Essays on the Value of CEOs and Directors

Tangaa Nielsen, Kirsten

Document Version
Final published version

Publication date:
2021

License
Unspecified

Citation for published version (APA):
Tangaa Nielsen, K. (2021). *Essays on the Value of CEOs and Directors*. Copenhagen Business School [Phd]. PhD Series No. 20.2021

Link to publication in CBS Research Portal

General rights
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy
If you believe that this document breaches copyright please contact us (research.lib@cbs.dk) providing details, and we will remove access to the work immediately and investigate your claim.

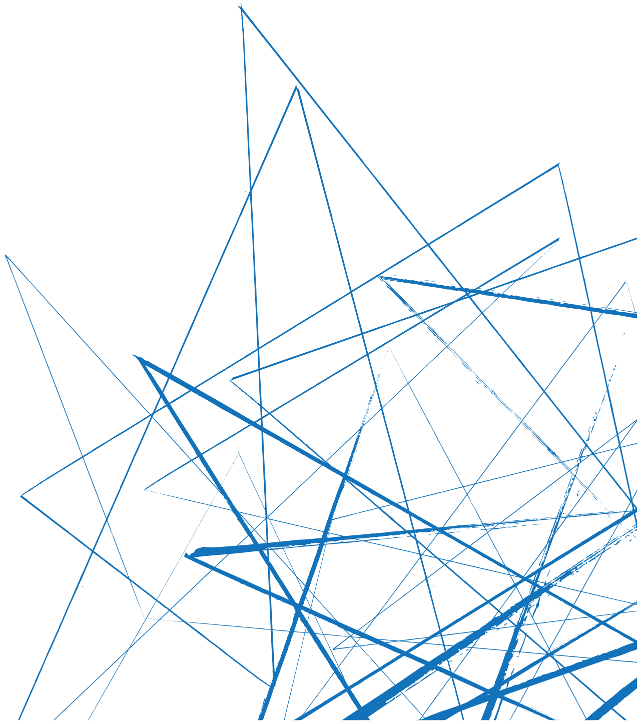
Download date: 12. Jul. 2025

COPENHAGEN BUSINESS SCHOOL
SOLBJERG PLADS 3
DK-2000 FREDERIKSBERG
DANMARK

WWW.CBS.DK

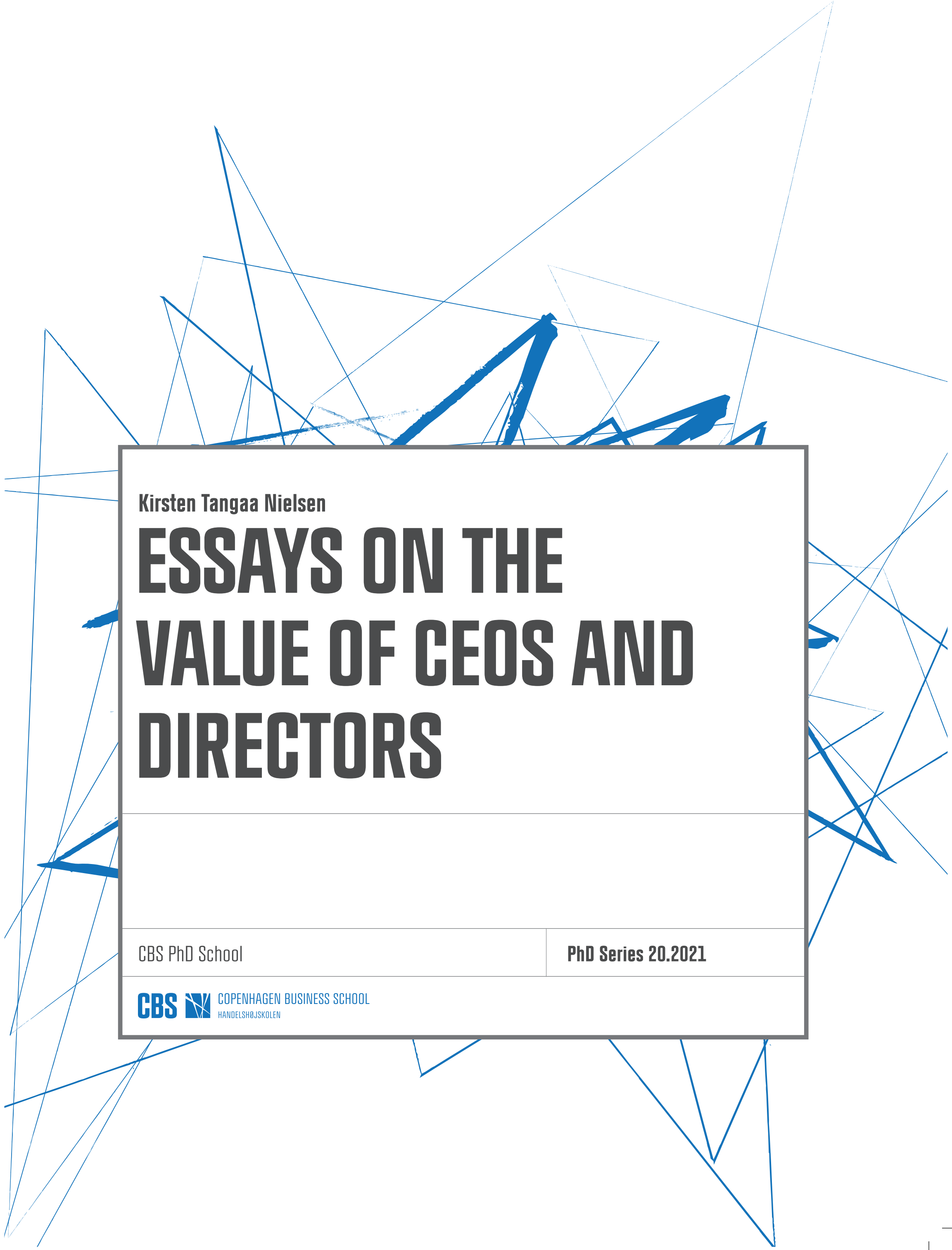
ISSN 0906-6934

Print ISBN: 978-87-7568-016-0
Online ISBN: 978-87-7568-017-7



ESSAYS ON THE VALUE OF CEOS AND DIRECTORS

PhD Series 20.2021



Kirsten Tangaa Nielsen

ESSAYS ON THE VALUE OF CEOS AND DIRECTORS

CBS PhD School

PhD Series 20.2021

COPENHAGEN BUSINESS SCHOOL
HANDELSHØJSKOLEN

Essays on the Value of CEOs and Directors

Kirsten Tangaa Nielsen

Supervisor: Ken L. Bechmann

Co-supervisor: Kasper Meisner Nielsen

PhD School in Economics and Management

Copenhagen Business School

Kirsten Tangaa Nielsen
Essays on the Value of
CEOs and Directors

1st edition 2021
PhD Series 20.2021

© Kirsten Tangaa Nielsen

ISSN 0906-6934

Print ISBN: 978-87-7568-016-0
Online ISBN: 978-87-7568-017-7

The CBS PhD School is an active and international research environment at Copenhagen Business School for PhD students working on theoretical and empirical research projects, including interdisciplinary ones, related to economics and the organisation and management of private businesses, as well as public and voluntary institutions, at business, industry and country level.

All rights reserved.
No parts of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage or retrieval system, without permission in writing from the publisher.

Preface

This thesis consists of three papers that I worked on during my Ph.D. studies at the Department of Finance at Copenhagen Business School. While each of the three articles constitute independent research and can be read separately, they all aim to investigate different aspects within the field of empirical corporate governance related to the shareholder value contribution of central corporate persons in listed firms.

I would like to thank my supervisors at Copenhagen Business School, Ken L. Bechmann and Kasper Meisner Nielsen, for their tremendously help, support and advice at any point in time. In particular, I am grateful to Ken Bechmann's mentorship, continuous encouragement and for not giving up on me handing in my Ph.D. thesis at the last possible deadline. I would also like to thank Kasper Meisner Nielsen for his invaluable research advises and being an indispensable co-author in our joint research project. I am further thankful to David Yermack for hosting my research visit at NYU Stern and for his helpful feedback and discussions of new research ideas. In addition, I would like to thank my co-author Felix von Meyerinck for his patience and continuous support over the years. I would also like to thank all the amazing research assistants that have helped over the years to collect an impressive dataset in multiple languages covering the entire world of central corporate persons. Finally, I would like to thank my Ph.D. committee for invaluable suggestions and recommends to help improve my research papers and get them ready for journal submissions. There are many, many more to thank – none will be mentioned but neither forgotten.

Kirsten Tangaa Nielsen
Copenhagen, June 2021

Summary

This section contains an English and a Danish summary of the three papers that comprise the thesis.

English summary

Paper I: Managerial Networks and Shareholder Value: Evidence from Sudden Deaths

(co-authored with Felix von Meyerinck, University of St. Gallen)

In the first paper, we investigate the value of corporate connections among top executives and directors of different firms using a natural experiment. In particular, our identification strategy rests on the idea that sudden deaths trigger unexpected and exogenous dissolutions of connections. This allows us to quantify the market value of each of the suddenly deceased managers' connections by examining the stock price reactions at the firms that are affiliated with managers from the deceased managers' networks. While the existing literature on executive connections has focused primarily on the implications of managerial networks for the employing firms, our approach examines connected firms, which enables us to quantify the value of individual connections to the deceased manager and to isolate the value of connections from factors such as the loss of key personal and other managerial characteristics.

Using a sample of 42 managers who suddenly pass away while working for S&P500 firms, our results show that around 7,000 connected firms experience a significant reduction in shareholder value of 0.11% on average for the loss of a single connection, which translates into a loss in value of between 1.6 and 2.6 million USD, suggesting that shareholders value managerial networks. While this estimate may seem economically small at first sight, it is important to highlight that it represents the loss in value of just one single connection. Furthermore, given that a managerial death in our sample, on average, affects around 225 managers at other firms, the combined loss in value across connected firm should be considerably greater and economically meaningful.

When studying the cross-sectional variation in stock price reactions at connected firms, we find that connections that arise from shared past employments are valued more highly by a firm's shareholders than current employment, education, or social connections. We are also able to show that shareholders assign higher value to connections that link their firm to an industry peer, and we find that connections to inside directors are more valuable than connections to outside directors or executives without a board membership. Similarly, we find that connections to better connected and younger executives are more valuable. Overall, these results are consistent with the notion that certain connections are more important than others, presumably because the information disseminated and accessed via these connections is more important and therefore more valuable.

Paper II: The Value of Independent Directors around the World

(co-authored with Kasper Meisner Nielsen, Copenhagen Business School)

In the second paper, we examine the value of independent directors around the world using stock market reactions to sudden deaths. In the wake of the corporate governance scandals in recent years, policy makers around the world have called for an increase in the independence of directors to improve the effectiveness of corporate boards. In the Unites States, the passing of the Sarbanes-Oxley Act in 2002 increased the role and responsibility of independent directors on boards. In developed as well as emerging markets, the trend has been to follow the United States and increase the independence of directors, either through regulation or soft law. Despite a rich literature on independent directors, direct empirical evidence on whether mandating or recommending the independence of boards is valuable to shareholders is scant.

Notably, Nguyen and Nielsen (2010) use stock price reactions to the sudden death of independent directors to measure their contribution to shareholder value using data from the United States. The authors find that stock prices drop by 0.85%, on average, following director deaths, which suggests that independent directors provide a valuable service to shareholders. While these results seem to suggest that regulating the composition of boards might increase shareholder value, it remains unclear whether the results from the United States are externally valid. Thus, in this paper, we examine stock price reactions to the sudden death of independent directors around the world and analyze their contribution to firm value. Following Nguyen and Nielsen (2010), our underlying hypothesis is that the stock price should decline following the sudden death if the independent director properly monitors or provides managers with pertinent advice.

Using director fixed effects to control for unobserved individual heterogeneity (e.g. director ability), we find that shareholders value independent directors. We further find that independent directors are more valuable to shareholders when they are voluntarily appointed, rather than mandated by hard law or recommended by soft law. Their value increases in governance systems that limits the CEO's ability to control the board through duality and in countries with high accounting standards. Overall, we provide evidence of the value of independent directors around the world, and our results demonstrate that policy makers need to consider the institutional setting and cultural barriers to board effectiveness before they adopt corporate governance reforms from the United States.

Paper III: The value of CEOs and founding families: Evidence from around the world

Finally, in paper III, we investigate the value contribution of professional CEOs and active founding families across generations to shareholders using sudden death events from 32 countries. To date, few studies have been able to isolate a causal effect of professional CEOs and active founding families on shareholder value without being constrained by very small sample sizes (Johnson et al., 1985; Salas, 2010; Jenter et al., 2018). Therefore, we

use a world sample of 325 suddenly deceased individuals, which enables us to differentiate between professional, founder and descendant CEOs and, thereby, investigate how these CEO types affect shareholder value.

We find that the average stock price reaction to a sudden death event in our sample is negative, but also find significant differences depending on the CEO type. Consistent with labor market theory, we find that professional CEOs are more valuable to shareholders relative to founder and descendant CEOs (Fama, 1980; Burkart et al., 2003). In addition, we also find support for the proverbial saying *"from shirtsleeves to shirtsleeves in three generations"*, which is a reference to the fact that only about 3% of all family-owned businesses survive past the third generation in the founding family, according to the Family Business Institute. In particular, the average stock price reaction to losing a founder CEO is negative, while the corresponding event of losing a descendant CEO leads to an overall positive stock price reaction. Going one step further and comparing the effect on shareholder value within the founding families, we find an increasing positive relationship between the stock price reaction to a sudden death and the family generation of the deceased. More specifically, we find that founders are more valuable to shareholders relative to the next generation of descendants, who in turn are more valuable to shareholders relative to subsequent descendants.

Finally, to ensure our results are not driven by differences in legal regimes and investor protection at the country-level, we validate our results by controlling for investor protection and using country fixed effects. Both methods support our interpretations that the negative impact of losing a professional CEO on shareholder value and the positive impact of losing a descendant CEO are global effects that exist across corporate governance regimes around the world.

Dansk resumé

Artikel I: Værdien af ledelsesnetværk: Perspektiver fra pludselige dødsfald

(medforfatter Felix von Meyerinck, University of St. Gallen)

I den første artikel undersøger vi værdien af netværksforbindelser mellem direktører og bestyrelsesmedlemmer på tværs af virksomheder ved hjælp af et naturligt eksperiment. Vores identifikationsstrategi tager udgangspunkt i ideen om, at pludselige dødsfald medfører uventede og eksogene tab af netværksforbindelser. Disse tab giver os mulighed for at beregne markedsværdien af en netværksforbindelse til en af de afdøde direktører eller bestyrelsesmedlemmer, ved at måle på aktiekursreaktionerne hos de virksomheder, der har en person fra den afdødes netværk ansat i en ledelses- eller bestyrelsespost. Mens den eksisterende litteratur om ledelsesnetværk primært har fokuseret på betydningen af netværk for de virksomheder, der beskæftiger en person med et givent netværk, så tager vores studie udgangspunkt i at måle på de forbundne virksomheder i netværket. Derved kan vi måle værdien af enkelte netværksforbindelser til den afdøde direktør eller bestyrelsesmedlem, og samtidig isolere værdien af disse netværksforbindelser fra faktorer såsom tab af vigtige medarbejdere i en given virksomhed og andre ledelsesmæssige egenskaber den afdøde person besidder.

Vi identificerer 42 direktører og bestyrelsesmedlemmer, der pludseligt afgår ved døden, mens de arbejder for en virksomhed, der er en del af det amerikanske S&P500-indeks, og viser at omkring 7.000 selskaber med en netværksforbindelse til disse personer oplever et signifikant fald i aktiekursen på 0.11% i gennemsnit, for tabet af en enkelt netværksforbindelse, hvilket kan oversættes til et værditab for selskabet på mellem 1.6 og 2.6 millioner dollars. Ved første øjekast kan dette tal virke økonomisk lille, men der er kun tale om værditabet for en enkelt forbindelse. Idet en afdød direktør eller bestyrelsesmedlem i vores studie, i gennemsnit, har et netværk med omkring 225 andre ledere i andre børsnoterede selskaber, så vil det samlede værditab på tværs af virksomhederne i netværket være betydeligt større og økonomisk meningsfuldt.

Når vi sammenligner aktiekursreaktionerne hos virksomhederne i netværket på tværs af forskellige parametre, finder vi, at forbindelser, der opstår som følge af fælles tidligere ansættelser, generelt bliver værdsat højere af virksomhedens aktionærer end forbindelser, som er skabt gennem nuværende beskæftigelse, uddannelse eller sociale forbindelser. Vi er også i stand til at vise, at aktionærer tildeler højere værdi til forbindelser, der skaber en tilknytning til andre virksomheder inden for deres egen industri og vi kan se at forbindelser til topledelsespersoner er mere værdifulde end forbindelser til uafhængige bestyrelsesmedlemmer eller direktører som ikke sidder i det øverste ledelseslag. På samme måde finder vi også, at forbindelser til personer, som har et større netværk og yngre ledere er mere værdifulde. Samlet set, er disse resultater i overensstemmelse med ideen om, at visse netværksforbindelser er vigtigere end andre, formodentlig fordi den information, man kan tilegne sig via disse forbindelser, er vigtigere for selskabet og derfor mere værdifuld end andre.

Artikel II: Værdien af uafhængige bestyrelsesmedlemmer over hele verden

(medforfatter Kasper Meisner Nielsen, Copenhagen Business School)

I den næste artikel undersøger vi værdien af uafhængige bestyrelsesmedlemmer i hele verden ved at studere aktiemarkedsreaktioner til pludselige dødsfald. Som følge af flere corporate governance skandaler i de senere år har politikere på tværs af lande i hele verden opfordret virksomheder til at øge antallet af uafhængige bestyrelsesmedlemmer for at forbedre effektivitet og monitorering af virksomheders' bestyrelser. I USA øgede man fx det uafhængige bestyrelsesmedlems rolle og ansvar betydeligt med vedtagelsen af Sarbanes-Oxley Act i 2002. I resten af verden har der efterfølgende været en tendens til at følge USA's strategi på området, enten gennem regulering eller *soft law*. Trods en megen litteratur omhandlende uafhængige bestyrelsesmedlemmer er der ikke mange direkte empirisk undersøgelser af, hvorvidt mandat eller anbefaling af bestyrelsers uafhængighed er værdifuldt for aktionærerne.

Et tidligere studie baseret på data fra USA af Nguyen and Nielsen (2010) kigger på aktiekursreaktioner i forbindelse med pludselige dødsfald af uafhængige bestyrelsesmedlemmer for at måle deres bidrag til værdien af amerikanske selskaber. Forfatterne viser, at aktiekurserne i gennemsnit falder med 0.85% efter et uafhængigt bestyrelsesmedlem dør, hvilket understøtter teorien om, at disse bestyrelsesmedlemmer leverer en værdifuld service til aktionærerne. Selvom disse resultater synes at antyde, at regulering af bestyrelsens sammensætning kan øge værdien af selskabet for aktionærerne, så er det stadig uklart, om resultaterne fra USA er gyldige andre steder i verden. Dette er den primære motivation for vores studie og hvorfor vi bruger data fra hele verden.

Vores resultater bekræfter at uafhængige bestyrelsesmedlemmer er værdifulde for aktionærerne, når vi bruger fixed effects på bestyrelsesmedlemsniveau til at kontrollere for en persons evner og andre ukendte person-faktorer. Ydermere, viser vores undersøgelse, at uafhængige bestyrelsesmedlemmer er mere værdifulde, når de bliver frivilligt udnævnt til deres position, fremfor at det bliver påkrævet gennem lovgivning. De er også mere værdifulde i lande med gode regnskabsstandarder og inden for corporate governance system, som begrænser den administrerende direktørs magt over bestyrelsen.

Artikel III: Værdien af CEOs og virksomhedsaktive stiftende familier over hele verden

I den sidste artikel undersøger vi, hvilken værdi et selskabs aktionærer tillægger professionelle direktører og aktive stiftende familier på tværs af generationer ved hjælp af samme naturlige eksperiment, som i de to foregående artikler. Hidtil har meget få studier været i stand til at isolere den værdiskabende effekt der kan tillægges en professionel direktør eller en aktiv stiftende familie uden at studierne har været begrænset til meget få observationer (Johnson et al., 1985; Salas, 2010; Jenter et al., 2018). Af denne grund bruger vi data fra hele verden til at samle et studie på 325 pludseligt afdøde personer, som gør det muligt for os at skelne mellem professionelle direktører, grundlæggere og deres efterfølgere.

Vores resultater viser, at den gennemsnitlige aktiekursreaktion for et pludselig dødsfald i vores studie er negativ, men samtidigt finder vi også betydelige forskelle på tværs af direktør-typer. I overensstemmelse med arbejdsmarkedsteorierne finder vi, at professionelle direktører er mest værdifulde for aktionærerne i forhold til grundlæggere og deres efterfølgere (Fama, 1980; Burkart et al., 2003). Derudover bekræfter vores resultater også ordsproget *"from shirtsleeves to shirtsleeves in three generations"*, der er en henvisning til at kun omkring 3% af alle familieejede virksomheder overlever længere end til tredje generation. Især ser vi, at den gennemsnitlige aktiekursreaktion for at miste en grundlægger, som stadig er direktør, er negativ, mens den tilsvarende begivenhed hvor man mister et familiemedlem fra en senere generation, som er administrerende direktør, fører til en positiv aktiekursreaktion. Når vi går et skridt videre og sammenligner effekten på aktiekurserne i familievirksomheder, finder vi et stigende positivt forhold mellem aktiekursreaktionen og hvilken generation i familien at den afdøde kommer fra. Helt præcist, så finder vi, at stiftere er mere værdifulde for aktionærerne i forhold til den næste generation af efterkommere, som igen er mere værdifulde for aktionærerne i forhold til de efterfølgende generationer.

For at sikre os, at vores resultater ikke er drevet af landeforskelle i lovgivning, regulering og investorbeskyttelse, undersøger vi til sidste at vores resultater holder, når vi kontrollerer for investorbeskyttelse og kun sammenligner variationen i aktiekurserne inden for hvert land. Begge metoder understøtter vores tidligere resultater, og bekræfter vores fortolkning, at der er tale om globale effekter, der findes på tværs af corporate governance systemer rundt om i verden.

Contents

Preface **iii**

Summary **iv**

English summary iv

Dansk resumé viii

Introduction **5**

Paper I: Managerial Networks and Shareholder Value: Evidence from Sudden Deaths **11**

I.1 Introduction **12**

I.2 Sample selection and data **16**

I.2.1 Sudden death sample 16

I.2.2 Connected manager sample 19

I.2.3 Connected firm sample and sample characteristics 20

I.3 Empirical Results **21**

I.3.1 The value of managerial network connections 22

I.3.2 The value of professional networks 25

I.3.3 The value of industry connections 28

I.3.4 The value of business insiders 30

I.3.5 Isolating the effect of industry connections from deceased managerial ability 32

I.3.6 Alternative specifications 33

I.4 Conclusion **34**

I. Tables **38**

I. Appendices **48**

Paper II: The Value of Independent Directors around the World 61

II.1 Introduction 62

II.2 Sample and data 67

II.2.1 Sample selection and definition of sudden deaths 67

II.2.2 Descriptive statistics 69

II.3 Empirical results 69

II.3.1 Stock price reactions to sudden deaths around the world 69

II.3.2 The value of independence 71

II.3.3 Corporate governance reforms and the value of independent directors . . . 72

II.3.4 Rule of law and the value of independent directors 76

II.3.5 Culture and the value of independent directors 77

II.4 Concluding remarks 80

II. Tables 83

Paper III: The value of CEOs and founding families: Evidence from around the world 91

III.1 Introduction 92

III.2 Data and sample selection 97

III.2.1 Sample selection and definition of sudden deaths 97

III.2.2 Summary statistics 101

III.3 Empirical Results 101

III.3.1 Stock price reactions to sudden CEO deaths around the world 102

III.3.2 The value of CEOs 104

III.3.3 The value of active descendants 106

III.3.4 Ownership control and the value of CEOs 107

III.3.5 Investor protections and the value of CEOs and founding families 109

III.4 Conclusion **112**

III. Tables **116**

III. Appendix **126**

Conclusion **131**

Introduction

Understanding the importance of CEOs and directors for the value and performance of publicly listed firms has received extensive attention in the academic literature for many years. A general conclusion of this research has always been that central corporate persons demonstrate vast heterogeneity in terms of their characteristics, which leads to substantial cross-sectional variation in the value and performance of the firms in which they operate. Thus, the central theme of this PhD thesis is to examine different aspects of these individuals to determine how they are valued by shareholders. The three papers of this thesis constitute independent research, which can be read separately, but at the same time, they are all written within the field of empirical corporate governance. Further, they are all based on the same identification strategy of using sudden death events as exogenous shocks to the stock price of affected firms as a way to estimate value contributions of important inviduals while avoiding some of the common endogeneity issues often associated with corporate governance research. Notably, in this thesis, we estimate the value contribution made to shareholder by central corporate persons such as CEOs, founding families and independent directors as well as corporate connections between these individuals.

The first paper was written in collaboration with Felix von Meyerinck from the University of St. Gallen. Motivated by a general view in the business press and academia that social ties between top executives and directors across firms create value by improving access to information, credit and human capital (Bayer et al., 2008; Cohen et al., 2008; Cohen et al., 2010; Engelberg et al., 2018), we investigated whether this also holds true for shareholder value. The idea that social networks between managers create value is not new (Engelberg et al., 2012; Engelberg et al., 2013; Cai and Sevilir, 2012; Cohen et al., 2008). However, empirical evidence has also shown that managers with large networks wield significant bargaining power in the boardroom and may even lead to lax board monitoring, lower pay-for-performance sensitivity and turnover-performance sensitivity (Fracassi and Tate, 2012; Hwang and Kim, 2009; Nguyen, 2012). Thus, any beneficial effect of a large managerial network on firm value may be surpassed by the negative side-effects of weakened board monitoring and more powerful CEOs. Therefore, it is difficult to determine whether managerial networks overall provide value to shareholders.

First, we find that connected firms experience a significant reduction in shareholder value of 0.11%, on average, for the loss of a single connection, which translates into a loss in value of between 1.6 and 2.6 million USD, suggesting that shareholders value managerial networks. While this estimate may seem economically small at first sight, it is important to highlight that it represents the loss in value of just one single connection and, given that a managerial death in our sample, on average, affects around 225 managers at other firms, the combined loss in value across connected firm should be considerably greater and economically meaningful.

Next, when studying the cross-sectional variation in stock price reactions at connected firms, we find that connections that arise from shared past employments are valued more highly by a firm's shareholders than current employment, education, or social connections. We are also able to show that shareholders assign higher value to connections that link their firm to an industry peer, and we find that connections to inside directors are more valuable than connections to outside directors or executives without a board membership. Similarly, we find that connections to better connected and younger executives are more valuable. Finally, a general concern with our findings is that some deceased managers may possess some unobservable ability that facilitates more valuable connections compared to their peers, which is related to some firm or industry-specific factors. Using an event fixed effects approach to address this concern, we find that our results are not driven by some unobservable ability factor or characteristic of the deceased manager.

The second paper was conducted in collaboration with Kasper Meisner Nielsen. The paper examines the value of independent directors around the world using the same identification strategy as in the first paper, namely stock market reactions to sudden deaths. In particular, in the wake of the corporate governance scandals of the past twenty years, policy makers around the world have called for increasing the independence of directors to improve the effectiveness of corporate boards. With the Unites States in the lead with the passing of the Sarbanes-Oxley Act in 2002 to increase the role and responsibility of independent directors on boards, other developed as well as emerging markets have followed the same trend and increased the independence requirements of directors, either through regulation or soft law. Thus, our research was motivated by the fact that despite a rich literature on independent directors, direct empirical evidence on whether mandating or recommending independence of boards is valuable to shareholders is scant, especially when looking outside the United States.

Compiling a sample of 806 directors who suddenly died between 2000 and 2019, we first find that the average independent director around the world does not contribute to shareholder value. Stock price reactions to sudden deaths are close to zero and statistically insignificant. Across countries there is, however, large heterogeneity in the value of independent directors. Sudden deaths of independent directors in the Netherlands are, on average, associated with a cumulative abnormal return of -2.54% around the death date, whereas the cumulative abnormal return in India is 0.79%. The large heterogeneity in the value of independent directors thus motivates a more careful analysis of the determinants of the value of independent directors across corporate governance systems.

In the subsequent analysis, we find that independent directors are more valuable to shareholders, when we control for unobserved director heterogeneity (e.g. director ability). Further, we find that independent directors are more valuable to shareholders when they are voluntarily appointed, rather than mandated by hard law or recommended by soft law, in countries with high accounting standards and in governance systems that limits the CEO's ability to control the board. Overall, our results demonstrate that policy makers around the world need to consider the institutional setting and cultural barriers to board effectiveness before they adopt corporate governance reforms from the United States.

Finally, in paper 3, we turn our attention to some of the most central corporate persons in a firm, namely the CEOs and managerially active founding families. Here we investigate the value contribution of professional CEOs and active founding families across generations to shareholders using sudden death events from 32 countries. Until now, few studies have been able to isolate a causal effect between professional CEOs and active founding families and shareholder value without being constrained by very small sample sizes (Johnson et al., 1985; Salas, 2010; Jenter et al., 2018). Notably, while the sudden death identification strategy works well in terms of controlling for endogeneity, it often results in very small sample sizes. Therefore, we use a world sample of 325 suddenly deceased individuals to be able to differentiate between professional, founder and descendant CEOs and investigate how these CEO types directly affect shareholder value.

First, we estimate the contribution to shareholder value made by the three CEO types and find large variation. In particular, we find that the loss of a professional CEO leads to an average stock price drop of 2.17%, while the average stock price increases by 2.50% following the sudden death of a descendant CEO. We further find an increasing positive relationship between the stock price reaction to a sudden death and the family generation of the deceased. More specifically, we find that founders are more valuable to shareholders relative to the next generation of descendants, who in turn are more valuable to shareholders relative to subsequent generations.

Finally, to ensure our results are not driven by differences in legal regimes and investor protection at the country-level, we validate our results by controlling for investor protection and using country fixed effects. Both methods lend support to our interpretations that the negative impact of losing a professional CEO on shareholder value and the positive impact of losing a descendant CEO are global effects that exist across corporate governance regimes around the world.

References

Bayer, P., Ross, S.L., Topa, G., 2008. Place of work and place of residence: Informal hiring networks and labor market outcomes. Journal of Political Economy 116, 1150 – 1196.

Burkart, M., Panunzi, F., Shleifer, A., 2003. Family firms. Journal of Finance 58, 2167 – 2201.

Cai, Y., Sevilir, M., 2012. Board connections and M&A transactions. Journal of Financial Economics 103, 327 – 349.

Cohen, L., Frazzini, A., Malloy, C., 2008. The small world of investing: Board connections and mutual fund returns. Journal of Political Economy 116, 951 – 979.

Cohen, L., Frazzini, A., Malloy, C., 2010. Sell-side school ties. Journal of Finance 65, 1409 – 1437.

Engelberg, J., Gao, P., Parsons, C.A., 2012. Friends with money. Journal of Financial Economics 103, 169 – 188.

Engelberg, J., Gao, P., Parsons, C.A., 2013. The price of a CEO's rolodex. Review of Financial Studies 26, 79 – 114.

Engelberg, J., Ozoguz, A., Wang, S., 2018. Know thy neighbor: Industry clusters, information spillovers, and market efficiency. Journal of Financial and Quantitative Analysis 53, 1937 – 1961.

Fama, E.F., 1980. Agency problems and the theory of the firm. Journal of Political Economy 88, 288 – 307.

Fracassi, C., Tate, G., 2012. External networking and internal firm governance. Journal of Finance 67, 153 – 194.

Hwang, B.H., Kim, S., 2009. It pays to have friends. Journal of Financial Economics 93, 138 – 158.

Jenter, D., Matveyev, E., Roth, L., 2018. Good and bad ceos. Working Paper.

Johnson, W.B., Magee, R.P., Nagarajan, N.J., Newman, H.A., 1985. An analysis of the stock price reaction to sudden executive deaths - implications for the managerial labor market. Journal of Accounting and Economics 7, 151 – 174.

Nguyen, B.D., 2012. Does the rolodex matter? corporate elite's small world and the effectiveness of boards of directors. Management Science 58, 236 – 252.

Nguyen, B.D., Nielsen, K., 2010. The value of independent directors: Evidence from sudden deaths. Journal of Financial Economics 98, 550 – 567.

Salas, J.M., 2010. Entrenchment, governance, and the stock price reaction to sudden executive deaths. Journal of Banking and Finance 34, 656 – 666.

Managerial Networks and Shareholder Value: Evidence from Sudden Deaths*

Kirsten Tangaa Nielsen[†] Felix von Meyerinck[‡,§]

Abstract

This paper investigates the value of corporate connections among top executives and directors of different firms using a natural experiment. Our identification strategy rests on the idea that sudden deaths trigger unexpected and exogenous dissolutions of connections between firms, which enables us to isolate the value of managerial connections by studying stock price reactions at firms where key corporate persons connected to a suddenly deceased manager or director work. Our results show that firms connected to a suddenly deceased key corporate person experience a loss of between 1.6 and 2.6 million USD in shareholder value, which is consistent with the notion that managerial connections are valuable to shareholders. We further find that connections to inside directors, connections established via previously shared work engagements, and within-industry connections are particularly valuable to shareholders.

JEL Classification: L14, G14, G34

Keywords: Social networks, Firm value, Sudden death

---

[*] We are grateful to Co-Pierre Georg, Isabella Karasamani (discussant), Frederic Menninger (discussant), Lukas Roth, Markus Schmid, as well as seminar and conference participants at the Copenhagen Business School, the University of St. Gallen, the 2017 Topics in Finance (TiF) Seminar in Davos, the 2017 meeting of the Swiss Society for Financial Market Research (SGF) in Zurich, and the 2018 meeting of the German Finance Association (DGF) in Trier for their helpful comments and suggestions. Part of this research was completed while Nielsen and von Meyerinck were visiting the Stern School of Business, New York University. Von Meyerinck acknowledges financial support from the German Academic Exchange Service (DAAD) as well as from the Business School of the University of Hamburg.

[†] Department of Finance, Copenhagen Business School, DK-2000 Frederiksberg, Denmark.

[‡] Swiss Institute of Banking and Finance (s/bf), Unterer Graben 21, CH-9000 St. Gallen, Switzerland.

[§] Corresponding author: Tel.: + 41 (0) 71-224-7029; E-mail: felix.meyerinck@unisg.ch.

I.1 Introduction

Do shareholders value managerial networks? The business press and academia generally agree that social ties between executives and directors across firms create value by improving access to information, credit, and human capital (Bayer et al., 2008; Cohen et al., 2008; Cohen et al., 2010; Engelberg et al., 2018). By extension, these connections should also be beneficial to shareholders. However, studies that directly measure the value of these corporate connections for shareholders are scarce and, consequently, little is known about whether an executive is valued for his corporate connections.

A potential reason for the lack of studies is that identifying a causal effect of a manager's corporate network on shareholder value is difficult. First, shareholder value and managerial networks are jointly determined, making it difficult to rule out omitted variables as an explanation. Second, managerial connections could causally affect shareholder value, but well-connected managers could also prefer highly-valued firms, giving rise to reverse causality concerns. Finally, the social network of a firm is the sum of the social connections of all managers, making it difficult to pin-down the value of individual connections.

Thus, the goal of this paper is to investigate the value of corporate networks between managers and determine if these connections ultimately are beneficial to shareholders. Overall, we find that connected firms experience a statistically significant drop in shareholder value of 0.11%, when losing a managerial connection to an S&P500 firm. Further, we find that connections to inside directors, those established via past employment and within-industry connections are particularly valuable to shareholders.

To establish a causal effect of the social connections of a firm's managers[1] on shareholder value, we explore a natural experimental setting. Specifically, our identification strategy rests on the idea that sudden deaths of managers trigger random and unexpected dissolutions of connections between firms. This allows us to quantify the market value of each connection of the suddenly deceased managers by estimating market-adjusted shareholder value changes at the firms that are affiliated with managers from the deceased managers' networks. Hence, our identification strategy enables us to address endogeneity concerns common in research on corporate networks, as described above. First, we use sudden deaths as unexpected shocks to firms' networks and study resulting market value changes of connected firms, which renders omitted variables an unlikely explanation for our results. Moreover, our definition of which cases constitute sudden deaths ensures that these represent unexpected shocks of firms' networks, which helps us to overcome reverse causality concerns. Finally, because we study the stock price reaction at firms connected to the deceased managers via one of its own managers, we can isolate the value of a single connection to the deceased managers.

---

[1] Throughout the paper, we analyze the connections of both full-time employed top executives with and without board memberships as well as outside directors, which is why we refer to this group collectively as "managers". We later split this group and document that connections to executives, especially those who serve on the board, are most important for shareholder value.

To implement our identification strategy, we search for all sudden deaths of managers and directors affiliated with an S&P500 firm at the time of death during our 2000 to 2013 sample period and identify 42 suddenly deceased individuals who fit these criteria. Next, we use these individuals' résumés to identify all individuals in their social networks, whom we classify as connected managers. These include managers who share overlapping work engagements with the suddenly deceased managers, who graduated with the deceased managers from the same university, or who share other social ties such as club memberships with the deceased managers. Finally, we use the résumés of the connected managers to identify around 7,000 firms where these managers work at the time of death. These firms constitute our sample firms, i.e. the firms' that lose a corporate connection to the deceased managers via their own managers or directors' social connections.[2] To determine whether the shareholder value of these connected firms is affected by the loss of a managerial connection to the suddenly deceased managers and directors, we use standard event study methodology. Specifically, we estimate abnormal returns around the announcement of the sudden deaths. In univariate tests, we uncover that stock prices of the connected firms are significantly negative, as they drop by around 0.11% following the sudden dissolution of a connection. This is equivalent to the average connection being worth around 1.6 to 2.6 million USD for the connected firms' shareholders. While this estimate may appear economically small at first sight, it is important to bear in mind that it represents the value of one single connection to a firm's shareholders. However, one managerial death in our sample affects, on average, around 225 managers at other firms, implying that the aggregate spillover effects documented in this paper are economically meaningful. More detailed analyses of the abnormal returns reveal that the effect is concentrated on the announcement date of the death and remains in place when using more conservative sample selection criteria, for instance, when excluding observations that are potentially plagued by confounding events. Overall, these results provide evidence that supports the conjecture that managerial networks positively influence shareholder wealth.

Because we identify a large number of connected firms per suddenly deceased manager, we are able to exploit variation in the data to study several mechanisms related to different connections that could plausibly account for our main finding. At the same time, studying the cross-sectional variation of the main effect helps us to answer the question of which connections are more valuable for firms' shareholders. In these tests, we uncover that connections that arise from shared past employments have higher value for a firm's shareholders than current employment, education, or social connections. We are also able to show that shareholders assign higher values to connections that link their firm to an industry peer. We find that connections to inside directors are more valuable than connections to outside directors or executives without a board membership. Similarly, we find that connections to better connected and younger executives are more valuable. Finally, we document that our results hold with alternative event window specifications, alternative parameter selections when estimating the abnormal returns, and when we drop financial and utilities firms from our sample. Overall, these results are consistent with the notion that certain connections are more important than others, presumably because the information disseminated and accessed via these connections is more important and therefore more valuable (Dass et al., 2014; Engelberg et al., 2018; Dasgupta et al., 2020).

---

[2] Investors can access and retrieve network and connection information for a given manager and for a given firm that is very similar to the measures that we construct and analyze in this paper. Equilar and Bloomberg, for instance, provide interactive connection and network information for a given manager, the managers connected to a given manager as well as firms affiliated with the connected managers. For an example of such data, see Appendix II, which shows the network profile of Kenneth I. Chenault, the former CEO of American Express and a current director of Facebook, Inc. and AirBnB, Inc., as provided by Equilar and Bloomberg.

Our contribution to the literature is twofold. First, we present direct empirical evidence of a causal relationship between the network of a firm's managers and shareholder value. Prior studies have found that social networks facilitate information gathering for investors through mutual fund managers (Cohen et al., 2008; Butler and Gurun, 2012), financial analysts (Cohen et al., 2010), venture capitalists (Field et al., 2013; Hochberg et al., 2007), and in M&A situations (Ishii and Xuan, 2014; Renneboog and Zhao, 2014; Schmidt, 2015), among industry peers (Engelberg et al., 2018) and across vertically related companies (Dass et al., 2014; Dasgupta et al., 2020) and therefore, they also influence investment decisions and performance (Shue, 2013, Fracassi, 2017, Dasgupta et al., 2020). The closest paper to ours is Engelberg et al. (2013), who document that CEOs receive higher compensation for a larger network. We complement their findings by showing managerial networks also benefit firms' shareholders.

Second, our study contributes to the nascent stream of papers that study sudden manager deaths for identification purposes in a corporate finance context. Prior studies have used this methodology to examine the value of corporate directors (Johnson et al., 1985; Nguyen and Nielsen, 2010; von Meyerinck et al., 2016; Slovin and Sushka, 1993), and political connections (Roberts, 1990; Faccio and Parsley, 2009), the shareholder-value consequences of board busyness (Falato et al., 2014), and the relationship between managerial contribution and executive pay (Nguyen and Nielsen, 2014). In this paper, we utilize sudden deaths of managers to trigger random and unexpected dissolutions of connections between firms and the stock market reaction at firms that form part of the deceased manager's network as an estimate for the value of an individual connection to the deceased manager. The existing literature on executive connections has focused primarily on the implications of managerial networks for the employing firms. Hence, similar to the literature studying the effect of political connections on shareholder value (Roberts, 1990; Faccio and Parsley, 2009), our approach enables us to quantify the value of individual connections to the deceased manager and to isolate the value of connections from factors such as the loss of key personal and other managerial characteristics.

The remainder of the paper is structured as follows. Section 2 describes how we compile our sample and reports sample characteristics. Section 3 contains our results and section 4 concludes.

I.2 Sample selection and data

In this section, we explain how we compile our data and describe the sample. We start by outlining our sample selection for the sudden deaths of key corporate persons (i.e. inside directors, outside directors and senior managers), who we collectively refer to as managers. This is followed by a presentation of the connected managers as well as the firms, where these individuals work at the time of death.

I.2.1 Sudden death sample

Our sample of sudden manager deaths stems from the BoardEx database. For top executives and corporate board members, BoardEx tracks personal characteristics such as nationality, gender, the date of birth and date of death, as well as information on past and current employments, education, and other activities such as club memberships. We begin our search by screening BoardEx for all persons with a non-missing death date. We restrict consider only deaths that occurred after January 2000 because BoardEx has shown reliable coverage starting in 2000 (Engelberg et al., 2013; Fracassi and Tate, 2012). Our sample period ends on May 6, 2013, because it is the date when our excerpt from the database ends. Next, we restrict the sample of deaths to directors and top executives who worked for an S&P500 firm at the time of death. We impose this restriction for two reasons. First, we find that the coverage of individuals from non-S&P500 firms is less complete in BoardEx, which turns out to be problematic when estimating the deceased individuals' networks. Second, we require each director and senior manager death to be headline news in order to determine its impact on a broad set of firms, which we find to be true during our manual data collection process. Our initial search for manager deaths yields a gross death sample of 209 individuals who passed away while being employed at an S&P500 firm.

It is worth pointing out that we deviate from previous research by solely relying on BoardEx to build a sample of manager deaths. Related papers such as Falato et al. (2014) and Nguyen and Nielsen (2010, 2014) rely on newspaper searches and/or screenings of filings made by firms with the Securities and Exchange Commission (SEC) to compile their death samples. We believe, however, that BoardEx as a source for a sample of manager deaths fulfills the prerequisite of being objective, i.e., its coverage is not biased towards successful individuals whose sudden death might be associated with larger stock price reactions. Nevertheless, we run a second battery of searches for manager deaths for our sample firms across various additional databases to validate our sample selection procedure. We start by comparing our BoardEx manager death sample with a similar death sample compiled using Audit Analytics' file covering Director and Officer Changes. This dataset contains all officer and director changes filed as Item 5.02 on an 8-K with the SEC and indicates whether a departure was due to death. Next, we benchmark our sample with a death sample from the

CapitalIQ news database. CapitalIQ collects firm news, and we search it for news mentioning deaths of directors and top executives. Specifically, we screen all situation descriptions for words often used in the context of manager deaths.[3] Finally, we compare our death sample with a sample of deaths obtained from Compustat Execucomp, which, in general, tracks the five highest earning individuals across firm-years. Besides compensation data, the database contains a variable indicating the reason managers are no longer employed by their firms, which allows us to search for departures due to death. This backstop search results in no additional death cases and leads us to conclude that BoardEx is a reliable source for compiling a sample of manager deaths.

We run extensive news and online searches for each of these 209 death cases in order to identify the precise cause of death. We classify causes of deaths into categories derived from the medical literature following Nguyen and Nielsen (2010). As shown in Panel A of Table 1, 81 deaths (38.76% of the gross death sample) are related to cancer, 6 (2.87%) result from complications of specified diseases (excluding cancer), 21 (10.05%) result from complications of surgery, and 14 (6.70%) are caused by an unspecified illness. Further, we identify three suicides (1.44%), which we do not classify as sudden deaths as they may reveal information on the state of the firm. We are unable to find any information on the cause of death for 41 cases (19.62%), which we, therefore, label as undisclosed. Because the idea of the paper is to use director and senior manager deaths as exogenous shocks, we require such deaths to be unanticipated by the stock market in order to be included in our event sample, which we define as the death being unlikely 24 hours before it occurred. We follow Nguyen and Nielsen (2010) and classify deaths as sudden if caused by a heart attack, a stroke, an accident, or if the cause is undisclosed but is described as unexpected, unanticipated, or sudden. We find that 43 deaths occurred suddenly (20.57% of the gross death sample).

---

[3] We use the following words to screen CapitalIQ: passed away, pass away, passed by, passing, died, dies, dying, mourn, deceased, demise, death, accident, crash, perish, assassinated, dead, fatal, lethal, mortal, kill, serious, injure, hurt, depart this life, departed this life, survived by, bereavement, heart attack, painful loss, grievous, lugubrious, desolate, gloom, sadness, depressive, saturnine, somber, dismal, casualty, casualties, sacrifice, suicide, victim, oblation, quarry, immolation, and wounded.

Panel B of Table 1 exhibits detailed information on the causes of death for the subsample comprising sudden deaths. The largest share of sudden deaths is caused by heart attacks (22 cases or 51.16% of all sudden deaths) followed by accidents (7 cases or 16.18%) and strokes (2 cases or 4.65%). The remaining 12 cases (27.91%) cannot be classified into any of the aforementioned categories but our search results clearly indicate that the death occurred suddenly and was unexpected. We are especially conservative when classifying deaths into the latter category and only do so if we cannot find any contradictory information, for example a source indicating any sort of illness prior to death. The characteristics with regard to the causes of death of our gross death sample and the resulting sudden death sample are similar when compared to previous studies Nguyen and Nielsen (2010, 2014).

For each of these 43 sudden death cases, we verify the date of death obtained from BoardEx and search for the event date, which is the earliest date of a mentioning of the death.[4] As shown in Panel C of Table 1, almost all sudden deaths become public knowledge within four trading days of the death date. We follow the previous literature and drop sudden death cases for which the time lag between the death date and first news date exceeds five trading days, which resulted in one event being discarded (Falato et al., 2014). Excluding this sudden death case with a relatively long time lag reduces the mean time lag from 1.53 trading days to 1.24, which is similar to Falato et al. (2014) and Nguyen and Nielsen (2010).[5]

I.2.2 Connected manager sample

Equipped with a sample of 42 suddenly deceased directors and senior executives and the respective event dates, we identify all individuals connected to the suddenly deceased individual in the spirit of Fracassi and Tate (2012) and Engelberg et al. (2012, 2013). For each suddenly deceased manager, we retrieve employment, education, and other activity data from BoardEx and classify four types of connections. A past employment connection arises if another manager shares an overlapping work engagement with the suddenly deceased manager at the same employer that was terminated before the death date. A current employment connection results from an overlapping work engagement at the same employer at the time of death. Note that we exclude all connections that point back to the firm(s), where the deceased manager worked at the time of death.[6] An education connection is formed when another director or senior manager graduated from the same university within one year as the manager that passes away suddenly. Similarly, an other activity connection arises if another individual is active in the same charitable organization of the manager that passes away suddenly.[7]

---

[4] For approximately half of these sudden death cases, firm-initiated news are the first source to report the manager death (23 cases or 53.49%), followed by newspaper articles (15 or 34.88%), and obituaries (5 or 11.63%).

[5] Table A.1 in Appendix III contains an overview of the distribution of events over sample years and sample months.

Panel A and B of Table 2 presents the characteristics of the suddenly deceased managers. The mean age across all 42 suddenly deceased managers is 65 years of age with a median age of 63 years. The average number of different connections per suddenly deceased manager sums up to around 225 CRSP/Compustat-firm-employed directors and senior managers, and the majority of these connections stem from past employment. Around two-thirds of our suddenly deceased managers serve as outside directors at an S&P500 firm, while around 14% are inside directors (e.g., CEOs, Presidents or Executive Chairmen, or some other C-level executives, who also hold a position on the board of directors). The remaining 26% serve as senior managers.

I.2.3 Connected firm sample and sample characteristics

Next, we identify our sample firms, i.e., all firms where the connected directors and senior managers work on the date when the death becomes public knowledge. We refer to these firms as the “connected firms”. We impose the following restrictions on these connected firms. First, we are not interested in studying stock price reactions at firms where the suddenly deceased individuals themselves work in any capacity when they pass away, which is why we exclude within-firm connections, that is, connections to other managers at the firms where the director or top executive work when they pass away. Although it may sound macabre, we refer to the firms where the managers pass away suddenly as the “death firms” henceforth. Second, we only keep connected firms for which we can retrieve stock market data from CRSP to run an event study and financial data for the most recent financial year end from Compustat. Third, we require a connected firm to have common shares outstanding (CRSP share code starts with 1) and drop Real Estate Investment Trusts (REITs) as well as closed-end funds (CRSP share code ends with 4, 5, or 8).[8] The remaining firms constitute our sample.[9]

---

[6] For example, if manager A and manager B sit together on the board of company X and manager A dies, we cannot use company X as part of our sample of connected firms. However, if manager B also works at company Y at the time of death, and this company does not employ manager A, company Y will be part of our sample of connected firms and we will classify the connection as being current.

[7] Similar to previous studies, we require that both individuals are "active members" of a club or a charitable organization in order to be connected. The reason for imposing this additional requirement is that coverage of start and end dates in the dataset containing Other Activities is sparse. However, it is reasonable to assume that these activities are usually long-lasting so the additional requirement of being an "active member" ensures that the individuals actually knew each other (Fracassi and Tate, 2012).

Table 3 presents sample characteristics for our sample of connected firms. Mean total assets of these firms amount to 34.4 billion USD. The market-to-book ratio, defined as the market value of equity scaled by the book value of equity, has a mean of 1.99. The firms in our sample exhibit a mean book leverage, defined as long-term debt and debt in current liabilities scaled by total assets, of 0.22, and a return on assets ratio, estimated as operating income before depreciation scaled by total assets, of 0.08. The definitions of all variables are shown in Appendix I of this paper.

I.3 Empirical Results

To analyze the relation between shareholder value and managerial connections, we use two empirical tests. First, we examine the stock price reaction at connected firms, when an S&P500-affiliated manager suddenly dies, resulting in the dissolution of a connection between the two firms. Second, we study the cross-section of stock returns to test for the differential impact of certain connection, decease and deceased manager characteristics on shareholder value.

---

[8] In additional tests, we later also drop utility and financial firms. The results remain virtually unchanged.

[9] Note that we retain a connected firm only once per sudden manager death case, even though a connected firm may be linked to the deceased manager via multiple connections. To test whether this materially impacts our findings, we later show a set of alternative regression specifications where we retain only firms affected via one single connection and find the results to remain almost unchanged.

I.3.1 The value of managerial network connections

To study the stock price reaction to the sudden loss of a network connection, we apply standard event study methodology to all connected firms around the date the sudden death becomes public knowledge (Campbell et al., 1997). To estimate daily abnormal returns (ARs) we use a single-factor market model to estimate beta in a 200-day pre-event estimation window (ranging from 220 trading days to 21 trading days before the event date), where we use the CRSP value-weighted index as the market index. We require at least 90 daily observations with non-missing stock and index return data to run the regression for a given firm. In order to mitigate the impact of outliers, we also winsorize all abnormal return measures on the 1% and 99% percent level throughout our empirical analysis.

Panel A of Table 4 reports the mean daily abnormal returns from two trading days before the death announcement date to two trading days after. Median abnormal returns as well as the number of positive and negative abnormal returns are shown for each trading day around the event date. Panel A suggests that there is a statistically significant effect on the stock price for connected firms on the death announcement date, where the mean daily abnormal return is -0.13%. However, for the surrounding days we do not observe a clear pattern, suggesting the value shareholders attribute to network connections and the subsequent reaction to a lost connection is primarily incorporated into the stock price on the announcement date. Median abnormal returns show weakly statistical significant returns on the two days prior to the death announcement day, which may suggest part of the reaction is also incorporated into the stock price between the death date and the death announcement date, but the economic effect is smaller compared to the announcement day.

Panel B of Table 4 presents the results of similar tests for cumulative abnormal returns (CARs) for our sample of connected firms following the sudden dissolution of a connection to a manager employed by an S&P500 firm. The CARs equal the sum of daily ARs over different event windows. For a two-day event window spanning the event day and trading day after the event (CAR [0,1]), the mean amounts to -0.11%, which is statistically different from zero at the 1% level. Similar results are obtained in terms of economic magnitude and statistical significance for a two-day event window comprising the event day and the day before the event (CAR [-1,0]), as well as a three-day event window running from the day before to the trading day after the event (CAR [-1,1]). For median CARs, the effects are slightly larger, both economically and statistically. For our multivariate analysis, we use a two-day event window that covers the day of the announcement of the sudden death and the day after the announcement. The reason is that we were unable to precisely identify the time stamp for each sudden death announcement while collecting these data. This leaves the possibility that the announcement is made after trading hours, which would imply that the corresponding economic effect is incorporated into the stock prices on the following trading day. Using a two-day event window that comprises the announcement date as well as the trading date after the announcement date is, therefore, a conservative approach to ensure that our event window indeed covers the sudden death announcement.

These results enable us to quantify the average reaction to the loss of one managerial connection for shareholders of the average connected firm in dollar terms. Specifically, we find that sudden managerial deaths result in shareholder value losses for connected firms, with cumulative abnormal return estimates ranging from -0.10% to -0.16%. The market capitalization of our sample firms is highly skewed with a median of 1.619 billion USD and hence the abnormal return estimates translate into an abnormal equity market value loss for the median firm of 1.62 to 2.59 million USD, which is the average value of a managerial connection. Initially, this estimate may seem economically small, but it is important to highlight that it represents the loss in value resulting from one single connection. Given that a managerial death in our sample, on average, affects around 225 managers at other firms, this suggests the combined loss in value across connected firm is considerably greater and economically meaningful. Overall, as can be seen in table 4, there is a significant negative stock price reaction for connected firms, when they lose a managerial network connection to an S&P500 firm, indicating that shareholders value such connections.

Panel C in Table 4 presents a few alternative specifications for estimating the CAR[0,1] shown in Panel B. First, to ensure our choice of market portfolio does not affect the daily abnormal return estimates in any significant way, we substitute the CRSP's value-weighted market return with the S&P500 index return as an alternative market proxy and find that the cumulative abnormal return over the death announcement date and the trading day after is still negative and significant, with the results becoming economically and statistically stronger than before. Using a CRSP's equal-weighted market return, as well as a 3- and 4-factor market model, give almost identical results, which are therefore not shown for brevity. Another concern with our results is that they might be driven by confounding events at the connected firms that coincide with the announcement of the sudden manager deaths. To address such concerns we search for confounding events at the connected firms using the CapitalIQ news database. CapitalIQ collects a vast array of news from various origins for each firm on an intraday basis and categorizes them into groups. This has the advantage that we can use the news categories provided by CapitalIQ to carefully classify connected firms as being confounded without actually reading the content of the news.[10] For each connected firm, we match all news from CapitalIQ in a five-trading day window from two days before to two days after the death announcement and drop all connected firm observations for which we find a confounding event that takes place concurrently to the death of the connected manager. Using this reduced sample, we can confirm that the cumulative abnormal returns remain negative and statistically significant, when controlling for confounding events at the connected firms. Following Fama and French (1992) we also drop connected firms that are financial and utility firms (SIC codes 6000-6999 and 4940-4949, respectively) from our sample and find the CAR estimates remain unaffected. Finally, we test whether our results hold if we restrict the sample to connected firms that are only linked to a deceased manager via a single individual and, additionally, only retain death events where the deceased manager is affiliated with only one S&P500 firm. This is in order to address the potential concern, that we can only quantify the value of one connection in our estimation strategy without being subject to potential measurement error. As expected, however, the results remain unaffected.

---

[10] Table A.3 of Appendix III presents the list of CapitalIQ events that we classify as confounding.

I.3.2 The value of professional networks

In order to understand which managerial connections are valuable to shareholders, we next explore the cross-sectional variation in the stock price reactions at connected firms to the sudden death announcements. The results of these tests not only show which connections are more valuable for the connected firms' shareholders, but also help us to shed light on the channels through which our main effect operates, i.e., how managerial connections influence firm value. The dependent variable in all regressions is the cumulative abnormal returns over the announcement day and the trading day thereafter (CAR[0,1]). The variable of interest in all regressions are dummies that characterize connection types or deceased manager characteristics. As control variables, we include the logarithm of total assets as a proxy for firm size, leverage, the market-to-book ratio, property plant and equipment scaled by total assets as a measure of tangibility, and the return on assets ratio. We also control for firm risk, defined as the standard deviation of stock returns from 100 to 21 days prior to the event date (return volatility), and stock liquidity, defined as the mean volume of shares traded scaled by shares outstanding from 100 to 21 days prior to the event (share turnover ratio). In addition, we add industry fixed effects using the Fama-French 48 classification and cluster standard errors at the connected firm level. [11]

We first turn our attention to the role of how managerial connection were formed. The existing literature has studied different types of managerial connections. Faccio (2006), for instance, studies working relationships (current and past employment), while others look at connections formed in social settings (e.g., Schmidt, 2015) or during education (e.g., Shue, 2013). We test for the differential impact of these connection types by adding dummy variables as explanatory variables that indicate whether a connection between the connected firm and the deceased manager arises because of an employment, education, or social connection (called “other activity” in BoardEx).

---

[11] We have experimented with alternative clustering. The results remain economically similar.

The results of these tests are reported in Table 5. In column 1, the dummy variable capturing employment connections is set to one if the connected firm is linked to the deceased manager via one of its directors or executives through an employment relationship and zero otherwise. We find a negative coefficient on the employment connection dummy variable of -0.20, which is significant at the 1% level. This suggests that the stock price reaction at connected firms is, on average, 0.20% more negative for the loss of an employment connection compared to losses of social or educational connections. This implies that it is in particular employment connections that are valued by shareholders. This result lends supports to the findings of papers documenting a beneficial effect from having employment connections, which they primarily attribute to facilitated information sharing (Cai and Sevilir, 2012; Bradley et al., 2020; Engelberg et al., 2012, 2013). In columns 2 and 3, we split the employment connection dummy variable into two dummies, capturing whether a connection arises because of a current or a past employment connection. In column 2, we find a coefficient of -0.19 on the past employment connection dummy, again significant at the 1% level, while the coefficient in column 3 on the current employment connection dummy is close to zero (-0.02) and statistically insignificant. These results imply that the negative effect of a loss of an employment connection from column 1 is primarily driven by a loss of a past employment connection. A potential explanation for this result is that past employment connections may form direct connections between the sample firm and the firm where the deceased manager works, while current employment connections cannot constitute direct connections between the sample firm and the firm where the deceased manager works. The reason is that we preclude the firm where the deceased manager works from entering the sample, rendering it impossible for the connected individuals to be currently employed at the death firm.

So far, we have compared employment connections with the other connection types (education and social connections). Next, we test whether there are also meaningful differences between educational and social connections. To this end, we look at educational and social connections separately in column 4 and in column 5 augment the regression from column 1 with a dummy variable set equal to one for connections formed during educational years. This enables us to make a statement on the relative importance of employment and education connections relative to social connections. In column 4 we find a positive and statistically significant coefficient on the education connection dummy, which supports the results from column 1, that educational connections are less valuable to shareholders relative to employment connections. Further, in column 5 we find a coefficient on the education connection dummy of 0.2 that is statistically insignificant, while the coefficient on the employment connection dummy remains negative (-0.15) and statistically significant at the 10%. This result suggests that the loss of an employment connection causes a reduction in shareholder value that is 0.15% lower compared to the loss of a social connection, while the loss of an educational connection leads to a 0.2% higher but statistically insignificant difference in the returns compared to the loss of a social connection. Taken together, these results provide evidence that shareholders benefit most from hiring managers with employment connections, followed by social connections and education connections.

When turning to the control variables, we also find that larger connected firms experience more modest negative returns, indicating that smaller firms are more dependent on connections to S&P500 firms. Firms with more growth opportunities, proxied by the market-to-book ratio, show lower cumulative abnormal returns around the termination of a connection, suggesting that firms with higher growth opportunities suffer more from the loss of a connection. These two findings are in line with those of Faccio and Parsley (2009) for the value of political connections. The other control variables reveal that firms with more tangible assets, lower profitability, and lower return volatility have lower abnormal returns as well.

I.3.3 The value of industry connections

The market value of inter-firm connections might also dependent on the types of firms that are connected. Engelberg et al. (2013, 2018), for instance, argue that within-industry connections are more valuable to investors as they are more likely to facilitate the flow of valuable information. Thus, in this section, we investigate the impact on the stock price reaction of losing a managerial connection to an S&P500 firm when the connected firm is located within the same industry. To this end, we add a dummy variable to our regressions which we set equal to one if the connection that is determined because of the sudden death connects a sample firm that is active in the same industry as the firm where the deceased manager works.

The results are reported in Table 6. In column 1, we rely on the Fama-French 48 industry classification (FF48) to determine whether the sample firm and death firm are active in the same industry. We obtain a coefficient on this dummy variable of -0.64, significant at the 1% level. In column 2, we employ the Hoberg and Phillips (2016) Fixed Industry classification with 50 industries (FIC) to determine within-industry connections. We find a coefficient of -0.48, also significant at the 1% level. These results suggest that shareholders of connected firms suffer more severe losses if the connection broken up represents a within-industry connection. Specifically, the coefficient estimates suggest that the stock price reaction is between 0.48% and 0.64% lower at connected firms when they lose a within-industry connection compared to losing an outside-industry connection. Given that the average effect is only around -0.11% (see Panel B of Table 4), these results are economically meaningful as they imply that losses of within-industry connections are around four to six times more valuable than the average connection. Our findings are consistent with the notion that access to information from industry peers is driving the importance and value of managerial connections (Engelberg et al., 2013; Custódio and Metzger, 2013).

Given the strategic importance of suppliers and customers, it is natural to expect similar results for vertically related firms (Dasgupta et al., 2020; Dass et al., 2014). To test for the value of vertical industry connections for shareholders, we follow Fan and Goyal (2006)) and use the input-output tables of the Bureau of Economic Analysis to determine whether the sample and the death firms belong to SIC codes that purchase or sell goods or services from each other. Consistent with our previous cross-sectional tests, we set dummy variables equal to one if the connection that is broken up connects a death firm that is vertically related, lies upstream, or downstream in the supply chain (from the perspective of the sample firm).

The results are reported in columns 3 to 5. As presented in column 3, we find a coefficient estimate on the dummy variable indicating any type of vertical relatedness connection of -0.22, which is not statistically significant at conventional levels. Once we split the vertical relatedness dummy into two dummies capturing upstream and downstream vertical relatedness, as in columns 4 and 5, we obtain coefficients of -0.54 and -0.25, with the former being significant at the 5% level. This finding suggests that (losses of) connections to supplying firms are more valuable than connections to customer firms.

Finally, we add all industry connection measures jointly to the regression model, with results reported in columns 6 and 7. The results obtained in these regressions support the notion that within-industry connections are an important determinant of the value of connections, with coefficients that are very similar to the ones reported in the columns 1 and 2, while the variables capturing the vertical relatedness of firms obtain statistically insignificant coefficients. Taken together, the cross-sectional tests along industry characteristics underscore that the value of a connection depends significantly on the relationship of the firms linked with the connections, in particular within-industry connections. This confirms prior literature showing that industry connections are important as they facilitate the flow of valuable information (Engelberg et al., 2013; Custódio and Metzger, 2013).

I.3.4 The value of business insiders

So far, we have shown that shareholders value managerial connections, especially connections formed via past employment connections and connections that facilitate the flow of information between firms in the same industry. Next, we test whether the marginal value of a connection also depends on the value of the information obtained, as proxied by the seniority of the deceased manager. The vast literature on insider trading argues and finds that senior firm insiders have better access to material information than outsiders, which manifests itself in superior market-adjusted returns (e.g., Ravina and Sapienza, 2010). Hence, we create dummy variables indicating whether the sample firm lost a connection to an inside director, lost a connection to an outside director, or lost a connection to a senior executive (an insider but not a board member, a "Senior Manager" according to BoardEx).

The results are reported in columns 1 to 3 of Table 7. We obtain coefficients of -0.24, 0.41, and -0.03, for losses of connections to inside directors, outside directors, and senior managers, respectively, with the former two coefficient estimates being statistically significant at the 5% level or higher. Hence, connections to inside directors are most valuable, followed by connections to non-board inside directors and outside directors. These results imply that losses of connections to managers with superior access to material inside information are most valuable for shareholders, a finding that is consistent with the vast literature on insider trading (e.g., Ravina and Sapienza, 2010).

Another proxy for the value of the information possessed is the size of the deceased managers network. Hence, we set a dummy variable equal to one if the deceased manager has a network size above the sample mean of 225 and zero otherwise. In Column 4, which reports results of a regression where we add this dummy variable as explanatory variable, we obtain a coefficient on this variable that is -0.21 and statistically significant at the 1% level. Hence, these results show that the loss of a connection to a well-connected manager lead to more negative returns at the connected firms, which supports our previous findings using the position descriptions of the deceased managers as proxies for their access to valuable information.

We also test whether the age of the deceased manager is a determinant for the value of the connection. To this end, we set a dummy variable equal to one if the deceased manager's age is below the sample mean of 64.55 years and add this dummy variable as explanatory variable to the regression. The results are reported in column 5. We find a coefficient of -0.21, significant at the 1% level. This suggests that deaths of younger managers lead to 0.21% lower returns at connected firms. One potential explanation may be that the announcement returns capture the value effect of all future benefits from losing a connection, implying that the returns not only capture the value of the information received (as shown above), but also the time over which valuable information is excepted to be exchanged.

We also test whether the distance between the firms connected matter for the value of a connection. To examine this effect, we include an indicator variable that we set equal to one if the headquarter of the S&P500 firm where the deceased manager is employed is further than 750 km away from the headquarter of a connected firm and zero otherwise. If we add this dummy variable to the model, as in Column 6, we find a coefficient of -0.36, which is statistically significant at the 1% level. This suggests that firms connected to the S&P500 firm but located further away experience 0.36% lower returns around the death announcement. This implies that connections to remote firms are more valuable, potentially because these are more difficult to replace or because it is less likely that alternative communications channels exist that could act as a substitute for the connection lost. This finding is consistent with the finding of related papers, which found that social connections tend to be geographically close (e.g., Bayer et al., 2008; Engelberg et al., 2013; Engelberg et al., 2018).

Finally, in column 7, we add all characteristics of the deceased managers jointly to the model. These results largely confirm previous results. In particular, we find that it is connections to inside directors that are more valuable compared to connections to outside directors and senior managers, as well as connections to individuals with larger networks, to individuals that are younger and that work for firms that are more remotely located. Taken together, these results support the notion that information flow is the driver of changes in firm value.

I.3.5 Isolating the effect of industry connections from deceased managerial ability

One concern with some of our results is that (potentially unobservable) deceased manager characteristics may be correlated with some network characteristics. For instance, it could be that older managers, which we find to have less valuable connections, to also be managers with horizontal connections, which we also find to be less valuable. To address this concern, we expand the regressions aimed at uncovering the effect of industry networks (Table 6) with *death* event fixed effects. These fixed effects enable us to compare stock price reactions of the connected firms within each managerial death case, i.e., the identifying variation is the stock price responses to the sudden death of the same manager. By absorbing all observable and unobservable characteristics specific to the death event, including characteristics of the deceased managers, we can isolate the value of the connection from the managerial characteristics.

Table 8 replicates the regressions from Table 6 using death event fixed effects. Even in this very restrictive fixed effect setting, we find that within-industry connections and connections to customers are more valuable for shareholders. A comparison of Tables 6 and 8 reveals that results tend to become stronger in terms of economic magnitude and statistical significance using this fixed effects approach.

To sum up, even when exploring only within-death variation, using death event date fixed effects, we confirm our results on industry connections hold, namely that within-industry connections are more valuable for shareholders compared to outside-industry connections. Thereby, we can rule out that (unobservable and observables) characteristics of the deceased managers bias our results.

I.3.6 Alternative specifications

In this section, we discuss the results of alternative specifications of the cross-sectional tests, with results reported in Table 9. For brevity, we report only the coefficient estimates of the (dummy) variable of interest for the key regressions in one column. To facilitate comparison, we start by reprinting the baseline results discussed above in column 1. In column 2, we report results obtained when rerunning our analysis with the S&P500 index as a proxy for the market index (instead of the CRSP value-weighted index) when estimating daily abnormal returns. We find results to remain similar. In column 3, we report results that we obtain when we drop financial and utilities firms from the sample of sample firms. Again, we find that results remain very similar compared to the baseline specification. In column 4, we exclude firms from the sample which happen to experience confounding events during the event window.[12] The results remain very similar after excluding confounding events. In column 5, we tackle concerns related to the fact that some firms in our sample are linked via multiple connections to the deceased manager and that one deceased manager can be affiliated with more than one S&P500 firm, for example when holding additional outside board seats. We therefore restrict our sample to firms that are only linked via one connection to the deceased manager and simultaneously exclude managerial death cases where the deceased managers are affiliated with multiple S&P500 firms. We find our results to remain unaffected. Finally, in column 6, we report results if we extend the event window and, besides the event date (t = 0) and the trading after (t = 1), include the trading date before the event date (t = -1). We again find similar results. Taken together, the alternative specifications re-confirm the results from our cross-sectional tests. Specifically, we find that employment connections and within-industry connections are valued by shareholders, so are connections to inside directors, well-connected managers, and young managers. We also find that connections are valued to firms located more remotely.

---

[12] To identify confounding events in the event window, we rely on CapitalIQ's company news announcement database, which tracks company-level events and their announcement date. The event categories that we exclude can be found in Table A.2 in Appendix III.

I.4 Conclusion

This paper uses a natural experiment to determine whether top executives and directors are valued by shareholders for their connections to other managers and which of these connections are most valuable. Our identification strategy rests on the idea that sudden deaths of managers trigger random and unexpected dissolutions of connections between firms. By studying the market reactions of the firms where the connected managers work, we are able to isolate the value of managerial connections for shareholders. Using a sample of 42 managers that suddenly pass away while working for S&P500 firms, our results show that around 7,000 connected firms experience a significant reduction in shareholder value of 0.11% on average for the loss of a single connection, suggesting that shareholders value managerial networks. Specifically, we find that connections to inside directors, connections established via previous overlapping work engagements, and within-industry connections are particularly valuable.

I. References

Bayer, P., Ross, S.L., Topa, G., 2008. Place of work and place of residence: Informal hiring networks and labor market outcomes. Journal of Political Economy 116, 1150 – 1196.

Bradley, D., Gokkaya, S., Liu, X., 2020. Ties that bind: The value of professional connections to sell-side analysts. Management Science 66, 4118 – 4151.

Butler, A.W., Gurun, U.G., 2012. Educational networks, mutual fund voting patterns, and ceo compensation. Review of Financial Studies 25, 2533 – 2562.

Cai, Y., Sevilir, M., 2012. Board connections and M&A transactions. Journal of Financial Economics 103, 327 – 349.

Campbell, J.Y., Lo, A.W., MacKinley, A.C., 1997. The Econometrics of Financial Markets. New Jersey: Princeton University Press.

Cohen, L., Frazzini, A., Malloy, C., 2008. The small world of investing: Board connections and mutual fund returns. Journal of Political Economy 116, 951 – 979.

Cohen, L., Frazzini, A., Malloy, C., 2010. Sell-side school ties. Journal of Finance 65, 1409 – 1437.

Custódio, C., Metzger, D., 2013. How do ceos matter? the effect of industry expertise on acquisition returns. Review of Financial Studies 26, 2008 – 2047.

Dasgupta, S., Zhang, K., Zhu, C., 2020. Do social connections mitigate hold-up: Evidence from relation-specific investment and innovation in vertical relationships. Journal of Financial and Quantitative Analysis Article in Press.

Dass, N., Kini, O., Nanda, V., Onal, B., Wang, J., 2014. Board expertise: Do directors from related industries help bridge the information gap? Review of Financial Studies 27, 1533 – 1592.

Engelberg, J., Gao, P., Parsons, C.A., 2012. Friends with money. Journal of Financial Economics 103, 169 – 188.

Engelberg, J., Gao, P., Parsons, C.A., 2013. The price of a CEO's rolodex. Review of Financial Studies 26, 79 – 114.

Engelberg, J., Ozoguz, A., Wang, S., 2018. Know thy neighbor: Industry clusters, information spillovers, and market efficiency. Journal of Financial and Quantitative Analysis 53, 1937 – 1961.

Faccio, M., 2006. Politically connected firms. The American Economic Review 96, 369 – 386.

Faccio, M., Parsley, D.C., 2009. Sudden deaths: Taking stock of geographic ties. Journal of Financial and Quantitative Analysis 44, 683 – 718.

Falato, A., Kadyrzhanova, D., Lel, U., 2014. Distracted directors: Does board busyness hurt shareholder value? Journal of Financial Economics 113, 404 – 426.

Fama, E.F., French, K.R., 1992. The cross-section of expected stock returns. Journal of Financ 47, 427 – 465.

Fan, J.P.H., Goyal, V.K., 2006. On the patterns and wealth effects of vertical mergers. Journal of Business 79, 877 – 902.

Field, L., Lowry, M., Mkrtchyan, A., 2013. Are busy boards detrimental? Journal of Financial Economics 109, 63 – 82.

Fracassi, C., 2017. Corporate finance policies and social networks. Management Science 63, 2420 – 2438.

Fracassi, C., Tate, G., 2012. External networking and internal firm governance. Journal of Finance 67, 153 – 194.

Hoberg, G., Phillips, G., 2016. Text-based network industries and endogenous product differentiation. Journal of Political Economy 124, 1423 – 1465.

Hochberg, Y.V., Ljungqvist, A., Lu, Y., 2007. Whom you know matters: Venture capital networks and investment performance. Journal of Finance 62, 251 – 301.

Ishii, J., Xuan, Y., 2014. Acquirer-target social ties and merger outcomes. Journal of Financial Economics 112, 344 – 363.

Johnson, W.B., Magee, R.P., Nagarajan, N.J., Newman, H.A., 1985. An analysis of the stock price reaction to sudden executive deaths - implications for the managerial labor market. Journal of Accounting and Economics 7, 151 – 174.

Nguyen, B.D., Nielsen, K., 2010. The value of independent directors: Evidence from sudden deaths. Journal of Financial Economics 98, 550 – 567.

Nguyen, B.D., Nielsen, K., 2014. What death can tell: Are executives paid for their contributions to firm value? Management Science 60, 2994 – 3010.

Ravina, E., Sapienza, P., 2010. What do independent directors know? Evidence from their trading. Review of Financial Studies 23, 962 – 1003.

Renneboog, L., Zhao, Y., 2014. Director networks and takeovers. Journal of Corporate Finance 28, 218 – 234.

Roberts, B.E., 1990. A dead senator tells no lies: Seniority and the distribution of federal benefits. American Journal of Political Science 34, 31 – 58.

Schmidt, B., 2015. Costs and benefits of friendly boards during mergers and acquisitions. Journal of Financial Economics 117, 424– 447.

Shue, K., 2013. Executive networks and firm policies: Evidence from the random assignment of MBA peers. Review of Financial Studies 26, 1401– 1442.

Slovin, M.B., Sushka, M.E., 1993. Ownership concentration, corporate control activity, and firm value: Evidence from the death of inside blockholders. Journal of Finance 48, 1293–1321.

von Meyerinck, F., Oesch, D., Schmid, M., 2016. Is director industry experience valuable? Financial Management 45, 207 – 237.

Table I.1: Summary statistics for the sudden death events

This table shows descriptive characteristics for the sample of director death events. A death case enters our sample if the director passes away between January 1, 2000, and May 6, 2013, the director is active at an S&P500 firm at the time of death, and the director is covered by the BoardEx database. This results in 209 deaths. Panel A gives information on the causes of death, as defined by Nguyen and Nielsen (2010). Information on the specific death causes for the 43 suddenly deceased managers are shown in Panel B. Panel C displays the time lag in trading days between the death date and the announcement date of the death. Similar to Falato et al. (2014), we drop cases where the lag between the death date and first news date is larger than a week (5 trading days). This reduces the sample size by one sudden death cases to 42. Panel D exhibits descriptive characteristics for the sample of suddenly deceased managers.

Panel A: Death causes

Cause of death	N	%
Cancer	81	38.76%
Complications from specified diseases	6	2.87%
Complications from surgery	21	10.05%
Sudden	43	20.57%
Suicide	3	1.44%
Unspecified illness	14	6.70%
Undisclosed	41	19.62%
Sum	209	100.00%

Panel B: Sudden death causes

Cause of sudden death	N	%
Accident	7	16.18 %
Heart attack	22	51.16 %
Stroke	2	4.65 %
Unspecified cause	12	27.91 %
Sum	43	100.00%

Panel C: Time lag between news date and death date

News date – death date (in trading days)	N	%
0	8	18.60%
1	22	51.16 %
2	7	16.28%
3	4	9.30%
4	1	2.33%
14	1	2.33%
Sum	43	100.00%

Table I.2: Summary statistics for deceased directors and their networks

This table shows descriptive characteristics for the 42 suddenly deceased directors in our sample. Panel A shows the following information on the deceased directors: Role indicators equal one if the deceased director holds an inside director, outside director or senior manager position at an S&P500 firm when she passes away. Age (in years) is the age of the suddenly deceased director at time of death and Gender is an indicator taking the value of 1 if the director is female. Panel B shows the following network characteristics: For each suddenly deceased director we determine the network of directors and managers that works for a CRSP/Compustat firm that has common shares outstanding, is not a REIT or a closed-end fund, and shared an overlapping working engagement prior to the death (Past employment connection), shared an overlapping working engagement at time of death (Current employment connection), graduated from the same university within one year of the deceased director (Education connection), or shared an active engagement (being more than a “member") at the same non-profit organization (Other activity connection). All connections is the sum of Past employment connections, Current employment connections, Education connections, and Other activity connections, with the adjustment that a link established to a director via two network types is only counted once (for example, if a director graduated together with the deceased director and is also active in the same non-profit organization, this is counted separately for Education connections and Other activity connections, but only once for All connections).

Panel A: Deceased director characteristics

Director characteristic	Mean	Median	SD	N
Deceased inside director	0.14	0.00	0.35	42
Deceased outside director	0.67	1.00	0.48	42
Deceased senior manager	0.26	0.00	0.45	42
Age (years)	64.55	62.67	9.81	42

Panel B: Deceased director network characteristics

Network characteristic	Mean	Median	SD	N
Employment connection	132.67	72.5	173.98	42
Past employment connection	121.43	58.00	170.86	42
Current employment connection	20.29	12.50	19.16	42
Education connection	24.10	3.50	40.23	42
Other activity connection	70.71	19.00	116.89	42
All connections	225.38	152.00	225.37	42

Table I.3: Characteristics of the connected firms

This table shows sample characteristics for the firms that are affiliated with at least one director or executive that is connected to the suddenly deceased director. The sample comprises all firms connected to the 42 suddenly deceased directors who worked for an S&P500 firm between January 1, 2000, and May 6, 2013, from Table 1. Firms are connected to the deceased directors in our sample, if one of their directors or executives shared an overlapping working engagement prior to the death, shared an overlapping working engagement at time of death, graduated from the same university within one year of the deceased director, or are "active" members at the same social organization. From the sample of connected firms, we drop REITs, closed-end funds, firms without common stock, and the firms where the deceased director work. If a firm is connected to a suddenly deceased director via more than one person, it is kept only once. Panel A shows the following firm characteristics: Total assets (in millions of dollars), Market-to-book ratio of assets, Book leverage, Return-on-assets ratio, Tangibility ratio measured as PP&E divided by book assets, Return volatility, and Share turnover ratio as a measure for liquidity. Panel B shows the following firm network characteristics: Within industry connection (FF48 and FIC50) is an indicator taking the value of 1 if the connected firm is part of the same FF48 or FIC50 industry as the death firm. Relatedness indicators equals 1 if the firm has a given relatedness measure >0.05, when following the Fan and Goyal (2006) methodology. Details on data sources and variable computations can be found in Appendix I.

Panel A: Connected firms characteristics

Firm characteristic	Mean	Median	SD	N
Total assets (millions of dollars)	34,445.14	1,884.69	161,954.43	7,136
Market capitalization (millions of dollars)	12,797.76	1,619.00	34,858.05	7,136
Market-to-book ratio	1.99	1.49	1.47	7,136
Book leverage	0.22	0.19	0.21	7,105
Return-on-assets ratio	0.08	0.10	0.16	7,088
Tangibility ratio	0.22	0.15	0.21	7,034
Return volatility	0.03	0.02	0.02	7,136
Share turnover ratio	0.01	0.01	0.01	7,136

Panel B: Connected firms network characteristics

Network characteristic	Mean	Median	SD	N
Within industry connection (FF48)	0.09	0.00	0.29	7,136
Product similarity connection (FIC50)	0.07	0.00	0.26	6,546
Vertical relatedness connection	0.08	0.00	0.27	7,095
Upstream relatedness connection	0.05	0.00	0.21	7,095
Downstream relatedness connection	0.06	0.00	0.24	7,095

Table I.4: Managerial networks and shareholder value

The table shows the stock price reaction to the sudden disolution of a connection to an S&P500 firm caused by the sudden death of a director. Sample firms are connected to the deceased directors, if one of their directors or executives shared an overlapping working engagement prior to the death, shared an overlapping working engagement at time of death, graduated from the same university within one year of the deceased director, or are "active" members at the same social organization. From the sample of connected firms, we drop REITs, closed-end funds, firms without common stock, and the firms where the deceased managers work. Panel A shows the mean and median abnornal returns (ARs) for the connected firms at each trading day around the death announcement date. Panel B shows the cumulative abnormal returns (CARs) for related event windows around the death announcement date. The table further shows results of a parametric t-test estimating whether the mean ARs and CARs are equal to zero, the number of positive and negative ARs and CARs as well as results of a non-parametric Wilcoxon signed-rank test estimating whether the true proportion of positive and negative ARs and CARs is equal to one-half. Panel C shows results for a set of alternative specifications, in which we re-run the event study but substitute CRSP's value-weighted index with the S&P500 index as a market proxy, drop confounded events as determined using CapitalIQ's news database and the events disclosed in table A.2 of Appendix V, drop connected firms that are financial or utility firms (SIC codes 6000-6999 and 4940-4949, respectively), and if we retain only connected firms that are connected to the deceased manager via one connection and retain only death cases where the deceased manager is affiliated with one S&P500 firm only. Variable definitions as well as details on their computation and sources can be found in Appendix I. ***, **, and * denotes statistical significance at the 1%, 5%, and 10% level, respectively.

Panel A: Daily abnormal returns

Day relative to event	N	Mean	t-value	Positive:Negative	Median	z-value
AR [-2]	7,135	-0.03%	-0.96	3,436:3,699	-0.06%**	-2.52
AR [-1]	7,135	0.01%	0.33	3,452:3,683	-0.06%*	-1.83
AR [0]	7,135	-0.13%***	-4.83	3,245:3,890	-0.15%***	-8.23
AR [1]	7,135	0.00%	0.10	3,486:3,649	-0.03%	-1.23
AR [2]	7,135	0.04%	1.62	3,455:3,680	-0.05%	-1.19

Panel B: Cumulative abnormal returns

Event window	N	Mean	t-value	Positive:Negative	Median	z-value
CAR [-1,0]	7,135	-0.10%***	-2.73	3,333:3,802	-0.16%***	-5.70
CAR [0,1]	7,135	-0.11%***	-3.12	3,347:3,788	-0.14%***	-5.03
CAR [-1,1]	7,135	-0.10%**	-2.24	3,411:3,724	-0.13%***	-3.81

Panel C: Alternative specifications for CAR[0,1]

Alternative specifications	N	Mean	t-value	Positive:Negative	Median	z-value
S&P500 as market index	7,135	-0.17%***	-4.45	3,268:3,867	-0.20%***	-6.90
Drop confounded events	5,222	-0.12%***	-2.63	2,439:2,783	-0.14%***	-4.20
Drop financial and utilities	5,997	-0.15%***	-3.63	2,768:3,229	-0.19%***	-5.51
Drop multiple connections	5,558	-0.14%***	-3.38	2,584:2,974	-0.16%***	-5.12

Table I.5: The value of business networks

The table shows the stock price reaction to the sudden disolution of a connection to an S&P500 firm caused by the sudden death of a director. The reported results are based on pooled OLS regressions of the cumulative abnormal returns (CARs) for the connected firms over the event window 0 to +1, where 0 is the death announcement date. Firms are connected to the 42 suddenly deceased directors in our sample, if one of their directors or executives shared an overlapping working engagement (Employment connection), shared an overlapping working engagement prior to the death (Past employment connection), shared an overlapping working engagement at time of death (Current employment connection), graduated from the same university within one year of the deceased director (Education connection), or shared an active engagement (being more than a “member") at the same non-profit organization (Other activity connection). From the sample of connected firms, we drop REITs, closed-end funds, firms without common stock, and the firms where the deceased directors work. In addition, all regressions contain the following connected firm control variables: The natural logaritm of total assets (in millions of dollars), market-to-book ratio of assets, book leverage, return-on-assets ratio, tangibility ratio measured as PP&E divided by book assets, return volatility, and share turnover ratio as a measure for liquidity. Industry fixed effects are classified using the Fama-French 48 industry classification. The t-values are based on robust standard errors clustered at the firm level and are reported in parentheses. The constant is not shown for brevity. Variable definitions, their computation and sources can be found in Appendix I. ***, **, and * denotes statistical significance at the 1%, 5%, and 10% level, respectively.

Dependent variable:	CAR[0,1] in %				
	(1)	(2)	(3)	(4)	(5)
Employment connection	-0.20***				-0.15*
	(-2.76)				(-1.85)
Past employment connection		-0.19***			
		(-2.61)			
Current employment connection			-0.02		
			(-0.16)		
Education connection				0.32***	0.20
				(2.70)	(1.55)
Other activity connection				0.12	
				(1.58)	
ln(Total assets)	0.08***	0.08***	0.08***	0.08***	0.08***
	(3.55)	(3.47)	(3.52)	(3.53)	(3.60)
Book leverage	0.30	0.31	0.32	0.31	0.31
	(1.25)	(1.26)	(1.32)	(1.28)	(1.27)
Market-to-book ratio	-0.12***	-0.12***	-0.12***	-0.12***	-0.12***
	(-3.42)	(-3.42)	(-3.45)	(-3.42)	(-3.40)
Tangibility ratio	-0.78***	-0.78***	-0.76***	-0.78***	-0.78***
	(-2.69)	(-2.68)	(-2.63)	(-2.68)	(-2.69)
Return-on-assets ratio	0.94**	0.94**	0.94**	0.93**	0.92**
	(2.34)	(2.33)	(2.34)	(2.30)	(2.29)
Return volatility	8.72*	8.67*	8.81*	8.20*	8.16*
	(1.81)	(1.80)	(1.83)	(1.71)	(1.70)
Share turnover ratio	-7.06	-6.93	-7.10	-6.86	-6.85
	(-0.95)	(-0.93)	(-0.96)	(-0.93)	(-0.92)
Industry fixed effects	Yes	Yes	Yes	Yes	Yes
R^2	0.02	0.02	0.02	0.02	0.02
N	6,979	6,979	6,979	6,979	6,979

Table I.6: The value of industry networks

The table shows the stock price reaction to the sudden disolution of a connection to an S&P500 firm caused by the sudden death of a director. The reported results are based on pooled OLS regressions of the cumulative abnormal returns (CARs) for the connected firms over the event window 0 to +1, where 0 is the death announcement date. Firms are connected to the deceased directors in our sample, if one of their directors or executives shared an overlapping working engagement prior to the death, shared an overlapping working engagement at time of death, graduated from the same university within one year of the deceased director, or are "active" members at the same social organization. From the sample of connected firms, we drop REITs, closed-end funds, firms without common stock, and the firms where the deceased directors work. Connected firm network characteristics vary across columns: Within industry connection (FF48 and FIC50) is an indicator taking the value of 1 if the connected firm is part of the same FF48 or FIC50 industry as the death firm. Relatedness indicators equals 1 if the firm has a given relatedness measure >0.05, when following the Fan and Goyal (2006) methodolog. In addition, all regressions contain the following connected firm control variables: The natural logaritm of total assets (in millions of dollars), market-to-book ratio of assets, book leverage, return-on-assets ratio, tangibility ratio measured as PP&E divided by book assets, return volatility, and share turnover ratio as a measure for liquidity. Industry fixed effects are classified using the Fama-French 48 industry classification. The t-values are based on robust standard errors clustered at the firm level and are reported in parentheses. The constant is not shown for brevity. Variable definitions as well as details on their computation and sources can be found in Appendix I.***, **, and * denotes statistical significance at the 1%, 5%, and 10% level, respectively.

Dependent variable:	CAR[0,1] in %						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Within industry connection (FF48)	-0.64***					-0.66***	
	(-4.47)					(-3.88)	
Within industry connection (FIC50)		-0.48***					-0.42**
		(-2.95)					(-2.42)
Vertical relatedness connection			-0.22				
			(-1.39)				
Upstream relatedness connection				-0.54**		-0.32	-0.37
				(-2.46)		(-1.30)	(-1.45)
Downstream relatedness connection					-0.25	0.29	0.05
					(-1.38)	(1.39)	(0.23)
Firm controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.02	0.02	0.02	0.02	0.02	0.02	0.02
N	6,979	6,407	6,939	6,939	6,939	6,939	6,368

Table I.7: The value of business insiders

The table shows the stock price reaction to the sudden disolution of a connection to an S&P500 firm caused by the sudden death of a director. The reported results are based on pooled OLS regressions of the cumulative abnormal returns (CARs) for the connected firms over the event window 0 to +1, where 0 is the death announcement date. Firms are connected to the deceased directors in our sample, if one of their directors or executives shared an overlapping working engagement prior to the death, shared an overlapping working engagement at time of death, graduated from the same university within one year of the deceased director, or are “active” members at the same social organization. From the sample of connected firms, we drop REITs, closed-end funds, firms without common stock, and the firms where the deceased directors work. Deceased director characteristics vary across columns: Role indicators equal one if the deceased director holds an inside director, outside director or senior manager position at an S&P500 firm when she passes away. Young manager is an indicator equal to one, if the age of the deceased director is below the sample mean age (64.5 years). Large network is an indicator equal one if the sum of all connections for a deceased director is above the sample mean (225 connections). Remote network is an indicator equal one if the distance between the connected firm’s headquarter and the death firm’s headquarter is $\geqslant 750$ km. In addition, all regressions contain the following connected firm control variables: The natural logaritm of total assets (millions of dollars), market-to-book ratio of assets, book leverage, return-on-assets ratio, tangibility ratio measured as PP&E divided by book assets, return volatility, and share turnover ratio. Industry fixed effects are classified using the Fama-French 48 industry classification. The t-values are based on robust standard errors clustered at the firm level and are reported in parentheses. The constant is not shown for brevity. Variable definitions as well as their computation and sources can be found in Appendix I. ***, **, and * denotes statistical significance at the 1%, 5%, and 10% level, respectively.

Dependent variable:	CAR[0,1] in %						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Deceased inside director	-0.24**						-0.17*
	(-2.42)						(-1.66)
Deceased outside director		0.41***					
		(4.82)					
Deceased senior manager			-0.03				
			(-0.30)				
Large network				-0.21***			-0.22***
				(-2.83)			(-2.82)
Young manager					-0.19***		-0.24***
					(-2.60)		(-3.14)
Remote connection						-0.36***	-0.39***
						(-4.27)	(-4.68)
Firm controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.02	0.02	0.02	0.02	0.02	0.02	0.03
N	6,979	6,979	6,979	6,979	6,979	6,974	6,974

Table I.8: Isolating the effect of industry connections from managerial abilities

The table shows the stock price reaction to the sudden disolution of a connection to an S&P500 firm caused by the sudden death of a director. The reported results are based on fixed effects regressions of the cumulative abnormal returns (CARs) for the connected firms over the event window 0 to +1, where 0 is the death announcement date. Firms are connected to the deceased directors in our sample, if one of their directors or executives shared an overlapping working engagement prior to the death, shared an overlapping working engagement at time of death, graduated from the same university within one year of the deceased director, or are "active" members at the same social organization. From the sample of connected firms, we drop REITs, closed-end funds, firms without common stock, and the firms where the deceased directors work. Connected firm network characteristics vary across columns: Within industry connection (FF48 and FIC50) is an indicator taking the value of 1 if the connected firm is part of the same FF48 or FIC50 industry as the death firm. Relatedness indicators equals 1 if the firm has a given relatedness measure >0.05, when following the Fan and Goyal (2006) methodolog. In addition, all regressions contain event fixed effects and the following connected firm control variables: The natural logaritm of total assets (in millions of dollars), market-to-book ratio of assets, book leverage, return-on-assets ratio, tangibility ratio measured as PP&E divided by book assets, return volatility, and share turnover ratio as a measure for liquidity. The t-values are based on robust standard errors clustered at the firm level and are reported in parentheses. The constant is not shown for brevity. Variable definitions as well as details on their computation and sources can be found in Appendix I.***, **, and * denotes statistical significance at the 1%, 5%, and 10% level, respectively.

Dependent variable:	CAR[0,1] in %						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Within industry connection (FF48)	-0.65***					-0.63***	
	(-4.77)					(-4.01)	
Within industry connection (FIC50)		-0.52***					-0.41**
		(-3.24)					(-2.43)
Vertical relatedness connection			-0.31*				
			(-1.92)				
Upstream relatedness connection				-0.78***		-0.64**	-0.77***
				(-3.37)		(-2.39)	(-2.79)
Downstream relatedness connection					-0.22	0.42**	0.21
					(-1.24)	(2.08)	(1.03)
Firm controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Death event fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.05	0.06	0.05	0.05	0.05	0.06	0.06
N	6,979	6,407	6,939	6,939	6,939	6,939	6,368

Table I.9: Alternative sample specifications

The table reports results of a set of additional multivariate OLS regressions of the cumulative abnormal returns (CARs) on various deceased director, networks, and connected firm characteristics using alternative sample specifications. Column 1 shows the baseline results using the same sample as in previous tabæes. In Column 2, we substitute the industry fixed effects with event fixed effects and drop the deceased executive characteristics as they are absorbed by the event fixed effects. In Columns 2 to 4, we test the results from Column 1 using alternative specifications: in Column 2, we re-run the event study but substitute CRSP's value-weighted index with the S&P500 index, in Column 3, we drop financial and utility firms (SIC codes 6000-6999 and 4940-4949, respectively), and in Column 4, we exclude confounding events identified using CapitalIQ's news database and the events disclosed in table A.2 of Appendix V. In Column 5, we address the concern that some connected firms are shocked multiple times and some deceased directors are affiliated with multiple S&P500 firms when they pass away by reducing the sample to sudden managers only affiliated with one S&P500 firm and to firms linked to the suddenly deceased director via one connection only. In column 6, we substitute the industry fixed effects with event fixed effects and hence drop the deceased director characteristics. In column 7 and 8 we re-run the baseline and fixed effects regressions using an extended event window from -1 to +1, where 0 is the death announcement date. Firms are connected to the deceased directors in our sample, if one of their directors or executives shared an overlapping working engagement prior to the death, shared an overlapping working engagement at time of death, graduated from the same university within one year of the deceased director, or are "active" members at the same social organization. From the sample of connected firms, we drop REITs, closed-end funds, firms without common stock, and the firms where the deceased directors work. In addition, all regressions contain the following connected firm control variables: The natural logaritm of total assets (millions of dollars), market-to-book ratio of assets, book leverage, return-on-assets ratio, tangibility ratio measured as PP&E divided by book assets, return volatility, and share turnover ratio. Industry fixed effects are classified using the Fama-French 48 industry classification. The t-values are based on robust standard errors clustered at the firm level and are reported in parentheses. Control variables and the constant are not shown for brevity. An extended version of the table can be found in table A.4 in Appendix V. Variable definitions as well as details on their computation and sources can be found in Appendix I.***, **, and * denotes statistical significance at the 1%, 5%, and 10% level, respectively.

Dependent variable:	CAR[0,1] in %					CAR[1,1] in %
	(1)	(2)	(3)	(4)	(5)	(6)
Alternative specification:	Baseline	S&P500 as market index	Drop financials & utilities	Only non-counfounded events	Only shocked once	Baseline
Employment connection	-0.20***	-0.17**	-0.26***	-0.28***	-0.23***	-0.18*
	(-2.76)	(-2.28)	(-3.13)	(-3.10)	(-2.74)	(-1.93)
Past employment connection	-0.19***	-0.17**	-0.23***	-0.26***	-0.22***	-0.16*
	(-2.61)	(-2.32)	(-2.89)	(-2.97)	(-2.63)	(-1.70)
Within industry connection (FF48)	-0.64***	-0.63***	-0.64***	-0.54***	-0.62***	-0.73***
	(-4.47)	(-4.34)	(-4.08)	(-3.20)	(-3.45)	(-4.17)
Upstream relatedness connection	-0.53**	-0.56**	-0.56**	-0.59**	-0.35	-0.68**
	(-2.16)	(-2.25)	(-2.14)	(-2.09)	(-1.20)	(-2.51)
Downstream relatedness connection	-0.01	-0.02	-0.01	0.13	-0.05	-0.32
	(-0.06)	(-0.08)	(-0.05)	(0.55)	(-0.22)	(-1.44)
Deceased inside director	-0.24**	-0.39***	-0.28**	-0.21*	-0.54***	-0.38***
	(-2.42)	(-3.89)	(-2.55)	(-1.68)	(-4.11)	(-3.03)
Large network	-0.21***	-0.32***	-0.21**	-0.27***	-0.25***	-0.21**
	(-2.83)	(-4.29)	(-2.50)	(-3.03)	(-2.88)	(-2.26)
Young manager	-0.19***	-0.23***	-0.17**	-0.25***	-0.26***	-0.27***
	(-2.60)	(-3.15)	(-2.05)	(-2.90)	(-2.96)	(-2.85)
Remote network	-0.36***	-0.38***	-0.42***	-0.31***	-0.33***	-0.32***
	(-4.27)	(-4.51)	(-4.53)	(-3.10)	(-3.47)	(-3.07)
Firm controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Appendix I: Variable Definitions

This appendix contains variable definitions of all variables used throughout the paper. Firm financials are in million USD. All Compustat-based variables are calculated as of the most recent financial year end prior to the announcement date. Database mnemonics are in italics (if available).

Panel A: Director characteristics

Variable	Definition	Source
Age (years)	(Date of death (*DOD*) – Date of birth (*DOB*)) / 365.25	BoardEx; hand collected if missing
Young manager	Dummy variable equal to 1 if the age of the deceased manager is below the sample mean age (64.5 years), 0 otherwise	BoardEx; hand collected if missing
Deceased senior manager	Dummy variable equal to 1 if person is executive without board seat (*SM*), 0 otherwise	BoardEx
Deceased inside director	Dummy variable equal to 1 if person is executive with board seat (*ED*), 0 otherwise	BoardEx
Deceased outside director	Dummy variable equal to 1 if person is non-executive with board seat (*NED*), 0 otherwise	BoardEx
Other activity connection	Dummy variable equal to 1 if connections via other activities exists, 0 otherwise. In line with prior papers, we only count social connections between two individuals if both fulfill "active roles" in the respective organization, i.e., the *Role* has to be more than "member" (e.g., Fracassi and Tate, 2012).	BoardEx
Employment connection	Dummy variable equal to 1 if connections via employment exists (both current and past), 0 otherwise. Formed between two individuals if both worked at the same firm in the past. We require that the connection is formed at a firm that differs from the firm where the manager passes away.	BoardEx
Past employment connection	Dummy variable equal to 1 if connections via past employment exists, 0 otherwise. Formed between two individuals if both worked at the same firm in the past. We require that the connection is formed at a firm that differs from the firm where the manager passes away.	BoardEx
Current employment connection	Dummy variable equal to 1 if connections via current employment exists, 0 otherwise. Formed between two individuals if both work at the same firm as of death date. We require that the connection is formed at a firm that differs from the firm where the manager passes away.	BoardEx
Education connection	Dummy variable equal to 1 if connections via the same universtiy exists, 0 otherwise. In line with prior papers, we only count Education connections between two individuals if both attended the same university and graduated within a year of each other.	BoardEx

All connections	Sum of Other activity connection, Past employment connections, Current employment connections, and Education connections. A connection to the same individual formed via two distinct network channels (for example, via Other Activity connections and Past Employment connections) is only counted once.	BoardEx
Large network	Dummy variable equal to 1 if the sum of all connections for a deceased director is above the sample mean of 225 connections, 0 otherwise	BoardEx

Panel B: Firm characteristics

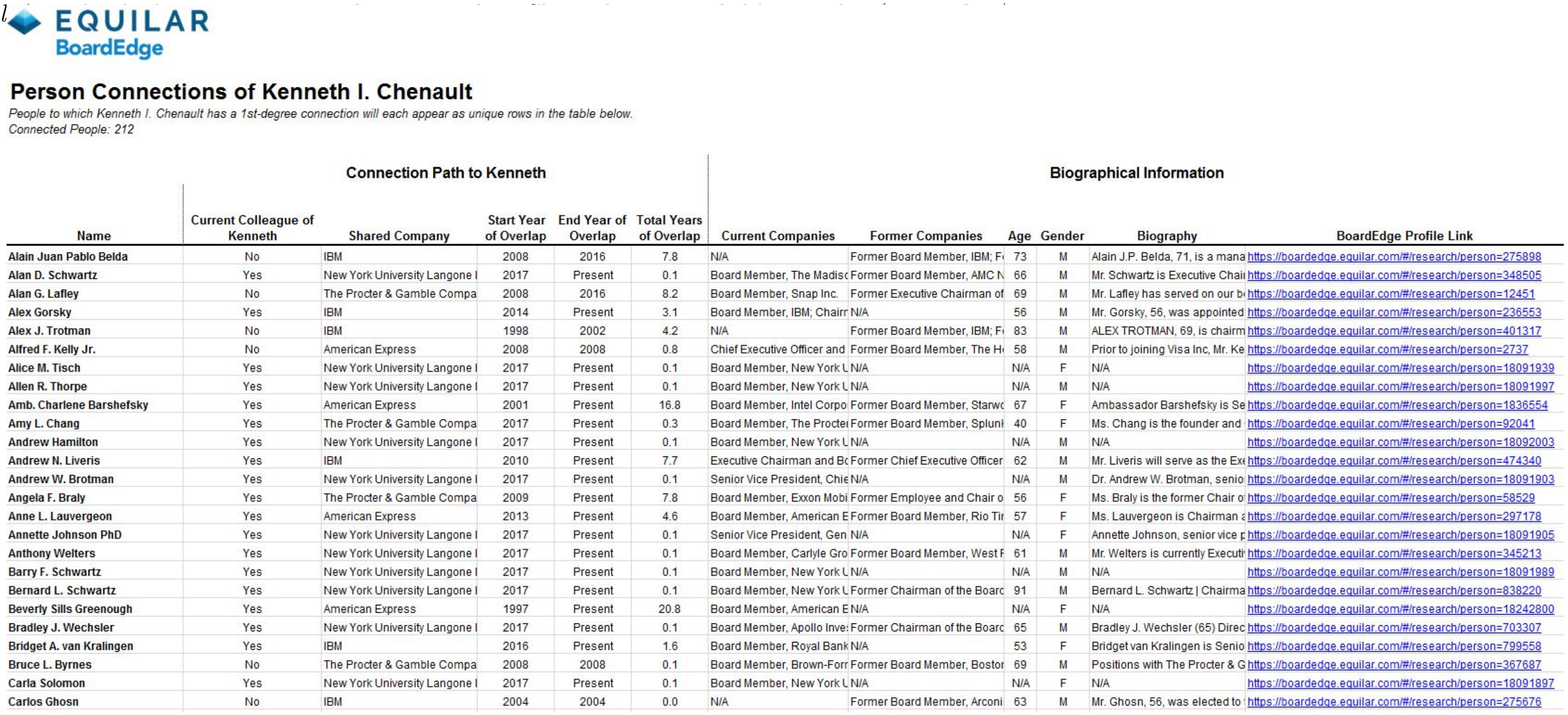
Variable	Definition	Source
CAR [x,y]	Cumulative abnormal return calculated as the sum of the daily abnormal returns over days t_x to t_y where t_0 denotes the event date. Daily abnormal returns are calculated as the observed return (*ret*) minus a predicted return. The predicted return is estimated using a market model regression where daily returns (*ret*) are regressed on daily CRSP value-weighted returns including dividends (*vwredt*) over t_{-220} to t_{-21}. At least 90 daily observations with non-missing stock and index return data are required. Winsorized at the 1% and 99% level.	CRSP
Total assets (in millions of dollars)	Total assets (*at*)	Compustat
Market capitalization (in millions of dollars)	Price (*prc*) times shares outstanding (*shrout*)/ 1,000, estimated 21 trading days prior to event (t_{-21}) and winsorized at the 1% and 99% level	CRSP
Book leverage	Long-term debt (*dltt*) plus debt in current liabilities (*dlc*) / Total assets (*at*), winsorized at the 1% and 99% level	Compustat
Return-on-assets ratio	Operating income before depreciation (*oibdp*) / Total assets (*at*), winsorized at the 1% and 99% level	Compustat
Share turnover ratio	Mean volume traded (*vol*) / shares outstanding (*shrout*) from t_{-100} to t_{-21}	CRSP
Return volatility	Standard deviation of stock returns (*ret*) from t_{-100} to t_{-21}	CRSP
Market-to-book ratio	Market value of assets (*at* + Market cap. − *ceq* − *txdb*) / Total assets (*at*) (*txdb* is set to zero if missing), winsorized at the 1% and 99% level	CRSP / Compustat
Tangibility ratio	Property, plant, and equipment (*ppent*) / Total assets (*at*), winsorized at the 1% and 99% level	Compustat
Within industry connection (FF48)	Dummy variable equal to 1 if firm is active in the same FF48 industry as one of the death firms, 0 otherwise.	Compustat
Vertical relatedness connection	Dummy variable equal to 1 if the firm has an absolute vertical relatedness measure of > 0.05, 0 otherwise. The vertical relatedness scores are estimated using the input-output tables of the Bureau of Economic Analysis using the methodology of Fan and Goyal (2006). If a firm is vertically related to more than one death firm, we use the maximum value.	Bureau of Economic Analysis
Downstream connection	Dummy variable equal to 1 if the firm has a downstream vertical relatedness measure ($v_{j,i}$) of > 0.05, 0 otherwise. The downstream score is estimated using the input-output tables of the Bureau of Economic Analysis. If a firm is vertically related to more than one death firm, we use the maximum value.	Bureau of Economic Analysis
Upstream connection	Dummy variable equal to 1 if the firm has a upstream vertical relatedness measure ($v_{i,j}$) of > 0.05, 0 otherwise. The upstream score is using from the input-output tables of the Bureau of Economic Analysis. If a firm is vertically related to more than one death firm, we use the maximum value.	Bureau of Economic Analysis

Remote connection	Dummy variable equal to 1 if the distance between the connected firm's headquarter and the death firm's headquarter is $\geqslant$750 km, 0 otherwise.	Headquarter addresses are from Compustat; addresses are geocoded using the US Census Bureau address batch upload service and https://www.latlong.net.
Within industry connection (FIC50)	Dummy variable equal to 1 if firm is active in the same Hoberg and Philipps text-based Fixed-Industry Classifications 50 as one of the death firms, 0 otherwise (Hoberg and Phillips, 2016).	Hoberg and Phillips data library, available at http://hobergphillips.usc.edu.
Shocked once	Dummy variable equal to 1 if the connected firm is linked to the deceased manager via one single connection, 0 otherwise.	BoardEx

Appendix II: Connection and network information available to investors

This appendix shows the network and connection information that is available to investors using the example of Kenneth I. Chenault, the former CEO of American Express and a current director of Facebook, Inc. and AirBnB, Inc.. Panel A shows an excerpt of the 212 individuals connected to Kenneth I. Chenault from Equilar, including the connected individual's name (left column), information on the shared employment that gives rise to the connection to Kenneth I. Chenault (middle section), and the firm(s) affiliated with the individual connected to Kenneth I. Chenault (right section). Panel B shows an excerpt of the 113 distinct firms connected to Kenneth I. Chenault from Equilar, including the connected firm's name (left column), information on the individual that connects a firm to Kenneth I. Chenault (second column from the left), and information on the shared employment that gives rise to the connection to Kenneth I. Chenault (right section). Note that the data structure depicted in Panel B more or less mirrors the data structure used throughout our analysis. Panel C shows the individuals and firms connected to Kenneth I. Chenault as provided by Bloomberg.

Panel

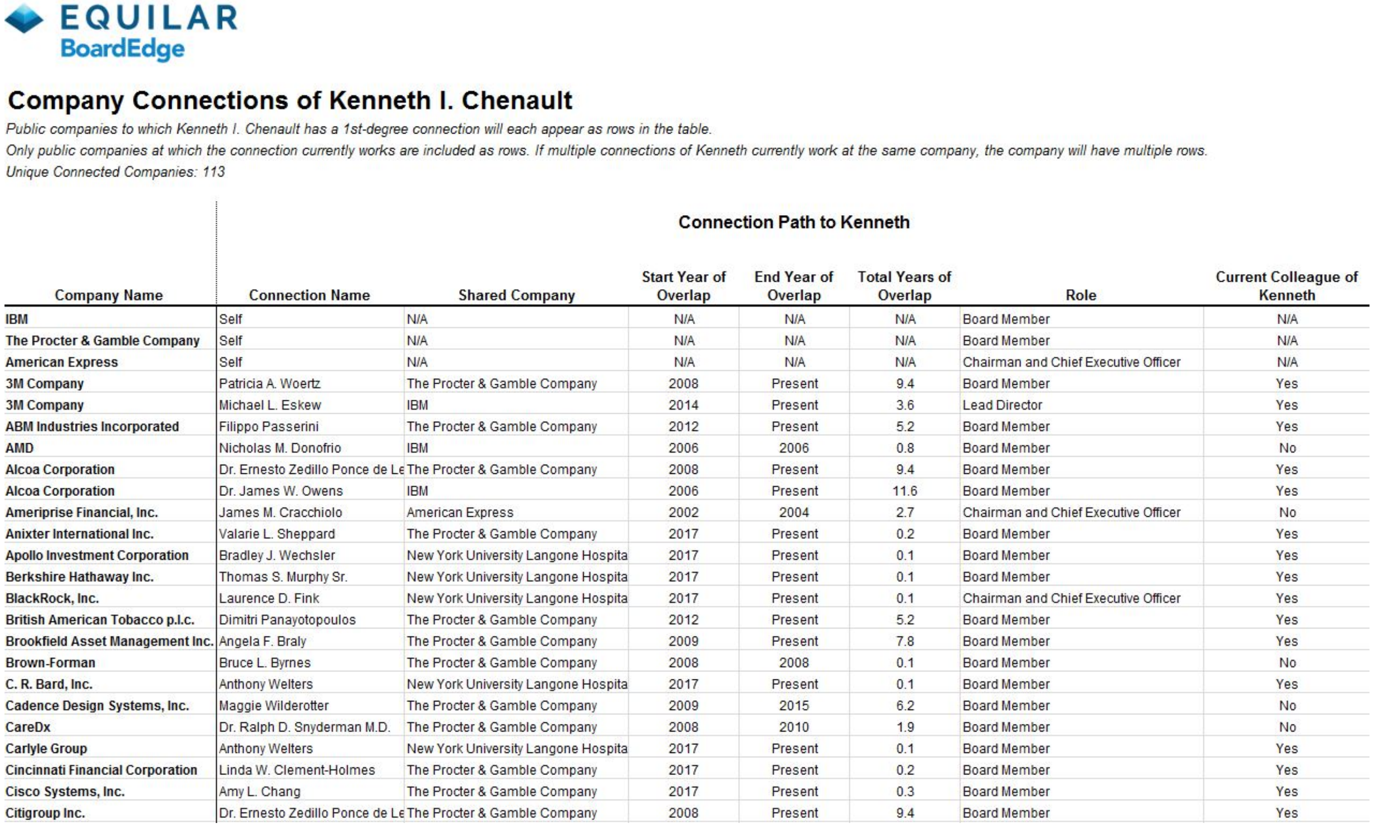


Person Connections of Kenneth I. Chenault

People to which Kenneth I. Chenault has a 1st-degree connection will each appear as unique rows in the table below.
Connected People: 212

	Connection Path to Kenneth					Biographical Information					
Name	**Current Colleague of Kenneth**	**Shared Company**	**Start Year of Overlap**	**End Year of Overlap**	**Total Years of Overlap**	**Current Companies**	**Former Companies**	**Age**	**Gender**	**Biography**	**BoardEdge Profile Link**
Alain Juan Pablo Belda	No	IBM	2008	2016	7.8	N/A	Former Board Member, IBM; F	73	M	Alain J.P. Belda, 71, is a mana	https://boardedge.equilar.com/#/research/person=275898
Alan D. Schwartz	Yes	New York University Langone I	2017	Present	0.1	Board Member, The Madis	Former Board Member, AMC N	66	M	Mr. Schwartz is Executive Chai	https://boardedge.equilar.com/#/research/person=348505
Alan G. Lafley	No	The Procter & Gamble Compa	2008	2016	8.2	Board Member, Snap Inc.	Former Executive Chairman of	69	M	Mr. Lafley has served on our b	https://boardedge.equilar.com/#/research/person=12451
Alex Gorsky	Yes	IBM	2014	Present	3.1	Board Member, IBM; Chairr	N/A	56	M	Mr. Gorsky, 56, was appointed	https://boardedge.equilar.com/#/research/person=236553
Alex J. Trotman	No	IBM	1998	2002	4.2	N/A	Former Board Member, IBM; F	83	M	ALEX TROTMAN, 69, is chairm	https://boardedge.equilar.com/#/research/person=401317
Alfred F. Kelly Jr.	No	American Express	2008	2008	0.8	Chief Executive Officer and	Former Board Member, The H	58	M	Prior to joining Visa Inc, Mr. Ke	https://boardedge.equilar.com/#/research/person=2737
Alice M. Tisch	Yes	New York University Langone I	2017	Present	0.1	Board Member, New York U	N/A	N/A	F	N/A	https://boardedge.equilar.com/#/research/person=18091939
Allen R. Thorpe	Yes	New York University Langone I	2017	Present	0.1	Board Member, New York U	N/A	N/A	M	N/A	https://boardedge.equilar.com/#/research/person=18091997
Amb. Charlene Barshefsky	Yes	American Express	2001	Present	16.8	Board Member, Intel Corpo	Former Board Member, Starw	67	F	Ambassador Barshefsky is Se	https://boardedge.equilar.com/#/research/person=1836554
Amy L. Chang	Yes	The Procter & Gamble Compa	2017	Present	0.3	Board Member, The Procte	Former Board Member, Splun	40	F	Ms. Chang is the founder and	https://boardedge.equilar.com/#/research/person=92041
Andrew Hamilton	Yes	New York University Langone I	2017	Present	0.1	Board Member, New York U	N/A	N/A	M	N/A	https://boardedge.equilar.com/#/research/person=18092003
Andrew N. Liveris	Yes	IBM	2010	Present	7.7	Executive Chairman and B	Former Chief Executive Officer	62	M	Mr. Liveris will serve as the Ex	https://boardedge.equilar.com/#/research/person=474340
Andrew W. Brotman	Yes	New York University Langone I	2017	Present	0.1	Senior Vice President, Chie	N/A	N/A	M	Dr. Andrew W. Brotman, senio	https://boardedge.equilar.com/#/research/person=18091903
Angela F. Braly	Yes	The Procter & Gamble Compa	2009	Present	7.8	Board Member, Exxon Mobi	Former Employee and Chair o	56	F	Ms. Braly is the former Chair o	https://boardedge.equilar.com/#/research/person=58529
Anne L. Lauvergeon	Yes	American Express	2013	Present	4.6	Board Member, American E	Former Board Member, Rio Ti	57	F	Ms. Lauvergeon is Chairman a	https://boardedge.equilar.com/#/research/person=297178
Annette Johnson PhD	Yes	New York University Langone I	2017	Present	0.1	Senior Vice President, Gen	N/A	N/A	F	Annette Johnson, senior vice p	https://boardedge.equilar.com/#/research/person=18091905
Anthony Welters	Yes	New York University Langone I	2017	Present	0.1	Board Member, Carlyle Gro	Former Board Member, West F	61	M	Mr. Welters is currently Executi	https://boardedge.equilar.com/#/research/person=345213
Barry F. Schwartz	Yes	New York University Langone I	2017	Present	0.1	Board Member, New York U	N/A	N/A	M	N/A	https://boardedge.equilar.com/#/research/person=18091989
Bernard L. Schwartz	Yes	New York University Langone I	2017	Present	0.1	Board Member, New York U	Former Chairman of the Boarc	91	M	Bernard L. Schwartz | Chairma	https://boardedge.equilar.com/#/research/person=838220
Beverly Sills Greenough	Yes	American Express	1997	Present	20.8	Board Member, American E	N/A	N/A	F	N/A	https://boardedge.equilar.com/#/research/person=18242800
Bradley J. Wechsler	Yes	New York University Langone I	2017	Present	0.1	Board Member, Apollo Inve	Former Chairman of the Boarc	65	M	Bradley J. Wechsler (65) Direc	https://boardedge.equilar.com/#/research/person=703307
Bridget A. van Kralingen	Yes	IBM	2016	Present	1.6	Board Member, Royal Bank	N/A	53	F	Bridget van Kralingen is Senio	https://boardedge.equilar.com/#/research/person=799558
Bruce L. Byrnes	No	The Procter & Gamble Compa	2008	2008	0.1	Board Member, Brown-Forr	Former Board Member, Bostor	69	M	Positions with The Procter & G	https://boardedge.equilar.com/#/research/person=367687
Carla Solomon	Yes	New York University Langone I	2017	Present	0.1	Board Member, New York U	N/A	N/A	F	N/A	https://boardedge.equilar.com/#/research/person=18091897
Carlos Ghosn	No	IBM	2004	2004	0.0	N/A	Former Board Member, Arconi	63	M	Mr. Ghosn, 56, was elected to	https://boardedge.equilar.com/#/research/person=275676

Panel B: Firms connected to Kenneth I. Chenault as provided by Equilar (incomplete)



EQUILAR
BoardEdge

Company Connections of Kenneth I. Chenault

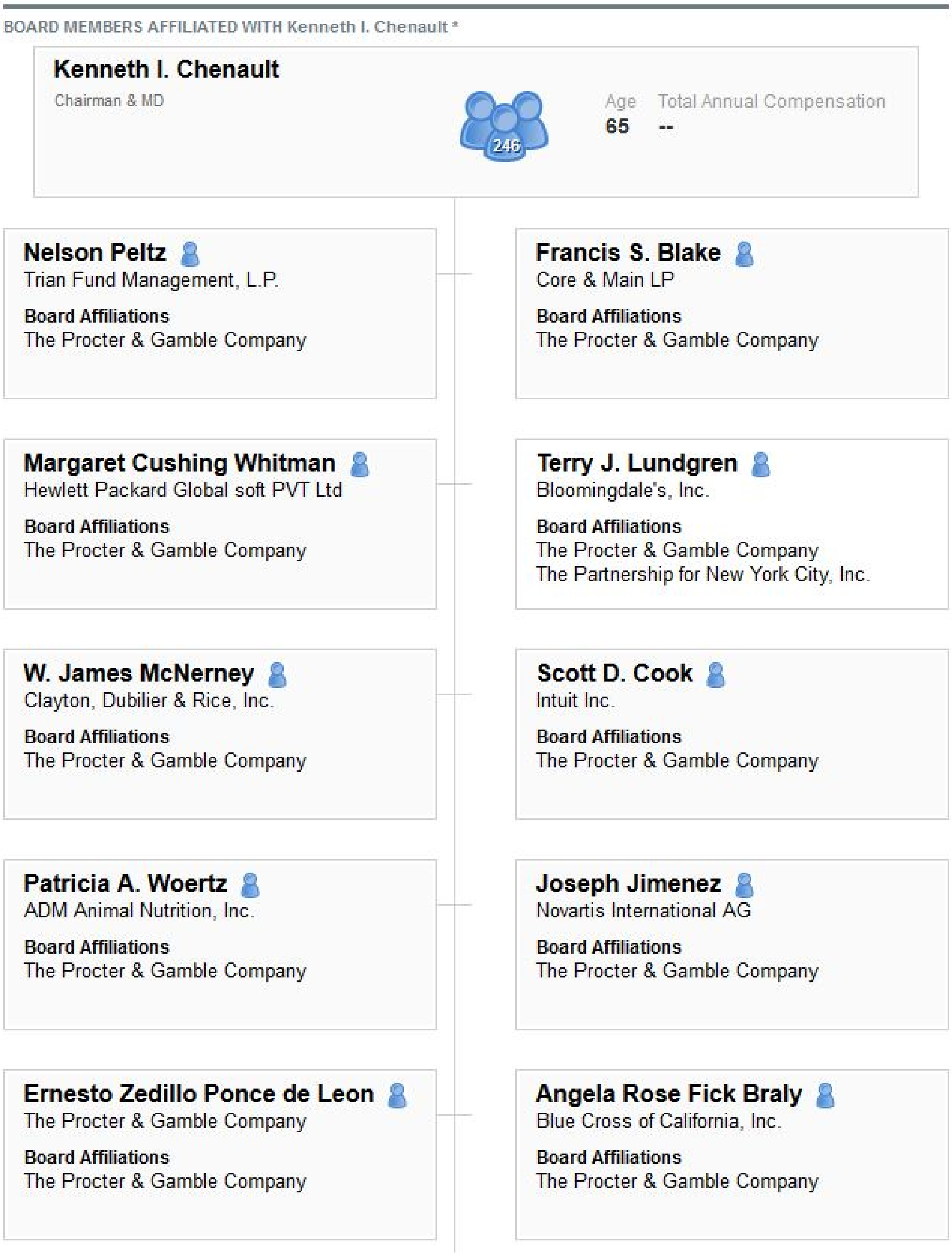
Public companies to which Kenneth I. Chenault has a 1st-degree connection will each appear as rows in the table.

Only public companies at which the connection currently works are included as rows. If multiple connections of Kenneth currently work at the same company, the company will have multiple rows.

Unique Connected Companies: 113

	Connection Path to Kenneth						
Company Name	**Connection Name**	**Shared Company**	**Start Year of Overlap**	**End Year of Overlap**	**Total Years of Overlap**	**Role**	**Current Colleague of Kenneth**
IBM	Self	N/A	N/A	N/A	N/A	Board Member	N/A
The Procter & Gamble Company	Self	N/A	N/A	N/A	N/A	Board Member	N/A
American Express	Self	N/A	N/A	N/A	N/A	Chairman and Chief Executive Officer	N/A
3M Company	Patricia A. Woertz	The Procter & Gamble Company	2008	Present	9.4	Board Member	Yes
3M Company	Michael L. Eskew	IBM	2014	Present	3.6	Lead Director	Yes
ABM Industries Incorporated	Filippo Passerini	The Procter & Gamble Company	2012	Present	5.2	Board Member	Yes
AMD	Nicholas M. Donofrio	IBM	2006	2006	0.8	Board Member	No
Alcoa Corporation	Dr. Ernesto Zedillo Ponce de Le	The Procter & Gamble Company	2008	Present	9.4	Board Member	Yes
Alcoa Corporation	Dr. James W. Owens	IBM	2006	Present	11.6	Board Member	Yes
Ameriprise Financial, Inc.	James M. Cracchiolo	American Express	2002	2004	2.7	Chairman and Chief Executive Officer	No
Anixter International Inc.	Valarie L. Sheppard	The Procter & Gamble Company	2017	Present	0.2	Board Member	Yes
Apollo Investment Corporation	Bradley J. Wechsler	New York University Langone Hospita	2017	Present	0.1	Board Member	Yes
Berkshire Hathaway Inc.	Thomas S. Murphy Sr.	New York University Langone Hospita	2017	Present	0.1	Board Member	Yes
BlackRock, Inc.	Laurence D. Fink	New York University Langone Hospita	2017	Present	0.1	Chairman and Chief Executive Officer	Yes
British American Tobacco p.l.c.	Dimitri Panayotopoulos	The Procter & Gamble Company	2012	Present	5.2	Board Member	Yes
Brookfield Asset Management Inc.	Angela F. Braly	The Procter & Gamble Company	2009	Present	7.8	Board Member	Yes
Brown-Forman	Bruce L. Byrnes	The Procter & Gamble Company	2008	2008	0.1	Board Member	No
C. R. Bard, Inc.	Anthony Welters	New York University Langone Hospita	2017	Present	0.1	Board Member	Yes
Cadence Design Systems, Inc.	Maggie Wilderotter	The Procter & Gamble Company	2009	2015	6.2	Board Member	No
CareDx	Dr. Ralph D. Snyderman M.D.	The Procter & Gamble Company	2008	2010	1.9	Board Member	No
Carlyle Group	Anthony Welters	New York University Langone Hospita	2017	Present	0.1	Board Member	Yes
Cincinnati Financial Corporation	Linda W. Clement-Holmes	The Procter & Gamble Company	2017	Present	0.2	Board Member	Yes
Cisco Systems, Inc.	Amy L. Chang	The Procter & Gamble Company	2017	Present	0.3	Board Member	Yes
Citigroup Inc.	Dr. Ernesto Zedillo Ponce de Le	The Procter & Gamble Company	2008	Present	9.4	Board Member	Yes

Panel C: Individual persons and firms connected to Kenneth I. Chenault as provided by Bloomberg (incomplete)



BOARD MEMBERS AFFILIATED WITH Kenneth I. Chenault *

Kenneth I. Chenault
Chairman & MD

Age	Total Annual Compensation
65	--

Nelson Peltz
Trian Fund Management, L.P.
Board Affiliations
The Procter & Gamble Company

Francis S. Blake
Core & Main LP
Board Affiliations
The Procter & Gamble Company

Margaret Cushing Whitman
Hewlett Packard Global soft PVT Ltd
Board Affiliations
The Procter & Gamble Company

Terry J. Lundgren
Bloomingdale's, Inc.
Board Affiliations
The Procter & Gamble Company
The Partnership for New York City, Inc.

W. James McNerney
Clayton, Dubilier & Rice, Inc.
Board Affiliations
The Procter & Gamble Company

Scott D. Cook
Intuit Inc.
Board Affiliations
The Procter & Gamble Company

Patricia A. Woertz
ADM Animal Nutrition, Inc.
Board Affiliations
The Procter & Gamble Company

Joseph Jimenez
Novartis International AG
Board Affiliations
The Procter & Gamble Company

Ernesto Zedillo Ponce de Leon
The Procter & Gamble Company
Board Affiliations
The Procter & Gamble Company

Angela Rose Fick Braly
Blue Cross of California, Inc.
Board Affiliations
The Procter & Gamble Company

Appendix III: Additional Tables

Table A.I.1: Distribution of event dates over sample years and sample months

This table shows the distribution of the deaths of suddenly deceased managers. A manager death case enters our sample if the manager passes away between January 1, 2000, and May 6, 2013, if the manager is affiliated with an S&P500 firm at the time of death, if the manager is covered by the BoardEx database, and if the death was sudden as defined in Section 2.1 of the paper.

	Month													
Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Sum	%
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
2001	0	0	0	0	0	0	0	0	0	1	0	0	1	2.4%
2002	0	1	0	1	1	0	0	0	0	0	0	1	4	9.5%
2003	0	1	0	0	0	0	0	1	0	0	1	0	3	7.1%
2004	1	0	0	1	0	1	0	1	2	0	0	0	6	14.3%
2005	0	0	0	1	0	1	0	1	1	1	2	0	7	16.7%
2006	1	0	1	0	0	0	0	0	0	0	0	0	2	4.8%
2007	1	0	0	0	0	0	0	0	1	0	0	1	3	7.1%
2008	1	0	0	1	1	0	0	1	0	0	0	1	5	11.9%
2009	0	0	0	0	0	0	0	0	0	0	0	1	1	2.4%
2010	0	2	1	0	0	0	0	0	0	0	1	1	5	11.9%
2011	0	1	0	0	0	0	0	0	0	0	1	1	3	7.1%
2012	0	1	0	0	0	0	0	0	0	0	0	0	1	2.4%
2013	0	0	1	0	0	-	-	-	-	-	-	-	1	2.4%
Sum	4	6	3	4	2	2	0	4	4	2	5	6	42	100.0%
%	9.5%	14.3%	7.1%	9.5%	4.8%	4.8%	0.0%	9.5%	9.5%	4.8%	11.9%	14.3%	100.0%	100.0%

Table A.I.2: List of CapitalIQ events classified as confounding events

The table reports the list of events classified as confounding events. *keydeveventtypeid* is the event category ID used by CapitaIQ and *keydeveventtypename* is the event category name used by CapitalIQ.

Event ID (*keydeveventtypeid*)	Event name (*keydeveventtypename*)
23	Client Announcements
24	SEC Inquiries
25	Lawsuits & Legal Issues
26	Corporate Guidance - Lowered
27	Corporate Guidance - Raised
28	Announcements of Earnings
29	Corporate Guidance - New/Confirmed
36	Buybacks
42	Debt Financing Related
43	Restatements of Operating Results
46	Dividend Increases
47	Dividend Decreases
59	Auditor Going Concern Doubts
61	Delayed Earnings Announcements
62	Annual General Meetings
73	Impairments/Write Offs
74	Debt Defaults
76	Legal Structure Changes
77	Changes in Company Bylaws/Rules
80	M&A Transaction Announcements
81	M&A Transaction Closings
8	M&A Transaction Cancellations
83	Private Placements
85	IPOs
86	Follow-on Equity Offerings
87	Fixed Income Offerings
88	Derivative/Other Instrument Offerings
89	Bankruptcy - Filing
90	Bankruptcy - Conclusion
91	Bankruptcy - Emergence/Exit
93	Shelf Registration Filings
94	Special Dividend Announced
95	Index Constituent Adds
97	Special/Extraordinary Shareholders Meetings
99	Potential Privatization of Government Entities
101	Executive Changes - CEO
102	Executive Changes - CFO
134	Composite Units Offerings
135	Structured Products Offerings
137	Spin-Off/Split-Off
138	Announcements of Sales/Trading Statement
152	Potential Buyback
153	Bankruptcy Asset Sale/Liquidation
154	Bankruptcy inancing

Table A.I.2: List of CapitalIQ events classified as confounding events (cont'd)

Event ID (*keydeveventtypeid*)	Event name (*keydeveventtypename*)
155	Bankruptcy Reorganization
160	Communication (Letter etc) to Employees by Target
156	Activist Request / Demands Target
157	Activist Letter to Target
163	Declaration of Voting Results - 10Q / 13D /Any SEC form
164	Confidentiality Agreement
177	Financing option from Activist to Target
187	Supporting statement to Target by Third Party
205	Regulatory Authority - Regulations
206	Regulatory Authority - Compliance
207	Regulatory Authority - Enforcement Actions
213	Dividend Cancellation
214	Dividend Initiation
215	Preferred Dividend
224	Halt/Resume of Operations - Unusual Events
225	Corporate Guidance - Unusual Events
226	Announcement of Operating Results
230	Buyback - Change in Plan Terms
231	Buyback Tranche Update
232	Buyback Transaction Announcements
233	Buyback Transaction Cancellations
234	Buyback Transaction Closings

Table A.I.3: Sample of sudden deaths

The table reports the list of top managers affiliated with at least one S&P500 firm at the time of death and, for each suddenly deceased manager, the individual ID used by BoardEx, the cause of death, the death announcement date, the date of death, and the affiliated S&P500 firm(s) at the time of death.

DirectorID	DirectorName	Sudden death cause	Announcement date	Date of death	S&P500 company name(s)
677009731	Richard N Daniel	Heart attack	28oct2001	25oct2001	KEYSPAN CORP
1595558021	William T Dillard Sr	Heart attack	08feb2002	08feb2002	DILLARDS INC
1231312025	George W Sarney	Heart attack	01may2002	30apr2002	CONSOLIDATED EDISON INC
20364711643	Edward S Bottum	Heart attack	26may2002	24may2002	AMERICAN INT GROUP INC
975026920	Richard J Testa	Unspecified cause	03dec2002	03dec2002	TERADYNE INC
4621510381	Raymond F Kennedy	Heart attack	05feb2003	04feb2003	MASCO CORP
4648610580	James H Gilliam Jr	Heart attack	22aug2003	20aug2003	T ROWE PRICE GROUP
417506472	Jane Evans	Unspecified cause	18nov2003	16nov2003	KB HOME, ALTRIA GROUP INC, GEORGIA PACIFIC GROUP
630255013	Timothy H Ling	Unspecified cause	29jan2004	28jan2004	UNOCAL CORP
454649819	James R Cantalupo	Heart attack	20apr2004	19apr2004	MCDONALD'S CORP, ILLINOIS TOOL WORKS INC
565009661	Terry R Lautenbach	Heart attack	03jun2004	02jun2004	CVS CORP
5744310381	Timothy B Harbert	Heart attack	25aug2004	24aug2004	STATE STREET CORP
4755411336	Michael Coleman	Accident	13sep2004	11sep2004	ALCOA INC
4698310936	John P Mulroney	Heart attack	28sep2004	24sep2004	TERADYNE INC, ALCOA INC
1593408001	Robert A Stanger	Accident	21apr2005	18apr2005	FRONTIER COMMUNICATIONS CO
406035076	John T Walton	Accident	27jun2005	27jun2005	WAL-MART STORES INC
510223671	Joseph L Castle II	Heart attack	16aug2005	15aug2005	COMCAST CORP
439668604	Lewis E Platt	Unspecified cause	09sep2005	08sep2005	BOEING CO
10368212054	Guilherme M Bettencourt	Heart attack	18oct2005	16oct2005	XEROX CORP
760857378	John P McNulty	Heart attack	19nov2005	16nov2005	CARNIVAL CORP
6875610539	Hector R Ortino	Unspecified cause	29nov2005	28nov2005	PARKER-HANNIFIN CORP
10429512462	Frank H Jellinek Jr	Accident	24jan2006	24jan2006	FISHER SCIENTIFIC INT INC
403564723	Andrall E Pearson	Heart attack	13mar2006	11mar2006	YUM! BRANDS INC
6065812597	Gordon S Macklin	Stroke	31jan2007	30jan2007	MEDIMMUNE INC
763607652	Howard A Gittis	Heart attack	17sep2007	16sep2007	JONES APPAREL GROUP INC
434078104	Joan R Herschede	Unspecified cause	02dec2007	01dec2007	FIFTH THIRD BANCORP

Table A.I.3: Sample of sudden deaths (cont'd)

DirectorID	DirectorName	Sudden death cause	Announce-ment date	Date of death	S&P500 company name(s)
1600828073	Robert C Oelkers	Unspecified cause	10jan2008	07jan2008	DYNEGY INC
1610428165	Martin S Kimmel	Heart attack	17apr2008	15apr2008	KIMCO REALTY CORP
3736248377	Charles B Fruit	Heart attack	27may2008	27may2008	GANNETT CO INC, COCA-COLA CO
3797048940	Allan A Tuttle	Unspecified cause	04sep2008	31aug2008	ABERCROMBIE & FITCH CO
558699145	John P DesBarres	Unspecified cause	31dec2008	29dec2008	AMERICAN ELECTRIC POWER CO INC
1609868165	Robert H Smith	Stroke	30dec2009	29dec2009	VORNADO REALTY TRUST
30179111126	James L Bowles	Accident	13feb2010	13feb2010	CONOCOPHILLIPS
11009232691	Larry J Dodgen	Heart attack	24feb2010	20feb2010	NORTHROP GRUMMAN CORP
5705867299	Jon C Jones	Heart attack	08mar2010	06mar2010	RAYTHEON CO
2286042932	Jai P Nagarkatti	Heart attack	14nov2010	13nov2010	SIGMA-ALDRICH CORP
8487862396	Thomas M Nash	Unspecified cause	30dec2010	25dec2010	FAMILY DOLLAR STORES INC
454089775	Donald E Becker	Unspecified cause	16feb2011	16feb2011	KROGER CO
52358512120	Christopher Ma	Heart attack	24nov2011	23nov2011	WASHINGTON POST CO
20131911475	Richard S Ellwood	Accident	31dec2011	29dec2011	APARTMENT INVESTMENT & MANAGEMENT CO (AIMCO)
6834810230	Steven R Appleton	Accident	03feb2012	03feb2012	MICRON TECHNOLOGY INC
448519338	Jerald G Fishman	Heart attack	29mar2013	28mar2013	XILINX INC, ANALOG DEVICES INC

The Value of Independent Directors around the World [*]

Kasper Meisner Nielsen[†] Kirsten Tangaa Nielsen[‡]

Abstract

This study examines the value of independent directors around the world using stock market reactions to sudden deaths. We find that the average independent director does not contribute to shareholder value. Using director fixed effects to control for unobserved individual heterogeneity such a director ability and skills, we show that shareholders value independent directors due to their independent stand in decision making. We further find that independent directors are more valuable to shareholders when they are voluntarily appointed, rather than mandated by hard law or recommended by soft law. Their value decreases in governance systems that allows the CEO to control the board through assuming the dual role of Chairman and CEO, or in countries where social norms increase directors' personal costs of monitoring management. Overall, we provide evidence of the value of independent directors around the world.

JEL Classification: G14, G32, G34

Keywords: Board of directors, Corporate Governance, Firm value, Independent director, Sudden death

---

[*] We thank Julia Gruvö, Alice Ebert, Pascal Büttner, Sophia Stille, Peter Zhou, Marianna Zanderigo, Mauro Rodrigues, Emil Sirén, Emilia Bäckman, Jennifer Björqvist, Stine Quorning and Marcus Gärtner for excellent research assistance.

[†] Department of Finance, Copenhagen Business School, DK-2000 Frederiksberg, Denmark. E-mail: kmn@cbs.dk

[‡] Department of Finance, Copenhagen Business School, DK-2000 Frederiksberg, Denmark. E-mail: kirsten@soendergade.dk

II.1 Introduction

In the wake of the corporate governance scandals of recent years, policy makers around the world have called for increasing the independence of directors to improve the effectiveness of corporate boards. In the Unites States, the passing of the Sarbanes-Oxley Act in 2002 increased the role and responsibility of independent directors on boards. In developed as well as emerging markets, the trend has been to follow the United States and increase the independence of directors, either through regulation or soft law. Despite a rich literature on independent directors, direct empirical evidence on whether mandating or recommending independence of boards is valuable to shareholders is scant. Therefore, this study attempts to fill this gap by examining the stock price reaction to sudden deaths of independent directors around the world. Overall, we find that independent directors provide a valuable service to shareholders and that their value increases when they are voluntarily appointed, rather than mandated by regulation (hard law) or encouraged by corporate governance codes (soft law).

Prior literature, both theoretical and empirical, has focused on one of the many facets of the board of directors, namely the role as a monitor or as an adviser or both.[13] For several reasons, independent directors are considered to be the most capable of assuming these dual roles on the board. First, independent directors are not, or are less, subject to potential conflicts of interest that reduce their capacity to monitor. Second, outside directors typically also serve as experienced professionals in other firms or large organizations and, therefore, care about their reputation. Fama and Jensen (1983) hypothesize that this reputation effect, as opposed to large compensation, induces outside directors to monitor. Third, independent outside directors possess technical expertise both in management and decision making, which allows them to be effective monitors (Fama and Jensen, 1983).

---

[13] See Hermalin and Weisbach (2003) and Adams et al. (2010) for literature reviews on the role of corporate directors in corporate governance.

Evidence in support of the value of independent directors to shareholders around the world is thin. Little is known about whether independent directors are equally good across corporate governance systems or whether regulation and cultural values curb the value of independent directors. Prior studies have been preoccupied with examining the value of independent directors in the United States. For instance, Rosenstein and Wyatt (1990) show that stock prices react positively to the nomination of independent directors to the board. However, as argued by Hermalin and Weisbach (1998, 2003), board composition and nominations are unlikely to be exogenously related to firm performance. The positive market reaction to the appointment of independent directors may be driven by a need for change, not the contribution of independence. To overcome this problem, Nguyen and Nielsen (2010) use stock price reactions to sudden deaths of independent directors to measure their contribution to shareholder value. They find that following the death of independent directors, stock prices drop by 0.85% on average, suggesting that independent directors provide a valuable service to shareholders. While these results seem to suggest that regulating board composition might increase shareholder value, it remains unclear whether the results from the United States are externally valid.

In this study, we examine stock price reactions to the sudden death of independent directors around the world and analyze their contribution to firm value. Following Nguyen and Nielsen (2010), our underlying hypothesis is that the stock price should decline following the sudden death if an independent director properly monitors or provides managers with pertinent advice. The stock market reaction is expected to remain negative even when the market expects the deceased to be replaced by another independent director because of search costs and learning curves for new directors. If the regulation of board composition, on the other hand, affects the value of independent directors to shareholders, we expect to find cross-country heterogeneity in the value of independent directors that cannot be explained by individual characteristics or industry-effects. We are particularly interested in understanding whether the recent wave of corporate law that mandates firms to appoint independent directors to company boards affects the value of independent directors, and whether the value of independent directors reflect is affected by social norms that increases directors' personal costs of monitoring management.

Based on a sample of 806 directors who suddenly died between January 1, 2000, and December 31, 2019, we find that the average independent director around the world does not contribute to shareholder value. The average stock price reaction to sudden death is close to zero (-0.10%) and statistically insignificant. In comparison, the average stock price reaction to the sudden death of inside directors is -1.22%, an effect that is statistically significant at the one percent level. Thus, at first glance, independent directors seem to create less value than inside directors. While this simple comparison attempts to isolate the value of independent directors, one might be concerned that independent directors and inside directors differ in terms of unobservable characteristics such as ability. To address this concern, we include director fixed effects to effectively control for unobserved heterogeneity. The director fixed effects approach essentially compares the stock price reaction across director types for the same director. By comparing how the stock market reacts to independent directorships and inside directorships for the same director, we find that independent directors provide a valuable service to shareholders: The stock market reaction is around 2.70% to 2.80% lower for independent directorships than it is for inside or gray directorships by the same directors. We, therefore, conclude that independent directors provide a valuable service to shareholders.

To further our understanding of when and why independent directors provide a valuable service to shareholders, we examine cross-country variation in how the stock market reacts to the sudden death of an independent director. Across countries there is large heterogeneity in the value of independent directors. The sudden death of independent directors in the Netherlands is, on average, associated with a cumulative abnormal return of -2.54% around the death date, whereas the cumulative abnormal return in India is 0.79%. The large heterogeneity in the value of independent directors motivates a more careful analysis of the determinants of the value of independent directors across corporate governance systems. We find that independent directors are more valuable when they are voluntarily appointed, rather than mandated by regulation (hard law) or encouraged by recommendation (soft law). Stock price reactions are 0.82% higher when the deceased independent director has not been voluntarily appointed. We also find lower value independent directors whenever the corporate governance regime allows the CEO to control the board agenda through assuming the dual role of Chairman and CEO (i.e. CEO duality).

To further our understanding of how corporate governance affects the value of independent directors, we further examine cross-country variation in stock price reactions to sudden deaths. We find that investor protection has little effect on the value of independence, whereas accounting standards seem to contribute significantly to the value of independent directors. Stock price reactions are more negative in countries with high accounting standard, which suggest that independent directors are effective monitors when they have access to reliable financial information about the performance of the firm.

In our final cross-country test we examine whether social norms that increases directors' personal costs of monitoring management. To capture social norms that result from cultural values we use measures derived from the seminal study by Hofstede (1980) of how values in the workplace are influenced by culture. We find indications that independent directors are less valuable in countries with greater power distance (i.e. greater acceptance of hierarchical structures), which increases directors personal costs of monitoring and disciplining management. Independent directors are thus particularly valuable in countries with egalitarian norms, where it is socially acceptable to speak out against authorities. Other dimensions of cultural values, on the other hand, seem to have no systematic relationship with independent directors' contribution to shareholder value.

This study contributes to the literature on corporate boards in several ways. First, it provides direct empirical evidence for the contribution of independent directors to shareholder value across countries. Second, in terms of methodology, our use of sudden deaths allows us to compare the value of independent directors across countries, while avoiding the potential problems of endogeneity, which is a common issue in the literature on boards of directors (Hermalin and Weisbach, 2003). Third, the cross-country setting allows us to address whether corporate governance reforms will result in higher firm value, or whether the benefits of such reforms are likely to be curbed by cultural values.

While this study provides evidence that cautions against imposing regulatory requirements to ensure an independent stand on corporate boards, conclusions should be drawn with caution. The alternative to the regulation of corporate governance standards is to let owners and firms decide what is best for them. Relying on firms alone to add more independent directors to a board may not result in optimal outcomes. As Fama and Jensen (1983) point out, inside directors are more likely to possess superior information, which, together with their experience, allows them to contribute to firm value. If the power distance is large, a board may be most value-enhancing when it allows both independent directors and inside directors to perform their roles. Collectively, these findings suggest that policy makers around the world should consider the institutional setting and cultural barriers to board effectiveness before they adopt corporate governance reforms from the United States. To this end, our results provide evidence that caution against a one-size-fits-all approach to regulation of the board composition.

The remainder of the study is organized as follows: Section 2 describes the data collection and sample selection procedure and empirical strategy. In Section 3 we report our main findings, while Section 4 offers concluding remarks.

II.2 Sample and data

II.2.1 Sample selection and definition of sudden deaths

We follow the existing literature (Johnson et al., 1985; Faccio and Parsley, 2009; Nguyen and Nielsen, 2010) and identify our sample of deceased directors by searching Factiva, Lexis-Nexis and Newswires containing company announcements for major Stock Exchanges. We use two sets of keywords: one set of keywords identifies news about directors (board member, director), while the other set of keywords identifies news about death (passed away, died, deceased, etc.). The main search is conducted in English, and supplemented by additional searches using the equivalent keywords in Chinese, German, French, Nordic languages, and Spanish. Due to data availability we restrict the sample period to directors who were active between January 1, 2000 and December 31, 2019. This search identified a gross sample of 11,117 deceased directors from a collection of around 100,000 newspaper articles. Of the 11,117 cases, 3,197 are subsequently dropped because the executives or directors serve on the board of privately held companies. Another 45 cases were dropped because the death date could not be properly identified. For the remaining 7,875 deceased executives and directors, we classify the executives' and directors' cause of deaths using a follow up search on news containing the name of the director in a one-year period surrounding his deaths. For cases classified as sudden deaths, we further checked the possibility of confounding news surrounding the event. Whenever there is important corporate news from day –5 to day +5 around the deaths, the events are eliminated from the sample. These steps allow us to identify 1,290 cases of sudden death. We exclude firms with a) missing accounting data or stock price data in Datastream, b) too few observations in the estimation period for the event study, c) where the deceased is a not a director, and d) a share price of less than 25 cents (due to Datastream's policy of pricing stock prices in increments of one cent). This leaves us with a final sample of 806 terminated directorships due to the sudden deaths of 638 directors around the world.

In keeping with the prior literature, sudden deaths are defined as accidents, heart attacks, murders, terrorist attacks, strokes, and deaths for which the cause is unreported, but the death is described as unanticipated. Causes that implies that the director's health was in decline prior to the death such as cancer, complications from illness, past strokes, surgery or suicides are not considered sudden. Based on these criteria, we identified 638 suddenly deceased directors holding a total of 806 directorships. These directorships were classified into inside, gray, and independent directors. Inside directors are current employees of the firm, whereas board members who are retired employees of the firm, relatives of the CEO, and/or persons with a conflict of interest or related to a firm's business are classified as "gray". Directors who are not current or former employees of the firm, and who do not have dealings with the firm, are designated as independent directors. Of these suddenly deceased directors, 158 directorships were inside, 94 were gray, and 554 were independent. In the current version, we focus exclusively on independent directors. Thus, the starting point of this study is a database of 806 firms that lost a director due to sudden death.

We additionally collect information from three separate sources. First, the biographical information about deceased directors is obtained from the firm's annual reports. Second, we collect firm and governance characteristics from annual reports and existing databases such as Datastream and Worldscope. Third, we supplement the firm-level data with data on corporate governance reforms and regulation of board composition at the country level as well as measures of corporate governance standards from the existing literature. Panel A of Table 1 shows the reported causes of death for suddenly deceased directors, while Panel B reports the number of directorships help by each suddenly deceased director.

Panel A shows that, out of the 638 suddenly deceased directors, 19.6% suffered from a heart attack, whereas 6.1% died from a stroke. Accidents account for 14.9% of our sample. Finally, a total of 323 deaths (50.6%) are described as sudden and unexpected without specific details being provided about the medical cause of death. Several of the suddenly deceased directors held multiple directorships. In total, the 638 suddenly deceased directors held 806 directorships. Panel B of Table 1 shows the distribution of suddenly terminated directorships for the 638 deceased directors.

II.2.2 Descriptive statistics

Table 2 shows the distribution of sudden deaths across director types. Our sample is dominated by independent directors (554 cases), followed by inside directors (158 cases) and gray directors (94 cases). We note from Panel A that independent directors differ in terms of age and tenure as they are older and have lower tenure than inside directors. The average independent director suddenly died at the age of 67 years, compared to 63 years for inside directors. There is substantial variation in the age of the independent directors, which ranges from 33 to 95 years at the time of death. The average independent director had served on the board for 8.2 years, almost 10 years less than the average inside director. Panel B presents firm characteristics. Firms that suddenly lost an independent director have an average market capitalization of USD 7.8 billion and a market to book-value of assets of 1.54.

II.3 Empirical results

II.3.1 Stock price reactions to sudden deaths around the world

To examine the stock price reaction to sudden deaths, we access daily returns from Datastream for each of our 806 events around the event date as well as a 200-day pre-event estimation window (from day -221 to day -21). The event day is defined as the trading day of the director's death or the first trading day following the death if it occurred on a non-trading day. To calculate the abnormal return, we follow the standard event study approach and assume a single-factor model, where beta is estimated using the MSCI World as the market index in the pre-event estimation window. We require at least 100 days with complete stock market data to run the event study. We obtain almost identical results using market-adjusted returns and, therefore, only present the results of the market model.

As previously mentioned, we exclude cases in which the nominal stock prices is less than 25 cents to avoid sampling firms with extreme variation in return caused by Worldscope's policy of quoting stock prices in cents.

For the sample of sudden deaths, we verify the death and news dates by conducting additional searches for news containing the name of the deceased. In cases in which the death is reported by multiple news agencies, the earliest date is assigned as the news date. Deaths are, on average, reported in the news with a time lag of 1.75 days, with a median of 1 day. Our sample includes a few extreme cases in which a firm withheld the announcement for several days. Otherwise, the delay is mainly caused by intervening weekends. The mean time lag between death and news dates is 1.1 trading days with a median of 1 day.

Panel A in Table 3 reports the average abnormal return from trading day -5 to +5 around the event date. Except for the death date, the average stock price reactions appear economically insignificant, as the average cumulative abnormal return (CAR) is close to zero on all other trading days. On the day of the sudden death, the average stock price declines by -0.24%, an effect that is statistically significant at the five percent level. Panel B reports the cumulative abnormal return for various event windows around the death date. For all event windows the stock price reaction to sudden deaths of directors is negative and statistically significant. Panel C splits the stock price reaction according to director types. The sudden death of inside directors is associated with 1.22% lower stock prices, an effect that is statistically significant at the one percent level. Stock prices also decline for sudden deaths of gray and independent directors, although the effects are statistically insignificant. For independent directors the stock price reaction is close to zero, which is in contrast with prior evidence in Nguyen and Nielsen (2010), who find that following the death of independent directors deaths in the United States stock prices drop by 0.89% on average. One likely explanation for the conflicting evidence on the value of independent directors around the world, is differences in corporate governance standards and board independence across countries. Thus, the findings in Table 3 motivate a more careful analysis of the value of independent directors around the world.

II.3.2 The value of independence

The prior literature stresses that independent directors provide valuable service to shareholders due to their independent stand on corporate policies. Therefore, in Table 4 we examine the value of directors around the world. In particular, we are interested in estimating the value of independent directors relative to other directors. To isolate the value of independence, rather than individual abilities and skills, we follow Nguyen and Nielsen (2010) and focus on individuals with multiple directorships. For this group, we compare the stock price reaction across director types (independent, gray, and inside) while effectively controlling for director-invariant heterogeneity, using a director fixed effect approach.

Table 4 reports the results of the comparison of stock price reactions across director types. We start with a simple specification that includes director age, tenure, and industry fixed effects as controls in Column 1. We note that the difference in stock price reactions from Table 3 is statistically insignificant. We then introduce firm characteristics as controls and note that the difference in stock price reactions across director types remains statistically insignificant. One pertinent issue with the interpretation of the coefficients on director types is that they jointly estimate the average value of each type of director as well as the average value of directors' abilities and skills. To ensure that we isolate the effect of the independent stand on decision making, rather than individual abilities and skills we introduce director fixed effects to the specification in columns 3 and 4. We find that independent directors provide a valuable service to shareholders. Stock price reactions are 2.75% to 2.82% more negative for independent directorships than they are for other directorships held by the same individual.

Having established that independent directors through their independent stand on corporate decisions provides a valuable service to shareholders we proceed by examining how corporate governance reforms that mandate or recommend firms to appoint independent directors affect their value.

II.3.3 Corporate governance reforms and the value of independent directors

One of the most significant waves in corporate governance reforms in recent years, has been the introduction of mandatory rules and soft law regarding the number or fraction of independent directors on corporate boards.

Following the accounting scandals of the early 2000s, the United States passed the Sarbanes-Oxley Act in 2002, which has been described by many observers and market participants as the most significant securities legislation since the formation of the Securities and Exchange Commission in 1934. Sarbanes-Oxley requires, among other things, that the majority of board members is independent, and defines independence as a director that does not receive any consulting, advisory or other compensation from the firm, or is considered an affiliated person (as defined by the 1940 Act). While the Sarbanes-Oxley Act is often viewed as a landmark reform of corporate governance, several East-Asian countries introduced mandatory requirements regarding independent directors following the Asian Financial Crisis in 1997. In 1998, Korea introduced a minimum requirement of 25% independent directors on the board, followed by 33% in Malaysia and the Philippines in 2000. In total 14 out of 37 countries in our sample have introduced mandatory representation of independent directors on corporate boards. Several countries impose a requirement for a minimum number of independent directors (ranging from one in India and Japan to three in Hong Kong), while other countries imposes a minimum fraction (ranging from 30% in Indonesia to 50% in United States). As an alternative to mandatory requirements, many countries have introduced corporate governance recommendations either in the form of soft comply-or-explain laws, or by introducing more informal corporate governance codes. A total of 18 countries out of the 23 countries without a mandatory requirement to appoint independent directors have introduce soft laws (comply or explain) that encourage firms to appoint independent directors. Most countries recommend that the board be comprised of a minimum percentage of independent directors of 50% (10 countries out of 18), while the remaining countries recommend a lower percentage or that the board consists of between 1 and 3 independent directors.

Mandating or recommending firms to appoint independent directors has implications for the marginal value of independent directors. First, as shown by Nguyen and Nielsen (2010), the marginal value of an independent director is higher when the board includes fewer independent directors. This is quite intuitive as other independent directors on the boards are substitutes for the deceased director. Second, independent directors are particularly valuable in situations where they influence the power structure of the board. If firms are mandated or recommended to appoint at least 50% independent directors, we expect firms to appoint a replacement after the sudden death of an independent director in which case the power structure will remain unaffected. Finally, mandating or recommending firms to appoint independent directors may also affect the quality of directors. The prior literature has documented that CEOs are often involved in the selection of independent directors (Shivdasani and Yermack, 1999). This temptation may be greater if the corporate governance system mandates or recommends firms to appoint independent directors to the board.

Table 5 reports the average cumulative abnormal returns for countries with more than 5 sudden deaths in our sample. A total of 17 countries have 5 or more observations of sudden deaths of independent directors in our sample, corresponding to 529 out of 554 observations in our sample. For 10 out of 16 countries with more than 5 observations we find negative CARs (Australia, Germany, Italy, Malaysia, the Netherlands, Spain, Switzerland, Thailand, the United Kingdom, and the United States), whereas CARs are positive for four countries (Belgium, Hong Kong, India, and South Africa). In the remaining two countries (Canada and France), CARs are mainly negative with the exception of the short event window from -1 to 0 around the death date.

In Column 1 of Table 6 we examine the relationship between the value of independent directors and regulation regarding appointment of independent directors. To capture corporate governance reforms affecting the appointment of independent directors we construct an indicator *(Hard or soft law)* that takes the value one after the introduction of a hard law mandating a minimum number or fraction of independent directors or after the introduction of a soft law (i.e. an official corporate governance code) recommending a minimum number or fraction of independent directors. The empirical specification includes controls for director age and tenure, log. of market capitalization, market-to-book value of assets, return on assets and stock price volatility as well as industry fixed effects based on Fama-French 12 industry classification.

We find that independent directors create less value for shareholders when the corporate law mandates or corporate governance codes recommend a minimum number or fraction of independent directors. Thus, stock price reactions to the sudden death of an independent director are 0.82% higher in countries that mandate or recommend independent directors on boards. This effect is relative to independent directors serving on boards in countries (at a time) where firms voluntarily have decided to appoint an independent directors.

In column 2 of Table 6 we go one step further and examine whether the evidence in Column 1 is driven by the corporate law or recommendations by corporate governance codes. We include two indicators: *Hard law* equals one if independence is mandated by law, whereas *soft law* equals one if firms are recommended to maintain a minimum number or fraction of independent directors. Interestingly, we find that both variables are positively correlated with the value of independent directors, although only the indicator for hard laws is statistically significant at conventional levels.

In addition to the differences in the approach to regulation, countries also differ in respect to whether the company law or corporate governance codes define an independent director. In Column 3 we therefore introduce an indicator variable taking the value one if the deceased independent director died before the corporate law or a corporate governance code provided a stringent definition of independence. We find that independent directors who suddenly die after the term “independence” is defined is associated with more positive stock price reactions. The difference in stock price reactions equals 0.79% and is statistically significant at the one percent level. Because the introduction of a stringent definition often coincides with introduction of hard laws, we test in column 3 whether the effect survives after including the indicator for hard laws in column 4. We note that most of the effect can be attributed to the introduction of a hard law mandating a minimum number or fraction of independent directors.

The effectiveness of independent directors might in practice be limited if the CEO controls the board. In practice the key position is the Chairman of the board as the Chairman is responsible for setting the agenda for board meetings. In Column 5 we therefore introduce an indicator for whether the corporate law allows CEO duality. A total of seven countries in our sample do not allow duality, which allows us to test whether independent directors are less valuable to shareholders when the CEO can control the agenda of the board by holding on to the position as Chairman. Column 4 shows that independent directors indeed are less valuable in countries that allows CEO duality. Stock price reactions are systematically more positive if the company law allows the CEO to possess the dual role as CEO and Chairman, and the coefficient of 0.91% is statistically significant at the five percent level. In column 6, we investigate whether independent directors who serve as chairman of the board are more valuable to shareholders. We note that independent director who serve as chairmen are more valuable to shareholder, although the effect is statistically insignificant.

In Column 7 we introduce the variables of interest in the same regression to examine whether they span the same variation in the stock price reactions to sudden deaths of independent directors. Interestingly, we find an effect of similar magnitude, but of weaker statistical significance when we jointly test the hypothesis. Column 7 shows that regulation through hard laws, decreases the value of independent directors, a finding that suggest that the marginal value of independent directors are declining. We conclude that the marginal value of independent directors is lower in countries that have made independent director mandatory. To this end, our results suggest that the marginal value of independent directors is higher when they are voluntarily appointed to a corporate board.

II.3.4 Rule of law and the value of independent directors

The law and finance literature suggests that investor protection play a key role in explaining difference in corporate governance across countries. Investor protection is defined by the extent to which the commercial law and its enforcement protects investors from expropriation by company insiders. Prior literature has measured investor protection by indicators that quantify explicit protections awarded to shareholders and creditors by corporate and bankruptcy laws. Examples of such explicit protections are those that impact the shareholders' ability to vote down directors, and whether shareholders can vote by proxy or vote by mail. An alternative interpretation of the cross-country evidence presented in the prior analysis is that the cross-country variation in regulation of board composition are proxies for legal investor protection. In Table 7 we, therefore, examine whether investor protection affects the value of independent directors.

In Column 1 of Table 7 we follow prior literature and measure investor protection by the (revised) anti-directors rights index from Djankov et al. (2008). Surprisingly we find no effect of anti-director rights on the value of independent directors. In Column 2 we alternatively use the anti-self-dealing index from Djankov et al. (2008), which measures the extent to which shareholders are protected against self-dealing by managers. The anti-self-dealing index is negatively correlated with stock price reactions to sudden death, although the coefficient is statistically insignificant. In Column 3 we use the median control premium estimated by Dyck and Zingales (2004) as a measure of the effectiveness of the governance system. One interpretation of the control premium is that it measures the private benefits that the controlling owner can extract. Consistent with independent directors performing the important role of reducing agency costs and hence private benefits of control, we find that the value of independent directors is higher in countries with high control premium. We also note that the effect is statistically significant at the ten percent level.

In Column 4 of Table 7 we examine the relationship between accounting standards and the value of independent directors using data from Porta et al. (1998). We find that the value of independent directors is increasing with quality and transparency of financial statements, an effect that is statistically significant at the five percent level. The estimated coefficient also shows that the effect is economically significant: A one standard deviation increase in accounting standards leads to a 0.28% higher value of independent directors.

In column 5 and 6 we introduce the two measures of investor protection to the specification in column 4 to confirm that the effect of accounting standards is not an artifact of investor protection. We conclude that the evidence presented in prior sections is not driven by differences in the legal protection of investor, which bolster our interpretation of the results as capturing how regulation regarding the number and fraction of independent directors affect their marginal value to shareholders.

II.3.5 Culture and the value of independent directors

Organizational and management studies embrace the idea that differences in management and organizational outcomes can be traced back to social norms. In his seminal study Hofstede (1980) conducted one of the most comprehensive studies of how values in the workplace are influenced by culture. Hofstede (1980) surveyed 116,000 IBM employees in 72 countries and extracted from their answers four dimensions of cultural distance: power-distance, individualism vs. collectivism, masculinity vs. femininity, and uncertainty avoidance. *Power-distance* measures the acceptance of hierarchical structures and status differentials. Countries with low power distance have more egalitarian norms. *Individualism* (vs. collectivism) measures how much people identify with various groups to which they adhere. In more individualist cultures individuals depends less on relationship with family, colleagues, and religion. *Masculinity* (vs. femininity) measures how much the culture values assertiveness, competitiveness, status and other values traditionally associated with "maleness". Finally, *uncertainty avoidance* measures a culture's comfort with unexpected events. Cultures with higher values are more risk-adverse.

Culture influences and guide day-to-day decision making of managers, directors, employees and other stakeholders. From the point of view of the value of independent directors we expect their value to be decreasing in power-distance (the degree to which hierarchical structures are accepted) and increasing in individualism where investors require protection against individual initiatives by the CEO. The other dimension of national culture are perhaps less relevant for the value of independent directors, but for completeness we include them in the empirical analysis. Columns 1 to 7 of Table 8 report the results, where we include indicators for the six cultural dimensions. Each indicator take the value one if the value is above the mean.

In Column 1 of Table 8 we find a positive and statistically significant relationship between power-distance and the value of independent directors. The value of independence thus declines with power distance, which captures the degree to which independent directors will challenge the CEO's authority over corporate affairs. In countries with high power distance, independent directors are perceived by shareholders to be 0.65% less valuable. Thus, the effect of power distance on the value of independent directors is economically significant, although it is only statistically significant at the ten percent level.

In Column 2 to 6 of Table 8 we find a negative and statistically insignificant effect of individualism, masculinity, uncertainty avoidance, long-term orientation and indulgence on the value of independent directors. All five coefficients are negative, but insignificant at conventional levels. Related to these dimensions of cultural differences, we note that long-term orientation is originally designed by Hofstede to capture cultural differences driven by Confucian values in Asia, which tend to place greater value on long-term orientation. Unfortunately, our sample contains few observations from East Asia where Confucian values are prevalent. Despite the statistical insignificance, we also note that the coefficient on indulgence is negative. Indulgence measures the extent to which the culture allows individuals to enjoy life or whether social norms exist to restrain and suppress gratification. In the workplace, indulgence captures the extent to which individuals are likely to voice their opinion and given feedback. Interesting, the results do seem to suggest that the value of independent directors might to be larger in countries in which individuals are more likely to voice their opinion and concerns are associated with higher perceived value of independent directors.

Finally, Column 7 of Table 8 includes all six measures of cultural dimension to examine how they jointly determine the value of independent directors. The only variable that remains statistically significant is power distance, which reinforced the finding that the value of independent directors is smaller in countries where social norms increase directors' personal costs of monitoring the CEO. We conclude that cultural norms are an important determinant of board effectiveness. In cultures where hierarchical structures and status differentials are accepted, independent directors contribute less to shareholder value as they are less likely to challenge the CEO's authority over corporate affairs.

II.4 Concluding remarks

In this study we examine the value of independent directors around the world. We use stock price reactions to sudden death of independent directors to obtain a director specific estimate of his/her contribution to firm value. Using a directors fixed effect approach to control for heterogeneity in individual ability and skills, we find that independent directors provide valuable services to shareholders.

Our results show large heterogeneity in the value of independent directors across countries. Stock prices drop on average by 2.54% in in the Netherlands, while they increase by 0.79% in India following sudden deaths of independent directors. These results contrast with prior evidence in Nguyen and Nielsen (2010), who find that following independent director deaths in United States stock prices drop by 0.89% on average.

One likely explanation for the large heterogeneity in the value of independent directors across countries is differences in corporate governance standards and board independence across countries. We find that independent directors are more valuable in countries that do not regulate board composition either through corporate or soft law, and less valuable in countries where the CEO can control the agenda of the board through assuming the dual role of chairman and CEO. We also find cultural values to be an important determinant of the value of independent directors. Independent directors are less valuable in environments where social norms increase directors' personal costs of monitoring management.

Overall, our results demonstrate that while independent directors provide a valuable service to shareholder, their marginal value is lower when the corporate law or corporate governance code mandate firms to appoint them. Our results also suggest that cultural values might curb the benefit to shareholders from appointment of independent directors, in particular in cultures where hierarchical structures and status differentials are accepted as independent directors in such environments are less likely to challenge the CEO's authority over corporate affairs.

II. References

Adams, R.B., Hermalin, B., Weisbach, M.S., 2010. The role of boards of directors in corporate governance: A conceptual framework and survey. Journal of Economic Literature 48, 58 – 107.

Djankov, S., LaPorta, R., de Silanes, F.L., Shleifer, A., 2008. The law and economics of self-dealing. Journal of Financial Economics 88, 430 – 465.

Dyck, A., Zingales, L., 2004. Private benefits of control: An international comparison. Journal of Finance 59, 537 – 600.

Faccio, M., Parsley, D.C., 2009. Sudden deaths: Taking stock of geographic ties. Journal of Financial and Quantitative Analysis 44, 683 – 718.

Fama, E.F., Jensen, M.C., 1983. Separation of ownership and control. Journal of Law and Economics 26, 301 – 325.

Hermalin, B.E., Weisbach, M.S., 1998. Endogenously chosen boards of directors and their monitoring of the CEO. American Economic Review 88, 96–118.

Hermalin, B.E., Weisbach, M.S., 2003. Boards of directors as an endogenously determined institution: A survey of the economic literature. Federal Reserve Bank of New York Policy Review 9, 7–26.

Hofstede, G., 1980. Culture's Consequences: International Differences in World-related Values. 3rd. edition. Sage Publications, Beverly Hills, California.

Hofstede, G., 2001. Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations across Nations. 3rd. edition. Sage Publications, Beverly Hills, California.

Johnson, W.B., Magee, R.P., Nagarajan, N.J., Newman, H.A., 1985. An analysis of the stock price reaction to sudden executive deaths - implications for the managerial labor market. Journal of Accounting and Economics 7, 151 – 174.

Nguyen, B.D., Nielsen, K., 2010. The value of independent directors: Evidence from sudden deaths. Journal of Financial Economics 98, 550 – 567.

Porta, R.L., de Silanes, F.L., , Shleifer, A., Vishny, R.W., 1998. Law and finance. Journal of Political Economy 106, 1113 – 1155.

Rosenstein, S., Wyatt, J.G., 1990. Outside directors, board independence, and shareholder wealth. Journal of Financial Economics 26, 175 – 191.

Shivdasani, A., Yermack, D., 1999. Ceo involvement in the selection of new board members: An empirical analysis. Journal of Finance 54, 1829 – 1853.

Table II.1: Cause of sudden director deaths

This table reports the composition of our sample of directors of listed firms from 37 countries who suddenly died between the dates of January 1, 2000 and December 31, 2019. Based on the cited cause of death in newspaper reports, Panel A classifies the cause of sudden deaths into: *accidents, heart attacks, heart failures, murders and terrorist attacks, strokes,* and deaths described as *sudden and unexpected with no other cause cited*). Panel B reports the number of directorships held by each suddenly deceased director, and Panel C reports the total number of suddenly terminated directorships. In panels A and B, each individual is counted once irrespective of the number of directorships held.

A. Cause of sudden death	N	Share of total
Accident	95	0.149
Cardiac arrest	22	0.035
Heart attack	125	0.196
Heart failure	25	0.039
Murder or terrorism	9	0.014
Stroke	39	0.061
Sudden and unexpected death, but unspecified cause	323	0.506
All	638	1.000

B. Number of directorships per suddenly deceased individuals	N	Share of total
1	527	0.826
2	76	0.119
3	17	0.027
4	12	0.019
5 or more	6	0.010
All	638	1.000

C. Total number of suddenly terminated directorships	806

Table II.2: Descriptive characteristics of directors who suddenly died

This table reports descriptive statistics for our sample of directors of firms from 37 countries who suddenly died between the dates of January 1, 2000 and December 31, 2019. We define sudden death as an unexpected death that occurs instantaneously or within 24 hours of an abrupt change in the person's previous clinical state. Our definition includes accidents, heart attacks, heart failures, murders and terrorist attacks, strokes and deaths described as sudden and unexpected with no other cause cited. We report descriptive statistics across director types: *Inside directors* are current managers or current employees that served on the board. *Gray directors* are directors with material interest in the firm, who are not current managers or current employees. *Independent directors* are not current or former employees, and do not have dealings with the firm other than in the capacity of their directorship. Panel A reports the following director characteristics: *Age* (measured in years) and *tenure* (measured in years). Panel B shows the following firm characteristics: *Market capitalization* (in billion of $), *market-to-book ratio* of assets measured as the market value of equity plus book value of debt over book value of equity plus book value of debt, *return on assets* is defined as operating profits over book value of assets, and *stock volatility (%)* is measured as the standard deviation of stock returns from the estimation period -100 to -21, where 0 is the death date. Panel C shows the number of suddenly terminated directorships in our sample.

	Director type						All	
	Inside		Gray		Independent			
	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)
A. Director characteristics								
Age	63.0	12.1	69.1	12.6	67.0	8.8	66.5	10.2
Tenure	18.0	14.8	19.7	15.1	8.2	7.0	11.5	11.2
B. Firm characteristics								
Market capitalization (bn.)	4.63	16.2	5.62	24.7	7.83	37.7	6.95	33.2
Market-to-book ratio	1.60	1.77	1.83	2.40	1.54	1.88	1.58	1.93
Return on assets (%)	1.72	13.4	-0.86	16.6	2.34	12.5	1.84	13.4
Stock volatility (%)	2.94	1.49	2.77	1.89	2.57	1.49	2.67	1.60
C. Number of directorships	158		94		554		806	

Table II.3: The stock price reaction to sudden death of directors

This table shows the stock price reaction to the sudden death of directors. Panel A reports the mean abnormal return for each trading day from five days before the death date to five days after. Panel B shows the cumulative abnormal return for various event windows surrounding the death date. Panel C shows the cumulative abnormal return for each director type (see definition in Table 2). In addition to the mean abnormal return, we report the corresponding test statistic, the number of positive and negative stock price reactions, the median abnormal return and its corresponding test statistic. Our sample includes independent directors of firms from 37 countries who suddenly died between the dates of January 1, 2000 and December 31, 2019. We define sudden death as an unexpected death that occurs instantaneously or within 24 hours of an abrupt change in the person's previous clinical state. Our definition includes accidents, heart attacks, heart failures, murders and terrorist attacks, strokes and deaths described as sudden and unexpected with no other cause cited. The daily predicted return is estimate from a market model regression where daily stock returns are regressed on daily MSCI World returns over a 200-day estimation window ranging from day –220 to –21. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Trading day / Event window	N	Mean abnormal returns	t-test	Number of positive: negative	Median return	Sign rank test
A. Daily abnormal returns						
Day -5	806	0.05	0.31	384:422	-0.05	-1.31
Day -4	806	-0.01	-0.05	379:427	-0.08	-1.22
Day -3	806	0.03	0.25	375:431	-0.08	-1.82*
Day -2	806	-0.04	-0.39	397:409	-0.02	-0.23
Day -1	806	-0.09	-1.10	382:424	-0.06	-1.17
Day 0	806	-0.24**	-2.21	369:437	-0.10	-2.61***
Day +1	806	-0.03	-0.25	392:414	-0.05	-1.04
Day +2	806	-0.12	-0.96	388:418	-0.05	-0.91
Day +3	806	-0.01	-0.12	382:424	-0.09	-0.83
Day +4	806	-0.02	-0.18	386:420	-0.04	-0.82
Day +5	806	-0.02	-0.21	384:422	-0.09	-1.21
B. Cumulative abnormal returns						
CAR(-1;0)	806	-0.33***	-2.43	352:454	-0.31***	-3.07
CAR(-1;+1)	806	-0.36***	-2.38	354:452	-0.51***	-3.33
CAR(-1;+2)	806	-0.48***	-2.45	365:441	-0.32***	-2.67
C. Cumulative abnormal returns (-1,+1) by director type						
Inside	158	-1.22***	-2.77	63:95	-0.95***	-3.06
Gray	94	-0.42	-1.17	41:53	-0.33	-1.42
Independent	554	-0.10	-0.62	250:304	-0.37	-1.64

Table II.4: The value of directors around the world

This table shows the determinants of the stock price reaction to the sudden death of directors. We use the cross-section of stock price reactions from table 3 as dependent variable. The reported results are based on the event period from -1 to +1, where 0 is the death date. Independent and gray are indicators for independent directors and gray directors, respectively. *Director age* and *tenure* are measured in years. *Market capitalization* is log of the firm's market capitalization in US$. *Market-to-book* is the market-to-book ratio of assets, which is defined as market value of equity plus book value of debt over book value of equity plus book value of debt. *Return on assets* is operating profits over book value of assets. *Stock volatility (%)* is the standard deviation of stock returns from the estimation period -100 to -21, where 0 is the death date. All specification include industry fixed effects based on Fama-French's twelve-industry classification. Specification 3 and 4 include director fixed effects. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)
Independent	0.904	0.770	-2.745*	-2.825*
	(1.58)	(1.34)	(-1.72)	(-1.76)
Gray	0.504	0.608	-1.979	-1.647
	(0.88)	(1.07)	(-1.17)	(-0.96)
Director age	0.028	0.029*		
	(1.64)	(1.76)		
Tenure	0.024	0.015	-0.011	-0.003
	(1.47)	(0.91)	(-0.24)	(-0.07)
Market capitalization		0.070		-0.155
		(0.04)		(-0.73)
Market-to-book		-0.227***		0.196
		(-2.74)		(0.99)
Return on assets (%)		0.014		0.027
		(1.16)		(0.89)
Stock volatility (%)		-0.085		0.342
		(-0.77)		(1.26)
Industry fixed effects	Yes	Yes	Yes	Yes
Director fixed effects	No	No	Yes	Yes
R-squared	0.033	0.049	0.850	0.854
N	806	806	806	806

Table II.5: Country level stock price reactions to sudden death of independent directors

This table shows the stock price reaction to the sudden death of independent directors for countries with more than four observations. In addition to the mean abnormal return for the event period from -1 to +1, where 0 is the death date (*Event date: Death date*), we report the mean abnormal return for alternative event period from -1 to 0 and from -1 to +2. Our sample includes independent directors of firms from 37 countries who suddenly died between the dates of January 1, 2000 and December 31, 2019. Independent directors are not current or former employees, and do not have dealings with the firm other than in the capacity of their directorship. We define sudden death as an unexpected death that occurs instantaneously or within 24 hours of an abrupt change in the person's previous clinical state. Our definition includes accidents, heart attacks, heart failures, murders and terrorist attacks, strokes and deaths described as sudden and unexpected with no other cause cited. The daily predicted return is estimated from a market model regression where daily stock returns are regressed on daily MSCI World returns over a 200-day estimation window ranging from day –220 to –21.

Country	Cumulative abnormal return			N
	(0;+1)	(-1;+1)	(-1;+2)	
Australia	-0.63%	-1.52%	-2.21%	5
Belgium	1.75%	1.43%	2.04%	9
Canada	0.10%	-0.52%	-0.36%	27
France	0.33%	-0.30%	-0.55%	13
Germany	-0.67%	-0.69%	-0.44%	11
Hong Kong	0.23%	0.71%	0.62%	6
India	0.49%	0.73%	0.79%	123
Italy	-0.11%	-0.31%	-0.63%	7
Malaysia	-1.31%	-1.79%	-1.32%	5
Netherlands	-3.38%	-2.54%	-2.57%	7
South Africa	0.45%	1.06%	2.39%	7
Spain	-1.50%	-1.84%	-2.56%	5
Switzerland	-0.44%	-0.20%	-3.89%	8
Thailand	-0.10%	-1.59%	-2.46%	9
United Kingdom	-0.68%	-0.99%	-0.98%	45
United States	-0.20%	-0.27%	-0.19%	241
Other countries	0.83%	0.80%	0.71%	25
All	-0.04%	-0.10%	-0.10%	554

Table II.6: Governance reforms and value of independent directors

This table shows the determinants of the stock price reaction to the sudden death of independent directors. We use the cross-section of stock price reactions from table 3 as dependent variable. The reported results are based on the event period from -1 to +1, where 0 is the death date. *Hard or soft law* is an indicator taking the value one if director is appointed after the adoption of hard law or soft law regarding the number or fraction of independent directors on corporate boards. *Hard law* is an indicator taking the value one if the director is appointed after the introduction of mandatory rules regarding the minimum number or fraction of independent directors on corporate boards. *Soft law* is an indicator taking the value one if the director is appointed after the adoption of a soft law recommending a minimum number or fraction of independent directors on corporate boards. *Independence definition* is an indicator variable taking the value of one if the deceased independent director is appointed after a hard or soft law introduced a definition of independence. *CEO duality* is an indicator taking value one if the chairman and CEO positions are combined. *Chairman* is an indicator taking the value one if the deceases is chairman of the board. The specifications include the following control vairables: *Age, tenure, market capitalization, market-to-book ratio, return on assets*, and *return volatility* (see definitions in table 4). All specification include industry fixed effects based on Fama-French's twelve-industry classification. t-stats are corrected for clustering at the country level and reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Hard or soft law	0.815***						
	(3.13)						
Hard law		0.864***		0.558**			0.462**
		(3.75)		(2.53)			(2.00)
Soft law		0.327					
		(0.68)					
Independence definition			0.749***	0.367			0.379
			(3.20)	(1.18)			(1.22)
CEO duality					0.906**		0.595
					(1.97)		(1.27)
Chairman						-0.670	-0.404
						(-1.21)	(-0.69)
Age	0.014	0.012	0.015	0.012	0.016	0.019	0.011
	(0.70)	(0.61)	(0.78)	(0.62)	(0.90)	(1.03)	(0.63)
Tenure	0.024	0.022	0.025	0.026	-0.002	-0.003	0.027
	(1.44)	(1.35)	(1.45)	(1.49)	(-0.15)	(-0.24)	(1.60)
Market capitalization	-0.067	-0.056	-0.071	-0.058	-0.059	-0.069	-0.056
	(-1.17)	(-0.95)	(-1.30)	(-0.98)	(-1.08)	(-1.25)	(-0.88)
Market-to-book	-0.150***	-0.152***	-0.149***	-0.151***	-0.161***	-0.147***	-0.157***
	(-2.80)	(-2.85)	(-2.74)	(-2.84)	(-2.65)	(-2.60)	(-2.88)
Return on assets	0.035***	0.035***	0.035***	0.035***	0.032***	0.031***	0.033***
	(5.06)	(5.18)	(4.66)	(5.17)	(4.57)	(4.15)	(7.88)
Stock volatility	-0.205	-0.017	-0.019	-0.017	-0.014	-0.015	-0.014
	(-0.13)	(-0.11)	(-0.11)	(-0.10)	(-0.09)	(-0.10)	(-0.09)
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.047	0.047	0.045	0.047	0.042	0.042	0.050
N	554	554	554	554	554	554	554

Table II.7: Investor protection and the value of independent directors

This table shows the determinants of the stock price reaction to the sudden death of independent directors. We use the cross-section of stock price reactions from table 4 as dependent variable. The reported results are based on the event period from -1 to +1, where 0 is the death date. *Anti-director rights index* is the revised anti-director rights index taken from Djankov et al. (2008). The *anti-self-dealing index* is also taken from Djankov et al. (2008). *Control premium* is taken from Dyck and Zingales (2004) and we use the country median. *Accounting standards* is the accounting standards index created by Porta et al. (1998). The specifications include the following control vairables: *Age, tenure, market capitalization, market-to-book ratio, return on assets*, and *return volatility* (see definition in table 4). All specification include industry fixed effects based on Fama-French's twelve-industry classification. t-stats are corrected for clustering at the country level and reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Anti-director rights index	0.015				-0.020	
	(0.07)				(-0.14)	
Anti-self-dealing index		-0.170				1.197
		(-0.19)				(1.27)
Control premium			-2.578*			
			(1.80)			
Accounting standards				-0.042**	-0.043**	-0.062***
				(2.41)	(-2.29)	(-3.00)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.039	0.042	0.059	0.043	0.044	0.049
N	554	554	554	554	554	554

Table II.8: Culture and the value of independent directors

This table shows the determinants of the stock price reaction to the sudden death of independent directors. We use the cross-section of stock price reactions from Table 4 as dependent variable. The reported results are based on the event period from -1 to +1, where 0 is the death date. *Power distance, individualism, masculinity, uncertainty avoidance, long term orientation* and *indulgence* are taken from Hofstede (2001). For each of the measures we define an indicator equal to one if the value is above the mean. The specifications include the following control vairables: *Age, tenure, market capitalization, market-to-book ratio, return on assets*, and *return volatility* (see definition in table 4). All specification include industry fixed effects based on Fama-French's twelve-industry classification. t-stats are corrected for clustering at the country level and reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Power distance	0.646*						1.735*
	(1.94)						(1.81)
Individualism		-0.383					-0.188
		(-1.21)					(-0.39)
Masculinity			-0.269				0.598
			(-0.77)				(1.21)
Uncertainty avoidance				-0.089			0.034
				(-0.28)			(0.07)
Long term orientation					-0.983		-0.741
					(-0.28)		(-1.57)
indulgence						-0.357	0.253
						(-1.01)	(0.36)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.049	0.046	0.045	0.045	0.045	0.046	0.056
N	554	554	554	554	554	554	554

The value of CEOs and founding families: Evidence from around the world*

Kirsten Tangaa Nielsen[†]

Abstract

This paper investigates the contribution to shareholder value of professional CEOs and active founding families across generations. In particular, using a sample of 325 sudden deaths from around the world, we estimate the shareholder value contribution of professional, founder and descendant CEOs, respectively, and find large variation across the three types. The loss of a professional CEO leads to an average stock price drop of 2.17%, while the average stock price increases by 2.50% following the sudden death of a descendant CEO. We further find an increasing positive relationship between the stock price reaction to a sudden death and the family generation of the deceased. Namely, we find that founders are more valuable to shareholders relative to the next generation of descendants, who in turn are more valuable to shareholders relative to later generations. Finally, using country fixed effects we show our results are global effects that exist across corporate governance regimes around the world.

JEL Classification: G14, G32, G34

Keywords: CEO, Founder, Founding family, Firm value, Sudden death

---

[*] I thank Julia Gruvö, Alice Ebert, Pascal Büttner, Sophia Stille, Peter Zhou, Marianna Zanderigo, Mauro Rodrigues, Emil Sirén, Emilia Bäckman, Jennifer Björqvist, Stine Quorning and Marcus Gärtner for excellent research assistance. I also thank Kasper Meisner Nielsen, Ken Bechmann, Morten Sørensen, David Yermack, Kose John, Yakov Armihud and seminar participants at NYU Stern and Copenhagen Business School for helpful comments and suggestions.

[†] Department of Finance, Copenhagen Business School, DK-2000 Frederiksberg, Denmark.
E-mail: kirsten@soendergade.dk.

III.1 Introduction

The importance of the chief executive officer (CEO) on the value and performance of publicly listed firms has received extensive attention in the academic literature for many years. A general conclusion from this research is that CEOs demonstrate vast heterogeneity in their characteristics (Bertrand and Schoar, 2003; Kaplan et al., 2012; Fahlenbrach, 2009) that lead to substantial cross-sectional variation in the value and performance of the firms they manage (Parrino, 1997; Pérez-González, 2006; Bennedsen et al., 2007). However, isolating the direct effect of specific CEO characteristics on firm value is difficult due to the endogenous relationship between CEOs and firm performance, as CEO are not randomly allocated across firms and managerial turnover is often anticipated and partially determined by unobservables (Jenter et al., 2018; Pérez-González, 2006). In addition, most of this literature uses performance measures related to valuation or accounting ratios (e.g. Tobin's Q and return-on-assets) when estimating firm value (e.g., Pérez-González, 2006; Villalonga and Amit, 2006). Hence, empirical evidence on the shareholder value implications of heterogeneous CEO characteristics is much more limited, despite them being of prime importance to investors (Johnson et al., 1985; Salas, 2010; Jenter et al., 2018).

To further complicate matters, economic theory presents opposing effects of managerial ownership and control resulting in inconclusive predictions for the impact of professional and family CEOs on shareholder value. On one hand, managerial ownership is expected to create managerial incentives that align with shareholders' interests and thereby reduce agency costs (Jensen and Meckling, 1976). On the other hand, increasing managerial ownership may also lead to an entrenchment effect, where powerful CEOs extract rent and personal benefits from the company at the expense of shareholders (Morck et al., 1988). While these effects may apply directly to professional CEOs who are constantly motivated by high competition from the external labor market to improve firm value (Fama, 1980), several papers argued that family CEOs are also incentivized by an intrinsic motivation to preserve the family's legacy and thereby advocate for a more long-term approach to firm value in line with shareholders' preferences (Pérez-González, 2006; Fahlenbrach, 2009). Viewed together with the finding that family firms often retain high levels of ownership and active management in the hands of founders and descendants across multiple generations (Fahlenbrach, 2009; Lins et al., 2013), it can be difficult to determine in what setting the inherent incentive effect of increasing ownership stakes dominates the entrenchment effect. In particular, this requires an empirical strategy that is able to isolate the contribution of individual CEOs on shareholder value and at the same time control for the endogenous relationship between CEOs and firm performance (Adams et al., 2009).

Until now, a few papers have used sudden deaths of CEOs for their identification strategy as the termination of a CEO from sudden death will be unanticipated by the market and exogenous to firm value (Johnson et al., 1985; Salas, 2010; Jenter et al., 2018). While this approach solves the endogeneity issues highlighted above, the downside to this approach with small sample sizes, limits the level of heterogeneity in CEO characteristics that can be studied. Hence, existing papers work with sample sizes of around 150 sudden deaths and therefore at most touch upon founders and founding family CEOs collectively[14].

Thus, the goal of this paper is to isolate the causal effect of professional CEOs and active founding families across generations on shareholder value using sudden death events from 32 countries. Utilizing a world sample enables us to differentiate between professional, founder and descendant CEOs and thereby investigate how these CEO types affect shareholder value. To this end, we use a sample of 325 suddenly deceased professional CEOs, founders and descendants who are actively part of firm management at the time of death between January 2000 and January 2020 from 32 countries. We find that the average stock price reaction to a sudden death event in our sample is negative, but also find significant differences depending on the CEO type. Consistent with labor market theory we find that professional CEOs are more valuable to shareholders relative to founder and descendant CEOs (Fama, 1980; Burkart et al., 2003). In addition, we also find support for the proverbial saying *"from shirtsleeves to shirtsleeves in three generations"*, as the average stock price reaction to losing a founder CEO is negative, while the corresponding event of losing a descendant CEO leads to an overall positive stock price reaction. Going one step further and comparing shareholder value effects within founding families we find an increasing positive relationship between the stock price reaction to a sudden death and the family generation of the deceased. Namely, we find that founders are more valuable to shareholders relative to the next generation of descendants, who in turn are more valuable to shareholders relative to later generations.

---

[14] Johnson et al. (1985), Salas (2010) and Jenter et al. (2018) use sample sizes of 53, 184 (of which 104 are CEOs) and 139 sudden CEO death events in their studies, respectively. Further in all three papers, the proportion of founders and founding family CEOs have been less than 33%

Although our main results suggest that professional CEOs on average are more valuable to shareholders and descendant CEOs destroy value, the law and finance literature caution that cross-country studies should consider the effect of differences in corporate governance regimes (Porta et al., 1997; Porta et al., 1998; Porta et al., 2008). To validate our previous findings, we therefore implement several investor protection measures and confirm our results hold when controlling for anti-director-rights, anti-self-dealing and any control premium related to ownership (Dyck and Zingales, 2004; Djankov et al., 2008). Interestingly, we also find that protection against expropriation by corporate insiders makes the deceased individuals more valuable to shareholders across all CEO types. Finally, using country fixed effects we show that the negative impact on shareholder value from losing a professional CEO and the positive impact from losing a descendant CEO are global effects that exists across corporate governance regimes around the world.

Our paper contributes to the literature on the value of CEOs and family control in two ways. First, we provide empirical evidence for a causal relationship between different CEO types and shareholder value. In particular, using sudden deaths from around the world in our identification strategy, we are able to directly estimate the shareholder value of professional, founder and descendant CEOs, respectively.

Our results speak to the literature that investigate how CEOs affect shareholder value, particularly those that use sudden death events for identification purposes (e.g., Johnson et al., 1985; Salas, 2010; Jenter et al., 2018). Prior studies have found that announcement returns connected to the deaths of CEOs and top executives are a function of executive characteristics, such as age and tenure (Salas, 2010; Jenter et al., 2018), prior succession planning and replacement costs (Johnson et al., 1985; Rivolta, 2018; Salas, 2010), board characteristics (Borokhovich et al., 2006), managerial entrenchment (Salas, 2010) and whether the CEO is a founder (Johnson et al., 1985; Jenter et al., 2018). To the best of our knowledge, we are the first to use sudden deaths to identify generational effects on shareholder value, when founding families retain managerial control for multiple generations and compare these results to the alternative of having a professional CEO manage the firm.

The closest papers to ours using the same identification strategy are Johnson et al. (1985), Salas (2010), and Jenter et al. (2018), who collectively show that CEOs display substantial heterogeneity in characteristics that ultimately affects shareholder value with mixed results depending on age, tenure and level of entrenchment. These papers are all based on relatively small samples from the US. In comparison, this study uses a world sample of sudden death events enables us to increase the sample size to the extent that we can differentiate between founders and descendants across multiple generations. We thereby compliment the findings from these papers, by showing that the average stock price reaction to losing a founder CEO is negative, while the corresponding event of losing a descendant CEO leads to an overall positive stock price reaction. In addition, we also find that founders are more valuable to shareholders relative to the next generation of descendants, who in turn are more valuable to shareholders relative to subsequent descendants.

Second, in relation to the value of family control, we present causal evidence of the shareholder value implications from having descendants actively involved in managing the firm. Hence, our paper relates to the literature that investigates the impact of family control on firm value and in particular those that focus on succession planning and managerial turnovers (Pérez-González, 2006; Villalonga and Amit, 2006; Bennedsen et al., 2007). Prior studies have found that the value implications of having active founding families in the firms are a function of CEO type (i.e. professional versus family CEO) (Pérez-González, 2006; Villalonga and Amit, 2006), investment policies (Fahlenbrach, 2009),decision making (Lins et al., 2013), succession planning (Bennedsen et al., 2007), ownership incentives (Anderson and Reeb, 2003) and family control measures (Pérez-González, 2006; Villalonga and Amit, 2006). While, several papers have already studied the impact of inherited managerial control on firm performance and value, where they find evidence of subsequent lower performance, most of this research focus on the first managerial transition from the founder CEO to the second generation (e.g. Pérez-González, 2006; Bennedsen et al., 2007).

In the paper closest to ours Villalonga and Amit (2006) look at the correlation between multiple generations of actively involved founding families and firm value using panel data from the US. They show that firms actively managed by descendant CEOs trade at a discount, relative to the same founder-led firm, as well as relative to other family and non-family firms. We complement these findings using an identification strategy that allows for causal interpretation to show shareholders directly attributes a negative value effect to descendants actively managing the firm and that the effect worsens in later generations. Particularly, we show that the stock price reacts positively to losing a founding family member from the second generation but more so, when losing a family member from the third or later generations. Overall, to the best of our knowledge, our findings provide the first causal evidence of the proverbial saying *"from shirtsleeves to shirtsleeves in three generations"*, which exists in more than seven languages and is a reference to the fact that only about 3% of all family-owned businesses survive past the third generation in the founding family according to the Family Business Institute.

The remainder of this paper is structured as follows. Section 2 describes how we compile our sample and reports sample characteristics. Section 3 contains our results and section 4 concludes.

III.2 Data and sample selection

In this section, we outline our sample selection for the suddenly deceased CEOs and founding family members. We start by defining sudden deaths and our sampling approach. This is followed by a presentation of our summary statistics.

III.2.1 Sample selection and definition of sudden deaths

Our sample consists of 325 suddenly deceased CEOs and managerially active founding family members in publicly listed firms from 32 countries between January 1, 2000 and January 31, 2020. We define CEOs as being the top executive of the firm, however since the top executive is not always referred to as a CEO, our classification also include president, managerial director and executive chairman in cases, where there is no CEO position in the company.[15] We further verify the top executive position by looking at the author(s) of the management statement in the annual report. In addition, we define active founding family members as individuals from the founding family (by blood or marriage) who are either part of the executive management team or is a member of the board of directors. In particular, to determine whether the deceased individual is the founder or part of the founding family, we use the company announcement for the death, where such information is often explicitly stated, as well as information from annual reports, proxy statements and company webistes. Finally, we verify this information with additional news searches.

We build our sample of suddenly deceased individuals using the same approach as the existing literature (e.g., Johnson et al., 1985; Nguyen and Nielsen, 2010). We first run searches on the news databases Factiva, Lexis-Nexis and Newswires to identify deceased CEOs and managerially active founding family members from company announcements submitted to major stock exchanges around the world. In these searches we use two categories of keywords to identify relevant individuals. The first group of keywords pertains to the death event (e.g. death, deceased, died, loss, passed away, etc.), which is then combined with a second group of keywords related to the corporate positions the individuals holds at time of death (CEO, managing director, executive chairman, board member, director etc.). The main search is conducted in English and is then expanded with additional searches using the same keywords translated into Chinese, French, German, Italian, Nordic languages, Portuguese and Spanish. As a final step we also include deaths identified from the BoardEx database, which is a global database collecting personal and professional characteristics of top executives and corporate board members, where we screen the database for all deceased persons.

---

[15] We only have sudden death cases from Canada with this constellation, where the choice of transferring the CEO responsibility to the executive chairman is clearly stated in the proxy material

Combined, these searches yield a gross sample of 11,117 deceased CEOs and corporate board members from a collection of more than 100,000 newspaper articles. We drop 3,197 cases from this sample because the deceased serve on the board of non-listed companies or organizations and another 45 cases are dropped because the death date could not be properly identified. This leaves us with a sample of 7,875 deceased CEOs and corporate board members for which we conduct a separate news search within a one-year period surrounding the death date to identify the cause of death and any potential evidence of prior declining health. Because the premise of our paper is to use stock market reactions to sudden deaths, we follow the same methodology as Nguyen and Nielsen (2010) and require such deaths to be unanticipated by the stock market.

We follow the existing literature (Nguyen and Nielsen, 2010) and classify deaths as sudden if they are caused by an accident, an aneurysm, a heart attack or heart failure, murder, a stroke, terrorism, or if the cause is undisclosed but described as unexpected, or sudden and the death happened within 24 hours of the individual being in otherwise fine health.

Any death events with evidence of prior declining health such as cancer, illness, surgery, hospital stays, sick leave or suicides are not considered sudden deaths. For cases we identify as sudden, we also check for any confounding corporate news – 2 to + 2 days around the death date and eliminate these cases from our sample. Collectively these steps give us a sample of 1290 suddenly deceased individuals with 1746 positions in publicly listed companies at time of death across 49 countries.

From this sample we further exclude 301 cases due to missing stock prices and accounting variables in Datastream, too few observations in the estimation window for the event study, the nominal stock price being less than 25 cents, too many trading days without trading in the event window – 5 to + 5 days around the death date, individuals not being present in the top management layer of the company and the death being publicly announced later than 5 trading days after the death date. Lastly, our paper focuses on professional CEOs and founding family members who are part of the executive management team or board of directors at time of death. Hence, we drop 692 cases, where the deceased is not part of the founding family and is either part of the executive management team (but not the CEO) or an outside director. This leaves us with a final sample of 297 suddenly deceased individuals who held 325 corporate positions among them at publicly listed companies at time of death in 32 countries around the world.

Panel A in table 1 provides detailed information on the causes of sudden deaths. We find that 15% died in an accident and 3% from a criminal act (i.e. murder or terrorism), while 6% died from a stroke or aneurysm. Almost a third of our sample of suddenly deceased individuals died from sudden heart-related diseases, namely 4% from cardiac arrest, 20% from a heart attack and 5% from heart failure. Lastly, the remaining 47% cases did not have a cause of death specified but our search results clearly indicate that the death occurred suddenly and was unexpected. We are especially conservative when classifying deaths into the latter category and only do so if we cannot find any contradictory information, for example a source indicating any sort of ill health prior to death. For each of the 297 sudden deaths, we verify the death date in a subsequent news search and identify the earliest news date for which we find a mentioning of the death. As shown in panel B of table 1 almost all sudden deaths become public knowledge within 2 trading days of the event, namely 95%, and the mean time lag between the death and announcement date is 0.9 trading days, which is similar to Nguyen and Nielsen (2010).

We collect additional information on personal characteristics of the deceased as well as firm and governance data from firms' annual reports and the Eikon database (previously Datastream). We supplement these data with country-level governance variables related to ownership structures, investor protection and blockholder control from the law and finance literature (Porta et al., 1997; Porta et al., 1998; Porta et al., 2008; Dyck and Zingales, 2004; Djankov et al., 2008). Panel C in table 1 shows the positions of the suddenly deceased individuals. Note, we classify a deceased individual as a CEO, if he is the top executive in the company at time of death. Further, we split this classification into three subgroups, namely (a) professional CEO, if the deceased CEO does not have any relations, either by blood or marriage, to the founding family of the firm, (b) founder CEO, if the deceased CEO is the founder or co-founder of the company and (c) descendant CEO, if the deceased CEO is part of the founding family (either by blood or marriage) and from the second or later generations, where the first generation is the founder's. In addition, we classify a deceased individual as a non-CEO founder, if the deceased is (a) a founder or co-founder of the company and (b) part of firm management, but do not hold the CEO position. Finally, we classify a deceased individual as being part of the group *Non-CEO descendants and immediate family* if the deceased is (a) part of the founding family (either by blood or marriage), but not a founder or co-founder and (b) part of firm management, but do not hold the CEO position. Roughly one third of our sample consists of professional CEOs with no relations to a founding family, another one third consists of founder or founding family CEOs, while the remaining one third of our sample is founders or members of the founding family, who are part of management, but do not hold the CEO position.

Table 2 presents the geographical distribution of our sudden deaths. The largest share of sudden deaths are located in the United States (38%), followed by India (17%), Canada (10%), France (4%) and the United Kingdom (4%). In total 32 countries are represented in our sample based on where the companies are listed on a stock exchange.

III.2.2 Summary statistics

Table 3 presents the descriptive statistics of our sample of suddenly deceased CEOs and founding family members. Panel A depicts the individual characteristics and shows the mean age at time of death is 64.6 years for the full sample, with a significant difference between professional and founding family CEOs of 7.6 years. The mean voting ownership share for the suddenly deceased individuals is 2.7% for professional CEOs and 25.2% for founding family members. The proportion of CEO positions among professional CEOs is by definition 1.0, while it is 0.5 for the founding families.

Panel B in table 3 presents characteristics for the firms that suddenly lost a CEO or founding family member with a corporate position at time of death. Collectively, these firms have a mean (median, unreported) market capitalization of USD 4.2 billion (USD 0.2 billion), market-to-book-value of 2.0 (1.5), return volatility of 3.3% (2.6%) and an average board size of 8.0 (8.0). None of the firm control variables are significantly different across the two subsamples. Definitions of all variables are shown in Appendix I.

III.3 Empirical Results

In this section we examine the determinants of the stock price reactions to the sudden death of CEOs and founding family members. We begin by examining the stock price reactions to the sudden deaths of CEOs across three categories, namely professional CEOs, founder CEOs and descendant CEOs. Second, we focus on the subsample of founding families and compare stock price reactions across multiple generations within this group. We then investigate the effect of ownership on the stock price reactions to the sudden deaths of CEOs and founding family members, as management, control and ownership are closely linked entities in family firms, when investigating the impact on firm value (Villalonga and Amit, 2006). Finally, we examine whether investor protection and country fixed effects affect our results.

III.3.1 Stock price reactions to sudden CEO deaths around the world

To study the stock price reaction to the sudden loss of a professional CEO or founding family member, we apply standard event study methodology to the firms' stock prices around the sudden death date (Campbell et al., 1997). We define the event day as the trading day of the deceased' death or the first trading day after the death if the death occurred on a non-trading day. To estimate daily abnormal returns (ARs) we use a single-factor market model to estimate beta in a 200-day pre-event estimation window (from day -221 to day -21 before the sudden death), where we use the MSCI World Index as the market index. We require at least 90 daily observations with non-missing stock and index return data to run the regression for a given firm. We further exclude cases where the nominal stock price is less than 25 cents to remove cases with extreme variation in return caused by the Datastream's policy of quoting stock prices in cents. Finally, we also winsorize all abnormal return measures on the 1% and 99% percent level throughout our empirical analysis to mitigate the impact of outliers.

Panel A of table 4 reports the mean daily abnormal returns from trading day -3 to $+3$ around the sudden death date for all deaths as well as for the different subgroups of CEOs and founding family members. Panel A shows there is a consistent negative effect on the stock price associated with a sudden death event in the full sample over a five-day period around day 0, which is statistically significant on the day of the death and the day prior (day 0 is the death day). The negative trend in the abnormal returns indicate information regarding the sudden death is incorporated into the share price from the death day and until the announcement day, when the death becomes general public knowledge. Note, our definition of sudden death allows for a 24-hour time internal between a significant deterioration in health and the death occurring, which may explain the negative reaction on day -1. In addition, the average event is publicly announced 0.9 trading days after it occurs.

Panel B presents the corresponding cumulative abnormal returns (CARs) for various event windows around the death date. CARs for the full sample of suddenly deceased individuals are negative between -0.98% and -1.92% and significantly different from zero across all event windows. However, abnormal returns seem to differ systematically between subgroups, with the loss of a professional CEO leading to a 2.17% drop in the share price over the two-day event window $(0, +1)$ and a corresponding increase in the share price of 2.50% for a descendant CEO from the founding family's second generation or later, though the latter result is statistically insignificant.

While CARs for all event windows are systematically negative and statistically significant for professional CEOs, the results are less clear for the founding family subsamples, which encourages a more detailed analysis of the cross-sectional variation in the stock price reactions across these groups. As a first step, we address the general concern in the literature that high levels of ownership, which is more dominant in family firms, lead to a dominating entrenchment effect over the incentive effect of increasing ownership (Morck et al., 1988). Table 5 presents mean stock price reaction for the event window $(0, +1)$ across intervals of ownership for professional CEOs and founding families, respectively. We find founding families with small to medium levels of ownership increase shareholder value, while family members with large ownership stakes decrease shareholder value, particularly for those with majority shareholdings. Comparatively, we note there is no clear connection between levels of ownership and shareholder value implications for professional CEOs, but this may be explained by 79% of the professional CEOs in our sample owning less than 5% of the company and none are present in the ownership intervals above 30%.

To conclude, the findings in table 4 show there is a significant negative stock price reaction to losing a professional CEO while results are less clear for the founding family subsamples. Particularly, table 5 presents a U-shaped pattern in the stock price reaction to the unexpected loss of a founding family member, which is consistent with the concern that high levels of ownership lead to entrenchment effects dominating any incentives induced by increasing ownership levels.

III.3.2 The value of CEOs

To better understand which CEO types are valuable to shareholders we now explore the cross-sectional variation in stock price reactions to the sudden deaths using a multivariate approach to control for observable personal and firm characteristics. Our specifications include controls for age of the deceased, board size as a proxy for effective governance, the logarithm of market capitalization as a proxy for firm size, the market-to-book ratio as a measure of growth and operational performance, and stock volatility defined as the standard deviation of stock returns from 100 to 21 days prior to the event date as a measure of firm risk. In addition, we include year and industry fixed effects based on Fama-French's twelve-industry classification and cluster standard errors at the country level in all regressions.

Table 6 reports the main results from testing the impact of CEO types, using the cumulative abnormal return from the 2-day event window (0,+1) around the sudden death date. In keeping with prior literature we use the CEO position as a measure of the individual's importance to the firm (Johnson et al. (1985); Bennedsen et al. (2020)). In column 1 in table 6 we investigate the value of professional CEOs relative to members of the founding family. We find that the loss of a professional CEO is associated with a 1.87% lower stock price reaction relative to the founding family, which is statistically significant. Prior studies on managerial turnover events have found a negative effect on firm performance, when the CEO position is transitioned to descendants from the founding family (Pérez-González, 2006; Bennedsen et al., 2007). When we examine the value of founding family CEOs in column 2 in table 6 we therefore distinguish between founder CEOs and descendant CEOs, who we define as CEOs from the second or later generations of the founding families, where founders are the first generation. We find that both coefficients are positive and statistically significant. In particular, the marginal effect from losing a descendant CEO is large, as the positive stock price reaction is 3.45%. Comparatively, the marginal effect for founder CEOs is only 1.07%. Thus, our results support the conjecture that having later generations in the founding family control the company is not beneficial for shareholder value.

In column 3 we jointly introduce the variables of interest in the same regression to examine whether they span the same variation in the stock price reactions to sudden deaths of CEOs. Interestingly, we find that all three variables retain the value implications from columns 1 and 2, although only the indicator for descendant CEOs is statistically significant. However, in separate post estimation tests of the coefficients in column 3 we find that the difference of -1.18% and -4.28%, respectively, between the coefficient on professional CEO and the coefficients on the the founder CEO and descendant CEO indicators are significantly different from eachother at the 5% and 1% level, respectively.

In column 5 and 6 in table 6 we go one step further and ensure that the evidence from columns 1 and 2 are driven by the subsample of CEOs. Column 5 shows that professional CEOs are indeed more valuable to shareholders compared to CEOs who are founders or from the founding family. Finally, in column 6 we find the positive effect of losing a founder CEO or a descendant CEO is also confirmed for the subsample of CEOs, however the coefficient on founder CEO losses its statistical significance, though both effects are larger in magnitude. To conclude, we find that professional CEOs are more valuable to shareholders relative to founder and descendant CEOs. Interestingly, the event of losing a descendant CEO appear to experience the largest positive stock price reaction, which lends support the proverbial saying *"from shirtsleeves to shirtsleeves in three generations"*. To further the interpretation of this result, we next focus on the subsample of founding family members.

III.3.3 The value of active descendants

In this subsection we explore whether the shareholder value of founding family members differ across generations. We first test for value differences between CEOs and other corporate positions within the founding family, i.e. founders and founding family members, who are part of the executive management team or the board of directors. In column 1 in table 7 we find that founding family members holding a CEO position are valued less by shareholders compared to non-CEO founding family members as evidenced by a positive and statistically significant marginal stock price reaction of 0.86%.

In table 6 we found a larger coefficient for founding family CEOs relative to founder CEO, thus in column 2 in table 7 we compare the value relationship between 1st generation founders, co-founders and immediate family with subsequent generations from the family. We find a negative and statistically significant marginal effect on shareholder value from losing a 1st generation family member (i.e. primarily founders and co-founders), who is active in the company of -3.00%. In column 3 we jointly test the insights from column 1 and 2 and find the negative coefficient on 1st generation retains its strong significance. Thus, in line with existing research from the Unites States (Pérez-González, 2006;Villalonga and Amit, 2006) we find that 1st generation founding family members are more valuable to shareholders relative to subsequent generations.

In column 4 – 6 we continue to control for the CEO position, because individuals who hold this position have more control over the company and may thereby affect firm value more, compared to founding family members with a less central position. In column 4 and 5 we examine the value effects from later generations. Specifically, in column 4 we look at the value effects of losing an individual from the second generation and find a positive though statistically insignificant coefficient, which perhaps is not surprising when the control group consists of both descendants from later generations and founders. In column 5 we focus on descendants from the third or later generations and find a positive coefficient of 3.40% on the indicator variable for being part of the third or later generations, although the effect is only significant at the ten percent level.

In column 6 we jointly introduce the two variables of interest from column 4 and 5 in the same regression to examine whether there is a difference in magnitude on the shareholder value effects across generations. The results in column 6 show that shareholders react positively to the loss of second generation family members who are actively part of managing the firm and more so when losing a member from the third or later generations.

In summary, table 7 presents evidence of the value of founding families who are actively part of managing the firm to shareholders. Being in a more powerful position as CEO or being the children and grandchildren matter within the group of founders and founding families. In particular, we find that founders are more valuable to shareholders relative to the next generation of descendants, who in turn are more valuable to shareholders relative to later generations. This shows the cost to shareholders of having a listed company's active management passed down through the generations of a founding family and lends support to the proverbial saying about fortunes being lost by the third generation seen from a shareholder's perspective.

III.3.4 Ownership control and the value of CEOs

In this subsection we investigate whether the shareholder value implications we have found in the previous tables are related to ownership. Specifically, we want to test whether the evidence found in panel B in table 5, that suggest the entrenchment effect of concentrated ownership dominates the incentive effect of increasing ownership for the founding families, still holds in a multiple regression setting.

In column 1 in table 8 we include a professional CEO indicator, ownership of the deceased and these two variables interacted with each other. While both the professional CEO indicator and interaction term have negative coefficients, and ownership has a positive coefficient, only the interaction term is weakly statistically significant. Thus, as their ownership stakes increases, professional CEOs become more valuable to shareholders. A plausible explanation for this result is, that professional CEOs start out with very low levels of ownership, and hence there is no meaningful entrenchment effect for shareholders to take into account initially.

In column 2 we include the same variables for CEOs who are 1st generation founders and descendants, i.e. part of the founding family. We find a positive coefficient on the founder CEO indicator, and a corresponding negative coefficient on the interaction term. Both coefficients are statistically significant, which implies having a founder CEO in the company with a high ownership stake is more valuable to shareholders than a founder CEO with a small ownership stake. The opposite effect is present for descendant CEOs, namely the coefficient on the interaction term for being a founding family CEO and ownership is positive and statistically significant at the 5%-level. Thus, for descendant CEOs the entrenchment effect appears to be the dominating effect, while for founder CEOs the incentive effect of increasing ownership still has an impact on shareholder value.

In column 3 we jointly test the insights from column 1 and 2. Interestingly, we find the value effects retain similar magnitudes, but have greater statistical significance. Column 3 shows that increasing ownership levels for professional CEOs and founder CEOs are beneficial to shareholders. However, we still find a positive and significant coefficient on the main effect for founder CEOs, which indicates that the value contribution from this CEO type in general is negative for shareholders, but less so, if they own a large stake in the company.

In column 4 and 5 we restrict our sample to include only CEOs to test the insights from column 1 and 2 again. Although the sign of the coefficients remains the same, most of the variables lose their significance, which may be due to the smaller sample size. Only the interaction term between ownership and being a descendant CEO continues to be significant. Finally, in column 6 we focus on the subsample of founders and their descendants exclusively. We find that the coefficients on the main effects for founder CEOs and descendant CEOs are both positive, though the latter is statistically insignificant. Of particular interest are the coefficients on the interaction terms, which are both statistically significant, but in opposite directions. Thus, founder CEOs with large ownership stakes are still beneficial to shareholder value when restricted to the subsample of founders and founding families, while the opposite is true for descendant CEOs. In the appendix in table A.1 we run similar regressions on the subsample of founding families and find similar conjectures for ownership, though some of the results are less significant.

To conclude, table 8 provides evidence of the shareholder value contribution from ownership. Professional CEOs become more valuable to shareholders, when their ownership stakes are higher, which supports the incentive effects argument of increasing managerial ownership at low levels of ownership, where there is no entrenchment effect. In addition, we find founder CEOs to be more beneficial to shareholder value as well, if they retain a large ownership stake in the company, while the opposite holds for descendant CEOs. Thus, we find some evidence of the incentive effect limiting the entrenchment effect of concentrated ownership for founder CEOs, but that the latter effect is dominating for descendant CEOs.

III.3.5 Investor protections and the value of CEOs and founding families

The law and finance literature argue it is crucial to control for investor protection, i.e. the legal rules designed to protect shareholders from expropriation by corporate insiders, when studying corporate governance issues across countries (Porta et al., 1997; Porta et al., 1998; Porta et al., 2008). According to the literature, an alternative interpretation of our previous results could therefore be that cross-country differences in the presence of founders and their descendants in listed firms and central management positions as well as the magnitude of incentive and entrenchment effects indirectly proxy for investor protection rather than representing direct effects on shareholder value. Hence, in table 9 and 10 we introduce several investor protection measures to validate our prior results. First, we use the revised anti-directors rights index and the anti-self-dealing index from Djankov et al. (2008) as two alternative country-level measures of entrenchment. The revised anti-director rights index is designed to capture the extent to which minority shareholders are protected in the corporate decision-making process, while the anti-self-dealing index captures the extent to which legal rules protect minority shareholders against insiders diverting corporate wealth to themselves rather than sharing it with shareholders. In addition, we use the median control premium from Dyck and Zingales (2004) as a country-level proxy for governance effectiveness.

In table 9 we restrict our sample to include only CEOs, while in table 10 we focus on the subsample of founders and their descendants. In table 9, coefficients on our main variables of interest; the indicators representing professional CEOs, founder CEOs and descendant CEOs, retain their signs and statistical significance from prior regressions. Interestingly, out of the three investor protection measures, only the revised anti-director rights index has a statistically significant coefficient, which is negative in all relevant regressions. Thus, all CEO types in our sample are more valuable, when shareholders are better protected against expropriation by corporate insiders in the corporate decision-making process. To further validate our previous findings across different corporate governance regimes, we implement country fixed effects in columns 3 and 6, and find our results hold with only a small decrease in significance.

Overall, table 9 shows that the negative impact on shareholder value from losing a professional CEO and the less negative and positive impact from losing a founder CEO and a descendant CEO, respectively, are global effects that exists across different corporate governance regimes. In addition, protection against expropriation in the corporate decision-making process makes the deceased individuals more valuable to shareholders in general.

In table 10 in columns 1 to 3 investigate the impact of investor protection on the stock price reaction to losing a CEO or someone who is from the first generation within the subsample of founding families. Confirming prior results, we find the coefficient on first generation family members (i.e. primarily founders and co-founders) to be negative and statistically significant in all three specifications. In addition, in column 4 to 6, when we split the founding family group into multiple generations, we reaffirm our previous findings that shareholders react positively to the loss of second generation family members who are actively part of managing the firm and more so when losing a member from the third or later generations, though the latter loses significance in column 5 and 6. Interestingly, none of the investor protection variables are statistically significant in any of the relevant regressions. More importantly, we find our results hold when we introduce country fixed effects as an alternative and stronger test for differences in corporate governance regimes, which again supports the conjecture that our prior findings are global effects that span across corporate governance regimes.

To conclude, table 10 shows that the negative effect on shareholder value from having descendants actively manage the firm is a global effect that exists across countries. Interestingly, we also find suggestive evidence that the generational effect from table 7 span across corporate governance regimes, when controlling for investor protection, even though the country fixed effects[16] lead to insignificant coefficients for the third or later generation of descendants.

III.4 Conclusion

In this paper, we provide empirical evidence for a causal relationship between different CEO types and shareholder value. Using 325 sudden deaths from around the world, we estimate the shareholder value contribution of professional, founder and descendant CEOs, respectively, and find large variation cross the three types. Namely, the loss of a professional CEO leads to an average stock price drop of 2.17%, while it increases by 2.50% following the sudden death of a descendant CEO. Further, when comparing shareholder value effects within the founding families we find an increasing positive relationship between the stock price reaction to a sudden death and the family generation of the deceased. Namely, we find that founders are more valuable to shareholders relative to the next generation of descendants, who in turn are more valuable to shareholders relative to later generations. Thus, our findings provide the first causal evidence of the proverbial saying *"from shirtsleeves to shirtsleeves in three generations"*.

We also find support for the incentive effect for professional CEOs, who become more valuable to shareholders, when their ownership stakes increase and the same holds for founder CEOs, though they are generally less valuable than professional CEOs. The opposite holds for descendant CEOs, where we find entrenchment is the dominating effect for increasing ownership levels. Finally, to ensure our results are not driven by differences in legal regimes and investor protection at the country-level we validate our results by controlling for investor protection and using country fixed effects. Both methods support our interpretations that the negative impact on shareholder value from losing a professional CEO and the positive impact from losing a descendant CEO are global effects that exists across corporate governance regimes around the world.

---

[16] In the appendix we present alternative specifications for the the main cross-sectional tests from table 6, 7 and 8 and find our results are not affected in any meaningful way by our choices of the market portfolio and event window. First, we re-run our main regressions using simple market-adjusted returns and find our results hold. Further, given that we find an the average time difference of 0.9 trading days between the death date and the first announcement date in our sample, we also test two alternative definitions of the event period: One from day 0 to +2 around the death date, and a firm specific announcement period from the death date to the news date. Overall, we find our results remain largely unaffected.

III. References

Adams, R., Almeida, H., Ferreira, D., 2009. Understanding the relationship between founder–ceos and firm performance. Journal of Empirical Finance 16, 136 – 150.

Anderson, R.C., Reeb, D.M., 2003. Founding-family ownership and firm performance: Evidence from the s&p 500. Journal of Finance 58, 1301–1328.

Bennedsen, M., Nielsen, K.M., Pérez-González, F., Wolfenzon, D., 2007. Inside the family firm: The role of families in succession decisions and performance. Quarterly Journal of Economics 122, 647 – 691.

Bennedsen, M., Pérez-González, F., Wolfenzon, D., 2020. Do ceos matter? evidence from hospitalization events. Journal of Finance 75, 1877 – 1911.

Bertrand, M., Schoar, A., 2003. Managing with style: The effect of managers on firm policies. Quarterly Journal of Economics 118, 1169 – 1208.

Burkart, M., Panunzi, F., Shleifer, A., 2003. Family firms. Journal of Finance 58, 2167 – 2201.

Campbell, J.Y., Lo, A.W., MacKinley, A.C., 1997. The Econometrics of Financial Markets. New Jersey: Princeton University Press.

Djankov, S., LaPorta, R., de Silanes, F.L., Shleifer, A., 2008. The law and economics of self-dealing. Journal of Financial Economics 88, 430 – 465.

Dyck, A., Zingales, L., 2004. Private benefits of control: An international comparison. Journal of Finance 59, 537 – 600.

Fahlenbrach, R., 2009. Founder-ceos, investment decisions, and stock market performance. Journal of Financial and Quantitative Analysis 4, 439 – 466.

Fama, E.F., 1980. Agency problems and the theory of the firm. Journal of Political Economy 88, 288 – 307.

Jensen, M.C., Meckling, W.H., 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics 3, 305 – 360.

Jenter, D., Matveyev, E., Roth, L., 2018. Good and bad ceos. Working Paper.

Johnson, W.B., Magee, R.P., Nagarajan, N.J., Newman, H.A., 1985. An analysis of the stock price reaction to sudden executive deaths - implications for the managerial labor market. Journal of Accounting and Economics 7, 151 – 174.

Kaplan, S.N., Klebanov, M.M., Sorensen, M., 2012. Which ceo characteristics and abilities matter? Journal of Finance 67, 937 – 1007.

Lins, K.V., Volpin, P., Wagner, H.F., 2013. Does family control matter? international evidence from the 2008–2009 financial crisis. Review of Financial Studies 26, 2583 – 2619.

Morck, R., Shleifer, A., Vishny, R.W., 1988. Management ownership and market valuation: An empirical analysis. Journal of Financial Economics 20, 293 – 315.

Nguyen, B.D., Nielsen, K., 2010. The value of independent directors: Evidence from sudden deaths. Journal of Financial Economics 98, 550 – 567.

Parrino, R., 1997. Ceo turnover and outside succession: A cross-sectional analysis. Journal of Financial Economics 46, 165 – 197.

Porta, R.L., de Silanes, F.L., , Shleifer, A., 2008. The economic consequences of legal origins. Journal of Economic Literature 46, 285 – 332.

Porta, R.L., de Silanes, F.L., , Shleifer, A., Vishny, R.W., 1997. Legal determinants of external finance. Journal of Finance 52, 1131 – 1150.

Porta, R.L., de Silanes, F.L., , Shleifer, A., Vishny, R.W., 1998. Law and finance. Journal of Political Economy 106, 1113 – 1155.

Pérez-González, F., 2006. Inherited control and firm performance. American Economic Review 96, 1559 – 1588.

Salas, J.M., 2010. Entrenchment, governance, and the stock price reaction to sudden executive deaths. Journal of Banking and Finance 34, 656 – 666.

Villalonga, B., Amit, R., 2006. How do family ownership, control and management affect firm value? Journal of Financial Economics 80, 385–417.

Table III.1: Summary statistics for the sudden CEO and founding family deaths

This table shows descriptive characteristics for our sudden death sample of profesisonal CEOs and founding family members, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), who are either CEOs, part of the top management group or hold a directorship in a listed company at time of death. Further, a death case enters our sample if the individual passes away between January 1 2000 and January 31 2020 and the death is sudden. Following Nguyen and Nielsen (2010) we define a sudden death as an unexpected death that occurs instantaneously or within 24 hours of an abrupt change in the person's previous clinical state. Our definition includes accidents, aneurysms, cardiac arrests, heart attacks, heart failures, murders and terrorism, strokes and deaths described as sudden and unexpected with no other cause cited. This results in 297 sudden death events. Panel A gives information on the causes of sudden deaths. Panel B displays the time lag in trading days between the death date and the public announcement date of the death. Panel C gives information on the position of the deceased individual at time of death. In panel A and B, each individual is counted once irrespective of the number of positions held.

Panel A: Sudden death causes

Cause of death	N	%
Accident	46	15.49%
Aneurysm	5	1.68%
Cardiac arrest	13	4.38%
Heart attack	59	19.87%
Heart failure	15	5.05%
Murder or terrorism	8	2.69%
Stroke	12	4.04%
Undisclosed	139	46.80%
All	297	100.00%

Panel B: Time lag between news date and death date

News date – death date (in trading days)	N	%
0	102	34.34 %
1	142	47.81 %
2	37	12.46 %
3	13	4.38 %
4	2	0.67 %
5	1	0.34 %
All	297	100.00%

Panel C: Positions held by suddenly deceased individuals

Position	N	%
Professional CEO	112	34.46%
Founder CEO	77	23.69%
Descendant CEO	18	5.54%
Non-CEO founder	81	24.92%
Non-CEO descendants and family	37	11.38%
All	325	100.00%

Table III.2: Geographic distribustion of the sudden deaths

This table reports the geographic distribution of our sudden death sample of profesisonal CEOs and founding family members, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling) from 32 countries. A death case enters our sample if the individual is profesisonal CEOs and a founding family members, who is either CEOs, part of the top management group or hold a directorship in a listed company at time of death, passes away between January 1 2000 and January 31 2020 and the death is sudden. Following Nguyen and Nielsen (2010) we define a sudden death as an unexpected death that occurs instantaneously or within 24 hours of an abrupt change in the person's previous clinical state. Our definition includes accidents, aneurysms, cardiac arrests, heart attacks, heart failures, murders and terrorism, strokes and deaths described as sudden and unexpected with no other cause cited. We show the number and share of suddenly terminated company positions due to death and the average number listed firms over the sample period by country.

	Terminated positions		Average number of listed firms	Terminated positions / average number of listed firms
	N	% of total	N	%
Australia	5	1.54%	1788	0.28%
Austria	2	0.62%	89	2.25%
Belgium	3	0.92%	177	1.69%
Brazil	7	2.15%	366	1.91%
Canada	31	9.54%	3342	0.92%
China	3	0.92%	2124	0.14%
Finland	3	0.92%	147	2.04%
France	14	4.31%	672	2.08%
Germany	5	1.54%	640	0.78%
Hong Kong	7	2.15%	1420	0.49%
India	54	16.62%	5289	1.02%
Indonesia	1	0.31%	434	0.23%
Ireland	2	0.62%	52	3.84%
Italy	2	0.62%	290	0.69%
Japan	8	2.46%	2712	0.29%
Malaysia	3	0.92%	916	0.38%
Mexico	1	0.31%	142	0.70%
Netherlands	2	0.62%	191	1.05%
Norway	2	0.62%	175	1.14%
Philippines	3	0.92%	247	1.21%
Portugal	2	0.62%	56	3.57%
Singapore	3	0.92%	457	0.66%
South Africa	4	1.23%	363	1.10%
South Korea	2	0.62%	1772	0.11%
Spain	2	0.62%	3188	0.06%
Sweden	7	2.15%	285	2.46%
Switzerland	3	0.92%	251	1.20%
Taiwan	1	0.31%	.	.
Thailand	1	0.31%	545	0.18%
Turkey	6	1.85%	291	2.06%
United Kingdom	13	4.00%	2290	0.57%
United States	123	37.85%	4858	2.53%
All	325	100.00%		

Table III.3: Summary statistics

This table shows sample characteristics for the sample firms that employes at least one unrelated CEO (*Professional CEO*) or founding family member (*Founding family*), i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), who are either CEOs, part of the top management group or hold a directorship at time of death and who suddenly died between the dates of January 1, 2000 and January 31, 2020. Panel A reports on the following personal characteristics of the deceased: *Age* (measured in years), *Ownership* (measured in %), and *CEO position* which is an indicator variable equal to 1 if the deceased is a CEO at the time of death. Panel B shows the following firm characteristics: *Board size*, *Market capitalization* (in millions of dollars), *Market-to-book ratio* of assets and *Return volatility.* Details on data sources and variable computations can be found in Appendix I.

	N (1)	All deaths (2)	Professional CEO (3)	Founding family (4)	Difference (3) - (4)
Panel A: Deceased characteristics					
Age (in years)	325	64.39	59.41	67.07	-7.60***
Ownership (%)	319	17.64	2.72	25.18	-22.47***
CEO position	325	0.64	1.00	0.45	0.55***
Panel B: Firm characteristics					
Board size	324	8.05	7.99	8.08	-0.09
Market capitalization (in mill. $)	325	4,193.94	4,288.92	4,144.00	144.92
Market-to-book ratio	322	2.00	0.86	2.60	-1.74
Return volatility	325	3.33	3.23	3.38	-0.15

Table III.4: Stock price reactions to suddenly deceased CEOs and founding family members

This table shows the stock price reactions to the sudden death of profesisonal CEOs and founding family members, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), who are either CEOs, part of the top management group or hold a directorship in a listed company at time of death from 32 countries who died suddenly between the dates of January 1, 2000 and January 31, 2020. Following Nguyen and Nielsen (2010) we define a sudden death as an unexpected death that occurs instantaneously or within 24 hours of an abrupt change in the person's previous clinical state. Our definition includes accidents, aneurysms, cardiac arrests, heart attacks, heart failures, murders and terrorism, strokes and deaths described as sudden and unexpected with no other cause cited. We split the sample into the following categories: *Professional CEOs*, who have no familiar relationship with the founding family either by blood or marriage, *Founder CEOs*, *Descendant CEOs*, *Non-CEO founders* and *non-CEO descendants and family.* Panel A reports the mean daily abnormal returns for each trading day from three days before the death date to three days after. Panel B shows the mean cummulative abnormal returns for various event windows around the death date. We also report the results of a t-test on the cofficients. The daily predicted returns are estimated from a market model regression, where daily stock returns are regressed on daily returns for the MSCI World market index over a 200-day pre-vent estimation window (from day -220 to -21 before the death date). ***, **, and * denotes statistical significance at the 1%, 5%, and 10% level, respectively.

	All deaths	Professional CEO	Founder CEO	Descendant CEO	Non-CEO founder	Non-CEO descendants and family
Panel A: Daily abnormal returns						
Day -3	0.11%	0.12%	0.15%	0.10%	0.40%	-0.64%**
Day -2	-0.07%	-0.31%	0.34%	-0.11%	-0.22%	0.13%
Day -1	-0.49%***	-0.40%	-0.43%	-1.02%***	-0.50%	-0.55%**
Day 0	-0.65%***	-1.02%***	-0.92%*	1.21%	-0.37%	-0.46%
Day +1	-0.31%	-1.21%**	0.19%	1.46%	-0.15%	0.18%
Day +2	-0.23%	0.50%	-0.42%	-0.31%	-1.07***%	-0.14%
Day +3	0.31%	0.60%	-0.06%	0.63%	0.60%	-0.63%*
Panel B: Cumulative abnormal returns						
CAR(-1;0)	-1.16%***	-1.43%***	-1.48%**	0.30%	-0.86%	-1.05%*
CAR(0;+1)	-0.98%***	-2.17%***	-0.90%	2.50%	-0.44%	-0.30%
CAR(-1;+1)	-1.56%***	-2.69%***	-1.63%	1.60%	-0.98%	-0.85%
CAR(-1;+2)	-1.92%***	-2.41%***	-2.33%**	1.88%	-2.08%**	-1.05%
CAR(firm specific)	-1.38%**	-3.22%***	-1.36%	3.86%	-0.58%	-0.12%
N	325	112	77	18	81	37

Table III.5: Stock price reactions to sudden deaths split on ownership stakes

This table shows the stock price reactions to the sudden death of profesisonal CEOs and founding family members, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), who are either CEOs, part of the top management group or hold a directorship in a listed company at time of death from 32 countries who died suddenly between the dates of January 1, 2000 and January 31, 2020. Following Nguyen and Nielsen (2010) we define a sudden death as an unexpected death that occurs instantaneously or within 24 hours of an abrupt change in the person's previous clinical state. Our definition includes accidents, aneurysms, cardiac arrests, heart attacks, heart failures, murders and terrorism, strokes and deaths described as sudden and unexpected with no other cause cited. We split the sample of suddenly deceased individuals into *Professional CEOs* and *Founding family.* Panel A presents the stock price reactions to the sudden deaths of professional CEOs and founding family members, respectively. Panel B shows the stock price reactions at different intervals of ownership stakes held by the deceased individual. ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively.

	All deaths		Professional CEO		Founding family	
Category	N	%	N	%	N	%
Panel A: Stock price reaction						
CAR(0,1) in %	325	-0.98%***	112	-2.17%***	213	-0.35%
Panel B: Ownership levels						
Ownership < 5%	142	-1.53%***	88	-2.18%***	54	-0.48%
5% ≤ Ownership < 10%	41	-0.84%	10	-3.10%	31	-0.11%
10% ≤ Ownership < 30%	59	-2.80%***	9	-3.04%	50	-2.75%***
30% ≤ Ownership < 50%	33	0.36%	n.a.	n.a.	33	0.36%
50% ≤ Ownership	44	1.86%*	n.a.	n.a.	44	1.86%*

Table III.6: The value of CEOs and founding family members

This table shows the determinants of the stock price reaction to the sudden death of profesisonal CEOs and founding family members, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), who are either CEOs, part of the top management group or hold a directorship in a listed company at time of death from 32 countries who died suddenly between the dates of January 1, 2000 and January 31, 2020. We use the cross-section of stock price reactions from Table 4 as dependent variable. The reported results are based on the event window from 0 to +1, where 0 is the death date. *Professional CEO* is an indicator taking the value of one, if the deceased is a CEO of the company at time of death and is unrelated to the founding family both by blood and marriage. *Founder CEO* is an indicator taking the value of one, if the deceased is the founder of the company and is employed as the CEO at time of death. *Descendant CEO* is an indicator taking the value of one, if the deceased is a descendant of the founder or co-founder and holds the position of CEO at time of death. *Age* is measured in years. *Board size* is the number of directors on the board. *Market capitalization* is log of the firm's market capitalization in US dollars. *Market-to-book* is the market-to-book ratio of assets, which is defined as market value of equity plus book value of debt over book value of equity plus book value of debt. *Stock volatility (%)* is the standard deviation of stock returns from the estimation period -100 to -21, where 0 is the death date. Industry effects are based on Fama-French's twelve-industry classification. t-stats are corrected for clustering at the country level and reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Sample:	All deaths	All deaths	All deaths	CEOs	CEOs
	(1)	(2)	(3)	(4)	(5)
Professional CEO	-1.87**		-1.50	-2.38**	
	(-2.54)		(-1.61)	(-2.48)	
Founder CEO		1.07*	0.31		1.89
		(1.70)	(0.43)		(1.69)
Descendant CEO		3.45**	2.78*		4.36**
		(2.32)	(1.76)		(2.43)
Age (years)	0.05*	0.07***	0.06**	0.04	0.05
	(1.85)	(3.42)	(2.22)	(1.06)	(1.30)
Board size	0.17	0.20	0.18	0.22	0.22
	(1.22)	(1.50)	(1.26)	(1.10)	(1.09)
Market capitalization	-0.02	-0.06	-0.04	-0.01	-0.04
	(-0.11)	(-0.26)	(-0.18)	(-0.06)	(-0.16)
Market-to-book	-0.02***	-0.02***	-0.02***	-0.02**	-0.02**
	(-3.19)	(-3.00)	(-3.07)	(-2.63)	(-2.71)
Stock volatility	-0.28	-0.25	-0.25	-0.18	-0.16
	(-0.59)	(-0.51)	(-0.52)	(-0.27)	(-0.23)
FF12 industry fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
R^2	0.19	0.19	0.20	0.23	0.24
N	321	321	321	204	204

Table III.7: Generational value effects within founding families

This table shows the determinants of the stock price reaction to the sudden death of founding family members, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), who are either CEOs, part of the top management group or hold a directorship in a listed company at time of death from 32 countries who died suddenly between the dates of January 1, 2000 and January 31, 2020. We use the cross-section of stock price reactions from Table 4 as dependent variable. The reported results are based on the event window from 0 to +1, where 0 is the death date. *Founding family CEO* is an indicator taking the value of one, if the deceased is part of the founding family, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), and is employed as the CEO in the family company at time of death. *1st generation* is an indicator taking the value of one, if the deceased is founder, co-founder or an immediate family relation from the first generation (e.g. a sibling). *2nd generation* is an indicator taking the value of one if the deceased is a child of the founder or co-founder of the company. *3rd^{+} generation* is an indicator taking the value of one if the deceased is a grandchild or later generation of the founder or co-founder of the company. *Age* is measured in years. *Board size* is the number of directors on the board. *Market capitalization* is log of the firm's market capitalization in US dollars. *Market-to-book* is the market-to-book ratio of assets, which is defined as market value of equity plus book value of debt over book value of equity plus book value of debt. *Stock volatility (%)* is the standard deviation of stock returns from the estimation period -100 to -21, where 0 is the death date. Industry effects are based on Fama-French's twelve-industry classification. t-stats are corrected for clustering at the country level and reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Sample:	Founding family					
	(1)	(2)	(3)	(4)	(5)	(6)
Founding family CEO	0.86*		0.79	0.89*	0.71	0.73
	(1.76)		(1.52)	(1.77)	(1.38)	(1.41)
1st generation		-3.00***	-2.96***			
		(-3.18)	(-3.15)			
2nd generation				1.43		2.24**
				(1.41)		(2.36)
3rd^{+} generation					3.40*	3.99**
					(1.79)	(2.23)
Age (years)	0.07**	0.09***	0.09***	0.08***	0.07***	0.09***
	(2.47)	(2.79)	(2.94)	(2.88)	(2.81)	(3.28)
Board size	0.15	-0.00	0.03	0.13	0.06	0.01
	(1.21)	(-0.01)	(0.24)	(1.10)	(0.42)	(0.09)
Market capitalization	-0.02	-0.05	-0.06	-0.05	0.01	-0.04
	(-0.07)	(-0.16)	(-0.20)	(-0.18)	(0.04)	(-0.13)
Market-to-book	-0.00	-0.01	-0.01	-0.00	-0.01	-0.01
	(-0.13)	(-0.35)	(-0.21)	(-0.11)	(-0.26)	(-0.26)
Stock volatility	0.10	0.15	0.14	0.10	0.14	0.15
	(0.24)	(0.37)	(0.37)	(0.26)	(0.36)	(0.40)
Industry effects	Yes	Yes	Yes	Yes	Yes	Yes
Year effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.18	0.20	0.20	0.19	0.20	0.21
N	209	209	209	209	209	209

Table III.8: Ownership control and the value of CEOs and founding families

This table shows the determinants of the stock price reaction to the sudden death of profesisonal CEOs and founding family members, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), who are either CEOs, part of the top management group or hold a directorship in a listed company at time of death from 32 countries who died suddenly between the dates of January 1, 2000 and January 31, 2020. We use the cross-section of stock price reactions from Table 4 as dependent variable. The reported results are based on the event window from 0 to +1, where 0 is the death date. *Professional CEO* is an indicator taking the value of one, if the deceased is a CEO of the company at time of death and is unrelated to the founding family both by blood and marriage. *Founder CEO* is an indicator taking the value of one, if the deceased is the founder of the company and is employed as the CEO at time of death. *Descendant CEO* is an indicator taking the value of one, if the deceased is a descendant of the founder or co-founder and holds the position of CEO at time of death. *Ownership* is the logarithm of the voting ownership in percentage of the deceased. Firm controls include the following variables but for brevity not shown: *Age* is measured in years. *Board size* is the number of directors on the board. *Market capitalization* is log of the firm's market capitalization in US dollars. *Market-to-book* is the market-to-book ratio of assets, which is defined as market value of equity plus book value of debt over book value of equity plus book value of debt. *Stock volatility (%)* is the standard deviation of stock returns from the estimation period -100 to -21, where 0 is the death date. Industry effects are based on Fama-French's twelve-industry classification. t-stats are corrected for clustering at the country level and reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Sample:	All deaths	All deaths	All deaths	CEOs	CEOs	Founding family
	(1)	(2)	(3)	(4)	(5)	(6)
Professional CEO	-1.39		-0.91	-1.92		
	(-1.32)		(-0.78)	(-1.21)		
Professional CEO x Ownership	-0.79*		-0.95**	-0.72		
	(-1.78)		(-2.24)	(-1.00)		
Founder CEO		2.82**	2.57**		2.97	2.22*
		(2.33)	(2.19)		(1.59)	(2.05)
Founder CEO x Ownership		-1.02*	-1.17**		-0.55	-1.11***
		(-1.99)	(-2.47)		(-0.81)	(-2.85)
Descendant CEO		-0.84	-0.84		-0.16	1.00
		(-0.84)	(-0.87)		(-0.09)	(1.00)
Descendant CEO x Ownership		1.40**	1.24**		1.73*	1.06**
		(2.59)	(2.29)		(1.94)	(2.11)
Ownership	0.15	0.16	0.31	0.13	-0.16	0.23
	(0.53)	(1.17)	(1.48)	(0.21)	(-0.51)	(0.87)
Firm controls	Yes	Yes	Yes	Yes	Yes	Yes
FF12 industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.22	0.23	0.24	0.26	0.27	0.23
N	291	291	291	179	179	203

Table III.9: Investor protection and the value of CEOs

This table shows the determinants of the stock price reaction to the sudden death of profesisonal CEOs and founding family members, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), who are either CEOs, part of the top management group or hold a directorship in a listed company at time of death from 32 countries who died suddenly between the dates of January 1, 2000 and January 31, 2020. We use the cross-section of stock price reactions from Table 4 as dependent variable. The reported results are based on the event window from 0 to +1, where 0 is the death date. *Professional CEO* is an indicator taking the value of one, if the deceased is a CEO of the company at time of death and is unrelated to the founding family both by blood and marriage. *Founder CEO* is an indicator taking the value of one, if the deceased is the founder of the company and is employed as the CEO at time of death. *Descendant CEO* is an indicator taking the value of one, if the deceased is a descendant of the founder or co-founder and holds the position of CEO at time of death. *Control premium* is taken from Dyck and Zingales (2004) and we use the country median. *Anti-director rights index* is the revised anti-director rights index taken from Djankov et al. (2008). *Anti-self-dealing index* is also taken from Djankov et al. (2008). Firm controls include the following variables but for brevity not shown: *Age* is measured in years. *Board size* is the number of directors on the board. *Market capitalization* is log of the firm's market capitalization in US dollars. *Market-to-book* is the market-to-book ratio of assets, which is defined as market value of equity plus book value of debt over book value of equity plus book value of debt. *Stock volatility (%)* is the standard deviation of stock returns from the estimation period -100 to -21, where 0 is the death date. Industry effects are based on Fama-French's twelve-industry classification. t-stats are corrected for clustering at the country level and reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Sample:	CEOs					
	(1)	(2)	(3)	(4)	(5)	(6)
Professional CEO	-2.56***	-2.43***	-2.21**			
	(-2.84)	(-2.83)	(-2.12)			
Founder CEO				2.06*	2.15*	1.85*
				(1.98)	(1.88)	(1.77)
Descendant CEO				4.51**	3.30*	3.85
				(2.52)	(1.99)	(1.46)
Control premium		7.39			7.04	
		(1.56)			(1.52)	
Anti-director rights index	-0.83**	-1.60***		-0.87**	-1.64***	
	(-2.33)	(-3.00)		(-2.39)	(-2.99)	
Anti-self-dealing index	-0.55	3.12		0.73	3.65	
	(-0.25)	(0.95)		(0.29)	(0.97)	
Firm controls	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
FF12 industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Country fixed effects	No	No	Yes	No	No	Yes
R^2	0.24	0.30	0.30	0.25	0.30	0.30
N	204	174	204	204	174	204

Table III.10: Investor protection and founding families

This table shows the determinants of the stock price reaction to the sudden death of founding family members, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), who are either CEOs, part of the top management group or hold a directorship in a listed company at time of death from 32 countries who died suddenly between the dates of January 1, 2000 and January 31, 2020. We use the cross-section of stock price reactions from Table 4 as dependent variable. The reported results are based on the event window from 0 to +1, where 0 is the death date. *Founding family CEO* is an indicator taking the value of one, if the deceased is part of the founding family, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), and is employed as the CEO in the family company at time of death. *1st generation* is an indicator taking the value of one, if the deceased is founder, co-founder or an immediate family relation from the first generation (e.g. a sibling). *2nd generation* is an indicator taking the value of one if the deceased is a child of the founder or co-founder of the company. *3rd^{+} generation* is an indicator taking the value of one if the deceased is a grandchild or later generation of the founder or co-founder of the company. *Control premium* is taken from Dyck and Zingales (2004) and we use the country median. *Anti-director rights index* is the revised anti-director rights index taken from Djankov et al. (2008). *Anti-self-dealing index* is also taken from Djankov et al. (2008). Firm controls include the following variables but for brevity not shown: *Age* is measured in years. *Board size* is the number of directors on the board. *Market capitalization* is log of the firm's market capitalization in US dollars. *Market-to-book* is the market-to-book ratio of assets, which is defined as market value of equity plus book value of debt over book value of equity plus book value of debt. *Stock volatility (%)* is the standard deviation of stock returns from the estimation period -100 to -21, where 0 is the death date. Industry effects are based on Fama-French's twelve-industry classification. t-stats are corrected for clustering at the country level and reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Sample:	Founding family					
	(1)	(2)	(3)	(4)	(5)	(6)
Founding family CEO	0.83	0.39	0.24	0.76	0.39	0.24
	(1.40)	(0.39)	(0.31)	(1.28)	(0.38)	(0.30)
1st generation	-3.02***	-3.57**	-2.57*			
	(-2.91)	(-2.18)	(-1.99)			
2nd generation				2.34**	3.36***	2.34*
				(2.30)	(2.84)	(1.72)
3rd^{+} generation				4.02**	3.86	2.99
				(2.15)	(1.38)	(1.21)
Control premium		-5.26			-5.34	
		(-0.86)			(-0.85)	
Anti-director rights index	-0.64	-0.76		-0.62	-0.74	
	(-1.63)	(-1.04)		(-1.69)	(-0.99)	
Anti-self-dealing index	2.90	1.94		2.92	1.92	
	(1.37)	(0.59)		(1.41)	(0.58)	
Firm controls	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
FF12 industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Country fixed effects	No	No	Yes	No	No	Yes
R^2	0.21	0.26	0.29	0.21	0.26	0.29
N	207	155	209	207	155	209

Appendix: Table A.III.1: Generational value effects and ownership

This table shows the determinants of the stock price reaction to the sudden death of founding family members, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), who are either CEOs, part of the top management group or hold a directorship in a listed company at time of death from 32 countries who died suddenly between the dates of January 1, 2000 and January 31, 2020. We use the cross-section of stock price reactions from Table 4 as dependent variable. The reported results are based on the event window from 0 to +1, where 0 is the death date. *Founding family CEO* is an indicator taking the value of one, if the deceased is part of the founding family, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), and is employed as the CEO in the family company at time of death. *1st generation* is an indicator taking the value of one, if the deceased is founder, co-founder or an immediate family relation from the first generation (e.g. a sibling). *2nd generation* is an indicator taking the value of one if the deceased is a child of the founder or co-founder of the company. *3rd$^+$ generation* is an indicator taking the value of one if the deceased is a grandchild or later generation of the founder or co-founder of the company. *Ownership* is the logarithm of the voting ownership in percentage of the deceased. Firm controls include the following variables but for brevity not shown: *Age* is measured in years. *Board size* is the number of directors on the board. *Market capitalization* is log of the firm's market capitalization in US dollars. *Market-to-book* is the market-to-book ratio of assets, which is defined as market value of equity plus book value of debt over book value of equity plus book value of debt. *Stock volatility (%)* is the standard deviation of stock returns from the estimation period -100 to -21, where 0 is the death date. Industry effects are based on Fama-French's twelve-industry classification. t-stats are corrected for clustering at the country level and reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

	Founding family					
	(1)	(2)	(3)	(4)	(5)	(6)
Founding family CEO	0.62		0.96**	0.67	0.87*	0.96**
	(1.23)		(2.43)	(1.39)	(1.84)	(2.27)
Founding family CEO x Ownership	0.00		-0.00	0.00	-0.00	-0.00
	(0.34)		(-0.57)	(0.12)	(-0.05)	(-0.47)
1st generation		0.67	0.75			
		(0.93)	(1.23)			
1st generation x Ownership		-1.37***	-1.40***			
		(-3.22)	(-3.33)			
2nd generation				-0.54		-0.54
				(-0.57)		(-0.73)
2nd generation x Ownership				0.63		0.92
				(0.92)		(1.65)
3rd$^+$ generation					-1.43	-0.85
					(-1.28)	(-0.70)
3rd$^+$ generation x Ownership					1.84**	1.84**
					(2.57)	(2.46)
Ownership	0.05	1.25***	1.31***	0.01	-0.03	-0.08
	(0.13)	(3.17)	(3.04)	(0.03)	(-0.09)	(-0.24)
Firm controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry effects	Yes	Yes	Yes	Yes	Yes	Yes
Year effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.19	0.22	0.23	0.19	0.22	0.23
N	203	203	203	203	203	203

Appendix: Table A.III.2: Alternative specifications and the value of CEOs and founding family members

This table shows the determinants of the stock price reaction to the sudden death of profesisonal CEOs and founding family members, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), who are either CEOs, part of the top management group or hold a directorship in a listed company at time of death from 32 countries who died suddenly between the dates of January 1, 2000 and January 31, 2020. We use the cross-section of stock price reactions from Table 4 as dependent variable. The reported results are based on (a) simple market-adjusted returns and the event window from 0 to +1, where 0 is the death date, (b) market model returns and the event window from 0 to +2, where 0 is the death date, and (c) market model returns and firm specific event windows from death date to first news date, both dates included. *Professional CEO* is an indicator taking the value of one, if the deceased is a CEO of the company at time of death and is unrelated to the founding family both by blood and marriage. *Founder CEO* is an indicator taking the value of one, if the deceased is the founder of the company and is employed as the CEO at time of death. *Descendant CEO* is an indicator taking the value of one, if the deceased is a descendant of the founder or co-founder and holds the position of CEO at time of death. *Age* is measured in years. *Board size* is the number of directors on the board. *Market capitalization* is log of the firm's market capitalization in US dollars. *Market-to-book* is the market-to-book ratio of assets, which is defined as market value of equity plus book value of debt over book value of equity plus book value of debt. *Stock volatility (%)* is the standard deviation of stock returns from the estimation period -100 to -21, where 0 is the death date. Industry effects are based on Fama-French's twelve-industry classification. t-stats are corrected for clustering at the country level and reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Sample:	Adj. returns		Window: (0, +2)		Firm specific	
	All deaths	CEOs	All deaths	CEOs	All deaths	CEOs
	(1)	(2)	(3)	(4)	(5)	(6)
Professional CEO	-2.45**		-1.52		-3.78**	
	(-2.32)		(-1.25)		(-2.25)	
Founder CEO		2.08		0.54		2.96
		(1.68)		(0.38)		(1.49)
Descendant CEO		3.94**		5.41**		7.04**
		(2.32)		(2.38)		(2.61)
Age (years)	0.04	0.05	0.09**	0.11**	0.03	0.04
	(1.09)	(1.24)	(2.09)	(2.39)	(0.46)	(0.75)
Board size	0.21	0.22	0.20	0.20	0.38*	0.38*
	(1.01)	(1.01)	(1.43)	(1.53)	(1.89)	(1.87)
Market capitalization	-0.02	-0.03	0.03	-0.02	-0.07	-0.11
	(-0.07)	(-0.14)	(0.11)	(-0.05)	(-0.21)	(-0.31)
Market-to-book	-0.02***	-0.02***	-0.03***	-0.03***	-0.01	-0.01*
	(-3.04)	(-3.10)	(-3.11)	(-3.21)	(-1.68)	(-1.76)
Stock volatility	-0.22	-0.21	-0.10	-0.05	-0.17	-0.13
	(-0.34)	(-0.31)	(-0.12)	(-0.07)	(-0.15)	(-0.11)
FF12 industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.23	0.24	0.21	0.23	0.22	0.23
N	204	204	204	204	204	204

Appendix: Table A.III.3: Alternative specifications and generational value effects within founding families

This table shows the determinants of the stock price reaction to the sudden death of founding family members, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), who are either CEOs, part of the top management group or hold a directorship in a listed company at time of death from 32 countries who died suddenly between the dates of January 1, 2000 and January 31, 2020. We use the cross-section of stock price reactions from Table 4 as dependent variable. The reported results are based on (a) simple market-adjusted returns and the event window from 0 to +1, where 0 is the death date, (b) market model returns and the event window from 0 to +2, where 0 is the death date, and (c) market model returns and firm specific event windows from death date to first news date, both dates included. *Founding family CEO* is an indicator taking the value of one, if the deceased is part of the founding family, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), and is employed as the CEO in the family company at time of death. *1st generation* is an indicator taking the value of one, if the deceased is founder, co-founder or an immediate family relation from the first generation (e.g. a sibling). *2nd generation* is an indicator taking the value of one if the deceased is a child of the founder or co-founder of the company. *3rd^{+} generation* is an indicator taking the value of one if the deceased is a grandchild or later generation of the founder or co-founder of the company. *Age* is measured in years. *Board size* is the number of directors on the board. *Market capitalization* is log of the firm's market capitalization in US dollars. *Market-to-book* is the market-to-book ratio of assets, which is defined as market value of equity plus book value of debt over book value of equity plus book value of debt. *Stock volatility (%)* is the standard deviation of stock returns from the estimation period -100 to -21, where 0 is the death date. Industry effects are based on Fama-French's twelve-industry classification. t-stats are corrected for clustering at the country level and reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Sample:	Founding family					
	Adj. returns		Window: (0, +2)		Firm specific	
	(1)	(2)	(3)	(4)	(5)	(6)
Founding family CEO	1.13**	1.08**	1.48	1.43	1.50	1.43
	(2.60)	(2.29)	(1.31)	(1.16)	(1.60)	(1.34)
1st generation	-2.41***		-4.63***		-4.55***	
	(-2.80)		(-3.00)		(-2.80)	
2nd generation		1.87*		3.96***		3.72**
		(1.93)		(2.93)		(2.35)
3rd^{+} generation		3.17*		5.58*		5.74*
		(1.82)		(1.99)		(1.87)
Firm controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry effects	Yes	Yes	Yes	Yes	Yes	Yes
Year effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.21	0.21	0.21	0.21	0.23	0.23
N	209	209	209	209	209	209

Appendix: Table A.III.4: Alternative specifications and ownership control

This table shows the determinants of the stock price reaction to the sudden death of profesisonal CEOs and founding family members, i.e. founders, co-founders, descendants and immediate family relations (e.g. a sibling), who are either CEOs, part of the top management group or hold a directorship in a listed company at time of death from 32 countries who died suddenly between the dates of January 1, 2000 and January 31, 2020. We use the cross-section of stock price reactions from Table 4 as dependent variable. The reported results are based on (a) simple market-adjusted returns and the event window from 0 to +1, where 0 is the death date, (b) market model returns and the event window from 0 to +2, where 0 is the death date, and (c) market model returns and firm specific event windows from death date to first news date, both dates included. *Professional CEO* is an indicator taking the value of one, if the deceased is a CEO of the company at time of death and is unrelated to the founding family both by blood and marriage. *Founder CEO* is an indicator taking the value of one, if the deceased is the founder of the company and is employed as the CEO at time of death. *Descendant CEO* is an indicator taking the value of one, if the deceased is a descendant of the founder or co-founder and holds the position of CEO at time of death. *Ownership* is the logarithm of the voting ownership in percentage of the deceased. Firm controls include the following variables but for brevity not shown: *Age* is measured in years. *Board size* is the number of directors on the board. *Market capitalization* is log of the firm's market capitalization in US dollars. *Market-to-book* is the market-to-book ratio of assets, which is defined as market value of equity plus book value of debt over book value of equity plus book value of debt. *Stock volatility (%)* is the standard deviation of stock returns from the estimation period -100 to -21, where 0 is the death date. Industry effects are based on Fama-French's twelve-industry classification. t-stats are corrected for clustering at the country level and reported in parentheses. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Sample:	Adj. returns		Window: (0, +2)		Firm specific	
	All deaths	Founding family	All deaths	Founding family	All deaths	Founding family
	(1)	(2)	(3)	(4)	(5)	(6)
Professional CEO	-0.77		0.06		-1.75	
	(-0.63)		(0.04)		(-0.81)	
Professional CEO x Ownership	-0.91**		-1.04**		-1.26*	
	(-2.16)		(-2.61)		(-1.86)	
Founder CEO	2.76*	2.40*	1.93	2.04	2.38	2.04
	(1.97)	(1.90)	(1.61)	(1.68)	(1.27)	(1.37)
Founder CEO x Ownership	-1.05**	-0.96**	-1.01	-1.11**	-1.04	-0.91
	(-2.46)	(-2.41)	(-1.62)	(-2.13)	(-1.41)	(-1.40)
Descendant CEO	-0.96	0.76	0.14	1.24	-1.60	0.85
	(-0.94)	(0.68)	(0.11)	(0.89)	(-1.19)	(0.51)
Descendant CEO x Ownership	1.21**	1.04**	1.65**	1.56**	2.09**	1.99**
	(2.23)	(2.08)	(2.23)	(2.19)	(2.70)	(2.67)
Ownership	0.28	0.19	0.18	0.10	0.32	0.15
	(1.47)	(0.76)	(0.80)	(0.31)	(0.80)	(0.32)
Firm controls	Yes	Yes	Yes	Yes	Yes	Yes
FF12 industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R^2	0.25	0.23	0.23	0.23	0.25	0.25
N	291	203	291	203	291	203

Conclusion

This thesis contains three papers which consider different aspects of the value of CEOs and directors to shareholders with a special focus on corporate connections, independent directors, CEOs and founding families. Alle three papers are based upon detailed empirical studies using the same identification strategy.

The first paper is a detailed empirical study of the value shareholders attribute to social connections between top executives and directors across firms and to identify which of these connections are more valuable. We use the sudden death of managers and directors to trigger random and unexpected dissolutions of connections between firms. By studying the stock price reactions of the firms where the connected managers work, we are able to isolate the value of managerial connections to shareholders. In particular, using a sample of 42 managers who suddenly passed away while working for S&P500 firms, our results show that around 7,000 connected firms experience a significant reduction in shareholder value of 0.11%, on average, for the loss of a single connection, which translates into a loss of between 1.6 and 2.6 million USD. Overall, we find our results are consistent with the notion that certain connections are more important than others, presumably because the information disseminated and accessed via these connections is more important and therefore more valuable. In particular, we find this to be true for connections established via previous overlapping work engagements, and within-industry connections.

In the second paper, we study the value of independent directors around the world using stock market reactions to sudden deaths. We are motivated by the push from policy makers around the world in recent years to increase the independence of directors to improve the effectiveness of corporate boards. While both developed and emerging markets are pushing this agenda with the United States in the lead, direct empirical evidence of the benefits to shareholders has been very limited. Our results show significant heterogeneity in the value of independent directors across countries. Stock prices drop, on average, by -2.45%

in the Netherlands, while they increase by 0.79% in India following the sudden death of independent directors. Overall, we find that independent directors are more valuable to shareholders, when we control for unobserved director heterogeneity (e.g. director ability), when they are voluntarily appointed, rather than mandated by hard law or recommended by soft law, in countries with high accounting standards and when governance systems limits the CEO's ability to control the board. Overall, our results suggest that policy makers around the world need to consider the institutional setting and cultural barriers to board effectiveness before they adopt corporate governance reforms from the United States.

In the last paper, we turn our attention to another group of central corporate persons, namely CEOs and managerially active founding families. Here we investigate the value contribution made by professional CEOs and active founding families across generations to shareholders using sudden death events from 32 countries. We use a world sample of 325 suddenly deceased individuals, which allows us to differentiate between professional, founder and descendant CEOs and, thereby, investigate how these CEO types affect shareholder value. We find large variation in the stock price reactions. Notably, the loss of a professional CEO leads to an average stock price drop of 2.17%, while the stock price increases by 2.50% following the sudden death of a descendant CEO. Further, when examining the founding families, we find that founders are more valuable to shareholders relative to the next generation of descendants, who in turn are more valuable to shareholders relative to subsequent generations. Thus, our findings provide the first causal evidence in support of the proverbial saying *"from shirtsleeves to shirtsleeves in three generations"*. Finally, when we control for investor protection and use country fixed effects, we find that our results are not materially affected. Therefore, we argue that our main findings represent global effects that exists across corporate governance regimes around the world.

Overall, the general theme of this thesis looks at different aspects of how contral corporate persons contribute to shareholder value, more specifically, through corporate connections and in their role as independent directors, CEOs or active founding families around the world. In particular, the commonality of using sudden deaths for identification purposes in all three papers helps us avoid endogeneity issues, which is a common problem in corporate governance research, and allows us to directly estimate the value of these characteristics to shareholders.

TITLER I PH.D.SERIEN:

2004

1. Martin Grieger
Internet-based Electronic Marketplaces and Supply Chain Management

2. Thomas Basbøll
LIKENESS
A Philosophical Investigation

3. Morten Knudsen
Beslutningens vaklen
En systemteoretisk analyse of moderniseringen af et amtskommunalt sundhedsvæsen 1980-2000

4. Lars Bo Jeppesen
Organizing Consumer Innovation
A product development strategy that is based on online communities and allows some firms to benefit from a distributed process of innovation by consumers

5. Barbara Dragsted
SEGMENTATION IN TRANSLATION AND TRANSLATION MEMORY SYSTEMS
An empirical investigation of cognitive segmentation and effects of integrating a TM system into the translation process

6. Jeanet Hardis
Sociale partnerskaber
Et socialkonstruktivistisk casestudie af partnerskabsaktørers virkelighedsopfattelse mellem identitet og legitimitet

7. Henriette Hallberg Thygesen
System Dynamics in Action

8. Carsten Mejer Plath
Strategisk Økonomistyring

9. Annemette Kjærgaard
Knowledge Management as Internal Corporate Venturing
– a Field Study of the Rise and Fall of a Bottom-Up Process

10. Knut Arne Hovdal
De profesjonelle i endring
Norsk ph.d., ej til salg gennem Samfundslitteratur

11. Søren Jeppesen
Environmental Practices and Greening Strategies in Small Manufacturing Enterprises in South Africa
– A Critical Realist Approach

12. Lars Frode Frederiksen
Industriel forskningsledelse
– på sporet af mønstre og samarbejde i danske forskningsintensive virksomheder

13. Martin Jes Iversen
The Governance of GN Great Nordic
– in an age of strategic and structural transitions 1939-1988

14. Lars Pynt Andersen
The Rhetorical Strategies of Danish TV Advertising
A study of the first fifteen years with special emphasis on genre and irony

15. Jakob Rasmussen
Business Perspectives on E-learning

16. Sof Thrane
The Social and Economic Dynamics of Networks
– a Weberian Analysis of Three Formalised Horizontal Networks

17. Lene Nielsen
Engaging Personas and Narrative Scenarios – a study on how a user-centered approach influenced the perception of the design process in the e-business group at AstraZeneca

18. S.J Valstad
Organisationsidentitet
Norsk ph.d., ej til salg gennem Samfundslitteratur

19. Thomas Lyse Hansen
Six Essays on Pricing and Weather risk in Energy Markets

20. Sabine Madsen
Emerging Methods – An Interpretive Study of ISD Methods in Practice

21. Evis Sinani
The Impact of Foreign Direct Investment on Efficiency, Productivity Growth and Trade: An Empirical Investigation

22. Bent Meier Sørensen
Making Events Work Or,
How to Multiply Your Crisis

23. Pernille Schnoor
Brand Ethos
Om troværdige brand- og virksomhedsidentiteter i et retorisk og diskursteoretisk perspektiv

24. Sidsel Fabech
Von welchem Österreich ist hier die Rede?
Diskursive forhandlinger og magtkampe mellem rivaliserende nationale identitetskonstruktioner i østrigske pressediskurser

25. Klavs Odgaard Christensen
Sprogpolitik og identitetsdannelse i flersprogede forbundsstater
Et komparativt studie af Schweiz og Canada

26. Dana B. Minbaeva
Human Resource Practices and Knowledge Transfer in Multinational Corporations

27. Holger Højlund
Markedets politiske fornuft
Et studie af velfærdens organisering i perioden 1990-2003

28. Christine Mølgaard Frandsen
A.s erfaring
Om mellemværendets praktik i en transformation af mennesket og subjektiviteten

29. Sine Nørholm Just
The Constitution of Meaning
– A Meaningful Constitution?
Legitimacy, identity, and public opinion in the debate on the future of Europe

2005

1. Claus J. Varnes
Managing product innovation through rules – The role of formal and structured methods in product development

2. Helle Hedegaard Hein
Mellem konflikt og konsensus
– Dialogudvikling på hospitalsklinikker

3. Axel Rosenø
Customer Value Driven Product Innovation – A Study of Market Learning in New Product Development

4. Søren Buhl Pedersen
Making space
An outline of place branding

5. Camilla Funck Ellehave
Differences that Matter
An analysis of practices of gender and organizing in contemporary workplaces

6. Rigmor Madeleine Lond
Styring af kommunale forvaltninger

7. Mette Aagaard Andreassen
Supply Chain versus Supply Chain
Benchmarking as a Means to Managing Supply Chains

8. Caroline Aggestam-Pontoppidan
From an idea to a standard
The UN and the global governance of accountants' competence

9. Norsk ph.d.

10. Vivienne Heng Ker-ni
An Experimental Field Study on the

Effectiveness of Grocer Media Advertising
Measuring Ad Recall and Recognition, Purchase Intentions and Short-Term Sales

11. Allan Mortensen
Essays on the Pricing of Corporate Bonds and Credit Derivatives

12. Remo Stefano Chiari
Figure che fanno conoscere
Itinerario sull'idea del valore cognitivo e espressivo della metafora e di altri tropi da Aristotele e da Vico fino al cognitivismo contemporaneo

13. Anders McIlquham-Schmidt
Strategic Planning and Corporate Performance
An integrative research review and a meta-analysis of the strategic planning and corporate performance literature from 1956 to 2003

14. Jens Geersbro
The TDF – PMI Case
Making Sense of the Dynamics of Business Relationships and Networks

15 Mette Andersen
Corporate Social Responsibility in Global Supply Chains
Understanding the uniqueness of firm behaviour

16. Eva Boxenbaum
Institutional Genesis: Micro – Dynamic Foundations of Institutional Change

17. Peter Lund-Thomsen
Capacity Development, Environmental Justice NGOs, and Governance: The Case of South Africa

18. Signe Jarlov
Konstruktioner af offentlig ledelse

19. Lars Stæhr Jensen
Vocabulary Knowledge and Listening Comprehension in English as a Foreign Language
An empirical study employing data elicited from Danish EFL learners

20. Christian Nielsen
Essays on Business Reporting
Production and consumption of strategic information in the market for information

21. Marianne Thejls Fischer
Egos and Ethics of Management Consultants

22. Annie Bekke Kjær
Performance management i Proces-innovation
– belyst i et social-konstruktivistisk perspektiv

23. Suzanne Dee Pedersen
GENTAGELSENS METAMORFOSE
Om organisering af den kreative gøren i den kunstneriske arbejdspraksis

24. Benedikte Dorte Rosenbrink
Revenue Management
Økonomiske, konkurrencemæssige & organisatoriske konsekvenser

25. Thomas Riise Johansen
Written Accounts and Verbal Accounts
The Danish Case of Accounting and Accountability to Employees

26. Ann Fogelgren-Pedersen
The Mobile Internet: Pioneering Users' Adoption Decisions

27. Birgitte Rasmussen
Ledelse i fællesskab – de tillidsvalgtes fornyende rolle

28. Gitte Thit Nielsen
Remerger
– skabende ledelseskræfter i fusion og opkøb

29. Carmine Gioia
A MICROECONOMETRIC ANALYSIS OF MERGERS AND ACQUISITIONS

30. Ole Hinz
Den effektive forandringsleder: pilot, pædagog eller politiker?
Et studie i arbejdslederes meningstilskrivninger i forbindelse med vellykket gennemførelse af ledelsesinitierede forandringsprojekter

31. Kjell-Åge Gotvassli
Et praksisbasert perspektiv på dynamiske
læringsnettverk i toppidretten
Norsk ph.d., ej til salg gennem Samfundslitteratur

32. Henriette Langstrup Nielsen
Linking Healthcare
An inquiry into the changing performances of web-based technology for asthma monitoring

33. Karin Tweddell Levinsen
Virtuel Uddannelsespraksis
Master i IKT og Læring – et casestudie i hvordan proaktiv proceshåndtering kan forbedre praksis i virtuelle læringsmiljøer

34. Anika Liversage
Finding a Path
Labour Market Life Stories of Immigrant Professionals

35. Kasper Elmquist Jørgensen
Studier i samspillet mellem stat og erhvervsliv i Danmark under
1. verdenskrig

36. Finn Janning
A DIFFERENT STORY
Seduction, Conquest and Discovery

37. Patricia Ann Plackett
Strategic Management of the Radical Innovation Process
Leveraging Social Capital for Market Uncertainty Management

2006

1. Christian Vintergaard
Early Phases of Corporate Venturing

2. Niels Rom-Poulsen
Essays in Computational Finance

3. Tina Brandt Husman
Organisational Capabilities, Competitive Advantage & Project-Based Organisations
The Case of Advertising and Creative Good Production

4. Mette Rosenkrands Johansen
Practice at the top
– how top managers mobilise and use non-financial performance measures

5. Eva Parum
Corporate governance som strategisk kommunikations- og ledelsesværktøj

6. Susan Aagaard Petersen
Culture’s Influence on Performance Management: The Case of a Danish Company in China

7. Thomas Nicolai Pedersen
The Discursive Constitution of Organizational Governance – Between unity and differentiation
The Case of the governance of environmental risks by World Bank environmental staff

8. Cynthia Selin
Volatile Visions: Transactons in Anticipatory Knowledge

9. Jesper Banghøj
Financial Accounting Information and Compensation in Danish Companies

10. Mikkel Lucas Overby
Strategic Alliances in Emerging High-Tech Markets: What’s the Difference and does it Matter?

11. Tine Aage
External Information Acquisition of Industrial Districts and the Impact of Different Knowledge Creation Dimensions

A case study of the Fashion and Design Branch of the Industrial District of Montebelluna, NE Italy

12. Mikkel Flyverbom
Making the Global Information Society Governable
On the Governmentality of Multi-Stakeholder Networks

13. Anette Grønning
Personen bag
Tilstedevær i e-mail som interaktionsform mellem kunde og medarbejder i dansk forsikringskontekst

14. Jørn Helder
One Company – One Language?
The NN-case

15. Lars Bjerregaard Mikkelsen
Differing perceptions of customer value
Development and application of a tool for mapping perceptions of customer value at both ends of customer-supplier dyads in industrial markets

16. Lise Granerud
Exploring Learning
Technological learning within small manufacturers in South Africa

17. Esben Rahbek Pedersen
Between Hopes and Realities: Reflections on the Promises and Practices of Corporate Social Responsibility (CSR)

18. Ramona Samson
The Cultural Integration Model and European Transformation.
The Case of Romania

2007

1. Jakob Vestergaard
Discipline in The Global Economy
Panopticism and the Post-Washington Consensus

2. Heidi Lund Hansen
Spaces for learning and working
A qualitative study of change of work, management, vehicles of power and social practices in open offices

3. Sudhanshu Rai
Exploring the internal dynamics of software development teams during user analysis
A tension enabled Institutionalization Model; "Where process becomes the objective"

4. Norsk ph.d.
Ej til salg gennem Samfundslitteratur

5. Serden Ozcan
EXPLORING HETEROGENEITY IN ORGANIZATIONAL ACTIONS AND OUTCOMES
A Behavioural Perspective

6. Kim Sundtoft Hald
Inter-organizational Performance Measurement and Management in Action
– An Ethnography on the Construction of Management, Identity and Relationships

7. Tobias Lindeberg
Evaluative Technologies
Quality and the Multiplicity of Performance

8. Merete Wedell-Wedellsborg
Den globale soldat
Identitetsdannelse og identitetsledelse i multinationale militære organisationer

9. Lars Frederiksen
Open Innovation Business Models
Innovation in firm-hosted online user communities and inter-firm project ventures in the music industry
– A collection of essays

10. Jonas Gabrielsen
Retorisk toposlære – fra statisk 'sted' til persuasiv aktivitet

11. Christian Moldt-Jørgensen
Fra meningsløs til meningsfuld evaluering.
Anvendelsen af studentertilfredshedsmålinger på de korte og mellemlange videregående uddannelser set fra et psykodynamisk systemperspektiv

12. Ping Gao
Extending the application of actor-network theory
Cases of innovation in the telecommunications industry

13. Peter Mejlby
Frihed og fængsel, en del af den samme drøm?
Et phronetisk baseret casestudie af frigørelsens og kontrollens sameksistens i værdibaseret ledelse!

14. Kristina Birch
Statistical Modelling in Marketing

15. Signe Poulsen
Sense and sensibility:
The language of emotional appeals in insurance marketing

16. Anders Bjerre Trolle
Essays on derivatives pricing and dynamic asset allocation

17. Peter Feldhütter
Empirical Studies of Bond and Credit Markets

18. Jens Henrik Eggert Christensen
Default and Recovery Risk Modeling and Estimation

19. Maria Theresa Larsen
Academic Enterprise: A New Mission for Universities or a Contradiction in Terms?
Four papers on the long-term implications of increasing industry involvement and commercialization in academia

20. Morten Wellendorf
Postimplementering af teknologi i den offentlige forvaltning
Analyser af en organisations kontinuerlige arbejde med informationsteknologi

21. Ekaterina Mhaanna
Concept Relations for Terminological Process Analysis

22. Stefan Ring Thorbjørnsen
Forsvaret i forandring
Et studie i officerers kapabiliteter under påvirkning af omverdenens forandringspres mod øget styring og læring

23. Christa Breum Amhøj
Det selvskabte medlemskab om managementstaten, dens styringsteknologier og indbyggere

24. Karoline Bromose
Between Technological Turbulence and Operational Stability
– An empirical case study of corporate venturing in TDC

25. Susanne Justesen
Navigating the Paradoxes of Diversity in Innovation Practice
– A Longitudinal study of six very different innovation processes – in practice

26. Luise Noring Henler
Conceptualising successful supply chain partnerships
– Viewing supply chain partnerships from an organisational culture perspective

27. Mark Mau
Kampen om telefonen
Det danske telefonvæsen under den tyske besættelse 1940-45

28. Jakob Halskov
The semiautomatic expansion of existing terminological ontologies using knowledge patterns discovered

on the WWW – an implementation and evaluation

29. Gergana Koleva
European Policy Instruments Beyond Networks and Structure: The Innovative Medicines Initiative

30. Christian Geisler Asmussen
Global Strategy and International Diversity: A Double-Edged Sword?

31. Christina Holm-Petersen
Stolthed og fordom
Kultur- og identitetsarbejde ved skabelsen af en ny sengeafdeling gennem fusion

32. Hans Peter Olsen
Hybrid Governance of Standardized States
Causes and Contours of the Global Regulation of Government Auditing

33. Lars Bøge Sørensen
Risk Management in the Supply Chain

34. Peter Aagaard
Det unikkes dynamikker
De institutionelle mulighedsbetingelser bag den individuelle udforskning i professionelt og frivilligt arbejde

35. Yun Mi Antorini
Brand Community Innovation
An Intrinsic Case Study of the Adult Fans of LEGO Community

36. Joachim Lynggaard Boll
Labor Related Corporate Social Performance in Denmark
Organizational and Institutional Perspectives

2008

1. Frederik Christian Vinten
Essays on Private Equity

2. Jesper Clement
Visual Influence of Packaging Design on In-Store Buying Decisions

3. Marius Brostrøm Kousgaard
Tid til kvalitetsmåling?
– Studier af indrulleringsprocesser i forbindelse med introduktionen af kliniske kvalitetsdatabaser i speciallægepraksissektoren

4. Irene Skovgaard Smith
Management Consulting in Action Value creation and ambiguity in client-consultant relations

5. Anders Rom
Management accounting and integrated information systems
How to exploit the potential for management accounting of information technology

6. Marina Candi
Aesthetic Design as an Element of Service Innovation in New Technology-based Firms

7. Morten Schnack
Teknologi og tværfaglighed
– en analyse af diskussionen omkring indførelse af EPJ på en hospitalsafdeling

8. Helene Balslev Clausen
Juntos pero no revueltos – un estudio sobre emigrantes norteamericanos en un pueblo mexicano

9. Lise Justesen
Kunsten at skrive revisionsrapporter.
En beretning om forvaltningsrevisionens beretninger

10. Michael E. Hansen
The politics of corporate responsibility: CSR and the governance of child labor and core labor rights in the 1990s

11. Anne Roepstorff
Holdning for handling – en etnologisk undersøgelse af Virksomheders Sociale Ansvar/CSR

12. Claus Bajlum
Essays on Credit Risk and Credit Derivatives

13. Anders Bojesen
The Performative Power of Competence – an Inquiry into Subjectivity and Social Technologies at Work

14. Satu Reijonen
Green and Fragile
A Study on Markets and the Natural Environment

15. Ilduara Busta
Corporate Governance in Banking
A European Study

16. Kristian Anders Hvass
A Boolean Analysis Predicting Industry Change: Innovation, Imitation & Business Models
The Winning Hybrid: A case study of isomorphism in the airline industry

17. Trine Paludan
De uvidende og de udviklingsparate
Identitet som mulighed og restriktion blandt fabriksarbejdere på det aftayloriserede fabriksgulv

18. Kristian Jakobsen
Foreign market entry in transition economies: Entry timing and mode choice

19. Jakob Elming
Syntactic reordering in statistical machine translation

20. Lars Brømsøe Termansen
Regional Computable General Equilibrium Models for Denmark
Three papers laying the foundation for regional CGE models with agglomeration characteristics

21. Mia Reinholt
The Motivational Foundations of Knowledge Sharing

22. Frederikke Krogh-Meibom
The Co-Evolution of Institutions and Technology
– A Neo-Institutional Understanding of Change Processes within the Business Press – the Case Study of Financial Times

23. Peter D. Ørberg Jensen
OFFSHORING OF ADVANCED AND HIGH-VALUE TECHNICAL SERVICES: ANTECEDENTS, PROCESS DYNAMICS AND FIRMLEVEL IMPACTS

24. Pham Thi Song Hanh
Functional Upgrading, Relational Capability and Export Performance of Vietnamese Wood Furniture Producers

25. Mads Vangkilde
Why wait?
An Exploration of first-mover advantages among Danish e-grocers through a resource perspective

26. Hubert Buch-Hansen
Rethinking the History of European Level Merger Control
A Critical Political Economy Perspective

2009

1. Vivian Lindhardsen
From Independent Ratings to Communal Ratings: A Study of CWA Raters' Decision-Making Behaviours

2. Guðrið Weihe
Public-Private Partnerships: Meaning and Practice

3. Chris Nøkkentved
Enabling Supply Networks with Collaborative Information Infrastructures
An Empirical Investigation of Business Model Innovation in Supplier Relationship Management

4. Sara Louise Muhr
Wound, Interrupted – On the Vulnerability of Diversity Management

5. Christine Sestoft
   Forbrugeradfærd i et Stats- og Livsformsteoretisk perspektiv

6. Michael Pedersen
   Tune in, Breakdown, and Reboot: On the production of the stress-fit self-managing employee

7. Salla Lutz
   Position and Reposition in Networks
   – Exemplified by the Transformation of the Danish Pine Furniture Manufacturers

8. Jens Forssbæck
   Essays on market discipline in commercial and central banking

9. Tine Murphy
   Sense from Silence – A Basis for Organised Action
   How do Sensemaking Processes with Minimal Sharing Relate to the Reproduction of Organised Action?

10. Sara Malou Strandvad
    Inspirations for a new sociology of art: A sociomaterial study of development processes in the Danish film industry

11. Nicolaas Mouton
    On the evolution of social scientific metaphors:
    A cognitive-historical enquiry into the divergent trajectories of the idea that collective entities – states and societies, cities and corporations – are biological organisms.

12. Lars Andreas Knutsen
    Mobile Data Services:
    Shaping of user engagements

13. Nikolaos Theodoros Korfiatis
    Information Exchange and Behavior
    A Multi-method Inquiry on Online Communities

14. Jens Albæk
    Forestillinger om kvalitet og tværfaglighed på sygehuse
    – skabelse af forestillinger i læge- og plejegrupperne angående relevans af nye idéer om kvalitetsudvikling gennem tolkningsprocesser

15. Maja Lotz
    The Business of Co-Creation – and the Co-Creation of Business

16. Gitte P. Jakobsen
    Narrative Construction of Leader Identity in a Leader Development Program Context

17. Dorte Hermansen
    "Living the brand" som en brandorienteret dialogisk praxis:
    Om udvikling af medarbejdernes brandorienterede dømmekraft

18. Aseem Kinra
    Supply Chain (logistics) Environmental Complexity

19. Michael Nørager
    How to manage SMEs through the transformation from non innovative to innovative?

20. Kristin Wallevik
    Corporate Governance in Family Firms
    The Norwegian Maritime Sector

21. Bo Hansen Hansen
    Beyond the Process
    Enriching Software Process Improvement with Knowledge Management

22. Annemette Skot-Hansen
    Franske adjektivisk afledte adverbier, der tager præpositionssyntagmer indledt med præpositionen à som argumenter
    En valensgrammatisk undersøgelse

23. Line Gry Knudsen
    Collaborative R&D Capabilities
    In Search of Micro-Foundations

24. Christian Scheuer
Employers meet employees
Essays on sorting and globalization

25. Rasmus Johnsen
The Great Health of Melancholy
A Study of the Pathologies of Performativity

26. Ha Thi Van Pham
Internationalization, Competitiveness Enhancement and Export Performance of Emerging Market Firms:
Evidence from Vietnam

27. Henriette Balieu
Kontrolbegrebets betydning for kausativalternationen i spansk
En kognitiv-typologisk analyse

2010

1. Yen Tran
Organizing Innovationin Turbulent Fashion Market
Four papers on how fashion firms create and appropriate innovation value

2. Anders Raastrup Kristensen
Metaphysical Labour
Flexibility, Performance and Commitment in Work-Life Management

3. Margrét Sigrún Sigurdardottir
Dependently independent
Co-existence of institutional logics in the recorded music industry

4. Ásta Dis Óladóttir
Internationalization from a small domestic base:
An empirical analysis of Economics and Management

5. Christine Secher
E-deltagelse i praksis – politikernes og forvaltningens medkonstruktion og konsekvenserne heraf

6. Marianne Stang Våland
What we talk about when we talk about space:
End User Participation between Processes of Organizational and Architectural Design

7. Rex Degnegaard
Strategic Change Management
Change Management Challenges in the Danish Police Reform

8. Ulrik Schultz Brix
Værdi i rekruttering – den sikre beslutning
En pragmatisk analyse af perception og synliggørelse af værdi i rekrutterings- og udvælgelsesarbejdet

9. Jan Ole Similä
Kontraktsledelse
Relasjonen mellom virksomhetsledelse og kontraktshåndtering, belyst via fire norske virksomheter

10. Susanne Boch Waldorff
Emerging Organizations: In between local translation, institutional logics and discourse

11. Brian Kane
Performance Talk
Next Generation Management of Organizational Performance

12. Lars Ohnemus
Brand Thrust: Strategic Branding and Shareholder Value
An Empirical Reconciliation of two Critical Concepts

13. Jesper Schlamovitz
Håndtering af usikkerhed i film- og byggeprojekter

14. Tommy Moesby-Jensen
Det faktiske livs forbindtlighed
Førsokratisk informeret, ny-aristotelisk ἦθος*-tænkning hos Martin Heidegger*

15. Christian Fich
Two Nations Divided by Common Values
French National Habitus and the Rejection of American Power

16. Peter Beyer
Processer, sammenhængskraft og fleksibilitet
Et empirisk casestudie af omstillingsforløb i fire virksomheder

17. Adam Buchhorn
Markets of Good Intentions
Constructing and Organizing Biogas Markets Amid Fragility and Controversy

18. Cecilie K. Moesby-Jensen
Social læring og fælles praksis
Et mixed method studie, der belyser læringskonsekvenser af et lederkursus for et praksisfællesskab af offentlige mellemledere

19. Heidi Boye
Fødevarer og sundhed i senmodernismen
– En indsigt i hyggefænomenet og de relaterede fødevarepraksisser

20. Kristine Munkgård Pedersen
Flygtige forbindelser og midlertidige mobiliseringer
Om kulturel produktion på Roskilde Festival

21. Oliver Jacob Weber
Causes of Intercompany Harmony in Business Markets – An Empirical Investigation from a Dyad Perspective

22. Susanne Ekman
Authority and Autonomy
Paradoxes of Modern Knowledge Work

23. Anette Frey Larsen
Kvalitetsledelse på danske hospitaler
– Ledelsernes indflydelse på introduktion og vedligeholdelse af kvalitetsstrategier i det danske sundhedsvæsen

24. Toyoko Sato
Performativity and Discourse: Japanese Advertisements on the Aesthetic Education of Desire

25. Kenneth Brinch Jensen
Identifying the Last Planner System
Lean management in the construction industry

26. Javier Busquets
Orchestrating Network Behavior for Innovation

27. Luke Patey
The Power of Resistance: India’s National Oil Company and International Activism in Sudan

28. Mette Vedel
Value Creation in Triadic Business Relationships. Interaction, Interconnection and Position

29. Kristian Tørning
Knowledge Management Systems in Practice – A Work Place Study

30. Qingxin Shi
An Empirical Study of Thinking Aloud Usability Testing from a Cultural Perspective

31. Tanja Juul Christiansen
Corporate blogging: Medarbejderes kommunikative handlekraft

32. Malgorzata Ciesielska
Hybrid Organisations.
A study of the Open Source – business setting

33. Jens Dick-Nielsen
Three Essays on Corporate Bond Market Liquidity

34. Sabrina Speiermann
Modstandens Politik
Kampagnestyring i Velfærdsstaten.
En diskussion af trafikkampagners styringspotentiale

35. Julie Uldam
Fickle Commitment. Fostering political engagement in 'the flighty world of online activism’

36. Annegrete Juul Nielsen
Traveling technologies and transformations in health care

37. Athur Mühlen-Schulte
Organising Development
Power and Organisational Reform in the United Nations Development Programme

38. Louise Rygaard Jonas
Branding på butiksgulvet
Et case-studie af kultur- og identitetsarbejdet i Kvickly

2011

1. Stefan Fraenkel
Key Success Factors for Sales Force Readiness during New Product Launch
A Study of Product Launches in the Swedish Pharmaceutical Industry

2. Christian Plesner Rossing
International Transfer Pricing in Theory and Practice

3. Tobias Dam Hede
Samtalekunst og ledelsesdisciplin
– en analyse af coachingsdiskursens genealogi og governmentality

4. Kim Pettersson
Essays on Audit Quality, Auditor Choice, and Equity Valuation

5. Henrik Merkelsen
The expert-lay controversy in risk research and management. Effects of institutional distances. Studies of risk definitions, perceptions, management and communication

6. Simon S. Torp
Employee Stock Ownership:
Effect on Strategic Management and Performance

7. Mie Harder
Internal Antecedents of Management Innovation

8. Ole Helby Petersen
Public-Private Partnerships: Policy and Regulation – With Comparative and Multi-level Case Studies from Denmark and Ireland

9. Morten Krogh Petersen
'Good' Outcomes. Handling Multiplicity in Government Communication

10. Kristian Tangsgaard Hvelplund
Allocation of cognitive resources in translation - an eye-tracking and keylogging study

11. Moshe Yonatany
The Internationalization Process of Digital Service Providers

12. Anne Vestergaard
Distance and Suffering
Humanitarian Discourse in the age of Mediatization

13. Thorsten Mikkelsen
Personligsheds indflydelse på forretningsrelationer

14. Jane Thostrup Jagd
Hvorfor fortsætter fusionsbølgen udover "the tipping point"?
– en empirisk analyse af information og kognitioner om fusioner

15. Gregory Gimpel
Value-driven Adoption and Consumption of Technology: Understanding Technology Decision Making

16. Thomas Stengade Sønderskov
Den nye mulighed
Social innovation i en forretningsmæssig kontekst

17. Jeppe Christoffersen
Donor supported strategic alliances in developing countries

18. Vibeke Vad Baunsgaard
Dominant Ideological Modes of Rationality: Cross functional

integration in the process of product innovation

19. Throstur Olaf Sigurjonsson
Governance Failure and Icelands's Financial Collapse

20. Allan Sall Tang Andersen
Essays on the modeling of risks in interest-rate and inflation markets

21. Heidi Tscherning
Mobile Devices in Social Contexts

22. Birgitte Gorm Hansen
Adapting in the Knowledge Economy
Lateral Strategies for Scientists and Those Who Study Them

23. Kristina Vaarst Andersen
Optimal Levels of Embeddedness
The Contingent Value of Networked Collaboration

24. Justine Grønbæk Pors
Noisy Management
A History of Danish School Governing from 1970-2010

25. Stefan Linder
Micro-foundations of Strategic Entrepreneurship
Essays on Autonomous Strategic Action

26. Xin Li
Toward an Integrative Framework of National Competitiveness
An application to China

27. Rune Thorbjørn Clausen
Værdifuld arkitektur
Et eksplorativt studie af bygningers rolle i virksomheders værdiskabelse

28. Monica Viken
Markedsundersøkelser som bevis i varemerke- og markedsføringsrett

29. Christian Wymann
Tattooing
The Economic and Artistic Constitution of a Social Phenomenon

30. Sanne Frandsen
Productive Incoherence
A Case Study of Branding and Identity Struggles in a Low-Prestige Organization

31. Mads Stenbo Nielsen
Essays on Correlation Modelling

32. Ivan Häuser
Følelse og sprog
Etablering af en ekspressiv kategori, eksemplificeret på russisk

33. Sebastian Schwenen
Security of Supply in Electricity Markets

2012

1. Peter Holm Andreasen
The Dynamics of Procurement Management
- A Complexity Approach

2. Martin Haulrich
Data-Driven Bitext Dependency Parsing and Alignment

3. Line Kirkegaard
Konsulenten i den anden nat
En undersøgelse af det intense arbejdsliv

4. Tonny Stenheim
Decision usefulness of goodwill under IFRS

5. Morten Lind Larsen
Produktivitet, vækst og velfærd
Industrirådet og efterkrigstidens Danmark 1945 - 1958

6. Petter Berg
Cartel Damages and Cost Asymmetries

7. Lynn Kahle
Experiential Discourse in Marketing
A methodical inquiry into practice and theory

8. Anne Roelsgaard Obling
Management of Emotions in Accelerated Medical Relationships

9. Thomas Frandsen
   Managing Modularity of
   Service Processes Architecture

10. Carina Christine Skovmøller
    CSR som noget særligt
    Et casestudie om styring og menings-skabelse i relation til CSR ud fra en
    intern optik

11. Michael Tell
    Fradragsbeskæring af selskabers
    finansieringsudgifter
    En skatteretlig analyse af SEL §§ 11,
    11B og 11C

12. Morten Holm
    Customer Profitability Measurement
    Models
    Their Merits and Sophistication
    across Contexts

13. Katja Joo Dyppel
    Beskatning af derivater
    En analyse af dansk skatteret

14. Esben Anton Schultz
    Essays in Labor Economics
    Evidence from Danish Micro Data

15. Carina Risvig Hansen
    "Contracts not covered, or not fully
    covered, by the Public Sector Directive"

16. Anja Svejgaard Pors
    Iværksættelse af kommunikation
    - patientfigurer i hospitalets strategiske
    kommunikation

17. Frans Bévort
    Making sense of management with
    logics
    An ethnographic study of accountants
    who become managers

18. René Kallestrup
    The Dynamics of Bank and Sovereign
    Credit Risk

19. Brett Crawford
    Revisiting the Phenomenon of Interests
    in Organizational Institutionalism
    The Case of U.S. Chambers of
    Commerce

20. Mario Daniele Amore
    Essays on Empirical Corporate Finance

21. Arne Stjernholm Madsen
    The evolution of innovation strategy
    Studied in the context of medical
    device activities at the pharmaceutical
    company Novo Nordisk A/S in the
    period 1980-2008

22. Jacob Holm Hansen
    Is Social Integration Necessary for
    Corporate Branding?
    A study of corporate branding
    strategies at Novo Nordisk

23. Stuart Webber
    Corporate Profit Shifting and the
    Multinational Enterprise

24. Helene Ratner
    Promises of Reflexivity
    Managing and Researching
    Inclusive Schools

25. Therese Strand
    The Owners and the Power: Insights
    from Annual General Meetings

26. Robert Gavin Strand
    In Praise of Corporate Social
    Responsibility Bureaucracy

27. Nina Sormunen
    Auditor's going-concern reporting
    Reporting decision and content of the
    report

28. John Bang Mathiasen
    Learning within a product development
    working practice:
    - an understanding anchored
    in pragmatism

29. Philip Holst Riis
    Understanding Role-Oriented Enterprise
    Systems: From Vendors to Customers

30. Marie Lisa Dacanay
    Social Enterprises and the Poor
    Enhancing Social Entrepreneurship and
    Stakeholder Theory

31. Fumiko Kano Glückstad
Bridging Remote Cultures: Cross-lingual concept mapping based on the information receiver's prior-knowledge

32. Henrik Barslund Fosse
Empirical Essays in International Trade

33. Peter Alexander Albrecht
Foundational hybridity and its reproduction
Security sector reform in Sierra Leone

34. Maja Rosenstock
CSR - hvor svært kan det være?
Kulturanalytisk casestudie om udfordringer og dilemmaer med at forankre Coops CSR-strategi

35. Jeanette Rasmussen
Tweens, medier og forbrug
Et studie af 10-12 årige danske børns brug af internettet, opfattelse og forståelse af markedsføring og forbrug

36. Ib Tunby Gulbrandsen
'This page is not intended for a US Audience'
A five-act spectacle on online communication, collaboration & organization.

37. Kasper Aalling Teilmann
Interactive Approaches to Rural Development

38. Mette Mogensen
The Organization(s) of Well-being and Productivity
(Re)assembling work in the Danish Post

39. Søren Friis Møller
From Disinterestedness to Engagement
Towards Relational Leadership In the Cultural Sector

40. Nico Peter Berhausen
Management Control, Innovation and Strategic Objectives – Interactions and Convergence in Product Development Networks

41. Balder Onarheim
Creativity under Constraints
Creativity as Balancing 'Constrainedness'

42. Haoyong Zhou
Essays on Family Firms

43. Elisabeth Naima Mikkelsen
Making sense of organisational conflict
An empirical study of enacted sensemaking in everyday conflict at work

2013

1. Jacob Lyngsie
Entrepreneurship in an Organizational Context

2. Signe Groth-Brodersen
Fra ledelse til selvet
En socialpsykologisk analyse af forholdet imellem selvledelse, ledelse og stress i det moderne arbejdsliv

3. Nis Høyrup Christensen
Shaping Markets: A Neoinstitutional Analysis of the Emerging Organizational Field of Renewable Energy in China

4. Christian Edelvold Berg
As a matter of size
THE IMPORTANCE OF CRITICAL MASS AND THE CONSEQUENCES OF SCARCITY FOR TELEVISION MARKETS

5. Christine D. Isakson
Coworker Influence and Labor Mobility
Essays on Turnover, Entrepreneurship and Location Choice in the Danish Maritime Industry

6. Niels Joseph Jerne Lennon
Accounting Qualities in Practice
Rhizomatic stories of representational faithfulness, decision making and control

7. Shannon O'Donnell
Making Ensemble Possible
How special groups organize for collaborative creativity in conditions of spatial variability and distance

8. Robert W. D. Veitch
Access Decisions in a
Partly-Digital World
Comparing Digital Piracy and Legal
Modes for Film and Music

9. Marie Mathiesen
Making Strategy Work
An Organizational Ethnography

10. Arisa Shollo
The role of business intelligence in
organizational decision-making

11. Mia Kaspersen
The construction of social and
environmental reporting

12. Marcus Møller Larsen
The organizational design of offshoring

13. Mette Ohm Rørdam
EU Law on Food Naming
The prohibition against misleading
names in an internal market context

14. Hans Peter Rasmussen
GIV EN GED!
Kan giver-idealtyper forklare støtte
til velgørenhed og understøtte
relationsopbygning?

15. Ruben Schachtenhaufen
Fonetisk reduktion i dansk

16. Peter Koerver Schmidt
Dansk CFC-beskatning
I et internationalt og komparativt
perspektiv

17. Morten Froholdt
Strategi i den offentlige sektor
En kortlægning af styringsmæssig
kontekst, strategisk tilgang, samt
anvendte redskaber og teknologier for
udvalgte danske statslige styrelser

18. Annette Camilla Sjørup
Cognitive effort in metaphor translation
An eye-tracking and key-logging study

19. Tamara Stucchi
The Internationalization
of Emerging Market Firms:
A Context-Specific Study

20. Thomas Lopdrup-Hjorth
"Let's Go Outside":
The Value of Co-Creation

21. Ana Alačovska
Genre and Autonomy in Cultural
Production
The case of travel guidebook
production

22. Marius Gudmand-Høyer
Stemningssindssygdommenes historie
i det 19. århundrede
Omtydningen af melankolien og
manien som bipolære stemningslidelser
i dansk sammenhæng under hensyn til
dannelsen af det moderne følelseslivs
relative autonomi.
En problematiserings- og erfarings-
analytisk undersøgelse

23. Lichen Alex Yu
Fabricating an S&OP Process
Circulating References and Matters
of Concern

24. Esben Alfort
The Expression of a Need
Understanding search

25. Trine Pallesen
Assembling Markets for Wind Power
An Inquiry into the Making of
Market Devices

26. Anders Koed Madsen
Web-Visions
Repurposing digital traces to organize
social attention

27. Lærke Højgaard Christiansen
BREWING ORGANIZATIONAL
RESPONSES TO INSTITUTIONAL LOGICS

28. Tommy Kjær Lassen
EGENTLIG SELVLEDELSE
En ledelsesfilosofisk afhandling om
selvledelsens paradoksale dynamik og
eksistentielle engagement

29. Morten Rossing
Local Adaption and Meaning Creation in Performance Appraisal

30. Søren Obed Madsen
Lederen som oversætter
Et oversættelsesteoretisk perspektiv på strategisk arbejde

31. Thomas Høgenhaven
Open Government Communities
Does Design Affect Participation?

32. Kirstine Zinck Pedersen
Failsafe Organizing?
A Pragmatic Stance on Patient Safety

33. Anne Petersen
Hverdagslogikker i psykiatrisk arbejde
En institutionsetnografisk undersøgelse af hverdagen i psykiatriske organisationer

34. Didde Maria Humle
Fortællinger om arbejde

35. Mark Holst-Mikkelsen
Strategieksekvering i praksis
– barrierer og muligheder!

36. Malek Maalouf
Sustaining lean
Strategies for dealing with organizational paradoxes

37. Nicolaj Tofte Brenneche
Systemic Innovation In The Making
The Social Productivity of Cartographic Crisis and Transitions in the Case of SEEIT

38. Morten Gylling
The Structure of Discourse
A Corpus-Based Cross-Linguistic Study

39. Binzhang YANG
Urban Green Spaces for Quality Life
- Case Study: the landscape architecture for people in Copenhagen

40. Michael Friis Pedersen
Finance and Organization:
The Implications for Whole Farm Risk Management

41. Even Fallan
Issues on supply and demand for environmental accounting information

42. Ather Nawaz
Website user experience
A cross-cultural study of the relation between users´ cognitive style, context of use, and information architecture of local websites

43. Karin Beukel
The Determinants for Creating Valuable Inventions

44. Arjan Markus
External Knowledge Sourcing and Firm Innovation
Essays on the Micro-Foundations of Firms' Search for Innovation

2014

1. Solon Moreira
Four Essays on Technology Licensing and Firm Innovation

2. Karin Strzeletz Ivertsen
Partnership Drift in Innovation Processes
A study of the Think City electric car development

3. Kathrine Hoffmann Pii
Responsibility Flows in Patient-centred Prevention

4. Jane Bjørn Vedel
Managing Strategic Research
An empirical analysis of science-industry collaboration in a pharmaceutical company

5. Martin Gylling
Processuel strategi i organisationer
Monografi om dobbeltheden i tænkning af strategi, dels som vidensfelt i organisationsteori, dels som kunstnerisk tilgang til at skabe i erhvervsmæssig innovation

6. Linne Marie Lauesen
Corporate Social Responsibility in the Water Sector: How Material Practices and their Symbolic and Physical Meanings Form a Colonising Logic

7. Maggie Qiuzhu Mei
LEARNING TO INNOVATE: The role of ambidexterity, standard, and decision process

8. Inger Høedt-Rasmussen
Developing Identity for Lawyers Towards Sustainable Lawyering

9. Sebastian Fux
Essays on Return Predictability and Term Structure Modelling

10. Thorbjørn N. M. Lund-Poulsen
Essays on Value Based Management

11. Oana Brindusa Albu
Transparency in Organizing: A Performative Approach

12. Lena Olaison
Entrepreneurship at the limits

13. Hanne Sørum
DRESSED FOR WEB SUCCESS? An Empirical Study of Website Quality in the Public Sector

14. Lasse Folke Henriksen
Knowing networks How experts shape transnational governance

15. Maria Halbinger
Entrepreneurial Individuals Empirical Investigations into Entrepreneurial Activities of Hackers and Makers

16. Robert Spliid
Kapitalfondenes metoder og kompetencer

17. Christiane Stelling
Public-private partnerships & the need, development and management of trusting A processual and embedded exploration

18. Marta Gasparin
Management of design as a translation process

19. Kåre Moberg
Assessing the Impact of Entrepreneurship Education From ABC to PhD

20. Alexander Cole
Distant neighbors Collective learning beyond the cluster

21. Martin Møller Boje Rasmussen
Is Competitiveness a Question of Being Alike? How the United Kingdom, Germany and Denmark Came to Compete through their Knowledge Regimes from 1993 to 2007

22. Anders Ravn Sørensen
Studies in central bank legitimacy, currency and national identity Four cases from Danish monetary history

23. Nina Bellak
Can Language be Managed in International Business? Insights into Language Choice from a Case Study of Danish and Austrian Multinational Corporations (MNCs)

24. Rikke Kristine Nielsen
Global Mindset as Managerial Meta-competence and Organizational Capability: Boundary-crossing Leadership Cooperation in the MNC The Case of 'Group Mindset' in Solar A/S.

25. Rasmus Koss Hartmann
User Innovation inside government Towards a critically performative foundation for inquiry

26. Kristian Gylling Olesen
Flertydig og emergerende ledelse i folkeskolen
Et aktør-netværksteoretisk ledelses-studie af politiske evalueringsreformers betydning for ledelse i den danske folkeskole

27. Troels Riis Larsen
Kampen om Danmarks omdømme 1945-2010
Omdømmearbejde og omdømmepolitik

28. Klaus Majgaard
Jagten på autenticitet i offentlig styring

29. Ming Hua Li
Institutional Transition and Organizational Diversity:
Differentiated internationalization strategies of emerging market state-owned enterprises

30. Sofie Blinkenberg Federspiel
IT, organisation og digitalisering: Institutionelt arbejde i den kommunale digitaliseringsproces

31. Elvi Weinreich
Hvilke offentlige ledere er der brug for når velfærdstænkningen flytter sig – er Diplomuddannelsens lederprofil svaret?

32. Ellen Mølgaard Korsager
Self-conception and image of context in the growth of the firm
– A Penrosian History of Fiberline Composites

33. Else Skjold
The Daily Selection

34. Marie Louise Conradsen
The Cancer Centre That Never Was
The Organisation of Danish Cancer Research 1949-1992

35. Virgilio Failla
Three Essays on the Dynamics of Entrepreneurs in the Labor Market

36. Nicky Nedergaard
Brand-Based Innovation
Relational Perspectives on Brand Logics and Design Innovation Strategies and Implementation

37. Mads Gjedsted Nielsen
Essays in Real Estate Finance

38. Kristin Martina Brandl
Process Perspectives on Service Offshoring

39. Mia Rosa Koss Hartmann
In the gray zone
With police in making space for creativity

40. Karen Ingerslev
Healthcare Innovation under The Microscope
Framing Boundaries of Wicked Problems

41. Tim Neerup Themsen
Risk Management in large Danish public capital investment programmes

2015

1. Jakob Ion Wille
Film som design
Design af levende billeder i film og tv-serier

2. Christiane Mossin
Interzones of Law and Metaphysics
Hierarchies, Logics and Foundations of Social Order seen through the Prism of EU Social Rights

3. Thomas Tøth
TRUSTWORTHINESS: ENABLING GLOBAL COLLABORATION
An Ethnographic Study of Trust, Distance, Control, Culture and Boundary Spanning within Offshore Outsourcing of IT Services

4. Steven Højlund
Evaluation Use in Evaluation Systems – The Case of the European Commission

5. Julia Kirch Kirkegaard
AMBIGUOUS WINDS OF CHANGE – OR FIGHTING AGAINST WINDMILLS IN CHINESE WIND POWER
A CONSTRUCTIVIST INQUIRY INTO CHINA'S PRAGMATICS OF GREEN MARKETISATION MAPPING CONTROVERSIES OVER A POTENTIAL TURN TO QUALITY IN CHINESE WIND POWER

6. Michelle Carol Antero
A Multi-case Analysis of the Development of Enterprise Resource Planning Systems (ERP) Business Practices

Morten Friis-Olivarius
The Associative Nature of Creativity

7. Mathew Abraham
New Cooperativism:
A study of emerging producer organisations in India

8. Stine Hedegaard
Sustainability-Focused Identity: Identity work performed to manage, negotiate and resolve barriers and tensions that arise in the process of constructing or ganizational identity in a sustainability context

9. Cecilie Glerup
Organizing Science in Society – the conduct and justification of resposible research

10. Allan Salling Pedersen
Implementering af ITIL® IT-governance - når best practice konflikter med kulturen Løsning af implementeringsproblemer gennem anvendelse af kendte CSF i et aktionsforskningsforløb.

11. Nihat Misir
A Real Options Approach to Determining Power Prices

12. Mamdouh Medhat
MEASURING AND PRICING THE RISK OF CORPORATE FAILURES

13. Rina Hansen
Toward a Digital Strategy for Omnichannel Retailing

14. Eva Pallesen
In the rhythm of welfare creation
A relational processual investigation moving beyond the conceptual horizon of welfare management

15. Gouya Harirchi
In Search of Opportunities: Three Essays on Global Linkages for Innovation

16. Lotte Holck
Embedded Diversity: A critical ethnographic study of the structural tensions of organizing diversity

17. Jose Daniel Balarezo
Learning through Scenario Planning

18. Louise Pram Nielsen
Knowledge dissemination based on terminological ontologies. Using eye tracking to further user interface design.

19. Sofie Dam
PUBLIC-PRIVATE PARTNERSHIPS FOR INNOVATION AND SUSTAINABILITY TRANSFORMATION
An embedded, comparative case study of municipal waste management in England and Denmark

20. Ulrik Hartmyer Christiansen
Follwoing the Content of Reported Risk Across the Organization

21. Guro Refsum Sanden
Language strategies in multinational corporations. A cross-sector study of financial service companies and manufacturing companies.

22. Linn Gevoll
Designing performance management for operational level
- A closer look on the role of design choices in framing coordination and motivation

23. Frederik Larsen
Objects and Social Actions
– on Second-hand Valuation Practices

24. Thorhildur Hansdottir Jetzek
The Sustainable Value of Open Government Data
Uncovering the Generative Mechanisms of Open Data through a Mixed Methods Approach

25. Gustav Toppenberg
Innovation-based M&A
– Technological-Integration Challenges – The Case of Digital-Technology Companies

26. Mie Plotnikof
Challenges of Collaborative Governance
An Organizational Discourse Study of Public Managers' Struggles with Collaboration across the Daycare Area

27. Christian Garmann Johnsen
Who Are the Post-Bureaucrats?
A Philosophical Examination of the Creative Manager, the Authentic Leader and the Entrepreneur

28. Jacob Brogaard-Kay
Constituting Performance Management
A field study of a pharmaceutical company

29. Rasmus Ploug Jenle
Engineering Markets for Control: Integrating Wind Power into the Danish Electricity System

30. Morten Lindholst
Complex Business Negotiation: Understanding Preparation and Planning

31. Morten Grynings
TRUST AND TRANSPARENCY FROM AN ALIGNMENT PERSPECTIVE

32. Peter Andreas Norn
Byregimer og styringsevne: Politisk lederskab af store byudviklingsprojekter

33. Milan Miric
Essays on Competition, Innovation and Firm Strategy in Digital Markets

34. Sanne K. Hjordrup
The Value of Talent Management
Rethinking practice, problems and possibilities

35. Johanna Sax
Strategic Risk Management
– Analyzing Antecedents and Contingencies for Value Creation

36. Pernille Rydén
Strategic Cognition of Social Media

37. Mimmi Sjöklint
The Measurable Me
- The Influence of Self-tracking on the User Experience

38. Juan Ignacio Staricco
Towards a Fair Global Economic Regime? A critical assessment of Fair Trade through the examination of the Argentinean wine industry

39. Marie Henriette Madsen
Emerging and temporary connections in Quality work

40. Yangfeng CAO
Toward a Process Framework of Business Model Innovation in the Global Context
Entrepreneurship-Enabled Dynamic Capability of Medium-Sized Multinational Enterprises

41. Carsten Scheibye
Enactment of the Organizational Cost Structure in Value Chain Configuration
A Contribution to Strategic Cost Management

2016

1. Signe Sofie Dyrby
   Enterprise Social Media at Work

2. Dorte Boesby Dahl
   The making of the public parking attendant
   Dirt, aesthetics and inclusion in public service work

3. Verena Girschik
   Realizing Corporate Responsibility Positioning and Framing in Nascent Institutional Change

4. Anders Ørding Olsen
   IN SEARCH OF SOLUTIONS
   Inertia, Knowledge Sources and Diversity in Collaborative Problem-solving

5. Pernille Steen Pedersen
   Udkast til et nyt copingbegreb
   En kvalifikation af ledelsesmuligheder for at forebygge sygefravær ved psykiske problemer.

6. Kerli Kant Hvass
   Weaving a Path from Waste to Value: Exploring fashion industry business models and the circular economy

7. Kasper Lindskow
   Exploring Digital News Publishing Business Models – a production network approach

8. Mikkel Mouritz Marfelt
   The chameleon workforce:
   Assembling and negotiating the content of a workforce

9. Marianne Bertelsen
   Aesthetic encounters
   Rethinking autonomy, space & time in today's world of art

10. Louise Hauberg Wilhelmsen
    EU PERSPECTIVES ON INTERNATIONAL COMMERCIAL ARBITRATION

11. Abid Hussain
    On the Design, Development and Use of the Social Data Analytics Tool (SODATO): Design Propositions, Patterns, and Principles for Big Social Data Analytics

12. Mark Bruun
    Essays on Earnings Predictability

13. Tor Bøe-Lillegraven
    BUSINESS PARADOXES, BLACK BOXES, AND BIG DATA: BEYOND ORGANIZATIONAL AMBIDEXTERITY

14. Hadis Khonsary-Atighi
    ECONOMIC DETERMINANTS OF DOMESTIC INVESTMENT IN AN OIL-BASED ECONOMY: THE CASE OF IRAN (1965-2010)

15. Maj Lervad Grasten
    Rule of Law or Rule by Lawyers?
    On the Politics of Translation in Global Governance

16. Lene Granzau Juel-Jacobsen
    SUPERMARKEDETS MODUS OPERANDI – en hverdagssociologisk undersøgelse af forholdet mellem rum og handlen og understøtte relationsopbygning?

17. Christine Thalsgård Henriques
    In search of entrepreneurial learning – Towards a relational perspective on incubating practices?

18. Patrick Bennett
    Essays in Education, Crime, and Job Displacement

19. Søren Korsgaard
    Payments and Central Bank Policy

20. Marie Kruse Skibsted
    Empirical Essays in Economics of Education and Labor

21. Elizabeth Benedict Christensen
    The Constantly Contingent Sense of Belonging of the 1.5 Generation Undocumented Youth
    An Everyday Perspective

22. Lasse J. Jessen
Essays on Discounting Behavior and Gambling Behavior

23. Kalle Johannes Rose
Når stifterviljen dør…
Et retsøkonomisk bidrag til 200 års juridisk konflikt om ejendomsretten

24. Andreas Søeborg Kirkedal
Danish Stød and Automatic Speech Recognition

25. Ida Lunde Jørgensen
Institutions and Legitimations in Finance for the Arts

26. Olga Rykov Ibsen
An empirical cross-linguistic study of directives: A semiotic approach to the sentence forms chosen by British, Danish and Russian speakers in native and ELF contexts

27. Desi Volker
Understanding Interest Rate Volatility

28. Angeli Elizabeth Weller
Practice at the Boundaries of Business Ethics & Corporate Social Responsibility

29. Ida Danneskiold-Samsøe
Levende læring i kunstneriske organisationer
En undersøgelse af læringsprocesser mellem projekt og organisation på Aarhus Teater

30. Leif Christensen
Quality of information – The role of internal controls and materiality

31. Olga Zarzecka
Tie Content in Professional Networks

32. Henrik Mahncke
De store gaver
- Filantropiens gensidighedsrelationer i teori og praksis

33. Carsten Lund Pedersen
Using the Collective Wisdom of Frontline Employees in Strategic Issue Management

34. Yun Liu
Essays on Market Design

35. Denitsa Hazarbassanova Blagoeva
The Internationalisation of Service Firms

36. Manya Jaura Lind
Capability development in an off-shoring context: How, why and by whom

37. Luis R. Boscán F.
Essays on the Design of Contracts and Markets for Power System Flexibility

38. Andreas Philipp Distel
Capabilities for Strategic Adaptation: Micro-Foundations, Organizational Conditions, and Performance Implications

39. Lavinia Bleoca
The Usefulness of Innovation and Intellectual Capital in Business Performance: The Financial Effects of Knowledge Management vs. Disclosure

40. Henrik Jensen
Economic Organization and Imperfect Managerial Knowledge: A Study of the Role of Managerial Meta-Knowledge in the Management of Distributed Knowledge

41. Stine Mosekjær
The Understanding of English Emotion Words by Chinese and Japanese Speakers of English as a Lingua Franca
An Empirical Study

42. Hallur Tor Sigurdarson
The Ministry of Desire - Anxiety and entrepreneurship in a bureaucracy

43. Kätlin Pulk
Making Time While Being in Time
A study of the temporality of organizational processes

44. Valeria Giacomin
Contextualizing the cluster Palm oil in Southeast Asia in global perspective (1880s–1970s)

45. Jeanette Willert
Managers' use of multiple Management Control Systems: The role and interplay of management control systems and company performance

46. Mads Vestergaard Jensen
Financial Frictions: Implications for Early Option Exercise and Realized Volatility

47. Mikael Reimer Jensen
Interbank Markets and Frictions

48. Benjamin Faigen
Essays on Employee Ownership

49. Adela Michea
Enacting Business Models
An Ethnographic Study of an Emerging Business Model Innovation within the Frame of a Manufacturing Company.

50. Iben Sandal Stjerne
Transcending organization in temporary systems
Aesthetics' organizing work and employment in Creative Industries

51. Simon Krogh
Anticipating Organizational Change

52. Sarah Netter
Exploring the Sharing Economy

53. Lene Tolstrup Christensen
State-owned enterprises as institutional market actors in the marketization of public service provision:
A comparative case study of Danish and Swedish passenger rail 1990–2015

54. Kyoung(Kay) Sun Park
Three Essays on Financial Economics

2017

1. Mari Bjerck
Apparel at work. Work uniforms and women in male-dominated manual occupations.

2. Christoph H. Flöthmann
Who Manages Our Supply Chains? Backgrounds, Competencies and Contributions of Human Resources in Supply Chain Management

3. Aleksandra Anna Rzeźnik
Essays in Empirical Asset Pricing

4. Claes Bäckman
Essays on Housing Markets

5. Kirsti Reitan Andersen
Stabilizing Sustainability
in the Textile and Fashion Industry

6. Kira Hoffmann
Cost Behavior: An Empirical Analysis of Determinants and Consequences of Asymmetries

7. Tobin Hanspal
Essays in Household Finance

8. Nina Lange
Correlation in Energy Markets

9. Anjum Fayyaz
Donor Interventions and SME Networking in Industrial Clusters in Punjab Province, Pakistan

10. Magnus Paulsen Hansen
Trying the unemployed. Justification and critique, emancipation and coercion towards the 'active society'. A study of contemporary reforms in France and Denmark

11. Sameer Azizi
Corporate Social Responsibility in Afghanistan
– a critical case study of the mobile telecommunications industry

12. Malene Myhre
The internationalization of small and medium-sized enterprises:
A qualitative study

13. Thomas Presskorn-Thygesen
The Significance of Normativity – Studies in Post-Kantian Philosophy and Social Theory

14. Federico Clementi
Essays on multinational production and international trade

15. Lara Anne Hale
Experimental Standards in Sustainability Transitions: Insights from the Building Sector

16. Richard Pucci
Accounting for Financial Instruments in an Uncertain World
Controversies in IFRS in the Aftermath of the 2008 Financial Crisis

17. Sarah Maria Denta
Kommunale offentlige private partnerskaber
Regulering I skyggen af Farumsagen

18. Christian Östlund
Design for e-training

19. Amalie Martinus Hauge
Organizing Valuations – a pragmatic inquiry

20. Tim Holst Celik
Tension-filled Governance? Exploring the Emergence, Consolidation and Reconfiguration of Legitimatory and Fiscal State-crafting

21. Christian Bason
Leading Public Design: How managers engage with design to transform public governance

22. Davide Tomio
Essays on Arbitrage and Market Liquidity

23. Simone Stæhr
Financial Analysts' Forecasts
Behavioral Aspects and the Impact of Personal Characteristics

24. Mikkel Godt Gregersen
Management Control, Intrinsic Motivation and Creativity
– How Can They Coexist

25. Kristjan Johannes Suse Jespersen
Advancing the Payments for Ecosystem Service Discourse Through Institutional Theory

26. Kristian Bondo Hansen
Crowds and Speculation: A study of crowd phenomena in the U.S. financial markets 1890 to 1940

27. Lars Balslev
Actors and practices – An institutional study on management accounting change in Air Greenland

28. Sven Klingler
Essays on Asset Pricing with Financial Frictions

29. Klement Ahrensbach Rasmussen
Business Model Innovation
The Role of Organizational Design

30. Giulio Zichella
Entrepreneurial Cognition.
Three essays on entrepreneurial behavior and cognition under risk and uncertainty

31. Richard Ledborg Hansen
En forkærlighed til det eksisterende – mellemlederens oplevelse af forandringsmodstand i organisatoriske forandringer

32. Vilhelm Stefan Holsting
Militært chefvirke: Kritik og retfærdiggørelse mellem politik og profession

33. Thomas Jensen
Shipping Information Pipeline: An information infrastructure to improve international containerized shipping

34. Dzmitry Bartalevich
Do economic theories inform policy? Analysis of the influence of the Chicago School on European Union competition policy

35. Kristian Roed Nielsen
Crowdfunding for Sustainability: A study on the potential of reward-based crowdfunding in supporting sustainable entrepreneurship

36. Emil Husted
There is always an alternative: A study of control and commitment in political organization

37. Anders Ludvig Sevelsted
Interpreting Bonds and Boundaries of Obligation. A genealogy of the emergence and development of Protestant voluntary social work in Denmark as shown through the cases of the Copenhagen Home Mission and the Blue Cross (1850 – 1950)

38. Niklas Kohl
Essays on Stock Issuance

39. Maya Christiane Flensborg Jensen
BOUNDARIES OF PROFESSIONALIZATION AT WORK
An ethnography-inspired study of care workers' dilemmas at the margin

40. Andreas Kamstrup
Crowdsourcing and the Architectural Competition as Organisational Technologies

41. Louise Lyngfeldt Gorm Hansen
Triggering Earthquakes in Science, Politics and Chinese Hydropower - A Controversy Study

2018

1. Vishv Priya Kohli
Combatting Falsification and Counterfeiting of Medicinal Products in the European Union – A Legal Analysis

2. Helle Haurum
Customer Engagement Behavior in the context of Continuous Service Relationships

3. Nis Grünberg
The Party -state order: Essays on China's political organization and political economic institutions

4. Jesper Christensen
A Behavioral Theory of Human Capital Integration

5. Poula Marie Helth
Learning in practice

6. Rasmus Vendler Toft-Kehler
Entrepreneurship as a career? An investigation of the relationship between entrepreneurial experience and entrepreneurial outcome

7. Szymon Furtak
Sensing the Future: Designing sensor-based predictive information systems for forecasting spare part demand for diesel engines

8. Mette Brehm Johansen
Organizing patient involvement. An ethnographic study

9. Iwona Sulinska
Complexities of Social Capital in Boards of Directors

10. Cecilie Fanøe Petersen
Award of public contracts as a means to conferring State aid: A legal analysis of the interface between public procurement law and State aid law

11. Ahmad Ahmad Barirani
Three Experimental Studies on Entrepreneurship

12. Carsten Allerslev Olsen
Financial Reporting Enforcement: Impact and Consequences

13. Irene Christensen
New product fumbles – Organizing for the Ramp-up process

14. Jacob Taarup-Esbensen
Managing communities – Mining MNEs' community risk management practices

15. Lester Allan Lasrado
Set-Theoretic approach to maturity models

16. Mia B. Münster
Intention vs. Perception of Designed Atmospheres in Fashion Stores

17. Anne Sluhan
Non-Financial Dimensions of Family Firm Ownership: How Socioemotional Wealth and Familiness Influence Internationalization

18. Henrik Yde Andersen
Essays on Debt and Pensions

19. Fabian Heinrich Müller
Valuation Reversed – When Valuators are Valuated. An Analysis of the Perception of and Reaction to Reviewers in Fine-Dining

20. Martin Jarmatz
Organizing for Pricing

21. Niels Joachim Christfort Gormsen
Essays on Empirical Asset Pricing

22. Diego Zunino
Socio-Cognitive Perspectives in Business Venturing

23. Benjamin Asmussen
Networks and Faces between Copenhagen and Canton, 1730-1840

24. Dalia Bagdziunaite
Brains at Brand Touchpoints
A Consumer Neuroscience Study of Information Processing of Brand Advertisements and the Store Environment in Compulsive Buying

25. Erol Kazan
Towards a Disruptive Digital Platform Model

26. Andreas Bang Nielsen
Essays on Foreign Exchange and Credit Risk

27. Anne Krebs
Accountable, Operable Knowledge Toward Value Representations of Individual Knowledge in Accounting

28. Matilde Fogh Kirkegaard
A firm- and demand-side perspective on behavioral strategy for value creation: Insights from the hearing aid industry

29. Agnieszka Nowinska
SHIPS AND RELATION-SHIPS
Tie formation in the sector of shipping intermediaries in shipping

30. Stine Evald Bentsen
The Comprehension of English Texts by Native Speakers of English and Japanese, Chinese and Russian Speakers of English as a Lingua Franca. An Empirical Study.

31. Stine Louise Daetz
Essays on Financial Frictions in Lending Markets

32. *Christian Skov Jensen*
Essays on Asset Pricing

33. Anders Kryger
Aligning future employee action and corporate strategy in a resource-scarce environment

34. Maitane Elorriaga-Rubio
The behavioral foundations of strategic decision-making: A contextual perspective

35. Roddy Walker
Leadership Development as Organisational Rehabilitation: Shaping Middle-Managers as Double Agents

36. Jinsun Bae
Producing Garments for Global Markets Corporate social responsibility (CSR) in Myanmar's export garment industry 2011–2015

37. Queralt Prat-i-Pubill
Axiological knowledge in a knowledge driven world. Considerations for organizations.

38. Pia Mølgaard
Essays on Corporate Loans and Credit Risk

39. Marzia Aricò
Service Design as a Transformative Force: Introduction and Adoption in an Organizational Context

40. Christian Dyrlund Wåhlin-Jacobsen
Constructing change initiatives in workplace voice activities Studies from a social interaction perspective

41. Peter Kalum Schou
Institutional Logics in Entrepreneurial Ventures: How Competing Logics arise and shape organizational processes and outcomes during scale-up

42. Per Henriksen
Enterprise Risk Management Rationaler og paradokser i en moderne ledelsesteknologi

43. Maximilian Schellmann
The Politics of Organizing Refugee Camps

44. Jacob Halvas Bjerre
Excluding the Jews: The Aryanization of Danish-German Trade and German Anti-Jewish Policy in Denmark 1937-1943

45. Ida Schrøder
Hybridising accounting and caring: A symmetrical study of how costs and needs are connected in Danish child protection work

46. Katrine Kunst
Electronic Word of Behavior: Transforming digital traces of consumer behaviors into communicative content in product design

47. Viktor Avlonitis
Essays on the role of modularity in management: Towards a unified perspective of modular and integral design

48. Anne Sofie Fischer
Negotiating Spaces of Everyday Politics:
-An ethnographic study of organizing for social transformation for women in urban poverty, Delhi, India

2019

1. Shihan Du
   ESSAYS IN EMPIRICAL STUDIES BASED ON ADMINISTRATIVE LABOUR MARKET DATA

2. Mart Laatsit
   Policy learning in innovation policy: A comparative analysis of European Union member states

3. Peter J. Wynne
   Proactively Building Capabilities for the Post-Acquisition Integration of Information Systems

4. Kalina S. Staykova
   Generative Mechanisms for Digital Platform Ecosystem Evolution

5. Ieva Linkeviciute
   Essays on the Demand-Side Management in Electricity Markets

6. Jonatan Echebarria Fernández
   Jurisdiction and Arbitration Agreements in Contracts for the Carriage of Goods by Sea – Limitations on Party Autonomy

7. Louise Thorn Bøttkjær
   Votes for sale. Essays on clientelism in new democracies.

8. Ditte Vilstrup Holm
   The Poetics of Participation: the organizing of participation in contemporary art

9. Philip Rosenbaum
   Essays in Labor Markets – Gender, Fertility and Education

10. Mia Olsen
    Mobile Betalinger - Succesfaktorer og Adfærdsmæssige Konsekvenser

11. Adrián Luis Mérida Gutiérrez
    Entrepreneurial Careers: Determinants, Trajectories, and Outcomes

12. Frederik Regli
    Essays on Crude Oil Tanker Markets

13. Cancan Wang
    Becoming Adaptive through Social Media: Transforming Governance and Organizational Form in Collaborative E-government

14. Lena Lindbjerg Sperling
    Economic and Cultural Development: Empirical Studies of Micro-level Data

15. Xia Zhang
    Obligation, face and facework: An empirical study of the communicative act of cancellation of an obligation by Chinese, Danish and British business professionals in both L1 and ELF contexts

16. Stefan Kirkegaard Sløk-Madsen
    Entrepreneurial Judgment and Commercialization

17. Erin Leitheiser
    The Comparative Dynamics of Private Governance
    The case of the Bangladesh Ready-Made Garment Industry

18. Lone Christensen
    STRATEGIIMPLEMENTERING: STYRINGSBESTRÆBELSER, IDENTITET OG AFFEKT

19. Thomas Kjær Poulsen
    Essays on Asset Pricing with Financial Frictions

20. Maria Lundberg
    Trust and self-trust in leadership identity constructions: A qualitative exploration of narrative ecology in the discursive aftermath of heroic discourse

21. Tina Joanes
Sufficiency for sustainability
Determinants and strategies for reducing clothing consumption

22. Benjamin Johannes Flesch
Social Set Visualizer (SoSeVi): Design, Development and Evaluation of a Visual Analytics Tool for Computational Set Analysis of Big Social Data

23. Henriette Sophia Groskopff Tvede Schleimann
Creating innovation through collaboration – Partnering in the maritime sector

24. Kristian Steensen Nielsen
The Role of Self-Regulation in Environmental Behavior Change

25. Lydia L. Jørgensen
Moving Organizational Atmospheres

26. Theodor Lucian Vladasel
Embracing Heterogeneity: Essays in Entrepreneurship and Human Capital

27. Seidi Suurmets
Contextual Effects in Consumer Research: An Investigation of Consumer Information Processing and Behavior via the Applicati on of Eye-tracking Methodology

28. Marie Sundby Palle Nickelsen
Reformer mellem integritet og innovation: Reform af reformens form i den danske centraladministration fra 1920 til 2019

29. Vibeke Kristine Scheller
The temporal organizing of same-day discharge: A tempography of a Cardiac Day Unit

30. Qian Sun
Adopting Artificial Intelligence in Healthcare in the Digital Age: Perceived Challenges, Frame Incongruence, and Social Power

31. Dorthe Thorning Mejlhede
Artful change agency and organizing for innovation – the case of a Nordic fintech cooperative

32. Benjamin Christoffersen
Corporate Default Models:
Empirical Evidence and Methodical Contributions

33. Filipe Antonio Bonito Vieira
Essays on Pensions and Fiscal Sustainability

34. Morten Nicklas Bigler Jensen
Earnings Management in Private Firms: An Empirical Analysis of Determinants and Consequences of Earnings Management in Private Firms

2020

1. Christian Hendriksen
Inside the Blue Box: Explaining industry influence in the International Maritime Organization

2. Vasileios Kosmas
Environmental and social issues in global supply chains:
Emission reduction in the maritime transport industry and maritime search and rescue operational response to migration

3. Thorben Peter Simonsen
The spatial organization of psychiatric practice: A situated inquiry into 'healing architecture'

4. Signe Bruskin
The infinite storm: An ethnographic study of organizational change in a bank

5. Rasmus Corlin Christensen
Politics and Professionals: Transnational Struggles to Change International Taxation

6. Robert Lorenz Törmer
The Architectural Enablement of a Digital Platform Strategy

7. Anna Kirkebæk Johansson Gosovic
Ethics as Practice: An ethnographic study of business ethics in a multinational biopharmaceutical company

8. Frank Meier
Making up leaders in leadership development

9. Kai Basner
Servitization at work: On proliferation and containment

10. Anestis Keremis
Anti-corruption in action: How is anti-corruption practiced in multinational companies?

11. Marie Larsen Ryberg
Governing Interdisciolinarity: Stakes and translations of interdisciplinarity in Danish high school education.

12. Jannick Friis Christensen
Queering organisation(s): Norm-critical orientations to organising and researching diversity

13. Thorsteinn Sigurdur Sveinsson
Essays on Macroeconomic Implications of Demographic Change

14. Catherine Casler
Reconstruction in strategy and organization: For a pragmatic stance

15. Luisa Murphy
Revisiting the standard organization of multi-stakeholder initiatives (MSIs): The case of a meta-MSI in Southeast Asia

16. Friedrich Bergmann
Essays on International Trade

17. Nicholas Haagensen
European Legal Networks in Crisis: The Legal Construction of Economic Policy

18. Charlotte Biil
Samskabelse med en sommerfugle-model: Hybrid ret i forbindelse med et partnerskabsprojekt mellem 100 selvejende daginstitutioner, deres paraplyorganisation, tre kommuner og CBS

19. Andreas Dimmelmeier
The Role of Economic Ideas in Sustainable Finance: From Paradigms to Policy

20. Maibrith Kempka Jensen
Ledelse og autoritet i interaktion - En interaktionsbaseret undersøgelse af autoritet i ledelse i praksis

21. Thomas Burø
LAND OF LIGHT: Assembling the Ecology of Culture in Odsherred 2000-2018

22. Prins Marcus Valiant Lantz
Timely Emotion: The Rhetorical Framing of Strategic Decision Making

23. Thorbjørn Vittenhof Fejerskov
Fra værdi til invitationer - offentlig værdiskabelse gennem affekt, potentialitet og begivenhed

24. Lea Acre Foverskov
Demographic Change and Employment: Path dependencies and institutional logics in the European Commission

25. Anirudh Agrawal
A Doctoral Dissertation

26. Julie Marx
Households in the housing market

27. Hadar Gafni
Alternative Digital Methods of Providing Entrepreneurial Finance

28. Mathilde Hjerrild Carlsen
Ledelse af engagementer: En undersøgelse af samarbejde mellem folkeskoler og virksomheder i Danmark

29. Suen Wang
Essays on the Gendered Origins and Implications of Social Policies in the Developing World

30. Stine Hald Larsen
The Story of the Relative: A Systems-Theoretical Analysis of the Role of the Relative in Danish Eldercare Policy from 1930 to 2020

31. Christian Casper Hofma
Immersive technologies and organizational routines: When head-mounted displays meet organizational routines

32. Jonathan Feddersen
The temporal emergence of social relations: An event-based perspective of organising

33. Nageswaran Vaidyanathan
ENRICHING RETAIL CUSTOMER EXPERIENCE USING AUGMENTED REALITY

2021

1. Vanya Rusinova
The Determinants of Firms' Engagement in Corporate Social Responsibility: Evidence from Natural Experiments

2. Lívia Lopes Barakat
Knowledge management mechanisms at MNCs:
The enhancing effect of absorptive capacity and its effects on performance and innovation

3. Søren Bundgaard Brøgger
Essays on Modern Derivatives Markets

4. Martin Friis Nielsen
Consuming Memory: Towards a conceptualization of social media platforms as organizational technologies of consumption

05. Fei Liu
Emergent Technology Use in Consumer Decision Journeys: A Process-as-Propensity Approach

06. Jakob Rømer Barfod
Ledelse i militære højrisikoteams

07. Elham Shafiei Gol
Creative Crowdwork Arrangements

08. Árni Jóhan Petersen
Collective Imaginary as (Residual) Fantasy: A Case Study of the Faroese Oil Bonanza

09. Søren Bering
"Manufacturing, Forward Integration and Governance Strategy"

10. Lars Oehler
Technological Change and the Decomposition of Innovation:
Choices and Consequences for Latecomer Firm Upgrading: The Case of China's Wind Energy Sector

11. Lise Dahl Arvedsen
Leadership in interaction in a virtual context:
A study of the role of leadership processes in a complex context, and how such processes are accomplished in practice

12. Jacob Emil Jeppesen
Essays on Knowledge networks, scientific impact and new knowledge adoption

13. Kasper Ingeman Beck
Essays on Chinese State-Owned Enterprises:
Reform, Corporate Governance and Subnational Diversity

14. Sönnich Dahl Sönnichsen
Exploring the interface between public demand and private supply for implementation of circular economy principles

15. Benjamin Knox
Essays on Financial Markets and Monetary Policy

16. Anita Eskesen
    Essays on Utility Regulation:
    Evaluating Negotiation-Based Approaches
    inthe Context of Danish Utility Regulation

17. Agnes Guenther
    Essays on Firm Strategy and Human
    Capital

18. Sophie Marie Cappelen
    Walking on Eggshells: The balancing act
    of temporal work in a setting of culinary
    change

19. Manar Saleh Alnamlah
    About Gender Gaps in Entrepreneurial
    Finance

20. Kirsten Tangaa Nielsen
    Essays on the Value of CEOs and Directors

TITLER I ATV PH.D.-SERIEN

1992
1. Niels Kornum
Servicesamkørsel – organisation, økonomi og planlægningsmetode

1995
2. Verner Worm
Nordiske virksomheder i Kina
Kulturspecifikke interaktionsrelationer ved nordiske virksomhedsetableringer i Kina

1999
3. Mogens Bjerre
Key Account Management of Complex Strategic Relationships
An Empirical Study of the Fast Moving Consumer Goods Industry

2000
4. Lotte Darsø
Innovation in the Making
Interaction Research with heterogeneous Groups of Knowledge Workers creating new Knowledge and new Leads

2001
5. Peter Hobolt Jensen
Managing Strategic Design Identities
The case of the Lego Developer Network

2002
6. Peter Lohmann
The Deleuzian Other of Organizational Change – Moving Perspectives of the Human

7. Anne Marie Jess Hansen
To lead from a distance: The dynamic interplay between strategy and strategizing – A case study of the strategic management process

2003
8. Lotte Henriksen
Videndeling
– om organisatoriske og ledelsesmæssige udfordringer ved videndeling i praksis

9. Niels Christian Nickelsen
Arrangements of Knowing: Coordinating Procedures Tools and Bodies in Industrial Production – a case study of the collective making of new products

2005
10. Carsten Ørts Hansen
Konstruktion af ledelsesteknologier og effektivitet

TITLER I DBA PH.D.-SERIEN

2007
1. Peter Kastrup-Misir
Endeavoring to Understand Market Orientation – and the concomitant co-mutation of the researched, the re searcher, the research itself and the truth

2009
1. Torkild Leo Thellefsen
Fundamental Signs and Significance effects
A Semeiotic outline of Fundamental Signs, Significance-effects, Knowledge Profiling and their use in Knowledge Organization and Branding

2. Daniel Ronzani
When Bits Learn to Walk Don't Make Them Trip. Technological Innovation and the Role of Regulation by Law in Information Systems Research: the Case of Radio Frequency Identification (RFID)

2010
1. Alexander Carnera
Magten over livet og livet som magt
Studier i den biopolitiske ambivalens