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Publication date

2018

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Citation for published version (APA):

Sakalauskaite, I. (2018). *Essays on malpractice in finance*. [Thesis, fully internal, Universiteit van Amsterdam].

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Ieva Sakalauskaite

Essays on Malpractice in Finance

Universiteit van Amsterdam

Essays on Malpractice in Finance

ISBN 978 90 361 0533 0

Cover design: Crasborn Graphic Designers bno, Valkenburg a.d. Geul.

This book is no. 728 of the Tinbergen Institute Research Series, established through cooperation between Haveka Publishers and the Tinbergen Institute. A list of books which already appeared in the series can be found in the back.

ESSAYS ON MALPRACTICE IN FINANCE

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van doctor

aan de Universiteit van Amsterdam

op gezag van de Rector Magnificus

prof. dr. ir. K.I.J. Maex

ten overstaan van een door het College voor Promoties ingestelde
commissie, in het openbaar te verdedigen in de Aula der Universiteit

op woensdag 5 december 2018, te 11:00 uur

door Ieva Sakalauskaitė

geboren te Panevėžys, Litouwen

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Acknowledgements

The writing of this PhD dissertation has been a long process, and I would like to thank numerous people who shaped this experience in many different ways and helped it come to an end.

First of all, I would like to thank my supervisors who inspired and guided me through this undertaking. Tanju, I am forever indebted to you for being encouraging of my unorthodox research agenda and providing advice and support when I most needed it. I thank you for your insights and critical comments about theory and empirics, life, as well as our numerous fun conversations. Enrico, thank you for inspiring interest in financial and political institutions and directing me to this area of research. Although it turned out that I was not a theoretician in the end, I learned a great deal from you of how to think about banks, their risks, and regulation.

Roel Beetsma and Massimo Giuliodori: thank you for working with me. Roel, I am grateful that you inspired and encouraged me to do a PhD. Massimo, you taught me a lot about empirical research, and I would also like to thank you for your support in the job market as well as advice on how to proceed with my studies.

Besides the people who supervised me, many individuals have contributed to this dissertation in other ways. I am grateful to the Tinbergen Institute and the Finance Group at the University of Amsterdam for providing the opportunity to pursue this degree, hosting me and being kind throughout these years. Erasmo, Esther, Florian, Liang, Philippe, Razvan, Rafael M., Rafael R., Spyros, Stefan, Tomislav, Torsten and Vladimir: thank you for research advice, especially during the job market season. Lorena, thank you for your assistance, but more importantly our relaxed conversations and lunches. At TI, I would like to thank Ester, Arianne, Christina, and Judith: first for making me feel at home, and then helping to leave.

Visits to the ECB and the Bank of Lithuania provided crucial boosts to my research agenda, but more importantly invaluable connections. The ESRB exposed me to macro-prudential policy issues and were supportive of research on bank malpractice. I would like to thank Povilas and Mihnea for hosting me at the Bank of Lithuania and the rest of the CEFER team for providing a productive and friendly research environment.

I must also thank the people who made the graduate programme less painful and the PhD years more fun. Guilherme, I believe that only MWG can come close to you in terms of the time spent together. Thank you for the jokes and beers we had and the desperate music sessions in M4.04. Stephanie! I hope we will find more occasions to sample new beaches. Lennart, I admire how much you enjoy economics. Simin, I am always happy to see you and cherish your friendship. Martin, I wish we had met more often. Swapnil, Francisco and Jindi, it was nice having you around.

Erkki, thank you for keeping my football knowledge up-to-date. Robin, I benefited from having you as a colleague and appreciate our dinners, drinks, and trips to conferences together. Sandor, I really enjoyed our meetings and chats. Dorinth, Rob, Pascal, Merve, Mark - you were fun and patient office mates. I must also thank Oscar who was great in transforming my Summary into a Samenvatting.

Kovo 11 and Vasario 16 would have been less fun without the Lithuanian TI community: Eglė J, Simas and Eglė G.. Arturai and Zina, thank you for letting me stay at your place. Andrej and Ragnar, I fondly remember the year in our residence at President Brandstraat: thank you for being fun, kind and patient housemates, and keep working on the concept of fluid economics!

For the planning and other sessions that we have had I would like to extend a separate word of thanks to Ieva and Magda. Magda, I am very lucky that you joined the Finance Group several years ago: you are an amazing friend and colleague (and now a paronym), I value your friendship dearly. Ieva, let's see whether our outfits match when we meet the next time.

I also need to thank my friends in Lithuania who did not leave me behind when I was living abroad. Aiste, Ausra, Osvaldai, Ryti, Rasa, Asta, thanks for agreeing to meet at short notice and inconvenient times, especially given that our interactions often involved not only entertainment, but also having to hear about the boring problems of a PhD candidate.

Finally, I could not have written this dissertation without the support from my family. Thank you, Benas, Dovile and Dobis for our relaxed meetings and for not losing faith in me. I am forever indebted to my mother Laima for being a help line during the difficult periods, and father Laimas for always putting things into a broader perspective (that staying healthy is most important). My grandparents Nijole, Lionginas, Stanislava and Eugenijus have contributed to the freedom I enjoyed when choosing study subjects and locations. Lionginai, you have always led by example in terms of work ethics and perfectionism. Nijole, thank you for your life advice, care, and love.

Introduction

Our understanding of factors that can lead to the buildup and propagation of risks in the financial sector has improved considerably since the financial crisis broke out a decade ago.

Numerous studies have established the channels through which the public safety net, excessive leverage, or regulatory arbitrage contribute to bank incentives to take risks. Fire sales, interconnectedness through direct holdings, or indirect exposures further help risks and costs spread to create contagion effects. Large losses suffered during the crisis have also inspired a growing body of research on the importance of agency conflicts, risk culture, or deteriorating ethical standards in explaining the poor performance of banks.¹

On the other hand, several factors affecting bank stability and health are still under-studied. First, the multiple misconduct scandals that have erupted since the crisis have raised concerns about the prevalence and costs of misbehaviour in the financial industry.² Malpractice such as benchmark rate rigging or asset quality misrepresentations affects the functioning of financial markets. Furthermore, revelations of fraud have implications for financial stability when financial penalties for misbehaviour are imposed subsequently, also deteriorating public trust. However, contrary to bank risk-taking, the role that shareholder incentives, capital structures, ill-designed compensation schemes or governance failures have in driving bank misconduct is still not well examined.

Second, besides to the behaviour of individuals working for financial institutions, bank interactions with the institutional environment in which they operate can also influence their outcomes. It is broadly established that industry competition, creditor rights, or the regulatory environment are important determinants of bank performance. At the same time, recent evidence suggests that self-interested politicians and regulators, political connections, and lobbying efforts can affect the stringency with which

¹ For instance, see Bannier et al. (2012) for moral hazard in banks, Benabou and Tirole (2016) on firm ethics, and Thakor (2016) for a survey on risk culture in banks.

² In his AFA presidential address in 2015, Luigi Zingales expressed concerns that misconduct is a “feature rather than a bug” in the financial industry.

banks are supervised, their failure risk, or the generousness of taxpayer support.³ Can misconduct by public officials rather than the behaviour of bank employees also contribute to the costs of bank failures?

The three papers contained in this dissertation tackle these questions. In Chapters 1 and 2, I use a literature survey, a theoretical model, and a novel dataset on bank malpractice to study the conditions under which they are more likely to engage in unlawful or unethical practices, and the role played by shareholder versus manager incentives. Chapter 3 examines the effects of political corruption on bank resolution methods and costs. Although the questions raised in the chapters are different, they share a common interest in studying the causes and effects of misbehaviour within and around financial institutions.

Namely, Chapter 1, entitled “A Survey on Bank Malpractice,” aims to overview the current state of knowledge about causes of malpractice in banks, and outline gaps in the existing literature. The main conclusions of the paper are that neither agency conflicts in banks nor shareholder profit-maximisation appear to fully explain their misbehaviour. I also find that although bank capital structures or risk-taking could be important determinants of misconduct by reducing shareholder exposure to costs, or inducing regulatory forbearance, theoretical as well as empirical evidence on the role of such bank-specific factors is lacking.

In Chapter 2 “Bank Risk Taking and Misconduct” I introduce a theoretical model which links misconduct in banks to their risk-taking incentives, and use a hand-collected dataset to examine such relationships empirically. The key result of the model is that misconduct can arise as an agency cost when compensation schemes designed to encourage risk-taking motivate managers to boost returns through malpractice. Using data on misconduct in a sample of 30 banks during 1998-2010, I find some evidence that bank risk-taking, compensation schemes, and misconduct are related: misconduct is pro-cyclical, and increases with CEO bonuses in periods of high economic growth and bank leverage.

In the final chapter “Corruption and Failing Bank Resolution,” I turn to examine the effects of malpractice in banks’ environment, or political corruption. In a theoretical model, I show that corruption can result in costlier failures not only through reducing bank charter values, but also by diminishing the capacity of their surviving counterparts to purchase them in resolution. Data on bank failures in the United States during 1976-2013 provides evidence that institutions operating in more corrupt regions (measured by the number of public officials’ convictions) are indeed more likely to be liquidated, and their resolution results in higher costs to the deposit insurer.

³ See Bian et al. (2017) and Liu and Ngo (2015) for the effects of election concerns on bank failure risk and bailouts, or Lambert (2017) on lobbying and supervision.

In the remainder of the introduction, I briefly introduce the data used in this dissertation and provide a more detailed overview of the three chapters.

Data

In Chapters 2 and 3, I build theoretical models and test them empirically using bank-level panel data.

The key contribution of Chapter 2 is the construction of a dataset on bank misconduct that focuses on its initiation dates rather than the timing of disciplinary actions. The sample used consists of misconduct initiated in 30 major banks, which include globally systemically important institutions and large banks operating in the United States. To gather information on their misconduct initiation, I study the documents accompanying each case in which each of the sample banks paid conduct costs exceeding 1 million US dollars during 2000-2016. Because of the time lag between bank misbehaviour and disciplinary actions, the data is informative of misconduct that started during 1998-2010.

Contrary to existing studies on fraud which focus on the risk of fraud incidence, I also use the size of resulting fines as a measure of misconduct intensity, therefore focusing on its intensive margin. This approach allows to capture the severity of bank malpractice better than studying the risk of its occurrence, especially since the sample banks have tended to be repeat offenders. To study how misconduct relates to bank risk-taking and remuneration schemes, the data is then merged with information from Compustat and Execucomp databases.

In Chapter 3, the key variable of interest is corruption. To study how it affects bank resolution methods and costs, as a measure of corruption I use the number of public officials convicted annually during 1976-2013 across United States districts. This data is obtained from the US Department of Justice Public Integrity Section's annual reports. As there are 90 judicial districts in the 50 US states, the data provides information on within-state variation in corruption, allowing to control for state-specific variables. To examine the relationship between corruption and bank performance, resolution methods, and costs, I merge the data on convictions with the Federal Reserve Bank of Chicago's Quarterly Call Report information on balance sheets for the universe of commercial US banks, and the Federal Deposit Insurance Corporation's data on historical bank failures.

In a perfect setting, it would be desirable to examine the causes of misconduct in banks, or the effects of political corruption on the health of financial firms, by exploring exogenous variation in the variables of interest. However, the chapters in this dissertation do not rely on "natural experiments," or exogenous shocks, to identify causal effects. Therefore, the results presented in the chapters can to a large extent

be treated as correlations. On the one hand, this weakens the conclusions that can be drawn, and policy implications that can be inferred, from the estimates. However, studying these relationships can still provide information about the conditions under which financial institutions are more likely to misbehave, or the resolution of financial firms tends to be costlier.

Thesis Outline

Misconduct in Banks

Broadly speaking, conduct defines the attitudes and actions of firms and their employees, misconduct often corresponding to engagement in illegal or unethical practices. Well-publicised misconduct cases have recently included interest rate and foreign currency manipulations, the issuance of fake customer accounts, or money laundering.

In Chapter 1, entitled “A Survey of Bank Malpractice,” I aim to provide an overview of the state of knowledge about the prevalence and causes of such bank misbehaviour. One of the key themes in the chapter revolves around the question of what drives malpractice in banks. First, it considers how misconduct can occur when bank shareholders trade off the resulting benefits against costs akin to the Becker’s (1968) economics of crime framework. If misconduct results from shareholder profit maximisation, we might expect to observe less misbehaviour when banks have high reputational capital that can be lost, and face higher detection risk. The paper then discusses the channels through which malpractice can emerge as an agency cost when bank managers act in self-interest. For example, similar to excessive risk taking as suggested in the recent banking literature, misconduct could be a side-product of compensation schemes designed to encourage effort or screen talented managers.

The paper finds that the existing empirical evidence on malpractice in banks and firms operating in other industries can not provide a clear view over which mechanism dominates. While banks suffer reputational and financial penalties following revelations of their misbehaviour, it does not appear that higher reputational capital was associated with better behaviour in mortgage-backed security fraud during the lead-up to the crisis. It also seems that although traditional governance measures such as board independence or quality are not related to lower incidence of misconduct, better board monitoring and advice reduce it, pointing to a potential role of agency conflicts, as well.

In terms of regulation, the paper concludes that restrictions on managers’ pay as well as efforts to improve bank governance could result in lower levels of malpractice in the future. If misconduct arises as an agency cost, assisting banks in their effort to improve controls can reduce co-ordination failures resulting in inefficiently poor gover-

nance, increasing the barriers to managers willing to misbehave, and also potentially allowing to alter their compensation structures. Meanwhile, regulations on bankers' pay such as deferred pay requirements or claw back and malus provisions can affect their incentives by increasing exposure to long-term losses associated with misconduct.

Another key question raised in the paper concerns the importance of bank-specific features such as leverage for bank malpractice. Although empirical evidence on the role of these aspects is limited, only suggesting that corporations are more likely to engage in financial fraud when closer to bankruptcy, these factors might have stronger effects in financial firms. First, high leverage diminishes the potential losses that bank shareholders can suffer in case of detection. Second, the financial fragility of banks might reduce the willingness of regulators to impose high financial penalties, especially since malpractice is often discovered in economic downturns.

Chapter 2 entitled "Bank Risk Taking and Misconduct" formalises the relationship between bank risk taking, compensation schemes, and misconduct in a theoretical model. It also attempts to fill the gap in the empirical literature by analysing a new dataset on misconduct in a sample of large global banks.

To outline the potential role of agency conflicts in banks, the paper considers a model in which to supervise investment projects, bank shareholders hire managers who can also initiate misconduct. First, managers can choose between investing in a risky or safe project, the former being more profitable in the short run, but carrying long-term risks. Meanwhile, misconduct is modelled as socially costly actions by managers that increase the probability of observing high short-term returns. Initiating misconduct runs the risk of detection in the long run, resulting in conduct costs being imposed on shareholders, and the managers getting dismissed.

The key result of the model is that when the riskiness of bank investment opportunities increases, shareholders might face a trade-off between encouraging manager risk-taking and deterring costly malpractice. To incentivise managers to take risk, banks have to offer sufficiently high short-term pay to compensate for the probability of failure in the long run. At the same time, to discourage malpractice, managers' compensation has to be insensitive to short-term performance and deferred in order to increase their exposure to disciplinary actions.

The model also demonstrates that when conduct costs imposed by regulators are low and bank shareholders find misbehaving profitable, misconduct and risk taking become complements. The intuition is that increasing probability that the bank will be bankrupt in the long run reduces expected future conduct costs. At the same time, as relatively higher additional revenues can be realised through malpractice when the risky project is implemented, misconduct makes risk-taking more profitable relative to investing in safe assets. Finally, increasing bank leverage expands the set of conditions

under which the risky projects are implemented, and therefore malpractice cannot be prevented, or is encouraged.

What is the extent to which malpractice observed in the data is related to compensation schemes, risk-taking opportunities, and executive incentives? To answer this question, I use information on the value of misconduct initiated annually in a sample of 30 major financial institutions during 1998-2010. First, the data shows that misconduct has been prevalent over the sample period, its intensity increasing with economic growth. In line with the theoretical model, while higher CEO bonuses do not affect its intensity on average, they are related to misconduct positively at times of high economic growth and when bank leverage increases. This can be interpreted as evidence of shareholders facing worse trade-offs when profitable risky investment opportunities arise, or bank risk increases.

Banks and Corruption

Cross-country evidence on the effects of corruption on bank profitability and riskiness, as well as studies on related or politically-motivated lending, suggest that banks operating in corrupt areas tend to perform worse.⁴ In the final chapter of this dissertation, I delve further to examine how this affects bank resolution methods and costs.

Chapter 3 examines one potential channel through which corruption makes bank failures costlier focusing on how it worsens cash in the market pricing effects in their resolution. The paper argues that by diminishing the resources available to potential acquirers, higher corruption depresses the prices that the deposit insurer can recover by selling failed bank assets and charters. Such effects might complement the more direct consequences that corruption has on bank failure costs by reducing their franchise values, or through corrupt politicians and supervisory agencies.

In the paper, I build a theoretical model which extends the cash in the market pricing framework used by Acharya and Yorulmazer to study bank resolution in systemic crises (2008). It assumes that political corruption reduces the returns of banks operating in the economy, and affects entry costs to potential outside acquirers. Following this assumption, I show that by extorting banks through related lending or bribes, corruption not only reduces their charter values, but also worsens cash constraints in the surviving banks. This depresses the price that the deposit insurer can realise in purchase and assumption transactions, also raising the relative attractiveness of liquidations.

Allowing outside entry yields an interesting result. Assuming that entry is costly, it is shown that banks from outside locations are more likely to purchase failing in-

⁴ For example, cross-country studies by Park et al. (2012) and Chen et al. (2015) show that banks in corrupt areas are riskier and have more non-performing loans.

stitutions when local corruption is high. This results when the effects of cash in the market pricing outweigh the costs of entering.

The paper tests the model's predictions using data on public officials' convictions in the United States, not previously employed to examine its banking sector. Empirical analysis of the universe of commercial banks operating and failing during 1976-2013 provides some evidence that higher corruption is related to lower bank returns during non-crisis years, but more importantly shows that it increases failing bank resolution costs and liquidation risk considerably.

Also, consistent with the model's predictions, corruption in a bank's district reduces the likelihood that it will acquire its failing counterpart, and among banks resolved through purchase and assumption transactions, acquisitions by institutions from outside locations are more likely when local corruption is high.

These findings contribute to the literature on the factors that can increase the costs of financial crises, and suggest one more channel through which corruption can affect economic outcomes.