which activities are described in detail and choices are justified.
<table>
<thead>
<tr>
<th>Research philosophy</th>
<th>Methodological choices</th>
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<tr>
<td>Critical realism</td>
<td>Mixed methods</td>
<td><strong>Strategic-level studies</strong>&lt;br&gt;Interviews with top managers and high-ranking officers at three large banks and several key banking industry institutions in Sweden&lt;br&gt;<strong>Operational-level studies</strong>&lt;br&gt;A repertory grid study including bank loan officers at one large Swedish bank</td>
<td><strong>Strategic-level studies</strong>&lt;br&gt;Semi-structured interviews&lt;br&gt;Archival data&lt;br&gt;Interpretation&lt;br&gt;<strong>Operational-level studies</strong>&lt;br&gt;Pre-studies&lt;br&gt;Pilot study&lt;br&gt;Main study&lt;br&gt;Retests&lt;br&gt;Focus group interview&lt;br&gt;Open-ended questions&lt;br&gt;Background questions&lt;br&gt;Principal component analysis&lt;br&gt;Seemingly unrelated regressions&lt;br&gt;Interpretation</td>
<td><strong>Strategic-level studies</strong>&lt;br&gt;Research partnerships&lt;br&gt;Communicative validity&lt;br&gt;Pragmatic validity&lt;br&gt;Triangulation of data&lt;br&gt;Field engagement&lt;br&gt;<strong>Operational-level studies</strong>&lt;br&gt;Research partnerships&lt;br&gt;Communicative validity&lt;br&gt;Triangulation of data&lt;br&gt;Interviewee checking</td>
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</tbody>
</table>
3.2 Research philosophy

Given the insights gained from the GFC and bank failures, Jönsson (2014) has suggested that researchers could benefit from considering their philosophical positioning. In the following, I briefly describe the basic principles of my research philosophy, positioning and justify its applicability to this thesis.

I subscribe to critical realism (Bhaskar, 2013), a philosophy primarily concerned with ontology, i.e., the assumptions one makes in order to understand the nature of reality or objects (Easterby-Smith, Thorpe, & Jackson, 2012). According to Fleetwood (2005), an object can exist without anyone observing, identifying, and constructing it. Moreover, actors can be knowledgeable about an object even though their knowledge is tacit, partly because it is impossible to know everything about an object. Moreover, the researcher’s identification of the object is shaped by theories and research interests. Sayer (2000) cited examples of objects, including economic activities, identities, institutions, kingship, wars, and discourses. Related to discourses, the critical realist position assumes that understandings of an object are mediated by the available discourses and by feedback from accessible aspects of the object. Risk management can be recognized as discourse, as argued by Reed (2000, p. 529):

Discourses – such as the quantitatively based discourses of financial audit, quality control and risk management – are now seen as the generative mechanisms through which new regulatory regimes “carried” out by rising expert groups – such as accountants, engineers and scientists – become established and legitimated in modern societies.

Because the goal of a critical realist is to develop understanding, access to the object entails bringing together components and forces (Sayer, 1992, 2000). According to Bhaskar (2013), such components and forces can consist of the researcher’s interpretations, people’s experiences (which here refer to bank employees’ perceptions and intentions), and the prevalent conditions for research. The prerequisite for combining components and forces that Sayer (2000, p. 19) suggests is that social systems are always open, usually complex, and messy.

The applicability of the critical realist position can be viewed in terms of its opportunities and limitations. In terms of opportunities, critical realism is a growing intellectual movement that has penetrated sub-disciplines in the

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35 According to Tschudi (2008), understanding roughly corresponds to getting to the bottom or intentional level.
social sciences such as management (or business administration), economics, and sociology (Modell, 2009; Sayer, 1992, 2000). In terms of limitations, McEvoy and Richards (2006, p. 69) stated:

For critical realists, the ultimate goal of research is not to identify generalizable laws (positivism) or to identify the lived experience or beliefs of social actors (interpretivism).

To elaborate on how the potential limitations impact this thesis, it is worth mentioning that the current debate on the nature of risk has yet to be settled, as noted by Kunreuther and Slovic (1996). Should risk be considered an objective (quantitative) or subjective (qualitative) phenomenon (Hansson, 2010)? The objectivist camp assumes that people deal with risk based on the rational selection of alternatives (i.e., with the most favourable rates of return and the lowest costs), risk reduction being a direct effect of the selections made (Edwards & Slovic, 1965; S. Kaplan & Garrick, 1981). In contrast, the subjectivist camp assumes that the ways people deal with risk involve complexities related to cognitive processes (e.g., heuristics) \(^{36}\) (Kahneman & Tversky, 1979) and embeddedness \(^{37}\) (Granovetter, 1985; Uzzi, 1999).

As indicated in section 2.1, advances in philosophical ideas (Bernstein, 1996), risk measurement (Renn, 1998), and internal control (Power, 2004b) favour the objectivist camp, which has, moreover, colonized finance (Jorion, 2009). According to MacKenzie (2009), measurement and quantification were at the heart of US monetary policy incentivizing banks to lend money to the household sector to finance mortgages, causing the GFC. The objectivist camp has also colonized the ways managers ought to deal with risk. According to Chua (1996), the general image of the manager is a figure who seeks efficiency based on precise measurement and who acts opportunistically, for example, to maximize executive compensation and shareholder value.

It is not my goal in this thesis to settle the debate on the ontology of risk. However, I do need to take account of these incongruent perspectives on risk, and to consider how a large-scale banking crisis such as the GFC potentially came to challenge the objectivist camp to some extent (Hubbard, 2009).

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\(^{36}\) People use heuristics (i.e., rules of thumb or automatic thinking) to make decisions quickly and efficiently, signifying that people are not rational decision makers (Tversky & Kahneman, 2000).

\(^{37}\) Dealing with risk in bank lending involves considerations of embeddedness in social settings (Granovetter, 1985).
To this end, the critical realist position permits one to take a middle course between these opposing perspectives on risk, which should be useful when studying how bank employees deal with risk at different organizational levels.

3.3 Methodological choices

3.3.1 Mixed methods

Recommendations for conducting research after the GFC included embracing field studies (R. S. Kaplan, 2011) and qualitative research methods (Modell & Humphrey, 2008) as well as seeking alternative plots (Czarniawska, 2011). With such recommendations in mind, a mixed-methods approach was chosen here.

The choice of a mixed-methods approach is aligned with my philosophical positioning, because the critical realist position assumes that multiple components interact to form understandings of the object (Bhaskar, 2003). Moreover, Tsoukas (1989) noted that the job of a critical realist researcher is to repeat speculations and enquiries in order to merge the real, actual, and empirical domains.38

Modell (2009) suggested that mixed methods have a long history in accounting and management control research. Because of their popularity, mixed-methods approaches are the subject of the Handbook of Mixed Methods in Social and Behavioural Research (Tashakkori & Teddlie, 2003) and the Journal of Mixed Methods Research. Moreover, mixed methods offer the possibility of activating a wide range of theories and combining qualitative and quantitative research methods in producing valid knowledge claims. This could provide opportunities for triangulation, i.e., the researcher combining multiple points of view to examine the same object (Denzin, 1978; H. W. Smith, 1975).

In the two following subsections, I present the mixed-method techniques used for data collection and data analysis: semi-structured interviews, focus group interviews, and finally the repertory grid technique (RGT). After that I describe the selection of banks.

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38 According to Tsoukas (1989, p. 553), the real domain is the domain in which generative mechanisms, existing independently of but capable of producing patterns of events, reside. The actual domain is the domain in which observed events or observed patterns of events occur. The empirical domain is the domain of experienced events.
3.3.2 Interviews

In conducting interviews, I selected the semi-structured and focus group interview techniques. According to Kvale (2008), an interview can be viewed as an exchange of views between two or more persons conversing about a theme of common interest. Moreover, interviews can be used to systematically obtain knowledge for the purpose of scientific work.

What especially motivated my choice of interviews was that they let the researcher access the object at both the factual and meaning levels (Kvale, 2008). Moreover, Czarniawska (2008) noted that interviews always provide material for studying the dominant discourse, as well as deviations from it. As noted, risk management can be considered a discourse heavily influenced by the objectivist camp, and practical challenges associated with the Basel Accords and similar standards motivate deviations from them.

While reviewing the available research methods, I recognized that interviews are common in risk management studies (e.g., Vinnari & Skærbæk, 2014; Woods, 2009) as well as bank risk management studies (e.g., Blomberg, 2016; Giovannoni et al., 2016; M. Hall et al., 2015; Mikes, 2009, 2011; Wahlström, 2006, 2009a, 2009b).

Interviews produce data that can be analysed qualitatively (Alvesson & Sköldberg, 2009). Such analysis “aims to provide an understanding of the way control structures and practices are implicated” (van der Meer-Kooistra & Vosselman, 2006, p. 235). This understanding can also capture the “unfolding of events at the level of a specific organization or organizational relationship” (van der Meer-Kooistra & Vosselman, 2006, p. 235).

By design, qualitative research methods are associated with validity and reliability issues (Creswell, 2003); in section 3.6, I return to actions taken to address these issues.\footnote{Here, it can be noted that validity and reliability are not especially relevant parameters of research quality in qualitative research (Parker, 2012). However, for simplicity, I use the same concepts when referring to the research quality of the strategic- and operational-level studies.}

Semi-structured interviews involve prepared questioning guided by themes, conducted in a consistent and systematic manner, and interposed with probes designed to elicit more elaborate responses (Qu & Dumay, 2011). In particular, the semi-structured interview technique offers flexibility and is capable of disclosing important and often hidden facets of human behaviour (e.g., perceptions).

A focus group interview includes groups of people interviewed together (Qu & Dumay, 2011). The objective of a focus group interview is to create a
forum in which people can discuss a topic of interest based on their perceptions. One advantage is that it allows the researcher to observe and record the voices of actors in their everyday lives, which could provide a broader understanding of reality and the object under investigation (Williams & Katz, 2001). A focus group interview can also be used to supplement and complement other methods.

3.3.3 The repertory grid technique

The RGT is based on Kelly’s (1955) personal construct theory. Various researchers (e.g., Walker & Winter, 2007; Wright, 2008) have pointed out several advantages of the RGT. First, RGT research can target large numbers of interviewees, which is useful for generalization purposes.40 Recent reviews (e.g., Bell, 2016; Saúl et al., 2012) provide overviews of the extent to which the RGT is applicable in studies of various empirical settings. However, the application of the RGT in bank lending studies using large numbers of interviewees is rarely observed (e.g., F. Wilson et al., 2007). Although few bank lending studies use the RGT, some studies have used large numbers of interviewees, such as the study by Öhman, Häckner, Jansson, and Tschudi (2006) targeting auditors and the study by Bellman and Öhman (2016) targeting property appraisers. These studies demonstrate that using the RGT and including large numbers of interviewees can yield interesting results about the cognitive structures of professionals.

Second, the RGT offers opportunities to collect varied data of contrasting natures. A basic approach to data collection in the RGT realm is the grid form, which consists of elements and constructs (Fransella et al., 2004). Kelly’s (1955, p. 46) fundamental postulate is that “a person’s processes are psychologically channelized by the ways in which he anticipates events”. Bell (2003, p. 95) clarified that “the ways are the constructs, and the events are the elements”. To complete a grid form, interviewees can be asked to use Likert-type scales (i.e., providing quantitative data).

Three, to analyse RGT-produced data, various quantitative research techniques can be used, such as principal component analysis and seemingly unrelated regressions (Fransella et al., 2004; Zellner, 1962). Such analyses are intended to measure how interviewees construe elements (Bell, 2003). The RGT also permits quantitative data to be revised and replaced using

40 Here, it can be noted that respondents and interviewees are terms that originate in quantitative and qualitative research methods, respectively (Silverman, 2006). For simplicity, I consequently use the term interviewees when referring to the people included in the studies.
qualitative research techniques (Wright, 2004). According to Kelly (1955), it is necessary to remain open to alternative construing by individuals and to the influence of groups on individuals.

### 3.3.4 Selection of banks

As mentioned in the Introduction, this thesis targets large banks. I studied the four largest Swedish banks (here called Banks A, B, C, and D). Three of these banks (A, B, and D) offered research access for the strategic-level studies, while Bank C offered research access for the operational-level studies. The related papers present specific reasons for selecting each bank.

Large banks have characteristically adopted the Basel Accords. As reported by Wahlström (2009b), the large banks in Sweden were explicit about their plans to implement Basel II when it was introduced in 2007. At the start of this thesis, it was reported that the large Swedish banks were in compliance with Basel II (Östlund, 2011).

### 3.4 Research strategy

In this section I justify the strategic choices underlying the five constituent papers of this thesis by first reviewing the strategic-level studies and then the operational-level studies.

#### 3.4.1 Strategic-level studies

Papers 1–3 are strategic-level studies targeting mainly top management and high-ranking officers at Banks A, B, and D. In conducting these studies, one possible methodological choice was to use the RGT. Although it offers attractive possibilities (see subsection 3.4.2), I did not choose the RGT for several reasons. I perceived that certain access issues would affect the strategic-level studies. In particular, I envisaged that the RGT would not be considered a practical research instrument because of its time-consuming character. Moreover, the interviewees at Banks A, B, and D and the several key banking industry institutions constituted a heterogeneous group in terms of their responsibilities. According to Winter (1992), some degree of homogeneity is important when using the RGT and aggregating the analysis at the group level. It was expected that bank employees’ perceptions at the strategic level could diverge both within groups of employees and between

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41 For detailed discussion of the analytical possibilities afforded by the RGT, see also Bell (1997), Easterby-Smith, Thorpe, and Holman (1996), and Walker and Winter (2007).
the investigated organizations (cf. Mikes, 2011). Consequently, in the context of the GFC, qualitative research methods (i.e., interviews) were preferred, as persuasively formulated by Modell and Humphrey (2008, p. 88).

For all the supposedly technical complexity of modern-day risk management practices in the financial services sector and the rise of financial econometrics, today’s credit-crunch and string of banking collapses is one very timely practical reminder of the potential gains to be had from studying a highly quantitative arena from a qualitative perspective.

By choosing to interview top bank managers and high-ranking officers, I expected to gain insights into “what they and their compatriots are up to” (Geertz, 1973, p. 9). I also expected that this knowledge would consist of accounts and statements that would reveal bank employees’ perceptions and intentions.

Moreover, I assumed that adoption of the Basel Accords was driven by certain institutions in the banking industry that promote the use of this standard and participate in its implementation processes, such as consulting firms (cf. Subramaniam, Collier, Phang, & Burke, 2011) and supervisory authorities (Östlund, 2011). The three papers therefore also targeted high-ranking officers at key banking industry institutions, such as: Sweden’s Financial Supervisory Authority, central bank, and treasury department; three internationally recognized consulting firms; the Swedish Banking Association; and an international credit rating agency. For more information about why these intuitions were chosen, I refer to the appended papers.

It should be noted that certain challenges typically hinder researchers from accessing interviewees at the strategic level in banks and key banking industry institutions, challenges such as “studying up”, i.e., that the researcher has less power than the researched person (Czarniawska, 2014). According to Bowman (2009), the practical side of such a challenge forces the researcher to address interrelated issues of access, methodology, and attitudes. These challenges were addressed by using written confidentiality agreements and forging research collaborations. I collaborated with a senior research colleague who had previously studied bank risk management (Wahlström, 2006, 2009a, 2009b) and was employed at the Gothenburg Research Institute (GRI). His participation legitimated my presence to these research subjects in positions of power. In subsections 3.5.1 and 3.6.2, I detail the extent to which I used research collaboration and its expected advantages for research quality in the strategic-level studies.

42 For more on the challenges of “studying up”, see Bowman (2009).
3.4.2 Operational-level studies

The operational-level studies targeted bank loan officers and used the RGT. The opportunities offered by the RGT (e.g., aggregating interviewee construing at the group level) require the collection of a certain volume of data to ensure the outcome of the analysis. As a result, the objective was to involve 50–100 bank loan officers in the research, and to this end, 75 bank loan officers were recruited from Bank C. Although interviews have been used in studies of bank lending and bank loan officers’ assessment of SME applications, previous interview research has rarely sampled a large enough number of bank loan officers for an RGT study (e.g., Bruns et al., 2008; Bruns & Fletcher, 2008; Deakins et al., 2010; Fletcher, 1995; Trönnberg & Hemlin, 2014).

One caveat with the RGT is that its research outputs may be of little value to practice. For example, the mean value of the interviewee aggregated scoring eliminates unique data about individual construing. To overcome such caveats, the RGT offers several opportunities for triangulation; for example, it is possible to conduct focus group interviews (Denzin & Lincoln, 2003). In subsection 3.5.2, I report on a focus group interview session, and in subsection 3.6.3, I point to other instances of triangulation used for research quality purposes. Another caveat is that the RGT entails design challenges, such as selecting relevant elements and constructs, and data-collection challenges, such as securing access and completing interviews with large numbers of interviewees.

One way to deal with these challenges is to work as part of a research team. For paper 4, I was part of a research team of five colleagues from the Centre for Research on Economic Relations (CER). Some of them had conducted RGT studies in other empirical settings (e.g., Öhman et al., 2006), and they initially designed the grid form, i.e., the research instrument. After the initial research steps, two of them joined me in the main data-collection step, to ease the time-consuming burden of interviewing 75 bank loan officers. In the following step, the retest, I was in charge of going into the field to conduct the interviews. Two of my research colleagues were active in interpreting the outputs of this analysis and helped me with the technical parts of the analysis of individual interviewee data. In the final step of the data-collection process, I collaborated with three colleagues in the research

43 By aggregating bank employees’ construing at the group level, the idea was to gain a holistic view of how they deal with risk.
team to run the focus group interview. I present the stepwise activities mentioned above more comprehensively in subsection 3.5.1.

For paper 5, I collaborated with one research colleague from the research team set up for paper 4. Moreover, an additional research colleague from CER experienced in the statistical analysis technique used in that paper was involved in the data analysis.

3.5 Data collection and analysis

3.5.1 Data collection and analysis for the strategic-level studies
This subsection describes the techniques employed for data collection and analysis, addressing RQ1 in papers 1–3. Table 3 summarizes the techniques used for collecting primary and additional data and for data analysis.
Table 3: Overview of techniques employed to address RQ1

RQ1: How do top bank managers deal with risk at the strategic level in a banking crisis?

<table>
<thead>
<tr>
<th>Paper</th>
<th>Data collection</th>
<th>Data analysis</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Semi-structured interviews with top management and high-ranking officers at Banks A and B in 2010 about how they dealt with risk in terms of interactions between regulations (regarding the Basel Accords) and practice. Interviews with high-ranking officers at the Financial Supervisory Authority in 2010 about the Basel Accords. Annual reports of the two banks, dating from 1990–2010.</td>
<td>Interpreting accounts and statements about the intended interaction between the Basel Accords and control systems for loan origination and portfolio monitoring, using the levers-of-control framework.</td>
</tr>
<tr>
<td>2</td>
<td>Semi-structured interviews with top management and high-ranking officers at Bank A in 2010 regarding the practical challenges of the Basel Accords. Interviews with high-ranking officers at the Financial Supervisory Authority in 2010 about the Basel Accords. Follow-up interviews in 2014 at Bank A. In addition, follow-up interviews with Banks B and D, two consulting firms, the Financial Supervisory Authority, and the central bank for triangulation purposes.</td>
<td>Interpreting accounts and statements about the practical challenges of the Basel Accords using a typology of uncertainties.</td>
</tr>
<tr>
<td>3</td>
<td>Semi-structured interviews with top management and high-ranking banking officers at Banks A and B in 2010 about dealing with risk in the aftermath of the Lehman Brothers’ default. Interviews with high-ranking officers at an international rating agency in 2010, and at the treasury department in 2011, about their roles during the GFC. Statistics from the central bank and reports from government authorities in 2010.</td>
<td>Interpretation of accounts and statements about of crisis-contingent actions and decision making filtered through theories of trust.</td>
</tr>
</tbody>
</table>
Data collection

The data collection involved several activities, such as preparing and conducting the interviews and making post-interview efforts. To prepare the interviews, a list of interview questions was drafted several times and presented at internal research seminars at CER and GRI to solicit feedback from experienced researchers. Also, a list of interviewees was compiled. In compiling this list, I considered the fact that bank risk management involves several business functions, including management, finance, group risk control, and operations (cf. R. S. Kaplan, 2011).

When booking the interviews, my research colleague from GRI was in charge of the contacts with Bank A and booking the initial interviews at this bank. I booked the interviews at Bank B, the last interviews at Bank A, and the interviews at the key banking industry institutions. During the initial interviews, we also identified a need to speak with risk experts specializing in particular bank risks, and these risk experts were recruited via referrals obtained during the interviews. After booking the interviews, each interviewee was emailed a formal invitation letter including a description of the research project.

Several considerations were pertinent to conducting the interviews. First, each interview was initiated by asking the interviewee to describe his or her personal background and function in the organization. Second, after briefly introducing the research topic, thematized interview questions were posed to the interviewees (see Appendices A–C for the thematized interview questions used in each of the three papers). Third, follow-up questions were occasionally asked to gain a better understanding and to elicit more detailed descriptions. Some of these questions were closed-ended and intended to obtain details sometimes expressed quantitatively (e.g., specify the headcount in certain operations). Fourth, each interview ended with a question about whether the interviewee would like to add anything. Fifth, we stopped conducting additional interviews after observing “repetitions” (Czarniawska, 2014) in the interviewees’ responses – a state also called “saturation” (Glaser & Strauss, 1967). Sixth, 43 of the 44 interviews were digitally recorded. In one case, the interviewee declined to have the interview recorded, though notes were taken. Appendix D lists the interviews.

The post-interview efforts included allocating time to derive the essential themes of each interview from the researcher’s immediate memory of the session, and to document the emerging impressions. These field notes were useful for me and my research colleague from GRI when adding, revising, and deleting some of the initial interview questions (cf. Ahrens, 2004). These
field notes also helped us recall themes of interest for the later data analysis. The post-interview efforts also included transcribing the interviews jointly with the research colleague. It can be noted that although I and my colleague had collaborated through several data-collection steps, we then decided to work with the collected data in our own research projects.

Table 3 also shows that additional data were collected for each of the three papers. For paper 1, annual reports dating from 1990–2010 for Banks A and B were accessed through the banks’ websites, downloaded, and later reviewed. Moreover, I conducted eight follow-up interviews in 2014 to test the emerging results from the findings of paper 2. These interviews are listed in Appendix D. The follow-up interviews were prepared by sending the interviewees thematized interview questions before the meetings and exploiting the semi-structured technique. Appendix B presents the follow-up interview questions. These interviews were conducted primarily to follow up the data on Bank A. In addition, I visited Banks B and D, two internationally recognized consulting firms, the Financial Supervisory Authority, and the central bank. The rationale for these additional interviews was appropriately described by Tomkins and Groves (1983, p. 363):

As the research intensifies one examines an analytical element of the study from different perspectives checking out, for example, how different people view events which occurred or are occurring and, indeed, gradually deepening one’s understanding of what views each person holds.

For paper 3, statistics about transactions in the interbank market were sought through personal contacts with the central banks in Sweden and the UK. Moreover, governmental reports were accessed and downloaded from the websites of Sweden’s Ministry of Finance and treasury department (e.g., Finansinspektionen, 2010; Ingves & Molin, 2009; Nygren, 2010). The statistics and reports were obtained before conducting interviews, and ensured that I was conversant in the areas of inquiry, and was in a position to quickly relate to responses that included numbers, dates, and other specific data. During the post-interview efforts, these statistics and reports provided basic tools for cross-checking the consistency of interviewers’ responses in relation to quantitative details, for example, specific years or amounts of money. One major reason why statistics and reports were not used extensively during the interviews was to give latitude for bank employees to articulate perceptions and intentions rarely expressed in such public records.
Data analysis

For analytical purposes, I compiled text-based scripts from the interviews, field notes, and public records. Generally, the analysis of qualitative data seeks to understand the world of human experience (Cohen, Manion, & Morrison, 2007), and the researcher uses his or her own personal experiences as well as the interviewees’ views of the object being studied (Creswell, 2003). In this process, I also used the GFC as a pertinent parameter.

Specifically, the data analysis presented in papers 1–3 was intended to develop themes from the data based on “pattern[s] of meanings” (Creswell, 2003). To inform the analysis during this process, I used specific frameworks and theoretical concepts (Chapman, 2008), which are presented in more detail in papers 1–3. It is worth noting that the data analysis for the strategic-level papers turned out to be time consuming (cf. Vaivio, 2008). Moreover, the three papers were revised several times before being accepted by the related journals for publication.

3.5.2 Data collection and analysis for the operational-level studies

This subsection traces how the data collection and analysis techniques were employed for the operational-level studies. Table 4 presents RQ2, summarizes the data collection and analysis processes for papers 4 and 5, and outlines the structure of the subsection.
Table 4: Overview of techniques employed to address RQ2

<table>
<thead>
<tr>
<th>Paper</th>
<th>Data collection</th>
<th>Data analysis</th>
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| 4     | Pre-study with three senior loan officers in January 2009 to elicit relevant elements and constructs for the grid form.  
Pilot study of the grid form with a senior bank loan officer in February 2009.  
Main study of 75 bank loan officers at Bank C in spring 2009. The main study used the grid form of 13 elements and 13 constructs and included questions about interviewee background (e.g., age, education, and gender). Also, complementary open-ended questions were asked. | Principal component analysis of grid data.  
Interpretation of aggregated grid data, retests, focus group interviews, and responses to background questions. |
| 5     | Retests with six of the 75 bank loan officers in autumn 2009.  
Focus group interview with five of the 75 loan officers in December 2009. | Seemingly unrelated regression analysis of grid data.  
Interpretation of statistical analyses and responses to background questions and open-ended questions. |
Data collection

As indicated by Table 4, the data collection for papers 4 and 5 was the same and included several activities that fall into three categories: preparing the grid form, conducting the main study, as well as interviewee checking through six retests and a focus group interview.

To prepare the grid form, the first step (i.e., the pre-study) was to select a set of relevant elements and constructs through involving three senior bank loan officers from three banks (cf. Fransella et al., 2004). These senior bank loan officers (not participating in the main study) were each given the opportunity to select three cases of SME loan applications and to describe how and why two cases were similar to and different from the third case (cf. Fransella et al., 2004; Jankowicz, 2004). After repeating this process several times, a list including a large number of elements and constructs was assembled (cf. Bell, 2004; Gjerald & Ogaard, 2010; Kovářová & Filip, 2015). This list was reduced and filtered through additional interview sessions with the three designated senior bank loan officers. Preparing the grid form included another testing step. The pilot study tested a grid form consisting of 13 elements × 16 constructs. This test involved the participation of another senior bank loan officer from another bank (not participating in the main study). He was asked to use a Likert-type scale (1–7) to record his responses to the grid form, and the responses were analysed statistically. Based on the results of these analyses, the pilot study resulted in a final grid form consisting of 13 elements × 13 constructs.

For the main study, 75 interviewees from Bank C participated between March 2009 and June 2009. The recruited bank loan officers worked at 22 branch offices in three counties organized under one of the bank’s six regional divisions. Bank loan officers with less than six months’ employment were disregarded as per advice from the bank’s local management. In conducting the main study, the 75 interviewees were given a grid-form survey containing 13 elements × 13 constructs (see Appendix E). The interviewees were asked to use a Likert-type scale (1–7) to record their responses. To complete the grid, the interviewees were provided both a printed interview guide and verbal instructions when going through the survey. In addition, the interviewees were asked to give details about their backgrounds and to respond to five complementary open-ended questions. See Appendix F for the background questions and the complementary open-ended questions. To run the grid interviews efficiently, the interviews took place at the participants’ branch offices. Although some interviewees participated jointly with other interviewees at the branch offices, each bank
loan officer responded individually to the grid form, background questions, and complementary open-ended questions. More details about the data-collection process are provided in papers 4 and 5.

For interviewee checking, grid interviews were conducted for retest purposes in fall 2009. The interviewees were six bank loan officers from the main study. They received a remodelled grid form, to which they responded according to the interview guide and verbal instructions for the main study. After each retest, an interview was conducted that entailed in-depth exploration of differences between the individual responses to the main study grid form and the retest grid form (cf. Öhman et al., 2006). For interviewee checking purposes, a focus group interview session was also conducted in December 2009. Five bank loan officers from the main study were invited to this session, at which the quantitative findings of the main study and retests were presented and discussed. In this way, the bank loan officers interpreted the preliminary results, and the process was documented in notes. It should be noted that several questions had been prepared in advance for the focus group interview (see Appendix G). In section 3.6, I provide more rationale for the use of retests and a focus group interview.

**Data analysis**

The data analyses for papers 4 and 5 differed slightly and are therefore presented separately. For paper 4, the quantitative data from the main study and the retest were analysed using principal component analysis (cf. Fransella et al., 2004; Jankowicz, 2004). For this analysis, three computer programs were used: FLEXIGRID 6 (Tschudi, 1998) and REP 5 (Gaines & Shaw, 2009) were used to administer and analyse the individual grids, and MULTIGRID 7.1 (Tschudi, 2001) was used to aggregate individual grids at the group level. The qualitative data from the retests and the focus group interview session were analysed through interpretations and discussions in the research team. Paper 4 provides more details about the employed techniques for data analysis.

For paper 5, a portion of the grid data from the main study was used. This portion included one of the 13 elements (i.e., collateral) and three of the 13 constructs (i.e., three types of bank loans) aggregated at the group level in a mean grid. The data were analysed by means of seemingly unrelated regressions (Zellner, 1962) using SPSS 16 (Bell, 1997; Pallant, 2013) for the technical parts of this analysis. The analysis also included interpretations of the 75 bank loan officers’ responses to two complementary open-ended questions. More details about this can be found in paper 5.
3.6 Research quality

3.6.1 Limitations

Like any other research, this thesis suffers from limitations. Studies of the practice side of bank risk management are always limited by restricted access to banks and their employees, especially, as in this case, when the prerequisites for the research were not ideal to begin with. At that time, the GFC was still pummelling the world, and several Swedish banks rejected my research requests due to being in “crisis mode” (cf. Czarniawska, 2014). To get around such access issues, I could have worked through “newspaper articles and press releases” (cf. Hadjikhani et al., 2012). However, such a research approach would have barely discerned the landscape of the object, “covered … like an ‘iceberg’ … submerged from sight, widely ignored” (Tett, 2009, p. 6, cited by Lenglet, 2010). As a matter of fact, the media covered bank risk management during the GFC, drawing it to public attention. However, public attention can be fickle, especially when it is mediated through the media (Soin et al, 2016).

Moreover, certain methodological choices led to further limitations. One limitation was that I accessed only three banks to conduct the strategic-level studies and only one bank to conduct the operational-level studies. This means that the research results have limited generalizability in view of the number of banks operating worldwide. Another limitation is that I did not interview all the employees of the four banks and the key banking industry institutions. A third limitation is that, as far as bank lending is concerned, this thesis addresses risk management concerning bank lending to financial institutions and companies in just one country. Related to this, I have not examined every type of bank lending, such as retail lending. A fourth limitation is that most data were collected at a time when the GFC was still affecting the banks. The responses to the interview questions and the grid form might well have been influenced by this circumstance.

The data for the strategic- and operational-level papers were not collected using similar research methods. For example, the constructs elicited from the RGT-related studies appeared to be highly context specific to SME lending and not valid for interbank lending. In a similar vein, the data analyses did not apply similar techniques, so the value of comparing the results of the strategic- and operational-level studies is limited. The banks selected for the strategic-level studies (Banks A, B, and D) and the bank selected for the operational-level studies (Bank C) are also unrelated, further complicating the comparison of the research observations at different organizational levels.
As far as the research findings are concerned, the appended papers will not satisfy readers seeking precise descriptions of processes and structures. The reader has to rely on my interpretations of the top bank managers’ and high-ranking officers’ accounts, which are interpretations themselves (i.e., “interpretations of interpretations”) (cf. Miles & Huberman, 1994). The thesis separately treats bank lending to financial institutions and companies in the papers. In banks, however, lending to financial institutions and to companies may be conducted by the same organizational unit and involve the same bank employees. Moreover, the attempts to extrapolate from the individual to the organizational level (e.g., papers 4 and 5) have limitations, because the unique contexts particular to each bank loan officer are not accounted for in the aggregated analyses.

When it comes to theories and frameworks, I have, for example, drawn on personal construct theory (Kelly, 1955). Though the theory is powerful in its own way, I draw on only parts of its full potential. Personal construct theory includes eleven corollaries, of which I have selected six to apply here (cf. Kelly, 1955). In investigating bank employees, I have mainly considered responsibilities and cognitive processes that seemed relevant to bank lending.

3.6.2 Validity and reliability of the strategic-level studies
I took several steps to increase the validity and reliability when collecting and analysing the data for the strategic-level studies. First, interviews in the context of scientific work require careful consideration of participant recruitment, and conducting interviews entails preparing interview questions, which was done by presenting and getting feedback on interview questions at internal seminars at both CER and GRI, and preparing the interviewees themselves. All interviewees were given a formal presentation on the research project through an introductory letter, and their consent to participate in the study was obtained through phone calls and emails.

Second, the interviews began with a short conversation about the introductory letter, which had been emailed to the interviewees beforehand. This conversation helped the interviewees recall the topic. A handful of the interviewees had previously interacted with my research colleague at GRI or with other researchers. However, others had not, and in these cases we gave a fuller presentation of ourselves and of our respective academic backgrounds and research ambitions. This step was seen as necessary to allay confidentiality concerns and to distinguish our interrogatory style from that of others conducting interviews, such as journalists (cf. Czarniawska,
At the time of the GFC, banks and media were not exactly “best buddies”, and we wanted to avoid situations in which the interviewees felt uneasy responding to the interview questions.

Third, the mode of interviewing was active, meaning that the interviewer and interviewee articulated ongoing interpretive structures, resources, and orientations in what Garfinkel (1967) has called “practical reasoning”. Active interviewing hinders the interviewees from becoming too comfortable, for example, providing responses that one could simply read in the press, as the interviewer can critically question what the interviewee says. Moreover, active interviewing can be used to enhance the access to “interviewees’ interpretations” (cf. Gubrium & Holstein, 1997) and create opportunities for conversation and argument, as noted by Kvale (2006). To create an active interviewing mode, I was accompanied by the research colleague from GRI, with whom I spent time before the interviews to become personally acquainted and to reach agreement on appropriate approaches, as called for by Czarniawska (2014).

Fourth, after each interview I discussed my immediate impressions with my research colleague and made minor revisions to the interview questions. Moreover, it should be noted that I conducted 13 of the 52 interviews on my own. Five of these interviews were for the main study. They used the same set of questions and lasted a similar length of time (approximately 45–60 minutes) as did the joint interviews conducted with my research colleague. In the eight follow-up interviews, the procedures were similar to those of the main study interviews. However, the follow-up interview questions were narrower and more focused. In all, the interviews were all conducted in a similar fashion in the beginning, so the fact that, towards the end of the study, I conducted some of them on my own should not significantly affect the overall results.

Fifth, additional data were collected to cross-check the consistency of interviewees’ responses. As indicated, I conducted interviews outside the three banks. For example, the interviews at the Financial Supervisory Authority were intended to build an understanding of the background and objectives of the regulatory requirements of the Basel Accords. These interviews also inquired about advances and practical challenges associated with the Basel Accords. The interviews at the national treasury department and the Swedish central bank were intended to obtain an enhanced overview of the protections offered to banks by the Swedish government and central bank during the GFC. Such triangulation can enhance the robustness of findings (Olsen, 2004).
Sixth, according to Czarniawska (2014), the actual location of the interview can affect the interviewee and his or her responses. For the strategic-level studies, the interviews were conducted at the interviewees’ offices. Being in the field and taking the practitioners’ perspectives builds one’s case for scientific authority (cf. Blumer, 1969). However, in one particular instance, an interview was conducted at a location that was not the interviewee’s office. This was simply because the interviewee had recently retired and no longer had access to an office at the bank. This interview ended up being longer than the others because this interviewee’s greater time availability offered opportunities to obtain more in-depth responses.

Seventh, the data analysis, such as writing up the fieldwork into a believable story, involved two additional field engagements (cf. Alvesson & Kärreman, 2007; Miles & Huberman, 1994). First, I revisited selected interviewees and conducted additional interviewees in 2014 for follow-up purposes, as mentioned above. These interviews provided opportunities to see how the interviewees perceived the direction of my interpretations, and their comments offered me guidance before finalizing the data analysis. Second, it is important to note that I attended one practitioner’s conference three years in a row, i.e., Risk Mind International 2014, 2015, and 2016. The point of such engagements was to maintain dialogue with the field, thereby building my instinctual understanding and ability to interpret interviewee responses and see through accounts (Alvesson & Sköldberg, 2009). These field engagements also helped me avoid overemphasizing my own interpretations (cf. Van Maanen, 1979, 2015), helping me stay close to practice.

Eighth, because I intended to illustrate their intimacy with practice, the three papers present quotations from the interviewees. According to Mineev (2014), quotations can illustrate the high specificity of research settings, potentially building better understanding than that provided by previous research efforts. Ninth, the data analysis required that I develop my personal interpretative skills, something that Kärreman (2003) has called “identity work”. This entailed recognizing my own role as an interpreter. According to King (1996), one must dispel the fantasy that social scientists come without personal values. In a similar vein, Alvesson and Sköldberg (2009) suggested that all researchers possess unique experiences and are informed about social practices. According to Creswell and Miller (2000), reflexivity towards the self and others is a necessity for ensuring validity in research. The data analysis also required that I mentally process ambiguous quantitative and qualitative data and make “plausible connections” (cf.

Tenth, I tried several different styles of textual presentation and organization before submitting papers 1–3 to scientific journals and having the papers accepted for publication. Selecting among the multiple available styles is not simply a matter of rational choice but of negotiating a labyrinth of ways towards an effective presentation (Miles & Huberman, 1994). It is also worth mentioning that during the 2010–2014 research period when I was collecting data, one minor change in the interviewee set was observed: the CRO of Bank B was replaced as he had been promoted.

3.6.3 Validity and reliability of the operational-level studies

This subsection includes descriptions of steps taken in the data collection and data analysis to increase the validity and reliability of the operational-level studies. First, when recruiting and preparing interviewees before the project began, the research team formally presented the research project to local management at Bank C, and their approval was obtained to conduct the main study. At each interview session, the bank loan officers received an in-person briefing on the research project and its purpose.

Second, the RGT entails certain design and data-collection challenges. In subsection 3.4.2, I have already described how I worked through a research team to deal with these potential challenges.

Third, according to Yorke (1985), what determines the validity of a grid is the extent to which there is fit between the context of the grid, such as the industrial setting, and the elements to which it relates. As previously noted, the operational-level studies tried to meet these requirements by involving three senior loan officers in eliciting relevant elements and constructs, thereby building credibility by relating to SME lending practice. The grid form was also tested before the main study for validation purposes (cf. Marsden & Littler, 2000). Moreover, the pilot study was considered necessary in order to test the practicality of scoring the elements and constructs using a Likert-type scale (1–7) before a larger sample was surveyed.

Fourth, minor actions were taken while collecting data for the main study. Supplying the same constructs to all interviewees was beneficial for the idea of running a large-scale investigation including 75 interviewees. However, given Adams-Webber’s (2003) argument, the fact that the interviewees used constructs elicited by others may cause validity issues, because the constructs may not fall into the individual interviewee’s “range
of convenience”. Also, with reference to the individuality corollary, people differ from each other in their constructions of events (Kelly, 1955). In the best-case scenario, individuals prefer to use constructs elicited from themselves, as Adams-Webber (1998) noted. To improve the personal experience of the individual bank loan officers, the main study interviewees were asked, after they had completed the grid form, to state to what extent they wished to add/revise/delete elements or constructs. Notably, only a handful of the 75 interviewees added/revised/deleted anything, indicating that the interviewees perceived the research instrument to be relevant.

Fifth, we used several types of triangulation, through which the operational-level studies verified the investigations to better access the object of study. As Denzin (1978) pointed out, there are various types of triangulation, e.g., convergent validation and holistic. In terms of convergent validation, the first instance entailed translating qualitative data obtained through a pre-study with practitioners into testable variables (i.e., elements and constructs). The second instance of convergent validation entailed scoring the elements and constructs quantitatively through a pilot study and analysing the data using quantitative research methods (cf. Tashakkori & Teddlie, 2003). The third instance involved verifying the generated results of analysing quantitative grid data through the focus group session, which included five bank loan officers (cf. Fransella et al., 2004). According to Bouchard (1976), it is important that convergence between research methods is reached for validation purposes and to rule out possible methodological artefacts. In terms of holistic triangulation, the data analyses were correspondingly conducted at the individual and aggregated levels (cf. Fransella et al., 2004). In support of this triangulation, Kelly (1955) proclaimed that constructs are partly individual and partly collective. The retests offered opportunities to validate the data from the main study for reliability triangulation. Simply stated, the bank loan officers’ experience cycles were investigated over a six-month period to test for stability of construing. To ascertain the validity and reliability of the RGT data, several additional tests can be performed, such as testing for the homogeneity and complexity of thought patterns and measuring the tightness of an individual’s construct system (Walker & Winter, 2007). These tests were incorporated into the data analyses.

Sixth, together with the co-authors of paper 4, I tried out different styles of textual presentation and reorganization before the paper was accepted for publication. Paper 5 also entailed collaborating with co-authors, though the progress of this paper through prepublication efforts was much smoother, probably due to the lessons learned from writing paper 4.
4 Overview of the papers

This chapter presents an overview of the five constituent papers of this thesis. The overview summarizes the attached papers’ purposes, methods, theoretical frameworks, research findings, and contributions. In addition, the full papers are appended at the end of the thesis. First, the three strategic-level studies are presented, followed by the two operational-level studies.

4.1 Strategic-level papers
The strategic-level studies presented in this section are papers 1–3.

4.1.1 Paper 1
Title: Risk management–control system interplay: Case studies of two banks
Author: Alexander Rad
Journal: Journal of Accounting and Organizational Change
Status: Published

A theoretical and practical problem in banks is how to link risk management standards to various control systems and existing control practices. The aim of this paper is therefore to explore the interaction between risk management and control systems. In that way, the paper responds to Gooneratne and Hoque’s (2013) call to study the interaction between control systems in banks. The data collection included interviews with top bank managers and high-ranking officers at two large Swedish banks (named Banks A and B). The semi-structured interviews focused on bank top-managerial intentions, i.e., choices regarding the use of control (cf. Tessier & Otley, 2012). The data-collection process also included reviewing the two banks’ annual reports for the 1990–2010 period.

When analysing the data, I applied Simons’ (1994) levers-of-control framework to a fuller extent than in previous studies. The studies of Mikes (2009) and Wahlström (2009b) only partially applied Simons’ (1994) framework, while Mundy (2010) did not consider risk management as such when studying banks. The framework suggests that the choices regarding the use of control can range between belief systems, boundary systems, diagnostic control systems, and interactive control systems. Moreover, the interaction between these control systems needs to be designed to fit business strategies and take into account strategic uncertainties.
The research findings illustrate the choices made by top bank managers regarding the use of control systems when implementing the Basel Accords. It was found that belief systems drive the designed interaction between risk management and control systems at both banks. This came as a surprise, because large banks are not necessarily known for being influenced by their belief systems, as reported in the literature (cf. Collier, 2005).

Moreover, the research findings illustrate how the designed interaction between risk management and control systems fitted the respective banks’ business strategies. The investigation at Bank A found high aspirations to comply with Basel II. An indication of this was that the bank had achieved advanced Basel II certification earlier than the other large banks in Sweden. Furthermore, at Bank A the number of risk experts was four times that at Bank B. The background to this implied enthusiasm was closely tied to Bank A’s top management, who intended to avoid the kind of near-default experiences the bank had encountered earlier, i.e., strategic uncertainties. During the Swedish Banking crisis in the 1990s, the bank had experienced major credit losses and acute shareholder capital injection needs. The investigation at Bank B identified low aspirations to comply with Basel II. By setting low objectives for Basel II compliance, the top managers at that bank kept established control practices and thereby avoided additional costs, ensuring the stability of the bank’s low-cost strategy. Based on such findings of differences in aspiration levels, the paper found that Banks A and B approached the Basel II in their own unique ways, despite the notion that the Basel Accords offer less room for divergence than does the ERM standard (cf. Arena et al., 2010, 2011; Gray & Hamilton, 2006).

By focusing on the intended interaction between risk management and specific control systems as well as by examining several integrated and context-dependent issues at two banks, the paper illustrates the complications that risk management brings to the use of MCSs in bank lending (Bhimani, 2009; R. S. Kaplan & Mikes, 2016).

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44 For compliance with Basel II, banks could choose different certification levels such as advanced or foundational (Basel Committee on Banking Supervision, 2006). Such certification levels are administered by the financial supervisory authority in Sweden.
Studies (e.g., Giovannoni et al., 2016; Soin & Scheytt, 2008) have argued that the Basel Accords and the emergence of group risk control offices highlight the involvement of management accountants in the practice of management control. The aim of this paper is to explore practical challenges in the interactions between Basel II and banking practices. I used the semi-structured interview technique and focused on perceptions, which in this case, according to Tessier and Otley (2012), refer to employees’ interpretations of what the control is for. The data were collected mainly via interviews with top bank managers and high-ranking officers at Bank A, who had experienced threats to the bank’s long-term business strategy of survival (i.e., major default) as a result of the GFC. These threats had forced the bank to request additional capital injections from its shareholders for recapitalization purposes. The bank’s annual reports from 1990–2010 were reviewed during the data-collection process. For triangulation purposes, I conducted follow-up interviews with selected interviewees at two other large Swedish banks (Banks B and D) and several key banking industry institutions in Sweden.

The interviews resulted in statements about the practical challenges of applying Basel II in bank lending to companies. In filtering these statements, I used a typology of three types of uncertainties, i.e., estimation difficulties, judgment fallacies, and lack of cognitive references (cf. Brunsson, 2007), and found that top managers at Bank A took several actions to reduce each type of uncertainty appropriately. The first example action, discussed below, relates to estimation difficulties, and the second to lack of cognitive references.

In the first example action, top management at Bank A sanctioned the acquisition of additional resources for the bank’s group risk control office. By buying access to external credit default databases, the top managers envisaged opportunities to improve the risk experts’ measurement and quantification capabilities. Also, the group risk control office had been assigned a CRO and its headcount of risk experts was increased.

In the second example action, the top managers at Bank A had redesigned the interactions between risk experts (e.g., strategic-level
employees) and decision makers at branch offices (e.g., operational-level employees) to reduce the uncertainty related to lack of cognitive references. This redesign hindered risk experts from influencing decision processes regarding bank lending to companies. Simply stated, loan origination had been decentralized to the branch offices, so from the perspective of top management, the problem of the risk experts’ lack of cognitive references no longer existed.

Top managers’ and risk experts’ statements about the practical challenges of applying Basel II corroborated the other researchers’ findings. For example, Wahlström (2006) also studied bank employees’ perceptions of the practical challenges of implementing the Basel Accords. However, his study dealt with Basel I and not particularly with bank lending and credit risk (it was about operational risk), and was not conducted at the time of a banking crisis. He found that top managers and risk experts provided opposing statements about the possibility that the abovementioned actions could reduce the uncertainties stemming from the practical challenges of implementing the Basel Accords. Whereas top managers did express negative outlooks, the risk experts expressed positive outlooks on acquiring and implementing “more and better” resources, such as information systems. Potentially, however, the severe impact of the GFC on Bank A could have motivated these parties to provide corroborative statements about the limited value of using risk-based measures to inform loan origination and portfolio monitoring.

The present paper contributes to the literature (e.g., Kaur & Kapoor, 2015; Wahlström, 2009b) in that it collected data after the implementation timeframe of Basel II had ended. The paper also highlights top bank managers’ continuous suspicion of the expert role management accountants play in banks. The issue of suspicion of management accountants has been highlighted elsewhere before (Collier & Berry, 2002; Mikes, 2011; Soin & Scheytt, 2008).
4.1.3 Paper 3

**Title:** The importance of trust for inter-organizational relationships: A study of interbank market practices in a crisis  
**Author:** Alexander Rad  
**Journal:** Qualitative Research in Accounting & Management  
**Status:** Accepted for publication

Literature reviews find that the banking industry has been largely ignored by previous studies of inter-organizational relationships (Caglio & Ditillo, 2008; Håkansson & Lind, 2006; Meira, Kartalis, Tsamenyi, & Cullen, 2010). In response to this notion, this paper explores risk management practices in the interbank market. The data were collected through interviews with top bank managers and high-ranking officers at two large Swedish banks (Banks A and B) and with representatives of several key banking industry institutions in Sweden. The interviews were semi structured and explored crisis-contingent actions and decision making during the GFC. Additional data were collected through governmental reports on rescues of Swedish banks during the GFC and statistics about interbank transactions in Sweden and elsewhere.

In analysing the data, I used concepts from the trust literature. According to Möllering (2001), trust can arise from institutional and relational bases. Moreover, trust arises through a process involving both positive and negative expectations. The importance of considering trust when studying interbank lending in a banking crisis is supported by the notion that the GFC was a crisis of trust (Baldvinsdottir, Hagberg, Johansson, Jonäll, & Marton, 2011).

The study of interbank lending broadly confirms the view that it is difficult to obtain information about banks and financial institutions as borrowers, due to their complex and opaque nature. This problem becomes especially critical in a banking crisis. Several reasons for not lending to financial institutions during a banking crisis can therefore be argued for, such as the potential for huge credit losses. On the other hand, several strong reasons for interbank lending in the midst of a banking crisis were also found. Many of these reasons highlighted by the interviewees confirm previous research findings, including the ongoing settlement and netting needs between financial institutions as well as obligations established by central banks to preserve the financial stability of countries (cf. King, 2008). It was also found that interbank lending continues even during a banking crisis due to the existence of network relationships in capital markets,
suggesting that banks support each other with liquidity through harsh times (e.g., a credit crunch).

Research findings indicate that the investigated banks used trust-based partner-selection criteria and performance-control processes to maintain and safeguard network relationships. Long-standing relationships and positive reciprocity were found to exemplify necessary partner-selection criteria before a bank could be considered part of the network. In relation to performance-control processes based on trust, information-sharing practices existing in the banking industry were found to alleviate control problems in the interbank market. In addition to various accounts of the use of trust, top bank managers at both banks were personally involved in selecting counterparties and monitoring their performance.

This paper contributes to the accounting and management control literature concerned with inter-organizational relationships. In particular, the paper highlights the potential influence trust may have on control (cf. Baldvinsdottir et al., 2011; Vosselman & van der Meer-Kooistra, 2009). By focusing on trust, the paper confirms that pressure was exerted on information systems oriented towards hard information and control purposes when the banking environment became turbulent (cf. Hopwood, 2009a).

4.2 Operational-level papers

The presentation of the operational-level studies covers papers 4 and 5.

4.2.1 Paper 4

Title: How lending officers construe assessments of small and medium-sized enterprise loan applications: A repertory grid study
Authors: Alexander Rad, Olof Wahlberg, & Peter Öhman
Journal: Journal of Constructivist Psychology
Status: Published

In view of the intense impact of bank risk management at the operational level (e.g., Mikes, 2009), this paper maps and analyses how bank loan officers perceive SME loan assessment. Data were collected through the RGT using a grid form consisting of 13 elements × 13 constructs. The paper used the RGT to a fuller extent than have previous bank lending studies (e.g., F. Wilson et al., 2007), and 75 bank loan officers employed at Bank C

Joint authorship.
participated in the main study. For triangulation purposes, three pre-studies, a pilot study, six retests, and a focus group interview were conducted. The bank loan officers’ individual cognitive maps were aggregated to provide a holistic overview of these employees’ perceptions at the group level. In addition, data were collected on the bank loan officers’ backgrounds. The data analysis comprised principal component analysis and related interpretation.

The theory underlying the RGT is personal construct theory. In this theory, an element is a unit of reflection and meaning (e.g., collateral), while a construct is one’s evaluative judgment of the element’s particular features and attributes. If a construct is relevant to a bank loan officer, his or her utterances expressing evaluative judgments provide an understanding of this person’s cognition. These utterances can be measured by how this person scores the element based on a construct measured using a Likert-type scale (Fransella et al., 2004). The paper also draws on the SME lending literature, which indicates that bank loan officers gather and assess various types of information about borrowers, and that bank loan officers make demands for collateral (e.g., Trönnberg & Hemlin, 2014). Moreover, this literature finds that SMEs may require bank loans for three purposes: to start up the business, to support underperforming operations, and to finance business expansions (Deakins et al., 2010).

Among this paper’s findings is that bank loan officers assess SME loan applications according to lending procedures applying to all types of bank loans. This finding was based on analysing the bank loan officers’ construing at an aggregated level. This analysis resulted in Figure 5, which plots the positions of constructs and elements along two axes.

![Figure 5: The mean grid (adapted from paper 4).](image-url)
The right-hand end of the horizontal dimension is interpreted to be about future-oriented information and the left-hand end about historical information. The upper end of the vertical dimension is about soft information, and the lower end is about hard information. In the lower-right quadrant in the map (marked by the letter X), procedural lending comprises three constructs: the Basel Accords, the lending strategy of the bank, and the bank’s information systems.

Regarding the Basel Accords construct, it is recognized that this standard imposes requirements for the use of particular information (e.g., internal ratings, which predict borrowers’ future potential for credit losses). Related to the bank lending strategy construct, the bank is considered centralized in terms of how decisions related to SME lending are made. Related to the supporting systems construct, the use of such information systems can offer the benefit of assessing and evaluating information about borrowers in an objective and automated manner. Moreover, such information systems can efficiently disseminate information within bank organizational hierarchies (Kumra et al., 2006; Rada, 2008).

To control for adherence to lending procedure, bank loan officers were checked for potential differences in location (22 branch offices) as well as in age, education, gender, insight, and tenure. No significant differences were found in the groups’ construing at an aggregated level (cf. Bruns et al., 2008).

The paper contributes to the SME lending literature by examining a set of first-hand information (i.e., 13 elements) that the investigated bank loan officers used in assessing loan applications, as well as the influence of various aspects (i.e., 13 constructs). The paper provides a holistic overview of SME loan assessments, indicating that reliance on hard and/or soft information is complex and driven by more than just a few context-dependent factors. Procedural-based lending, emphasizing hard and future-oriented information, is primarily based on the Basel Accords, bank lending strategy, and bank information systems. Moreover, and in contrast to previous findings, roughly the same assessments seem to be made irrespective of type of loan, i.e., regarding loan applications for start-ups, funding underperforming operations, and financing business expansion (cf. Deakins et al., 2010).
4.2.2 Paper 5

Title: Female and male risk aversion: An empirical study of loan officers' assessment of SME loan applications
Authors: Alexander Rad, Darush Yazdanfar, & Peter Öhman
Journal: International Journal of Gender and Entrepreneurship
Status: Published

It has been argued that female loan officers are less risk averse than their male counterparts, though findings from various settings are inconsistent (Bellucci et al., 2011). This paper analyses female and male loan officers’ risk aversion in assessing different SME loan types. To study potential gender differences in a situated setting, the investigations took place in a country (Sweden) considered gender equal and in a bank with explicit gender-equality policies in terms of employing females and males in its workforce.

As a point of departure, this paper used the same data collected for the other operational-level paper (paper 4). More precisely, this data captured collateral (i.e., one of the 13 elements) and three types of bank loans (i.e., three of the 13 constructs). In addition, data were collected on the 75 bank loan officers’ background variables and responses to open-ended questions. The data analysis included seemingly unrelated regressions, additional statistical analysis, and interpretations of the statistical results.

The paper drew on the SME lending literature, which distinguishes between loans for start-ups, funding operations, and financing investments (Deakins et al., 2010). Each type of loan may cause credit losses for the bank, though this potential differs between types. Moreover, the literature demonstrates that bank loan officers’ gendered risk aversion can affect assessments of SME loan applicants (Bellucci et al., 2011).

The research findings indicate that, in assessing SME loan applicants, the bank loan officers made few distinctions between the different loan types. At the same time, it was observed that female bank loan officers made higher collateral demands when assessing loan applications for start-ups than did their male counterparts. However, in the case of the other two loan types (i.e., loans for funding underperforming operations and financing business expansion), the female and the male bank loan officers displayed similar risk aversion in terms of the weight they placed on collateral.

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46 Joint authorship.
47 Gender is treated as a different phenomenon from sex, being viewed as situated rather than static (Gatens, 2003).
The paper contributes to the SME lending literature by considering different bank loan types in investigating female and male bank loan officers’ cognition. By its findings, the paper confirms that differences between female and male risk aversion cannot be understood in a straightforward fashion. Contingencies influence the displayed risk aversion, and female loan officers are seen to be more risk averse than male loan officers only in situations in which information about the borrower is particularly scarce and the uncertainty in terms of lack of information is particularly great.
5 Concluding discussion

To begin with, I recap the problematization that motivated this thesis, and I reiterate the overall aim and the two research questions (RQs). Following that, I discuss the findings of the strategic- and operational-level studies. This is followed by a section addressing the theoretical, practical, and methodological implications of this research. Before ending this chapter, I identify avenues for future research.

5.1 The point of departure

Accounting and management control researchers (Arena & Arnaboldi, 2014; Arena et al., 2010, 2011; Giovannoni et al., 2016; M. Hall et al., 2015; Mikes, 2009, 2011; Wahlström, 2006, 2009b) have found that standards such as the Basel Accords are intended to offer several advances such as interactive surveillance and sophisticated performance control for strategic-level bank employees, such as top bank managers. The intended advances for operational-level bank employees, such as bank loan officers, are improved control and efficiency in day-to-day decision making. Realizing these advances entails exploiting several means, such as centralization, acquiring and using information systems, and employing risk experts.

However, for bank employees standards come with certain practical challenges that generate risks of three types: (i) risks that appear in the complex interactions between regulations and practice; (ii) (un)intended risks produced by the organization itself; and (iii) risks arising from evolving and emerging events (Power, 2005; Scheytt et al., 2006; Soin et al., 2016).

Bank employees must deal with these risks because they negatively influence the possibility of achieving the advances that the standards were to bring about. At the outset of this thesis, it was stated that dealing with risk is about designing, implementing, and using appropriate controls that ensure controllability, as well as gathering and assessing relevant information. Moreover, dealing with risk is embedded in managerial processes in specific organizations and is thus context dependent (Bhimani, 2009; R. S. Kaplan & Mikes, 2016; MacCrimmon & Wehrung, 1990; March & Shapira, 1987).

As reported by the abovementioned researchers, bank employees at various organizational levels may perceive the practical challenges associated with standards in different ways, and these challenges may intensify in particular situations. In contributing to the literature, this thesis
examines bank employees’ perceptions of the Basel Accords after the global financial crisis, and top bank managerial intentions when applying the Basel Accords.

This brings us to the overall aim of this thesis, and to the two RQs. The overall aim of this thesis is to examine the perceptions and intentions of bank employees at different organizational levels during a banking crisis to foster an understanding of bank risk management. RQ1 is as follows: How do top bank managers deal with risk at the strategic level in a banking crisis? RQ2 is as follows: How do bank loan officers deal with risk at the operational level in a banking crisis? In the following, I discuss the findings of the strategic- and operational-level studies, which were conducted in response to RQ1 and RQ2 respectively.

5.2 Dealing with risk at the strategic level

This discussion is based on the findings of papers 1–3. These strategic-level studies targeted a large number of top bank managers and high-ranking officers at three large Swedish banks and several key banking industry institutions. At an overall level, the investigated top bank managers deal with risk by

- designing interactions
- information augmentation

5.2.1 Designing interactions

To illustrate how top bank managers deal with risk by designing interactions, I begin the discussion by drawing on the findings of paper 1, which addresses risks that appear in the complex interactions between regulations and practice (i.e., the first risk theme). The findings of paper 3 inform the further discussion of the design of interactions, addressing risks arising from evolving and emerging events (i.e., the third risk theme).

This thesis presents findings indicating that top bank managers deal with these risks when implementing Basel II. In this process, top bank managers make design choices between the uses of several control systems, namely, belief systems, boundary systems, diagnostic control systems, and interactive control systems (cf. Simons, 1995). These choices inevitably touch on the interactions between these control systems, which are a source of tension between control systems and likely influence the use of standards (cf. Simons 1995). This thesis found that the designed interactions at Banks A and B severally determine the extent to which the banks exploit the chosen
means to realize the potential of the Basel Accords, means such as centralization, information systems, and risk experts (cf. Mikes, 2011; Wahlström, 2006, 2009b). More importantly, the thesis found that the designed interactions resulted in contrasting implementation of Basel II for bank lending to companies in terms of centralization (Bank A) versus decentralization (Bank B) and in the employment of four times more risk experts in Bank A than in Bank B.

Previous findings indicate that banks use standards in various ways, confirming the relevance of the present findings regarding the use of Basel II. For example, Mikes (2009, 2011) studied five UK-based banks’ adoptions of the enterprise risk management standard. Her findings indicate that different banks emphasized the acquisition and use of information systems and the employment of risk experts in different ways. Among other things, she found that while the group risk control offices of three banks were dedicated to measuring and quantifying bank risks, rigid boundary work, and less involvement in decision making,48 the group risk control offices at the other two banks took a dissimilar route. These banks put less emphasis on measuring and quantifying bank risks and on porous boundary work, instead playing the devil’s advocate in decision-making processes.

The fact that different banks adopt standards in different ways is in line with the argument that risk management is context dependent (cf. Bhimani, 2009; R. S. Kaplan & Mikes, 2016). Such diversity can be criticized by regulators because it may offer banks opportunities to exploit loopholes in banking laws (cf. Ambrose et al., 2005). However, the fact remains that top bank managers are ultimately responsible for business strategies, which entails introducing policies for standardization and maintaining consistency (cf. Sutcliffe & McNamara, 2001). In this process, managerial interpretations of the past and future is critical to how top bank managers deal with risk.

This thesis also presents findings indicating that the design of interactions is significant during evolving and emerging events. The investigation underlying paper 3, which explored the interbank market during the GFC, found that complex interactions appear between the institutional and relational bases of trust. In the literature, institutional trust and relational trust are presented as conceptually separable entities drawing on embeddedness and agency, respectively (Simmel, 1950; Zucker, 1986). However, trust researchers hold that studies could well identify more intimate relationships between the two bases of trust when investigating

48 According to an overview by Kuritzkes and Schuermann (2010), bank risks can be classified as financial and non-financial risks.
trust in empirical settings (Möllering, 2005; van der Meer-Kooistra & Scapens, 2008), as there are micro and macro processes that, from time to time, interact (Mineev, 2014). The present findings indicate that these two bases intertwined through top bank managers’ measures to deal with risk. It was found that top bank managers perceived that the agency of individual government representatives could negatively influence expectations regarding government rescue programmes, drawing primarily on institutional trust and the intended resolution of the credit crunch in the interbank market. It was also found that the bank employees’ perceptions of embeddedness could influence the extent to which network relationships in capital and financial markets could be expected to support measures to deal with risk. These relationships were regionally based in some cases and international in others. Nevertheless, the relationships were associated with positive expectations and required symmetrical behaviour by the counterparties. How these conceptually distinct but practically joined bases of trust provided for control of interbank lending was found to rely on the interaction designed by top bank managers. Top bank managers at both investigated banks (Banks A and B) displayed similar ways of dealing with risk in terms of designing interactions.

5.2.2 Information augmentation

Information augmentation was observed in several ways. To illustrate how top bank managers deal with risk by augmenting information, I begin the discussion based on findings of paper 2, which addresses the (un)intended production of risk by the organization itself (i.e., the second risk theme). I then discuss the findings of paper 3, which addresses the third risk theme.

As per the findings of paper 2, the top bank managers and risk experts both confirmed the practical challenges of implementing Basel II. To explore the relevance of these challenges, the investigations targeted Bank A, to reveal the extent of the second risk theme. Despite its high aspirations to implement Basel II, Bank A accrued major credit losses. As a result, it was forced to participate in a government rescue programme and to ask its shareholders for an additional capital injection to avoid bankruptcy.

It was found that top bank managers addressed the second risk theme by seeking “efficiency” (cf. Fama & Jensen, 1983). By adding more resources and increasing the number of risk experts in the bank by 50 per cent, top bank managers improved the group risk control office’s information processing. Information augmentation was observed in the way top bank managers expanded the upstream consequences of the bank’s group risk
control office to encompass top management and supervisory authorities, for example, through additional management reporting and involvement in compliance-related tasks.

Moreover, information augmentation was also observed in the way top bank managers reduced the downstream consequences of the group risk control office for branch offices and loan officers. As previously noted, risk experts are specialized management accountants who are normally positioned at bank headquarters (i.e., the strategic level of bank organizations). Through measurement and quantification, risk experts provide information (e.g., internal ratings) that facilitates control over the decision making of bank loan officers, who are positioned at the operational level of bank organizations. The objective of reducing the downstream consequences was to hinder the risk experts from influencing bank loan officers’ decision making regarding bank lending to companies. This had been demanded by operational-level bank employees because they perceived problems in information flows before decision making as a result of using risk-based measures (cf. Simon, 1947/1997). In her study of risk experts in five banks, Mikes (2011) found that some banks dismissed risk experts as Bank A had done. According to Mikes (2011), risk experts come with professional accountability and dismissal offers possibilities to evade responsibility and blame.

The redesign of interactions between different organizational levels and the reassignment of responsibilities of bank employees at the strategic and operational levels required action by top bank managers, implemented by means of their facilitative capacity. According to Clegg (1989), this exemplifies how power in terms of facilitative capacity can be used to set the level of agency empowerment.

This thesis also presents findings confirming that practical challenges tend to intensify during evolving and emerging events. To present a relevant case of the third risk theme, the investigations targeted the credit crunch that followed the GFC and affected interbank lending. As mentioned, various bank risks such as credit risk and liquidity risk emerged during the credit crunch. The emergence of these bank risks also threatened the financial stability of several countries (cf. Gabrieli, 2009; Ji & In, 2010; Munkhammar, 2011; Stinespring & Kench, 2009). The investigations of Banks A and B found that top bank managers dealt with risk by becoming personally involved. This involvement was necessary to safeguard network relationships with institutions in the financial and capital markets. Such networks are long standing (cf. Mayer, 1976) and membership in them requires acceptance of shared banking industry values and beliefs (cf. Ouchi, 1980). Through these
relationships, the top bank managers augmented information, for example, by securing access to hard information, such as the counterparty’s trading books, and by taking account of soft information, such as the counterparty’s displayed goodwill regarding transactions in the financial and capital markets. The acquired information was considered relevant given the nature of the situation and facilitated efficiency in “delivery process setups” (cf. Ouchi, 1979) in the interbank market. The expected efficiency was considered necessary due to the failure of information systems such as credit ratings.

The findings of this thesis confirm that in a turbulent environment, managers have to consider information alternative to that produced by standard information systems (Hedberg & Jönsson, 1978), and that the information used reflects the impact of the environmental context (Hopwood, 2009a). The findings also confirm that interbank lending is a critical channel for funding banks (cf. Beaupain & Durre, 2008; Demiralp et al., 2006; Huertas, 2011; King, 2008) even during a banking crisis. In line with previous findings (e.g., Furfine, 2002), I found that interbank counterparties try to maintain transactions due to frequent transaction settlement and netting needs between banks.

5.3 Dealing with risk at the operational level

This discussion of the operational-level studies includes findings from papers 4 and 5. These studies targeted a large number of bank employees dispersed throughout several branch office locations of Bank C, one of the four largest Swedish banks. Overall, this thesis adds to the literature a holistic overview of SME loan assessment, specifically indicating that bank loan officers deal with risk by

- adherence to procedural lending

The bank loan officers’ adherence to procedural lending was revealed by their collective reliance on hard and future-oriented information and their collective downplaying of soft and historical information. As discussed, Basel II introduced the use of internal ratings gauging borrowers’ potential to default in the future (Jacobson et al., 2006). Also, the lending strategy of the bank guided the loan officers to proceed with assessments in a centralized fashion, implying that final decisions on bank loan applications were made at an upper level. A focus on hard information suits centralized
banks when the decision authority for loan origination resides at an upper level (J. C. Stein, 2002).

Supporting the finding of adherence to procedural lending is the fact that the bank loan officers understand their task performance regarding SME lending in a uniform way. When controlling for branch office location, no significant differences were found between groups of loan officers. This could be interpreted as indicating that adherence to procedural lending is not limited to a particular business location but rather is embedded in managerial processes across the bank organization. Furthermore, no significant impact on the assessment of SME loan applications was found stemming from bank loan officers’ age, education, insight, or tenure.

When controlling for gender, however, female bank loan officers, compared with their male counterparts, were found to make relatively higher collateral demands in the case of SME loans to start-ups (i.e., one of the three types of bank loans under study). What is particularly interesting is that the female and male bank loan officers differed in their assessment of the type of loan associated with the greatest uncertainty (i.e., the largest information asymmetry between the loan officer and the borrower). These results indicate that, regarding this type of loan, female bank loan officers are more risk averse than are male bank loan officers. However, regarding the other two types of bank loans, the loan officers, regardless of their gender, made similar collateral demands before assessing SME loan applications. This indicates that gender differences should not be seen as related to risk aversion per se. Gender is a situated phenomenon (Gatens, 2003), and in some cases even outweighs the effects of adherence to procedural lending.

The findings indicate that realizing the advances associated with standards entails a focus on hard information (e.g., cash flow statements: cf. Berry & Robertson, 2006) that is particularly important for loan assessments by bank loan officers, who individually put less emphasis on soft information (cf. Trönnberg & Hemlin, 2014). In a way, the present results contrast to previous findings that hard and soft information are complementary (Bartoli et al., 2013), and that soft information is particularly important in SME lending (e.g., Chollet et al., 2014; Hill & Scott, 2015).

Also in contrast to other studies (e.g., Deakins et al., 2010), it was found that different types of loans are assessed in roughly the same way. SMEs request bank loans to fund start-ups, short- and intermediate-term shortfalls in working capital, and investments in fixed assets and business expansion (Deakins et al., 2010; Nofsinger & Wang, 2011). This similar treatment of different types of borrowers could have resulted from bank loan officers’
reactions to the risk that appeared during the evolving and emerging banking crisis (i.e., the third risk theme).

Moreover, the findings indicate that Bank C heavily emphasized the use of information systems, which efficiently handle the computation, transmission, and storage of information (cf. Kumra et al., 2006). Two potential benefits of adherence to procedural lending are that the entire organization is driven towards risk-averse behaviours and that strategic control is achieved (cf. Power, 2004b). However, realizing this intended advance may also result in the (un)intended production of risk by the organization itself (i.e., the second risk theme). In line with Öhman et al.’s (2015) argument, although procedural lending may help prevent type-II errors (i.e., bank loan officers focus on avoiding credit losses), it could lead to more type-I errors (i.e., bank loan officers neglect earning opportunities). The dilemma is that bank loan officers tend to focus on avoiding credit losses to the detriment of improving earning opportunities.

5.4 Implications

In this section, I present the theoretical, practical, and methodological implications of this research. In elaborating on them, I had to recall that central to the problematization presented in the introduction was the fact that bank risk management research suffers from certain gaps (e.g., Hopwood, 2009b). According to Van de Ven and Johnson (2006), gaps between theory and practice can be framed in three ways: i) as a knowledge transfer problem, ii) as representing distinct kinds of knowledge, and iii) as a knowledge production problem. This thesis assumed that research gaps as a knowledge production problem are aptly addressed through research in the field. Field studies were recommended around the time I began this thesis research, when the conditions for conducting research were affected by the GFC. According to R. S. Kaplan (2011), field studies entail leaving the “ivory tower”, and major changes following in the wake of crises provide opportunities to advance knowledge.

5.4.1 Theoretical implications

The theoretical implications for accounting and management control studies constitute the next topic of discussion. The contributions of the strategic- and operational-level studies were presented in detail in chapter 4 because they were pertinent to the context of each paper. The initial step in addressing the overall theoretical implications of the thesis entails synthesizing the idiosyncratic and disjointed theoretical contributions of the five papers.
Moreover, subjective assessment is required as to whether this thesis’ contribution can be classified according to Huff’s (1999) distinction between contributions that are part of existing conversations and contributions that start new conversations. As noted, risk management results from the formalization of internal control and is intended to improve and enhance managerial control, although it is hindered by practical challenges (Power, 2005). This thesis has attempted to confirm the extent of practical challenges in terms of the three risk themes by studying practice, i.e., actions informed by meanings grounded in specific contexts (Cook & Brown, 1999). The studies were conducted in light of a particular environmental context and via novel recursive dialogues with practitioners perceiving and interpreting their worlds. This confirmation should not be viewed as an attempt to initiate new conversations about bank risk management.

The second step in addressing the theoretical implications of this thesis entails reiterating the motivations that inspired this work in the first place. The intention of this research was also to respond to contemporary calls for more research in the area (Gooneratne & Hoque, 2013; Wilson et al., 2010). Achieving a deeper understanding of bank risk management required exploring the context dependencies of this subject in the bank lending setting. Using an eclectic approach to theory selection and staying close to the bank organizational realities presented by practitioners gave a prominent position to incremental rather than revelatory theory development (cf. Corley & Gioia, 2011).

By starting from context dependency, the thesis is not attempting to provide a universal model of how banks should implement standards effectively. The normative literature (e.g., Aebi et al., 2012; Beasley et al., 2005) and the Basel Accords often make divergent recommendations as to how banks should effectively implement standards for addressing risks. This literature typically expects to find direct links between standards and popular points of departure in the accounting and management control literature, such as accountability, corporate governance, and internal control. By starting from context dependency, the thesis operates in the domain of studies treating risk management in situ (e.g., Arena et al., 2010, 2011; Mikes, 2009, 2011; Wahlström, 2006, 2009a, 2009b). Having these studies in my mind eased the task of understanding how banks, like any other organizations, may have different intentions when designing and implementing controls, even though standards and banking laws are expected to affect all banks in a similar way. Moreover, it facilitated my understanding that situations may require organizations to put into practice
procedures and processes aligned with the particular risks they face, to help them make the leap of faith to deal appropriately with those risks.

The third step in addressing the theoretical implications is accepting that bank employees’ perceptions and intentions fulfil several critical functions in bank risk management, such as design choices regarding the use of the Basel Accords. At the same time, bank employees can adapt to sudden changes in their environmental context while maintaining existing practices, for example, by embracing “traditions” (cf. Ouchi, 1980) in the financial and capital markets. Bank employees also respond to changes in their environmental context, such as new regulations, by creating new practices, for example, the use of risk-based measures (cf. Jorion, 2009). Bank employees are therefore important objects of study (cf. Jönsson, 2014). Keeping an eye on theories embracing managerial subjectivity (e.g., Simons, 1995) could release researchers from the “straightjacket” of theory, which expects rational decision making by individuals and makes rigid demands of objectivity in operationalization. Neglecting practitioners’ interpretations seems to be equally hazardous for academics seeking clues in the darkness that appeared in the aftermath of the GFC. This large-scale banking crisis brought massive changes to the banking and many other industries both directly and indirectly (The Crisis Inquiry Report, 2011). Moreover, bank employees were held accountable for bank risk management failures (Stiglitz, 2010).

In this thesis, attempts were made to narrow the distance between theory and practice, for example, by extensively relying on interviewee accounts and statements.

5.4.2 Practical implications

The practical implications of this thesis primarily concern regulators and bank employees, hinting at the one-sided blaming of bank employees for lack of professionalism (cf. Engwall, 1995) and of regulators for enacting standards lacking relevance (cf. Power, 2009). Such blame-mongering may be completely unproductive.

Regulators

The first practical implication is that regulators could benefit from understanding managerial intentions in using standards in practice. The background of this suggestion is that regulators may observe that banks display higher or lower aspirations regarding the use of standards (cf. Gray & Hamilton, 2006). In certain ways, standards such as the Basel Accords
represent suggestions for an ideal paradigm. They are expected to promote institutional compatibility and latitude for censuring in case of noncompliance. Given the severe experiences of the GFC and the fact that regulators have the task of controlling banks, regulators have worked towards enforcing the standards, for example, by introducing Basel III and Basel IV (European Commission, 2016; Jackson, 2016). Part of the background of such enforcement action is the regulators’ dissatisfaction with banks for not being perfectly attuned to standards:

One of the causes of the deep financial crisis witnessed since mid-2007 has been the deviation from well-established principles in the management of risk (in particular credit risk) by financial institutions. (González-Páramo, 2010)

Given the present findings, it is important that regulators understand how the intentions of top bank managers may motivate “deviation from well-established principles” (González-Páramo, 2010) and varying “aspiration levels” (Gray & Hamilton, 2006).

Another practical implication is that regulators could benefit from a better developed understanding of the effects of reregulation. This thesis has built an understanding of bank employees’ perceptions of Basel II associated advances and challenges. Such an understanding could refine regulators’ sensitivity before they impose additional banking laws or strengthen the enforcement of existing laws (e.g., Basel IV). The potential benefit would be to avoid stimulating bank employees’ aversion to credit risk, as this could lead to reduced bank lending to companies (cf. Öhman et al., 2015). The matter of reduced bank lending to companies as a direct consequence of regulatory burden has been remarked on in the press (e.g., Engzell-Larsson, 2016; O’Connor, Cadman, & Goff, 2014). As noted, bank lending is critical for supplying companies with necessary financing for their operations and investments. In the end, bank lending facilitates employment and the economic growth of countries (Levine, 1997; Nabi & Suliman, 2009).

**Bank employees**

Turning to bank employees, the first practical implication is that standards have both positive and negative managerial consequences for bank employees at the strategic level. In terms of positive managerial consequences, the Basel Accords could support top bank managers’ various control purposes, such as cost minimization and performance optimization (cf. Arena & Arnaboldi, 2014). Risk-based measures detail the efficient use of money with respect to capital adequacy requirements. Achieving these control purposes entails making novel design choices between existing and
new controls, with consideration for how these controls fit business strategies (Bedford & Malmi, 2015). To an extent, these “design choices” (Simons, 1995) could improve top bank managers’ ability to process advanced information for interactive decision making. Also, top bank management could expect improved control, since operational-level employees can be better controlled through more sophisticated management control systems than those developed in the 1980s and 1990s, such as total quality management and activity-based costing (Soin & Scheytt, 2008). Such an understanding should be useful for practitioners considering how to “get … down into the nitty-gritty of risk management” (R. Smith & Lucchetti, 2007).

In terms of negative managerial consequences, standards represent increased costs for bank operations. There are costs related to acquiring and developing sophisticated quantification resources (e.g., information systems: cf. Flores et al., 2006), as well as to organizing new professional authorities such as CROs (cf. M. Hall et al., 2015) and risk experts (cf. Mikes, 2011). Risk experts are expected to operate at a higher skill level than other management accountants previously employed in banks (Soin & Scheytt, 2008) and, like all employees with specific skill sets, they cost money. Moreover, there are costs related to recruiting personnel at the operational level and to investments in human capital (Bruns et al., 2008) relating to acquiring new tools and using information in new ways. Moreover, acquiring these resources and hiring such personnel are associated with practical challenges, which may cause inefficiencies and increased costs (Mikes, 2011).

Another practical implication is that high aspirations to implement standards do not necessarily prevent banking defaults. After the GFC, studies (e.g., Aebi et al., 2012) concluded that adopting risk management with high aspiration levels could sufficiently strengthen banks so that they could financially outperform in a banking crisis. The present findings concerning Bank A during the GFC, however, call into question such a conclusion. Despite its high aspirations, Bank A was forced to request additional capital injections from its shareholders to avoid default. As confirmed by Goodhart (2011), there are examples of other European banks in similar situations: Northern Rock and Anglo-Irish Bank complied with the Basel Accords, but nevertheless had to be rescued.

The final practical implication is that operational-level bank employees require managerial attention. Having bank loan officers conducting their assessments according to procedural-based lending removes power from these operational-level employees, transferring it to top bank managers. In Clegg’s (1989) terms, the way top bank managers influence risk experts and
bank loan officers to perform certain acts would exemplify several forms of
power. Bank management must be aware that, for bank loan officers, the
Basel Accords entail standardized task performance and an emphasis on
hard information and objectivity (Hansson, 2010). Early on, Beck (1992)
warned that ever more stringent standards assume that objectivity excludes
subjective values, such as insight. An emphasis on objectivity in decision
making as a result of the Basel Accords means that bank loan officers’
human capital has limited influence on assessments of SME loan
applications, a fact observed before (e.g., Bruns et al., 2008). Yet it is the
understanding of this thesis that human capital can be a critical resource
when dealing with opaque potential borrowers (e.g., SMEs), for example,
through soft information and/or intuition. Standards should allow latitude
for bank loan officers’ human capital to develop. An undesirable
consequence of such standards is that they discourage bank loan officers
from exercising their human capital, instead encouraging their passivity.
According to F. Wilson et al. (2007), banks already attract passive men and
women who tend to avoid relationships with borrowers. The consequences
of reinforced standards in a period of reregulation could become material;
for example, passive bank loan officers could become overcautious in bank
lending.

5.4.3 Methodological implications
The methodological basis of management control research is open to various
research methods (Modell, 2009). Accordingly, I exploited a variety of
methods and techniques for examining bank risk management from
different vantage points. In particular, I used methods and techniques rarely
used in the banking context, permitting me to gain a holistic overview of
bank risk management. Given that every research method and technique is
limited to some extent, I argue that interviews were a useful research
instrument when approaching top managers and high-ranking officers, i.e.,
bank employees at the strategic level, and that the RGT helped in gaining
access to a large number of bank employees at the operational level.
Interviews are not uncommon in studies of inter-organizational
relationships (e.g., van der Meer-Kooistra & Vosselman, 2006). However, in
studies of interbank lending, researchers have extensively relied on
transaction data (quantitative data) from the financial and capital markets,
Interbank lending researchers (e.g. Bowman, 2009) may have experienced
difficulties obtaining research access to bank employees at the strategic level.
As noted, research into interbank lending has found that trust plays a role in selecting counterparties and monitoring their performance. The interviews provided a natural point of entry for accessing practice-relevant descriptions of the organization of the banks’ funding-operations, of the function of network relationships in the financial and capital markets, and of the processes underlying decision making in a large-scale banking crisis.

In general, although the interviewees were subject to professional secrecy and were therefore restricted when talking about specific cases, the chosen interview technique was nonetheless found to be appropriate. The semi-structured interview questions allowed the interviewees to speak relatively freely about the topic under study. My impression is that the bank employees at the strategic level talked openly about their intentions and perceptions regarding bank risk management, details rarely addressed in public documents.

In the operational-level studies, the RGT offered a comprehensive instrument (cf. Fransella et al., 2004) with which to understand the bank loan officers cognitions in assessing SME loan applications. Although there are some exceptions (e.g., F. Wilson et al., 2007), to my knowledge no previous study in the banking context has used the RGT to its full potential at the aggregated level. The RGT has, however, been used in large-scale investigations of auditors (Öhman et al., 2006) and property appraisers (Bellman & Öhman, 2016). Such studies of professionals in related industries justify the use of the RGT even when examining bank loan officers.

The use of the RGT permits investigation of homogeneity and complexity in bank loan officers’ cognition with less risk of receiving distorted responses than when using interviews or surveys. The results of using the RGT to examine a large number of bank loan officers clearly indicate homogeneity in loan assessments via procedural-based lending no matter the type of loan concerned. These results would be difficult to obtain using other research methods.

5.5 Suggestions for future research

The following suggestions for future research, which are related to the limitations of this thesis, address contemporary trends in the banking industry and the insights gained here.

One noteworthy limitation is that the discussions and conclusions of the strategic- and operational-level studies are not linked. Future studies could try to provide a more complete understanding of bank risk management by conducting linked studies at strategic and operational levels in banks, with
the objective of problematizing “fit” in terms of internal consistency between these organizational levels (cf. Bedford & Malmi, 2015; Drazin & Van de Ven, 1985; Noy & Ellis, 2003).

Another limitation is that this thesis focuses heavily on bank employees. It has not explored other parties that may constrain or otherwise influence bank risk management. Future researchers could take into account other parties’ interests. For example, the deregulations of the 1980s created preconditions for conflicts of interest between shareholders and debtholders, as shareholders forced banks to take on more risk to the debtholders’ disadvantage (Bliss & Flannery, 2002; Flannery, 1998). A second example is that after the GFC, regulators (e.g., Bernanke, 2008) claimed that conflict of interest between shareholders and regulators could have been a reason for the banking crisis. The argument was that the dominance of the shareholders’ value-maximization logic induced banks to take excessive risks (Park & Peristiani, 2007).

In the post-GFC era, the pendulum is swinging towards more regulation (Mikes, 2011; Petitjean, 2013; Power, 2009). In this era, one cannot have missed the emergence of additional regulatory and supervisory bodies. The objective of these additional institutions is to control banks and hold them accountable through harmonized regulations as well as supervision, and to avoid situations of regulatory arbitrage. Analytically, these additional institutions operate at the macro level (cf. Demirgüç-Kunt & Serven, 2010; Goodhart, 2011). However, research is lacking into the opportunities for and constraints on bank risk management arising from conflicts of interest between new and established institutions (e.g., central banks and national supervisory authorities), with the latter operating mainly at the micro level. In the UK, such conflicts of interest have been managed through the Bank of England’s incorporation of prudential supervision. In Sweden, such conflicts of interest have recently prompted debate on the alternative organization of bank supervision (Popoyan, Napoletano, & Roventini, 2016). In sum, by focusing on other parties’ interests, future researchers could examine bank risk management in view of the notion that interests, at times, may be on a collision course that affects the extent to which banks succeed in dealing with risk.

Related to contemporary trends in the banking industry, future studies could examine two initiatives and their impact on practice. First, among the numerous initiatives seeking acceptance after the GFC, the most surprising one seems to be the risk culture regulation (Ashby, Palermo, & Power, 2013; O’Connor et al., 2014). This regulation targets large and systemically important banks and acknowledges the shortcomings of measurements and
quantifications. Second, another initiative is Basel IV, which is still in the conceptual stage (European Commission, 2016). In the future, bank risk management will surely evolve towards new frontiers and include numerous other initiatives placing demands on research. According to Pelzer (2009), our future hinges on risk management. At the same time, bank risk management standards require reliability and acceptance (Power, 2010).

During the course of this thesis, I achieved an insight into a central concern in the debate, on which I suggest future researchers could reflect. After the GFC, influential persons representing governments (e.g., Alan Greenspan⁴⁹) argued that the ways in which banks pursue self-interest should be questioned. However, banks seem to have the capacity to distance themselves from self-interest to some extent, as observed in the paper focusing on interbank lending (paper 3). Possibly, because of the importance of capital acquisition arrangements via the interbank market, banks do appreciate the primacy of collective interest over self-interest.

Finally, this thesis has studied bank risk management, which I believe is an important policy issue that seems to be continuously relevant, according to recent consulting reports (e.g., Härle et al., 2016). Future research could try to understand bank risk management in “normal” situations and in other research conditions and contextual settings than those considered here.

⁴⁹ Alan Greenspan is the former treasury secretary in the USA (Greenspan, 2008).
References


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Appendix A

Interview themes & questions, papers 1 and 2

Background questions

- What is your role and its purpose?
- Could you describe your education?
- Could you describe your professional background?

Risk and risk management

- What is the background of the Basel Accords implementation?
- Describe the bank’s risk control organization.
- How is credit risk control organized?
- What risks in relation to credit risk are measured?
- How is credit risk measured?
- What credit risk models are used?
- What factors, variables, and criteria are considered in the models?
- How is the risk reporting done?
- How is risk control represented at the board/top-management level?

Control systems

- How is the commercial lending operation controlled?
- Give examples of particular systems that are used at the management level and operational level, respectively.
- Describe the process for originating commercial credit.
- How and why are risk-based measures considered in this process?
- How are commercial credit portfolios monitored?
- How and why are risk-based measures considered in portfolio monitoring?
- How and why do the top management and board use risk-based measures?

Employees

- What is the background of staff recruited for commercial loan operations and for the risk control organization, respectively?
- How long have these employees stayed in their positions?
- What is the culture of the bank and how is it communicated to the employees?
Appendix B

Follow-up interview themes & questions, paper 2

Background questions

• What is your role and its purpose?
• Could you describe your education?
• Could you describe your professional background?

Questions pertaining exclusively to chief risk officers

1. Could you describe the bank’s risk control organization?
   - Organization
   - Risk types
   - Risk measurement
   - Organization
   - Liaison with senior management
   - Reporting

2. Could you describe how the risk control organization has developed post crisis?
   - Personnel
   - Technologies
   - Responsibilities
   - Risk measurement
   - Organizationally
   - Administratively

3. How do you create appropriate control systems at different organizational levels?

4. What is the single largest challenge facing risk control organization?

5. How is the bank different from its competitors?

Questions pertaining exclusively to non-bank interviewees

1. Could you describe how the banks’ risk control organization has developed post crisis?
   - Personnel
   - Technologies
   - Responsibilities
   - Risk measurement
2. Could you describe how the different banks approach risk control?
3. What is the single largest challenge facing risk control organizations?

Is there anything you wish to add?
Appendix C

Interview themes & questions, paper 3

Background questions

• What is your role and its purpose?
• Could you describe your education?
• Could you describe your professional background?

Counterparty identification

• Could you describe how you identify a creditworthy bank?
• Could you describe the information you collect about a counterparty?
• Could you describe how important the rating agency’s ratings are?
• Could you describe how you collected information during the crisis?
• Could you describe the sources you use to collect information about a counterparty?
• Could you describe how you evaluate a counterparty bank?
• Could you describe how your function’s approach differs from those of the other functions?
• Could you describe how your approach differs from those of your colleagues?

Risk management during the crisis

• Could you describe the sources you used to collect information during the crisis?
• Could you describe how you evaluate information other than accounting information?
• Could you describe how your function worked during the crisis?
• Could you describe how you worked during the crisis?

Governmental guarantees

• Could you describe the government’s and the central bank’s actions during the crisis?
• What was particular about these actions?

Is there anything you wish to add?
Appendix D

List of Interviews, papers 1–3

<table>
<thead>
<tr>
<th>Interview count</th>
<th>Job title of the interviewees</th>
<th>Date of interviews</th>
<th>Time of the start and finish</th>
<th>Organisation</th>
<th>Number of interviewers</th>
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<tr>
<td>1</td>
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### Appendix D - continues

**List of Interviews, papers 1–3**

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<th>Time of the start and finish</th>
<th>Organisation</th>
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*The Swedish FSA equals the Swedish Financial Supervisory Authority.*
## Appendix E

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<th>Constructs</th>
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<td>A. Collaterals</td>
<td>1. Requires little (1) – much (7) time to assess</td>
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<tr>
<td>B. The bank’s share of investment</td>
<td>2. Small (1) – large (7) influence of the Basel Accords</td>
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<tr>
<td>C. Business concept</td>
<td>3. Predominantly objective (1) – subjective (7) assessments</td>
</tr>
<tr>
<td>D. Company documents</td>
<td>4. Small (1) – large (7) impact on first time loans</td>
</tr>
<tr>
<td>E. The business relationship to the client</td>
<td>5. Predominantly quantitative (1) – qualitative (7) information</td>
</tr>
<tr>
<td>F. The presented financial conditions</td>
<td>6. Small (1) – large (7) aid from support systems</td>
</tr>
<tr>
<td>G. The bank’s earning opportunities</td>
<td>7. Easy (1) – difficult (7) to assess</td>
</tr>
<tr>
<td>H. Industry classification</td>
<td>8. Small (1) – large (7) impact on recurring application for defensive additional loans</td>
</tr>
<tr>
<td>I. The management and the board</td>
<td>9. Requires future – orientated assessments to a small (1) – great extent (7)</td>
</tr>
<tr>
<td>J. Anticipated financial conditions</td>
<td>10. Small (1) – large (7) influence of the lending strategy of the bank</td>
</tr>
<tr>
<td>K. Market conditions</td>
<td>11. Requires little (1) – much (7) second opinions</td>
</tr>
<tr>
<td>L. The personal relationship to the client</td>
<td>12. Small (1) – large (7) impact on recurring application for offensive expansion loan</td>
</tr>
<tr>
<td>M. The bank’s risk of losing money</td>
<td>13. Requires little (1) – much (7) intuition</td>
</tr>
</tbody>
</table>
Appendix F

Background questions, papers 4 and 5

Name:

Title:

• Are you part of the decision committee?
• How many years have you worked on lending?
• How many years have you been employed by the bank?
• How many years have you worked on lending in other banks?
• How many years have you been employed by other banks?
• Could you specify your level of education?
• Could you specify your year of birth?
• Could you specify your branch office location?
• Do you wish to obtain a copy of the research results?
• Please provide your phone number.

Complementary open-ended questions, papers 4 and 5

1. What do you think could be assessed less extensively without risking negative effects on the outcome of the assessments (considering profitability as well as risk)?
2. What do you think could be assessed more extensively in order to improve the outcome of the assessments (considering profitability as well as risk)?
3. Do you think the competition between banks is affecting your opportunities to negotiate lending conditions? Please cite examples.
4. Do you think the client strategy is affecting your opportunities to negotiate lending conditions? Please cite examples.
5. Do you think your loan assessments have changed over the last few years? If this is the case, in what way?
6. Is there anything you would like to add?
Appendix G

Focus group interview questions, paper 4

1. Could you describe how the two identified dimensions of the cognitive maps correspond to practice?
2. Could you describe how the risk of losing money relates to the opportunity to profit? How would you want these two to relate?
3. Could you describe how you work on different loan types?
4. Could you describe how you view and consider the bank’s policies?
5. Could you describe how important business relationships and personal relationships are? Also, how do the two tie into the total client strategy?
6. Could you describe the importance of intuition?
7. Could you describe what potential differences could exist between the different groups of loan officers and the different individuals in these groups? What are the possible reasons for these potential differences at the group level and individual level, respectively?
8. Is there anything you wish to add?
The papers