HOW DOES A CEO'S ORIGIN AFFECT THEIR JOB MOBILITY AND POST-SUCCESSION ORGANISATIONAL PERFORMANCE

By

XANTHE TOWNEND

Submitted in accordance with the requirements for the degree of
Doctorate of Philosophy

The University of Leeds
Leeds University Business School
Accounting and Finance Division

October 2020

The candidate confirms that the work submitted is her own and that appropriate credit has been given where reference has been made to the work of others.

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Acknowledgements

I would like to thank my supervisors. Gianluca Veronesi, Ian Kirkpatrick and Ali Altanlar for their support and guidance over the period this research has taken. I would also like to thank my family who have put up with several years of my studying.

Abstract

This thesis presents my contribution to the three main topics of CEO succession research: the antecedents of succession, the selection of a new CEO, and the impact a new CEO has on post-succession organisational performance, all through the unique lens of social capital theory. Using the English NHS as a case study, I test the theories of succession from the private sector in a new context, that of large and complex public sector organisations. I find that internal social capital, as proxied by CEO insiderness and reputational social capital, as proxied by organisational performance, are important factors in determining both length of tenure and exit destination for those CEOs who leave their posts. I find that the selection of a new CEO has a non-linear relationship with performance such that trusts with both high and low baseline performance will appoint a CEO with higher insider social capital, but that this does not hold when reputational social capital is used. Finally, I find evidence to support both the disruptive and adaptive theories of CEO succession when the baseline performance of the trust is taken into account as a contingency factor.

My thesis makes several valuable contributions to the research area in terms of the scarcely used lens of social capital theory applied to CEO successions, extending the evidence base from the predominantly private sector research, methodological advancements for antecedents research by focusing on actual exits rather than intention to leave and the inclusion of exit destinations linked to social standing.

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Abbreviations

A&E	Accident & Emergency
CCG	Clinical Commissioning Group
CEO	Chief Executive Officer
DHSC	Department of Health & Social Care
FT	Foundation Trust
HHI	Herfindahl-Hirschman Index
HSMR	Hospital Standardised Mortality Ratio
ICS	Integrated Care System
MFF	Market Forces Factor
MRSA	Methicillin-Resistant Staphylococcus Aureus
NHS	National Health Service
NPM	New Public Management
RCI	Reference Cost Index
SHA	Strategic Health Authority
SHMI	Standardised Hospital Mortality Indicator
STP	Sustainability and Transformation Partnership
TMT	Top Management Team
UK	United Kingdom
USA	United States of America

Chapter 1: Introduction

1.1   Introduction

This chapter provides an introduction to my research area and signposts to the rest of the thesis. It provides the objectives and motivations for my research and the contributions stemming from it. The main purpose for my research is to explore how important social capital is when looking at Chief Executive Officer (CEO) successions. This encompasses social capital in the context of the antecedents of succession, the choice of a successor, and the impact the successor has on organisational performance. Each of these three scenarios is explored in separate empirical chapters. The English National Health Service (NHS) is used as a case study for this research, a unique context to compare against the more common private sector organisations used in most previous studies and the limited research from the English public sector.

The structure of the rest of this chapter is as follows. Section 1.2 covers the motivations for my research. Section 1.3 covers the contribution my research makes to the extant literature. Section 1.4 provides an overview of the NHS as the case study context used throughout. Section 1.5 provides a brief summary of the results from each of the three empirical chapters. The structure of the rest of the thesis is provided in section 1.6.

1.2   Motivations for this research

The primary motivation for my research is to apply the lens of social capital theory to the field of CEO succession research. The definition of social capital used throughout is that provided by Adler and Kwon (2002) which states that social capital is '*the goodwill available to individuals or groups'* (pg. 23). Social capital has received relatively little attention in the extant literature for CEO successions yet seems an obvious and valid explanatory variable for why some CEOs leave their roles sooner than others, why some CEOs are more attractive to recruiting organisations than others, and why

some CEOs are more successful than others. Social capital has been explicitly referenced as a reason to help explain why some people are more successful than others (Adler and Kwon, 2002) so it is surprising that it has received so little attention from scholars.

Within the extant literature on CEO successions there is a stream focused on human capital theory as an explanation for the relationships observed between CEOs, tenure, selection and organisational performance. This makes the assumption that human capital is inherent in the possession of certain types of career history such as previous CEO experience (Elsaid, Benson, and Worrell, 2016; Hamori and Koyuncu, 2015; Desai, Lockett, and Paton, 2015), inside-industry experience (Bailey and Helfat, 2003; Harris and Helfat, 1997; Phan and Lee, 1995), and education level (Phan and Lee, 1995). There is another stream of CEO successions literature focused on social capital as an explanatory theory. Whilst human capital is accumulated through investment in personal attributes, social capital is accumulated through investment in social networks (Sauerwald et al., 2016). In reality, a CEO might be expected to hold a combination of both human and social capital (Fitzsimmons and Callan, 2016) yet there are very few studies taking a dual approach to these concepts.

Within the context of my research I use two proxies for CEO social capital. The first, insider status, assumes that a CEO who worked in the organisation immediately prior to being appointed its CEO has accumulated internal social capital. The second uses the organisational performance of their current or previous organisation to indicate whether a CEO has reputational social capital. CEO insider status as a proxy for social capital builds on the approach used in the extant literature whereby insiderness and board membership are assumed to equate to having social capital (Phan and Lee, 1995). Other proxies include the number of ties a CEO has with others (Kim and Cannella, 2008) and inclusion on 'best CEO' lists (Schepker and Barker, 2018). These proxies all make the assumption that having a connection with others, or having the opportunity to connect with others, will equate to holding social capital. My proxy of insider status assumes that being an insider will expose a person to those same social networks and thus will

imbue them with the same social capital. This assumption is in line with proxies used elsewhere whereby social capital is assumed to be present simply by virtue of having attended an Ivy League school (Schepker and Barker, 2018).

My second proxy makes the assumption that having a good track record of performance will give a CEO reputational social capital through their perceived superior managerial ability. Managerial ability has been proxied in the literature by both previous organisational performance (Wangrow et al., 2017; Fee and Hadlock, 2003, Cannella et al., 2002) and previous CEO experience (Murphy and Zabojnik, 2007). Having superior perceived managerial ability will confer prestige or status on an individual which, according to Johnson et al (2012) is a type of social capital.

Implicit in the use of social capital in the wider literature is the assumption that capital is accumulated over time as a consequence of participation in social networks (Haynes and Hillman, 2010). My proxies make no allowance for time. Insider status is a binary variable which ignores the length of time a CEO was an insider before becoming CEO. This is a recognised caveat to my research and adding in a time element is suggested as a potential avenue for future research. However, my operationalisation of the insider concept is commensurate with the literature for both social capital theory, where insider is a binary variable (Phan and Lee, 1995) and human capital theory, where experience is a binary variable (Hamori and Koyuncu, 2015; Bailey and Helfat, 2003), which could arguably also be thought to be time-dependent (Adler and Kwon, 2002).

A second motivation is the lack of research using public sector organisations. Despite a large body of academic literature looking at CEO successions in the private sector, there remains a limited number of comparable studies using the public sector as a case study, particularly in the UK. What public sector research does exist tends to focus on smaller organisational forms such as schools (Grissom and Andersen, 2012; Grissom and Mitani, 2016) rather than larger and more complex organisations with limited exceptions such as the work of Boyne et al. (2011a; 2011b; 2010a; 2010b; 2008) using English local authorities and the civil service. The NHS, along with the rest of

the UK public sector, has been subjected to New Public Management (NPM) reforms which have brought them closer to the structures and functions of the private sector, yet they remain non-profit seeking, thus the drivers in the public sector can be very different to those of the private sector. For this reason, although there may be commonalities with the theoretical arguments applied to the private sector, the public sector has marked differences which render it worthy of separate research. This can help determine whether the theories from the private sector are applicable to the public sector (Boyne et al., 2010b).

1.3   Research contribution

This section discusses the contribution my research has made to the extant literature and future policy making. My research makes an original contribution to the literature in several ways. Firstly, it is, to the best of my knowledge, one of very few CEO succession studies to explicitly use the lens of social capital theory. This provides a unique insight into the factors that may affect a CEO's tenure, their attractiveness to new employers, and their ability to effect change once in a new role (Cao et al., 2006).

Secondly, although there is a large body of literature looking at CEO successions, there are still unanswered questions about why CEOs leave, how new CEOs are selected, their impact on organisational performance, and what effect their reputational social capital has on their performance and the likelihood of selection to a CEO post. Specifically, there seems to be no research that factors in a CEO's reputational social capital in terms of their current or previous organisations' performance, other than in literature using sports teams as a case study (Grusky, 1963; Gamson and Scotch, 1964; Wangrow et al., 2018). However, sports teams are generally thought not to be comparable to private sector organisations due to the significant differences in organisational form (Day and Lord, 1988) and because sport, unlike business, is a zero sum game (Gammelsæter, 2013).

Thirdly, I use the NHS as a case study, a context which has been largely ignored in CEO succession research to date, with the exception of a recent paper on the impact of CEO successions in the NHS (Janke et al., 2018).

This provides valuable insights into the public sector and allows for theories from private sector succession research to be tested in a different setting. By testing hypotheses in this new context it helps broaden the applicability of theories thus far only tested in the private sector and thus adds to the richness of evidence available (Rowe et al., 2005).

Fourthly, for the antecedents chapter, I go beyond the exit destination definitions used so far in existing succession research and thus provide greater granularity whilst also linking them to the social capital agenda. My research into the antecedents of CEO turnover is unique in that it uses exit destinations which are designated as social capital enhancing, diminishing or neutral. The destinations considered to enhance a person's social capital were CEO roles in another trust and roles in the private sector. The destinations considered to diminish a person's social capital were self-employment/unemployment and non-CEO posts elsewhere in the public sector. Retirements were viewed as a neutral destination that neither enhanced nor diminished a person's social capital.

Finally, since the NHS is a non-profit making organisation, I have had to utilise a wider range of performance metrics than those traditionally used in CEO succession research. The primary performance metric reported throughout this thesis is the average attainment of the four-hour Accident and Emergency (A&E) waiting time target, but alternative metrics spanning financial, operational, and clinical realms are also included, specifically: operating surplus, reference cost index (RCI), average inpatient waiting times (in days), Methicillin-Resistant Staphylococcus Aureus (MRSA) infection rates, and mortality rates. By reproducing the analysis for all five alternative metrics I have been able to draw conclusions about the effect that different types of performance measurement have on succession, a hitherto unexplored facet of the research area and an interesting comparison to the commonly used financial metrics from research using private sector organisations.

1.4 Case study context

This section discusses the institutional framework of the NHS, the case study context in which my research was conducted. There is a wide body of literature looking at CEO successions. However, most of this uses private sector organisations as case studies. The preponderance of literature using private sector organisations as case studies means that findings can be generalised across many industries. However, it lacks rigour in ensuring that those findings are equally as applicable to other sectors. Because of this, there have been calls in the literature to test these findings in other industries and particularly in countries outside of the USA (Giambatista et al., 2005).

Research using public sector organisations is limited, although the work of Boyne et al. (2010a; 2010b; 2011a) has made a significant contribution to this by using English public sector local authorities as a case study. The public sector offers a largely untapped field of study for CEO succession research. Although distinct from the private sector in some ways, it has moved closer in recent decades due, in large part, to NPM reforms. NPM is the label given to a range of public sector reforms which advocated for the adoption of private sector management practices in the public sector (Hood, 1991). In particular, this wave of reforms imbued the role of NHS CEO with more autonomy to run their trusts outside the immediate control of government. This encouraged movement between trusts (Janke et al., 2018) as evidenced by the oft cited revolving door for NHS CEOs (Dunhill, 2018). Despite these NPM reforms bringing the public sector closer to the governance models of the private sector, there remains a key difference in the principle-agent relationship. Whilst in the private sector shareholders take on the role of principle, in the public sector this role is held by the Secretary of State for Health and Social Care as the minister in charge of the Department for Health and Social Care. Even within the public sector the NHS stands out from other organisations in that it has limited involvement from the public as stakeholders.

It is important to test the external validity of theories by applying them in new contexts (Rowe et al., 2005) hence using a public sector organisation contributes to this goal. The NHS is a large and complex organisation (Janke

et al., 2018) which further adds to its importance as a case study context. There are several types of public sector organisation that could be used as case studies for this type of research, for example, schools, prisons, councils. The attraction of the English public sector for this type of research lies in its transformation from an overly bureaucratic monolith to a more nuanced network of organisational forms. Over recent years, the public sector has seen a shift towards the governance structures of the private sector with corporate-style boards becoming commonplace. This has been accompanied by the corporatisation of those same organisations, that is, they have taken on a more business-like structure and operate more like private sector businesses. This is particularly evident in the NHS, which has been operating in a quasi-market with a separation between purchasers, or commissioners, and providers of care. Although constrained in practice by geographical limitations, commissioners can choose to purchase healthcare services from any provider.

The NHS has a long history, but hospital trusts have been subjected to the same history of reform and laws governing what they can do and what performance criteria they are assessed against. Therefore, this makes them an ideal candidate for this type of research since the extant literature is clear that CEO succession research requires:

> '*a substantial number of formal organisations that, ideally, were identical in official goals, size, and authority structure*' (Grusky, 1963, pg. 21)

These requirements were formulated to justify the use of sports teams in CEO succession research since it is only really sports teams that could possibly meet all three aspects. In any organisational research, it is desirable to use organisational forms that are as similar as possible but asking them to be identical is too limiting. The private sector firms used in much of the extant literature certainly do not comply with this requirement despite attempts to homogenise samples. Boyne's research using English Local Authorities was a step closer to this since the underlying function and structure of one local authority is pretty much the same as any other. This argument applies

equally to NHS trusts hence they make an ideal organisational form for this particular type of research.

There is, to my knowledge, no literature looking at the antecedents of CEO turnover or CEO selection in the NHS, although there has been one recent working paper published on the impact of CEOs in the NHS (Janke et al., 2018). As England's largest employer, and the fifth largest in the world (NHS Employers, 2017), one might expect more attention to have been focused on the leadership of an organisation that lies at the very heart of British society. However, whilst the academic field has so far ignored NHS CEO departures, there has been some interest from think tanks and executive search agencies, both of which conducted surveys of CEOs, boards and chairman, and the occasional thought-piece in industry journals. Despite this, there remains a lack of scientific rigor applied to this field in the context of the NHS.

1.5   Summary of empirical chapters

This section provide an overview of the findings from each of the three empirical chapters.

1.5.1   Antecedents of CEO succession

The first empirical chapter, Chapter 4, explores the antecedents of CEO succession within the NHS through the dual lenses of labour market theory and social capital theory. It addresses the research questions: how does reputational social capital affect a CEOs ability to influence their tenure and their destination on exiting the CEO role, and how does a CEO's internal social capital affect the likelihood of them exiting their post and their exit destination? It was posited that CEOs with internal social capital would have a lower risk of exit than outsiders to all non-retirement exit destinations and partial support was found for this. This chapter used competing risks survival analysis as the analytical method through which the hypotheses were tested, and I found that the pooled models and exits to other NHS CEO roles did demonstrate a lower hazard of exit for insiders. I also found that the hazard

of exit to retirement was much higher for CEOs with internal social capital than those without.

The relationship between reputational social capital and the risk of exit was predicted to be non-linear such that CEOs with low reputational social capital would have a lower risk of exit to destinations that enhanced their reputational social capital, but a higher risk of exit to destinations that diminished their reputational social capital. Conversely, it was suggested that CEOs with high reputational social capital would have a higher risk of exit to destinations that enhanced their reputational social capital but a lower risk of exit to destinations that diminished their reputational social capital. The results provided some support for the proposed relationship between CEOs with low reputational social capital and their risk of exit, with the pooled model showing a higher hazard of exiting for CEOs with low reputational social capital. However, the competing risks models only provided partial support, with a higher hazard of exit to self-employment. The proposed relationship between CEOs with high reputational social capital and their risk of exit was not supported in the main analysis but some support was found when using an alternative performance metric and when using continuous performance data rather than the dummy variables differentiating between relatively low and high performance.

1.5.2 Selection of a new CEO

The second empirical chapter, Chapter 5, looks at the selection of a new CEO following the previous CEO's departure, again though the lens of social capital theory, with a CEO's internal social capital and reputational social capital being used to help explain any variations in appointments. It addresses the research questions: is social capital valued by recruiting trusts, and does the baseline performance of the trust affect the value placed on social capital by the recruiting trust? Within the NHS, the CEO labour market is relatively small and it is rare for newly appointed CEOs to come from outside the NHS. Fewer than 3% of newly appointed CEOs in my data sample came from outside the NHS. This means that in most cases, a board is deciding between candidates from within the trust and those external to the trust, yet within the wider NHS. It was assumed that working in the trust

would give a candidate an advantage since they would already have internal social capital specific to that trust, hence would be more likely to be selected for the CEO post compared to an outsider with no internal social capital. However, I found no support for this and the data showed that more than three-quarters of new CEOs were outsiders to the recruiting trust.

The baseline performance of the recruiting trust was felt to be an important contingency factor and it was suggested that a trust with high baseline performance relative to others trusts in that year would be more likely to recruit a CEO with internal social capital, an insider, whereas a trust with low baseline performance would be more likely to recruit an outsider. The results varied depending on which performance metric was used, and a non-linear relationship was found to exist between baseline performance and CEO insiderness rather than the linear relationship suggested. When using A&E target achievement as the performance metric, both relatively high and low baseline performance of the recruiting trust was found to be positively associated with the likelihood of appointing an insider. When using operating surplus as the performance metric, both high and low baseline performance were associated with a decreased likelihood of appointing an insider.

Reputational social capital was also proxied by the performance of the CEO's previous trust and it was suggested that those with a better reputation, that is, those from higher-performing trusts, would be more sought after by trusts with low baseline performance. The results showed that it was high performing trusts who were more likely to appoint CEOs with a good reputation. This implies that good CEOs will not want to diminish their reputational social capital by moving to a trust that is not performing well. I also found that when using operating surplus and inpatient waiting times as the performance metric, trusts with poor baseline performance were much more likely to appoint CEOs with low reputational social capital than those with high reputational social capital. This implies that a poor-quality CEO may not be able to attract offers from better trusts and can only find a job in a trust that cannot attract a better calibre of applicant.

1.5.3   Impact of new CEO on post-succession organisational performance

The third and final empirical chapter, Chapter 6, focuses on whether a new CEO has an impact on organisational performance by testing the main theories of succession, that of a disruptive or adaptive effect. Whilst the lens of social capital theory is applied in this chapter, the first two hypotheses do not take account of social capital but are instead intended to test the broader principles of CEO succession underpinning the later hypothesis looking at social capital. It addresses the general research questions: does CEO succession make a difference to organisational performance, and does the impact of a new CEO change depending on the baseline performance of the trust? It also addresses a research question focusing on social capital: how does social capital affect the impact a new CEO has on organisational performance?

The first hypothesis posited that a new CEO would make a difference to performance, but the direction of this difference was not specified since the extant literature is inconclusive as to whether CEO succession has an adaptive or disruptive effect on performance. I found support for this using two of the performance metrics, both of which showed an improvement in performance following a CEO succession. Thus, I concluded that there was some evidence that the adaptive theory of succession held true. However, the other metrics showed no support for either theory but this could be because there are both adaptive and disruptive effects, but they cancel each other out, giving the impression of no effect.

Contingency factors were added in to try and tease out the true effects. Specifically, the baseline performance of the trust immediately prior to the succession event. It was suggested that CEO succession in a trust with high baseline performance would lead to a decline in performance as the disruptive effects of succession would dominate. When using A&E target attainment as the performance metric this relationship was supported in the year following a succession, but the effects did not continue into a second year of the new CEO's tenure. It was also suggested that succession in trusts with low baseline performance would lead to an improvement in

performance as the adaptive effects of succession would dominate. Support was also found for this relationship when using the A&E metric, but again, this did not last into a second year of tenure. However, two of the alternative metrics exhibited the opposite effects with performance declining further when baseline performance was low and improving when baseline performance was high.

The lens of social capital theory was again applied in this chapter with the suggestion that the effect of CEO succession on organisational performance would be moderated by insider status. I found support for this hypothesis when using A&E target attainment and MRSA infection rates as performance measures. As an extension to this, contingency factors were considered such that it was suggested that the relationship between insider succession and organisational performance would vary across levels of baseline performance such that under conditions of low baseline performance an outsider successor would be expected to improve performance and under conditions of high performance an insider successor would be expected to improve performance. However, I only found limited support for there being an interaction and even more limited for the proposed direction of that interaction. Social capital was also proxied by the performance of the CEO's previous trust, that is, an indication of their reputation as a leader. Based on the assumption that a CEO from a trust with high baseline performance was responsible for that good performance through their enhanced leadership ability, it was suggested that they would oversee a greater improvement in performance in a new trust than CEOs with a worse reputation, that is, from a low performing trust. I found no evidence to support this and performance was actually improved more when the CEO was from a low performing trust.

1.6   The structure of the thesis

The rest of this thesis is structured as follows: Chapter 2 provides an extensive review of the literature on CEO succession, which includes the three main topics of research addressed in my research – those of the antecedents of CEO succession, the selection of a new CEO, and the impact a new CEO has on post-succession organisational performance. It also

addresses social capital with a focus on the internal social capital accumulated by a CEO who worked in an organisation immediately prior to becoming its CEO and the reputational social capital gained by overseeing good performance in a previous or current role. Within this literature review I identify the research questions I am aiming to address with my research. Chapter 3 describes the data sample and variables used in this research. Chapters 4 to 6 each cover one of the three empirical topics of this research with Chapter 4 focusing on the antecedents of CEO succession. Chapter 5 focuses on the selection of a new CEO and Chapter 6 focuses on the impact a new CEO has on post-succession organisational performance. The hypotheses being tested are specified in each of these three empirical chapters. The final chapter, Chapter 7, concludes the thesis with a discussion on the practical implications of this research and opportunities for future exploration.

Chapter 2: Literature Review

2.1 Introduction

This chapter provides a review of the literature covering the range of CEO succession topics explored in this research. Relevant papers were identified using a systematic search process across several databases. Various combinations of the terms 'CEO', 'leadership', 'top management', 'executive', 'succession', 'turnover', 'selection', 'antecedents', 'capital', 'social capital' and 'social network' were used to identify papers, with additional sources taken from the citations used in those papers. The databases used included: Web of Science, EBSCO Business Source Premier, and ABI/Inform Collection. Google Scholar was used to source any additional relevant papers. This search process was repeated at regular intervals throughout the duration of the study to ensure newly published papers were identified and included in this review.

The CEO is the captain of the ship and finding the right person to take on that role is a major challenge for any firm (Davidson et al., 1990; Boeker and Goodstein, 1993; Datta and Guthrie, 1994; Datta and Rajagopalan, 1998; Lauterbach et al., 1999; Davidson et al., 2002; Bailey and Helfat, 2003; Rhim et al., 2006; Karaevli, 2007; Zhang, 2008; Hamori and Koyuncu, 2015). As stated by Finkelstein et al. (2009):

> '*the trajectories and fortunes of companies are often traceable to the actions (or inaction) of their top executives'* (pg. 3).

The literature on CEO succession is extensive, spanning several decades and multiple disciplines. Yet despite its long history and numerous theories, the succession literature has thus far failed to provide conclusive evidence to support many of those theories, which leaves the field open for continued exploration. In particular, there has been very little attention paid to the role of social capital in CEO successions and it is this theory which provides the lens through which my research is undertaken.

The rest of this chapter is organised as follows. Firstly, I provide definitions for the main concepts used throughout my research. Secondly, I review the

literature on social capital theory as the main theoretical lens used in my research. I then focus on CEO social capital, in particular the two proxies used throughout my research, those of CEO insiderness and organisational performance. Next, I provide an overview of the NHS and NHS trusts as the case study context. I then review the literature on CEO successions before focusing in on the three main topics of CEO succession: the antecedents of turnover, the selection of a new CEO, and the impact a new CEO has on post-succession organisational performance. These three topics address the literature in both the dominant private sector and the much less studied public sector. My research questions are derived from the gaps identified throughout the course of this literature review.

2.2 Definition of key terms

This section provides a brief definition of the key terms used throughout this thesis. Whilst most are discussed in greater detail in later sections of this literature review, a basic understanding of the definitions adopted here is important for the discussions that follow. Definitions are provided for the CEO, and the CEO labour market.

2.2.1 CEO

The CEO is often the public face of an organisation and can become synonymous with a brand, for example: Mark Zuckerberg at Facebook, Steve Jobs at Apple, and Elon Musk at Tesla. However, for many organisations the CEO has no such fame, yet their role is comparable to that of their better-known counterparts. According to Finkelstein et al. (2009) a CEO is:

> '*the executive who has overall responsibility for the conduct and performance of an entire organisation.*' (pg. 9)

The specifics of a CEO role can vary between countries and industries but at its heart it represents the pinnacle of the organisation, the leader from whom the organisation takes its direction. However, this does not mean that the CEO operates in isolation. The CEO, along with the rest of the top management team, is answerable to the board of directors. The executive directors, employees of the organisation, oversee the operational

management of the organisation whilst non-executive directors provide external accountability to keep those managers in check. In the UK, the CEO cannot also hold the role of chairman, although this dual role is permitted in other countries such as the USA.

2.2.2   CEO labour market

The labour market for CEOs is unique for three reasons. Firstly, it is dispersed such that executive search agencies act as a go-between for candidates and hiring firms. Second, information on CEO quality is difficult to ascertain. The performance of their previous organisation can be partly attributable to other executives, as per the upper echelon theory (Hambrick and Mason, 1984) or luck, for example. Finally, there are high transaction costs in replacing a CEO (Ang et al., 2003).

The labour market for CEOs has both a supply element and a demand element. The supply side reflects the number of suitable candidates available in the market whilst the demand side reflects the availability of CEO jobs and also the extent to which the available candidates are attractive to the hiring firms (Zhang and Rajagopalan, 2003). There is some dispute about whether there is a split in this CEO labour market. Davidson et al. (2002) suggest that "*the choice between insiders and outsiders is a choice between internal and external labour markets*" (pg. 297) yet Ang et al. (2003) state that:

> "*There are reasons to believe that external and internal CEO candidates participate in an integrated labour marker, so both internal and external markets are efficient…Yet, there are also reasons why insider and outsider CEO markets may be segregated*" (pg. 30)

2.3   Social capital theory

This section discusses the literature on social capital theory, the main theoretical lens through which my research is undertaken. The concept of social capital originates from the 19th century with three American sociologists providing three different definitions (Kim and Cannella, 2008). The first came from Coleman (1990) who described social capital as being generated '*when the relations among persons change in ways that facilitates*

action' (pg. 304). This was followed by Burt (1992) who described it as a network of '*friends, colleagues, and more general contacts through whom you receive opportunities to use your financial and human capital*' (pg.9). This was closely followed by Putnam's (1993) definition that it comprised:

> '*features of social organization, such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinating actions*' (pg. 167)

Since then, other researchers have used their own definitions of social capital, which has left the field with an ill-defined concept lacking agreement about not only the definition, but also its dimensions and measurement (Claridge, 2018). Depending on the focus of their research, authors have defined it in terms of its sources (Coleman, 1990), structure (Burt, 1992) and uses (Portes, 1998), or a combination of these facets (Putnam, 1993). Portes (1998) defined it as '*the ability of actors to secure benefits by virtue of membership in social networks or other social structure*' (pg. 6). This has been expanded upon in recent years by Adler and Kwon (2002) to give the definition that is used in this thesis. This definition captures all three elements, that of the source, structure and use of social capital:

> '*Social capital is the goodwill available to individuals or groups. Its source lies in the structure and content of the actor's social relations. Its effects flow from the information, influence, and solidarity it makes available to the actor*' (pg. 23)

Different types of social capital have been defined depending on the researchers' view of the nature of the social ties involved. External ties have been described as those that create a bridge to members of the social network situated outside the firm (Adler and Kwon, 2002; Kim and Cannella, 2008; Johnson et al., 2012). Internal ties are those created within the firm, bonding ties, and are thus firm-specific in nature such that if one member of the social network leaves it may affect the value of the remaining network (Adler and Kwon, 2002; Kim and Cannella, 2008). Kim and Cannella (2008) suggest that individuals can increase one type of social capital only at the expense of the other since it is too labour intensive to maintain both types.

Despite its increasingly wide usage in a range of academic disciplines (Adler and Kwon, 2002), social capital theory has been criticised due to its perceived ambiguity (Claridge, 2018). This criticism is focused around three main claims, the first of which is that it is not social. Since it cannot be observed directly it often has to be proxied by observable measures (Claridge, 2018). Sources of social capital include other people and the obligations owed from them (Portes, 1998) but opportunity, motivation and ability are all required for that capital to be activated (Adler and Kwon, 2002). These are intangible concepts which, unlike economic capital, which is observable in people's bank accounts (Portes, 1998), require some approximation of quantity and form.

The second criticism is that it is not capital. Since it can have both positive and negative outcomes, it is not compatible with the accepted definition of capital (Claridge, 2018). However, this view is not shared by all researchers as some believe that social capital shares some commonalities with other types of capital. Like all other types of capital, social capital has a long shelf-life. Actors can build their social capital over time with the expectation of some benefit deriving from it in the future (Adler and Kwon, 2002; Fitzsimmons and Callan, 2016). It can be a substitute for other types of capital and it requires maintenance, like human capital (Adler and Kwon, 2002). It is appropriable (Coleman, 1988) and also convertible in that it can be converted to an economic or other advantage (Bourdieu, 1985; Machalek and Martin, 2015). Despite these similarities, it is also recognised that there are some differences between social and other types of capital. Namely that it can be a collective good where one person's use of it does not reduce its availability for others in the network to use (Adler and Kwon, 2002). Further, it is located in social relationships rather than in the actor themselves (Portes, 1998; Adler and Kwon, 2002) and it can be difficult to quantify and measure (Adler and Kwon, 2002; Claridge, 2018).

The third argument is that it isn't a theory (Fine, 2002; Claridge, 2018) because it acts as an umbrella term (Haynes, 2009) for a collection of sociological concepts that have been grouped together merely for convenience (Portes, 1998). However, despite this, it is increasingly popular

in social science research as in organisation studies it can be used to help explain why some people are more successful than others (Coleman, 1988; Adler and Kwon, 2002). Its general acceptance as a theory is thus proven by its adoption in numerous studies looking at individuals in organisations (Harris and Helfat, 2007; Johnson et al., 2011; Sauerwald et al., 2016; Fitzsimmons and Callan, 2016).

This section has provided an overview of the concept of social capital theory, the lens through which my research is undertaken. Having a common understanding of the definition used in this thesis is important for the discussions that follow in the subsequent sections of this literature review. The general discussion in this section is applied to the CEO context in the next section to provide a greater understanding of how and why social capital is important for CEO succession research.

2.4   CEO social capital

Whilst the previous section provided a general overview of social capital theory, this section applies it to the CEO context before separate sub-sections address the operationalisation of this concept within my research through the use of two proxies: CEO insiderness and organisational performance.

The definition of social capital set out in the previous section referenced its sources, structure and uses. Capital has been described as any source of power that can be used to benefit a person (Fitzsimmons and Callan, 2016) yet within the context of CEOs it is useful to differentiate between sources of social capital and human capital (Hillman and Dalziel, 2003; Haynes and Hillman, 2010; Sauerwald et al., 2016). Human capital is acquired through the knowledge and skills accumulated through previous work experience whilst social capital is derived from social relationships both external to the firm, within the firm, and through reputation and prestige (Johnson et al., 2012). The two concepts of social and human capital are linked such that social relationships can be viewed as resources that can help develop and accumulate human capital (Machalek and Martin, 2015). Individuals can compensate for a lack of human capital through having greater social capital

(Adler and Kwon, 2002), although this can only get a person so far before the need for human capital will outweigh the benefits derived from social capital (Fitzsimmons and Callan, 2016).

External social ties can come in the form of appointments to other boards (Johnson et al., 2012) or through connections to external bodies such as regulatory organisations, suppliers or competitors (Fitzsimmons and Callan, 2016). Internal ties refer to the personal relationships the CEO forms with the board and other senior managers in the organisation in which they work. These internal networks can be a source of power for the CEO, enabling them to influence decisions to suit their own interests (Adler and Kwon, 2002; Harris and Helfat, 2007; Sauerwald et al., 2016). By their nature, internal ties are firm-specific and will be devalued if a member of the social network leaves (Kim and Cannella, 2008). Directors with high social capital will be sought after (Kim and Cannella, 2008) hence their social standing is an important facet of social capital. Reputation, prestige and stigma act as an informational signal to external stakeholders (Certo, 2003) who view social capital as a marker of success (Fitzsimmons and Callan, 2016).

As discussed in the previous section, social capital is an intangible concept which lends itself to the use of proxies to provide observable and measurable indications of the level of social capital a CEO may have. A CEO's internal ties may be approximated by their insider status, that is, whether they worked in the firm prior to being appointed as CEO. A CEO's reputation may be proxied by their previous track record of overseeing good or poor organisational performance. Both of these proxies are discussed further in the following sub-sections.

2.4.1   CEO insiderness

Through the lens of social capital theory, a CEO's insiderness can be viewed as a proxy for having internal social capital, specifically, the internal bonding ties described in the previous section. These arise from the social relationships formed with the board which will '*affect how both individual directors and the board as a whole function*' (Johnson et al., 2012; pg. 12).

Within the field of CEO succession research the insiderness of the CEO has been of particular interest as an explanatory variable but it has been conceptualised in many different ways. Although most often implemented as a dichotomous firm insider dummy variable, even this seemingly simply definition has been operationalised in several ways. For example, whilst some authors define an insider as anyone currently employed in the firm at the point of succession (Davidson et al., 2002; Boyne et al., 2011a; Desai et al., 2015) others use more complex definitions. An insider has been defined as: an executive who worked in the firm during the span of the predecessor CEO (Dalton and Kesner, 1983; Bommer and Ellstrand, 1996), someone with at least one year with the firm prior to succession (Ang et al., 2003; Fee and Hadlock, 2003; Huson et al., 2004; Hamori and Koyuncu, 2015), someone with at least two years with the firm prior to succession (Cannella Jr et al., 1991; Bragaw and Misangyi, 2015), someone with at least five years with the firm prior to succession (Datta and Guthrie, 1994), and someone who was part of the firm's senior management team or served on the board immediately prior to succession (Lauterbach et al., 1999).

Fee and Hadlock (2003) extended their definition of an insider to include former employees, a view shared by Boeker and Goodstein (1993). Hill (2005) used Texas school districts in his study and defined an insider as anyone recruited from within the same district. Some researchers have tried to make the dichotomous insider/outsider concept more distinct by only including successors at the extremes of being an insider or outsider. For example Chung et al. (1987) defined an insider as someone who had been with the firm for at least five years, and an outsider as someone with less than one year with the firm. Any successor with between one and five year's tenure at the point of succession was excluded from their study. Similarly, Davidson et al. (1990) used six years as the cut off for an insider and excluded any successor with between one and six years tenure. In some cases the insider status of a successor CEO was determined by the CEO themselves in response to a survey (Friedman and Singh, 1989; Zajac, 1990).

The dichotomous insider/outsider categorisation has been criticised as being too simplistic (Davidson et al., 2002), particularly when it is operationalised in such different ways. It has been extended by some authors, for example, Guthrie and Datta (1997) and Datta and Rajagopalan (1998) used organisational tenure as a continuous variable. Shen and Cannella Jr (2002) used three categories, contender, follower and outsider, to better differentiate between insiders who were appointed after the previous CEO was dismissed (contenders) and those who were appointed after a retirement (follower). Zhang and Rajagopalan (2003) split the outsider category to differentiate between those from within the same industry and those from a different industry. Finkelstein and Hambrick's (1996) criticism of the overly simplistic binary insider/outsider conceptualisation resulted in a new approach using a continuum of insiderness. Karaevli (2007) built on this approach to define insiderness as:

> '*a continuum ranging from new CEOs who have a greater combination of firm and industry tenure to those who have no experience in the firm and the industry*' (pg. 694)

Another conceptualisation of insiderness comes from Petrovsky et al. (2015) who propose the concept of publicness-fit. Specific to the public sector, this denotes the extent to which a manager's past experience matches the requirements of the hiring organisation. Whereas Karaevli and Zajac (2013) define insiderness using a continuum of firm and industry experience, Petrovsky et al use three dimensions to reflect the degree of publicness for an organisation at any point in time: public ownership, the degree of public funding, and public control or regulation.

For the purposes of my research a dichotomous definition of insiderness has been used such that a CEO is an insider if they worked in the recruiting firm immediately prior to being appointed its CEO. Whilst this simplistic definition easily differentiates between insiders and outsiders to the firm it takes no account of the length of time a CEO worked in the firm prior to becoming its CEO.

2.4.2 Organisational performance

The second proxy for social capital used in my research is that of organisational performance. Here, a CEO's reputational social capital is assumed to be enhanced by having a track record of overseeing good performance or diminished if overseeing poor performance. This correlation between performance and reputational social capital is facilitated by the personalisation of leadership in which CEOs are held directly accountable for the success or failure of an organisation (Anandaciva et al., 2018). CEOs with a good reputation are likely to want to maintain that status (Harris and Helfat, 2007; Johnson et al., 2011) hence it can affect their decisions which in turn can affect the performance of the organisation (Sauerwald et al., 2016).

The concept of organisational performance is difficult to apply to the public sector given the differences in what constitutes good performance. Unlike the private sector, which has clear financial benchmarks for performance, the public sector has myriad targets that could potentially be used to assess performance and opinions on which should be used often differ between stakeholders (McCabe et al., 2008). Further, the metrics that are deemed appropriate often change over time and will differ between agencies (Petrovsky et al., 2017). NHS CEOs are judged on the key deliverables of achievement of government targets for standards of quality service provision and managing finances. A more intangible deliverable is the quality of relationships with stakeholders (Hoggettbowers, 2009).

The CEO, as the most senior executive, is often the focal point of any blame when things go wrong and admiration when things go well (McCabe et al., 2008; Anandaciva et al., 2018). Because of this, it is important to consider organisational performance when looking at CEO succession. However, as stated by McCabe et al. (2008):

> '*Examining administrators' actual performance in office is problematic, given the difficulty of defining and measuring good and bad performance*' (pg. 382)

This is particularly relevant in the public sector where measures of performance are diverse and changeable. To understand the actual performance of the CEO we would need to gather performance appraisals and subjective assessments from their peers and superiors. This is not practical for quantitative research, so the performance of the organisation is used as a proxy. Often, an organisation's economic performance is used to mirror the choice of metrics in the private sector literature and to act as a proxy for the CEO's performance (McCabe et al., 2008). However, a much broader range of performance metrics is available, encompassing clinical safety, staff satisfaction, operational performance and throughput measures (Janke et al, 2018).

Throughout my research organisational performance is used in two different ways. The first, as described here, is to act as a proxy for CEO reputational social capital. This takes the form of the performance of the trust immediately prior to a CEO turnover event where that performance is assumed to be attributable to the CEO. It also takes the form of the performance of the CEO's previous trust as a marker for their track record. The second use is as a moderating variable in the form of the baseline performance of the recruiting trust immediately prior to a CEO succession event where that event involves a new CEO being appointed (Kim and Cannella, 2008). In this latter use the performance of the trust is assumed to be attributable to the previous CEO.

2.4.3   Summary

This section has reviewed the literature on social capital with respect to CEOs and provided definitions for the two proxies used throughout my research, CEO insiderness and their track record of overseeing organisational performance. Social capital can help explain why some people are more successful than others (Coleman, 1988; Adler and Kwon, 2002) as it imbues them with power and influence that can be leveraged to ensure their preferences and needs are met over and above those of the organisation (Harris and Helfat, 2007; Sauerwald et al., 2016). The next section describes the case study context used in my research, that of the NHS and provides a brief history of its form and function. This is followed by

a review of the literature on the three main topics of CEO succession research: the antecedents of succession, the selection of a new CEO, and the impact a new CEO has on post-succession organisational performance.

2.5 The NHS

The NHS was formed on 5th July 1948 to provide healthcare that was free to all at the point of delivery. Despite multiple attempts over the years to restructure the system to be more integrated, it retains its original tri-partite separation between primary care, acute care and community care. Under the present leadership of CEO Sir Simon Stevens the NHS is moving ever closer to removing these historic barriers with tangible steps being taken to integrate care across all three elements of healthcare with the implementation of Sustainability Transformation Partnerships (STPs) and Integrated Care Systems (ICSs) (NHS, 2017). As a public-sector organisation, it is funded through general taxation, which makes it distinct from private sector firms. The public sector has unique organisational goals and values (Petrovsky et al., 2015). Whereas a private sector firm's goal is profit maximisation, a public-sector organisation usually has goals of maximising efficiency, minimising costs, and maximising societal value. It is clear then, that using the NHS as a case study gives rise to additional considerations in the selection of performance measures and the general context of the research.

In April 2013, the NHS underwent a significant restructure that saw responsibility for the NHS move out of the Department of Health into a new NHS Commissioning Board (swiftly renamed NHS England). Although this restructure is considered one of the most significant in its history, it had little impact on the organisational form of NHS trusts. The 211 Clinical Commissioning Groups (CCGs) formed in April 2013 have now reduced to 135 as at April 2020, down from 191 in April 2019 as neighbouring CCGs choose to merge. These mergers are driven by the shift towards STPs and ICSs, larger geographical systems that take responsibility for the entire health and care needs of their population in return for more control and freedom in deciding how to deliver that care. The NHS deals with more than

one million patients every 36 hours (CONFED, 2017) and employs in excess of 1.2 million staff (NHS Digital, 2020) at a cost of £140 billion a year (King's Fund, 2020).

The NHS has been in a near constant state of reform for 30 years with barely a year passing without some part of it affected by a major upheaval. The NHS is a political jewel in the crown, used by a succession of politicians to further their careers by altering it in some way. This is evident even now in 2020 with the current Prime Minister, Boris Johnson, seeking to take back control of the NHS from NHS England and return power to the Secretary of State for Health and Social Care (Campbell, 2020). The short-term nature of politics has meant that in the absence of any desire to make real long-term improvements to the NHS, instead a series of immediate structural changes have been implemented to at least give the impression of change. Quite often these reforms are not evidence based and, more tellingly, are not evaluated properly. The instant gratification of an easily implementable structural change taking precedence over any better options. No matter what reforms are implemented, the lines of accountability for the NHS still end up with the Secretary of State for Health and Social Care and, by proxy the Department of Health and Social Care (DHSC). This means that there is a constant pressure to centralise control despite the impossibility of managing such an enormous organisation from the centre (Browne and Young, 2002; Walshe, 2003). This centralised control is facilitated by the funding of the NHS from general taxation and provides a valuable lever over its management (Greener, 2006).

The most notable of these reforms is NPM, a range of public sector reforms occurring in the late 1970s to late 1990s (Dunleavy and Hood, 1994; Christensen and Lægreid, 1999). NPM was partly underpinned by the theory of managerialism (Aucoin, 1990; Hood, 1991; Keauden and Van Mierlo, 1998; Kaboolian, 1998; Christensen and Lægreid, 1999; Gruening, 2001; Ward, 2010) which focuses on the belief that organisations can better achieve their objectives by the adoption of business practices from the private sector (Aucoin, 1990; Keauden and Van Mierlo, 1998; Kapucu, 2007; Ward, 2010). NPM can be classed as a two level phenomenon. At its highest

level it can be considered a theory in which the public sector can be improved through the use of private sector business practices; at a lower level it is simply a list of components as enumerated below (Dunleavy et al., 2006; Pollitt, 2007). The first list of NPM components was compiled by Hood (1991) and he is also credited with creating the NPM label. Hood's list, which is repeated in numerous other articles about NPM, contained seven components which he later split into two categories (Hood, 1995). The first of these, public sector distinctiveness, contained four components: splitting organisational units into smaller sub-units based on product lines, increased competitiveness, the adoption of management practices from the private sector, and greater discipline in the use of resources. The other category, rules versus discretion, contained the remaining three components: visibly involved top-management, performance measures, and output controls. These components were generated by the two paradigms credited with providing the theoretical basis for NPM.

It is to its detriment that the NHS is most often portrayed as being on the brink of financial crisis, both by those seeking more money from the state and from the state itself, providing itself with a reason for reform (Portillo, 1998). Understanding the political grip on the NHS is important since it can help explain the many differences between the NHS, a public body, and the private sector organisations most often referenced in the CEO succession literature. Although there are a few studies using hospitals as case studies, these tend to be in the USA, which has a very different health system to England. Only recently has a paper looking at CEOs in the English NHS been published (Janke et al., 2018), which provides an excellent reference point for this research and will be discussed later in this literature review and in the chapter on post-succession performance.

2.5.1   NHS trusts

NHS trusts were first formed in 1991 as a result of the NHS and Community Care Act (1990) which created an internal market. Health authorities were the purchasers and trusts became a supplier of secondary care. Trusts were, and are, independent organisations that have their own CEO, board and management. Initially, 57 trusts were created but by 1994 there were 391

with a further 44 in the pipeline (Lapsley, 1997). As of July 2017 there were 135 acute non-specialist trusts and, although this figure varies over the years, these are the trusts included in the research described in this thesis.

An NHS trust is responsible for the financial oversight of the one or more hospitals they manage, in addition to the strategic planning for those hospitals. All trusts share similar, if not the same, goals of prolonging and improving patients' lives through the provision of secondary health care. Whilst the size of trusts can vary enormously, from a few hundred to a couple of thousand overnight beds (NHS England, 2020b), these size effects can be controlled for or the sample can be split into more homogenous groups. Trusts are governed differently depending on whether they have foundation trust status. The main difference between a foundation and non-foundation trust is that it is run locally rather than nationally. A foundation trust achieves that status after demonstrating the required degree of financial management success. This status gives them freedom from central government control, but they are still accountable to Parliament. Foundation trust governance involves members, a Board of Governors (elected by members) and a Board of Directors. However, in reality, the foundation trust model has not devolved very far from non-foundation trusts in terms of its governance and, as stated by Collins (2016) in a scathing review of the subject:

> '*It is now increasingly difficult to describe a clear distinction between foundation trusts and NHS trusts, with foundation trusts subject to greater central control than at any time in their history.* (pg. 1)

This lack of distinction means that a trust's governance structure is not substantively different regardless of whether it has foundation status and thus we can assume that the authority structures are suitably homogenous to meet the demands set forth by Grusky (1963).

2.5.2   Summary

This section has set out the NHS as the case study context for my research, highlighting the history of the NHS and the NPM reforms that have positioned it as a suitable case study. The rest of this literature review focuses on the three main topics for CEO succession research: the antecedents of

succession; the selection of a new CEO; and the impact a new CEO has on post-succession organisational performance. The literature on these three topics is discussed with reference to social capital theory as the dominant lens through which my research is undertaken. The next section provides a brief overview of the history of CEO succession research before focusing on the three main topics identified for future research.

2.6 A history of CEO succession research

Research into CEO successions originated in the 1960s (Grusky, 1963; Kesner and Sebora, 1994; Berns and Klarner, 2017) and quickly became of interest to strategic management scholars in addition to corporate governance and organisational behaviour researchers. Over the years there have been three key reviews of the CEO succession literature (Kesner and Sebora, 1994; Giambatista et al., 2005; Berns and Klarner, 2017). Kesner and Sebora's (1994) review of the previous 30 years of research in this field categorised papers into related strands of research. In the 1960s, the dominant themes were successor origin, organisation size and succession rate, succession rate and post-succession performance, and succession contingencies. In the 1970s, new streams emerged on successor characteristics, succession frequency, succession and boards, and frameworks and typologies. Further additions in the 1980s and 1990s included a focus on stock market reactions to top management change, succession planning, the succession process, the consequences of succession, and matching managers to roles.

A subsequent review by Giambatista et al. (2005) looked at the literature from 1994 to 2004 and found that there were two broad categories of research: antecedents of succession, and consequences of succession. The antecedent literature includes studies looking at board related antecedents, firm performance, CEO characteristics and actions, firm and industry characteristics, and succession planning variables. The literature on consequences focuses on performance for sports teams and business organisations separately, looking at market-related consequences and other performance related consequences. A CEO's characteristics include their

capital, what experience they have and how this enhances their value or attractiveness to an organisation. The most recent review by Berns and Klarner (2017) covers the entire history, from 1960 through to 2017, and sets out a conceptual framework garnered from the extant literature. This framework suggests that succession research is focused on four key strands: the antecedents of succession, the type of succession, the impact a new CEO has on post-succession strategy and performance, and the contingencies which may influence CEO successions.

This framework reflects the current research interests in CEO succession with contingencies playing into the other three topics. The three main topics of interest are therefore: the antecedents of succession, the selection of a new CEO, and the impact a new CEO has on post-succession organisational performance. Each of these areas is addressed in turn in the following sections. The bulk of the extant literature uses private sector organisations as case studies so much of the discussion is on those private sector firms, but I also address the limited literature using public sector organisations.

2.7   Antecedents of CEO turnover

This section discusses the literature on the antecedents of CEO turnover, that is, are there factors that make CEO turnover more likely and if so, what are those factors? This is the first of the three main topics in CEO succession research and the focus of my first empirical chapter. It is structured as follows: firstly, the different types of turnover are discussed. These include, at a high level, both forced and voluntary turnover events. This is followed by a discussion on the various antecedents of turnover that have thus far been explored in the literature, alongside the results of those studies. These antecedents can include both push and pull factors which may help explain why some CEOs have a shorter tenure than others (Boyne et al., 2010a; Rutherford and Lozano, 2018). For completeness, evidence is also gathered from studies looking at turnover for other top executives in the top management team. The discussion looks at the literature from the private and public sector. It is important to include both types of organisations as

there are functional differences in organisational form which may be important.

How CEOs leave their jobs is relevant to why they leave as not all CEO turnover events are equal. Broadly, a turnover event can be categorised as forced or voluntary, but each of these has several sub-categories to further explain the reason for leaving. A voluntary departure could be due to retirement or a new job, whereas a forced departure could be due to dismissal, death, or ill-health. From a theoretical viewpoint, some reasons for leaving are of more interest than others (Finkelstein et al., 2009; Campbell et al., 2017) and this is reflected in the literature with a heavy bias towards looking at dismissals. Dismissals are a type of involuntary turnover, where the CEO is pushed out, which are of both theoretical and practical interest. Dismissals can only occur when the board decides that the current CEO should be removed from their post. In these cases, the turnover is involuntary and they are removed in the hope that doing so will create opportunities for improved performance (Wangrow et al., 2018). However, dismissals are rarely reported as such with recent data showing that of 1,160 CEO turnover events in USA firms during 2017, just 23 (2%) were reported as dismissals (Challenger et al, 2018). It is more common to find dismissals couched in more favourable terms in a face-saving effort to reduce embarrassment to both firm and employee (Gregory-Smith et al., 2009; Finkelstein et al., 2009). Other types of involuntary turnover are less theoretically interesting as they do not involve any element of choice. They are also likely to account for a very small proportion of leavers. Recent reports show that just 5% of turnover events are for involuntary reasons other than dismissal (Challenger et al, 2018).

Voluntary departures do involve an element of choice and so might be expected to be influenced by external factors such as organisational conditions or events. This makes them more interesting to study, yet voluntary departures are an as-yet untapped research area for CEO turnover literature (Campbell et al., 2017). CEOs are less likely than other top executives to leave voluntarily. This is because they are already the most senior person on the executive team and so moving to another firm would

need to bring with it some other incentive, a pull factor, such as higher pay or more prestige (Finkelstein et al., 2009). Recent data shows that 30% of CEOs stepped down to another board level position, 28% retired, and 15% resigned (Challenger et al, 2018) so this offers a rich ground for future research. Particularly in the USA, CEOs can earn massive salaries, have access to fantastic perks and some even become celebrities. Therefore, why would anyone want to leave that position (Campbell et al., 2017)? This question is addressed by looking at the antecedents of CEO turnover.

The antecedents of CEO turnover have been categorised in many ways over the years, with these categories becoming more refined as the research area matures. Harrison et al. (1988) looked at top management turnover and suggested that this was driven by the incumbent CEO's characteristics, organisational characteristics or characteristics of the external environment. Giambatista et al. (2005) also identified CEO characteristics and organisational characteristics as types of antecedents, but also added board-related factors and firm performance, both of which could admittedly be classed as organisational characteristics, along with succession planning as a fifth type. Finkelstein et al. (2009), in their wide-ranging review of the CEO succession literature, also grouped antecedents into five categories: firm performance, agency conditions, other organisational characteristics, external environment, and incumbent CEO characteristics. More recently, Wangrow et al. (2018) looked at themes of power and socio-political constructs in the context of coach turnover in the National Basketball Association. In their recent review of the CEO succession literature, Berns and Klarner (2017) also recognised four groups of factors: environmental, organisational, board level, and individual level. It is clear from this that there is broad agreement about the types of antecedents that are expected to influence CEO turnover, in the private sector at least.

2.7.1   Labour market framework

Within the public sector literature, Grissom and Andersen (2012) have developed a framework based on labour market theory to explain why CEOs leave. This framework has subsequently been adapted by other researchers and thus provides a firm grounding on which to conduct further research. The

framework assumes that a decision to stay or leave is determined by decisions made by two parties. In the case of Grissom and Andersen's (2012) paper these two parties are the school superintendent and the school board, that is, superintendent turnover can be considered an outcome in the labour market for superintendents. On the labour supply side, the superintendent considers the costs and benefits of staying in their post against the perceived value of the next best alternative. A decision to stay or leave is based on that equation and is considered to be voluntary turnover because any decision to leave resulted from the superintendent's decision-making process. On the labour demand side, a similar decision-making process occurs with the board weighing up the costs and benefits of retaining the superintendent against the potential costs and benefits of replacing them. Any turnover resulting from this process is determined to be involuntary since the decision to leave was not the manager's. The decision-making process for either party is a black box to researchers with only the inputs and outputs visible. This means that any research can only focus on those inputs and the eventual outcomes. Therefore, the inputs feeding into that black box need to reflect the key factors that could sway a decision. By identifying the factors that contribute to high turnover, the organisation can develop strategies to tackle it (Grissom and Mitani, 2016). Within the context of the public sector, it is important to understand what factors affect CEO turnover as CEOs are faced with political and accountability pressures that other staff don't have to deal with (Rutherford and Lozano, 2018), nor do their counterparts in the private sector.

For the initial studies using public sector organisations, the inputs to this decision-making process were largely gleaned from existing research in the private sector. Boyne et al. (2008), although not explicitly following a structured labour market framework, grouped inputs into three organisational level categories: environment, politics, and performance. Essentially proposing that the causes of CEO turnover can be attributed to either the '*external context of an organisation or its internal characteristics*' (pg. 267). The three categories identified by Boyne et al. (2008) have been adapted by other public sector researchers and amended to suit particular contexts.

Grissom and Andersen (2012) identified four categories of inputs at district, board, and superintendent level, plus superintendent performance whilst Petrovsky et al. (2017) used individual, organisational, and environmental level factors. What becomes clear from the existing literature is that there are common themes for the factors most likely to influence whether a CEO stays or leaves and by synthesising with conclusions from the private sector literature a picture emerges of two broad categories of CEO characteristics that are important, namely: organisational level factors and CEO characteristics, each of which is discussed in more detail in the following sections.

2.7.2   Organisational factors

The most commonly studied antecedent from the organisational factor category is organisational performance and the research is clear that CEOs lose their jobs when organisational performance is poor, that is, poor organisational performance precedes CEO turnover (Giambatista et al., 2005; Finkelstein et al., 2009) hence it can be considered a push factor. As discussed in a previous section, organisational performance can be viewed as a proxy for a CEO's status and reputation, that is, a facet of their social capital. Most research into the antecedents of CEO turnover in the public sector have focused on organisational performance (McCabe et al., 2008; Boyne et al., 2008; 2010a; Grissom and Andersen, 2012; Grissom and Mitani, 2016) as a predictor of CEO exit, although they do not make an explicit link between organisational performance and a CEO's reputational social capital.

Performance is operationalised in various ways, but studies consistently show that the relationship is present, with poor baseline performance increasing the likelihood of CEO turnover (Grusky, 1963; Gamson and Scotch, 1964; Lauterbach et al., 1999; Huson et al., 2001; Crain et al., 2018). Some studies provided evidence of a relationship between poor stock returns and CEO turnover (Coughlan and Schmidt, 1985; Warner and Watts, 1988), others between profitability measures and CEO turnover (Salancik and Pfeffer, 1980; Harrison et al., 1988), others still between both stocks and profitability and CEO turnover (Denis et al., 1997; Huson et al., 2001).

However, the explanatory power of poor performance is low and therefore explains little of the variance in turnover. A better approach might be to distinguish between types of poor performance, that is, are low performance, consistently low performance, steadily dropping performance equally likely to result in a CEO being dismissed (Finkelstein et al., 2009). Further, previous research has shown a negative linear relationship between performance and dismissal, but this relationship may not be linear across the entire range of performance (Wangrow et al., 2018), another area worth exploring. Performance has also been used as a moderator for other antecedents such as prior board level experience and board size (Ocasio, 1994). The conclusions from the private sector literature are mixed. Some studies found that poor performance was positively associated with the risk of exit (Furtado and Karan, 1990), others found that CEO dismissals were not well explained by poor performance (Fredrickson et al., 1988), whilst others found no support for a link between poor performance and exit (Ocasio, 1994). Methodological differences may help to explain these varied findings as some studies looked at just CEOs whilst others looked at the entire top management team.

Within the public sector, even where there is no proof that the organisational performance is caused by the managers, poor performance has been found to be a predictor of managerial turnover (Boyne et al., 2008). Boyne is responsible for a large body of research on CEO turnover in English local authorities and built on his 2008 paper to look at the impact of organisational performance on both CEO and top management team turnover (Boyne et al., 2010b). He concluded that performance has a negative effect on CEO turnover but the effect was stronger for the top management team than for the CEO, thus implying that poor performance really was to blame for turnover rather than there being an alternative explanation such as high performing organisations being better at retaining high-quality managers. Grissom and Andersen (2012) also found that performance was negatively associated with CEO turnover, although this used a subjective evaluation of the CEO's performance conducted by the school board. A subsequent paper showed that the relationship between performance and superintendent

turnover is non-linear with both very low and very high performers more likely to stay in post (Grissom et al., 2016).

2.7.3 Further organisational factors

Although organisational performance is the main factor of interest for my research, other organisational level factors have been used in the extant literature to help explain differences in CEO tenure and are discussed in the following sub-sections.

2.7.3.1 Firm size

Firm size is has been studied relatively often (Giambatista et al., 2005). Grusky (1963) was the first scholar to look at firm size and found that larger firms experienced more executive departures than smaller firms. He concluded that larger firms can absorb the impact of a CEO departure better than smaller firms, who find it more disruptive. Therefore, larger firms may be more willing to dismiss the CEO if performance is poor. However, a limitation of Grusky's study is that no very small firms were included in the sample and hence the result may be skewed. Subsequent attempts to duplicate Grusky's findings have provided mixed results with some supporting his conclusions (James and Soref, 1981) and others concluding that organisational size has no effect on the likelihood of CEO turnover (Pfeffer and Leblebici, 1973; Boeker, 1992). Finkelstein et al. (2009) suggest that organisational size will be positively correlated with CEO turnover rates because CEOs in large firms are appointed when they are older yet work for firms with mandatory retirement ages. Although this only applies in countries where a mandatory retirement age is in force, such as the USA.

2.7.3.2 Board composition

The composition of the board and firm ownership are also expected to affect CEO turnover when considered through the lens of agency theory (Salancik and Pfeffer, 1980). Agency theory is concerned with the relationship between the owner of a company, the principle, and the manager of the company, the agent (Hill and Jones, 1992). It is predicated on the assumption that both principle and agent are utility maximisers and will choose to act in their own self-interest (Jensen and Meckling, 1976; Chambers et al., 2013; Donaldson

and Davis, 1991). This means that the interests of the opportunistic agent will diverge from those of the principle (Hill and Jones, 1992) and thus the agent will make decisions that maximise his own utility rather than those of the principle because, under agency theory, the agent is not motivated to maximise profits (Davis et al., 1997). In the UK and USA, where companies tend to have widely dispersed ownership, shareholders delegate control to a board of directors, the classic separation of ownership and control. Because each shareholder might only own a few shares it is not cost effective for an individual to monitor their agent. Not only would it be expensive and time consuming, but all the other shareholders would benefit from their efforts. Each shareholder waits for another to carry out monitoring but inevitably none of them actually do it. Thus, corporate governance is necessary to provide oversight of managerial behaviour (Hart, 1995). One of Hart's suggested control mechanisms is a board of directors. The board of directors is appointed by the shareholders to act on their behalf and to monitor the management layer beneath. Boards usually comprise internal managers, the executive directors, and external non-executive directors whose job it is to keep the executives in line. Therefore, the proportion of non-executive 'outsiders' on the board might reasonably be expected to influence the likelihood of CEO dismissal when performance is poor since outside directors are expected to be more effective at monitoring managers (Fama and Jensen, 1983) than insiders who may feel beholden to the CEO for their own careers (Weisbach, 1988).

A number of studies have looked at this with the assumption that an increase in outside directors would lead to an increase in the likelihood of CEO turnover (Boeker, 1992; Huson et al., 2001). This view is supported by several studies, for example, Salancik and Pfeffer (1980) found that higher proportions of insider board members was associated with longer CEO tenure. Weisbach (1988) found that the relationship between performance and CEO tenure was only present in firms with boards dominated by outsiders. Boeker (1992) found that when performance was poor, the proportion of inside directors on the board was negatively related to CEO dismissal. However, at least one study disagreed with these findings and

concluded that there was no relationship between board independence and CEO turnover under conditions of poor performance (Denis et al., 1997). Further, some studies actually found the opposite, that more inside directors increased the likelihood of CEO turnover under conditions of poor performance (Ocasio, 1994; Phan and Lee, 1995).

2.7.4   CEO characteristics

The second top-level category of antecedents is CEO characteristics, which can include tenure, managerial ability and career background (Giambatista et al., 2005), gender (Grissom et al., 2016; Petrovsky et al., 2017), age (Grissom et al., 2016; Petrovsky et al., 2017; Wangrow et al., 2018), and education (Grissom et al., 2016; Petrovsky et al., 2017). However, in the context of social capital theory, the most important CEO level factor is that of 'insiderness', the amount of time spent in the firm prior to becoming the CEO. Being an insider can give a CEO greater power and an increased ability to influence the board's decisions, particularly under conditions of poor organisational performance when one might expect a CEO to be pushed out. As stated by Boeker (1992):

> "*CEO dismissal is more likely when organisational performance is poor, and the power of the CEO is low.*" (pg. 400)

Poor performance will lead to CEO turnover unless the CEO is powerful enough to prevent that from happening. Turnover can be because the CEO is scapegoated (Gamson and Scotch, 1964) or because the firm wants to change direction and needs to sweep out the current CEO and their strategies. Therefore, it is of interest to explore under what conditions the CEO lacks sufficient power to survive (Salancik and Pfeffer, 1980). Although Nath and Mahajan (2017) used Chief Marketing Officers as the unit of analysis rather than CEOs, their findings are likely applicable to CEOs. They looked at insiderness and found that the likelihood of turnover reduced as insiderness increased. Zhang (2008) found strong support for their hypothesis that outsider CEOs would have a higher likelihood of dismissal than insider CEOs.

Various theoretical lenses can be used to identify potential CEO characteristics, for example, Phan and Lee (1995) used social network theory to look at personal prestige and found that this did reduce the likelihood of CEO turnover. However, their proxies for prestige were membership of prestigious social circles such as the Ivy League, and holding multiple directorships of Fortune 500 companies. They also used human capital theory to look at educational background, specialised skills, and firm-specific skills, but found no evidence that any of these factors influenced CEO turnover. However, having industry-specific skills did reduce the likelihood of turnover.

CEO age has also been used (Harrison et al., 1988) although there is an obvious correlation between age and retirement. When looking at a dichotomous outcome for staying or leaving, Grissom and Andersen (2012) found that superintendent age was positively associated with an increased risk of exit but that attendance at a top university was negatively associated with leaving. When splitting this into retirement and non-retirement exits, they found that whilst age remained positively associated with retirement, it was not significantly associated with non-retirement exits. Attendance at a top university dropped out of significance for all exit types, but for non-retirement exits whether a superintendent was promoted from within the district was found to be negatively associated with exit. In a subsequent study, Grissom and Mitani (2016) criticised the 2012 paper on the grounds that it used cross-sectional data, had a small sample size and excluded important variables such as salary. They built on this by using panel methods on longitudinal data over a 19-year period and allowing a further separation of exit types into movers and true exits from the profession. They found that leavers tend to be older and have more years of experience than stayers but concluded overall that superintendent characteristics differ in how they are associated with different exit types.

2.7.5 Types of exit

Within the private sector literature, the main distinction between CEO exits is whether they were forced or voluntary, but within the public sector it is rare for a dismissal to be declared as such. Therefore, public sector research has

relied on exit destinations rather than the reasons behind those exits. This allows for a more nuanced analysis than looking at a binary outcome of exits versus non-exits.

When looking at the various types of exit a CEO can make through the lens of social capital theory, it is clear that some types of exit may enhance a CEO's social capital whilst others may diminish it. In the private sector literature, exits types are usually defined by the reason for exit and include retirement, resignation, and dismissal (Campbell et al., 2017; Wangrow et al., 2018). Whilst it may be possible to identify public sector dismissals in the USA, in the UK public sector staff are protected from dismissal by bureaucratic and laborious due processes (Boyne et al., 2010a). This makes dismissals, also referred to as involuntary exits, very hard to identify, partly because they are very rare (Grissom and Andersen, 2012; Grissom et al., 2016). A CEO may be pushed out without being formally dismissed, that is, the CEO and board may come to a mutual agreement that the CEO will step down. This is usually presented in a positive light with the CEO wanting to explore other opportunities, take up a new challenge, or spend time with family. Whilst it can be inferred from this that the CEO was pushed out it is not known for certain hence using the reason for exit as an outcome variable can be challenging.

This has been addressed in the public sector literature by using exit destinations rather than reasons for exit. Petrovsky et al. (2017) analysed pooled exit types but also separated them out into leavers to the public sector, private sector and retirement. Rutherford and Lozano's (2018) study on USA university presidents used four exit destinations: retirement; a sideways move to a new university; moving to the private, public or non-profit sector; or taking a different role in the same university. A review of the literature on teacher turnover concluded that the factors found to influence decisions to move to another teaching role were not necessarily the same as those influencing decision to leave the profession. Therefore, it is important to distinguish between mobility and attrition (Grissom et al., 2016). Most public sector research has ignored this and does not separate out different types of exit (Bertelli, 2007; Pitts et al., 2011) or focuses on moving between

the public and private sector (Su and Bozeman, 2009). A survey of NHS CEOs showed that they viewed moves to other CEO or Director of Finance roles in larger or more complex NHS organisations as a promotion (Hoggettbowers, 2009).

2.7.6 Summary and research questions

This section has discussed the literature on the antecedents of CEO turnover in the private and public sector. Broadly, these antecedents can be categorised as organisational level or CEO level factors. The primary organisational level factor considered in the literature is that of organisational performance. However, whilst it is widely studied there have been no attempts to explicitly link it to social capital nor to the impact it may have on a CEO's exit destination. This gives rise to my first research question: how does organisational performance, as a proxy for reputational social capital, affect a CEO's ability to influence their tenure and their destination on exiting the CEO role?

Within the category of CEO level factors, the concept of insiderness is most relevant when using the lens of social capital theory but again, this explicit link has not been made in the extant literature. A CEO who worked in the firm prior to being appointed its CEO is assumed to have greater internal social capital than an outsider. This social capital may give them greater power to influence the board's decisions and thus they may be able to prolong their tenure even when faced with push factors that would otherwise increase the likelihood of them exiting their post. This gives rise to my second research question: how does a CEO's insider status, as a proxy for internal social capital, affect the likelihood of them exiting their post and their exit destination?

2.8 CEO selection

This section discusses the literature on CEO selection, the second of the three main topics in CEO succession research and the focus of my second empirical chapter. Although ideally any research into CEO selection would include all applicants for a post, in reality this information is often not

available and thus much of the CEO succession research literature focuses on the actual appointments that are made and any differences between those appointed (Dalton and Kesner, 1985; Schnatterly and Johnson, 2008; Elsaid et al., 2011; 2016). Considering the lens of social capital theory, the proxies identified earlier in this literature review are important when looking at CEO selection. Both a CEO's insider status and their reputation can be viewed as key factors in determining whether they are appointed to a new CEO role.

Much of the literature on CEO selection focuses on the choice between the internal and external labour markets (Davidson et al., 2002), that is, the choice between a candidate already working in the firm, an insider, or one external to the firm, an outsider. According to Bailey and Helfat (2003):

> '*The match between successor skills and the future needs of the corporation is of critical importance to the success of the firm*' (pg. 350).

Therefore, it is vital that boards are able to assess the suitability of potential candidates. There is wide agreement that boards may be faced with the problems of information asymmetry and adverse selection when appointing a new outsider CEO (Zajac, 1990; Shen and Cannella Jr, 2002; Karaevli, 2007; Zhang, 2008; Desai et al., 2015). Zhang (2008) finds that relative to inside successions, outside successions are characterised by a higher level of information asymmetry between the board and potential candidates but the risk of information asymmetry and adverse selection is less if the new CEO has prior CEO experience. Karaevli (2007) agrees that the lower the degree of insiderness, the more chance there is of information asymmetry and adverse selection. Insiderness is important because the very decision to hire someone from outside a firm indicates that the firm is seeking to make strategic changes by breaking with the established leadership (Helmich and Brown, 1972; Datta and Guthrie, 1994; Bailey and Helfat, 2003).

Several authors use the concept of insiderness, albeit with different definitions, yet Karaevli and Zajac (2013) suggest that insiderness in and of itself is not a main effect, but that it is contingent on the degree of

organisational stability, as measured by the nature of the predecessor CEO's departure, the tenure of that predecessor, and firm performance. Karaevli and Zajac argue that although outsider CEOs are motivated to make the necessary strategic changes, they do not all have the ability to do so. In this context, the nature of the predecessor CEO's departure is important because an unexpected departure, through dismissal for example, leaves the board needing to make a swift replacement. The time pressures of this can lead to greater information asymmetry and a poorer fit between the successor CEO and the needs of the firm. This, coupled with the organisational turmoil and uncertainty brought about by the dismissal of the CEO, can create conditions that are not conducive to the successor CEO being successful. The tenure of the previous CEO is important because longevity is associated with stagnancy. An outsider successor CEO who replaces a longstanding CEO is more likely to be successful in making strategic changes because the firm is ripe for that change. The final contingency variable studied by Karaevli and Zajac is firm performance. A poorly performing firm is more likely to hire an outsider CEO in an attempt to turn around that poor performance, yet a poorly performing firm will create more challenges than a high-performing firm so the chances of success are lower. By looking at the conditions necessary for insiderness to matter, Karaevli and Zajac take existing theory and apply that logic to a new context, however, despite making the link between insiderness and strategic change they do not look at the subsequent performance of the firm – something that is usually of interest to scholars.

There is a significant body of empirical research looking at the choice of a CEO successor, specifically, the link between antecedents of succession and CEO characteristics. However, the results are mixed and this is generally attributed to methodological differences, that is, the different operationalisations of the insider/outsider concepts. Dalton and Kesner (1983) and Lauterbach et al. (1999) test whether the size of an organisation has any bearing on the selection of an insider or outsider. They find that size is important with larger firms tending to have more inside successions than small firms. They conclude that this is because larger firms have a bigger

internal talent pool from which to choose potential successors. Other studies have found that organisational size is not a factor (Schwartz and Menon, 1985). Dalton and Kesner (1985) test the prevailing view that firms with poor performance will appoint an outside successor to the role of CEO. However, contrary to the extant literature, they find that only mid-performing organisations tend to appoint outsiders. Subsequent studies disagree with these findings and instead conclude that poor performance is more likely to result in the appointment of an outside successor (Schwartz and Menon, 1985; Boeker and Goodstein, 1993; Datta and Guthrie, 1994; Lauterbach et al., 1999). However, evidence has also been found to suggest that it is high performing firms that appoint outsiders (Chung et al., 1987). Other antecedents of CEO selection tested include advertising intensity (Datta and Guthrie, 1994), industry structure (Datta and Rajagopalan, 1998), profitability and risk (Cannella Jr et al., 1991); and board composition (Borokhovich et al., 1996; Davidson et al., 2002). Other CEO characteristics used include functional experience (Datta and Guthrie, 1994; Guthrie and Datta, 1997), CEO age (Guthrie and Datta, 1997), organisational tenure (Guthrie and Datta, 1997), education level (Datta and Guthrie, 1994), industry origin (Zhang and Rajagopalan, 2003), and international experience (Magnusson et al., 2006).

The findings from these studies are that profitability is negatively associated with CEOs' education level and their propensity to have technical experience (Datta and Guthrie, 1994). Firm profitability is positively associated with the organisational tenure of selected CEOs. Firms with inferior profitability are more likely to select CEOs with throughput functional experience. Firm size is positively associated with organisational tenure of selected CEOs. Firm size is positively associated with age of selected CEOs (Guthrie and Datta, 1997). Industry structure is important in selecting a CEO (Datta and Rajagopalan, 1998). Firms with more independent boards and with block-shareholders are more likely to select industry unrelated successors (Davidson et al., 2002). There is a strong positive association between the proportion of outside directors on a board and the choice of outside CEO successor (Borokhovich et al., 1996). Intra-firm succession is associated with

an heir apparent (Zhang and Rajagopalan, 2003). Institutional ownership interacts with firm performance to influence successor choice (Bommer and Ellstrand, 1996) and international experience is an important construct associated with CEO succession (Magnusson et al., 2006).

In the discussion above, the baseline organisational performance of the recruiting firm has been referenced as a contingency factor. This is not to be confused with using organisational performance as a proxy for a CEO's reputational social capital. If a CEO candidate currently works in a high-performing firm, their reputational social capital will benefit from that since at least part of that firm's success will be attributed to the managerial prowess of that individual (Anandaciva et al., 2018). Conversely, a CEO candidate overseeing poor performance in their current firm will have their reputation, and thus social capital, diminished by that association.

2.8.1   Summary and research questions

This section has discussed the selection of a new CEO with particular reference to the insider status of the CEO as a proxy for firm-specific social capital. It also addressed the use of a CEO candidate's reputation as a marker of social capital using the performance of their previous firm as a proxy. Although my research is limited by only having access to data on successful candidates it is still possible to explore the extent to which social capital is valued by recruiting firms by comparing the numbers of appointments with specific characteristics against those without those characteristics. Thus, my third research question is: is social capital valued by recruiting organisations? This applies to the use of both proxies for social capital.

The literature review in this section highlighted the importance of baseline organisational performance as a contingency factor when appointing a new CEO. The assumption is that firms experiencing poor performance will place a greater value on external candidates as they will be seeking to make strategic changes. However, this could be countered by an outsider's lack of social capital, which is generally valued by recruiting firms. Thus, this gives rise to my fourth research question: does the baseline performance of the

organisation affect the value placed on social capital, as proxied by insider status, by the recruiting organisation?

2.9   Post-succession organisational performance

The third and final dimension of CEO succession research is the relationship between succession and post-succession organisational performance, the consequences of succession. Three competing theories of succession emerged during the early years of succession research. The common sense, or adaptive theory suggests that when a firm is performing poorly a new manager can help improve performance as he brings in fresh ideas and has different skills, that is, transferable human capital (Grusky, 1963). On the other hand, Grusky also proposed that the opposite was true, that succession was in fact disruptive and a new manager would create a vicious cycle of worsening performance as the stability of a firm is disrupted and morale drops. The third theory was proposed by Gamson and Scotch (1964) as a challenge to Grusky's theories and states that even though a new manager is often brought in after poor firm performance, there is no expectation that post-succession organisational performance will actually improve, hence succession is a ritual scapegoating process designed merely to pacify shareholders. Whilst these theories have been referenced in several studies there is a view that they are not developed enough to truly count as theories because they lack rigour in answering the 'why' question (Van de Ven, 1989) to explain causality (Giambatista et al., 2005).

Both the Lieberson and Connor (1972) and Salanick and Pfeffer (1977) studies concluded that top managers have no impact on organisational performance. That is, they find support for the scapegoating theory. However, these studies have been criticised by Day and Lord (1988) for failing to consider important factors such as performance time lags. Day and Lord therefore blame these two studies for the general perception that top managers have a minimal impact on performance. The scapegoating theory has also been dismissed by Boyne et al. (2011a) who argue that it has at least two flaws that render it obsolete:

> *'…even if the new incumbent is no more talented, or has no more strategic discretion, than the predecessor, performance is likely to rise if the very stakeholders pressing for change are reassured by the succession and subsequently provide more cooperation... In this case, even a ritualistic succession is likely to have some positive effects, other things being equal. Second, the prediction that follows from this model (no effect of succession on performance) is indistinguishable from disruptive and adaptive effects that roughly cancel out.'* (pg. 340)

Petrovsky et al. (2015) suggest that in any succession event there are both adaptive and disruptive effects, the net effect of which will depend on the scale of each. It is plausible then that any observed scapegoating is merely an example of where the adaptive and disruptive effects of succession have cancelled each other out. Because of this uncertainty there is no cohesive theoretical basis to explain CEO succession and its link to firm performance (Zajac, 1990). The mixed results on whether CEO succession affects firm performance have led to a diversification in the research streams to take account of contextual variables that may moderate the relationship (Karaevli, 2007). This supports Shen and Cannella Jr's (2002) argument that it is the succession context that influences performance rather than the succession event itself.

The empirical evidence to support or refute these succession theories is mixed. Some researchers have found evidence that post-succession organisational performance is better for outsiders (Lauterbach et al., 1999; Huson et al., 2004). Others have found evidence to the contrary, that performance is better for insiders (Zajac, 1990). There is plenty of evidence to support the view that senior managers in public organisations do affect organisational performance (Hill, 2005; Boyne et al., 2011a; 2011b). Boyne et al. (2011a) found that succession has a positive effect when baseline performance is poor, and a negative effect when baseline performance is high, that is, baseline performance moderates the relationship between succession and organisational performance. Hill (2005) found that whilst outsiders have an immediate negative effect on organisational performance, the long-term impact of succession is positive. Davidson et al. (1990) found

that the stock market reacts more favourably to announcements of insider CEO succession than outsider. However, a study looking at CEO successions in NHS trusts concluded that CEOs had no impact on organisational performance (Janke et al., 2018). Their working paper looked at the impact of CEOs in NHS trusts over a twelve year period using a range of performance measures including inputs such as the number of beds, number of nurses as a percentage of all staff, and bed growth. Throughput measures such as waiting times, length of stay, staff satisfaction, and admissions and performance data such as mortality rates, MRSA infection rates, operating surplus, and readmissions. CEO characteristics such as gender, clinical background, education level, tenure, and previous CEO experience were included. They found that turnover rates for NHS CEOs were subject to high separation rates, with a trust expecting to go through, on average, 3.5 CEOs over an 11-year period. Basing their methodology on that of Bertrand and Schoar (2003), they were unable to find any evidence that CEOs in NHS trusts were able to change performance, let alone improve it.

There is some dissent about the appropriateness of using the insider/outsider concept. Desai et al. (2015) claims that the insider/outsider distinction is irrelevant and it is experience as a leader that should be included in any model. The upper echelons theory proposes that top executives' experiences affect their choices which in turn affect organisational performance (Hambrick and Mason, 1984). As such, previous career experience is an important construct and has largely been conceptualised in the literature as functional experience, that is, the business discipline in which they have the most experience. This is often categorised as throughput experience and output experience where throughput refers to those disciplines associated with transforming raw materials into products and services and output experience is associated with development, marketing and sales functions (Guthrie and Datta, 1997). A further dimension of career experience is related to the industry in which it was gained (Wang et al., 2015).

In recent years there has been a trend towards exploring different facets of experience. For example, some researchers have looked at whether prior

experience as a CEO affects post-succession performance. Whilst it might be expected that such prior experience would be positively associated with post-succession performance because of the job-specific human capital that the CEO brings with them, in fact the results show that whilst the stock market reacts favourably to successor CEOs with prior CEO experience (Elsaid et al., 2011), a successor CEO with prior CEO experience has poorer post-succession organisational performance than those without prior CEO experience (Zhang, 2008; Elsaid et al., 2011; Bragaw and Misangyi, 2015; Hamori and Koyuncu, 2015). Despite this, CEOs are increasingly being hired into similar roles to the ones they previously held so boards must believe that job-specific human capital is important and transferable (Hamori and Koyuncu, 2015). These findings are attributed to a negative transfer of human capital (Elsaid et al., 2011). This means that successor CEOs need to unlearn entrenched beliefs and habits before they can be effective in their new role. Bragaw and Misangyi (2015) even found that increased length of prior CEO experience was negatively correlated to the negative learning effect in the new role. This negative relationship could be moderated by the previous performance of the firm though, as a new CEO may face an uphill battle to turn around a failing firm regardless of their talents. In contrast, studies using sports teams have found a positive association between prior leadership experience and improved post-succession organisational outcomes (Desai et al., 2015). Desai et al suggest that the mixed results in the literature about the impact of prior experience are due to ambiguity in how job-specific experience is defined.

Another facet of experience that has been of interest is a successor CEO's experience of board diversity. Zhu and Shen (2016) suggest that a CEO's prior experience with board diversity will affect not only the performance of the firm following the succession, but also the propensity for further CEO turnover and director turnover. They find evidence to support the view that the more diverse the hiring firm's board is compared to the successor CEO's previous board, the greater the likelihood of post-succession CEO and director turnover, and the lower the post-succession organisational financial performance. In this study, board diversity is a composite of board members'

age, ethnicity, education, gender, functional expertise, industry background, and whether they attended an Ivy League school, that is, it goes a step further than other studies that look at these things in isolation. Although the evidence supported the authors' hypotheses, the model is rather simplistic as it only includes main effects and control variables. They demonstrated a direct link between board diversity and both director turnover and post-succession organisational performance, and included director turnover as a control variable in the organisational performance model, yet failed to consider whether director turnover is actually a mediator of the relationship between board diversity and post-succession organisational performance. Top management team turnover has been identified as a mediator in other studies, as discussed further in the next section. There is also no consideration of potential moderators to these relationships.

When considering the relationship between CEO insider status and post-succession organisational performance these mixed results are largely blamed on inconsistencies in the conceptualisation of the insider construct (Datta and Guthrie, 1994; Karaevli, 2007). As already discussed above, there is no single definition of insider and outsider used across all studies so the varying results could, at least in part, be attributable to the different definitions.

2.9.1   Summary and research questions

This section has discussed the impact a new CEO has on post-succession organisational performance. The literature reports mixed results for whether a new CEO has a positive or negative impact on organisational performance which gives rise to my fifth research question: does CEO succession make a difference to organisational performance?

Three main theories of succession are proposed: disruptive, adaptive, and scapegoating. Under the disruptive theory, it is assumed that replacing the CEO will cause a decline in performance due to the disruption caused by the succession event and the bedding-in period the new CEO requires before being effective. Counter to this theory is the adaptive argument which assumes a new CEO will lead to an improvement in performance as the organisation will adapt to any changes. The third theory argues that CEO

succession will have no impact on performance as it is merely a scapegoating exercise to make the board look like it is taking action. It is reasonable to consider whether the baseline performance of the firm will have an impact on subsequent performance changes resulting from a CEO succession, hence my sixth research question is: does the impact of a new CEO change depending on the baseline performance of the organisation?

These two research questions have been formulated to address unanswered questions in the extant literature with regards to what impact a new CEO might have on performance. However, a further development of this is to consider the role that social capital plays in these theories. Specifically: how does social capital affect the impact a new CEO has on organisational performance?

The next section summarises the gaps in the literature that have been identified throughout the course of this literature review.

2.10 Gap in the literature

This literature review has addressed the three main topics in CEO succession research: the antecedents of CEO succession, the selection of a new CEO, and the new CEO's impact on post-succession organisational performance. This review has identified a number of gaps in the extant literature which are summarised below.

Firstly, the main gap identified is the lack of attention paid to social capital as a variable which might help explain CEO turnover, selection and impact. Whilst other types of capital, such as human capital, have been widely studied (Shen and Cannella Jr, 2002; Elsaid et al., 2011; Hamori and Koyuncu, 2015; Bragaw and Misangyi, 2015), social capital has been largely ignored in the extant literature. Two proxies for social capital have been proposed: insider status and organisational performance. The former of these provides a proxy for the firm-specific bonding ties a CEO may have whilst the latter provides a proxy for the reputational social capital a CEO may have accumulated though overseeing good performance in either their current or previous role. Although insiderness has been used as an

explanatory variable in many studies looking at CEO succession (Shen and Cannella Jr, 2002; Zhang, 2008; Karaevli and Zajac, 2013; Nath and Mahajan, 2017), none have made the explicit link between it and social capital. A CEO's reputational capital has only been referenced in studies using sports teams (Wangrow et al., 2018) but otherwise ignored in the literature looking at private and public sector organisations. Whilst in the literature the performance of a CEO's previous firm has been identified as a potential proxy for managerial reputation, the lack of implementation of this remains an identified gap (Hamori and Koyuncu, 2015).

Secondly, most of the extant literature uses private sector firms as a case study, and most of these are based in the USA. Throughout the history of CEO succession research a number of competing theories have been posited and yet no conclusive evidence has been found to support any of them over and above the others. Therefore, it is suggested that research should be extended to include more firms and industries from outside the USA and, in particular, the public sector. Whilst the public sector, in the UK at least, has made significant movements towards aligning itself with private sector business principles in recent years (Dunleavy and Hood, 1994; Christensen and Lægreid, 1999), there remain in place fundamental differences that will test the theories from the private sector literature and give them greater credence. There is an obvious gap in the literature when considering the use of the English NHS as a case study. Whilst the organisational performance implications of a new CEO in the NHS have been subjected to some research (Janke et al., 2018), there remains no peer reviewed literature looking at CEO selection nor the antecedents of CEO departure in the English NHS.

2.11 Conclusion

This literature review has provided a broad discussion on the CEO succession literature in addition to providing an overview of social capital theory and the proxies used throughout my research. Social capital has been identified as a potential explanatory variable to help explain why CEOs leave their roles, why some candidates are more attractive to employers and why

some CEOs are more successful than others. Despite its obvious uses in this context it remains a largely unexplored area in CEO succession research, a gap which my research aims to fill to some extent. Social capital is distinct from human capital in that its value lies in the relationships held between individuals and the prestige accumulated from having a track record of high performance. Although there are some critics of social capital theory it is broadly accepted that proxies can be used to indicate whether an individual has social capital, and in some cases to quantify how much. For my research a CEO is designated as having internal social capital if they worked in the organisation immediately prior to being appointed its CEO. This is a simplistic dichotomous variable, they either have internal social capital or they do not. A second facet of social capital used throughout is the presence of reputational social capital where the performance of their current or previous organisation is used to determine whether they have high or low reputational social capital.

This review also highlights the importance of using the public sector as a case study context for this research. Whilst I have used the English NHS, the arguments for doing so apply equally to other public sector organisations and the conclusions drawn from my research will be applicable more widely since much of the English public sector was transformed through the NPM reforms of the 1970s to 1990s. This widespread adoption of private sector business practices into the public sector has had a long lasting impact on the organisational forms in the public sector which now mirror those in the private sector with CEOs, boards and comparable corporate governance mechanisms. Yet despite these similarities, there remain fundamental differences between the private and public sector as the former is profit maximising whilst the latter is intended to serve the needs of the public rather than focusing on making money. It is therefore of particular interest to explore whether conclusions drawn from research using private sector organisations can be replicated when using public sector organisations.

Three main strands of CEO succession research have dominated the literature in recent years and it is those three areas that I focus on in my research. Namely, the antecedents of succession, the selection of a new

CEO, and the impact that new CEO has on post-succession organisational performance. The lens of social capital theory has not been widely used to address why a CEO leaves their role and this gap in the literature is a glaring omission. Although this review found that, theoretically, dismissals are of most intertest and thus most often studied, within the public sector it is particularly difficult to identify dismissals hence instead exit destinations are used in place of reasons for exiting. Social capital theory can be applied here to determine whether an exit destination will enhance or diminish an individual's social capital. This is primarily based on the perceived status of an exit destination and whether the move is considered a promotion or demotion. Although social capital theory is the primary lens used here, a complimentary labour market theory is also identified to provide a framework to help explain the decision making process that determines a CEO's exit destination.

The literature on CEO selection is split into studies which look at all candidates for a CEO role and those that only consider successful appointments. The former tends to use qualitative data from surveys whereas the latter, in line with my approach, uses quantitative data on actual appointments. Choosing a new CEO is the responsibility of the board and they will inevitably have more information about internal candidates than those who are external to the firm. This information asymmetry can lead to bias towards internal candidates purely through virtue of knowing more about them and their abilities and it is no surprise that much of the literature focuses on this choice between internal and external labour markets. Applying the lens of social capital theory, the presence of internal social capital might be expected to influence this choice towards an inside candidate whereas the presence of reputational social capital could influence in either direction. An internal candidate overseeing high organisational performance will have both internal social capital and reputational social capital whereas an external candidate overseeing high organisational performance in their current firm will only have reputational social capital.

The third strand of research looks at the impact a new CEO has on organisational performance. It is widely accepted that this impact will be

affected by the baseline performance of the firm as it might be expected that it is more of a challenge to turn around a poor performing firm than to continue the good performance of a firm. Three theories of succession dominate the literature. The first proposes that CEO succession will have a detrimental impact on performance as it is a disruptive event. The second proposes the opposite, that succession will improve performance as the organisation adapts to its new CEO. The third suggests that CEO succession is a ritual scapegoating process where no impact is expected to be made on performance. Evidence for each of these theories is mixed and applying the lens of social capital theory offers up new opportunities to explore the circumstances in which any of them may be found to be true.

The final section in this chapter summarised the gaps in the literature that my research intends to contribute towards filling. Whilst several gaps are identified, the overarching aim of my research is to apply the lens of social capital theory to CEO succession research and the following chapters provide empirical evidence in pursuit of that goal.

Chapter 3: Data and variables

3.1 Introduction

This chapter describes the philosophical approach underpinning my research. It also describes the data sample and variables used in this study and explains how they were constructed. It describes the overall data sample available for analysis but each of the three empirical chapters uses a subset of this dataset. These subsets are described in further detail within each of the next three empirical chapters.

The format of this chapter is as follows. The next section describes the philosophical approach used throughout my research. Section 3.3 describes the data sources used to construct the data sample used throughout this research. This is followed by a section describing the variables included in the dataset and then a summary of key descriptive statistics.

3.2 Philosophical approach

My research is firmly located within the positivist philosophy and, as such, uses a quantitative methodology. This aligns with the existing literature on CEO succession although that literature does call for a more qualitative based approach to be adopted (Berns and Klarner, 2017). Quantitative methodologies are generally classified under the positivist philosophy which has several implications when used in social sciences research. Easterby-Smith et al. (1997) suggest six factors: methodological choices (all research must be quantitative), values (the choice of what and how to research should be value-free and based on objective criteria), causality (research should aim to identify causal explanations), operationalisation (frame concepts such that they can be measured quantitatively), independence (the researcher must remain independent of the topic), and reductionism (all concepts should be reduced to the simplest terms).

Facets of management and organisational performance in the NHS have been studied extensively (Mannion et al., 2005) but relatively few have taken a quantitative approach to their research (Mannion et al., 2005a; 2005b;

Walshe and Smith, 2011; Veronesi and Keasey, 2010; 2011; 2012; Veronesi et al., 2013; 2014). For this research, these underlying tenets of the positivist philosophy marry with my own views since I strongly believe that evidence, in the form of hard facts, is necessary to establish scientific laws. To apply the positivist philosophy to this example of research requires that management be studied as an objective element rather than from a people perspective. That is, the behaviour of humans is not considered at all and management is reduced to the level of quantifiable facts such as the number of managers employed in each trust, and further facts about those managers such as their gender and levels of social capital. Their behaviours, thoughts, feelings and attitudes are rejected by the positivist philosophy (Crossan, 2003). It is accepted that whilst the positivist philosophy provides a platform for an evidence-based approach to research it is not without its weaknesses. For this particular research, human behaviours could have a significant impact on organisational outcomes. It is unrealistic to assume that outcomes are independent of human actions yet the positivist approach to this research dictates that they must be ignored.

3.3   Data sources and sample selection

My research is novel in its use of administrative data. This is data collected by organisations on their operations where the primary use is operational and research is considered a secondary use. The NHS publishes large amounts of longitudinal administrative performance data at trust level but access to individual level data is not generally available. Although the NHS does collect and hold staffing data via the Electronic Staff Record database it is not readily available for secondary uses such as research. As an alternative, a bespoke cut of data was obtained from Binley's, a private sector NHS database collator. The Binley's database contains NHS management staff data that is collected by Binley's and crosschecked with trusts for accuracy. It is collected for marketing purposes, but Leeds University purchased access to a subset of data covering 2003 to 2012. A further two years of data was later made available by Warwick University,

giving total coverage from 2003 to 2014[1]. This is a person-level dataset allowing individuals to be tracked over time for any management posts they have held in the NHS.

The dataset comprises twelve files, one per year, in Excel format. Each year contains in the region of 30,000 records with 32 fields. Not all of these fields were needed for this study. Those of interest were year, organisation name, responsibility code, employee name, job title, unique person identifier, region, and NHS provider code. The combined file containing all twelve years of data comprised 371,084 records across a range of NHS organisation types. Of these, 194,305 related to trusts and the others were deleted. A master file of CEO successions in trusts was created by removing any record which was not for a CEO post. The Binley's dataset does contain a CEO specific job code, but this was not always used correctly. A manual check was done to ensure that only CEO posts were left in the dataset, including posts for acting and interim CEOs. Records for Scotland, Wales and Northern Ireland were dropped. The Binley's dataset includes records for all types of NHS trust, but this study only uses those for acute trusts, and combined acute and community trusts since performance data and control variable data is not generally available for the other types of trust due to their specific functions.

To ensure accuracy, the Binley's dataset was checked to make sure that no trusts had more than twelve CEO records, one per financial year. A CEO succession was identified by comparing each record with the preceding year's record and noting where a different person was in that post. Similarly, a CEO departure was noted by comparing each CEO record with the following year in that trust. These records were then manually cross checked against annual reports provided by each trust using the Freedom of Information Act where they were not already available on trust websites. It was not possible to obtain annual reports for all trusts in all years. This process uncovered a large number of inconsistencies between the Binley's

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[1] Trust annual reports were later used to extend the data sample to 2017/18

database and the staff reported by the trusts each year. The Binley's database available for this research was compiled using data from January to March each year whereas the annual reports cover a financial year, April to March. The NHS organisational performance measures used in this study cover financial years so that is the time frame of interest. The Binley's database sometimes reported the CEO as one person in a particular year, but the annual report reported another person. On investigation, it appeared that the Binley's database was often picking up an interim or acting CEO who was replaced in April with a substantive CEO. The CEO dataset was manually corrected to reflect the annual reports where necessary. The annual reports were then used to identify the CEOs in post between 2014 and 2017, which extended the data sample.

When combining these with the Binley's data, the final CEO panel dataset contained 2,144 trust-year records including 473 CEO departures and 474 CEO successions. The entrants includes CEOs who were appointed on an interim basis. Figure 3-1 shows the number of CEO successions in each year.
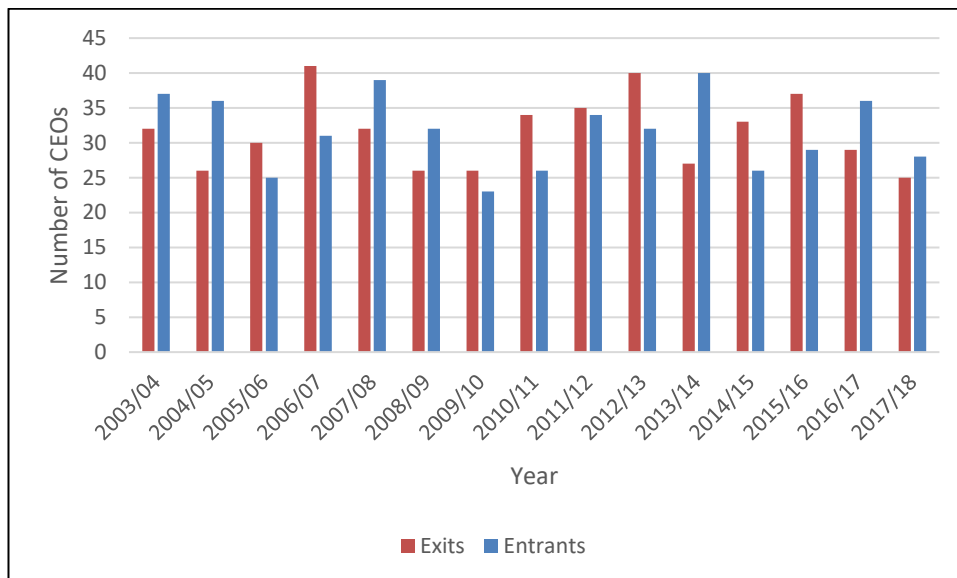
Figure 3-1 CEO successions by year

The next section describes each of the variables in the dataset and discusses the summary statistics for these variables.

3.4 Variable construction and operationalisation

This section describes the variables used in this research. It is split into dependent variables, explanatory variables, and control variables. Each variable has been selected based on the extant literature and the research questions specified in the previous chapter. The operationalisation of key variables has been influenced by the lens of social capital theory used throughout my research and, where applicable, is clearly highlighted below.

3.4.1 Dependent and explanatory variables

Some of the dependent variables described in this sub-section are also used as explanatory variables when addressing other research questions. Where applicable, this is noted.

3.4.1.1 CEO tenure

CEO tenure is used as the dependent variable in the empirical chapter looking at the antecedents of CEO succession. Here, the research question being addressed is: how does social capital affect a CEO's ability to influence their tenure? A CEO's observed tenure is the number of years in post during the study observation period whereas their total tenure includes any years in post prior to the start of the study observation period. So, for a CEO taking up their post between 1st April 2003 and 31st March 2018 their observed tenure will be the same as their total tenure. For any CEO who started prior to 1st April 2003 their total tenure will be greater than their observed tenure. For the 473 CEOs who exited their posts during the study period, Table 3-1 shows the observed tenure, which ranged from 1 to 14 years, although 80% of CEOs left within 5 years, and the total tenure, which ranged from 1 to 19 years. A further 110 CEOs remained in post at the end of the study period of which seven were in post for the entire duration of the study period and thus have right censored observed tenures of 15 years and total tenures ranging from 15 to 26 years.

Table 3-1 CEO tenure

CEO tenure (years)	Observed tenure			Total tenure		
	Frequency	Percent	Cumulative frequency	Frequency	Percent	Cumulative frequency
1	138	29.18	29.18	122	25.79	25.79
2	81	17.12	46.30	67	14.16	39.96
3	73	15.43	61.73	69	14.59	54.55
4	64	13.53	75.26	60	12.68	67.23
5	32	6.77	82.03	31	6.55	73.78
6	26	5.50	87.53	28	5.92	79.70
7	18	3.81	91.33	23	4.86	84.57
8	14	2.96	94.29	13	2.75	87.32
9	9	1.90	96.19	10	2.11	89.43
10	9	1.90	98.10	10	2.11	91.54
11	2	0.42	98.52	11	2.33	93.87
12	-	-	-	11	2.33	96.19
13	3	0.63	99.15	6	1.27	97.46
14	4	0.85	100.00	3	0.63	98.10
15				3	0.63	98.73
16				1	0.21	98.94
17				2	0.42	99.37
18				2	0.42	99.79
19				1	0.21	100.00

3.4.1.2 Exit destination

A CEO's exit destination is also used as a dependent variable in the empirical chapter looking at the antecedents of CEO succession. The research question being addressed here is: how does social capital affect a CEO's ability to influence their destination on exiting the CEO role? Exit destinations were manually collected from annual reports, LinkedIn, and media reports of the circumstances surrounding a CEO's departure. Table 3-2 shows the exit destinations used in this study. Of the 473 exits, 28.5% were moves to other CEO posts in the NHS. These were readily identified using the CEO dataset collected for this study and such a move is considered to enhance a CEO's social capital as their reputation will either be enhanced by a perceived promotion, by moving to a larger or more prestigious trust, or by their ability to be appointed to a new CEO role, even if considered a sideways career move. A similar proportion, 27.7%, moved to non-CEO roles in the public sector, which includes non-health roles. This destination is generally considered to be a demotion and therefore damages a person's reputation. A small proportion of CEOs, 7%, moved to a role in the private sector and even though not at CEO level, this is considered a reputation enhancing move since the private sector offers greater fiscal rewards. A quarter of the CEOs exited to unemployment or self-employment. It was often difficult to differentiate between these hence they were grouped together. This destination is considered reputation damaging since it was often accompanied by media reports of the CEO having been pushed out of their role. The remaining 11.6% of CEOs exited to retirement, which is considered to be a reputation neutral destination since it is a natural part of the career pathway. There were several reports of early retirement, which were likely due to a CEO being pushed out of their role, but it was not possible to ascertain this for all exits to this destination.

Looking at the spread of exits within each year (see Table 3-2) we see that exits to other NHS CEO roles as a proportion of all exits in each year fell over the sample period, from an average of 32% in the first half of the period to 23% in the latter half. Moves to non-CEO roles in the public sector increased over the same time period from around 26% in the first half to 31%

in the latter half. Whilst there is some variation in the proportion of other exit destinations being used in each year, the overall trend is relatively stable.

Table 3-2 Frequency of CEO exit destinations

Year	NHS CEO	Public sector (non-CEO)	Private sector	Unemployment / self-employment	Retirement	Total
2003	13	7	3	8	1	32
2004	6	4	1	11	4	26
2005	7	10	1	9	3	30
2006	21	5	2	8	5	41
2007	10	10	3	8	1	32
2008	9	8	0	6	3	26
2009	6	8	2	6	4	26
2010	9	10	3	7	5	34
2011	13	9	3	8	2	35
2012	12	7	5	11	5	40
2013	8	6	2	9	2	27
2014	7	9	4	9	4	33
2015	7	14	2	6	8	37
2016	4	13	1	6	5	29
2017	3	11	1	7	3	25
Total	135	131	33	119	55	473

3.4.1.3 Insider status

A CEO's insider status is used as a dependent variable in the empirical chapter looking at CEO selection. Here, the research question being addressed is: is social capital valued by recruiting firms? A dummy variable was created to indicate whether a CEO was an insider, that is, whether they already worked in the trust immediately prior to becoming its CEO. This was coded as 1 if the CEO worked in the trust immediately prior to being appointed its CEO and 0 otherwise.

This dummy variable is also used as an explanatory variable when addressing other research questions in chapters 4 and 6. Notably: how does a CEO's insider status affect the likelihood of them exiting their post and their exit destination, does the baseline performance of the organisation affect the value placed on social capital by the recruiting organisation, and how does social capital affect the impact a new CEO has on organisational performance? Here, being an insider is equated with having internal social capital. Of the 473 exits observed in the sample, 96 (20.3%) were insiders. Of the 474 CEOs taking up their new roles, 116 (24.5%) were insiders. When

looking at trends over time we see that the proportion of CEOs in post who are insiders rises from 10% in 2003/04 to 27% in 2017/18.

3.4.1.4 Organisational performance

Organisational performance is used as a dependent variable in the third empirical chapter looking at the impact a new CEO has on post-succession organisational performance. Specifically, for the research questions: does CEO succession make a difference to organisational performance, does the impact of a new CEO change depending on the baseline performance of the firm, and how does social capital affect the impact a new CEO has on organisational performance? Organisational performance is also used as an explanatory variable when considering the impact of baseline performance as a contingency factor. It is also used as an explanatory variable when used as a proxy for a CEO's reputational social capital.

When used as an explanatory variable, organisational performance is represented by dummy variables indicating whether performance was good or poor. The threshold for this is the top and bottom 30% of trusts in each financial year for each performance metric. This percentile approach was chosen as a compromise to accommodate the performance metrics described below, half of which are standardised and thus conform to a normal distribution.

Within the public sector there are numerous candidates for performance metrics, but these often differ between organisations and in the eyes of stakeholders. Even within a single organisation type, such as NHS trusts, there are still many potential performance metrics, each signalling something different. The choice of these can depend on what facet of performance is considered to be most important at a particular point in time. Therefore, a range of performance metrics spanning several facets of performance were included in the analyses and are described below.

3.4.1.4.1 Reference Cost Index

The RCI is used in the NHS to indicate the average cost of providing a defined service within a particular financial year. They originate from a 1997 White Paper *The New NHS* which stated that granular cost information would

be collected and used to generate unit costs. This data has been collected and published each year since 1998. The RCI shows the average cost of a trust's total activity compared against the same activity carried out at the national average cost. A trust with costs equal to the national average costs will score 100, trusts with higher than average costs will score above 100 and those with lower than average costs will score below 100. To account for different geographical cost pressures, such as wages and property costs, a market forces factor (MFF) is used to adjust the RCI. This adjustment is made by dividing the RCI by the MFF, so areas with higher wage and property costs will have their RCI reduced. From Table 3-3 we can see that RCI data is missing for some records, leaving 2,123 records available for analysis with a range of 69.09 to 138.05 and a mean of 98.8.

3.4.1.4.2 Operating surplus

Much of the extant literature on CEO successions research uses financial measures of performance since private sector organisations are generally used as case studies. Therefore, it is important to include a financial measure in my research even though the public sector is non-profit seeking. A trust's operating surplus was used to provide a financial measure of performance. Operating surplus is used here as NHS trusts are non-profit making organisations, but it is akin to the profit in a profit-making organisation. Due to the long sample period of 15 years, these figures were adjusted for inflation to give values at 2018 rates. A value of zero means that no operating surplus was generated in that year whilst values below zero mean there was a deficit and values greater than zero indicate a surplus. From Table 3-3 we see that this data is missing for many records, leaving just 1,811 records available for analysis. The missing data is generally due to annual reports not being available for all trusts in all years. This metric ranges from -£194,951 to £126,188 with a mean of £1,181.55 and a median value of £3,595. Further analysis of this variable shows that just over 30% of records give a deficit with the remaining 70% showing either a surplus or zero.

Table 3-3 Summary statistics

Variable	Obs.	Mean	Median	Std. Dev.	Min	Max
CEO succession	2,144	0.221	0	0.415	0	1
CEO exit	2,144	0.221	0	0.415	0	1
Observed tenure	2,144	3.578	3	2.858	1	15
Total tenure	2,144	4.354	3	3.691	1	26
Male	2,144	0.662	1	0.473	0	1
Clinician	2,144	0.221	0	0.415	0	1
Insider	2,144	0.200	0	0.400	0	1
Previous CEO experience	2,144	0.537	1	00.499	0	1
CEO age (years)	1,882	50.639	51	6.173	31	69
Acute trust	2,144	0.746	1	.435	0	1
Teaching trust	2,144	0.200	0	0.400	0	1
Foundation trust	2,144	0.366	0	0.482	0	1
Number of overnight beds	2,140	791.558	726	362.235	224	2,662
A&E waiting time target	2,136	0.931	0.952	0.061	0.598	0.995
Operating surplus	1,811	1,181.546	3,595	18,554.33	-195,000	126,000
Reference cost index	2,123	98.843	98.650	6.785	69.090	138.050
Inpatient waiting times (days)	2,135	60.978	54	22.962	1	344
Mortality rates	2,054	1.003	1.005	0.104	0.539	1.443
MRSA infection rates	2,138	0.478	0.399	0.422	0	5.395
Herfindahl Index - admissions	2,144	0.776	0.070	0.313	0.040	0.160
Herfindahl Index - board size	2,144	0.737	0.060	0.029	0.040	0.150
Board independence	2,142	0.506	0.530	0.074	0.060	0.700

3.4.1.4.3 A&E target achievement

Acute trusts in England have a waiting time target for A&E of 4 hours and it is expected that at least 95% of patients attending A&E should be admitted, transferred or discharged within four hours. This target was introduced in 2004 but data is available from quarter 3 of 2002/03. This metric was operationalised as the average performance across all four quarters in a financial year. From Table 3-3 we see that data was available for 2,136 records with a range of 59.8% to 99.5% target attainment and a mean of 93.1% with the median value at 95.2%.

3.4.1.4.4 Inpatient waiting times

In addition to these performance measures, a throughput measure (Janke et al., 2018) was also used, namely, the mean inpatient waiting time (in days) for each trust in each financial year. This is the number of days a patient waits from being referred for an operation or procedure to it being carried out. From Table 3-3 we see that this metric was available for 2,135 records and ranged from 1 to 344 days with a mean of 61 days and a median value of 54 days.

3.4.1.4.5 MRSA infection rates

Clinical performance was measured using hospital infection rates for MRSA. These were standardised using the mean of the population for each trust. A value of one indicates that the trust had the expected number of MRSA infections in that year. A value of less than one indicates there were fewer than expected infections and a value of more than one indicates there were more than the expected number of infections. A value of zero was applied where no infections were observed in that year. From Table 3-3 we see that missing data reduced the number of records to 2,138, which ranged from 0 to 5.395 with a mean of 0.478 and a median value of 0.399.

3.4.1.4.6 Mortality rates

Hospitals are often judged by their mortality rates but again, given the long sample period there was no single mortality metric available across the entire 15 years. Instead, two separate measures were used, each covering a

portion of the sample period. The hospital standardised mortality ratio (HSMR) was available from the beginning of the observation period to 2011/12. The standardised hospital mortality indicator (SHMI) was available from 2011/12. The HSMR takes the value of 100 if the number of deaths were as expected, less than 100 if there were fewer than expected deaths, and greater than 100 if there were more deaths than expected. The SHMI takes the value of 1 if the number of deaths were as expected, less than 1 if there were fewer than expected deaths, and greater than 1 if there were more deaths than expected. A combined metric was created which converted the HSMR to the same scale as the SHMI and used the SHMI from 2011/12 onwards with years prior to that being populated using the HSMR. From Table 3-3 we see that this combined metric for mortality rates provides 2,054 records ranging from 0.539 to 1.443 with a mean of 1.003 and a median value of 1.005.

3.4.1.5 Succession one and two years previously

For the third empirical chapter looking at the impact a new CEO has on performance, two dummy explanatory variables were created to indicate whether the current CEO had been in post for at least one full financial year and two full financial years. There are 474 new CEO appointments included in the data sample, but of these, not all were in post for at least one full financial year. It is suggested that a new CEO needs 12 to 18 months to bed in and have an impact of organisational performance (Hoggettbowers, 2009) hence looking at the impact over time is useful.

3.4.2   Control variables

The control variables used in this research were chosen based on their previous use within the extant literature and are described below.

3.4.2.1 Organisation size

The size of each trust was measured using a continuous variable for the number of overnight beds as this is often used as a proxy for trust size in the health-sector literature (Perotin et al., 2013; Veronesi et al., 2013; 2015; Kirkpatrick et al., 2017). From Table 3-3 we see that there was missing data for four records, leaving 2,140 records available for analysis. This metric

ranged from 224 to 2,662 beds with a mean of 792 beds and a median of 726.

3.4.2.2 CEO gender

The gender of a CEO is a personal characteristic sometimes used in the CEO successions literature as a control variable (Petrovsky et al., 2017; Janke et al., 2018). The gender of each CEO was coded as 0 for female and 1 for male. Gender was available for all CEOs in the data sample meaning that all 2,144 records were available for analysis. Almost 70% of CEOs exiting a trust were male and 63.5% of new CEOs were male. When looking at trends over time we see a clear downward trend in the dominance of men in CEO roles over the sample period falling from 78% in 2003/04 to 55% in 2017/18.

3.4.2.3 Teaching status

The teaching status of a trust may influence its desirability as an employer due to the perceived reputational benefits of working in a teaching trust, which tend to be large and thus have bigger budgets than non-teaching trusts. As per the extant literature (Salge, 2011; Veronesi et al., 2014; 2015; Kirkpatrick et al., 2017; Janke et al., 2018) a control dummy was created to account for this. The teaching trust variable was coded as 1 for teaching trusts and 0 for non-teaching trusts. This value could theoretically vary over time if a trust was granted teaching status, but this did not happen to any trusts in the observation period, hence this variable is non-time dependent. Nearly 16% of exits were from teaching trusts.

3.4.2.4 Foundation trust status

Foundation trust (FT) status indicates that a trust has met strict financial performance governance standards and is therefore granted freedom from central government control. FT status is often used as a control variable in the health-sector literature (Salge, 2011; Janke et al., 2018). A trust with foundation status was coded as 1, with non-foundation trusts coded as 0. Foundation trust status can vary over time and any trust gaining foundation status during the sample period has different values before and after that

event. Therefore, this variable is time dependent. 33% of exits were from foundation trusts.

3.4.2.5 Trust type

Two types of NHS trust are included in the data sample: acute, and combined acute and community. An acute trust provides secondary health services whereas a combined acute and community trust provides community services in addition to the acute services. Other types of trust were excluded due to the organisational performance measures used in my research not being relevant for them. The number of trusts included in each financial year exhibits a general downward trend, due to trust mergers, an increasingly common occurrence as financially embattled trusts seek to benefit from the increased economies of scale generated by larger organisations. The number of acute trusts falls from a peak of 113 in 2004/05 and 2006/07 to a low of 97 in 2016/17 and 2017/18. During the sample period five new trusts were created from mergers or acquisitions and 20 trusts ceased to exist.

3.4.2.6 Previous CEO experience

The extant literature has highlighted the significance of previous experience at CEO level when considering CEO successions. A dummy variable was created to indicate whether a CEO had previous experience as a CEO, either in another NHS trust or elsewhere. This variable was coded as 1 if the CEO had previous experience and 0 otherwise.

3.4.2.7 Geography

As per the extant health-sector literature (Veronesi et al., 2015), it is common practice to include a control variable to differentiate between geographical areas. This study uses the four regional footprints: North, Midlands and East, London, and South that were historically used in the NHS prior to the recent move to seven regional footprints. It also uses the historic Strategic Health Authority (SHA) footprints for more granularity. Until the 2013 reorganisation of the NHS there were ten SHAs which were responsible for developing and improving health services in their local area, but these were replaced by Clinical Commissioning Groups.

3.4.2.8 Clinical background

Public health sector management research has had a recent focus on the role of clinicians on boards (Veronesi et al., 2013; 2014; 2015). A dummy variable for whether a CEO is a clinician of any type was created. This includes doctors, nurses and other health care professionals. Whilst 23.5% of CEOs who exited their roles were clinicians, this increased to 29% of new entrants, which indicates that clinicians are becoming more prevalent in CEO posts. When looking at trends over time we see that the mean proportion of CEOs in post who were clinicians ranged from 11% 2003/04 to 33% in 2017/13, showing a clear increasing trend to appoint CEOs with clinical backgrounds.

3.4.2.9 Labour market concentration

The Herfindahl-Hirschman Index (HHI) is a commonly used measure of market concentration and is used here as a proxy for the competitiveness of the labour market. It is calculated using the formula:

$$H = \sum_{i=1}^{N} s_i^2$$

where s_i is the market share of firm i.

Two different operationalisations were constructed for this metric. The first used the number of hospital admissions to create the HHISHA variable whilst the second used the number of non-executive board members in each trust to create the HHISHABOARD variable. Both of these were calculated at SHA level for each financial year. It is generally accepted that an HHI of less than 0.01 indicates a highly competitive market, a value between 0.01 and 0.15 indicates the market is unconcentrated, a value between 0.15 and 0.25 indicates a moderately concentrated market, and a value greater than 0.25 indicates the highly concentrated market. Table 3-3 provides the descriptive statistics for each of these metrics and we can see that the metric calculated using admissions ranges from 445 to 1,566 whereas the metric calculated using board size ranges from 378 to 1,544. Both are similar with means of 777 and 738 respectively. The maximum values for each imply that within each SHA the labour market is competitive.

3.4.2.10   CEO age

The age of the CEO has been widely used as a control variable when looking at the antecedents of exit (Petrovsky et al., 2017), particularly where retirement is an option as this is clearly highly correlated with age. From Table 3-3 we see that there is lots of missing data for the age variable, with only 1,882 records available for analysis. CEO age was manually collected from a range of sources including trust annual reports, LinkedIn and media reports. It was rare that the actual date of birth was disclosed so in most cases the date of birth was inferred from the source material, which means there is a margin of error around this variable. The age of CEOs ranged from 31 to 69 years with a mean of 50.6 years and a median value of 51 years.

3.4.2.11   Board independence

The proportion of non-executive board members is expected to influence decisions on whom to appoint as a new CEO. Therefore, it is an important control variable when looking at CEO selection. Board independence was calculated as the number of non-executive board members divided by the total number of board members. Data for this was manually collected from trust annual reports and supplemented using the Binley's database where annual reports were not available. From Table 3-3 we see that the proportion of non-executive board members ranged from 6% to 70% with a mean of 51% and a median value of 53%.

3.5   Summary

This chapter has described how the data sample used in this thesis was constructed. It has also described the variables used in the analysis and provided descriptive statistics. Under the positivist philosophy used throughout my research only observable and quantifiable variables are acceptable for use in the analysis. This has shaped the choice of variables to those outlined in this chapter. CEO successions research has largely adopted a quantitative approach in the extant literature, which has provided a basis from which to select the variables used in my research. Three main strands of CEO succession research have been identified for exploration in

this thesis and the next chapter addresses the first of these, the antecedents of CEO succession.

Chapter 4 – Antecedents of CEO turnover

4.1 Introduction

In September 2019 Siobhan McArdle, CEO of South Tees Hospitals NHS Foundation Trust, sent an email to her staff announcing her resignation. Her email, quoted online (Lintern, 2019) stated that: '*the personal cost of being a CEO in the NHS is just too high and life is just too short.*' Such a statement suggests that the pressures facing an NHS CEO are substantial. So, is it that this particular CEO couldn't handle the pressure any longer or were other factors involved? It is likely that the decision making process leading up to this apparent resignation encompassed many factors with a virtual set of scales balancing them off against each other: what elements of the job did she like, which did she not like, how was her relationship with the board, what were the challenges facing the trust, what other opportunities were there for her outside the trust? Above all these considerations comes the pivotal question of how well suited was she to the role?

South Tees is by no means the only NHS trust to have had a change of CEO. Turnover of CEOs in the NHS is a frequent occurrence with median tenure being just 3 years (Anandaciva et al., 2018). Although this has increased since 2014, up from 2.5 years (Anandaciva et al., 2018) it is still lower than in other parts of the English public sector. For example, local authorities are reported to have a median tenure for CEOs of 4 years (Petrovsky et al., 2017). However, CEO tenure in the private sector appears to be longer with a median length of 5 years (Karlsson et al., 2019). Interestingly, whilst CEO tenure in the NHS appears to be rising (Anandaciva et al., 2018), the opposite is happening in the UK private sector, with median tenure falling in recent years (Cornish, 2017).

CEO turnover can be disruptive (Boyne et al., 2011a), so identifying which factors might influence that event is an important step in helping trusts, and other organisations, retain top managers. Therefore, this empirical chapter looks at the antecedents of CEO turnover to try and determine whether factors contributing to an individual's social capital can help predict the likelihood of turnover and their exit destination. Through the lens of social

capital theory, I look at the insider status of a CEO and the performance of their trust. An insider CEO is assumed to have internal social capital accumulated through virtue of already working with the people whom they now lead. A CEO currently overseeing high baseline organisational performance is assumed to have reputational social capital as a result of that good performance being attributed to their leadership prowess (McCabe et al., 2008; Anandaciva et al., 2018).

The structure of this rest of this chapter is as follows: firstly, I set out the theoretical motivation for my research into the antecedents of CEO succession. This adopts a simple framework for a labour market theory of CEO succession which looks at various types of inputs into the decision-making process that precedes a CEO's departure. In line with recommendations from the extant literature I differentiate between exit destinations in an attempt to present a more nuanced analysis. As this is the first study to look at NHS CEO departures, I have had to define exit destinations for the first time in this context, which differ to those presented in existing public sector research. Through the lens of social capital theory, these exit destinations can be grouped into those that enhance social capital, those that diminish it, and those that are neutral. The second section sets out my hypotheses and the arguments underpinning them before the results of my analyses are presented and discussed.

There are two analytical strands to this chapter addressing the research questions: how does a CEO's insider status, as a proxy for social capital, affect the likelihood of them exiting their post and their exit destination; and how does organisational performance, as a proxy for social capital, affect a CEOs ability to influence their tenure and their destination on exiting the CEO role? The first hypothesis, described in more detail in the next section, posits that insiders, those CEOs who worked in a trust immediately prior to becoming its CEO, have a lower risk of exit compared to outsiders for all non-retirement exits. A Cox Model and competing risks models are used to test this hypothesis. The second hypothesis, which is in two parts, suggests that the relationship between organisational performance and risk of exit is non-linear with both extremes of performance being associated with higher

or lower risks of leaving depending on whether the exit destination is considered to enhance or diminish their social capital. A Cox Model and competing risks models are also used to test this hypothesis. The final section interprets the findings from my analysis and draws conclusions before setting out what contribution this research has made to the literature. But first, the next section sets out the theoretical motivations for my research and the associated hypotheses.

4.2   Theoretical motivation and hypothesis development

This empirical chapter is underpinned by two complementary theoretical arguments. The first is a simple labour market theory proposed by Grissom and Andersen (2012) and the second, a theory of social capital as described by Adler and Kwon (2002). Petrovsky et al. (2017) highlighted the importance of adopting a different theoretical stance for public sector CEO succession research than that used in studies of the private sector or other settings where the CEO has little protection from removal. This lends itself to the adoption of the labour market framework developed by Grissom and Andersen (2012) which suggests there are logical inputs to the decision making process that determines whether a CEO exits or stays. A key difference here is that I use exit destinations rather than reason for exit. This is due to the difficulty in identifying the true reasons for exits in the public sector. For example, dismissals are rarely reported as such and a CEO is more likely to be removed following a compromise agreement where they step down or are moved to another part of the NHS (Anandaciva et al., 2018). In the very rare event that an NHS CEO is dismissed and reported as such it is usually attributed to gross misconduct rather than the result of poor performance. Examples include the dismissal of Southport and Ormskirk NHS Trust CEO Jonathan Parry in 2015, and Newcastle and Tyne NHS Foundation Trust CEO Sir Leonard Fenwick in 2017, both reported as dismissals for misconduct.

Figure 4-1 shows the conceptual labour market framework used in this chapter in which I identify input factors at an individual level and organisational level. Previous research has used a third category of inputs at

the environmental level. For the public sector this usually involves political factors (Boyne et al., 2010a; Petrovsky et al., 2017) but these are not relevant for the NHS as any political change will affect each trust in the same way since, unlike for local authorities, there is no local political control. Grissom and Andersen (2012) note that this framework recognises that the decision-making process for both the CEO and board is a black box, and that we can only observe the inputs to the process and the outputs. These inputs can be viewed through the lens of social capital theory to identify those of most theoretical interest, namely, insider status and organisational performance, both of which can be considered proxies for the presence or amount of social capital an individual may have.

A CEO's insider status can be used as a proxy for their internal social capital on the assumption that they will have been able to build relationships with colleagues and stakeholders during their pre-CEO tenure (Adler and Kwon, 2002). Within the context of NHS trusts there are several possible definitions of insider status but the one used here is whether the CEO worked in the trust they then became CEO of immediately prior to becoming its CEO. If they worked in the trust prior to becoming its CEO we might expect them to have already developed relationships which could help them settle into the role more readily and to have accumulated trust-specific knowledge that gives them an advantage over an outsider (Petrovsky et al., 2017). They will already be familiar with how the trust operates and the internal politics that need to be managed (Petrovsky et al., 2017), which may give them more power to influence any decisions about replacing them (Johnson et al., 2012; Phan and Lee, 1995). Conversely, outsiders to the trust, although in most cases having experience in the NHS (Anandaciva et al., 2018), may struggle to build relationships and navigate the internal landscape (Petrovsky et al., 2017). For any CEOs that do come from the private sector, we would expect them to have greater opportunities to leave given their connections in that sector (Bertelli and Lewis, 2013; Petrovsky et al., 2017). Extrapolating this to outsiders as per the definition used here, we might expect outsiders to a trust to have greater opportunities to leave as they too will have contacts in other parts of the NHS or other sectors.
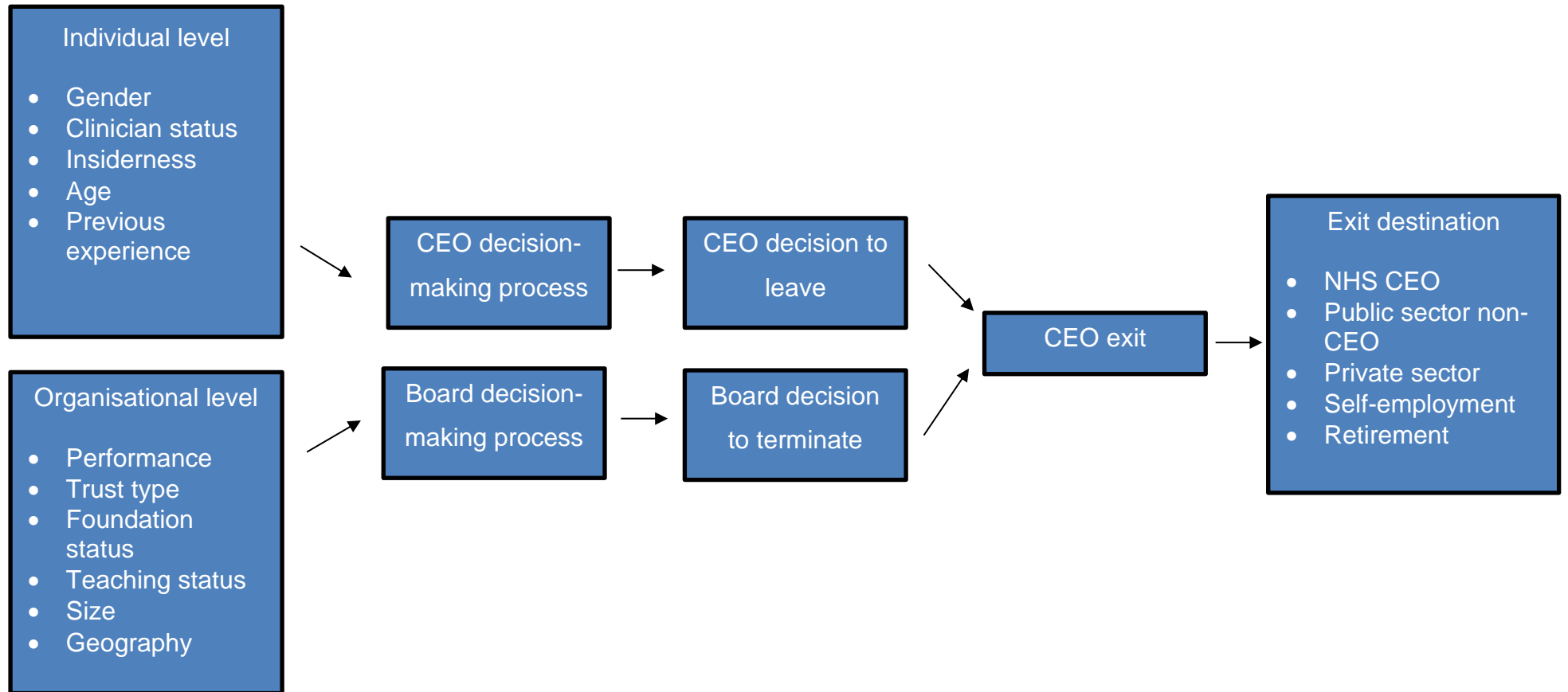
Figure 4-1 Labour market model

The appointment of an insider CEO is associated with a commitment to maintaining the status quo within an organisation as it signals that the board is not seeking a change in the strategic direction of the organisation (Helmich and Brown, 1972; Datta and Guthrie, 1994; Bailey and Helfat, 2003). An insider will already be committed to that strategy and can thus be assumed to be a good fit for that organisation (Petrovsky et al., 2017). They will have the security of taking on a CEO role in a known organisation and, given the challenging environment in the NHS, may be reluctant to leave that role (Anandaciva et al., 2018). Based on these arguments, I would expect insiders to have a longer tenure than outsiders. Therefore, the first hypothesis is:

> H_1: CEOs who have accumulated internal social capital through insiderness will have a lower risk of exit than outsiders, for all non-retirement exit types

The impact of a trusts' performance on a CEO's likelihood of leaving is affected by contradictory forces and could be non-linear (Grissom and Andersen, 2012; Grissom et al., 2016). A CEO overseeing poor performance might be expected to have fewer options to leave since the poor performance of the trust will reflect poorly on their leadership abilities (Fee and Hadlock, 2003; McCabe et al., 2008; Anandaciva et al., 2018) and make them unattractive to other employers by tarnishing their reputation and thus diminishing their reputational social capital. Therefore, we might expect CEOs of poor performing trusts to have a lower risk of exit. However, in conditions of poor performance the board may want to remove the CEO in the hopes of replacing them with someone better able to improve performance (Anandaciva et al., 2018). Thus, we might expect CEOs of poor performing trusts to have a higher risk of exit (McCabe et al., 2008; Grissom and Andersen, 2012; Petrovsky et al., 2017). These opposing forces could cancel each other out, leading to no observed impact of performance, but when looking at separate exit destinations I expect their diminished reputational social capital, resulting from the poor performance, to influence the direction of the associations such that:

H$_{2a}$: CEOs with low reputational social capital have a lower risk of exit to destinations that enhance their reputational social capital, but a higher risk of exit to destinations that diminish their reputational social capital

Since organisational performance can be considered as a source of reputational social capital, sustained good performance will reflect well on a CEO as the success is attributed to their superior leadership (McCabe et al., 2008; Anandaciva et al., 2018). This makes them attractive to other employers and thus increases the opportunities they have for career advancement such that we might expect CEOs overseeing good performance to have a higher risk of leaving. However, NHS leadership positions can be difficult to fill (Hoggettbowers, 2009) due to the perceived challenges of those roles, with candidates facing significant exposure to the risk of damaging their reputation if they do not perform well (Anandaciva et al., 2018). Therefore, a CEO overseeing good performance may be incentivised to remain in post, to maintain their good reputation and avoid the pitfalls of moving to a trust that may damage it (Johnson et al., 2011). Thus, we might expect CEOs overseeing good performance to have a lower risk of leaving (McCabe et al., 2008; Grissom and Andersen, 2012; Petrovsky et al., 2017). Again, these two opposing forces could cancel each other out but when looking at separate exit destinations I expect their enhanced reputational social capital, resulting from the good performance of their trust, to influence the direction of the association such that:

H$_{2b}$: CEOs with high reputational social capital have a higher risk of exit to destinations that enhance their reputational social capital but a lower risk of exit to destinations that diminish their reputational social capital

This section has set out the theoretical motivations for my research and the hypotheses that will be tested in this chapter. The next section describes the methodology used in this chapter, that of survival modelling.

4.3 Data and methodology

This section describes the methodology used in the analyses in this chapter, specifically, the Cox survival model and competing risks models. This is followed by a description of the sample and variables used to test the hypotheses set out in the previous section.

4.3.1 Methodology

For this chapter, the event of interest is a CEO leaving their post. This can be viewed as the time in post until that event, which is analogous to a survival time. Therefore, survival analysis modelling is used in this chapter. This method is particularly suitable when data is right-censored, that is, some CEOs may not have left their jobs by the end of the sample period. This is an important consideration because removing censored observations from a study can skew the remaining data. For example, there are several CEOs who remain in the same job for the entire sample period, giving them a right-censored time to event of at least 15 years. This censoring is permitted by the inclusion of information about timing, which is unique to survival models when compared to other types of regression. Not only do these methods look at the event of interest, but also the time until that event occurs. This means that relationships between independent variables and survival time can be easily explored. A further benefit of these methods is the ability to include independent variables that vary over time, such as performance data.

As described by Mills (2011), survival time T is a positive random variable which has specific values denoted by t. The cumulative density function is represented by $F(t)$ where:

$$F(t) = \int_0^t f(u)d(u) = \Pr(T \le t)$$

$\Pr(T \leq t)$ is the probability that a survival time T is less than or equal to t. The probability density function of the values of T is represented by $f(t)$ where:

$$f(t) = \frac{dF(t)}{d(t)} = F'(t)$$

$$\Rightarrow f(t) = \lim_{\Delta t \to 0} \frac{F\big((t + \Delta t) - F(t)\big)}{\Delta t}$$

The probability density function provides the unconditional probability that a CEO leaves between time t and Δt and is therefore expressed as:

$$f(t) = \lim_{\Delta t \to 0} \frac{Pr(t \leq T \leq t + \Delta t)}{\Delta t}$$

The survivor function $\hat{S}(t)$ gives the probability that a survival time T is greater than or equal to time t. $\hat{S}(t)$ is the proportion of CEOs still in post at time t and is expressed as:

$$\hat{S}(t) = 1 - F(t) = \Pr(T \geq t)$$

The way in which an event and non-event are related to each other is specified by the hazard rate $h(t)$:

$$h(t) = \frac{f(t)}{\hat{S}(t)}$$

This hazard rate provides the rate at which CEOs leave by time t given that they were in post until t, that is, a CEO leaving is conditional on that CEO having survived until time t. This conditional leaving rate is expressed as:

$$h(t) = \lim_{\Delta t \to 0} \frac{Pr(t \leq T \leq t + \Delta t | T \geq t)}{\Delta t}$$

The Cox model (Cox, 1972) is a semi-parametric method that doesn't specify the form of the baseline hazard in advance. The model with fixed covariates is defined as:

$$h(t) = h_0(t) exp\{\beta_1 x_1 + \ldots + \beta_k x_k\}$$

where:

- t represents the survival time

- $h(t)$ is the hazard function at time t for a subject with covariate values x_1 to x_k
- $h_0(t)$ is the baseline hazard function, that is, the hazard function when all covariates are equal to zero (since $exp(0) = 1$)
- exp is the exponential function $exp(x) = e^x$
- x_i is the ith covariate in the model; and
- β_i is the regression coefficient for the ith covariate x_i, that is, it measures the impact of the covariate.

The values of $\exp(\beta_i)$ provide the hazard ratios for each covariate. A hazard ratio greater than one indicates that as the value of that covariate increases, the hazard of the event of interest increases and thus the survival time decreases. Conversely, a hazard ratio of less than one indicates that as the value of that covariate increases, the hazard of the event of decreases increases and thus the survival time increases. A hazard ratio equal to one indicates that the covariate had no effect on the event of interest and thus on survival times.

The Cox model is a proportional hazards model, that is, it assumes that the hazard function for two different levels of a covariate are proportional for all values of t. This is illustrated by taking the ratio of $h(t)$ for two different covariate values:

$$\frac{h_i(t)}{h_j(t)} = \frac{h_0(t)exp\{\beta_1 x_{i1}+\ldots+\beta_k x_{ik}\}}{h_0(t)exp\{\beta_1 x_{j1}+\ldots+\beta_k x_{jk}\}} = exp\{\beta_1(x_{i1} - x_{j1})+\ldots+\beta_k(x_{ik} - x_{jk})$$

Which, because the $h_0(t)$ cancel out, is independent of time t. For a model with time-varying covariates the Cox model takes the form:

$$h(t) = h_0(t)exp\{\beta_1 x_1 + \beta_2 x_2(t)\ldots+\beta_k x_k\}$$

The only difference is the inclusion of the $\beta_2 x_2(t)$ term for time-varying variables.

An extension to this is the competing risks model as proposed by Fine and Gray (1999). Here, a competing risk is present when a CEO is at risk of exiting to more than one destination and the occurrence of any one those events will prevent any other exit from happening for that CEO. That is, they

can only exit to a single destination out of several possible options. Whereas in the Cox model we are interested in the survival function for the event of interest, $P(T > t \text{ and event type } 1)$, for competing risks models we are interested instead in the failure function, $P(T \leq t \text{ and event type } 1)$, that is, the cumulative incidence function. Fine and Gray (1999) specify a model for the hazard of the sub-distribution from this, the or failure type 1 as:

$$\bar{h}_1(t)$$

$$= \lim_{\delta \to 0} \left\{ \frac{P(t < T \leq t + \delta \text{ and event type } 1)|T > t \text{ } or \text{ } (T \leq t \text{ and not event type } 1)}{\delta} \right\}$$

From this the cumulative incidence function (CIF) can be calculated as:

$$CIF_1(t) = 1 - \exp\{-\bar{H}_1(t)\}$$

where $\bar{H}_1(t) = \int_0^t \bar{h}_1(t)dt$ is the cumulative sub-hazard.

4.3.2 Sample selection

The panel data sample used for analysis in this chapter includes all NHS acute trusts and combined acute and community NHS trusts in England between 2003/04 and 2017/18, and any CEOs of those trusts who were in post between 1st April 2003 and 31st March 2017. In total there were 2,144 trust-year records available for analysis comprised of 155 trusts and 430 distinct CEOs. In accordance with the literature, interim CEOs were removed from the sample (Bushman et al., 2010) as were any exits due to a trust being terminated (Petrovsky et al., 2017). This reduced the sample to 2,002 records in which there were 364 CEO exit events, as shown in Table 4-1. The descriptive statistics presented throughout the rest of this chapter refer to this reduced sample.

Table 4-1 Sample construction

Procedure	Observations
Original sample	2,144
Less: CEOs appointed on an interim basis	(106)
Less: CEO exits due to a trust being terminated	(36)
Final sample in trust-years	**2,002**

4.3.3 Dependent variables

This chapter uses several dependent variables. For the pooled cox model I use the observed tenure, for the competing risks models I use exit destinations, and for the t-tests I use total tenure. A full description of all variables used in this analysis is provided in Chapter 3. The observed tenure is shown in Figure 4-2 as a survival function where the x-axis is the tenure and the y-axis shows the proportion of CEOs still in post for each year of tenure. As provided in Table 4-2, the mean observed tenure is 3.74 years with a range of 1 to 15 years. For the total tenure, the mean is 4.56 years with a range of 1 to 26 years, indicating that at least one CEO took up their post 11 years before the study observation period started. Seven CEOs were in post for the entire duration of the study and remained in post on the last day of the observation period. This means they were right-censored. In total, the final sample included 111 right-censored observations
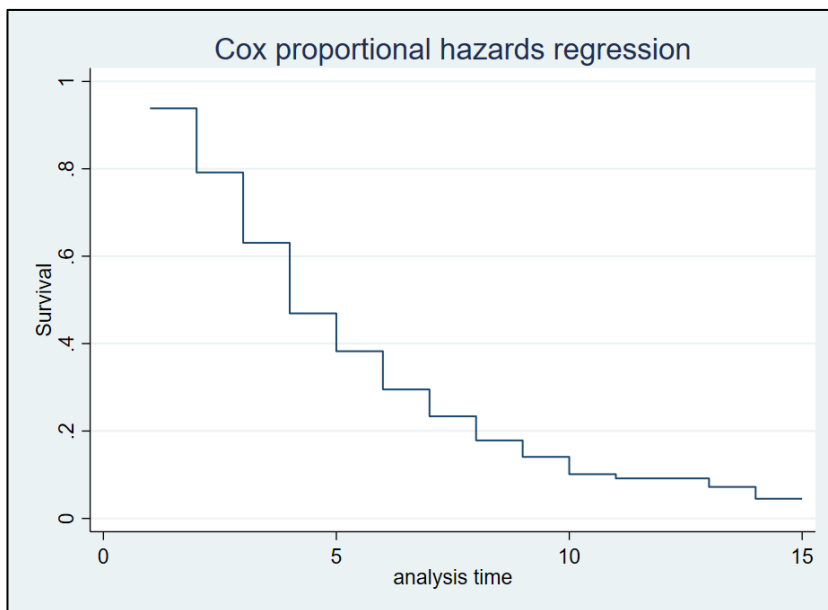
Figure 4-2 CEO survival curve

For the competing risks models a multinomial exit destination variable was used, as described in Table 4-3. Nearly a quarter (23.9%) of exits were to self-employment or unemployment. This category is assumed to represent a poor outcome which would diminish their reputational social capital and was usually the destination for CEOs stepping down for personal reasons or to face new challenges, often code for being pushed out by the board. These

CEOs tended to establish themselves as self-employed consultants or had a significant break in employment before returning to a paid role. For simplicity, for the remainder of this chapter this destination is referred to as self-employment. Nearly a fifth (19.8%) of the exits were to non-CEO posts elsewhere in the public sector. In practice this can include both demotions and promotions, but the latter seem to be quite rare as judged during the data collection process. Some moves, such as the recent secondment of the CEO of Guy's and St Thomas' NHS Foundation Trust to the Chief Operating Officer role in NHS England are clearly a promotion, but others are more ambiguous. When an NHS CEO is pushed out of their role, one of the face-saving strategies used is to second them to a role elsewhere in the NHS or DHSC for a period before they disappear quietly out of NHS employment (Dunhill, 2018).

Table 4-2 Summary statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
CEO exit	2,002	0.182	0.386	0	1
Observed tenure	2,002	3.735	2.887	1	15
Total tenure	2,002	4.557	3.726	1	26
Male	2,002	0.657	0.475	0	1
Clinician	2,002	0.215	0.411	0	1
Insider	2,002	0.185	0.388	0	1
CEO age (years)	1,766	50.528	6.069	31	69
Acute trust	2,002	0.735	0.442	0	1
Teaching trust	2,002	0.206	0.404	0	1
Foundation trust	2,002	0.371	0.483	0	1
Overnight beds	2,001	796.312	363.739	232	2,662
A&E target	1,995	0.932	0.060	0.598	0.995
Operating surplus	1,706	1,763.971	17,878.240	-195,000	126,000
RCI	1,993	98.800	6.763	69.090	138.050
Inpatient waits (days)	1,999	61.013	23.116	1	344
HSMR	1,195	100.168	10.995	67.364	144.299
SHMI	890	1.002	0.095	0.539	1.247
MRSA	2,002	0.477	0.424	0	5.395
HHISHA- admissions	2,002	0.078	0.032	0.040	0.160
Previous CEO experience	2,002	0.541	0.499	0	1

On balance, this category is assumed to be a demotion which diminishes reputational social capital since most of the media reports alluded to CEOs being pushed out. Exits to retirement account for 15.1% of all departures and include those taking early retirement. This is often influenced by a CEO being pushed out and to save face they take early retirement rather than

leaving to self-employment. Although the media reports sometimes alluded to this being the case, it was not clear enough to make a distinction between those and genuine early retirements, therefore this category is taken at face value as being genuine retirements. Retirement is considered a neutral destination which neither enhances nor diminishes an individual's reputational social capital. Moves to the private sector account for just 7.4% of all exits and this is generally considered to be a promotion as the private sector can offer far greater fiscal rewards to CEOs making that move. Moving to the private sector is likely to enhance an individual's reputational social capital.

Table 4-3 Exit destinations

Exit destination	Count	Percentage
CEO in another trust	123	33.79
Self-employed/no known post	87	23.90
Non-CEO in public sector	72	19.78
Retirement	55	15.11
Private sector	27	7.42
Total	**364**	**100**

4.3.4 Explanatory variables

The explanatory variables are those included in the analysis to test the hypotheses stated earlier in this chapter. For this chapter these variables are dummies for insider status, low performance relative to other trusts and high performance relative to other trusts. For the entire sample, 18.5% of records were coded as insiders but when looking at the exits this fell to 12.1% meaning that 44 of the 364 exits were for insider CEOs. There was one CEO who returned to a trust as CEO after several years working in another trust. This was not coded as an insider, despite the CEO having a historic track-record with that trust, due to the length of time spent away from the trust.

The main analysis reported in this chapter uses the average performance against the A&E four-hour waiting time target. The performance in each quarter was averaged across each financial year to give a single performance metric for each year. Missing records reduced the sample size to 1,995 with a mean performance of 93% achievement but a range from 60% to 99%. Dummy variables for relatively good and poor performance

were created using the top and bottom 30% of performance figures within each financial year. Supplementary analysis used alternative performance metrics as described in Chapter 3. Two financial measures were used, operating surplus and the RCI. The operating surplus was adjusted for inflation using 2018 prices and for the sample used here it has a mean value of £1,764 but values ranged from -£195,000 to £126,000, indicating significant variations in performance (Table 4-2). This data was not available for all trusts in all years hence the total number of observations available for analysis reduces to 1,706. For operating surplus, the higher the value, the better the performance. However, for RCI, lower values denote better performance as this is cost information and lower costs are preferable. Missing values for RCI reduced the sample size to 1,993 records in which the mean RCI was 98.8. This is below average, where the average cost is 100. The best RCI was 69.09 and the worst was 138.05, as shown in Table 4-2.

Other performance metrics used include MRSA infection rates, where lower values denote better performance. The mean infection rate was 0.48 with a minimum of 0 and a maximum value of 5.4 (Table 4-2). For mortality rates, dummy variables for good and poor performance were created for both the HSMR and SHMI variables using the top and bottom 30% of performance figures within each financial year. A single dummy variable for good mortality performance was created using the good dummy variable for HSMR up to and including 2011/12 and the good dummy variable for SHMI thereafter. A single dummy variable for poor mortality performance was created in the same way using the HSMR and SHMI poor dummy variables. Inpatient waiting times, in days, was also used for the supplementary analysis. There were three missing values for inpatient waiting times which reduced the sample size to 1,999. The mean waiting time was 61 days, but this ranged from 1 to 344 days.

4.3.5 Control variables

Control variables were added to the model to account for factors that are known to be important and have previously been identified in the literature as such. The size of each trust was measured using a continuous variable for

the number of overnight beds. The smallest trust had 232 beds compared to 2,662 for the largest trust. The mean number of beds was 796, as shown in Table 4-2. The gender of each CEO was coded as 0 for female and 1 for male. 65.7% of the records were for men and this was reflected in the proportion of exits that were men, 67%. The teaching trust variable was coded as 1 for teaching trusts and 0 for non-teaching trusts. 20.58% of the records were for trusts with teaching status but this reduced to 15.93% for exit records. A trust with foundation status was coded as 1 with non-foundation trusts coded as 0. 37.06% of the records were for trusts with foundation status although this reduced to 34.34% for exit records. A total of 73 trusts gained FT status during the observation period. This is due to the observation period starting before foundation trusts were created.

This study uses the four regional footprints: North, Midlands and East, London, and South that were historically used in the NHS prior to the recent move to seven regional footprints. The North region accounts for 31% of all records, the Midlands and East accounts for 27.5%, London 15.6% and the South 25.9%. When looking at only those records attached to exits these figures change slightly such that the Midlands and East accounts for the most exits (33%), the North accounts for 24.5%, the South accounts for 24.2% and London 18.4%.

The sample comprised two types of NHS trust: acute, coded as 1; and combined acute and community, coded as 0. Most records were for acute trusts (73.5%) with that figure rising to 78% when looking at just the exit records. The main analysis in this chapter includes a dummy variable for whether a CEO is a clinician of any type. 21.6% of all records are for clinicians, reducing slightly to 20.6% when looking at exit records only. Within that group there is considerable variation in the type of clinician, with nurses accounting for the large majority, followed by doctors and then other clinical roles such as pharmacist and physiotherapist.

It is obvious that the age of a CEO might be an important factor when looking at exit events, particularly for exits into retirement, and the literature supports this assumption (Petrovsky et al., 2017). It was not possible to collect the age of every CEO in the sample, which reduced the number of exit events

available for analysis from 364 to 316. Due to this reduction in sample size, the age variable is excluded from the main analyses and only addressed in the section on robustness checks. The average age of CEOs exiting their posts is 51.5 years but when looking at each exit destination separately the average age ranges from 49.19 for exits to other CEO posts in the NHS to 57.26 for exits to retirement. The youngest CEO to leave their post was 34 and the oldest was 69.

This section has described how the sample used in this chapter was constructed and the variables used in the models. The next section provides the results of the analyses and a discussion on how those results support the hypotheses.

4.4   Empirical results

A correlation matrix is presented in Table 4-4 with any correlations significant at the 95% confidence level flagged with an asterisk. Figure 4-3, which shows the smoothed hazard function for pooled CEO exits, clearly demonstrates that the risk of exit peaks at around 6 years of tenure before declining steadily.

Identifying a single performance metric in the public sector is difficult. Doing so in the NHS is even more so since there are many facets of performance with different stakeholders valuing some more than others. Therefore, to make this research as widely applicable as possible, several performance metrics have been used to test the hypotheses. However, only the results using A&E waiting time target are reported in this chapter although the results for other performance metrics are discussed and are provided in Appendix A.

Table 4-4 Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) Insider	1.000										
(2) A&E target	-0.069*	1.000									
(3) Op. surplus	0.034	0.229*	1.000								
(4) RCI	-0.017	-0.086*	-0.047	1.000							
(5) Inpatient waits	-0.111*	-0.028	0.003	0.000	1.000						
(6) SHMI	0.101*	-0.066	-0.028	-0.010	-0.015	1.000					
(7) HSMR	0.110*	-0.026	-0.072*	-0.127*	0.064*	0.706*	1.000				
(8) MRSA	0.050*	-0.222*	-0.054*	0.093*	-0.039	-0.122*	-0.171*	1.000			
(9) Clinician	0.067*	0.058*	0.003	-0.030	-0.028	-0.056	-0.059*	0.105*	1.000		
(10) Previous CEO	-0.434*	-0.080*	-0.029	0.105*	0.008	-0.106*	-0.126*	0.018	-0.075*	1.000	
(11) Acute trust	-0.090*	0.002	-0.044	-0.152*	0.047*	0.022	-0.046	0.028	0.141*	-0.002	1.000
(12) CEO age	-0.014	-0.051*	0.031	0.082*	-0.248*	-0.090*	-0.180*	0.050*	0.013	0.165*	-0.038
(13) Teaching trust	-0.055*	-0.072*	0.125*	0.255*	-0.021	-0.324*	-0.299*	0.117*	-0.014	0.204*	0.018
(14) FT status	0.226*	0.014	0.094*	-0.035	-0.347*	0.037	-0.031	-0.022	0.096*	-0.100*	-0.007
(15) Male	-0.079*	-0.045*	0.033	0.055*	0.044	-0.005	-0.083*	-0.064*	-0.418*	0.061*	-0.002
(16) Beds	-0.091*	-0.113*	0.044	0.224*	0.028	-0.083*	-0.108*	0.018	-0.059*	0.208*	0.023

Variables	(12)	(13)	(14)	(15)	(16)
(12) CEO age	1.000				
(13) Teaching trust	0.094*	1.000			
(14) FT status	0.139*	0.024	1.000		
(15) Male	0.112*	0.154*	-0.104*	1.000	
(16) Beds	0.207*	0.453*	-0.060*	0.174*	1.000

* shows significance at the 0.05 level
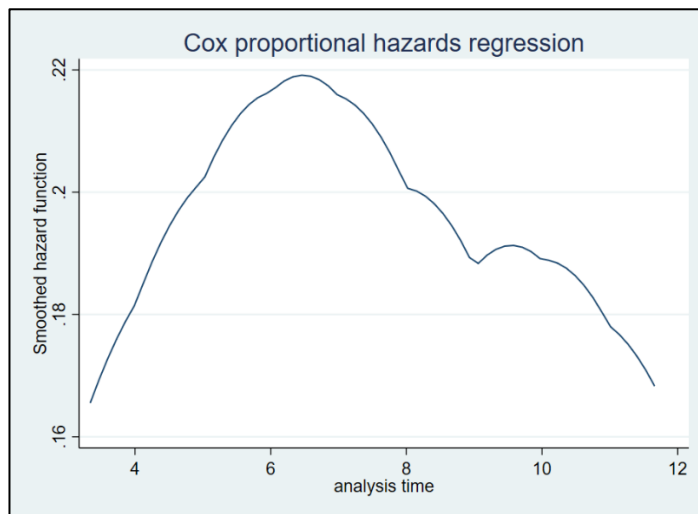
Figure 4-3 CEO hazard rate

A simple t-test was used to see if insider CEOs had a different tenure length compared to outsiders. Table 4-5 provides the results which indicate that insider CEOs had an average tenure of 5.19 years whilst outsider CEOs had an average tenure of 4.49 years. Therefore, we can conclude that tenure is significantly longer for insider CEOs, which supports hypothesis H_1. The results from the multivariate analysis are provided in Table 4-6.

Table 4-5 t-test to compare tenure for insiders and outsiders

		Insider	Outsider	t-value	Probability
All exits	Mean	5.19	4.49	-3.158	0.002
	S.D.	0.23	0.09		

Table 4-6 shows the multivariate results using A&E waiting time target achievement as the performance metric. Model A is for all exits pooled and models B to F show the competing risks models for each exit destination. The pooled analysis provides evidence that insiders have a different risk of exit compared to outsiders, with model A showing that insider CEOs have a 36% lower hazard of exit, significant at the 95% confidence level. The results for the competing risks models were mixed, with model B showing that insiders have a 73% lower hazard of exit to other NHS CEO roles. This result was significant at the 99% confidence level.

Table 4-6 Survival models using A&E metric

Model	A	B	C	D	E	F
			Public (non-	**Private**	**Self-**	
Explanatory variables	**Pooled**	**NHS (CEO)**	**CEO)**	**sector**	**employed**	**Retirement**
Insider (dummy)	0.639**	0.269***	1.316	0.473	0.544	2.924**
	(0.116)	(0.109)	(0.497)	(0.348)	(0.218)	(1.258)
Low performance relative to other trusts	1.343**	0.678	1.096	0.718	2.997***	0.995
	(0.178)	(0.181)	(0.308)	(0.391)	(0.825)	(0.328)
High performance relative to other trusts	0.875	0.895	0.759	1.134	1.427	0.745
	(0.121)	(0.202)	(0.241)	(0.581)	(0.474)	(0.270)
Clinician (dummy)	1.060	0.664	0.809	1.209	1.542	1.094
	(0.158)	(0.181)	(0.278)	(0.510)	(0.438)	(0.386)
Previous CEO experience (dummy)	1.002	0.896	0.981	0.792	0.839	2.168**
	(0.124)	(0.184)	(0.260)	(0.374)	(0.206)	(0.852)
Acute trust (dummy)	1.336**	1.316	1.094	1.415	1.121	0.745
	(0.185)	(0.321)	(0.325)	(0.826)	(0.328)	(0.229)
Teaching hospital (dummy)	0.754	1.129	1.042	2.558*	0.493*	0.354**
	(0.132)	(0.365)	(0.322)	(1.247)	(0.203)	(0.164)
Foundation Trusts status (dummy)	1.002	1.053	0.909	1.343	1.145	2.838***
	(0.124)	(0.232)	(0.264)	(0.551)	(0.284)	(0.874)
Male (dummy)	1.206	1.072	1.436	1.647	0.986	0.800
	(0.160)	(0.247)	(0.444)	(0.753)	(0.265)	(0.253)
Overnight beds	1.000**	0.999***	1.000	1.000	1.000	1.001**
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
Region: Midlands and East	1.315*	0.747	1.451	5.510**	1.353	0.810
	(0.201)	(0.183)	(0.539)	(4.324)	(0.423)	(0.319)
Region: London	1.247	0.661	2.858***	4.086*	0.801	1.214
	(0.235)	(0.210)	(1.118)	(3.272)	(0.325)	(0.628)
Region: South	0.952	0.508**	1.537	4.147*	0.963	1.905*

Model	A	B	C	D	E	F
Explanatory variables	**Pooled**	**NHS (CEO)**	**Public (non-CEO)**	**Private sector**	**Self-employed**	**Retirement**
	(0.157)	(0.141)	(0.601)	(3.406)	(0.336)	(0.714)
CEO spells	445	445	445	445	445	445
Number of exits	336	111	69	24	79	53
Observations	1,849	1,849	1,849	1,849	1,849	1,849
Log pseudo-likelihood	-1,752.850	-619.591	-395.112	-135.670	-445.453	-287.962

Hazard ratios reported. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

The risk of an insider CEO exiting to retirement, model F, was 192% higher than for outsiders. A result that was significant at the 95% confidence level. Whilst the risk of exit to the private sector, model D, or self-employment, model E, were also lower for insiders, those results were not statistically significant. Similarly, the higher risk of insiders exiting to non-CEO roles in the public sector, model C, was also found to be non-significant. These results were replicated across all other performance metrics: RCI, operating surplus, inpatient waiting times, MRSA and mortality rates as shown in Appendix A. Hypothesis H_1 stated that insiders would have a lower risk of exit than outsiders but that this relationship was not expected to hold for exits to retirement. The findings provide support for this hypothesis since insiders have a lower risk of exit in the pooled model and for exits to NHS CEO roles, but a higher risk of exit to retirement.

The second hypothesis suggested that organisational performance would be associated with tenure. A simple t-test was carried out to test whether average tenure for pooled exits was different for CEOs overseeing high and low relative performance across the full range of performance metrics. Table 4-7 shows that for all metrics, the average tenure was significantly longer for CEOs overseeing high relative performance than those overseeing low relative performance. Whilst all the differences were significant, the most notable difference was observed when using operating surplus as the performance metric. Here, good performers stayed in post for an average of 5.36 years whereas poor performers left after an average of 3.88 years. Further analysis was carried out using multivariate survival models, the results of which are provided in Table 4-6.

Hypothesis H_{2a} suggested that CEOs with low reputational social capital would have a lower risk of exit to destinations that enhanced their reputational social capital, but a higher risk of exit to destinations that diminished their reputational social capital. The pooled model, A, shows a significantly increased risk of exit for CEOs overseeing low performance. However, there was no evidence found to support the hypothesis that CEOs of poor-performing trusts have a lower risk of exit to destinations that enhance their social capital. Although exits to other NHS CEO roles and the private sector did show a lower risk, this was not statistically significant. The

results did show support for the hypothesis that CEOs of poor-performing trusts have a higher risk of exit to destinations that diminish their social capital since exits to self-employment were 200% higher, significant at the 99% confidence level. Hypothesis H_{2b} suggested that CEOs with high reputational social capital would have a higher risk of exit to destinations that enhanced their reputational social capital but a lower risk of exit to destinations that diminished their reputational social capital. No support was found for this hypothesis.

Table 4-7 t-test to compare tenure for high and low performers

Performance metric		High performer	Low performer	t-value	Probability
A&E target	Mean	5.16	4.08	4.723	0.000
	S.D.	0.17	0.14		
RCI	Mean	4.81	4.23	2.579	0.010
	S.D.	0.17	0.44		
Operating surplus	Mean	5.36	3.88	6.307	0.000
	S.D.	0.18	0.15		
Waiting times	Mean	4.94	4.13	3.949	0.000
	S.D.	0.16	0.13		
MRSA	Mean	4.95	4.12	3.825	0.000
	S.D.	0.17	0.14		
Mortality	Mean	4.77	4.25	2.321	0.020
	S.D.	0.18	0.14		

The results using alternative performance metrics were mixed. The only pooled model to show a significant association with poor performance was the one using mortality rates. This showed a 28% higher risk of exit for CEOs overseeing poor performance, that is, high mortality rates relative to other trusts, although this association was noisy and only significant at the 90% confidence level. For high performance, only the pooled model using operating surplus as the performance metric showed a significant result with a 28% lower hazard of exit. The results for exits to destinations that would enhance a CEO's social capital were contradictory, with only the model using inpatient waiting times as the performance metric generating statistically significant results. This showed that CEOs overseeing long waiting times had a 63% higher risk of exit to other NHS CEO roles yet a 73% lower risk of exit to the private sector, both destinations felt to enhance social capital. When using RCI as the performance metric, there were also contradictory results

for exits to destinations that diminish reputational social capital. Exits to non-CEO roles in the public sector had a 71% higher risk, whilst exits to self-employment had a 46% lower risk.

Significant associations were found for some of the control variables. Regardless of the performance metric used, all competing risks models for exits into retirement showed a higher risk of exit for CEOs with previous experience as an NHS CEO. Although, since previous CEO experience is highly correlated with age (see Table 4-4) and retirement is related to age, this association is not surprising. The type of trust was significant in all pooled models except when using operating surplus as the performance metric. A CEO from an acute trust, rather than a combined acute and community trust, was approximately 35% more likely to exit. The teaching status of a trust was also found to be significant, with the A&E model from Table 4-6 showing that CEOs from teaching trusts had a 156% higher risk of exit to the private sector and a 51% lower risk of exit to self-employment, although both associations were noisy and only significant at the 90% confidence level. A stronger association was found for exits to retirement which had a 65% lower risk for CEOs from teaching trusts. This latter association was also found in the retirement models using all other performance metrics.

The pooled models using RCI, inpatient waiting times, and MRSA all showed a significantly lower risk of exit for CEOs from teaching trusts, albeit only significant at the 90% confidence level. The competing risks models for exits to the private sector showed a significantly higher risk of exit when using RCI and MRSA as the performance metrics. Models for exits to self-employment showed a significantly lower risk of exit for CEOs from teaching trusts when using inpatient waiting times and MRSA as the performance metrics. Foundation trust status was significant in all retirement models and showed that CEOs from foundation trusts were much more likely to exit to retirement than those from non-foundation trusts. Organisational size was found to be an important factor in whether a CEO exited their post. Table 4-6 shows that for each additional overnight bed, the risk of a CEO leaving to any destination reduces very slightly. This association is repeated and strengthened for exits to other NHS CEO roles but reversed for exits to

retirement where each additional overnight bed increases the risk of exit. Similar results are seen in the models using the alternative performance metrics for exits to other NHS CEO roles and retirement.

A regional control variable was included to allow for differences due to geography. In the pooled model, A, CEOs in the Midlands and East region had a 32% higher hazard of exiting when compared to the North region. This association was repeated and strengthened across all performance metrics. When using waiting times and mortality as the performance metrics an additional association was found with London having an approximately 40% higher hazard of exiting to any destination compared to the North region. The competing risks models showed more exaggerated effects with the Midlands and East, and London both having a much higher hazard of exiting to the private sector than the North, as shown in model D. London CEOs also had a much higher hazard of exiting to non-CEO roles in the public sector than CEOs from the North, as shown in model C. This result is not surprising since a greater proportion of public sector roles are based in London than any other region. CEOs from the South region had a 50% lower hazard of exiting to other NHS CEO roles than CEOs from the North, model B, but a 95% higher hazard of exiting to retirement, model F.

The results presented in this section have related to the main models used in the analysis. However, decisions were made about how to operationalise some of the variables and which variables to include. The next section discusses the robustness checks that were carried out to explore the sensitivity of the models.

4.4.1   Robustness checks

For some of the variables a decision was made about how to operationalise them in the models used in the main analysis. Robustness checks were conducted to see whether different operationalisations or including additional variables had an impact on the results reported in the previous section.

4.4.1.1 Sample selection

The sample used in the main analysis included any CEOs who were in post on 1st April 2003 even if they had started prior to that date. As a robustness check, a subset of this data was created in which only those CEOs who

started on or after 1st April 2003 were included. The analysis using A&E waiting time target achievement as the performance metric was re-run to see if excluding the CEOs already in post prior to the observation period affected the results and conclusions. The conclusions from the pooled model were unaffected but for the competing risks models there were some differences for hypothesis H2b. In the main analysis there was no support for hypothesis H2b in the competing risks models but with the reduced subset both exits to other CEO roles in the NHS and non-CEO roles in the public sector became weakly significant for CEOs overseeing high performance, showing a reduced risk of exit to those destinations of 42% and 46% respectively. Hypothesis H2b predicted that CEOs from high-performing trusts would have a higher risk of exit to destinations that enhanced their reputational social capital and a lower risk of exit to destinations that diminished it. Although mixed, there was weak evidence to support a lower risk of exit to a destination that diminished reputational social capital. The conclusions for all other hypotheses remained unchanged although some of the control variables did become significant or lose their significance. For exits to retirement, the subset of data resulted in the same conclusions, but the size and strength of the effects were magnified.

4.4.1.2 Organisational performance

The main analysis used organisational performance from the year prior to CEO exit, that is, there was a one-year lag for performance which was then categorised into high and low performance relative to all other trusts in each year using the top and bottom 30% as thresholds. An alternative operationalisation of performance was tested for the A&E waiting time target achievement metric which instead used the lagged raw values for the average target achievement. This alternative operationalisation had no impact on the pooled model or exits to retirement, but for exits to other NHS CEO roles the performance became significant with a 111% higher hazard of exit for every additional percentage of target achievement. Exits to the private sector increased as performance improved, although this association was only significant at the 90% confidence level. Exits to self-employment also increased very slightly as performance improved. This provides mixed support for hypothesis H2b since it shows that performing well against the

high-profile A&E waiting time target leads to a higher risk of exiting to a destination that enhances reputational social capital but also a higher risk of exiting to a destination that diminishes reputational social capital.

4.4.1.3 Clinician type

The main analysis used a binary variable to indicate whether the CEO was a clinician. Replacing the clinician dummy variable with clinician type (doctor, nurse, other) had no impact on the pooled model using A&E waiting time target achievement as the performance metric, that is, clinician type was not significantly associated with the risk of exit. However, the pooled model using operating surplus as the performance metric showed that doctors had an 85% greater hazard of exit, significant at the 99% confidence level. The pooled models using RCI, inpatient waiting times and MRSA infection rates as the performance metrics all showed an approximately 50% higher hazard of exit for doctors, but this was only significant at the 90% confident level. For the competing risks models, a highly significant but very small decreased hazard was shown for exits to the private sector for CEOs with 'other' clinical qualifications across all performance metrics.

4.4.1.4 CEO labour market competitiveness

The Herfindahl-Hirschman Index is a commonly used measure of market concentration. Used here at strategic health authority level, it provides a proxy for the competitiveness of the labour market for NHS CEOs by assigning a value to represent the concentration of NHS acute, and combined acute and community trusts in each SHA. Adding this variable to the models had no impact on the conclusions drawn from the results and the variable itself was not statistically significant in any model.

4.4.1.5 CEO age

Including age in the models showed that although it was a significant predictor of CEO exits, it didn't change the interpretation of the models that excluded age. The pooled model using A&E waiting time target achievement as the performance metric showed that for every additional year of CEO age, the hazard of exit increased by 3%. This association was significant at the 95% confidence level. For exits to other NHS CEO roles, every additional year of age was associated with a 4% lower hazard of exit, significant at the

99% confidence level. For exits to non-CEO roles in the public sector, every additional year of age was associated with a 6% higher hazard of exit, significant at the 95% confidence level. Exits to the private sector were not influenced by CEO age but exits to self-employment had a 4% higher hazard for every additional year of age, significant at the 90% confidence level. The strongest association was for exits to retirement which saw a 25% higher hazard for every additional year of age, significant at the 99% confidence level.

Table 4-8 shows the results of t-tests comparing the mean average age for CEOs exiting to various destinations using the best and worst performers for each performance metric. For the pooled model it can be seen that, at the 95% confidence level, only performance as judged by operating surplus and average inpatient waiting times have significant differences in the age of the CEO on exit. For both of these, CEOs overseeing good performance leave at an average age of nearly 54 compared to under 51 for CEOs overseeing poor performance. At the 90% confidence level there is a significant difference in age of CEO at exit when using MRSA and mortality rates as the performance metric. However, whilst mortality rates show that CEOs overseeing good performance tend to exit at an older age than those overseeing poor performance, this relationship is reversed for MRSA. For exits to other NHS CEO posts the relationships hold for operating surplus and waiting times, although the latter is only at the 90% confidence level. CEOs overseeing good performance as judged by operating surplus and mortality rates exit to non-CEO posts in the public sector at a much older age than those overseeing poor performance, with an approximately 6-year difference. There is no significant different in the average age of CEOs exiting to private sector, self-employment or retirement.

The next section summarises these findings and discusses what this means for the hypotheses stated earlier in this chapter. It also discusses the original contribution that this research has made to the literature.

Table 4-8 Average age of exit

Exit destination	Performance metric		Good performance	Poor performance	t-value	Probability
Pooled	A&E target	Mean (S.D.)	52.60 (0.70)	51.82 (0.66)	0.802	0.424
	RCI	Mean (S.D.)	51.07 (0.71)	52.35 (0.71)	-1.271	0.206
	Operating surplus	Mean (S.D.)	53.67 (0.89)	50.78 (0.66)	2.663	0.009
	Waiting times	Mean (S.D.)	53.63 (0.60)	50.51 (0.72)	3.356	0.001
	MRSA	Mean (S.D.)	51.08 (0.64)	52.78 (0.71)	-1.786	0.076
	Mortality	Mean (S.D.)	52.55 (0.71)	50.73 (0.65)	1.865	0.064
NHS CEO posts	A&E target	Mean (S.D.)	50.71 (1.11)	48.39 (1.17)	1.413	0.164
	RCI	Mean (S.D.)	50.13 (1.11)	48.13 (1.12)	1.209	0.231
	Operating surplus	Mean (S.D.)	51.29 (0.98)	47.31 (1.18)	2.387	0.022
	Waiting times	Mean (S.D.)	51.31 (1.06)	48.81 (1.05)	1.672	0.099
	MRSA	Mean (S.D.)	49.22 (0.95)	49.72 (1.26)	-0.325	0.746
	Mortality	Mean (S.D.)	50.04 (1.15)	48.00 (1.09)	1.266	0.211
Non-CEO public sector posts	A&E target	Mean (S.D.)	54.00 (2.11)	52.05 (1.50)	0.820	0.418
	RCI	Mean (S.D.)	50.57 (1.97)	53.38 (1.28)	-1.246	0.221
	Operating surplus	Mean (S.D.)	56.15 (1.67)	50.35 (0.99)	3.198	0.003
	Waiting times	Mean (S.D.)	52.95 (1.41)	49.60 (1.58)	1.577	0.123
	MRSA	Mean (S.D.)	51.56 (2.04)	52.05 (1.18)	-0.218	0.829
	Mortality	Mean (S.D.)	54.90 (1.43)	49.35 (1.47)	2.700	0.011

4.5   Summary and conclusions

This empirical chapter has addressed the research questions: how does a CEO's internal social capital affect the likelihood of them exiting their post and their exit destination, and how does reputational social capital affect a CEOs ability to influence their tenure and their destination on exiting the CEO role? For the purpose of this study social capital was proxied by both a CEO's insider status and the organisational performance of their trust. An insider CEO, one who was employed by the trust immediately prior to becoming its CEO, was assumed to have greater internal social capital than an outsider by virtue of the relationships and reputation they would have developed during their pre-CEO tenure. Whilst most outsiders are likely to have NHS trust sector experience, the trust-specific capital that is generated by personal relationships and knowing the internal politics of a particular trust was expected to be an important input factor in the decision-making process for whether a CEO exited their role. Specifically, H_1 suggested that CEOs with internal social capital would have a lower risk of exiting compared to outsiders for all non-retirement exit destinations. There was partial support for this hypothesis as insider status was not a significant factor for all exit destinations. The pooled models and exits to other NHS CEO roles did demonstrate a lower hazard of exit for insiders whilst the hazard of exit to retirement was indeed higher, much higher in fact, for insiders compared to outsiders.

The theory originally presented in this chapter was that the relationship between reputational social capital and risk of exit was non-linear. Whereas hypothesis H_{2a} made suggestions about this relationship for CEOs with poor reputational social capital, H_{2b} suggested the direction of the associations for the other extreme, that of high reputational social capital. Using organisational performance as a proxy for reputational social capital assumes that the success or not of an organisation will be attributed to the skills of its leader. Hypothesis H_{2a} suggested that CEOs overseeing poor performance would have a lower risk of exit to destinations that enhanced their social capital, that is, their reputation, but a higher risk of exit to destinations that diminished their social capital. This was predicated on the

argument that a CEO with a poorer reputation would struggle to find an alternative job offer that didn't damage their social capital even further by being seen as a demotion. Whilst the outcome of a CEO exiting can be due to both the CEO and board's decision-making processes, it was argued that the CEO's decision making would outweigh that of the board due to the difficulty in removing public sector employees from their posts.

The results presented some interesting findings for CEOs overseeing poor performance, with only limited support for H_{2a}. The pooled model showed that CEOs overseeing poor performance were significantly more likely to exit. The competing risks models partially supported the hypothesis with a higher hazard of exit to self-employment, a destination considered to have a diminishing effect on reputational social capital. In contrast, CEOs overseeing good performance relative to other trusts had a lower hazard of exit only when looking at pooled exits using operating surplus as the performance metric. This mixed evidence tends to suggest that the balance of power in the decision-making process lies with the board, and that some performance metrics are not considered that valuable in assessing the effectiveness of the CEO. Some of the results are counter-intuitive. If a CEO overseeing poor performance is pushed out by the board, we might expect them to exit to self-employment or unemployment, particularly if their performance was very poor – as evidenced by the results. Alternatively, if a face-saving agreement is reached, we might expect the CEO to exit to a non-CEO role in the public sector as this seems to be a traditional route out of the NHS for poor performing CEOs. For older CEOs an exit to retirement would also be a good face-saving strategy.

Hypothesis H_{2b} proposed that CEOs overseeing high performance relative to other trusts would have a higher risk of exit to destinations that enhanced their reputational social capital but a lower risk of exit to destinations that diminished their reputational social capital. The main analysis provided no support for this except when using operating surplus as the performance metric. However, the main analysis used dummy variables to differentiate between high and low relative performance in each year. When using the raw data for the average A&E waiting time target achievement instead of the dummy variables, there was strong support for H_{2b} with the hazard of exiting

to other NHS CEO roles, a social capital enhancing destination, increasing as performance improved, and the hazard of exiting to non-CEO roles in the public sector, a social capital diminishing destination, reducing as performance improved.

The novelty of this analysis lies in its use of the lens of social capital theory. As reported in the literature review in Chapter 2, social capital has been largely ignored as a theoretical framework in CEO succession research to date. The literature review also highlighted the limited amount of research into antecedents of CEO turnover in the public sector and the absence of any using the NHS as a case study. What research there is tends to focus on CEOs' intention to leave (Bertelli, 2007; Pitts et al., 2011) rather than actual exits or limits itself to considering exits as a homogenous group rather than distinguishing between types of exit (McCabe et al., 2008; Boyne et al., 2008).

The empirical study described in this chapter adds to the evidence base in several ways. Firstly, it uses social capital theory as a framework for studying CEO exits. By using CEO insider status and organisational performance as proxies for internal and reputational social capital respectively I am able to attribute some of the risk of a CEO exiting to the presence or amount of social capital they have accumulated. Secondly, it uses the English NHS as a case study. To date there is no other peer reviewed research looking at the antecedents of CEO succession in the NHS. Whilst comparable research does exist for other organisations in the English public sector (Boyne et al., 2008; 2010a; 2010b; Petrovsky et al., 2017), this is limited to local authorities. Thirdly, this study goes beyond the exit destination definitions used so far in existing research and thus provides greater granularity. The closest comparable research uses just three exit destinations, public sector, private sector, and retirement (Petrovsky et al., 2017), whereas this research uses five destinations and is thus better able to draw conclusions about the impact of decision influencing input factors.

This chapter has explored what factors affect a CEO's likelihood of leaving their post, with a focus on factors that can be used to assess their social capital, specifically their insider status and organisational performance.

Some of these results seem logical in the context of the NHS. It has already been suggested that CEOs of poor performing trusts can be pushed out of their posts with face-saving measures such as being seconded to other NHS roles, and the results support this. Social capital may provide CEOs with additional power to help them influence the timing of their departure and their destination on exit.

The choice of performance metric has been shown to make a difference to a CEO's risk of exit, which suggests that some performance measures are seen as being more important than others, by the board at least. If the board is pushing out poor performing CEOs it suggests that in doing so they hope to replace them with a CEO who can turn that performance around. Is CEO social capital valued by recruiting firms? This is the question posed in the next empirical chapter.

Chapter 5 – CEO selection

5.1   Introduction

CEO succession research is broadly split into three domains. The previous chapter explored the first of these, the antecedents of a CEO exiting their post, whilst this chapter focuses on the second, the selection of a new CEO to fill that void. In keeping with the theme of social capital theory this chapter addresses the research questions: is social capital valued by recruiting firms, and does the baseline performance of the organisation affect the value placed on social capital by the recruiting organisation?

The choice of a new CEO is a critical decision since it offers the organisation an opportunity to adapt to its changing environment by ensuring that the new CEO has characteristics that are aligned to the context of the organisation (Finkelstein et al., 2009). It is believed that a new CEO will have a substantial impact on the organisation (Lauterbach et al., 1999) so boards are under pressure to make the right appointment. Therefore, it is important to try and understand the factors that influence the choice of new CEO, not only for boards making that decision but also for potential candidate CEOs (Magnusson and Boggs, 2006). Managers who are interested in an external move will most likely make decisions in their current role that are intended to increase their desirability to other organisations (Fee and Hadlock, 2003). A CEO's strategic effectiveness is influenced by their relationships within and outside the organisation. This means that changing the CEO brings with it a change in the social structure in which the organisation has been operating as a result of its CEO's networks (Cao et al., 2006). Therefore, a candidate's social capital is a key consideration for boards when deciding whom to appoint, particularly since social capital, in the form of an individual's reputation can be perceived as an informational signal to external stakeholders about the recruiting organisation (Certo, 2003).

The structure of the rest of this chapter is as follows: first, I discuss the theoretical arguments applicable to CEO selection, using the lens of social capital theory, and set out the hypotheses to be tested. I then describe the data sample and variables used throughout this chapter before setting out the methodology, that of logit regression. This is followed by the empirical

results, which include robustness checks for several organisational performance metrics: the average performance against the A&E four hour waiting time target, operating surplus, reference cost index, average waiting times for inpatient admissions, MRSA infection rates, and mortality rates.

The analysis in this chapter continues with the theme of social capital as a key factor in CEO succession decisions and three hypotheses are used to explore this. The first suggests that insiders are preferable to outsiders since they will have greater internal social capital, hence a positive association is expected to be observed between insider status and CEO selection. The second hypothesis is in two parts and suggests that the relationship in the first hypothesis is over-simplified and that the baseline performance of the recruiting trust should be taken into account as a contingency factor. The third hypothesis explores the relationship between the second proxy for social capital, that of reputation as determined by the performance of the candidate's previous trust, and selection whilst taking account of the baseline performance of the recruiting trust. The final section in this chapter discusses the empirical results and draws conclusions before setting out what the original contribution of this research offers to the literature. But first, the next section sets out the theoretical motivations for my research and the associated hypotheses.

5.2   Theoretical motivation and hypotheses development

As described in previous chapters, both insider status and organisational performance are used as proxies for a CEO's social capital within the context of the NHS. Appointing an insider signals a desire to maintain the status quo since it is assumed that an insider will be familiar with, and supportive of, the incumbent CEO's strategies and happy to continue implementing them (Lauterbach et al., 1999; Finkelstein et al., 2009). Research into the selection of insider or outsider CEOs implicitly assumes that outsiders will be able to effect strategic change (Datta and Guthrie, 1994; Lauterbach et al., 1999; Bailey and Helfat, 2003), which is beneficial to the hiring organisation (Finkelstein et al., 2009; Karaevli and Zajac, 2013). Although outsider selection was once a relatively rare event (Finkelstein et al., 2009), over recent years an increasing number of outsider CEO appointments have been

made (Georgakakis and Ruigrok, 2017) by the world's largest 2,500 companies, rising from 18% in 2009 to 30% in 2012 (Favaro et al., 2013). Some types of organisation, such as hospitals, may have fewer people wanting to be CEO, which would mean a greater number of outsiders being appointed (Finkelstein et al., 2009). This is backed up by David Nicholson, former CEO of the NHS, who once stated that '*we find it very difficult to recruit people who want to be chief executives*' (Santry, 2007). Thereby implying that not only is it difficult to find internal candidates, but there may also be a shortage of suitable external candidates. Recent reports have highlighted the unattractive nature of NHS CEO roles, with individuals receiving personal blame when things go wrong (Anandaciva et al., 2018).

The different types of social capital could be expected to have a different impact on CEO selection with internal candidates being appointed where internal social capital is valued and external candidates being appointed where reputational social capital is valued. The suitability of a candidate as assessed by their social capital would suggest that insider CEOs would be preferable since they will already have knowledge of the organisation and established social networks (Schnatterly and Johnson, 2008). This gives rise to the first hypothesis:

> H_1: When organisations appoint CEOs they will favour candidates with
> internal social capital

Although testing H_1 would preferably be done using a dataset containing all applicants for the CEO role, there is precedent in the literature for looking only at successful appointments (Dalton and Kesner, 1985; Schnatterly and Johnson, 2008; Elsaid, Wang and Davidson, 2011; Elsaid et al., 2016).

Whilst this first hypothesis explores the direct link between social capital and CEO selection, it is thought that there are various contingency factors which influence CEO appointment decisions. The choice of an insider or outsider CEO is believed to be contingent on the performance of the recruiting organisation prior to the CEO succession, where a poor performing organisation is more likely to choose an outsider (Dalton and Kesner, 1985; Finkelstein et al., 2009). The rationale for this argument is that the board of a poor performing organisation will want to effect strategic change and, as

discussed above, an outsider CEO is expected to be more open to making such large-scale changes as they are not bound by old loyalties or strategies and are thus more willing to make sweeping changes (Lauterbach et al., 1999; Bailey and Helfat, 2003). Conversely, an organisation with good baseline performance may be inclined to appoint an insider CEO so that the successful strategies leading to that good performance are maintained (Finkelstein et al., 2009). However, evidence to support this is inconclusive, with some research showing neither poor nor high performing organisations selected outsiders but instead it was mid-range performers (Dalton and Kesner, 1985). Others found mixed evidence (Lauterbach et al., 1999) whilst more recent studies found support for the theoretical arguments presented above, that high performing firms are more likely to appoint an insider (Zhang and Rajagopalan, 2003) and that poor performing firms are more likely to appoint an outsider (Schnatterly and Johnson, 2008). This leads to the following hypotheses:

> H_{2a}: An organisation that is performing well will be more likely to appoint a CEO with internal social capital (an insider)

> H_{2b}: An organisation that is performing poorly will be more likely to appoint a CEO with no internal social capital (an outsider)

The appointment of an insider implies not only that the board wants to maintain current strategies but also that they value internal social capital and recognise the importance of that social capital in maintaining those strategies (Fitzsimmons and Callan, 2016). However, the appointment of an outsider may be necessary at times, not only due to poor organisational performance but also because there might be no suitable candidates within the recruiting organisation. This leads to other considerations in how to choose between outside candidates. Continuing with the theme of social capital and the use of organisational performance as a proxy, we might expect CEOs from high performing trusts to be appointed more often than those from poor performing trusts as their reputational social capital will be enhanced by that good performance (Fee and Hadlock, 2003; McCabe et al., 2008; Anandaciva et al., 2018). As discussed in the previous chapter, leadership has become increasingly personalised with CEOs being blamed for poor

performance but conversely, basking in the glory of high performance (Fee and Hadlock, 2003; Anandaciva et al., 2018). Based on this, we might expect poor performing trusts to appoint CEOs with greater reputational social capital to maximise the likelihood that they will be able to turn its performance around. However, a poor performing trust might struggle to attract talented managers as they may fear their reputational social capital being damaged by overseeing continued poor performance in the recruiting trust (Johnson et al., 2011; Anandaciva et al., 2018). This leads to the following hypothesis:

> H3: An organisation that is performing poorly will be more likely to appoint a CEO with reputational social capital

This section has set out the theoretical motivations for my research and the hypotheses that will be tested in this chapter. The next section describes the methodology used in this chapter, that of logit regression.

5.3   Data and methodology

This section describes the methodology used in this chapter, that of logit regression. This is followed by a description of the data sample and variables used to test the hypotheses set out in the previous section.

5.3.1   Methodology

The analysis in this chapter is concerned with binary outcomes. Therefore, logit regression is appropriate. As described in the Stata Manual (StataCorp, 2019), a random effects binary outcomes model assumes that the individual effects are normally distributed such that $v_i \sim N(0, \sigma_v^2)$. This yields:

$$\Pr\left(y_{i1}, \dots, y_{in_i} \middle| x_{i1}, \dots, x_{in_i}\right) = \int_{-\infty}^{\infty} \frac{e^{-v_i^2/2\sigma_v^2}}{\sqrt{2\pi}\sigma_v} \left\{\prod_{t=1}^{n_i} F(y_{it}, x_{it}\beta + v_i\right\} dv_i$$

where

$$F(y, z) = \begin{cases} \frac{1}{1+\exp(-z)} & \text{if } y \neq 0 \\ \frac{1}{1+\exp(z)} & \text{otherwise} \end{cases}$$

The panel level likelihood l_i is given by

$$l_i = \int_{-\infty}^{\infty} \frac{e^{-v_i^2/2\sigma_v^2}}{\sqrt{2\pi\sigma_v}} \left\{ \prod_{t=1}^{n_i} F(y_{it}, x_{it}\beta + v_1) \right\} dv_i$$

$$\equiv \int_{-\infty}^{\infty} g(y_{it}, x_{it}, v_i) dv_i$$

This integral can be approximated using an M-point Guass-Hermite quadrature

$$\int_{-\infty}^{\infty} e^{-x^2} h(x) dx \approx \sum_{m=1}^{M} w_m^* h(a_m^*)$$

Which is equivalent to

$$\int_{-\infty}^{\infty} f(x) dx \approx \sum_{m=1}^{M} w_m^* exp\{(a_m^*)^2\} f(a_m^*)$$

where w_m^* denotes the quadrature weights and a_m^* denotes the quadrature abscissas. The log likelihood L is the sum of the logs of the panel level likelihoods l_i. The log-likelihood is approximated by the adaptive Guass-Hermite quadrature, which approximates the panel level likelihood with

$$l_i = \sqrt{2\hat{\sigma}_i} \sum_{m=1}^{M} w_m^* exp\{(a_m^*)^2\} g(y_{it}, x_{it}, \sqrt{2\hat{\sigma}_i a_m^*} + \hat{\mu}_i)$$

where $\hat{\sigma}_i$ and $\hat{\mu}_i$ are the adaptive parameters for panel i. This means that with the definition of $g(y_{it}, x_{it}, v_i)$, the total log likelihood is approximated by:

$$L \approx \sum_{i=1}^{n} w_i log \left[\sqrt{2\hat{\sigma}_i} \sum_{m=1}^{M} w_m^* exp\{(a_m^*)^2\} \frac{exp\left\{ -\frac{\left(\sqrt{2\hat{\sigma}_i a_m^*} + \hat{\mu}_i\right)^2}{2\sigma_v^2} \right\}}{\sqrt{2\pi\sigma_v}} \right]$$

$$\prod_{t=1}^{n_i} F(y_{it}, x_{it}\beta + \sqrt{2\hat{\sigma}_i a_m^*} + \hat{\mu}_i)$$

where w_i is the user specified wright for panel i or, if no weight is specified then w_i=1. The method of Naylor and Smith (1982) is used to calculate the posterior mean and variance using the parameters $\hat{\mu}_i$ and $\hat{\sigma}$. Starting with

$\hat{\sigma}_{i,0} = 1$ and $\hat{\mu}_{i,0} = 0$, the posterior means and variances are updated in the kth iteration. Therefore, at the kth iteration of the optimisation for l_i we use:

$$l_{i,k} \approx \sum_{m=1}^{M} \sqrt{2}\hat{\sigma}_{i,k-1}w_m^* exp\{(a_m^*)^2\}g(y_{it}, x_{it}, \sqrt{2}\hat{\sigma}_{i,k-1}a_m^* + \hat{\mu}_{i,k-1})$$

Letting

$$\tau_{i,m,k-1} = \sqrt{2}\hat{\sigma}_{i,k-1}a_m^* + \hat{\mu}_{i,k-1}$$

$$\hat{\mu}_{i,k} = \sum_{m=1}^{M}(\tau_{i,m,k-1}) \frac{\sqrt{2}\hat{\sigma}_{i,k-1}w_m^* exp\{(a_m^*)^2\}g(y_{i,t},x_{i,t},\tau_{i,m,k-1})}{l_{i,k}}$$

and

$$\hat{\sigma}_{i,k} = \sum_{m=1}^{M}(\tau_{i,m,k-1})^2 \frac{\sqrt{2}\hat{\sigma}_{i,k-1}w_m^* exp\{(a_m^*)^2\}g(y_{i,t},x_{i,t},\tau_{i,m,k-1})}{l_{i,k}} -$$

$$(\hat{\mu}_{i,k})^2$$

which is repeated until $\hat{\mu}_{i,k}$ and $\hat{\sigma}_{i,k}$ have converged for this iteration of the maximisation algorithm. Only when the change in log likelihood from the previous iteration is less than a relative difference of 1e-6 are the quadrature parameters fixed.

I am using panel data, so I cluster by organisation to control for trusts which had multiple successions. Specifying *vce(robust)* causes the Huber-White VCE estimator (Arellano, 2003) to be calculated for the coefficients generated in this regression.

5.3.2 Sample selection

The panel data sample used for analysis in this chapter includes all NHS acute trusts and combined acute and community NHS trusts in England between 2003/04 and 2017/18, and any CEOs of those trusts who were appointed between 1st April 2003 and 31st March 2017. In total there were 2,144 trust-year records available for analysis comprised of 155 trusts and 474 CEO appointments.

5.3.3 Dependent variables

This chapter uses several dependent variables depending on the hypothesis being tested. Hypothesis H$_1$ is tested by comparing proportions and so uses

the insider dummy as the dependent variable. Several dummy dependent variables were created for the purpose of testing the other hypotheses. H_{2a} and H_{2b} use a dummy binary dependent variable to indicate where the new CEO came from with a 1 indicating they were an insider and a 0 indicating they were an outsider to the recruiting trust. This dummy variable ensures that only those records where a CEO was appointed are used in the regression modelling. Hypothesis H_3 uses another dummy binary variable which differentiates between relatively high and low performance of the successor CEO's previous trust, where 1 indicates the performance of the previous trust was relatively high and 0 indicates the performance of the previous trust was relatively low. This latter variable is assumed to indicate whether a CEO has high or low reputational social capital.

5.3.4 Explanatory variables

The explanatory variables are those included in the analysis to test the hypotheses stated earlier in this chapter. As described in Table 5-1, the insider flag is a dummy variable which differentiates between the origin of the new CEO, where a 1 indicates they were an insider and a 0 indicates they were an outsider to the trust. Of the 474 CEO appointments observed in the sample, 116 were insiders. The other explanatory variables are those for the organisational performance of the recruiting trusts in the period immediately prior to a new CEO being appointed, that is, in the financial year prior to the year of appointment. Because this analysis uses a sub-sample of the panel dataset, those records relating to a new CEO appointment, the relative top and bottom performers are no longer exactly the top and bottom 30%. Of the 474 appointments, there are 425 with data for A&E target achievement, which ranges from 70% to 99% with a mean of 92.9%. There are 423 records with RCI data, which ranges from 78.96 to 138.05 with a mean of 99.17. Operating surplus data was available for 390 records, which ranged from -£195,000 to £68,514 with a mean of -£2,821. Average inpatient waiting times were available for 426 records, which ranged from 1 to 156 days with a mean of 62 days. MRSA infection rates were also available for 426 records, which ranged from 0 to 1.55 with a mean of 0.42. Finally, mortality rates were available for 406 records, which ranged from 0.54 to 1.44 with a mean of 1.01.

5.3.5 Control variables

Control variables were included in the regression models to account for any factors that are known or suspected to be important having previously been identified as such in the literature. It is theorised that the size of the recruiting organisation will affect the decision to appoint an insider or outsider because it acts as a proxy for the size of the labour market within the organization (Datta and Guthrie, 1994). A small firm may have very few potential candidates whereas a larger firm might be expected to have more options and therefore tend to appoint more insiders (Datta and Guthrie, 1994; Zhang and Rajagopalan, 2003). The size of each trust was measured using the number of overnight beds available in each year. This ranged from 224 to 2,302 with a mean of 767 as shown in Table 5-1. It is also important to control for the concentration of the labour market (Zhang and Rajagopalan, 2003) as the number of candidates may be influenced by the number of trusts in the same geographical area.

The Herfindahl-Hirschman Index was computed at SHA level for each financial year, even though that is no longer a recognised geographical unit in the NHS. As shown in Table 5-1, this variable ranged from 0.04 to 0.15 with a mean of 0.074. This metric was calculated using the number of executive board members in each trust in each year. When summed across each SHA this can be used as a proxy for the size of the CEO labour market in each SHA since it is likely that only candidates who already work at board level would be considered for a CEO role (Zhang and Rajagopalan, 2003). Due to the difference in scale of this variable when compared to others included in the model, it was transformed by multiplying it by 100 to avoid the problem of infeasibly large odds ratios and confidence intervals. As in the previous chapter, additional controls for foundation trust status and teaching status were included as these have been shown to be important when looking at NHS trusts (Salge, 2011; Veronesi et al., 2014; 2015; Kirkpatrick et al., 2017; Janke et al., 2018). The next section provides the results of the analyses and a discussion on how those results support the hypotheses.

Table 5-1 Descriptive statistics for CEO appointments

Variable	Obs	Mean	Std.Dev.	Min	Max
Insider	474	0.245	0.430	0	1
Overnight beds	472	766.86	348.879	224	2302
Labour market concentration	474	0.074	0.029	0.040	0.150
Foundation trust	474	0.321	0.467	0	1
Teaching trust	474	0.171	0.377	0	1
Baseline performance A&E	425	0.929	0.057	0.700	0.993
Baseline performance RCI	423	99.170	6.933	78.960	138.050
Baseline performance operating surplus	390	-2820.923	21680.13	-195000	68514
Baseline performance inpatient waiting times	426	62.435	22.898	1	156
Baseline performance MRSA	426	0.415	0.285	0	1.554
Baseline performance mortality	406	1.007	0.107	0.539	1.443
Relatively good A&E performance	425	0.259	0.439	0	1
Relatively poor A&E performance	425	0.395	0.490	0	1
Relatively good RCI performance	423	0.305	0.461	0	1
Relatively poor RCI performance	423	0.324	0.469	0	1
Relatively good operating surplus performance	390	0.213	0.410	0	1
Relatively poor operating surplus performance	390	0.397	0.490	0	1
Relatively good inpatient waits performance	426	0.303	0.460	0	1
Relatively poor inpatient waits performance	426	0.352	0.478	0	1
Relatively good MRSA performance	426	0.322	0.468	0	1
Relatively poor MRSA performance	426	0.317	0.466	0	1
Relatively good mortality performance	426	0.296	0.457	0	1
Relatively poor mortality performance	426	0.378	0.485	0	1

Table 5-2 Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) Insider	1.000							
(2) Overnight beds	-0.072*	1.000						
(3) Labour market concentration	0.137*	0.219*	1.000					
(4) Foundation trust	0.192*	-0.064*	0.065*	1.000				
(5) Teaching trust	-0.040	0.455*	-0.076*	0.025	1.000			
(6) Baseline performance A&E	-0.041	-0.130*	-0.036	0.069*	-0.072*	1.000		
(7) Baseline performance RCI	-0.027	0.226*	-0.029	-0.048*	0.259*	-0.098*	1.000	
(8) Baseline performance operating surplus	0.044	0.055*	0.017	0.091*	0.107*	0.256*	-0.066*	1.000
(9) Baseline performance waiting times	-0.080*	0.011	-0.065*	-0.337*	-0.022	-0.051*	-0.019	0.005
(10) Baseline performance MRSA	0.039	0.070*	-0.137*	-0.114*	0.165*	-0.028	0.080*	-0.043
(11) Baseline performance Mortality	0.078*	-0.105*	0.116*	-0.004	-0.304*	-0.032	-0.091*	-0.038

Variables	(9)	(10)	(11)
(9) Baseline performance waiting times	1.000		
(10) Baseline performance MRSA	-0.004	1.000	
(11) Baseline performance Mortality	0.051*	-0.157*	1.000

* shows significance at the 0.05 level

5.4   Empirical results

This section presents the results of the analyses and states whether support has been found for each of the hypotheses set out previously. A correlation matrix is presented in Table 5-2 with any correlations significant at the 95% confidence level flagged with an asterisk. Descriptive statistics are provided in Table 5-1. As discussed in the previous chapter, there are many performance metrics that are used to assess the performance of NHS trusts. These vary over time depending on what is of most importance to stakeholders at any point in time. In this chapter, I present the results using all six performance metrics: average A&E target achievement, RCI, operating surplus, inpatient waiting times, MRSA infection rates, and mortality rates, as this provides an interesting comparison with insights into which, if any, are valued during the CEO selection process.

Table 5-3 shows the results for a one-sided test of proportions used to assess hypothesis H_1, that organisations appointing CEOs will favour those with internal social capital. This tests the null hypothesis that the proportion of CEO appointments that are insiders is equal to the proportion that are outsiders against the alternative hypothesis that the proportion of insiders is greater than the proportion of outsiders. The data shows that the proportion of CEO appointments that are insiders is much lower than those that are outsiders with just 24.5% of all appointments being for insiders.

Table 5-3 Proportions test results for H_1

	Inside	Outside	z-value	Probability
Mean	0.245	0.743	-15.720	1.000
S.D.	0.200	0.200		

A regression model was used to assess what factors might influence the choice between insider and outsider CEO. As shown in Table 5-4, the size of the trust was not a significant factor yet the market concentration for CEOs was, with an odds ratio slightly greater than one. Foundation trust status was also significant with an odds ratio much greater than one. This indicates that foundation trusts are much more likely to appoint insiders than outsiders.

Table 5-4 Logit model results for H$_1$

Variables	Odd ratios
Overnight beds	1.000
	(0.000)
CEO labour market concentration	1.100***
	(0.036)
Foundation trust	1.677**
	(0.408)
Teaching trust	1.249
	(0.408)
Constant	0.111
	(0.041)
Wald statistic	14.71***
Observations	472

Huber-White standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

The second hypothesis looked at the relationship between a trust's baseline performance immediately prior to the CEO succession event and the likelihood of appointing an insider or outsider as CEO. Table 5-5 shows the 1-tailed t-test results for hypotheses H$_{2a}$ and H$_{2b}$, that higher baseline performance will be associated with the appointment of an insider and lower baseline performance will be associated with the appointment of an outsider respectively. These tests use the continuous form of the performance metrics, but no support was found for either hypothesis for any of the metrics except for operating surplus where weak support, at the 90% confidence level, was found for hypothesis H$_{2a}$. A logit regression model was used to test these hypotheses using dummy variables to indicate whether a trust's baseline performance was relatively high or low compared to other trusts in each year (regardless of whether that trust had a CEO succession event). The results for this are shown in Table 5-6, which reports the odds ratios for each variable entered into the regression model along with the Huber-White standard errors.

Only two of the regression models showed significant results for the dummy variables for relatively high or low baseline performance. The model using the average attainment of the 4-hour A&E target as the performance metric had odds ratios above one for both relatively high and relatively low baseline performance, meaning that a non-linear relationship between baseline

performance and the appointment of an insider CEO was demonstrated
since both relatively high and relatively low baseline performance were
positively associated with the selection of an insider CEO. The model using
operating surplus as the performance metric also demonstrated a non-linear
relationship between baseline performance and the appointment of an
insider CEO, with both relatively high and relatively low performance being
negatively associated with insider selection, or conversely, positively
associated with outsider CEO selection, due to having odds ratios of less
than one. This provided mixed evidence in support of hypotheses H_{2a} and
H_{2b}.

Table 5-5 t-test results for H_2

Performance metric		Inside	Outside	t-value	Probability	
					H_{2a}: Pr(T < t)	H_{2b}: Pr(T > t)
A&E target	Mean	0.934	0.928	-1.034	0.151	0.849
	S.D.	0.005	0.003			
RCI	Mean	98.446	99.419	1.259	0.896	0.104
	S.D.	0.637	0.396			
Operating surplus	Mean	-118	-3778.208	-1.467	0.072	0.929
	S.D.	1512.036	1383.803			
Waiting times	Mean	61.176	62.863	0.661	0.746	0.255
	S.D.	2.247	1.277			
MRSA	Mean	0.442	0.406	-1.121	0.131	0.869
	S.D.	0.300	0.155			
Mortality	Mean	1.000	1.009	0.6754	0.750	0.250
	S.D.	0.010	0.006			

To test the non-linear relationship further, a regression model was run using
only mid-range relative performance for the A&E and operating surplus
metrics. For the A&E model, the odds ratio for mid-range performance was
less than one and significant at the 95% confidence level. For the operating
surplus model, mid-range performance had an odds ratio greater than one,
which was significant at the 99% confidence level. Testing mid-range
performance for the other performance metric yielded no significant results.
Rerunning the models using the raw continuous performance data with a
quadratic term included showed non-linear results for all the metrics.
However, these were not significant.

Table 5-6 Logit regression results for H$_{2a}$ and H$_{2b}$

Model	A&E	RCI	Operating surplus	Waiting times	MRSA	Mortality
Relatively high baseline performance	2.236***	1.148	0.468**	1.485	0.745	1.318
	(0.674)	(0.331)	(0.168)	(0.425)	(0.216)	(0.389)
Relatively low baseline performance	1.824**	0.823	0.523**	0.963	0.938	1.061
	(0.494)	(0.224)	(0.141)	(0.261)	(0.276)	(0.255)
Number of overnight beds	1.000	1.000	1.000	1.000	1.000	1.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
CEO labour market concentration	1.079**	1.091**	1.090**	1.089**	1.096**	1.093**
	(0.040)	(0.041)	(0.040)	(0.039)	(0.041)	(0.041)
Foundation trusts status	1.565*	1.576*	1.490	1.488	1.662**	1.635*
	(0.406)	(0.391)	(0.459)	(0.377)	(0.420)	(0.416)
Teaching trust status	1.302	1.389	1.488	1.354	1.304	1.195
	(0.419)	(0.460)	(0.481)	(0.437)	(0.429)	(0.410)
Constant	0.083***	0.120***	0.172***	0.118***	0.142***	0.109***
	(0.039)	(0.048)	(0.079)	(0.051)	(0.056)	(0.048)
Wald statistic	19.23***	13.48**	15.88**	16.43**	13.54**	12.70**
Observations	424	422	389	425	425	425

Odds ratios reported. Huber-White standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

A number of the control variables were significant in several of the models. The size of the local CEO labour market was proxied by a Herfindahl-Hirschman Index calculation based on the number of executive board members in each trust in each year. For all performance metrics, this was significant with an odds ratio just over one, indicating that as the concentration of potential CEO candidates increases the likelihood of appointing an insider increases. Foundation trust status was found to be significant in the models using A&E target attainment, RCI, MRSA infection rates, and mortality rates, with each of these having an odds ratio above one indicating that foundation trust status is positively associated with the selection of insider CEOs.

Hypothesis H_3 suggested that the selection of CEOs with greater reputational social capital, as proxied by the performance of their previous trust, would be contingent on the baseline performance of the recruiting trust such that trusts with poor baseline performance would be more likely to appoint them. Not all CEOs came from other acute or combined acute and community trusts, so the sample size was further reduced for this analysis. Table 5-7 shows the results from the regression models used to test this hypothesis for each of the performance metrics, where the dependent variable was the appointment of a CEO with high or low reputational social capital. The baseline performance of the recruiting trust was found to be significant in all the models, although in the A&E model only low baseline performance was significant. In each of the other models, relative high performance had odds ratios greater than one, indicating that relatively high performance is positively associated with the likelihood of appointing a CEO with high social capital, as proxied by the performance of their previous trust. Relatively low performance was significant in the models using A&E target attainment, operating surplus and inpatient waiting times as the performance metrics. For each of these, the odds ratios were less than one, indicating that trusts with poor performance were less likely to appoint CEOs with high social capital. This analysis provided no support for hypothesis H_3 since poor baseline performance of the recruiting trust was shown to be associated with a reduced likelihood of appointing a CEO with higher social capital. The

control variables presented mixed results for significance, with the size of the trust, as proxied by the number of overnight beds, being weakly significant, at the 90% confidence level, in the RCI and mortality models whilst foundation trust status was significant at the 95% confidence level in the A&E and waiting times models. The supply of CEO candidates was only significant in the model using MRSA infection rates as the performance variable, with an odds ratio slightly above one.

This section has presented the results of the hypothesis tests and drawn basic conclusions about whether they show support for the hypotheses. The next section reports the outcome of robustness checks on the analysis as it is possible that decisions made during the analysis, such as how to operationalise variables, or which control variables to include, may have affected the results.

5.4.1 Robustness checks

Robustness checks were conducted to see whether including additional control variables had an impact on the results reported in the previous section. The additional variables of interest are board independence and previous CEO tenure, each of which is discussed below.

5.4.1.1 Board independence

The decision on who to hire as CEO is made by the board, therefore, it is expected that the composition of the board might affect the decision that is eventually made. Previous research has explored the impact of board composition on hiring decisions and suggested that board independence is an important factor (Finkelstein et al., 2009). Here, board independence is taken to be the proportion of board members that are non-executives in each year for each trust. Adding in this continuous variable had no impact on the findings and was itself not significant in the models used to test hypotheses H_{2a} and H_{2b}. For hypothesis H_3, the model using RCI had an odds ratio less than one, which was significant.

Table 5-7 Logit regression results for H$_3$

Model	A&E	RCI	Operating surplus	Waiting times	MRSA	Mortality
Relatively high baseline performance	1.251	2.982**	4.975**	2.475*	2.520**	2.206***
	(0.522)	(1.473)	(3.101)	(1.266)	(0.966)	(0.644)
Relatively low baseline performance	0.348**	0.722	0.384*	0.413**	0.949	0.705
	(0.160)	(0.375)	(0.219)	(0.176)	(0.402)	(0.231)
Number of overnight beds	1.000	0.999*	1.000	1.000	0.999	1.001*
	(0.000)	(0.001)	(0.001)	(0.001)	(0.000)	(0.000)
CEO labour market concentration	0.985	0.978	0.906	1.010	1.173**	0.995
	(0.052)	(0.062)	(0.072)	(0.064)	(0.083)	(0.041)
Foundation trusts status	2.798**	1.041	0.714	2.158**	1.190	1.013
	(1.348)	(0.389)	(0.336)	(0.843)	(0.401)	(0.263)
Teaching trust status	0.573	0.861	1.435	1.027	1.377	0.800
	(0.2724)	(0.398)	(1.011)	(0.591)	(0.598)	(0.303)
Constant	2.281	1.789	2.147	0.648	0.344*	0.359**
	(1.227)	(1.442)	(1.537)	(0.399)	(0.214)	(0.177)
Wald statistic	12.89**	17.76***	16.24**	13.49**	17.01***	20.24***
Observations	176	156	148	168	169	376

Odds ratios reported. Huber-White standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

5.4.1.2 Previous CEO tenure

Previous research has also suggested that the outgoing CEO might have some impact on the selection of the new CEO (Cao et al., 2006; Finkelstein et al., 2009; Elsaid et al., 2016). In particular, the tenure of the outgoing CEO might be expected to influence hiring decisions because the board is likely to be a reflection of that CEO in terms of their characteristics and ways of thinking, if they were in post for long enough to replace board members with their own choices (Shen and Cannella Jr, 2002). Adding in the tenure of the previous CEO had no impact on the findings and was itself not significant in the models for hypotheses H_{2a} and H_{2b}. It was, however, significant in the models used to test hypothesis H_3 using A&E target achievement, inpatient waiting times, and mortality rates as the performance metrics. Odds ratios were significant and less than one for the A&E and inpatient waiting times models, but greater than one for the mortality model, although only weakly significant.

5.5   Summary and conclusions

This empirical chapter has focused on the research questions: is social capital valued by recruiting organisations, and does the baseline performance of the organisation affect the value placed on internal social capital? The rationale behind these research questions was to follow on from the research in the previous chapter, which addressed the factors that might cause a CEO to leave their job. Once a CEO post becomes vacant, the board needs to appoint a new CEO and this chapter has addressed that need, once again looking through the lens of social capital theory. Social capital has been proxied by the insider status of the new CEO, with an insider assumed to have greater internal social capital than an outsider, and the performance of a candidate's previous trust, where good performance is assumed to enhance their reputational social capital.

The theoretical arguments presented in this chapter suggested that insiders would be preferred over outsiders since insiders would have greater internal social capital through virtue of already working in the recruiting trust. A simplistic hypothesis H_1 therefore stated that insider status would be

positively associated with CEO selection. It was clear from the data that this was not the case, with less than a quarter of all trust CEO appointments being insiders. This contrasts sharply with data from the private sector where 70% of CEO appointments are insiders (Favaro et al., 2013). A regression model was used to look at what factors might influence the choice between insider and outsider. Theoretically, we might expect larger firms to appoint more insiders since their internal labour market could be assumed to be bigger than a small firm (Lauterbach et al., 1999) yet on the other hand, firm size might overstate the size of the CEO candidate pool since realistically only members of the board are likely to be considered as potential candidates (Zhang and Rajagopalan, 2003). The size of the trust was found to be non-significant which supports the theory that organisational size is not a good proxy for the CEO labour market. An alternative proxy for the size of the local CEO labour market was provided by a Herfindahl-Hirschman Index calculation based on the number of executive board members in each trust within each SHA. This was found to be significant with the odds of appointing an insider increasing as the pool of candidates in the local area reduced, suggesting that the choice between insider and outsider is likely to be influenced by the origin of the candidates that apply for the post, that is, the supply of potential candidates. A limitation of my research is that I only have records for successful candidates and do not know who applied unsuccessfully. Foundation trust status was also shown to be significant with foundation trusts more likely to appoint insiders than outsiders. Table 5-2 shows a small yet significant correlation between foundation trust status and CEO market concentration, so this result is not surprising as foundation trusts tend to be in areas with lower market concentration.

The second hypothesis built on the first by arguing that any decision to appoint an insider or outsider would be made in the context of the baseline performance of the recruiting trust. An organisation that is performing poorly might be expected to want to bring in fresh ideas rather than promoting from within whereas a successful organisation is likely to want to continue that success and therefore avoid an influx of new ideas and strategies that might disrupt that good performance. In which case an insider would be preferred

(Finkelstein et al., 2009). There was limited support found for this hypothesis with only two of the performance metrics yielding significant results, although both demonstrated a non-linear relationship between baseline performance and the likelihood of appointing an insider rather than the linear relationship suggested by the hypotheses.

In the model using A&E target achievement as the performance metric, both relatively high and relatively low baseline performance of the recruiting trust was found to be positively associated with the likelihood of appointing an insider. That is, both extremes of performance had odds ratios greater than one. So, whilst hypothesis H_{2a} was supported because the model showed that relatively high baseline performance was positively associated with insider selection, hypothesis H_{2b} was not supported. In the model using operating surplus as the performance metric, both extremes of performance had odds ratios below one indicating that both relatively high and relatively low performance are associated with a decreased likelihood of appointing an insider, or conversely, an increased likelihood of appointing an outsider. Therefore, hypothesis H_{2b} was supported but H_{2a} was not supported. These non-linear relationships were confirmed by running models using only mid-range performance. Mid-range performance in the A&E model had a significant odds ratio below one whereas in the operating surplus model it had a significant odds ratio of greater than one. These non-linear relationships echo the findings from Dalton and Kesner (1985).

The opposing relationships found in the A&E and operating surplus models highlight the potentially different value that stakeholders place on the different performance metrics. The A&E 4-hour waiting time target is high profile and often appears in the media when reporting on trust performance. It is well known to the public and therefore an easy indicator for whether a trust is performing well or not. Good performance against this indicator is desirable as it will influence public perception of the trust. Therefore, the positive association between high performance and the selection of an insider is not surprising. Operating surplus is much more of an internal measure of performance, likely of interest only to those working in the NHS rather than the public and as such, the association between low performance

and the appointment of an outsider seems reasonable. The A&E metric inherently captures an array of performance considerations as achieving that target relies on there being appropriate levels of funding, staffing, and capability whereas the operating surplus metric is a measure of financial performance alone.

Social capital was also proxied by the performance of the newly appointed CEO's previous trust, with high performance, relative to other trusts in that year, assumed to enhance an individual's reputational social capital. Hypothesis H_3 posited that any relationship between reputational social capital would be contingent on the baseline performance of the recruiting trust in the period immediately prior to the CEO appointment such that trusts with poor baseline performance would be more likely to appoint CEOs with high reputational social capital. All the models did show significant associations between the extremes of relative baseline performance and the likelihood of appointing a new CEO with relatively high reputational social capital compared to relatively low reputational social capital. The models using RCI, operating surplus, inpatient waiting times, MRSA infection rates, and mortality rates all had a significant odds ratio of much greater than one for relatively high baseline performance. This indicates that trusts with good baseline performance are much more likely to appoint a CEO with high reputational social capital than one with low reputational social capital.

The only significant results for relatively low baseline performance were for the models using A&E target attainment, operating surplus and inpatient waiting times, each of which had odds ratios below 1, indicating that poor performing trusts were much more likely to appoint CEOs with low reputational social capital than those with high reputational social capital. These results are not counterintuitive. It seems logical that CEOs with high reputational social capital will be attracted to other high performing trusts. They will not want to risk tarnishing their reputations by moving to a poor performing trust and potentially failing in turning that performance around. Similarly, a CEO candidate with low reputational social capital may not be able to attract offers of employment from high performing trusts and thus

may only be able to secure a role in a trust that cannot attract a higher calibre candidate.

This chapter has explored the second of the three main strands of research into CEO succession, that of selection. The CEO selection literature is hampered by the data used in most studies as it only offers a partial picture of what is happening. Most studies, including this one, use data on actual appointments so it is only possible to compare successful candidates against other successful candidates. It is almost certain that a more nuanced picture would arise if data on all applicants were available as that would uncover any true preferences between certain candidate characteristics. However, even given this limitation it is still worth exploring the outcomes for CEO appointments and this chapter had added to the existing research literature in several ways. Firstly, it has used the NHS as a case study in direct contrast to the extant literature which predominantly focuses on private sector organisations. An immediately obvious difference between the two sectors was illustrated by the proportion of insider CEO appointments, 70% in the private sector compared to less than a quarter in the NHS. The NHS differs to the private sector in many other ways, not least with its non-profit making status and the level of public interest. By testing hypotheses in this new context, it helps broaden the applicability of theories thus far only tested in the private sector and thus adds to the richness of evidence available. Secondly, my research uses the lens of social capital theory, hitherto a largely unexplored aspect of CEO succession. By looking through this lens it is possible to identify threads that have previously been ignored, such as the value of social networks and how different performance metrics interact with these.

As mentioned at the start of this chapter, there are three main areas of CEO succession research: the antecedents of a CEO leaving their post, the selection of a new CEO, and the impact a new CEO has on the performance of the recruiting organisation. The next chapter addresses the third of these domains whilst continuing to use the lens of social capital theory as a golden thread tying all three empirical chapters together.

Chapter 6 – Post CEO succession organisational performance

6.1 Introduction

This empirical chapter explores the third of the three main strands of CEO succession research, that of post-succession organisational performance. Specifically, it looks at the extent to which a new CEO is able to affect organisational performance in the context of NHS acute trusts as viewed through the lens of social capital theory. With the median tenure of an NHS CEO being a mere 3 years (Anandaciva et al., 2018), many trusts will be welcoming new CEOs each year so it remains a key strategic issue that boards need to keep in mind when considering whether a CEO succession event will benefit their trust. High turnover leads to organisational instability as leaders are not in post long enough to effect strategic change. An outgoing CEO will have their mind elsewhere and a new CEO will need time to get to grips with the new role and organisation. This can cause periods in which no strategic decisions are made (Anandaciva et al., 2018), which can be crippling for an organisation.

The impact that a new CEO has on organisational performance is by no means clear cut. Previous research is inconclusive (Shen and Cannella Jr, 2002; Huson et al., 2004; Boyne et al., 2011a; Quiqley et al., 2019) or produces counterintuitive results (Elsaid et al., 2011; Hamori and Koyuncu, 2015), which leaves the field wide open for further research to try and clarify the research questions posed in this chapter: does CEO succession make a difference to organisational performance, does the impact of a new CEO change depending on the baseline performance of the firm, and how does social capital affect the impact a new CEO has on organisational performance?

The extant literature is dominated by three main theories of succession, of adaptive or disruptive effects and ritual scapegoating (Rowe et al., 2005; Boyne et al., 2011a) dating back to the 1960s, although more recently there have been calls to focus on contingencies in an effort to explain when each of these theories might apply (Georgakakis and Ruigrok, 2017). In isolation,

the three main theories have garnered little conclusive support (Finkelstein et al., 2009) so this chapter seeks to add to the debate by using the lens of social capital theory.

The previous empirical chapters looking at the antecedents of CEO succession and the selection of a new CEO highlighted the limited literature using the public sector for research and, in particular, the absolute dearth of literature using the NHS as a case study. However, there is one paper that does use the English NHS to explore the impact that CEOs have on post-succession organisational performance. Janke et al.'s (2018) working paper looks at the impact that NHS CEOs had on trust performance over a twelve year period, but found no evidence in support of any performance changes, let alone gains, as a result of changing the CEO. A couple of potential explanations were suggested for this result. Firstly, the nature of a CEO role in the NHS means that political goals are competing with performance goals. A CEO may be preoccupied with ensuring they do not end up on a politician's desk as a bad news story rather than concentrating on the long-term performance of their trust. An alternative explanation suggested that the relatively short tenure of most CEOs allows them insufficient time to effectively bring together and command the disparate arms of their trust, thus meaning that performance changes are unlikely. My research builds on this paper by explicitly using social capital theory to help explain any differences in performance following a CEO succession event.

The structure of the rest of this chapter is as follows. I first discuss the theoretical motivations for my research, which focuses on the three main theories of CEO succession as viewed through the lens of social capital theory. This leads to four hypotheses which suggest associations between organisational performance following a CEO succession and insider and outsider status along with the baseline performance of the recruiting trust. The next section describes how the data sample used in this analysis was constructed and provides an overview of the variables used in the models. The methodology used in this chapter, that of dynamic panel data regression, is explained before the next section presents the empirical results and discusses whether they support the hypotheses. A section on

robustness checks explores how sensitive the models are to changes in variable operationalisations or the inclusion of additional control variables before the final section summarises the findings, draws conclusions and highlights the original contribution of this research. Therefore, the next section discusses the theoretical motivations for this research and the hypotheses drawn from that.

6.2   Theoretical motivation and hypotheses development

As stated above, there are three main theories relating to CEO succession (Rowe et al., 2005) but, despite many years of empirical research aimed at testing these theories there remains a lack of consensus on which, if any, best reflects the impact new CEOs have on organisational performance (Shen and Cannella Jr, 2002; Finkelstein et al., 2009; Boyne et al., 2011a; Quiqley et al., 2019). These three theories can broadly be thought of as adaptive, disruptive, and scapegoating. The adaptive theory of CEO succession suggests that new CEOs will have a positive impact on organisational performance. This improvement in performance is generated by the organisation adapting to the new CEO and is consistent with the heroic view of leadership as it predicts that the actions of a single leader can have a significant impact on the organisation (Grusky, 1963; Boyne et al., 2011a).

The disruptive model, also known as the vicious cycle theory, predicts that a new CEO will lead to a worsening of organisational performance because the conditions surrounding a CEO succession event are often marred in conflict. These conditions may act as a distraction to staff, which will in turn impact on their own performance and thus that of the organisation. The vicious cycle aspect comes in as continued poor performance makes it even harder for the new CEO to recover the position, leading to yet more deterioration in performance and possibly further CEO successions (Grusky, 1963; Boyne et al., 2011a).

The third theory, of ritual scapegoating, suggests that removing a CEO will signal to stakeholders that a change in strategy is desired yet there is no real expectation that a new CEO will be able to make much difference to

performance. Instead, this is an attempt to shift blame for poor performance (Boyne et al., 2011a). This latter theory, which predicts no change in performance, can be viewed as a combination of the other two theories in that there may be both adaptive and disruptive effects but they cancel each other out to give the impression of no impact (Gamson and Scotch, 1964; Boyne et al., 2011a).

From this we can conclude that a new CEO is expected to have an impact on organisational performance but that the direction of this impact is uncertain since existing research is inconclusive, with results showing both improvements to, and a worsening of performance following a CEO succession. This leads to the hypothesis that:

> H_1: CEO succession makes a difference to organisational performance

This basic hypothesis is expanded on by the suggestion that a contingency view is more appropriate (Boyne et al., 2011a; Georgakakis and Ruigrok, 2017), that is, the impact of CEO succession will depend on other factors such as the conditions in which the trust is operating at the point a new CEO takes over (Finkelstein et al., 2009; Boyne et al., 2011a; Karaevli and Zajac, 2013). Under conditions of high baseline performance the disruptive theory of succession is expected to dominate (Boyne et al., 2011a) since the previous CEO is assumed to have had a positive effect on factors that might affect performance, such as staff morale and stakeholder relations (Zhang and Rajagopalan, 2004). A new CEO may find it difficult to maintain that high performing environment as they will be stepping into their predecessor's shoes and may lack the internal social capital that allowed the previous CEO to oversee that high performance.

Conversely, poor performance may be attributable to the previous CEO (Anandaciva et al., 2018) and a new CEO may therefore find it easier to improve performance. Here, the adaptive theory of succession is expected to dominate under conditions of poor baseline performance since the succession event will have a positive effect on performance (Miller, 1993). This could be because staff are invigorated by new leadership, stakeholders

are reassured, and people are motivated to turn the poor performance around (Boyne et al., 2011a). There is also an argument suggesting that any new CEO must be better than the previous CEO, and thus more likely to be able to improve performance, else why would the board bother to replace them (Huson et al., 2004). Therefore, this leads to the hypothesis that:

> H_2: The impact of CEO succession will vary depending on the baseline performance of the organisation such that succession in organisations with poor baseline performance will see performance improve and succession in organisations with good baseline performance will see performance decline.

These arguments can be extended even further by considering what makes one CEO more successful than another. If the outgoing CEO has fostered the conditions for high performance, it could be argued that this has been facilitated by their internal social capital. That is, their relationships with colleagues and stakeholders (Adler and Kwon, 2002). An insider could arguably have built internal social capital in the form of existing relationships with colleagues and stakeholders. Social capital theory posits that social relationships can affect how CEOs perform (Johnson et al., 2012) since the benefits of social capital include increased influence, power, control and solidarity (Adler and Kwon, 2002), factors which are all necessary if a CEO is to lead effectively. This leads to the hypothesis that:

> H_3: The effect of succession on organisational performance will be moderated by insider status.

Appointing an insider CEO is a signal to stakeholders that the board is happy with the strategic direction of the organisation whereas appointing an outsider usually signals a change of strategic direction (Datta and Guthrie, 1994b; Bailey and Helfat, 2003; Karaevli and Zajac, 2013). I therefore might expect a trust with low baseline performance to appoint an outsider and a trust with high baseline performance to appoint an insider. Some evidence in support of this was found in the previous chapter. If a high performing CEO leaves, a new outsider CEO is expected to struggle to maintain that high performance let alone improve upon it as they will not have the internal social

capital available to leverage since it is estimated to take 12-18 months to bed in a new CEO, even if they have prior experience (Hoggettbowers, 2009). Therefore, the disruptive effects of succession are expected to dominate (Boyne et al., 2011a). An insider CEO would have internal social capital available to them (Schnatterly and Johnson, 2008) to leverage and thus might be expected to be able to maintain or even improve organisational performance.

Conversely, the low performance of a trust can also be attributed to its leader (Anandaciva et al., 2018) as they may be responsible for factors that can cause poor performance, such as poor staff morale and poor stakeholder relations (Boyne et al., 2011a). Again, social capital theory is applied here to suggest that a lack of internal social capital can contribute to low performance (Adler and Kwon, 2002). A new outsider CEO will signal that the board wants a change in strategic direction (Datta and Guthrie, 1994b; Bailey and Helfat, 2003; Karaevli and Zajac, 2013), which we would expect to lead to an improvement in low performance, although not necessarily in the immediate term since it can take time for new CEOs to bed in (Hoggettbowers, 2009). However, a new CEO is a chance to reset those relationships hence I would expect performance to improve. An insider CEO will already be working in the trust prior to becoming its CEO and may well be tarred with the same brush in relation to their social capital by virtue of their association with the previous CEO and former regime (Johnson et al., 2012). Therefore, I would expect that:

> H_4: The relationship between insider succession and organisational performance will vary across levels of baseline performance such that under conditions of low baseline performance an outsider successor is expected to improve performance and under conditions of high baseline performance an insider successor is expected to improve performance.

The reputation of a CEO, as proxied by the performance of their previous trust, is used as an indication of reputational social capital (Johnson et al., 2012). If a manager has a track record of overseeing high performance in other trusts, it follows that there would be an expectation by the board of the

recruiting trust that their managerial ability would be transferred to the new trust (Bailey and Helfat, 2003; Elsaid et al., 2011; Hamori and Koyuncu, 2015; Fitzsimmons and Callan, 2016). This leads to the hypothesis that:

> H_5: CEOs with greater reputational social capital will lead to more of an improvement in performance in the new trust than those with lower reputational social capital

This section has set out the theoretical motivations for my research and the hypotheses that will be tested in this chapter. The next section describes the methodology used in this chapter, that of dynamic panel data regression modelling.

6.3 Methodology and variables

6.3.1 Methodology

The methodology used in this chapter, dynamic panel data regression, is inspired by the approach taken by Boyne et al. (2011a) in their analysis of post-succession organisational performance in the public sector, specifically English Local Authorities. However, whereas their methodology employed the Anderson-Hsiao estimator (Anderson and Hsiao, 1982), I have opted for the Arellano-Bover estimator (Arellano and Bover, 1995) as described below.

An organisation's performance in any given year is assumed to be a function of its performance in previous years. If we use a lagged performance variable as an explanatory variable in a dynamic panel data estimation, there is a risk that correlation between the explanatory variables and the error term will lead to biased estimators. The method of instrumentation is a proposed solution to this problem as it prevents any bias resulting from correlation between the regressor x and the error term ε. The basic principle of instrumentation, as defined by Behr (2003), is to:

> *'Find a variable Z, that is highly correlated with X, but does not correlate with ε. Use as the new regressor only that part of the observable variable X which correlates with Z and is orthogonal to ε.'*
> (Pg. 2)

The linear model we want to estimate contains explanatory variables x_t and the lagged endogenous variable y_{t-1}.

$$y_{it} = \rho y_{i,t-1} + x'_{it}\beta + \alpha_i + \varepsilon_{it}$$

where $\varepsilon_{it} \sim N(0, \sigma^2_\varepsilon)$ and $|\rho| < 1$

$i = 1,\dots,N$ index for individuals

$t = 1,\dots,T$ index for years

x'_{it} row vector of explanatory variables, dimension k

ρ unknown parameter of the lagged endogenous variable

β unknown parameter vector of the k explanatory variables

α_i individual specific fixed effects

The following assumptions are also made:

- The error term is orthogonal to the exogenous variables: $E(x'_{it}\varepsilon_{it}) = 0$
- The exogenous variables might be correlated with the individual effect $E(x'_{it}\alpha_{it}) \neq 0$
- The error term (i.i.d.) is uncorrelated with the lagged endogenous variable: $E(y_{i,t-1}\varepsilon_{it}) = 0$

The explanatory variables are assumed to be predetermined, which gives rise to the assumption of:

$$E(x_{it}\varepsilon_{is}) = 0 \text{ for } s \geq t \text{ but } E(x_{it}\varepsilon_{is}) \neq 0 \text{ for } s < t$$

The Arellano-Bond estimator (Arellano and Bond, 1991) is one of several possible dynamic panel data estimators that can be used as it offers a better estimation than the cruder Anderson-Hsiao estimator (Anderson and Hsiao, 1982). The Arellano-Bond estimator provides a generalised method of moments (GMM) series of equations, with one per time period, and is based on the work of Holtz-Eakin et al. (1988).

In the Anderson-Hsiao approach, the twice-lagged level appears in the instrument matrix as:

$$Z_i = \begin{pmatrix} \dot{y}_{i,1} \\ \vdots \\ y_{i,T-2} \end{pmatrix}$$

where row one corresponds to $t = 2$, since the first observation is lost due to applying the first difference transformation. Adding in a further lag y_{t-3} as a second instrument would cause the loss of another observation per panel. To avoid this loss of degrees of freedom, Holtz-Eakin et al. (1988) suggest constructing a set of instruments from the second lag of y, such that:

$$Z_i = \begin{pmatrix} 0 & 0 & \dots & 0 \\ y_{i,1} & 0 & \dots & 0 \\ 0 & y_{i,2} & \dots & 0 \\ \vdots & \vdots & \ddots & \vdots \\ 0 & 0 & \dots & y_{i,T-2} \end{pmatrix}$$

Including zeros in the place of missing vales prevents the loss of degrees of freedom such that all observations at time $t >= 2$ can be included in the model. This estimator is usually referred to as the difference GMM. A potential weakness in this method was identified by Arellano and Bover (1995) who suggested that the lagged levels can be poor instruments if the variables are close to a random walk. They modified the estimator to include lagged levels as well as lagged differences; this amended estimator is usually referred to as the system GMM. The system GMM is used in this chapter.

6.3.2 Sample selection

The panel data sample available for analysis in this chapter includes all NHS acute trusts, and combined acute and community NHS trusts in England between 2003/04 and 2007/18. However, the first year of data for 2003/04 is lost due to the methodology needing to use the lag of performance as an instrument. Therefore, in total there were 1,991 trust-year records available for analysis using the A&E metric.

6.3.3 Dependent variables

The dependent variable used in this chapter is organisational performance. NHS CEOs are judged on several key deliverables including achievement of government targets for standards of quality service provision and managing finances, whilst a more intangible deliverable is the quality of relationships

with stakeholders (Hoggettbowers, 2009). This diversity of potential performance metrics makes it difficult to select markers of organisational performance that are meaningful to all stakeholder at all times and may help explain the findings from Janke et al. (2018).

The main analyses used the average attainment of the A&E 4-hour waiting time target but supplementary analyses used alternative performance metrics: operating surplus, RCI, inpatient waiting times, MRSA infection rates and mortality rates. These are described in Chapter 3 but the summary statistics for the main A&E analysis are provided in Table 6-1 below.

Table 6-1 Descriptive statistics for sample

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
A&E performance	1991	.934	.061	.598	.995
Operating surplus performance	1711	1013.849	18924.21	-195000	126000
RCI performance	1978	98.87	6.762	69.09	138.05
Waiting time performance	1990	58.279	19.999	1	344
MRSA performance	1993	.485	.434	0	5.395
Mortality performance	1920	1.002	.103	.539	1.443
CEO succession (dummy)	1999	.172	.378	0	1
Insider status (dummy)	1999	.207	.405	0	1

6.3.4 Explanatory variables

A dummy variable was created to indicate whether a new CEO had started their role in the previous financial year. This was coded as 1 where a new CEO had started in the previous year and 0 otherwise. When looking at the succession rate over time it is clear that there is no obvious trend with the rate ranging from 13% to 23% in any particular year.

Although the full sample contains 437 succession events occurring between 2004/5 and 20017/18, 93 of those were in post for less than a full financial year and thus are not included in the model looking at successions occurring in the previous year, of which there are 344. These 93 successions were excluded because at least one full year of tenure was felt necessary in order to be able to attribute any performance changes to the new CEO. The sample also includes performance data for 339 succession events that occurred two years ago. This was based on the rationale that it can take new

CEOs 12-18 months to bed in and thus have an impact on performance (Hoggettbowers, 2009). The start dates for all CEOs were known, which means some succession events included in the model may have occurred prior to the study observation period.

A dummy variables was created for the new CEO's insider status. The insider dummy was coded as 1 if the new CEO worked in the trust immediately prior to becoming its CEO and zero otherwise. Of the 344 succession events that occurred in the previous year, 62 (18%) were insider CEOs. The baseline performance of each trust was set as the performance in the financial year immediately prior to the new CEO taking up their post.

6.4 Empirical results

This section provides the results from the models used to test the hypotheses set out earlier in this chapter and assesses whether they provide any evidence to support the hypotheses. Hypothesis H_1 suggested that CEO succession would make a difference to post-succession organisational performance but did not specify the direction of this relationship. Table 6-3 provides the results of the regression model used to test H_1 where model A includes all CEO successions occurring in the previous year. In model A the presence of a CEO succession event in the previous year is statistically significant at the 99% confidence level, thus proving support for hypothesis H_1. The coefficient is positive meaning that performance improves following a CEO succession. The model was rerun using succession occurring two years previously but this showed that succession was not a significant main effect. When running models using alternative performance metrics (see Table B-1 in Appendix B), I found that CEO succession in the previous year had a statistically significant effect on performance only when using operating surplus as the performance metric.

Table 6-2 provides the correlation matrix for the sample used in the A&E analyses. Throughout this section the model results reported in tables are for models using the average A&E target achievement as the performance metric, unless otherwise stated.

Hypothesis H_1 suggested that CEO succession would make a difference to post-succession organisational performance but did not specify the direction of this relationship. Table 6-3 provides the results of the regression model used to test H_1 where model A includes all CEO successions occurring in the previous year. In model A the presence of a CEO succession event in the previous year is statistically significant at the 99% confidence level, thus proving support for hypothesis H_1. The coefficient is positive meaning that performance improves following a CEO succession. The model was rerun using succession occurring two years previously but this showed that succession was not a significant main effect. When running models using alternative performance metrics (see Table B-1 in Appendix B), I found that CEO succession in the previous year had a statistically significant effect on performance only when using operating surplus as the performance metric.

Table 6-2 Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
(1) CEO succession	1.000							
(2) A&E performance	-0.023	1.000						
(3) Operating surplus performance	-0.047	0.284*	1.000					
(4) RCI performance	0.022	-0.111*	-0.077*	1.000				
(5) Waiting time performance	0.009	0.088*	-0.008	-0.012	1.000			
(6) MRSA performance	0.013	-0.234*	-0.046	0.088*	-0.013	1.000		
(7) Mortality performance	0.018	-0.043	-0.037	-0.081*	0.052*	-0.114*	1.000	
(8) Insider	-0.030	-0.076*	0.026	-0.020	-0.076*	0.054*	0.093*	1.000

* shows significance at the 0.05 level

Table 6-3 Regression models using A&E target for H_1 to H_4

Model	A	B	C	D
Hypothesis	H_1	H_2	H_3	H_4
Explanatory variables	**CEO succession last year**			
Lagged (baseline) performance	0.888***	0.875***	0.827***	0.757***
	(0.059)	(0.068)	(0.062)	(0.139)
CEO succession in previous year	0.005***	0.116**	-0.012	0.042
	(0.002)	(0.058)	(0.008)	(0.106)
CEO succession x baseline performance		-0.118*		-0.050
		(0.061)		(0.114)
Insider			-0.015**	-0.160
			(0.006)	(0.332)
CEO succession x insider			0.095**	0.256
			(0.041)	(0.466)
Insider x baseline performance				0.163
				(0.357)
CEO succession x insider x baseline performance				-0.223
				(0.518)
Year dummies	Yes	Yes	Yes	Yes
Constant	0.162***	0.172***	0.134**	-0.001
	(0.053)	(0.061)	(0.057)	(0.113)
Observations	1,980	1,980	1,980	1,980
F-test	231.99***	165.11***	150.51***	87.90***
Groups/instruments	154/43	154/57	154/44	154/58
AR(2)	0.430	0.406	0.451	0.327
Hansen statistic	0.052	0.005	0.071	0.001

Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

The second hypothesis predicted that post-succession organisational performance would be contingent on the baseline performance of the new trust such that CEO succession in high performing trusts would lead to a decline in performance and CEO succession in poor performing trusts would lead to an improvement in performance. Model B in Table 6-3 shows the results for the model testing hypothesis H_2 for CEO successions occurring in the previous year. From this we can see that succession is significant at the 95% confidence level and baseline performance is significant at the 99% confidence level. The interaction between CEO succession and baseline performance is significant at the 90% confidence level although it only just misses out on making the 95% cut-off.

A post-hoc probe of this interaction was conducted to explore the interaction between CEO succession and baseline performance. Specifically, I estimate margins, contrasts, and marginal effects on the level of A&E performance. Figure 6-1 shows the predictive margins of succession. We see from this chart that under conditions of low baseline performance a trust experiencing a change in their CEO will have better performance than a trust with no succession. That is, the line for successions is above the line for no succession. This relationship appears to be statistically significant as the lines are not parallel. We can also see from this chart, and the data underlying it, that at low levels of baseline performance, a CEO succession will improve performance up until baseline performance is 95% after which point post-succession performance declines.

This visual assessment was tested by graphing the marginal effects for succession as shown in Figure 6-2. This shows that the differences between succession and no succession are largest at the lowest extreme of baseline performance and get smaller until around 95% before expanding again. The contrasts of predicted margins tells us that these differences are significant, at the 95% confidence level, for all levels of baseline performance below 95%. Interactions are symmetric so we can also look at it from the perspective of how the effect of baseline performance varies depending on whether a succession event occurred. Figure 6-3 shows this for two levels of baseline performance where the low and high values are calculated to be one standard deviation either side of the mean. This chart shows that when baseline

performance is low, a succession event will lead to an improvement in performance. When baseline performance is high, a succession event will lead to a decline in performance. Thus, hypothesis H_2 is supported.
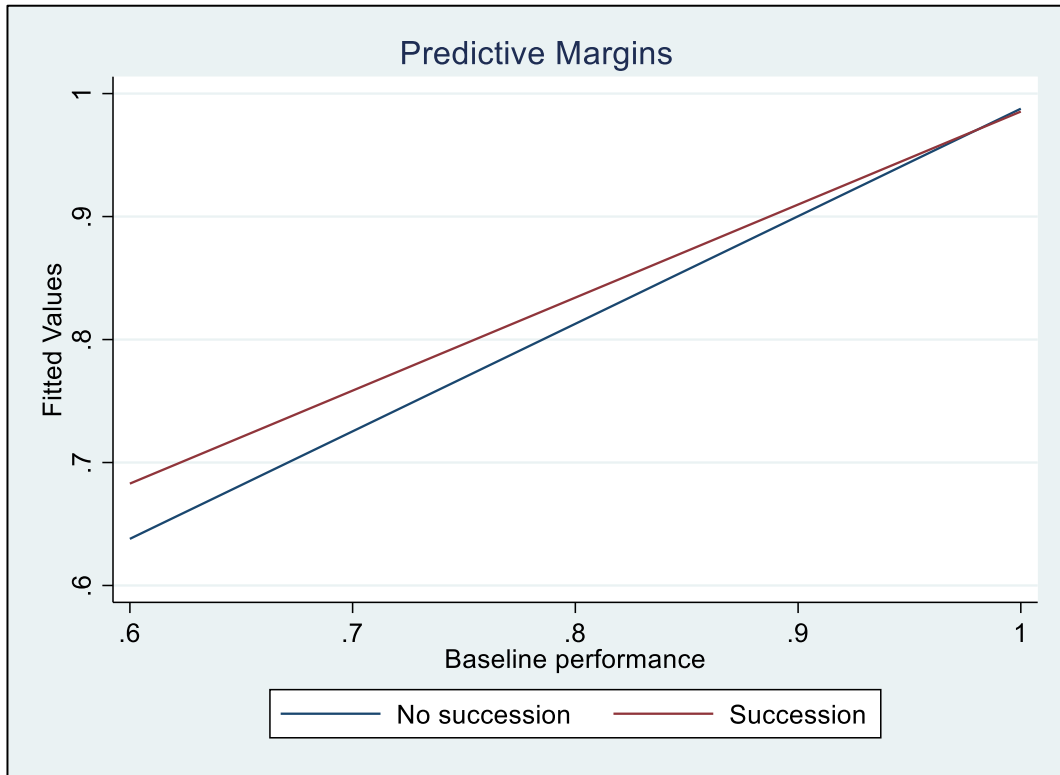

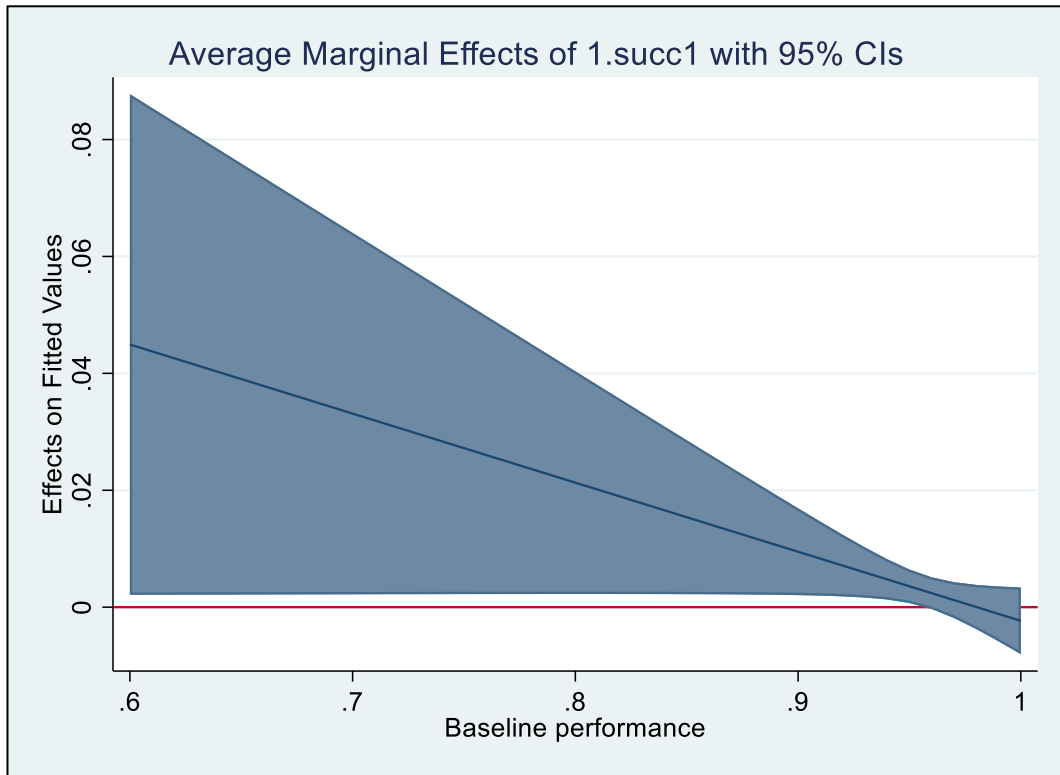
Figure 6-1 Predictive margins of succession

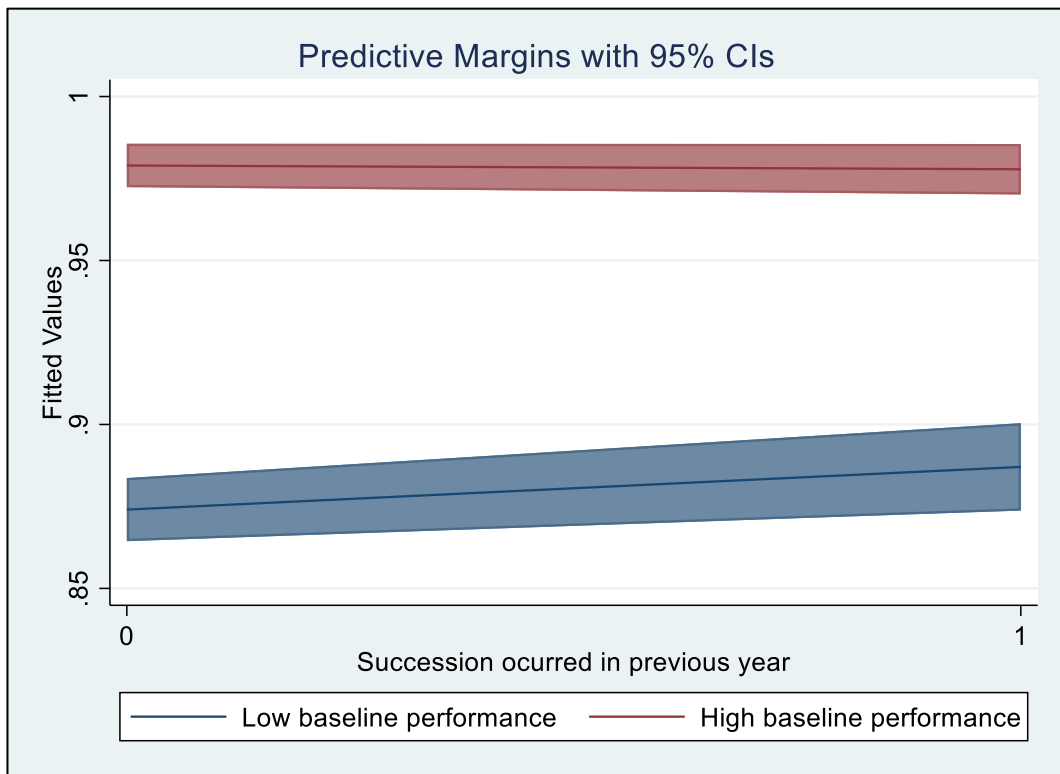**Figure 6-2 Marginal effects of succession**

Figure 6-3 Predictive margins for baseline performance

Rerunning the model for successions occurring two years previously provided no significant results, indicating that the significant impact of a succession event the previous year does not continue into the second year of a new CEO's tenure. When running models using alternative performance metrics (see Table B-2 in Appendix B), the interaction between succession and baseline performance was significant in the operating surplus and inpatient waiting times models, both at the 95% confidence level. However, both models showed that under conditions of poor baseline performance a CEO succession led to a further decline in performance whereas under conditions of good performance a succession led to a further improvement in performance. These further findings do not support hypothesis H_2.

Hypothesis H_3 suggested that the relationship between CEO succession and performance would be moderated by insider status. Model C in Table 6-3 tested this for CEO successions one year ago and found a significant, at the 95% confidence level, interaction between succession and insider status. A post-hoc probe of this interaction was carried out to explore how insider status moderates succession. Figure 6-4 shows the predictive margins and we see from this that the effect of succession varies across the levels of insider status, that is, there is an interaction. The differences were tested for significance by calculating the average marginal effects of insider status and plotted as shown in Figure 6-5. At both levels of insider the confidence intervals do not include zero hence we can conclude that the difference between insiders and outsiders is significant. No significant associations were found when rerunning the model for successions occurring two years previously. When running models for the alternative performance metrics (see Table B-3 in Appendix B) both the operating surplus and MRSA models had significant interactions between succession and insider status, thus providing support for hypothesis H_3.
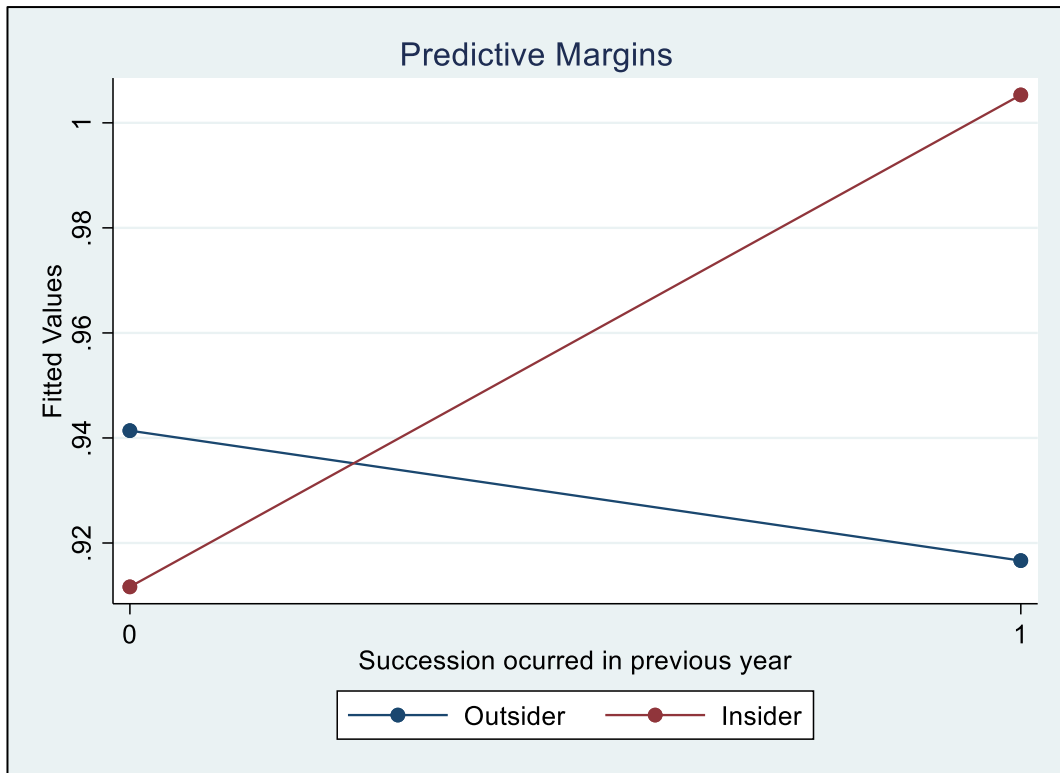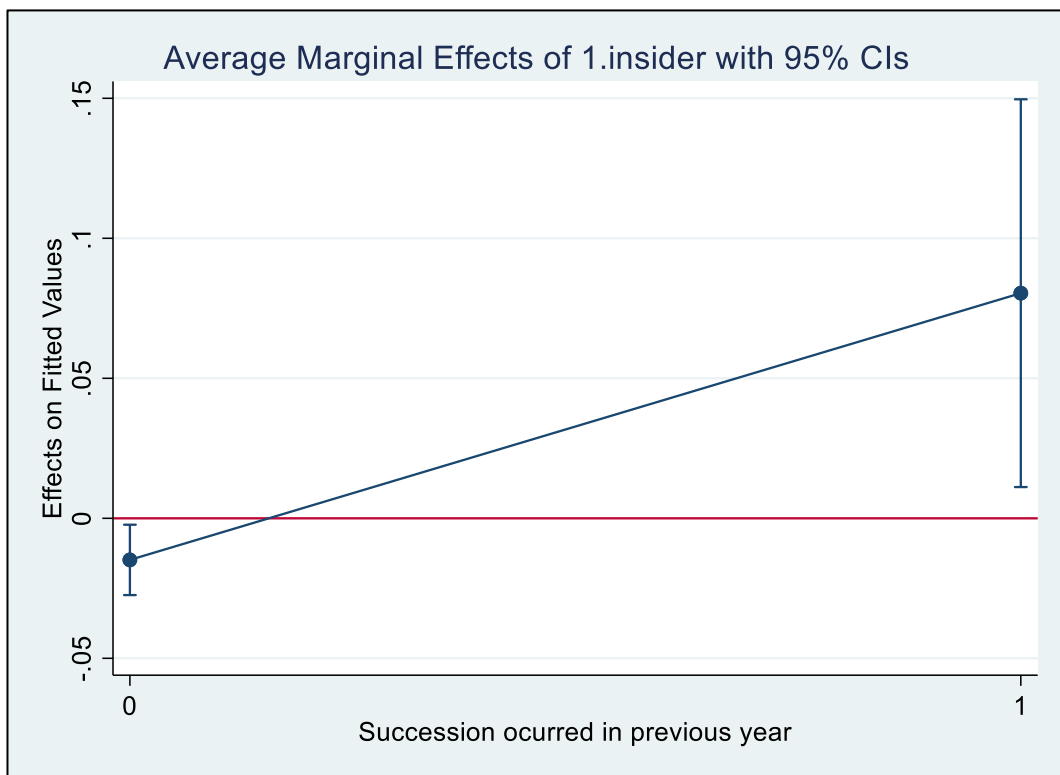
Figure 6-4 Predictive margins for insider status

Figure 6-5 Average marginal effects of insider status

An extension to this hypothesis was provided to build in contingencies, with hypothesis H_4 suggesting that the relationship between insider succession and organisational performance will vary across levels of baseline performance such that under conditions of low baseline performance an outsider successor is expected to improve performance and under conditions of high performance an insider successor is expected to improve performance. Model D in Table 6-3 provides the results for the model testing H_4 for CEO successions in the previous year and shows that the interaction between succession, insider status and baseline performance is not significant. Rerunning the model for succession occurring two years previously also showed no significant associations. When running models with alternative performance metrics (see Table B-4 in Appendix B) I found that the model using operating surplus had a significant interaction between succession, insider status and baseline performance. A post-hoc probe of this interaction showed that at low levels of baseline performance an insider succession would improve performance but at high levels of baseline performance an insider succession would worsen performance. For outsider successions the reverse was true, with low baseline performance leading to an improvement in performance and high levels of baseline performance leading to a decline in performance.

The fifth hypothesis, H_5, suggested that CEOs from high performing trusts would lead to more of an improvement in performance in the new trust than those from low performing trusts. Table 6-4 provides the results of t-tests used to determine whether the change in performance, calculated by comparing the first year of post-succession performance to the performance in the year immediately prior to the succession, was better for CEOs from high performing trusts. Results are provided for all performance metrics, but we see that with the exception of MRSA infection rates, the improvements in performance following a succession are better for CEOs from low performing trusts. It is important to remember here that whilst for the A&E and operating surplus metrics a higher number denotes better performance, for the other metrics a lower number denotes better performance. The only significant result is found when using MRSA infection rates as the performance metric although here, CEOs from high and low performing trusts are both associated with a drop in

performance, but the drop is less for those from high performing trusts. Therefore, no support is found for hypothesis H_5.

Table 6-4 t-test results for H_5

Performance metric		High	Low	t-value	Probability
A&E target	Mean	-0.012	0.028	7.499	1.000
	S.D.	0.003	0.006		
RCI	Mean	0.636	-1.226	-1.664	0.951
	S.D.	0.762	0.816		
Operating surplus	Mean	-5938	2863	2.433	0.992
	S.D.	2321	2696		
Waiting times	Mean	-2.313	-3.318	-0.668	0.747
	S.D.	0.962	1.140		
MRSA	Mean	0.039	0.192	2.548	0.006
	S.D.	0.038	0.046		
Mortality	Mean	0.013	-0.014	-2.243	0.987
	S.D.	0008	0.008		

6.4.1 Robustness checks

Robustness checks were conducted to see how robust the models reported in the previous section are when changes are made to the specification or operationalisation of variables.

6.4.1.1 Timescale for analysis

The main analysis reported in this chapter looks at CEO succession events occurring one and two years ago. Given that the expected bedding-in period for a new CEO is 12-18 months (Hoggettbowers, 2009) a robustness check was carried out to see if the conclusions drawn from the main analysis held for the third year of tenure for new CEOs. For all original models using A&E target achievement as the performance metric there was no effect found in year two of a new CEO's tenure and when looking at year three this lack of significant impact continued.

6.5 Summary and conclusions

This empirical chapter has addressed the research questions: does CEO succession make a difference to organisational performance, does the impact of a new CEO change depending on the baseline performance of the firm, and how does social capital affect the impact a new CEO has on organisational performance? Posed in the context of assessing post CEO succession

organisational performance in NHS acute, and combined acute and community trusts. As in the two previous empirical chapters, the analysis undertaken in this chapter has been viewed through the lens of social capital theory, where a CEO's social capital has been proxied by their insider status and the organisational performance of their previous trust.

The three main theories of CEO succession have yet to be proven in the extant literature and the mixed findings led to my first hypothesis, that succession would make a difference to performance, yet the direction of that difference was not known. Two opposing views are that CEO succession either has a positive impact, adaptive, or negative impact, disruptive, on performance whereas the third theory, scapegoating, suggests that succession makes no difference to performance. My analysis found some support for hypothesis H_1 since a CEO succession event in the previous year was strongly associated with a small improvement in the A&E target performance. I also found support for H_1 when using operating surplus as the performance metric with a significant improvement in performance following a succession. However, this support was not repeated for any of the other performance metrics which lends itself to concluding that overall, H_1 was only partially supported. From this it is not possible to tell whether the scapegoating theory of succession is supported or whether there were adaptive and disruptive effects of succession that simply cancelled each other out to give the impression of no effect. My findings for the A&E and operating surplus models are at odds with the findings from Janke et al. (2018) who concluded that a change of NHS CEO makes no difference to organisational performance.

The first hypothesis was simplistic and took no account of contingencies such as the baseline performance of the recruiting trust, which we might reasonably expect to have an impact when a new CEO takes over. By adding in such contingencies, it was hoped that support would be found for either of the theories of succession. Hypothesis H_2 suggested that the impact of CEO successions would vary depending on the baseline performance of the organisation such that succession in organisations with poor baseline performance would see performance improve and succession in organisations with good baseline performance would see performance decline. The analysis

supported this hypothesis in the first year following a succession, but the effect did not last into year two. This drop in performance suggests that CEO succession is disruptive and this disruption is immediate but not sustained, which could be viewed as supporting the belief that a new CEO takes 12-18 months to bed in (Hoggettbowers, 2009). The robustness checks included looking at year three of a new CEO's tenure but found that there was still no effect in year three, but more importantly the performance had not started to improve. This could indicate that changing the CEO in a high performing trust ought to be avoided, although in many cases it is assumed that the CEO of a high performing trust chooses to leave rather than being pushed out by the board, thus the board is left with no choice but to replace them. The models using operating surplus and inpatient waiting times exhibited the opposite relationship though, with performance declining further after succession in a trust with poor baseline performance and improving following succession in a trust with high baseline performance. The A&E target is high-profile and oft cited in the media whereas operating surplus is more of an internal measure, of interest only to those running the trust.

Using the lens of social capital theory, I proposed that a CEO's insider status could be a proxy for having internal social capital since working in a trust prior to becoming its CEO would most likely mean that they had already developed social networks which would help them perform well when taking on the CEO role. Hypothesis H_3 tested this by suggesting that the effect of succession on organisational performance would be moderated by insider status. I found support for this hypothesis when using A&E target attainment and MRSA infection rates as performance measures. In both cases an insider succession improved performance whilst an outsider succession worsened performance.

The argument was extended in hypothesis H_4 to suggest that the relationship between insider succession and organisational performance would vary across levels of baseline performance such that under conditions of low baseline performance an outsider successor would be expected to improve performance and under conditions of high performance an insider successor would be expected to improve performance. However, only the operating surplus provided support for this hypothesis and showed that an insider succession led to an improvement in performance under conditions of low

baseline performance but a decline in performance under conditions of high baseline performance. For outsider successions this relationship was reversed. The hypothesis expected insider successors to flourish when baseline performance was high yet I found performance declined. I expected outsider successors to flourish when baseline performance was low and found that this was the case. So, whilst I found strong evidence to support the assertion that the relationship between insider succession and organisational performance would vary across levels of baseline performance, the direction of these relationships only partially supported the hypothesis.

The lens of social capital theory also allowed me to suggest that a CEO's reputational social capital would be an important factor in post-succession organisational performance such that CEOs with high reputational social capital would lead to more of an improvement in organisational performance in the new trust than those with low reputational social capital. Not only was there no support found for this hypothesis (H_5) but performance was improved more by CEOs with low reputational social capital. This could be the result of regression to the mean, that is, trusts performing relatively well are statistically more likely to experience a decline in performance and trusts performing relatively poorly are statistically more likely to experience an improvement in performance simply due to chance. However, it could also be because reputational social capital is not transferable. From the literature review we know that previous experience as a CEO is valued by recruiting organisations as they assume job-specific human capital is transferable (Hamori and Koyuncu, 2015) yet the evidence shows that this is not the case and CEOs with previous experience actually perform worse than those without such experience (Zhang, 2008; Elsaid et al., 2011; Bragaw and Misangyi, 2015; Hamori and Koyuncu, 2015). This is blamed on the negative transfer of human capital (Elsaid et al., 2011). Extrapolating from this, we could conclude that a similar argument might apply to reputational social capital in that it indicates where a CEO or member of the top management team has had success in a particular organisation but this is specific to that organisation and doesn't mean a similar level of success will carry forwards to a new organisation.

This chapter has explored the third of the three main strands of CEO succession research, that of post-succession organisational performance and,

as with the previous two empirical chapters, it has contributed to the body of literature in several ways. Firstly, my use of social capital theory is novel when applied to CEO successions. This allows for exploration into whether social capital can help explain any differences in performance observed when a new CEO takes the reins. Secondly, research into the impact of CEO successions has largely concentrated on private sector organisations or small public sector organisations in which the CEO might be expected to be able to effect change more readily (Janke et al., 2018). Thus far, the only research into large and complex public sector organisations has been limited to one NHS study, the aforementioned working paper from Janke et al. (2018) and several papers using data from English local authorities and the civil service (Boyne et al. 2011a; 2011b; 2010a; 2010b; 2008; Petrovsky et al. 2017). Using the NHS as a case study, my research has made a valuable contribution to the literature by offering a different methodological approach to that favoured by Janke et al. (2018), which adds to the debate around the impact of CEOs in large and complex public sector organisations. Thirdly, unlike much of the research using the private sector, I have used multiple performance metrics to try and gain insight into which aspects of performance a CEO might be able to control. Whereas most previous research relies on financial measures, I have extended this to include operational, throughput, and clinical safety measures.

The next chapter provides a conclusion to this thesis. It discusses what my analysis has added to the body of research into CEO successions and what this means for policy and practice.

Chapter 7: Discussion and conclusions

7.1   Introduction

This chapter concludes the thesis, bringing together the three main topics of CEO succession research in a broad discussion highlighting my contributions to theory, practice and policy. I also identify potential areas for future research that will build on my research and address the caveats applied to it. The aim of this thesis was to explore the three main topics in CEO succession research: the antecedents of CEO succession, the selection of a new CEO, and the impact a new CEO has on post-succession organisational performance, all through the lens of social capital theory. The English NHS was used as a case study for this research. NHS trusts represent a novel case study for this research given their status as large, complex public sector organisations which, unlike the smaller public sector organisations historically used in public sector CEO succession research, involve greater challenges in ensuring they are run cohesively (Janke et al., 2018). As a public sector organisation, the NHS publishes large amounts of data on performance, structural, financial, and operational measures which means a nuanced and granular analysis can be carried out on longitudinal datasets with relative ease. This enabled me to use a range of performance measures that permit the exploration of the interaction between CEO succession and different types of performance. Specifically, I used the average attainment of the A&E four-hour waiting time target, operating surplus, the standardised reference cost index, average inpatient waiting times, standardised MRSA infection rates, and standardised mortality rates.

My research was carried out on an NHS that is radically different to that which exists today. The COVID-19 global pandemic, unprecedented in modern times, has seen the NHS transform itself to adapt to the needs of the pandemic. Staff have been recalled from retirement, standard care paused, and the country locked down for months during which our help-seeking behaviours changed to reduce the burden on the NHS. Performance data for 2020/21, and possibly beyond, will forever reflect the impact of COVID-19. Death rates in hospitals have soared (NHS England, 2020c), A&E attendances have plummeted (NHS England, 2020a), funding has been

injected into the system to ensure the necessary adaptions can be made (Discombe, 2020), debts wiped clean (DHSC, 2020), and costs have spiralled with the need to invest in specialist intensive care unit machines and personal protective equipment (Brennan, 2020). Never has leadership been more critical. The toll on frontline staff and the need to have confidence in their CEO is paramount. Repeating my research to include this period of flux could yield different findings. Therefore, the results and conclusions from this research should be read with the understanding that the NHS environment has evolved and this study could well be the last of its kind for a prolonged period as we wait for NHS operations to return to normal.

The rest of this chapter is structured as follows. Section 7.2 reviews the main findings from each of the three empirical chapters and discusses how my research has contributed to theory, research and policy. Section 7.3 identifies the caveats applied to my research and suggests how these might be addressed through a future research agenda. The final section, 7.4, concludes the chapter.

7.2   Contributions to the literature and policy implications

This section summarises the main findings from each of the three empirical chapters and discusses how my research has contributed to the body of literature on CEO successions and the implications for policy arising from my findings. The literature review in Chapter 2 identified a number of gaps in the extant literature on CEO successions and my research was intended to address two of these: the use of social capital theory as a lens through which to view CEO successions and the use of a public sector organisation as a case study. However, in addressing these gaps I have also been able to make contributions to other areas which lack consensus. Namely, the reasons why CEOs leave their posts, where CEOs exit to, and the validity of existing theories of succession. Each of these will be addressed in detail in the discussions in the following sub-sections.

7.2.1   Social capital theory contributions
The most significant contribution stemming from my research is the application of social capital theory to CEO successions. Although other types of capital

have been used to explore CEO successions in the extant literature there is an obvious gap when considering the impact that social capital might have on successions. I identified two proxies for social capital: insider status as a proxy for firm-specific insider social capital and organisational performance as a proxy for reputational social capital. Although insiderness has been widely studied in CEO succession research (Shen and Cannella Jr, 2002; Zhang, 2008; Karaevli and Zajac, 2013; Nath and Mahajan, 2017), it has been done without making an explicit link to social capital. Only one paper was found which used reputational social capital, but this used membership of elite social networks rather than organisational performance as a proxy (Phan and Lee, 1995).

The first empirical chapter looked at the antecedents of CEO succession. It addressed the research question: how does social capital (internal and reputational) affect a CEOs ability to influence their tenure and their destination on exiting the CEO role? I hypothesised that CEOs with internal social capital would have a lower risk of exit to all non-retirement destinations and found some support for this in both the pooled and competing risks models. I further hypothesised that CEOs with reputational social capital would have a non-linear relationship to exit destinations such that CEOs overseeing poor performance would be more likely to exit to destinations that diminished their reputational social capital whilst CEOs overseeing high performance would be more likely to exit to destinations than enhanced their reputational social capital. Again, some support was found for this hypothesis. By applying social capital theory to this field I have advanced the research area on methodological grounds by looking at actual CEO exits as opposed to their intention to leave (Bertelli and Lewis, 2013), and by the inclusion of multiple exit destinations rather than a binary exit/stay outcome (McCabe et al., 2008). Whilst there has been some research using exit destinations (Petrovsky et al., 2017), I have extended this by aligning the destinations with social capital theory through making a distinction between whether a destination will enhance or diminish a CEO's social standing.

The second empirical chapter looked at the appointment of a new CEO by addressing the research questions: is social capital valued by recruiting organisations, and does the baseline performance of the organisation affect

the value placed on social capital by the recruiting organisation? I found no evidence that recruiting organisations value social capital but did find evidence that the baseline performance of the recruiting trust was an important contingency factor with both relatively high and low baseline performance of the recruiting trust associated with the appointment of a CEO with internal social capital. I hypothesised that CEOs with reputational social capital would be more sought after by trusts with poor baseline performance but instead found that it was high performing trusts who were more likely to appoint CEOs with high reputational social capital. My contribution here is in the use of social capital proxies, a hitherto unexplored aspect of CEO selection research.

The third empirical chapter looked at the impact a new CEO has on organisational performance and addressed the research question: how does social capital affect the impact a new CEO has on organisational performance? The extant literature suggests three theories of succession that apply here, those of adaptive effects, disruptive effects and scapegoating, but there is little consensus about which, if any, hold universally true. Therefore, researchers seek to identify the circumstances under which any of them are true and it is here that I have made a contribution to the body of research. I hypothesised that the effect of succession on organisational performance would be moderated by insider status, that is, by the presence of internal social capital. I found evidence to support this. I further hypothesised that the relationship between insider succession and organisational performance would vary across levels of baseline performance such that under conditions of low baseline performance an outsider successor would be expected to improve performance and under conditions of high performance an insider successor would be expected to improve performance. I found limited evidence to support this. When looking at reputational social capital I hypothesised that a CEO with high reputational social capital would lead to greater performance improvements than a CEO with low reputational social capital. However, I found instead that performance was improved more when the new CEO had low reputational social capital. My contribution here is, again, in the application of proxies for social capital and the exploration of how much of the variation in performance they can explain.

7.2.2 Public sector case study contributions

Although my research uses the NHS as a case study, my findings are likely applicable to the wider public sector and thus have greater relevance. By using the NHS as a case study it has facilitated the exploration of CEO succession in the context of large and complex public sector organisations, a hitherto largely untapped sector for succession research (Janke et al., 2018). This has allowed me to test the external validity of theories so far only tested in the private sector or in smaller public sector organisational forms, which offers an important contribution to the existing body of research (Rowe et al., 2005).

Further, using the NHS as a case study has also allowed me to explore the dynamics of the internal labour markets created through NPM reforms (Ward, 2010). Whilst labour market theory might lead us to expect that high performing CEOs are rewarded, by promotion to 'better' jobs', my research into the antecedents of CEO succession has provided little evidence to support this. In fact, there is more support for the opposite effect, that poor performing CEOs are demoted. This could of course be explained by an individual's desire to protect their social standing at all costs (Johnson et al., 2011), which is particularly relevant in the context of the NHS where a culture of blame makes moving roles a risky prospect (Anandaciva et al., 2018).

The use of a public sector organisation as a case study has also provided an opportunity to make a contribution in terms of the performance measures used. Whilst much of the existing research into CEO successions uses financial measure of performance, I have utilised a broader range of measures covering financial outputs, throughput measure and clinical safety measures. This has allowed a wider debate about how and when CEO performance is judged depending on the type of performance metric being used.

7.2.3 Implications for policy

My research has potential implications for policy. The current trend in the NHS is to remove CEOs of poor performing trusts, which clearly indicates that there may be a widespread belief that changing the leadership of an organisation will improve its performance. However, changing the CEO incurs transaction costs and often the same CEO will turn up in another leadership role in short

order, thus the problem, if there is one, is simply shifted elsewhere. This recycling of poor CEOs could be explained by boards simply wanting to be seen to be taking action, that is, they don't actually believe that changing the CEO is the answer, or because the labour market for CEOs in the NHS is so small, due to individuals not wanting to put themselves forwards for a role known to be stressful and potentially damaging to their future career prospects (Anandaciva et al., 2018), that they have no choice but to recycle poor candidates. My research has highlighted the importance of social capital in determining CEO tenure and exit destinations. In particular, it has highlighted how the labour market for CEOs is not working effectively to reward good performance, but is instead penalising poor performance to such an extent that good CEOs may be put off from moving to other trusts. This means that good CEOs are not sharing their ability across the system, as they might otherwise have done if the labour market were working more effectively. Poor performing trusts are thus unable to attract good CEOs and enter a spiral of decline.

NHS CEOs are judged on key deliverables, namely, the achievement of government targets for standards of quality service provision and managing finances (Hoggettbowers, 2009). My research suggests that boards should seek to retain CEOs overseeing good performance as this not only avoids the transaction costs associated with a CEO succession but also avoids the disruptive effects succession has on performance. Conversely, boards should seek to replace CEOs overseeing poor performance as the adaptive effects of succession are likely to lead to performance improvements.

7.3   Study caveats and opportunities for future research

This section describes the caveats that apply to my research and makes suggestions for future avenues of research arising from them. In addition to the future research opportunities identified in this section, there remain a number of avenues identified in the literature review in Chapter 2 that I did not address with my research. However, the opportunities arising from my research are discussed below.

Insider social capital was proxied using a binary dummy variable to denote whether the CEO worked in the trust immediately prior to becoming its CEO. This simplistic operationalisation of insider status could be perceived as a potential limitation of my research as it does not allow for any consideration of the length of time an individual worked in the trust prior to becoming its CEO. This definition credits an individual with a month of tenure the same amount of insider social capital as an individual with several years of tenure, which is unlikely to be the case as longer tenure is expected to be associated with the accumulation of greater social capital. My research does not differentiate between levels of internal social capital that might be expected to be held, hence factoring this in offers an opportunity for further research. It might be expected that those with greater insiderness, that is, those who worked in the recruiting trust for a longer length of time prior to becoming its CEO, would experience greater benefits or disadvantages from that insiderness than those with shorter pre-CEO tenures.

My research was conducted on a longitudinal quantitative data sample which, by definition, relies on easily observable CEO and trust characteristics and measures of performance. This inevitably means that softer, qualitative measures are excluded from any analyses, which is a potential limitation of my research as observable factors alone are unlikely to fully explain the antecedents and consequences of CEO succession. Opportunities for further research could include the use of surveys or interviews to capture qualitative information about CEO performance or other factors such as perceptions about the organisational environment.

For the antecedents chapter, the exit destination of each CEO was categorised as social capital enhancing or diminishing, yet this designation was by no means certain for all CEOs. For example, although it is well known that NHS CEOs are often moved into roles elsewhere in the wider public sector health system as a face saving measure to avoid the stigma of being sacked, this isn't true for all CEOs. Whilst that exit destination was categorised as being social capital diminishing, there are notable cases where it is a clear promotion, such as Amanda Pritchard's move from CEO of St Thomas' trust to Chief Operating Officer of NHS England. Similarly, it was not always possible to tell whether an exit to the social capital diminishing destination of self-

employment was the result of a CEO being pushed out or genuinely choosing to leave of their own accord. For example, Siobhan McArdle's letter to staff at South Tees NHS Foundation Trust implied she had decided to leave of her own accord yet figures released in the subsequent annual report highlighted a substantial pay off indicative of a compromise agreement, often used when CEOs are pushed out. Therefore, a potential avenue for further research might be to collect qualitative data to capture the CEOs' view on whether their destination was social capital enhancing or diminishing and whether their exit was voluntary or forced. This would allow the categorisation of exits to be more accurate as I have had to make assumptions based on limited information from media reports in some cases.

For the chapter looking at the selection of a new CEO an obvious caveat is that I only had data on successful appointments and thus could only look at the difference between appointments with and without certain characteristics. Future research should look at the pool of applicants for a CEO post, that is, those that are unsuccessful in addition to those that are successful, as this will allow for a greater depth of analysis into the impact that social capital has on CEO selection.

My analysis of the impact that a new CEO has on organisational performance relied on a limited set of performance metrics. Due to the long time period covered in my research, 15 years, some performance measures were unavailable in some years either because the metric did not span the full 15 year period or because I was unable to obtain it from annual reports. Opportunities for further research include the use of alternative performance metrics that span the complete sample period or perhaps developing a composite performance measure to encompass many facets of performance. This final empirical chapter also used CEO successions within the previous two years but we know from the literature that it can take 12-18 months for a new CEO to bed in (Hoggettbowers, 2009), therefore it could be interesting to look at the impact over a much longer time period.

The performance metrics used in my research were used either in their raw continuous format or categorised into high and low relative performance. A potential avenue for further research would include using different

operationalisations of performance such as persistently low performers, or considering levels of improvement or decline. A further research opportunity could include looking at the impact of the top management team on performance as per the Upper Echelons Theory (Hambrick and Mason, 1984) which suggests that it not just the CEO who determines the performance of an organisation but the entire top management team. Broadening research to include top management team turnover could enhance the findings from my own research and would contribute to the existing literature in this space, including the limited body of research into top management team turnover in the public sector (Boyne et al., 2010b).

Finally, although my research has broadened the evidence base to include the NHS, a network of large and complex public sector organisations, it would be sensible to replicate my research in other public organisations to extend the evidence even further. This could include schools, prisons, councils and government bodies. The overriding contribution of my research is the application of social capital theory and it would also be of interest to replicate my research using private sector organisations to assess whether social capital has the same impact in that context.

7.4   Conclusion

This chapter has summarised the research presented in this thesis, highlighted the contributions I have made to the literature, identified implications for policy makers, and offered suggestions for future research, which, if taken up will surely be a useful addition to the body of evidence on CEO successions. At the start of my research I set out to determine whether social capital played any significant role in CEO successions. It is clear from my empirical analysis that social capital does help explain some of the variation observed in CEO successions, in the NHS at least.

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Appendix A: Alternative metrics results for Chapter 4

Table A-1 Operating surplus antecedents models

Model	A	B	C	D	E	F
Explanatory variables	Pooled	NHS (CEO)	Public (non-CEO)	Private sector	Self-employed	Retirement
Insider (dummy)	0.698*	0.251***	1.142	0.524	0.726	3.246***
	(0.129)	(0.104)	(0.448)	(0.387)	(0.301)	(1.440)
Low performance relative to other trusts	1.102	0.810	1.176	0.573	1.133	1.141
	(0.149)	(0.199)	(0.356)	(0.362)	(0.310)	(0.369)
High performance relative to other trusts	0.717**	0.979	1.125	0.766	0.635	0.757
	(0.116)	(0.281)	(0.414)	(0.503)	(0.223)	(0.302)
Clinician (dummy)	1.073	0.691	0.813	1.401	1.210	1.264
	(0.166)	(0.200)	(0.287)	(0.617)	(0.376)	(0.452)
Previous CEO experience (dummy)	1.041	0.796	0.848	0.876	1.083	2.293**
	(0.137)	(0.175)	(0.239)	(0.444)	(0.297)	(0.943)
Acute trust (dummy)	1.252	1.341	1.155	1.357	1.067	0.665
	(0.179)	(0.348)	(0.357)	(0.836)	(0.328)	(0.207)
Teaching hospital (dummy)	0.757	1.159	0.968	2.002	0.593	0.387*
	(0.142)	(0.390)	(0.356)	(1.130)	(0.241)	(0.188)
Foundation Trusts status (dummy)	0.993	1.071	0.853	1.271	1.190	2.858***
	(0.127)	(0.244)	(0.255)	(0.564)	(0.300)	(0.936)
Male (dummy)	1.153	1.125	1.323	1.572	0.879	0.908
	(0.160)	(0.278)	(0.427)	(0.764)	(0.251)	(0.301)
Overnight beds	1.000	0.999***	1.000	1.000	1.000	1.001***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
Region: Midlands & East	1.422**	0.695	1.529	4.724**	1.690	0.881
	(0.224)	(0.183)	(0.601)	(3.668)	(0.558)	(0.357)
Region: London	1.249	0.538*	3.221***	3.853	1.188	0.999
	(0.252)	(0.187)	(1.302)	(3.172)	(0.530)	(0.591)
Region: South	0.998	0.487**	1.608	3.575	1.118	2.085*
	(0.173)	(0.142)	(0.677)	(2.885)	(0.428)	(0.826)

Model	A	B	C	D	E	F
Explanatory variables	Pooled	NHS (CEO)	Public (non-CEO)	Private sector	Self-employed	Retirement
CEO spells	416	416	416	416	416	416
Number of exits	304	101	62	21	70	50
Observations	1,694	1,694	1,694	1,694	1,694	1,694
Log pseudo-likelihood	-1550.634	-549.162	-347.460	-114.759	-391.757	-263.475

Hazard ratios reported. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A-2 RCI antecedents models

Model	A	B	C	D	E	F
Explanatory variables	Pooled	NHS (CEO)	Public (non-CEO)	Private sector	Self-employed	Retirement
Insider (dummy)	0.662**	0.263***	1.333	0.440	0.596	2.921**
	(0.119)	(0.106)	(0.496)	(0.319)	(0.239)	(1.234)
Low performance relative to other trusts	1.156	0.822	1.707*	0.747	0.544**	1.494
	(0.161)	(0.213)	(0.503)	(0.365)	(0.163)	(0.488)
High performance relative to other trusts	0.995	1.249	1.119	0.899	0.704	1.079
	(0.134)	(0.295)	(0.375)	(0.490)	(0.189)	(0.388)
Clinician (dummy)	1.049	0.664	0.815	1.227	1.414	1.113
	(0.156)	(0.184)	(0.283)	(0.527)	(0.388)	(0.397)
Previous CEO experience (dummy)	1.026	0.881	0.964	0.754	0.937	2.112*
	(0.126)	(0.184)	(0.255)	(0.339)	(0.226)	(0.814)
Acute trust (dummy)	1.368**	1.244	1.143	1.381	1.109	0.765
	(0.192)	(0.308)	(0.334)	(0.843)	(0.319)	(0.234)
Teaching hospital (dummy)	0.711*	1.251	0.950	2.754**	0.515	0.335**
	(0.125)	(0.405)	(0.300)	(1.387)	(0.214)	(0.152)
Foundation Trusts status (dummy)	0.966	1.058	0.901	1.426	1.051	2.899***
	(0.119)	(0.231)	(0.263)	(0.573)	(0.252)	(0.939)
Male (dummy)	1.196	1.093	1.389	1.670	0.982	0.771
	(0.158)	(0.253)	(0.423)	(0.772)	(0.258)	(0.246)
Overnight beds	1.000*	0.999***	1.000	1.000	1.000	1.001**
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
Region: Midlands & East	1.406**	0.669	1.604	5.182**	1.469	0.881
	(0.216)	(0.168)	(0.602)	(4.005)	(0.438)	(0.350)
Region: London	1.343	0.615	3.033***	3.903*	0.975	1.299
	(0.250)	(0.198)	(1.152)	(3.005)	(0.394)	(0.672)
Region: South	1.036	0.445***	1.740	3.735	1.107	2.099*
	(0.172)	(0.126)	(0.683)	(3.006)	(0.371)	(0.811)

Model	A	B	C	D	E	F
Explanatory variables	**Pooled**	**NHS (CEO)**	**Public (non-CEO)**	**Private sector**	**Self-employed**	**Retirement**
CEO spells	444	444	444	444	444	444
Number of exits	336	111	69	24	79	53
Observations	1,847	1,847	1,847	1,847	1,847	1,847
Log pseudo-likelihood	-1756.517	-619.458	-393.908	-132.831	-451.267	-287.681

Hazard ratios reported. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A-3 Inpatient waiting times antecedents models

Model	A	B	C	D	E	F
Explanatory variables	**Pooled**	**NHS (CEO)**	**Public (non-CEO)**	**Private sector**	**Self-employed**	**Retirement**
Insider (dummy)	0.666**	0.261***	1.341	0.439	0.610	2.875**
	(0.120)	(0.107)	(0.505)	(0.312)	(0.242)	(1.199)
Low performance relative to other trusts	0.885	1.632**	1.012	0.274*	0.858	0.425**
	(0.121)	(0.398)	(0.320)	(0.182)	(0.224)	(0.163)
High performance relative to other trusts	1.012	1.193	1.187	1.049	0.751	1.043
	(0.134)	(0.306)	(0.357)	(0.456)	(0.229)	(0.333)
Clinician (dummy)	1.057	0.665	0.811	1.217	1.407	1.160
	(0.157)	(0.184)	(0.278)	(0.521)	(0.393)	(0.402)
Previous CEO experience (dummy)	1.043	0.850	1.002	0.801	0.916	2.333**
	(0.128)	(0.176)	(0.266)	(0.363)	(0.223)	(0.896)
Acute trust (dummy)	1.314**	1.347	1.113	1.479	1.167	0.701
	(0.181)	(0.336)	(0.334)	(0.860)	(0.336)	(0.213)
Teaching hospital (dummy)	0.729*	1.166	1.044	2.440*	0.505*	0.331**
	(0.127)	(0.373)	(0.333)	(1.315)	(0.189)	(0.158)
Foundation Trusts status (dummy)	0.936	1.126	0.845	1.247	1.121	2.573***
	(0.116)	(0.250)	(0.260)	(0.515)	(0.282)	(0.779)
Male (dummy)	1.208	1.112	1.410	1.642	1.002	0.812
	(0.159)	(0.262)	(0.435)	(0.764)	(0.262)	(0.254)
Overnight beds	1.000	0.999***	1.000	1.000	1.000	1.001***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
Region: Midlands & East	1.410**	0.685	1.565	5.648**	1.467	0.932
	(0.216)	(0.175)	(0.578)	(4.130)	(0.468)	(0.366)
Region: London	1.382*	0.623	3.028***	4.062*	1.087	1.382
	(0.257)	(0.196)	(1.168)	(3.115)	(0.433)	(0.706)
Region: South	1.060	0.445***	1.649	4.988**	1.108	2.577**
	(0.176)	(0.128)	(0.657)	(3.888)	(0.377)	(0.952)

Model	A	B	C	D	E	F
Explanatory variables	Pooled	NHS (CEO)	Public (non-CEO)	Private sector	Self-employed	Retirement
CEO spells	447	447	447	447	447	447
Number of exits	338	111	69	24	80	54
Observations	1,853	1,853	1,853	1,853	1,853	1,853
Log pseudo-likelihood	-1767.715	-618.825	-395.925	-130.345	-459.393	-290.605

Hazard ratios reported. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A-4 MRSA infection rates antecedents models

Model	A	B	C	D	E	F
			Public (non-	Private	Self-	
Explanatory variables	Pooled	NHS (CEO)	CEO)	sector	employed	Retirement
Insider (dummy)	0.661**	0.270***	1.313	0.448	0.589	3.187***
	(0.120)	(0.109)	(0.501)	(0.322)	(0.236)	(1.326)
Low performance relative to other trusts	0.943	0.787	1.022	0.778	1.186	0.544
	(0.129)	(0.201)	(0.283)	(0.388)	(0.340)	(0.219)
High performance relative to other trusts	0.867	1.139	0.654	0.651	0.646	1.001
	(0.117)	(0.258)	(0.213)	(0.375)	(0.188)	(0.334)
Clinician (dummy)	1.044	0.692	0.805	1.261	1.359	1.178
	(0.155)	(0.191)	(0.281)	(0.538)	(0.384)	(0.411)
Previous CEO experience (dummy)	1.037	0.872	0.998	0.748	0.921	2.310**
	(0.128)	(0.179)	(0.265)	(0.338)	(0.227)	(0.893)
Acute trust (dummy)	1.308*	1.347	1.082	1.405	1.165	0.687
	(0.180)	(0.335)	(0.320)	(0.843)	(0.333)	(0.210)
Teaching hospital (dummy)	0.723*	1.223	0.983	2.656*	0.474*	0.380**
	(0.126)	(0.396)	(0.316)	(1.398)	(0.182)	(0.175)
Foundation Trusts status (dummy)	0.964	1.056	0.910	1.472	1.166	2.529***
	(0.119)	(0.230)	(0.266)	(0.621)	(0.288)	(0.770)
Male (dummy)	1.202	1.094	1.436	1.696	1.018	0.817
	(0.159)	(0.252)	(0.445)	(0.787)	(0.275)	(0.255)
Overnight beds	1.000	0.999***	1.000	1.000	1.000	1.001***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
Region: Midlands & East	1.376**	0.718	1.492	5.156**	1.511	0.850
	(0.209)	(0.177)	(0.559)	(3.893)	(0.462)	(0.339)
Region: London	1.350	0.705	2.740***	3.771*	0.956	1.491
	(0.255)	(0.225)	(1.069)	(2.971)	(0.398)	(0.776)
Region: South	1.027	0.497**	1.554	3.720*	1.109	2.186**
	(0.167)	(0.136)	(0.605)	(2.899)	(0.377)	(0.818)

Model	A	B	C	D	E	F
Explanatory variables	**Pooled**	**NHS (CEO)**	**Public (non-CEO)**	**Private sector**	**Self-employed**	**Retirement**
CEO spells	447	447	447	447	447	447
Number of exits	338	111	69	24	80	54
Observations	1,855	1,855	1,855	1,855	1,855	1,855
Log pseudo-likelihood	-1768.431	-620.048	-395.133	-132.838	-458.045	-292.192

Hazard ratios reported. Standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table A-5 Mortality rates antecedents models

Model	A	B	C	D	E	F
			Public (non-	**Private**	**Self-**	
Explanatory variables	**Pooled**	**NHS (CEO)**	**CEO)**	**sector**	**employed**	**Retirement**
Insider (dummy)	0.664**	0.262***	1.326	0.458	0.597	2.902**
	(0.120)	(0.106)	(0.497)	(0.334)	(0.236)	(1.254)
Low performance relative to other trusts	1.284*	1.041	1.233	0.932	1.328	1.104
	(0.167)	(0.244)	(0.378)	(0.504)	(0.339)	(0.373)
High performance relative to other trusts	1.060	1.029	1.306	1.492	0.979	0.497
	(0.156)	(0.259)	(0.402)	(0.724)	(0.306)	(0.214)
Clinician (dummy)	1.038	0.678	0.793	1.152	1.387	1.178
	(0.154)	(0.187)	(0.273)	(0.475)	(0.383)	(0.417)
Previous CEO experience (dummy)	1.038	0.869	0.986	0.733	0.915	2.335**
	(0.128)	(0.179)	(0.258)	(0.330)	(0.225)	(0.953)
Acute trust (dummy)	1.330**	1.318	1.111	1.461	1.190	0.653
	(0.183)	(0.327)	(0.329)	(0.868)	(0.341)	(0.201)
Teaching hospital (dummy)	0.752	1.166	1.012	2.298	0.558	0.424*
	(0.134)	(0.387)	(0.324)	(1.286)	(0.211)	(0.198)
Foundation Trusts status (dummy)	0.958	1.095	0.874	1.406	1.104	2.821***
	(0.117)	(0.242)	(0.255)	(0.567)	(0.263)	(0.842)
Male (dummy)	1.213	1.085	1.398	1.625	0.982	0.823
	(0.160)	(0.251)	(0.431)	(0.757)	(0.256)	(0.258)
Overnight beds	1.000	0.999***	1.000	1.000	1.000	1.001***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.000)	(0.000)
Region: Midlands & East	1.370**	0.714	1.530	5.406**	1.517	0.836
	(0.208)	(0.178)	(0.571)	(4.132)	(0.460)	(0.334)
Region: London	1.398*	0.631	2.858***	3.415	1.142	1.585
	(0.265)	(0.204)	(1.103)	(2.579)	(0.458)	(0.795)
Region: South	1.056	0.487***	1.581	3.607*	1.197	2.463**
	(0.173)	(0.135)	(0.627)	(2.767)	(0.401)	(0.944)

Model	A	B	C	D	E	F
Explanatory variables	Pooled	NHS (CEO)	Public (non-CEO)	Private sector	Self-employed	Retirement
CEO spells	447	447	447	447	447	447
Number of exits	338	111	69	24	80	54
Observations	1,855	1,855	1,855	1,855	1,855	1,855
Log pseudo-likelihood	-1767.071	-621.024	-395.758	-132.775	-459.213	-291.499

Hazard ratios reported. Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Appendix B: Alternative metrics results for Chapter 6

Table B-1 Results for H$_1$ using alternative performance metrics

Explanatory variables	Operating surplus	RCI	Inpatient waits	MRSA infection rates	Mortality rates
Lagged performance	0.242***	0.368***	0.575***	-0.020	0.654***
	(0.066)	(0.048)	(0.056)	(0.051)	(0.049)
CEO succession one year ago	1,523.324**	0.186	0.212	0.015	0.005
	(753.058)	(0.340)	(0.502)	(0.019)	(0.005)
Year dummies	Yes	Yes	Yes	Yes	Yes
Constant	5,966.182***	62.345***	30.671***	0.421***	0.350***
	(2,103.596)	(4.956)	(4.944)	(0.041)	(0.050)
Observations	1,652	1,966	1977	1,982	1,910
F-test	13.20***	6.23***	179.01***	11.96***	11.74***
Groups/instruments	146/40	154/29	154/43	154/43	142/43
AR(2)	0.621	0.149	0.190	0.874	0.049
Hansen statistic	0.116	0.055	0.061	0.345	0.256

Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table B-2 Results for H$_2$ using alternative performance metrics

Explanatory variables	Operating surplus	RCI	Inpatient waits	MRSA infection rates	Mortality rates
Lagged performance	0.152**	0.374***	0.522***	-0.060	0.658***
	(0.068)	(0.078)	(0.063)	(0.100)	(0.047)
CEO succession one year ago	1,116.534	2.274	-4.340**	-0.062	-0.011
	(845.249)	(38.742)	(1.990)	(0.277)	(0.042)
CEO succession x high baseline performance	0.393**	-0.024	0.070**	0.177	0.017
	(0.177)	(0.392)	(0.033)	(0.505)	(0.042)
Year dummies	Yes	Yes	Yes	Yes	Yes
Constant	-4,696.531***	61.546***	24.225***	1.250***	0.342***
	(1,597.169)	(7.782)	(3.422)	(0.099)	(0.047)
Observations	1,652	1,966	1,977	1,982	1,910
F-test	11.06***	4.81***	196.96***	8.95***	12.74***
Groups/instruments	146/40	154/43	154/57	154/42	142/57
AR(2)	0.746	0.189	0.173	0.810	0.045
Hansen statistic	0.105	0.065	0.166	0.039	0.108

Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table B-3 Results for H₃ using alternative performance metrics

Explanatory variables	Operating surplus	RCI	Inpatient waits	MRSA infection rates	Mortality rates
Lagged performance	0.215***	0.374***	0.526***	-0.041	0.663***
	(0.066)	(0.049)	(0.064)	(0.051)	(0.045)
CEO succession one year ago	-12,821.867*	0.279	-0.077	-0.188*	0.003
	(7,091.918)	(0.386)	(0.504)	(0.096)	(0.004)
New CEO is an insider	-9,769.607	-0.133	-0.760	-0.136*	0.009**
	(5,960.786)	(0.604)	(0.687)	(0.075)	(0.004)
CEO succession x insider	71,599.422*	-0.203	1.475	1.100**	0.009
	(36,233.026)	(0.957)	(1.238)	(0.460)	(0.009)
Year dummies	Yes	Yes	Yes	Yes	Yes
Constant	-2,655.332	61.718***	24.492***	1.300***	0.336***
	(2,456.553)	(5.037)	(4.134)	(0.095)	(0.045)
Observations	1,652	1,966	1,977	1,982	1,910
F-test	4.60***	4.08***	138.23***	7.20***	11.10***
Groups/instruments	146/41	154/45	154/45	154/43	142/45
AR(2)	0.437	0.162	0.182	0.866	0.050
Hansen statistic	0.037	0.015	0.017	0.039	0.019

Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table B-4 Results for H4 using alternative performance metrics

Explanatory variables	Operating surplus	RCI	Inpatient waits	MRSA infection rates	Mortality rates
Lagged performance	0.179	0.510***	0.526***	-0.007	0.719***
	(0.123)	(0.167)	(0.068)	(0.239)	(0.082)
CEO succession one year ago	-2,764.535	5.210	-0.536	-0.036	-0.083
	(3,907.630)	(33.372)	(8.316)	(0.234)	(0.307)
New CEO is an insider	-2,600.899	47.855	2.588	0.092	0.412
	(3,062.901)	(57.278)	(18.815)	(0.261)	(0.336)
CEO succession x insider	28,044.223	94.336	-21.090	0.055	0.483
	(18,796.804)	(168.326)	(43.350)	(0.941)	(0.989)
CEO succession x baseline performance	0.209	-0.050	0.007	0.185	0.085
	(0.173)	(0.336)	(0.119)	(0.603)	(0.306)
Insider x baseline performance	0.491	-0.485	-0.056	-0.163	-0.395
	(0.665)	(0.580)	(0.314)	(0.615)	(0.330)
CEO succession x insider x baseline performance	-3.090**	-0.976	0.372	-0.354	-0.474
	(1.463)	(1.728)	(0.658)	(2.230)	(0.981)
Year dummies	Yes	Yes	Yes	Yes	Yes
Constant	5,853.414***	48.450***	27.075***	1.247***	0.278***
	(2,108.846)	(16.395)	(3.780)	(0.106)	(0.083)
Observations	1,652	1,966	1,977	1,982	1,910
F-test	5.71***	1.87***	116.53***	6.02***	6.04***
Groups/instruments	146/54	154/45	154/58	154/45	142/46
AR(2)	0.539	0.259	0.182	0.765	0.086
Hansen statistic	0.016	0.002	0.019	0.001	0.017

Robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$