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### An analysis of the role of a Chief Accountant at Guinness c. 1920-1940

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# An analysis of the role of a Chief Accountant at Guinness c. 1920–1940

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Contemporary studies on the role of Chief Financial Officers create a picture that a radical change in the 1960s created such a role. Predecessor-positions were more focused on transaction-processing aspects of accounting. While historical accounting publications shed some doubt on this assumption, they lack detail on the roles and tasks of such predecessors in the early parts of the twentieth century. Here, we provide a more in-depth analysis of a chief accountant in the period from 1920 to 1940 at Arthur Guinness, Son & Company Ltd. Informed by concepts from Old Institutional Economics, our evidence suggests that the Chief Accountant at Guinness has much in common with a modern-day role. In contrast, we find that even in the first half of the twentieth century before any substantial company law or regulation of accounting, the Chief Accountant was not only doing accounting, but also significantly advising top management, managing risks and interacting with external financiers. This analysis suggests a more gradual development of the role and tasks of internal accountants than that suggested by some contemporary literature.

**Keywords:** chief accountant; management accounting role; routines

## Introduction

In contemporary business research (and in practice), Chief Financial Officers (CFO) are increasingly seen as number two in a firm's hierarchy – second to the Chief Executive Officer (CEO) (Datta and Iskandar-Datta 2014; Zorn 2004). CFOs are also seen as (co-) leading the strategic course of firms and have experienced a significant role change in recent decades (Datta and Iskandar-Datta 2014; Farag, Plaschke, and Rodt 2012; Hiebl 2013). In some jurisdictions, (e.g. the United States of America (US)) this gain in hierarchical power is underpinned by regulation (Gore, Matsunaga, and Yeung 2011).

The CFO's role has not always been this prominent. According to Zorn (2004), at the end of the 1960s, less than 10% of the 500 largest firms in the US had a CFO position. Zorn (2004) suggests

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basically two reasons for this development. The first is a regulatory change in accounting rules in the late 1970s, which implied a risk of decreasing reported earnings for US firms. According to Zorn's (2004) analysis, many firms responded to this change in accounting regulation by creating CFO positions for the first time to reflect the firm's greater focus on finance and accounting. The second reason for the rise of the CFO position can be associated with the growing importance of shareholder-value thinking in the 1980s and 1990s. During this movement, financial markets perceived a much greater relevance of the CFO to firm activity, as the CFO was usually the primary contact (Frag, Plaschke, and Rodt 2012; Zorn 2004).

Not holding the more prestigious CFO title, from today's perspective, pre-1960s finance directors, chief accountants and financial controllers are often regarded as bean counters (Granlund and Lukka 1998; Hiebl 2013; Sharma and Jones 2010; Zorn 2004). Their responsibility was 'to prepare the books and report back to higher level management on the overall financial risk and performance of the enterprise' (Sharma and Jones 2010, 1). Such contemporary accounting literature creates the notion that before the 1960s and 1970s, CFO predecessors (finance directors, chief accountants and financial controllers) were more or less exclusively focused on bookkeeping and reporting and that they did not delve into contemporary business-partnering roles, and/or act as critical counterparts to other managers (Goretzki, Strauss, and Weber 2013; Graham, Davey-Evans, and Toon 2012; Granlund and Lukka 1998; Weber 2011).

However, both the contemporary and historical accounting literature present limited empirical evidence on the tasks and roles of CFO-type accountants before the 1960s and 1970s. Boyns and Edwards (1997a, 1997b) present evidence that nineteenth-century accountants prepared information for managers, which was not just bookkeeping, but was used to 'aid management decisions' (Boyns and Edwards 1997b, 6), 'to provide information to enable management to run their company efficiently' (Boyns and Edwards 1997b, 12) and to 'monitor progress' (Boyns and Edwards 1997b, 20). Similarly, Matthews (1998, 2001) argues that twentieth-century accountants have always acted as advisors to management and thus, their work 'was hardly distinguishable from what we call management consultancy today' (Matthews 1998, 81). After the First World War, and even more so after the Second World War, this advisory role grew as firms expanded their internal accounting departments (Loft 1986; Matthews 1998). As firms increased in size, internal accounting department's heads – with titles such as 'chief accountant', 'finance director' or 'financial controller' – reportedly gained importance (Matthews 1998; Matthews, Anderson, and Edwards 1997). Despite this reported gain, historical studies, such as those mentioned thus far, lack detail of what such internal accountants actually did. Instead, such studies tend to focus more on macro-level issues such as professionalisation and external factors (Fleischmann and Tyson 1999, 2000; Loft 1986). Thus, a more detailed analysis of CFO-predecessor roles, such as the role of chief accountants, remains open. In this study, we provide a preliminary answer to the following research question – what was the role of a chief accountant in the earlier part of the twentieth century? In particular, we seek a detailed view of tasks undertaken as part of the role. This detail paints a useful picture of the development of internal/management accounting practices towards present-day practice. This contributes to the extant historical literature – which is our primary focus – but also provides some counterbalance to contemporary literature which suggests earlier roles concentrated on bookkeeping tasks. To provide this more in-depth view of the role of a chief accountant, we use archival material from a large Irish company from about 1920 to 1940. In order to identify key characteristics of the role of this chief accountant, we also compare this role to that of contemporary CFOs as described in the literature. We should note that although we focus on a chief accountant, and refer to the present-day CFO, the tasks associated with the role are our focus, not the title per se. Our findings reveal that the role of a

chief accountant was not very dissimilar from that of a present-day CFO, particularly in routine operational tasks. However, our findings relate to a single case, and we would encourage more archival research to shed light on CFO-predecessor roles in the first half of the twentieth century.

The remainder of this study is organised as follows. In the next section, we briefly detail contemporary CFO roles as well as some insights into their predecessors. The following section then sets out some concepts from Old Institutional Economics (OIE), which we adopt as a theoretical lens, and details our research methods. Afterwards, we detail our findings, and in the final section, we conclude the paper with some discussion and suggestions for future research.

## Literature review

The following sections detail literature on the contemporary role of the CFO (briefly) and the role of accountants in companies during the early twentieth century. While we use terms like CFO and Chief Accountant throughout, we should emphasise that we focus on the elements and tasks of the role. We are not conducting an extensive etymological study of the origins or use of words/terms, and thus this area of the literature is not detailed here.<sup>1</sup>

### *The role and tasks of contemporary CFOs*

Before exploring the role of a Chief Accountant from the first half of the twentieth century, a brief review of the present-day CFO role is useful. This overview on the CFO literature provides a picture of the main tasks of the key internal accounting person in a modern firm. Mian's (2001) definition of a CFO is a helpful starting point. It suggests that the CFO's primary responsibility is the 'management of the financial system of the firm' and that a CFO usually 'oversees preparation of financial reports and serves as the point person for external communication of financial strategy' (Mian 2001, 144–145). Thus, at least in listed firms, one important part of the contemporary CFO's roles is communicating with capital markets.

As indicated in the introductory section, the shareholder-value movement of the 1980s and 1990s increased the orientation of large firms towards investors, and in response firms introduced CFO positions at the executive level (Farag, Plaschke, and Rodt 2012). The percentage of large US firms with CFO positions as members of the top management team increased from virtually nil at the beginning of the 1960s to more than 80% at the end of the twentieth century (Zorn 2004). CFOs are also increasingly reaching director positions. A study by the consulting firm Heidrick and Struggles (2014) found that between 2009 and 2013, as many as 17% of all newly appointed directors in US Fortune 500 firms were current or former CFOs. This trend can be assumed to be at least partially due to regulatory changes. In the US, since the Sarbanes-Oxley Act came into effect in 2002, both the CEO and the CFO are required to certify the financial reports of listed firms, which has likely increased the CFO's importance in comparison to that of other executives (Bedard, Hoitash, and Hoitash 2014). Moreover, together with listing requirements by the New York Stock Exchange (NYSE) or the National Association of Securities Dealers Automated Quotations (NASDAQ), the Sarbanes-Oxley Act *de facto* specifies that the board's audit committee needs to have at least one independent financial expert (Campbell et al. 2015), which are often current or former CFOs (Abernathy et al. 2014; Aier et al. 2005; DeFond, Hann, and Hu 2005). Similar observations have also been made outside the US: in a recent study, Duong and Evans (forthcoming) found that nearly 43% of contemporary Australian-listed firms already have CFOs who are part of the Board of Directors. The importance and influence of the

CFO in large listed corporations has also been revealed by studies on the impact of CFO characteristics/CFO turnover on finance and accounting practices. For instance, Geiger and North (2006) report that firms with newly (mainly externally hired) CFOs show a lower level of discretionary accruals. Other studies also similarly show that CFOs substantially affect accounting choices (Aier et al. 2005; Barua et al. 2010; Feng et al. 2011; Ge, Matsumoto, and Zhang 2011; Jiang, Petroni, and Wang 2010; Li, Sun, and Ettredge 2010). The significance of finance and accounting functions for CFO roles is also exemplified by findings suggesting that key finance and accounting functions such as management/cost accounting, financial accounting or treasury are overseen by CFOs in most firms (Bremer 2010; Hiebl, Neubauer, and Duller 2013). Thus, another component of a contemporary CFO role is responsibility for finance and accounting choices.

Another aspect of contemporary CFO roles is acting as business partners and key advisors to fellow top managers (Baxter and Chua 2008; Favaro 2001; Granlund and Lukka 1998), often leading the strategic course of a firm with the CEO (Datta and Iskandar-Datta 2014; Farag, Plaschke, and Rodt 2012; Zorn 2004). For example, survey evidence on CFOs of the largest South-African firms (Voogt 2010) and the largest Australian firms (Sharma and Jones 2010) indicates that in recent years, CFOs draw on strategic and leadership skills in order to contribute to value creation in the respective firms.

While the increased importance in terms of membership on the top management team (Zorn 2004) and influence on finance and accounting practices appears well established by the above-mentioned research, it should be noted that the changing role of CFOs towards a strategist role in contemporary organisations is not uncontested (Baxter and Chua 2008; Bremer 2010; Hiebl and Feldbauer-Durstmüller 2014; Howell 2002; Lüdtke 2010). One reason for this scepticism may be the fact that many studies on the CFO's strategist role are based on survey research (such as Sharma and Jones 2010; Voogt 2010). Bremer (2010) and Lüdtke (2010) report that in listed German firms, more strategic corporate functions, such as strategy departments, are more likely to be the CEO's responsibility. Hiebl, Neubauer, and Duller (2013) suggest that this finding also applies to medium-sized German firms.

From this brief review of contemporary literature, the role of CFOs today could be summarised as follows: (1) CFOs are typically part of the top management team; (2) communicate with capital markets; (3) have decisive influence on the finance and accounting functions; and (4) act as strategists and oversee enterprise risk management functions. We now turn our attention to the tasks of accountants in earlier times.

### *The role of accountants in the early twentieth century*

The term 'CFO' is a relatively new one. According to Zorn (2004), it first appeared in 1966 at the firm Dan River Mills. Before this time, executives in charge of US firms' financial systems held titles such as '(executive) vice president of finance', 'financial controller' or 'treasurer' (Whitley 1986; Zorn 2004). In the United Kingdom (UK), even today, the term CFO is less common and executives with titles such as '(group) finance director' more common (Graham, Davey-Evans, and Toon 2012; Hussey and Lan 2001). Even this title was not very common until after the Second World War (Matthews 1998; Matthews, Anderson, and Edwards 1997). Before this time, executives heading internal accounting departments were typically referred to as 'chief accountants' or 'financial controllers' (Matthews 1998).

Existing research exploring the role of accountants in the first half of the twentieth century is typically not detailed. Such research explores accountants in certain industries or accountants as

a group in society (Boyns and Edwards 2007; Boyns, Matthews, and Edwards 2004; Fleischman and Tyson 1999, 2000; Fleming, McKinstry, and Wallace 2000; Loft 1986; Matthews 1998, 2001; Matthews, Anderson, and Edwards 1997; McKinstry 1999; McLean 2013; McLean, McGovern, and Davie 2015). It does not delve into details of accountants' roles at various hierarchical levels at this time. However, the extant literature does offer some insight into important developments for accountants in more general terms in the first half of the twentieth century; and this research is of relevance for the study of chief accountants' roles and our analyses. Most of the extant literature of particular relevance for our research comes from a UK context.

At the beginning of the twentieth century, most UK firms employed few or no professionally qualified accountants, that is, Chartered Accountants. Instead, they relied on the service of public accounting firms for accounts preparation and audit work (Fleming, McKinstry, and Wallace 2000; Loft 1986; Matthews 1998; Matthews, Anderson, and Edwards 1997; McKinstry 1999). Accountants working for public accounting firms also acted as advisors and non-executive directors in many British industrial firms (Matthews 1998, 2001). The First World War was a driver of change in the accounting profession.<sup>2</sup> Several studies (Boyns, Matthews, and Edwards 2004; Fleischman and Tyson 2000; Fleming, McKinstry, and Wallace 2000; Loft 1986) report an increased focus on cost accounting in many UK/US firms during and after the First World War.<sup>3</sup> During the war, contractors to governments often lacked market prices for outputs. Thus, they relied on costing techniques to establish prices, which included some profit surplus on costs. In turn, the government relied on cost investigation departments, to prevent suppliers charging based on excessive costs (i.e. to prevent profiteering, see Arnold 2014; Billings and Oats 2014). Thus, both government and contractors had an increased need for cost accounting and accountants, resulting in a severe shortage of cost accountants (Loft 1986). After the First World War, the importance of cost accounting continued to rise, and ultimately culminated in the formation of the Institute of Cost and Works Accountants in March 1919 (see Armstrong 1987). A subsequent economic depression from 1920 to 1925 forced many firms to focus on costs (Boyns and Edwards 2007; Boyns, Matthews, and Edwards 2004; Fleming, McKinstry, and Wallace 2000; Loft 1986; McKinstry 1999). Thus, the number of internal (cost) accountants rose, and the size of accounting departments in many industrial firms increased (Matthews 1998). This increase in internal accounting department size most likely resulted in an increasingly important role for chief accountants and financial controllers. Indeed, evidence exists that the 1920s saw the first finance director positions in British firms (Boyns and Edwards 2007; Matthews 1998).

The above-mentioned observations on the rise of cost accounting primarily applied to large firms. It is quite likely that most UK companies had not established sophisticated cost accounting systems at this time. Smaller firms continued to operate with rather crude costing systems until well after the Second World War (Boyns and Edwards 2007; Loft 1990), which may have held back the development of the role of chief accountants in such smaller firms. The period from the late 1920s until the Second World War witnessed further developments of accounting systems – for example, the introduction of cost accounting techniques such as standard costing, marginal costing and budgeting (Boyns and Edwards 2007; Boyns, Matthews, and Edwards 2004). Also at this time, more professionally qualified accountants moved from public accounting firms to industrial firms. This shift increased the formalisation and professionalisation of internal accounting procedures and management in industrial firms (Matthews 1998, 2001). Alongside the growing number of professionally qualified accountants employed in industrial firms, from the 1930s, Matthews, Anderson, and Edwards (1997) also noted a sharp increase in the proportion of company directors who were accountants.

Although the above-mentioned literature does paint a picture of an increasingly important place for accountants in industry, it does not provide much detail on what these accountants actually did. As we have noted, the accepted view of pre-CFO-type accountants is that their role focused more on bookkeeping. Indeed, contemporary literature still continues to cite this role (Doran 2006; Friedman and Lyne 1997; Granlund and Malmi 2002). Contemporary literature seems to attribute the ‘birth’ of the CFO to external factors (Zorn 2004). Even our brief review of the literature suggests this is not the full picture, and as Fleischman and Tyson (2000, 191) note, ‘the movement [towards more sophisticated costing techniques] was gradual rather than dramatic’. This overview of the literature on the role of accountants in the early twentieth century suggests that the movement from accountants focused on bookkeeping to contemporary CFO-type accountants happened less abruptly, and more gradually. Before revealing detail of a chief accountant’s role from archival sources, we first describe the theoretical lens used in this study.

### **Theory and method**

In essence, we are presenting a study of change in this paper. We detail the role of a chief accountant from historical sources, which may prove useful in revealing how present-day similar roles (such as a CFO) evolved over time. There are several useful ways to examine organisational and accounting change – for example actor-network theory (Latour 1987), structuration theory (Giddens 1979), several strands of institutional theory, a contingency approach (Burns and Stalker 1961; Donaldson 1987) or a processual approach (Dawson 2003). In the management accounting literature, institutional theory has been widely used and we adopt concepts from one strand – OIE – to inform this study. We draw on OIE concepts such as rules and routines to explain how accounting practices, and the roles of actors performing them, came about.<sup>4</sup> While much has been written on rules and routines in management accounting, we are less concerned with the intricacies of these phenomena for this study. However, we should define rules and routines. Pentland (2011, 280–281) reviews much extant research to define routines as having four essential components: (1) routines are repetitive; (2) a recognizable pattern of action occurs; (3) actions are interdependent; and (4) multiple actors are involved. We define rules as per Quinn as ‘a physical representation of a routine, which are formalised in a documented fashion’ (2011, 344). Thus, for example, an instruction manual or similar document would be regarded as a rule. Using rules and routines as a conceptual backdrop for this study has several advantages. First, routines in particular have been used in many contemporary studies to identify regular organisational tasks (Bapuji, Hora, and Saeed 2012; Burns and Scapens 2000; van der Steen 2009, 2011). In this study, these concepts similarly help us identify regular tasks which reflect the key work of a chief accountant (see also Quinn 2014 and Quinn and Jackson 2014 for examples of rules/routines in archival research). Second, Pentland’s (2011) definition of routines implies interdependencies to other actors. We are thus forced to consider the interactions of the chief accountant with other actors, which provide us with a view of the role/tasks of the chief accountant in a broader organisational context. Third, in an archival setting, distinguishing rules allows us to consider how formalised (i.e. written) the chief accountant’s tasks were or not. Fourth, routines are noted in contemporary literature as being useful in understanding change and stability in accounting (Quinn 2014). Taken together, these advantages allow us to provide a detailed and verifiable picture of the role of a chief accountant, which as noted in the first section is our primary objective. We now detail our method, including how we utilise and operationalise rules and routines.

This study utilises records from the Arthur Guinness, Son & Company Ltd (hereafter Guinness) company archive. This archive was chosen for two reasons. First, recent research (Quinn



2014) shows that it has detailed internal accounting records. Second, it was one of the larger companies in Ireland (and the UK) at that time. Average annual trading profits from 1920 to 1940 were £2.5 million. The company itself is presently part of a larger global drinks company (Diageo plc), and has been one of the largest employers in Dublin for many years. As noted earlier, the literature on contemporary CFOs is mostly based on the analysis of large listed firms. Thus, to compare and contrast the Chief Accountant role at Guinness and contemporary-CFO roles, it was appropriate to study a large firm for our time frame of analysis.

The archival records extend from 1759 to the present, with a 30-year hold on document release. The period chosen for our research is approximately 1920–1940. This period was chosen for two reasons:

- This period is post the First World War and reflective of the time when extant literature suggests that the roles of internal accountants may have been increasingly important, but largely a bean-counting one.
- There were virtually no external regulatory influences such as accounting standards or company laws detailing the work of accountants.<sup>5</sup>

According to Scott (1990), the quality of archival documents can be assessed according to four criteria. First, authenticity – is the evidence genuine and of unquestionable origin? For this study, all documents were examined at the archive and can be verified as genuine. Second, credibility – is the evidence free from error? For this study, the records examined were internal reports, memoranda, manuals and other written correspondence pertaining to the Chief Accountant. Such records are a credible source. Third, representativeness – is the evidence typical of its kind? The records used were typical of normal accounting/management records, and thus detailed and complete in nature. Fourth and finally, meaning – is the evidence clear and comprehensible? The majority of documents examined were typed, clearly filed and contained cross references to other documents, and thus meaning was easily established.

The archive retains many records which are reflective of what Scott (1990, 81–82) terms recurrent, regular and special administrative routines. Recurrent records are a necessary part of the daily operations of an organisation; regular records are regularly produced, but not an essential element of daily operations; special records are reflective of *ad hoc* situations and requests. Recurrent and special records were the primary source used here. Following an initial contact with the archivist, access was granted to records as shown in Table 1. After an initial examination of these files, we did not utilise the Salaries file in detail as it contains routine salary calculation methodologies and details of income taxes. However, it is clear from this file that salary calculations were one of the Chief Accountant's tasks. Documents classified within Trade Ledger, Red Ledger and Chief Accountant were examined in detail and digitally photographed for ease of analysis. An additional classification 'Audit' was also present. This series of files relates to internal audit of all financial transactions, contracts of employees, department accounts and simplification of accounts. This file has not been fully catalogued and thus access was not possible. In addition to the documents in Table 1, we also accessed minutes of monthly Board meetings and the Annual Accounts.

Quinn (2014) provides a detailed method for identifying how documents are reflective of rules and routines. As described above, rules and routines are micro-level concepts associated with OIE and have been used to study stability and change in accounting practices within firms. As noted by Johansson and Siverbo (2009), a trigger for new rules and routines is external regulation; but change can also stem from existing practices (Burns and Scapens 2000). The time

period of this study is largely devoid of external accounting regulation. Thus unless otherwise indicated, accounting rules and routines at Guinness stem from internal forces. We do not explore how such rules and routines were created. However, we do establish if the accounting practices incorporated in the role of the Chief Accountant are reflective of routines (according to Pentland 2011) or rules, that is, more formalised and written. Finally, it should be noted that we cannot observe actual routines from archival records, as there are no actors. We do observe artefacts of routines,<sup>6</sup> for example documents such as ledgers, memoranda and reports which are the outputs of routine actions.

In addition to the archival records, we interviewed a former member of staff who worked in the accounting department in Guinness during the late 1950s. While outside the analysis period of this research, the brief insight from this person confirmed what the archival material portrayed.

## Findings

As noted in Table 1, the papers of the Chief Accountant are categorised according to what we could term role functions. Our findings are presented in a similar fashion, but we first present a general overview of the Chief Accountant and the Accountant's Department at Guinness.

### *The Chief Accountant and the Accountant's Department*

The Chief Accountant was, as the job title suggests, the head of the Accountant's Department at Guinness. The term Chief Accountant was used by Guinness throughout the analysis period, and remained in use until the 1980s in the Annual Report. Tables 2 and 3 provide some personal details<sup>7</sup> of the Chief Accountants and staff numbers within the Accountant's Department. As can be seen from Table 2, Chief Accountants were promoted from within, having previously worked as Deputy Chief Accountant. A job description document detailing the role of the Chief Accountant was not available in the records. We have, however, established from the publicly available portion of his personnel file, that Richard Clarke was appointed Chief Accountant in preference to another candidate, even though the other candidate was a Chartered Accountant.<sup>8</sup> Clarke joined the Accountant's Department in 1919, and his probation report of that year reads 'an excellent official though of course without previous experience in Accounts'. Walter Phillips was the Chief Accountant for much of our period of analysis. Described in Dennison and MacDonagh (1998, 40) as an 'expert accountant', he was appointed in 1908 and 'acted for many years

Table 1. Archival records of the Chief Accountant at Guinness.

Archival classification	Brief description
Trade ledger	Customers' accounts, savings accounts, records of sales, cash office, cashiers books, ledgers including sales figures
Salaries	Matters on the recording of staff salaries (in accounting department and for managers), calculation of the amounts for payment, staff budgets, estimates of staff costs, income tax on salaries, life assurance files, privileges and death duties
Red Ledger	The financial accounts of the company, Profit and Loss Account and Balance Sheet, annual reports, historical review, history of Red Ledger, analysis of sales
Chief Accountant	Various files on matters such as rental property, insurance, pension funds

Table 2. Chief Accountants c.1920–1940.

Name	Detail
J.A. Hayes	Chief Accountant, 1911–1919
Walter Phillips	Chief Accountant, April 1919 – May 1938 (see also Quinn 2014) Joined brewery July 1908 in Auditors Department. Transferred to Accountants Department January 1919. Appointed Chief Accountant 1 April 1919. Retired on May 1938. Previously Deputy Chief Accountant to J.A. Hayes
Archibald H. Carlyle	Joined brewery 1902, appointed Head of Audit Department 1929, Chief Accountant and Auditor May 1938 – September 1939, appointed Assistant Managing Director 1939
Richard D.K.B. Clarke	Joined Brewery 12 June 1899, appointed Chief Accountant September 1939, retired April 1949. Previously Deputy Chief Accountant to Walter Phillips

Table 3. Accountant's Department staff numbers 1925–1940.

Year	No. 1 Staff	Lady Clerks	Comments <sup>a</sup>
1940	11	46	Less trade analysis required, thus fewer Clerks
1939	11	48	
1938	10	47	Increase due to shortage in 1934. Shortage resulting from increased trade and poor training. The Park Royal Brewery (London) accounting done initially by Dublin (see Quinn 2014) may also be a factor
1936	10	53	
1935	10	53	
1934	10	45	In 1929, the company introduced Smith Premier Accounting machines. These typewriters added numbers as they typed. The number of Clerks was thus reduced at this time
1933	11	45	
1932	11	49	
1931	11	50	
1929	11	61	The reduced No. 1 Staff figure is due to less Trade Ledger staff
1927	12	65	
1926	15	67	
1925	15	48	

<sup>a</sup>Comments are derived from short summaries included with the reports

without introducing modern costing methods (which hardly existed)'. Although Quinn (2014) provides some evidence of Phillip's efforts to simplify cost accounting at Guinness during the 1930s, the general state of cost accounting at that time was one of gradual rather than dramatic change (Fleischman and Tyson 2000). While we cannot be certain, it is unlikely that Phillips had any professional training qualifications, instead learning from his predecessor Hayes.<sup>9</sup> There is no mention of Phillips being a professionally qualified accountant in any of the archival material examined.

Clerks in the Accountant's Department performed daily bookkeeping and report preparation, and reported to the Chief Accountant. In today's technology age, it is difficult to appreciate the amount of work involved in routine bookkeeping at this time. To give some idea of the volume of work most likely done by Clerks, a requisition to the Printing Department at the company in 1929 noted 1152 bound ledgers were required for the coming year, of which 972 were for direct use by the Accountant's Department.

Table 3 indicates the staff numbers employed within the Accountant's Department. According to Dennison and MacDonagh (1998, 115), the St. James's Gate Brewery employed just under 3500 workers at the end of 1913, and archival records show total employees remained at the 3000 level until the 1960s. Staff defined as No. 1 Staff were management-level staff – including the Chief and Deputy Chief Accountant – and persons responsible for oversight of the Trade and Red Ledgers. The numbers in Table 3 are extracted from an annual 'Estimate of Staff Requirements' report presented to the Board of Directors. Staff salaries are not available for the analysis period, but a 1947 memorandum from the Managing Director to Chief Accountant records the latter's annual salary at £2200,<sup>10</sup> the Deputy Chief Accountant's salary at £1200, and Clerks' salaries ranging from £170 to £540. These figures give some indication of the level of importance placed on the Chief Accountant role. Other papers in the Chief Accountant's file reveal that Clerks had to pass an internal examination before appointment. These budding Clerks came from various other functions within the brewery.

Although not always the case in the present-day CFO role, the person is typically a member of the top management team. A search of the Board Minutes at Guinness reveals the Chief Accountant did not normally attend Board meetings during the time frame examined. However, the Chief Accountant's files does provide evidence that the Board was regularly provided with information and advice on all matters relating to cost within the brewery, for example, the staff requirements and associated costs shown in Table 3 were reported to the Board. The minutes also reveal many items under the heading of 'Estimates', which were provided by the Chief Accountant and a monthly 'Cash Management' item. Quinn (2014) also noted that the Accountant's Department regularly exchanged information on costs with other departments such as Coopers and Engineering. Thus, regular lines of reporting in and out of the Accountant's Department were well established.

As noted earlier, we interviewed a former member of staff from the Accountant's Department. This person worked in the department from 1958 to 1963, and we were extremely fortunate to have the opportunity to glean some insights on the workings of the department. Although the time of employment is after our focus period, the interviewee provided some information into the general organisation of the department over time, making comments which support the archival evidence. Extracts from the interview follow:

I worked there, in the Red Ledger section mainly, from 1958 to 1963. I don't think the company had a deliberate policy of not hiring professionals, but they liked to hire people straight from secondary school for the No. 1 staff, who made up the ranks of general management. The accountants fell into the category of management. Recruits were interviewed by the Board of Directors following an entrance exam, so Guinness were really serious about the people they hired to manage the company. In fact the entrance exam was so specialised, with a big emphasis on numeracy, general knowledge and English grammar, that Ross College, which operated on the corner of Stephen's Green, ran a special six-month course to prepare school-leavers for it. I attended this course.

Like the other staff in the Accountant's Department, I think it is quite possible that the Chief Accountant also gained his qualification by correspondence<sup>11</sup> – I don't think he was hired as a professional. An important point I would make is that there were a couple of key senior people in the department who were not qualified and who performed very well. The senior staff in the Accountant's Department were generally aware of the value of proper accountancy training, but it seems that it was only some years later that the Board of Directors came to appreciate that also, and began to hire professionals.

It is important to remember that at this time in Ireland, university education was the exception rather than the rule. It would have been difficult for Guinness to recruit only graduates. Also, the typical chartered accountancy training did not suit all the needs in the company. Major General Sir Charles Harvey (a member of the Board) had a big influence on HR policy in Guinness from 1946 onwards. He had a distinguished military career and I think he prized leadership and management qualities rather than qualifications.

These extracts support the notion that the Chief Accountant for our analysis period (Walter Phillips) was most likely not a professionally qualified accountant. It also confirms that on-the-job training was common for staff of the accounting function at that time, and most likely in earlier times.

In summary, the picture that we have of the Chief Accountant is of someone who:

- learned the trade within the business;
- was most likely not professionally qualified;
- managed a large department; and
- reported to and advised the Board of Directors, and had reporting lines to/from other departments.

With this picture in mind, we now explore some of the regular tasks of the Accountant's Department and the Chief Accountant, beginning with routine ledger-recording tasks.

### *Trade and Red Ledger*

At Guinness, there were two key accounting ledgers at this time. The Trade Ledger is what we would term the accounts receivable ledger, whereas the Red Ledger is the equivalent of the nominal ledger. We first detail the tasks involved with the Trade Ledger, and then the Red Ledger.

As the archive catalogue for the Trade Ledger puts it, an 'insight can also be gained into the accounting procedures and practices at the Brewery'.<sup>12</sup> The records used to derive Table 3 reveal that in 1925 there were five accountants<sup>13</sup> (No. 1 Staff) assigned to the Trade Ledger, but this number fell in 1927. We could not ascertain why this staff reduction occurred. The records also reveal that the vast majority of the Clerks – in excess of 90% – were allocated to Trade Ledger tasks. These tasks included recording of sales, creating and maintaining customer accounts, recording loss of beer in transit, furnishing statements of account to customers, analysing trade by region, managing customer returns, requesting payments from customers and dealing with external auditors. These regular tasks were monitored by the Chief Accountant, and a detailed instruction manual existed covering many matters related to the Trade Ledger. This instruction manual increased in size from about 173 pages in 1922 to 305 pages by 1925. This increased formality of procedures came at a time of declining sales (Dennison and MacDonagh 1998, 160–175). While we cannot be certain, the instruction manual may have allowed more work to be done directly by Clerks, and thus explain the decline in No. 1 Staff associated with the Trade Ledger. The latter may have been a direct consequence of falling sales.

From the Red Ledger portion of the files, we can piece together associated Red Ledger tasks. Based on the records used to derive Table 3, there were approximately six No. 1 Staff dedicated to the Red Ledger, supplemented by one or two Clerks. Although no actual Red Ledgers survive, the files clearly show that they were the nominal ledgers used to prepare financial statements – which implies they used summary data from the Trade Ledger. The Chief Accountant's files include numerous examples of the following, which are outputs from the Red Ledger:

- published annual profit and loss account, balance sheet;
- manufacturing, trading account, and profit and loss account; and
- Directors Report as attached to the financial statements.

The instruction manual mentioned earlier does not include instructions on maintaining Red Ledgers, detailing instead Trade Ledger and Stores Ledgers<sup>14</sup> tasks. This lack of instructions, and the smaller number of Clerks assigned to the Red Ledger suggest that the higher level ledger-keeping and financial statement preparation work was done mainly by the No. 1 Staff, that is, the Chief Accountant, his Deputy and other managerial grade accounting staff.

### *Chief Accountant's miscellaneous tasks*

From our examination of the records, other key responsibilities of the Chief Accountant were property management, risk management (insurance) and investment management.

Taking property management first, the Chief Accountant's files reveal that Guinness had quite extensive property interests in the UK and Ireland. Rental income from these properties was accounted for by the Accountant's Department, as was income tax due. The file also details properties rented by Guinness. For such properties, the Chief Accountant had to inform the Board of Directors if any lease was to expire within the following 12 months. In general, correspondence in this file is between the Chief Accountant and/or Deputy Chief Accountant and the Board of Directors or landlords/tenants. The role of Clerks in these tasks appears limited. Second, this file also provides evidence of the role of the Chief Accountant in ensuring insurance was in place not only on the rental properties, but also on items such as hops on farms, fire damages and general buildings. This risk assessment and insurance role is also noted by Quinn and Jackson (2014). Third, the files reveal that the Chief Accountant was responsible for investing excess cash in deposit accounts and equities – what we today term treasury/cash management. The annual accounts of Guinness from 1920 to 1940 show the company held between £1 and £2 million in cash and deposits. Throughout this period, the Chief Accountant received regular account balances from Glyn Mills & Co (London<sup>15</sup>) and the Bank of Ireland. Bank accounts were held in pounds sterling and US dollars. There is also evidence of regular instructions to the banks to transfer funds into and out of deposit accounts as required for normal business purposes. As noted earlier, the monthly Board Minutes during this period include an item on cash management. The Minutes of these monthly meetings note amounts of cash on hand, at bank and on deposit. Towards the end of the 1930s, there is also evidence of investments made in stock of companies such as London Power Company Ltd, Edmundsons Electricity Corporation Limited (London) and the Forth Bridge Railway Company.

As noted in Table 3, Smith Premier Accounting Machines were introduced to the Accountant's Department at Guinness. These machines added as an operator typed figures, and when used with correct forms, posted transactions in daybooks and ledger accounts simultaneously. In November 1928, Walter Phillips visited an exhibition of these machines at a trade stand in Dublin. Shortly thereafter, Phillips received samples of the ledger and customer statements which these machines could prepare, followed by several on-site demonstrations. A quotation was received by Phillips pricing the machines at £212/12/0. On 21 December 1928, Phillips received permission from the Board of Directors to purchase and trial one machine. The trial was successful. Two more machines were purchased in March 1929, rising to 24 machines by October. The files reveal that Phillips was actively involved in ensuring that the implementation of these machines was successful, and that all operators received adequate training. As noted in Table 3, it is likely these machines reduced the number of Clerks in the department.

### *The Chief Accountant's role – rules and routines*

Drawing on the previous three sub-sections, we now determine whether the Chief Accountant's tasks revealed are rules or routines. In the theory and method section, we defined rules as formal and written guidelines (see Quinn 2011), and routines according to Pentland (2011). If we establish the rules and routines associated with the Chief Accountant, we can establish the essence of their role. We can determine what rules (if any) guided their work or the work of their department; and we can identify whether this work was one-off or regular (i.e. were routines).

A role has been defined by Biddle as 'behaviours characteristic of one or more persons in a context' (1979, 58). Although we do not draw on role theory in this instance, rules and routines either guide behaviour (mainly rules) or are behaviour (mainly routines). Thus, using rules and routines we can provide a view of the Chief Accountant's role, and in so doing, provide some evidence of the tasks of internal/management accountants during this time.

There is evidence of both rules and routines in the Chief Accountant's role and the department. Taking rules first, the instruction manual written primarily for the Trade Ledger Department is a rule – it was written and guided action. Almost all tasks described in the previous sub-sections can be classified as routines according to Pentland's (2011) criteria. The tasks shown in Table 4 were regularly repeated, involved multiple actors, portrayed similar patterns of action over time and were interdependent with other tasks. The introduction of the Smith Premier Accounting Machines (described earlier) is not a routine. While there were multiple actors (e.g. Chief Accountant, Clerks and Board) and interdependent actions, this project was a one-off and cannot be defined as a routine.

Taking the rule (instruction manual), routines as per Table 4, non-routine tasks and the Chief Accountant's leadership of the department, we can summarise the role and tasks as follows:

- leading the Accountant's Department – includes ensuring it was well staffed and leading change projects (the Smith Machines);

Table 4. Routines of the Chief Accountant/Accountant's Department.

Task	Basis of conclusion
Trade Ledger tasks	<i>Repetitive</i> – daily and regular tasks, e.g. recording sales, customer receipts <i>Multiple actors</i> – Clerks, Chief and Deputy Accountant <i>Similar pattern of action</i> – similar tasks, reports and records over time <i>Interdependent tasks</i> – sales ledgers summarised for reports and posting to the Red Ledger
Red Ledger tasks	<i>Repetitive</i> – regular ledger entries <i>Multiple actors</i> – Chief and Deputy Accountant, No. 1 Staff <i>Similar pattern of action</i> – similar report outputs over time – profit and loss account, balance sheet <i>Interdependent tasks</i> – Red Ledger summarised to produce financial statements
Property management	<i>Repetitive</i> – regular file updates on many properties <i>Multiple actors</i> – Chief and Deputy Accountant, No. 1 Staff, landlords, tenants <i>Similar pattern of action</i> – similar format of files over time <i>Interdependent tasks</i> – information passed to Board for decision making
Cash/investment management	<i>Repetitive</i> – regular file updates <i>Multiple actors</i> – Chief Accountant, banks <i>Similar pattern of action</i> – similar format of files over time <i>Interdependent tasks</i> – information used to prepare reports and financial statements

- overseeing all matters of cost and revenue recording – the Red Ledger and Trade Ledger;
- summarising costs and revenues to prepare financial statements;
- advising and reporting to the Board of Directors on matters of cost;
- managing company rental properties;
- assessing risks and arranging insurance as appropriate;
- managing company cash; and
- working with other departments on matters of cost.

It should be noted that these elements of the Chief Accountant's role may have varied in format during the analysis period (c. 1920–1940), and indeed the underlying routines may have been formed before this period and remained in place after this period. For example, an article in the internal company magazine *Harp* from April 1960 describes the role of the Chief Accountant (H. Murdoch, a professionally qualified accountant) as very similar to the role we describe. The concept of routines does allow for variation even with each performance (Feldman and Pentland 2003), but does require a recognisable pattern over time.

As noted earlier, using rules and routines to analyse the Chief Accountant's roles and tasks offers several advantages. In the context of this study, we have exploited these advantages. First, as we have identified routines to analyse the tasks (see Table 4), we can be confident that we capture the regular and repeated tasks as opposed to ad hoc tasks. Second, how the accountant's work interacted with other departments is revealed as interdependencies within the routines. Third, it can be seen from the previous sections that the work of the Chief Accountant and the department was typically not formalised as instructions, that is, as rules. The only manual found was for use by the Trade Ledger Department, suggesting more higher-level tasks, although routinised, were not represented in a formal way. Fourth, as noted, contemporary literature used routines to explain stability and change. Despite the change to Smith Premier Accounting Machines, we found no evidence of changes to accounting routines – they appear to have simply automated some manual tasks. Thus, accounting was relatively stable at this time. With a view of the Chief Accountant's role/tasks now in mind which draws on rules/routines, we next discuss similarities and differences to present-day internal/management accounting and to departmental leaders (such as CFOs).

### **Discussion and concluding comments**

In our introduction, we set out to seek a detailed view of tasks undertaken as part of a chief accountant's role, as extant literature does not provide many examples of such detail. It is apparent that the Chief Accountant's role was quite an important one at Guinness, and we next explore it in terms of present-day internal/management accounting. Some comparison to a present-day CFO role is useful, as it allows us to see similarities and differences, which may suggest (or not) that historical chief accountant-type roles were significantly different. It may also suggest a more evolutionary change to modern-day chief accountant/CFO roles than portrayed in some contemporary literature (Zorn 2004).

Taking similarities first, our findings suggest that like contemporary roles, the Chief Accountant at Guinness exerted a great deal of influence on the finance and accounting functions. For the Chief Accountant and his department, recording and overseeing all matters of costs and revenues involved considerably more manual work than in modern firms, where such transactional tasks are regularly supported and automated with enterprise resource planning software (see Grabski, Leech, and Schmidt 2011).



Another similarity is the close interaction with other managers and the Board of Directors. In line with earlier historical research on accounting in the nineteenth and early twentieth century (Boyns and Edwards 1997b; Matthews 1998, 2001), our analysis suggests that Chief Accountants at that time were not detached from other managerial personnel. At Guinness, the Chief Accountant was involved in regular managerial discussions and consultations with the Board of Directors. Although such interactions may be more important today (where the CFO is typically a member of the top management team), the evidence from Guinness suggests that Chief Accountants were not just transaction processors as portrayed in some contemporary literature.

Another interesting similarity between the Chief Accountant's role at Guinness and contemporary roles is in tasks additional to core finance and accounting functions. Contemporary CFO literature suggests that CFOs should invest more time on risk management (Voogt 2010). Nearly a century ago, the Chief Accountant's tasks included risk management routines, albeit at an operational level (see also Quinn and Jackson 2014).

Finally, contemporary CFOs often act as value drivers for their employers outside of the normal accounting realm (Farag, Plaschke, and Rodt 2012; Sharma and Jones 2010; Voogt 2010). At Guinness, the Chief Accountant directly contributed to firm value creation in two ways. First, he routinely managed Guinness's rental properties, and second, he managed a change project (the Smith machines) which we assume increased efficiencies and reduced costs.

There are also some differences between the contemporary roles and our evidence. The most obvious is that the Chief Accountant at Guinness did not have much (if any) material interaction with capital markets. While Guinness was listed on the London Stock Exchange in the time frame analysed, the interactions between the firm and its shareholders were generally less frequent and less extensive than today. The main interaction was an annual letter to shareholders and a copy of the four-page annual report and accounts.<sup>16</sup> It is not surprising however, as interim financial statements were not required under stock-exchange listing rules until the 1980s. The Chief Accountant did have quite regular communication (routines) with other financiers such as banks. Another difference between the two roles is hierarchical position. While the latter was not a director or part of the top management team, the former regularly are. This may explain why modern-day CFOs are more involved in strategic planning than evidenced at Guinness.

Taking these similarities and differences together, the role (and routine tasks) of the Chief Accountant at Guinness is quite comparable to the present-day CFO. The major difference is that the Chief Accountant was not a member of the top management team. The Chief Accountant's role was less strategic than that of the present-day CFO. However, we should not forget the time and context of our analysis. In the 1920–1940 period, firms were generally smaller and less global. For example, Guinness had no operations outside the UK and Ireland until 1962, when its brewery in Lagos was opened (Guinness Annual Report 1962).

In summary, our findings provide some contribution towards a better understanding of the roles of heads of accounting in the earlier parts of the twentieth century. This evidence adds detail to extant literature on the tasks of internal/management accountants during this period (Boyns and Edwards 2007; Loft 1986, 1990; Matthews 1998, 2001). More importantly, this detail of a chief accountant's role and tasks supports the assertion by Fleischman and Tyson (2000) that more sophisticated management accounting came gradually. During the two decades or so of analysis in this study, we see quite stable tasks, and these tasks are ostensibly more similar than dissimilar to present-day tasks. Such a gradual development stands in contrast to a more radical change to strategist-type roles, as suggest by contemporary CFO literature (Zorn 2004).

Our study has some limitations and points to some future research needs. First, the Guinness archive represents a single case and as such, may include unique contextual variables which may

not be present in other firms or sectors. For example, it is a relatively large firm in the time frame and context of our study – large industry was quite scarce in Ireland at the time. Thus, our results may not be readily generalisable to other firms of the same time period. Research on contemporary CFO and management accounting roles suggests that the roles of finance and accounting leadership personnel may be somewhat different in small firms (Hiebl, Neubauer, and Duller 2013; Lavia López and Hiebl 2015). Other contextual factors include the legislative, political and economic environment in which the brewery operates.<sup>17</sup> Further archival research would be useful to analyse the roles of chief accountants or holders of similar positions in other breweries,<sup>18</sup> industries, countries, and in small and medium-sized firms. Such research may overcome the limitation of the single (and possibly context-specific) case presented here. It would also potentially provide more evidence of a more gradual change to CFO-type roles. Second, we focus on a time frame which is devoid of regulation in comparison to today. Thus, the presence of routines over rules is to be expected. Future detailed research is needed to examine other time frames (e.g. 1940–1960) to bridge a gap in our knowledge towards the present day. Third, we cannot observe routines in action at archives; instead we analyse artefacts of routines. These artefacts, despite being clear and complete, do not fully capture the nuances of actors' behaviour. However, while we do not delve into the detailed acting out of routines or how they were formed, our higher-level analysis does provide a general view of the rules and routines which comprise the Chief Accountant's role and tasks. As noted in the previous point, research of later periods may be fruitful. This research would have an added advantage of the possibility to interview actors on their routines, which would augment the artefact-derived routines that we present here. Such research relying on interviews may also be better able to grasp organisational culture, which is known to influence organisational role behaviour (Chatman 1989; Waters and Bird 1987) and is thus another contextual factor that might influence the role of CFOs or predecessors such as chief accountants.

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No potential conflict of interest was reported by the authors.

### Notes

1. Examples of such studies include Baladouni (1984), Evans (2004) and Parker (1994).
2. See *Accounting History Review* 2014, 24 (2–3), a special issue on accounting during the First World War for some interesting papers on this topic.
3. This development does not suggest that prior to the First World War accountants were somewhat lacking in the application of cost accounting techniques, as it has been suggested by some scholars (Locke 1979; Solomons 1952). As shown by Edwards, Boyns, and Anderson (1995) and Boyns and Edwards (1997a), in the nineteenth century, firms used various cost accounting techniques. While it can be contested if engineers or accountants were the driving force behind such cost accounting systems (Boyns and Edwards 2007; McLean 2013; McLean, McGovern,

- and Davie 2015) before the First World War, the increased focus on cost accounting during the war led to an increase in the number of internal (cost) accountants (Loft 1986; Matthews 1998).
4. Many contemporary studies draw on rules and routines to explain change and stability in accounting practices – see for example Burns and Scapens (2000), Lukka (2007), van der Steen (2009, 2011). For some studies in history, see for example Quinn (2014), Quinn and Jackson (2014), Spraakman (2006).
  5. The 1948 Companies Act (UK) was generally applied in Ireland until 1963, when the first major Irish act was introduced. Accounting standards did not exist in the UK and Ireland until 1971.
  6. See D’Adderio (2011) for a detailed discussion.
  7. Access to personnel files is limited for confidentiality reasons. The information provided here is based on publicly available information, previous studies or other archival sources.
  8. As far as we can establish from the Annual Reports and other internal documents, the role of the Chief Accountant was not held by a professionally qualified accountant until the late 1950s, which is after our period of analysis.
  9. We have searched available lists of members of The Institute of Chartered Accountants in Ireland which was founded by Royal Charter in 1888 – the largest professional body in Ireland at that time, and the only body until 1926. In 1917, there were just 23 members working in industry, which increased to 179 by 1937. Neither Hayes nor Phillips was a member in either list available.
  10. The annual salary of the Head Brewer (equivalent to the Chief Operating Officer today) was £4000 at this time. Like the Chief Accountant, the Head Brewer was not a director or member of the board at this time. However, these two positions were the most senior after the director positions.
  11. This evidence supports our observation of that the Chief Accountant was not a professionally qualified accountant.
  12. File series GDB/FN01.
  13. Although we use the term accountants, as noted earlier, none were professionally qualified.
  14. These are inventory ledgers.
  15. See <http://heritagearchives.rbs.com/companies/list/glyn-mills-and-co.html> for more detail.
  16. During the period of analysis, the ordinary share capital at Guinness remained constant at £5m. Thus, no interactions with new investors occurred.
  17. For example, while focusing on financial reporting, Moreno and Cámara (2014) present an analysis of a Spanish brewery over time. This brewery was subject to differing political and economic factors for example.
  18. The authors are aware of many un-researched brewery archives in Europe during the time frame of this study. Not all are as large in turnover terms as Guinness, and thus may be useful comparisons to this study.

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## References

### Primary sources

Archive of Arthur Guinness, Son & Company Ltd, St. James’s Gate, Dublin, Ireland.

Files utilised:

Trade Ledger Department – Ref GDB/FN01

Chief Accountant’s Department, Salaries – Ref GDB/FN02

Red Ledger Department – Ref GDB/FN05

Chief Accountant’s papers – open files – Ref GDB/FN06

Board Minutes, Dublin & London – 1920–1938 – Ref GDB/CO07

Annual Reports and Financial Statements, 1920–1940, 1962.

Registry Department – staff numbers – Ref GDB/PE03.01

National Library of Ireland.

Material utilised:

Yearbook of the Institute of Chartered Accountants in Ireland, 1917, 1937.

*Secondary sources*

- Abernathy, J. L., B. Beyer, A. Masli, and C. Stefaniak. 2014. "The Association between Characteristics of Audit Committee Accounting Experts, Audit Committee Chairs, and Financial Reporting Timeliness." *Advances in Accounting* 30 (2): 283–297.
- Aier, J. K., J. Comprix, M. T. Gunlock, and D. Lee. 2005. "The Financial Expertise of CFOs and Accounting Restatements." *Accounting Horizons* 19 (3): 123–135.
- Armstrong, P. 1987. "The Rise of Accounting Controls in British Capitalist Enterprises." *Accounting, Organizations and Society* 12 (5): 415–436.
- Arnold, A. J. 2014. "'A Paradise for Profiteers'? The Importance and Treatment of Profits during the First World War." *Accounting History Review* 24 (2–3): 61–81.
- Baladouni, V. 1984. "Etymological Observations on some Accounting Terms." *The Accounting Historians Journal* 11 (2): 101–109.
- Bapuji, H., M. Hora, and A. M. Saeed. 2012. "Intentions, Intermediaries, and Interaction: Examining the Emergence of Routines." *Journal of Management Studies* 49 (8): 1586–1607.
- Barua, A., L. F. Davidson, D. V. Rama, and S. Thiruvadi. 2010. "CFO Gender and Accruals Quality." *Accounting Horizons* 24 (1): 25–39.
- Baxter, J., and W. F. Chua. 2008. "Be(com)ing the Chief Financial Officer of an Organisation: Experimenting with Bourdieu's Practice Theory." *Management Accounting Research* 19 (3): 212–230.
- Bedard, J. C., R. Hoitash, and U. Hoitash. 2014. "Chief Financial Officers as Inside Directors." *Contemporary Accounting Research* 31 (3): 787–817.
- Biddle, B. J. 1979. *Role Theory: Expectations, Identities and Behaviors*. New York: Academic Press.
- Billings, M., and L. Oats. 2014. "Innovation and Pragmatism in Tax Design Excess Profits Duty in the UK during the First World War." *Accounting History Review* 24 (2–3): 83–101.
- Boyns, T., and J. R. Edwards. 1997a. "Cost and Management Accounting in Early Victorian Britain: A Chandleresque Analysis?" *Management Accounting Research* 8 (1): 19–46.
- Boyns, T., and J. R. Edwards. 1997b. "The Construction of Cost Accounting Systems in Britain to 1900: The Case of the Coal, Iron and Steel Industries." *Business History* 39 (3): 1–29.
- Boyns, T., and J. R. Edwards. 2007. "The Development of Cost and Management Accounting in Britain." In *Handbook of Management Accounting Research, Volume 2*, edited by C. Chapman, A. G. Hopwood, and M. D. Shields, 969–1034. Oxford: Elsevier.
- Boyns, T., M. Matthews and J. R. Edwards. 2004. "The Development of Costing in the British Chemical Industry, c.1870-c.1940." *Accounting and Business Research* 34 (1): 3–24.
- Bremer, D. 2010. *The Effect of Stakeholder Influence on CFO and CEO Turnover in German Corporate Governance*. Remshalden: Pressel.
- Burns, J., and R. W. Scapens. 2000. "Conceptualising Management Accounting Change: An Institutional Framework." *Management Accounting Research* 11 (1): 3–25.
- Burns, T., and G. M. Stalker. 1961. *The Management of Innovation*. London: Tavistock.
- Campbell, J. L., J. Hansen, C. A. Simon, and J. L. Smith. 2015. "Audit Committee Stock Options and Financial Reporting Quality after the Sarbanes-Oxley Act of 2002." *Auditing: A Journal of Practice and Theory* 34 (2): 91–120.
- Chatman, J. A. 1989. "Improving Interactional Organizational Research: A Model of Person-organization Fit." *Academy of Management Review* 14 (3): 333–349.
- D'Adderio, L. 2011. "Artifacts at the Centre of Routines: Performing the Material Turn in Routines Theory." *Journal of Institutional Economics* 7 (2): 197–230.
- Datta, S., and M. Iskandar-Datta. 2014. "Upper-echelon Executive Human Capital and Compensation: Generalist vs Specialist Skills." *Strategic Management Journal* 35 (12): 1853–1866.
- Dawson, P. 2003. *Reshaping Change: A Processual Perspective*. London: Routledge.
- DeFond, M. L., R. N. Hann, and X. Hu. 2005. "Does the Market Value Financial Expertise on Audit Committees of Boards of Directors?" *Journal of Accounting Research* 43 (2): 153–193.
- Dennison, S. R., and O. MacDonagh. 1998. *Guinness 1886–1939: From Incorporation to the Second World War*. Cork: Cork University Press.
- Donaldson, L. 1987. "Strategy and Structural Adjustment to Regain Fit and Performance: In Defence of Contingency Theory." *Journal of Management Studies* 24 (1): 1–24.
- Doran, M. 2006. "Bean Counter or Business Advisor? An Exploratory Study of Changing Times for the Accounting Practitioner in Ireland." *Irish Accounting Review* 13 (1): 23–46.

- Duong, L., and J. Evans. Forthcoming. "CFO Compensation: Evidence from Australia." *Pacific-Basin Finance Journal*. doi:10.1016/j.pacfin.2015.03.006.
- Edwards, J. R., T. Boyns, and M. Anderson. 1995. "British Cost Accounting Development: Continuity and Change." *The Accounting Historians Journal* 22 (2): 1–41.
- Evans, L. 2004. "Language, Translation and the Problem of International Accounting Communication." *Accounting, Auditing & Accountability Journal* 17 (2): 210–248.
- Farag, H., F. Plaschke, and M. Rodt. 2012. "Evolving Capital Markets and the Changing Role of the CFO." In *The Strategic CFO*, edited by U. Hommel, M. Fabich, E. Schellenberg, and L. Firnkorn, 127–142. Berlin: Springer.
- Favaro, P. 2001. "Beyond Bean Counting: The CFO's Expanding Role." *Strategy & Leadership* 29 (5): 4–8.
- Feldman, M. S., and B. T. Pentland. 2003. "Reconceptualising Organizational Routines as a Sources of Flexibility and Change." *Administrative Science Quarterly* 48 (1): 94–118.
- Feng, M., W. Ge, S. Luo, and T. Shevlin. 2011. "Why do CFOs Become Involved in Material Accounting Manipulations?" *Journal of Accounting and Economics* 51 (1): 21–36.
- Fleischman, R. K., and T. N. Tyson. 1999. "Opportunity Lost? Chances for Cost Accountants' Professionalization under the National Industrial Recovery Act of 1933." *Accounting, Business & Financial History* 9 (1): 51–75.
- Fleischman, R. K., and T. N. Tyson. 2000. "Parallels between US and UK Cost Accountancy in the World War I Era." *Accounting, Business & Financial History* 10 (2): 191–212.
- Fleming, A. I. M., S. McKinstry, and K. Wallace. 2000. "Cost Accounting in the Shipbuilding, Engineering and Metals Industries of the West of Scotland, 'The Workshop of the Empire', c1900–1960." *Accounting and Business Research* 30 (3): 195–211.
- Friedman, A. L., and S. R. Lyne. 1997. "Activity-based Techniques and the Death of the Beancounter." *European Accounting Review* 6 (1): 19–44.
- Ge, W., D. Matsumoto, and J. L. Zhang. 2011. "Do CFOs Have Style? An Empirical Investigation of the Effect of Individual CFOs on Accounting Practices." *Contemporary Accounting Research* 28 (4): 1141–1179.
- Geiger, M. A., and D. S. North. 2006. "Does Hiring a New CFO Change Things? An Investigation of Changes in Discretionary Accruals." *The Accounting Review* 81 (4): 781–809.
- Giddens, A. 1979. *Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis*. London: Macmillan.
- Gore, A. K., S. Matsunaga, and E. P. Yeung. 2011. "The Role of Technical Expertise in Firm Governance Structure: Evidence from Chief Financial Officer Contractual Incentives." *Strategic Management Journal* 32 (7): 771–786.
- Goretzki, L., E. Strauss, and J. Weber. 2013. "An Institutional Perspective on the Changes in Management Accountants' Professional Role." *Management Accounting Research* 24 (1): 41–63.
- Grabski, S. V., S. A. Leech, and P. J. Schmidt. 2011. "A Review of ERP Research: A Future Agenda for Accounting Information Systems." *Journal of Information Systems* 25 (1): 37–78.
- Graham, A., S. Davey-Evans, and I. Toon. 2012. "The Developing Role of the Financial Controller: Evidence from the UK." *Journal of Applied Accounting Research* 13 (1): 71–88.
- Granlund, M., and K. Lukka. 1998. "Towards Increasing Business Orientation: Finnish Management Accountants in a Changing Cultural Context." *Management Accounting Research* 9 (2): 185–211.
- Granlund, M., and T. Malmi. 2002. "Moderate Impact of ERPS on Management Accounting: A Lag or Permanent Outcome?" *Management Accounting Research* 13 (3): 299–321.
- Heidrick & Struggles. 2014. *The Heidrick & Struggles Board Monitor: Trends in Board Composition over the Past Five Years*. Accessed April 2, 2015. <http://www.heidrick.com/~media/Publications%20and%20Reports/Trends-in-board-composition-over-the-past-five-years.pdf>.
- Hiebl, M. R. W. 2013. "Bean Counter or Strategist? Differences in the Role of the CFO in Family and Non-family Businesses." *Journal of Family Business Strategy* 4 (2): 147–161.
- Hiebl, M. R. W., and B. Feldbauer-Durstmüller. 2014. "What can the Corporate World Learn from the Cellarer? Examining the Role of a Benedictine Abbey's CFO." *Society and Business Review* 9 (1): 51–73.
- Hiebl, M. R. W., H. Neubauer, and C. Duller. 2013. "The Chief Financial Officer's Role in Medium-Sized Firms: Exploratory Evidence from Germany." *Journal of International Business & Economics* 13 (2): 83–92.
- Howell, R. A. 2002. "Accounting Scandals: Where were the CFOs?" *Business Strategy Review* 13 (4): 20–25.
- Hussey, R., and G. Lan. 2001. "An Examination of Auditor Independence Issues from the Perspectives of UK Finance Directors." *Journal of Business Ethics* 32 (2): 169–178.
- Jiang, J., K. R. Petroni, and I. Y. Wang. 2010. "CFOs and CEOs: Who have the Most Influence on Earnings Management?" *Journal of Financial Economics* 96 (3): 513–526.

- Johansson, T., and S. Siverbo. 2009. "Why is Research on Management Accounting Change not Explicitly Evolutionary? Taking the Next Step in the Conceptualisation of Management Accounting Change." *Management Accounting Research* 20 (2): 146–162.
- Latour, B. 1987. *Science in Action*. Cambridge: Harvard University Press.
- Lavia López, O., and M. R. W. Hiebl. 2015. "Management Accounting in Small and Medium-sized Enterprises: Current Knowledge and Avenues for Further Research." *Journal of Management Accounting Research* 27 (1): 81–119.
- Li, C., L. Sun, and M. Ettredge. 2010. "Financial Executive Qualifications, Financial Executive Turnover, and Adverse SOX 404 Opinions." *Journal of Accounting and Economics* 50 (1): 93–110.
- Locke, R. R. 1979. "New Insights from Cost Accounting into British Entrepreneurial Performance circa 1914." *Accounting Historians Journal* 6 (1): 17–28.
- Loft, A. 1986. "Towards a Critical Understanding of Accounting: The Case of Cost Accounting in the UK, 1914–1925." *Accounting, Organizations and Society* 11 (2): 137–169.
- Loft, A. 1990. *Coming into the Light: A Study of the Development of a Professional Association for Cost Accountants in Britain in the Wake of World War I*. London: Chartered Institute of Management Accountants.
- Lüdtke, J.-P. 2010. *Earnings Management Strategies in the Context of CFO Turnover*. Remshalden: Pressel.
- Lukka, K. 2007. "Management Accounting Change and Stability: Loosely Coupled Rules and Routines in Action." *Management Accounting Research* 18 (1): 76–101.
- Matthews, D. 1998. "The Business Doctors: Accountants in British Management from the Nineteenth Century to the Present Day." *Business History* 40 (3): 72–103.
- Matthews, D. 2001. "The Influence of the Accountant on British Business Performance from the Late Nineteenth Century to the Present Day." *Abacus* 37 (3): 329–351.
- Matthews, D., M. Anderson, and J. R. Edwards. 1997. "The Rise of the Professional Accountant in British Management." *The Economic History Review* 50 (3): 407–429.
- McKinstry, S. 1999. "Engineering Culture and Accounting Development at Albion Motors, 1900–c. 1970." *Accounting, Business & Financial History* 9 (2): 203–223.
- McLean, T. 2013. "Cost Engineering and Costing in Hawthorn Leslie Shipbuilders, 1886–1915." *The British Accounting Review* 45 (4): 284–296.
- McLean, T., T. McGovern, and S. Davie. 2015. "Management Accounting, Engineering and the Management of Company Growth: Clarke Chapman, 1864–1914." *The British Accounting Review* 47 (2): 177–190.
- Mian, S. 2001. "On the Choice and Replacement of Chief Financial Officers." *Journal of Financial Economics* 60 (1): 143–175.
- Moreno, A., and M. Cámara. 2014. "Evolution of Information Content from an Institutional Perspective: El Alcázar Brewery (1928–1993)." *Accounting History* 19 (3): 369–398.
- Parker, R. H. 1994. "Finding English Words to Talk about Accounting Concepts." *Accounting, Auditing & Accountability Journal* 7 (2): 70–85.
- Pentland, B. 2011. "The Foundation is Solid, If You Know Where to Look: Comment on Felin and Foss." *Journal of Institutional Economics* 7 (2): 279–293.
- Quinn, M. 2011. "Routines in Management Accounting Research: Further Exploration." *Journal of Accounting & Organizational Change* 7 (4): 337–357.
- Quinn, M. 2014. "Stability and Change in Management Accounting Over Time – A Century or so of Evidence from Guinness." *Management Accounting Research* 25 (1): 76–92.
- Quinn, M., and W. Jackson. 2014. "Accounting for War Risk Costs: Management Accounting Change at Guinness during World War 1." *Accounting History Review* 24 (2–3): 191–209.
- Scott, J. 1990. *A Matter of Record: Documentary Sources in Social Research*. Cambridge: Polity Press.
- Sharma, R., and S. Jones. 2010. "CFO of the Future: Strategic Contributor or Value Adder?" *Journal of Applied Management Accounting Research* 8 (1): 1–16.
- Solomons, D. 1952. "The Historical Development of Costing." In *Studies in Costing*, edited by D. Solomons, 1–52. London: Sweet and Maxwell.
- Spraakman, G. 2006. "The Impact of Institutions on Management Accounting Changes at the Hudson's Bay Company." *Journal of Accounting and Organizational Change* 2 (2): 101–122.
- van der Steen, M. 2009. "Inertia and Management Accounting Change: The Role of Ambiguity and Contradiction between Formal Rules and Routines." *Accounting, Auditing & Accountability Journal* 22 (5): 736–761.
- van der Steen, M. 2011. "The Emergence and Change of Management Accounting Routines." *Accounting, Auditing & Accountability Journal* 24 (4): 502–547.
- Voogt, T. 2010. "An Exploratory Study of the Focus Areas of South African Top 40 Company CFOs." *Meditari Accountancy Research* 18 (1): 76–92.

- Waters, J. A., and F. Bird. 1987. "The Moral Dimension of Organizational Culture." *Journal of Business Ethics* 6 (1): 15–22.
- Weber, J. 2011. "The Development of Controller Tasks: Explaining the Nature of Controllershship and its Changes." *Journal of Management Control* 22 (1): 25–46.
- Whitley, R. 1986. "The Transformation of Business Finance into Financial Economics: The Roles of Academic Expansion and Changes in US Capital Markets." *Accounting, Organizations and Society* 11 (2): 171–192.
- Zorn, D. M. 2004. "Here a Chief, there a Chief: The Rise of the CFO in the American Firm." *American Sociological Review* 69 (3): 345–364.