



THE UNIVERSITY *of* EDINBURGH

Edinburgh Research Explorer

War and organizational disruption in professional service firms

Citation for published version:

Walker, S 2018, 'War and organizational disruption in professional service firms', *Journal of Professions and Organization*, vol. 5, joy008, pp. 206-229. <https://doi.org/10.1093/jpo/joy008>

Digital Object Identifier (DOI):

[10.1093/jpo/joy008](https://doi.org/10.1093/jpo/joy008)

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Peer reviewed version

Published In:

Journal of Professions and Organization

Publisher Rights Statement:

This is a pre-copyedited, author-produced PDF of an article accepted for publication in: Journal of Professions and Organization following peer review. The version of record: Stephen P Walker; War and organizational disruption in professional service firms, Journal of Professions and Organization, is available online at: <https://doi.org/10.1093/jpo/joy008>

General rights

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact openaccess@ed.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.



War and Organizational Disruption in Professional Service Firms

Stephen P. Walker

Professor of Accounting
Edinburgh University Business School
29 Buccleuch Place
Edinburgh
EH8 9JS

+44(0)131 6515543

walker.sp@gmail.com

War and Organizational Disruption in Professional Service Firms

ABSTRACT: This paper presents the results of an historical study of disruption in professional service firms. The focal disturbance was the labour depletion crisis that arose from the mass enlistment of staff for military and government service during the First World War. The study draws on the surviving archives of military service tribunals, government papers, the records of professional organisations, and contemporary periodicals to perform a micro analysis of disruption in chartered accountancy practices in Edinburgh. The linked concepts of vulnerability, adaptability and resilience are deployed to explore the impacts of the perturbation. The paper identifies the features that rendered accountancy firms more or less susceptible to the harm wrought by the depletion crisis; explores the adaptive activities pursued by practitioners and professional bodies to moderate the impacts of trauma; and reveals how accounting firms absorbed the disturbance and successfully preserved their institutional structures and ideologies.

KEYWORDS: organizational disruption; First World War; chartered accountancy; labour depletion; Scotland.

INTRODUCTION

Disruption and crisis have emerged as important themes in the pages of the *Journal of Professions and Organization* (Hasselbalch, 2016; Leicht, 2016; Spence, Voulgaris and Maclean, 2017). Journal content attests to the advancing interest in professions' experiences of and responses to disturbance. Studies have shown how states of 'professional disruption' may be incited by rapid technological change (Hasselbalch, 2016) and how market fundamentalism, cultural fragmentation and post-modern scepticism have placed professions in a state of crisis (Leicht, 2016). Further, political orientation and the commercial ideology have been revealed as contributors to the crisis that currently afflicts the professions (Spence et al, 2017).

This paper seeks to contribute to this research theme by presenting an historical microanalysis of the experience of professional firms, and accounting firms in particular, during a period of disruption brought about by total war. It specifically addresses the following questions. What characteristics of firms rendered them more or less susceptible to the effects of disruption? How did practitioners and the organisations that represented them respond to the disturbance and seek to ameliorate its impact? Did professional service firms successfully absorb the disturbance and emerge with their essential structures and ideals intact? Answers to these questions are sought through an analysis of the vulnerability, adaptability and resilience of professional firms in the context of an external shock.

The focus in the journal on disruption is not surprising given that it features significantly in theorisations of the dynamics of professionalization and professionalism. In his interactionist approach Abbott (1988: 35-9, 91-6) identified technological advances, organizational change, natural objects and facts, and shifts in cultural structures as external sources of disturbance in the system of professions that create or destroy work-jurisdictions. Conflict theorists recognise how regulatory changes may disrupt the market for professional services and consolidate or incite closure projects (Witz, 1992: 73-103). Adherents to institutionalist perspectives, with their focus on understanding the processes of change, perceive professionals as potential agents of disruption who are themselves subjected to 'a myriad of social, economic, technological, political, and legal forces' (Muzio, Brock and Suddaby, 2013).

The emphasis on disruption in the study of professions resonates with a broader concern among students of organisations on the impact of crises on the performance, stability and survival of entities (Hermann, 1963; Barton, 2001; Coombs, 2015: 3, 15-17; Hwang and Lichtenthal, 2000). Crises invariably require structural changes to accepted modes of operation and the implementation of crisis management policies (Herbane, 2010). They are associated with uncertainty, instability and threats to the economic security and wellbeing of the organization's members (Seeger, Sellnow and Ulmer, 2003: 4). Typologies of organisational crisis often distinguish internal and external causes. Among the latter are regulatory changes, markets crashes, hostile takeovers, labour shortages, acts of terrorism and natural disasters (Seeger et al, 2003: 45-64; Mitroff, Pauchant and Shrivastava, 1988; Gundel, 2005). Although such sources of environmental 'turbulence' may engender positive or 'restorative' effects, within the organisation they may also be a source of 'dysfunction, crisis and even collapse' (Fischer, 2012).

Advice texts on crisis management identify ‘adverse international events’ as an exogenous source of dislocation (Meyers, 1986: 25-8, 186-90). In the realm of professions, Hasselbach (2016) suggested that in addition to technological advance, disasters, revolutions and wars might feature among the diverse causes of disruption and rapid change in occupational fields. Adverse international developments represent a particularly insidious source of organisational dislocation because management are unlikely to have any control over unfolding events (Habermas, 1976). Wars and other violent engagements may generate multiple forms of disruption (Vollmer, 2013: 161-2). Interstate wars not only impact on trade, markets and financial performance, they can also incite shortages of resources. Organisations are susceptible to the effects of interventions by the state to control these. The demands of the military and wartime production, for example, can result in the conscription of labour. Indeed, one of the foremost forms of disruption to organisations during periods of crisis is the loss of personnel (Han and Zhang, 2013).

The source of organisational disruption investigated in the current study was an international conflict of exceptional magnitude, the First World War. The dislocation caused by the war has been explained thus: ‘The first and inescapable fact about war is that it is a great catastrophe, destroying lives, destroying resources, destroying, in the case of the First World War, the delicate mechanism of trading and financial relationships constructed in the later nineteenth century’ (Marwick, 2006: 15-16). The war has been identified as an epoch-defining event. It represented the commencement of an ‘age of catastrophe’ (Hobsbawm, 1994: 6-7). The conflict had profound and enduring economic consequences (Bogart, 1919: 3-42; Hirst, 1934; Milward, 1970; Stevenson, 2012: 563-7) - ‘the annihilation of property and financial expense far exceeded previous wars’ (Lee, 2014: 11).

For many firms the war brought uncertainty, the closure of markets, disruption to trade, government controls and increased burdens of taxation (McDermott, 1989; Mollan and Tennent, 2015). Such exigencies required new coping strategies, changes to business structures and models, and shifts in managerial thought and practice (Boyns, 2017). The intrusion of the state during total war disturbed business practices and operations (Supple, 2014). In particular, the government’s recruitment of the manpower necessary to prosecute the war could result in serious human resource problems (Grieves, 1988): ‘As armies sucked up manpower, so they drained civilian production and services of their labour force’ (Supple, 2014: 303). In the field of chartered accountancy the operations of practicing firms were at best disrupted, at worst their survival was threatened.

In focusing on the disruptive effects of the First World War on accounting firms the paper responds to the call ‘to reconnect the study of professional occupations with the study of organizations’ (Muzio et al, 2013). In accounting this call is manifest in specific demands to bring firms back into the research agenda on the profession (Cooper and Robson, 2009). A focus on firms offers the prospect of comprehending changing notions of professionalism and deeper insights to the interface between the profession and wider economy and society (Cooper and Robson, 2006, 2009). Consistent with this call, the paper provides insights to the relationships between practitioner firms and qualifying associations, and also illuminates the interactions of these institutions with agencies of the state during a period of disturbance.

Hasselbalch (2016) has demonstrated the insights to be gained from micro-level analyses of how individuals in professional firms comprehend and respond to disruptive events. He also revealed the potency of ‘opening up the black box of the single, disruptive event and focussing analytical attention on the processes that occur as it unfolds’. The current study also seeks to achieve the latter by exploring the disruptive impact of the First World War on chartered accountancy firms in a particular locale. It draws on the linked concepts of vulnerability, adaptability and resilience to reveal the factors that rendered some firms more sensitive to disruption than others, the coping measures pursued in reaction to the hazards they faced, and the extent to which firms returned to a state of equilibrium when peace was restored.

The following section presents the analytical framework utilised in the study. This is followed by a discussion of the extensive range of archival sources used to unveil the impact of the disturbance. These include the surviving records of military service tribunals and professional organisations, government papers, and contemporary periodicals. The nature of the disruption that afflicted accounting firms – the depletion of professional and clerical labour – is then described. The results of a microanalysis of the vulnerability of accounting firms to this form of disruption is presented. A subsequent section on adaptability illustrates the responses of practitioners and their organisations to the disturbance. The resilience of the institutions and ideals of chartered accountancy firms following the cessation of military conflict and disturbance is then examined.

VULNERABILITY, ADAPTABILITY AND RESILIENCE

The analytical framing of the paper draws on the linked concepts of vulnerability, adaptation and resilience. While epistemologically messy, these concepts are widely used in disciplines across the life and social sciences. Often deployed separately, the concepts have a common concern with shocks to systems, responses thereto, and the interfaces between systems and their external environments (Adger, 2006; Gallopin, 2006). Vulnerability, adaptation and resilience are especially engaged in analyses of threats or hazards. Hazards may comprise perturbations or creeping sources of stress. The former are exceptional, large-scale events such as disasters (Gallopin, 2006). War represents one form of disaster. In contrast to homeostatic disasters, which emanate from natural phenomena, wars, being caused by human behaviour, are artificial disasters (Barkun, 1977). During the modern age wars have often been conducted on a massive scale. As spatially and temporally unbounded events with global reach modern conflicts comprise hyperstatic disasters. It was the First World War, the focus of the current study, that displayed ‘the first premonitory signs of modern hyperstatic catastrophe’ (Barkun, 1977).

Given the plurality of definitions of vulnerability, adaptability and resilience, various commentators have attempted to identify the fundamental attributes of the three concepts (Gallopin, 2006). Such a synthesis, and the application of the concepts in the current investigation, is now offered.

Vulnerability

Although often contested, vulnerability represents a powerful concept for analysing variations in the impact of an external shock on individuals, groups, communities and systems (Wisner, 2016). The existence of diverse understandings of the concept reflects the range of disciplinary fields in which it is deployed (Adger, 2006; Hinkel, 2011). These include geography, environment management, sociology, psychology, medicine, public health, business, and information technology (Wisner, 2016). In essence, vulnerability ‘is usually portrayed in negative terms as the susceptibility to be harmed’ or propensity to be adversely affected by a hazard (Adger, 2006: 269). In the context of a natural disaster or a war, harm might comprise casualties, damage to property, the disruption of organisational and social functioning, and the interruption of business. Case analyses of vulnerability tend to identify the nature of the threat; the sectors, places and groups impacted by the hazard; and the consequences of being vulnerable. In the current paper these features are represented respectively by: world war, chartered accountancy firms in Scotland, and the potential dissolution of firms.

An important focus in the study of vulnerability is identifying the characteristics of an individual, group or system that place it more or less at risk from the harmful effects of a hazard. This emphasis has encouraged discussion of constituent concepts such as ‘sensitivity’ - the extent to which a system is affected by a disturbance, and ‘capacity of response’ - the system’s ability to adjust and moderate the impact of the disturbance (Gallopín, 2006). As the latter suggests, broader notions of vulnerability extend beyond risk and the likelihood of harm to embrace coping and adaptive capacity (Birkmann, 2012). For example, having reviewed understandings of the concept in studies of environmental change, Adger (2006: 268) offers the following definition of vulnerability: ‘the state of susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt’. For the purposes of the current investigation activities relating to coping with disruption, moderating its impact and the capacity to adapt are considered as primarily aligned to the notion of adaptability.

Adaptability

The concept of adaptability derives from the sociological, organizational and management literatures. It has particular resonance in contemporary studies of climate change (Engle, 2011). Adaptability, or adaptive capacity, is key to the investigation of both vulnerability and resilience (Gallopín, 2006). As indicated above, for some commentators the ability to cope or respond to a disturbance falls within the province of vulnerability. Others contend that adaptability substantially concerns the capacity of individuals, groups or communities to act and manage resilience (Walker et al, 2004). According to Engle (2011) adaptive capacity is integral to both vulnerability and resistance. Indeed, the institutions, governance practices and management mechanisms associated with adaptation comprise linkages to the two connected concepts (see Figure 1).

(FIGURE 1 HERE)

Thus Engle (2011: 647) defines adaptive capacity or adaptability as ‘the ability of a system to prepare for stresses and changes in advance or adjust and respond to the effects caused by the stresses’. As this suggests, contrasts are often drawn between

adaptation activities that are pre-emptive and concern mitigation, and those practices that are reactive. The emphasis of the current study is on the latter – the ability to respond and adjust to a perturbation, to cope with its consequences and moderate its impact. Our concern is with the reactions of accounting professionals to the changed environment instigated by the shock of war.

Resilience

Resilience concerns the persistence of a system, its ability to absorb a disturbance and return to a stable state following perturbation (Holling, 1973). It relates to the ability of individuals, organizations, communities and groups to maintain essential structures, functions, relationships, behaviours and identities following a disruptive event (Walker et al, 2004; Gallopin, 2006). Less commonly used definitions, influenced by applications in engineering and science, perceive resilience as a measure of the speed with which a system returns to a state of equilibrium following disruption, or the degree of impact that can be experienced before a system is transformed into an alternate new state (Adger, 2000; Norris, Stevens, Pfefferbaum, Wyche and Pfefferbaum, 2008). In physics resilience refers to the ‘speed with which homeostatis is achieved’ (Norris et al, 2008).

Other definitions refer not only to a return to equilibrium post-disturbance, but allow for the possibility of advancing beyond an original state and benefiting from the perturbation. Contrasts may be drawn between restoration or ‘back to normal’, and regeneration or ‘build back better’ (Kelman, Gaillard, Lewis and Mercer, 2016). Like the other concepts discussed in this section, resilience is deployed in diverse disciplines ranging from ecology to psychology, from strategic management to safety engineering (Bhamra, Dani and Burnard, 2011). In this study it concerns the ability of chartered accountancy firms to return to stability and preserve their institutions and ideals following the traumatic effects of total war.

The empirical focus of the current investigation represents a response to calls for the deployment of concepts of vulnerability, adaptation and resilience in historical analyses. As Curtis (2014: 1-2) observes, while these concepts increasingly inform social scientific research, they are yet to become embedded in historical disciplines. There is increasing attention to the historical study of variations in the extent to which institutions and societies have greater or lesser capacity to respond to disasters. Gauging the effectiveness of adaptive activities, for example, is often difficult until retrospective investigation is undertaken (Engle, 2011).

Historical applications of the linked concepts also give emphasis to the temporal connectedness between vulnerability, adaptation and resilience. Given its historical approach the study acknowledges that the occurrence of a disturbance, its diverse impacts and the devising of responses to it, represent sequential events and actions (Bankoff, 2004: 33). Thus, vulnerability concerns the characteristics of chartered accountancy firms that rendered them susceptible to harm when the disturbance occurred; adaptability relates to activities undertaken and adjustments made by firms and those who represented their interests in response to the shock; and resilience concerns the return to a state of equilibrium following the disruption.

SOURCES AND METHODS

The research approach adopted in the current study resonates with ‘historical organisation studies’ advocated by Maclean, Harvey and Clegg (2016). Histories of the organisations of the accountancy profession are here pursued through the comprehensive collection of archival data, which is analysed and narrated by reference to a conceptual framework. Conceptualisation was addressed in the previous section. The former is now described.

This historical study benefits from the fact that the operation of social systems is often illuminated during periods of trauma (Britton, 1988). It is at ‘moments of eruption’ that prevailing behaviours, ideologies, relationships and structures are thrown into sharper relief and also become more comprehensively documented (Hobsbawm, 1998; Walker, 2000). The creation of ‘crisis discourse’ offers the potential for generating compelling insights (Vollmer, 2013: 10-11). Insights to the predicament of accounting firms during the First World War may be gained from a source created in consequence of the trauma - the case records of military service tribunals.

Military service tribunals were established under the Military Service Act of January 1916 (McDermott, 2011: 11-35). This statute provided that all single men aged 18-41 years were deemed to have enlisted in His Majesty’s Forces. In May 1916 mandatory military service was extended to married men of the same age range. The purpose of military service tribunals was to hear appeals against conscription (Gregory, 2003). Those seeking exemption from military service would first apply to their local military tribunal, of which there were 1,800 in Great Britain. The tribunal could grant absolute, longer term or temporary exemption, or refuse exemption. The decisions of the tribunal could be challenged by the local Military Representative whose function was to protect the interests of the Army and maximize recruitment. Those who were refused exemption or objected to the type of exemption granted could take their case to an appeal tribunal. In England and Wales there was an appeal tribunal in each county. In Scotland an appeal tribunal was established in every sheriffdom. The ultimate source of appeal was the Central Tribunal in London. Of the 1.2 million men deemed to have enlisted under the 1916 Act, 750,000 applied for exemption (McDermott, 2011: 24). It has been estimated that military service tribunals heard at least 1.25 million cases from 1916 to 1918, the years of conscription (Gregory, 2003).

Due to their sensitivity, in 1921 the Ministry of Health ordered the destruction of tribunal records (McDermott, 2011: 2). However, two sets of records were retained. The files of the Middlesex Appeal Tribunal and the Lothian and Peebles Appeal Tribunal were archived as a national sample for future reference. The latter contains 6,400 appeal cases from March 1916 to October 1918. These cases fall within the geographical domain of a distinctive community of professionals – the chartered accountants of Edinburgh. This community was represented by the Society of Accountants in Edinburgh (SAE), which was formed in 1853 and chartered in 1854. The SAE is credited as being the first professional organization of accountants in the modern age. As such it has been subject to considerable historical investigation (Brown, 1905; Kedslie, 1990; Macdonald, 1984; Lee, 1997, 2000, 2006, 2010; Stewart, 1977; Walker, 1988, 1991, 1995, 2008). In 1951 the SAE merged with other

local societies in Glasgow and Aberdeen to form the Institute of Chartered Accountants of Scotland.

The appeal case files offer a basis for the microhistorical analysis of chartered accountancy firms (Maclean et al, 2016). They offer particularly illuminating insights to wartime disruption in these organisations because the grounds for exemption from military service not only concerned ill-health, conscientious objection, and serious hardship, but also that it was deemed in the national interest that a man be retained in his current employment. Employers had the right to make an application for such exemption on behalf of an employee (McDermott, 2011: 21). Indeed, it was crucial that employers supported the case (Gregory, 2003). In relation to the focal professional group, the partners of accountancy firms were obliged to present arguments for the retention of their apprentices, clerks, and qualified staff of military age. These submissions revealed the disruptive impact of the war on their practices and provided insights to sources of vulnerability.

Insights to the adaptability and resilience of accounting firms were provided by other sources. Material relating to responses by the professional organization to the disturbance was gathered from the minute books of the SAE. The problems confronting the accountancy profession in Scotland and the coping mechanisms deployed were also revealed in the papers of the Ministry of National Service, contained in the National Archives, London, and documents deposited in the National Records of Scotland relating to the recruitment of substitute clerical labour during the military crisis. Evidence of the persistence or otherwise of Edinburgh CA firms following the disturbance was gathered from published histories of firms, local and professional directories, and the obituaries of partners. The latter were published primarily in *The Accountants' Magazine (TAM)*, the journal of the Chartered Accountants of Scotland. Before revealing what these sources reveal, it is first necessary to describe the nature of the disruption experienced by Edinburgh CA firms.

DISRUPTION

Severe disruptions to human resources, engendered by strikes, workplace violence, the loss of key personnel, or high profile cases of discrimination, are a potential source of organisational trauma (Seeger, 2003: 60-1). Such disturbances may be endemic during periods of military conflict because 'The basic resource for any war is manpower-and for most modern warfare, manpower in huge numbers' (Supple, 2014: 302). During periods of total war the large-scale enlistment of staff for military and government service may generate a labour depletion crisis. This was the predicament of chartered accountancy firms during the First World War.

The impact of staff depletion was compounded by the fact that the services offered by professional accountants 'were in demand as never before' (*The History of the Institute*, 1966: 59). As the war became 'total' the expertise of practitioners was called upon by a number of government departments. Accountants assumed diverse new responsibilities especially in relation to tax collection, munitions production, the control of enemy establishments, and the administration of wartime charitable funds (Garrett, 1961: 99-103). Professional work was extended further in fields such as cost accounting (Boyns and Edwards, 2013: 187-92; Loft, 1986, 1990).

Official histories of the accountancy bodies, in their fulsome narratives on the patriotic service given by the profession during the First World War, offer limited insights to its disruptive effects on practicing firms. Much attention is devoted to recognising the contribution of the 291 chartered and incorporated accountants and a higher number of articulated clerks, apprentices and accounting staff who were killed in action (*The History of the Institute*, 1966: 59; *A History of the Chartered Accountants of Scotland*, 1954: 58). While they acknowledge that firms suffered the loss of staff to the armed forces and that this raised concerns about servicing clients, extent histories suggest that this was tolerable in the context of a national crisis.

Likewise, few commissioned histories of accounting firms offer detailed insights to the disruptive impacts of the war. Consistent with their celebratory tone and focus on dynastic luminaries (Cooper and Robson, 2009), such texts tend to emphasise the military contribution of their staffs, the service rendered by partners to the state and the honours conferred on them, and their increasing usefulness during the national emergency (*A History of Cooper Brothers & Co.*, 1954: 12; *Deloitte & Co.*, 1958: 99; Jones, 1981: 122-39; 1995: 105-20; Wise, 1982: 14-15; Winsbury, 1977: 30-34). While some acknowledge that the war was a period of disruption to the income and staffing of large accounting firms in Britain and the US (Jones, 1995: 112, 115-16; *A History of the Chartered Accountants of Scotland*, 1954: 57; Flesher and Previts, 2014), we know little about the consequences of the war for firms not featuring in the lineages of the current Big 4. As is often the case in contemporary settings, the experiences of small and medium accountancy practices remain largely silent (Ramirez, Stringfellow and Maclean, 2015).

Staff Depletion in Scottish Chartered Accountancy

Enlistment rates varied across Britain during the First World War. They were especially high in the region covered by the current study. In the period from 4 August 1914 to 4 November 1914, the rate of enlistment was 237 per 100,000 in the South of Scotland compared to 80 per 100,000 in the eastern counties of England (Simkins, 1988: 112). According to Kenefick (2014) 'It has never been in doubt that the Scots responded in great numbers to the call to arms at the onset of war in 1914'. While in England it was reported that employers in clerical and commercial occupations often attempted to restrain men of military age from enlisting due to consequential shortages of staff, in Scotland, the majority of employers had loyally 'given every encouragement to employees of every grade to place their services at the disposal of the State' (HH31/27/21).

Enlistment rates in the accountancy profession in Edinburgh were consistent with those of other non-manual occupations in the South of Scotland. Chartered accountancy firms in the Scottish capital lost significant numbers of staff following the outbreak of war due to the mobilization of territorials. The SAE had a long military tradition (Beckett, 2007: 7-38; Jones, 1981: 123). By 1900 there were 140 members of the Accountants Company of the Queen's Rifle Volunteer Brigade, the Royal Scots (Brown, 1905: 218-20; *Incorporated Accountants' Journal*, September 1914: 342). At its meeting on 15 September 1914 the Council of the SAE observed that 'a very large proportion of apprentices and others connected with the Society had been called up for active service with the Forces or had enlisted' (GD470/1/3). The

number of members and apprentices of the Society at the start of 1914 was 566 and 198 respectively (*TAM*, 1914: 174-5). By the end of 1914, 59 members and 173 apprentices and assistants in members' firms had enlisted. A further 53 members and 68 apprentices and assistants joined the colours between January 1915 and June 1916. In November 1915 it was reported that 17% of SAE members (30% of members of military age) and 60% of apprentices were serving with the armed forces (HH31/27/21; Walker, 2017). At this time senior office bearers of the SAE began to voice concerns about the shortage of staff in members' firms.

By winter 1917 the President of the SAE reported the further depletion of staff (GD470/1/16). Indeed, 'The matter had become urgent owing to the action of the Military Authorities in calling up a number of the comparatively few remaining employees of military age' (GD470/5/1, 15.3.1917). In the last year of the war, when 'manpower resources in Britain had been stretched to the limit' (Winter, 2003: 41), the staffing crisis in accountancy firms in Scotland had become acute. A report by the Ministry of National Service in March 1918 offered a stark assessment: 'The depletion of the staffs of firms of Chartered Accountants in Scotland has now become so serious that the question is no longer as to whether they can do their work with their former efficiency, but actually as to whether they can carry on at all' (NATS 1/992). The report noted that the predicament of accountancy firms had arisen due to the distinctive qualification regime and staffing arrangements in Scotland. Whereas in England and Wales the number of articled clerks was restricted to two, in Scotland, there were no such limits. In consequence, CA offices were populated by large numbers of 'young', apprentices who had been called-up. By contrast, in England, firms employed significant numbers of older 'charge clerks' who were beyond the age for military service. Thus, whereas south of the border, firms 'are enabled to retain a number of men of substantial use to them ... in Scotland as the staffs consist almost entirely of young men, the numbers have consistently been subjected to reduction, until at the present time the acute question arises as to whether they can carry on' (NATS 1/992).

In the closing months of the war the demand for accountants in government departments also increased significantly. Consideration was given to a National Service Instruction relating to the distribution of accountants and their clerks (NATS1/1198, June-July 1918). North of the border it was intended that this be administered by a 'Distributing Committee for Scotland', comprising representatives from the chartered accountancy bodies of Edinburgh, Glasgow and Aberdeen (GD470/5/1, 17.9.1918). Reflecting the plight of its members' practicing firms the Joint Committee of Councils of these three bodies was adamant that the committee should have the power to 'leave any man in his present employment' (GD470/5/1, 9.10.1918, NATS1/1198, 11.10.1918, 12.10.1918). The war ended before the committee was appointed.

Having narrated the nature of the disruption that afflicted the accountancy profession during the First World War, we now proceed to examine the vulnerability of practising firms to its impacts, how practitioners and their professional organisation adapted to the disturbance, and assess whether the structures and ideals of the profession proved resilient.

VULNERABILITY

With reference to the foregoing explication of the concept of vulnerability, an attempt is now made to identify the characteristics that rendered accountancy firms more or less susceptible to the harm wrought by the trauma of labour depletion. This is achieved through a micro historical analysis of individual CA practices. The vignettes presented suggest various sources of sensitivity to the effects of the disturbance. These concern the extent of staff depletion, especially relative to wartime increases in client work; the grade and quality of staff enlisted; firm structure; nature of clientele; and the demographic configuration of personnel.

A medium sized CA practice that appears to have experienced severe organisational disruption due to the high proportion of its staff enlisted for military service was Scott-Moncreiff, Thomson & Shiells. This firm could trace its origins to 1800 (Brown, 1905: 374) and boasted a healthy portfolio of audit clients comprising financial institutions, local authorities and educational establishments. At the outbreak of war there were three partners: Henry K. Shiells (*TAM*, 1917: 454), Courtney J. Shiells (*TAM*, 1939: 283), and Robert Y. Weir (*TAM*, 1966: 593). The first of these died in August 1917 and the last was mobilised for military service in August 1914. In addition to its partners, the firm employed nine men and one woman before the war. By autumn 1916 this was reduced to three men and two women (HH30/9/3/29). The firm explained its predicament to a military tribunal thus:

Our junior partner and five valuable assistants have been with H.M. Forces since August 1914 and other two, one a qualified C.A., have been with Forces since October 1915. This leaves us with only two of our original staff and we have only been able to replace them by two young girls, one junior clerk who has now left us, and a temporary clerk in bad health. We are thus left with only two assistants and our work is of national importance especially in connection with our savings bank audit. We find it impossible to carry on the work with less than two qualified assistants (HH30/9/3/29; HH30/9/3/28).

The poor quality of the staff that remained following the enlistment of a high proportion of employees could also render a firm especially vulnerable to the effects of labour depletion. Dingwall, Peden & Henderson was founded in 1912 (*TAM*, 1912: 217; 1940: 271-2; 1961: 464). Before the war the partners of this firm were supported by four male assistants, an apprentice, two female typists, and a female cashier and bookkeeper. On mobilization 'practically our whole male staff enlisted' (HH30/15/3/10). At the end of 1915 one partner (Henderson) left for London where he was employed as a chief accountant in the Ministry of Munitions and later became a divisional accountant in the Ministry of Food. By 1916 the firm reported that the remainder of the male staff had also enlisted. One employee was killed in action. The office was now staffed by an ailing chief assistant, a medically-unfit apprentice, two boys aged 14 and 15, and four women. This was deemed inadequate to service the firm's 120 audit clients, as well as liquidations, court-related appointments, controlled establishments, and an increasing volume of income tax and excess profits duty work for existing clients.

The remaining resident partner, Peden, was finding it difficult to cope. He was compelled to work 10-12 hours a day and his staff remained in the office early and late several days a week. Given that many client firms had balance sheet dates of 31

December, the firm had traditionally been busiest in the months of February through April, but now 'everyone is more than fully occupied the whole year round' (HH30/15/3/10). Staff worked especially long hours to complete work during the busy months. It had proved 'impossible' to secure the services of alternative experienced staff.

Firms that not only lost a high proportion of staff in the context of a significantly increased workload were especially vulnerable to the disruptive effects of war. Such was the case of Barstow & Millar, CA, a partnership that could trace its origins to 1828. The firm built a reputation for its work relating to landed estates, court remits and insolvency (Walker, 2003). By the outbreak of the war Barstow & Millar also had a large audit clientele and was involved in the installation and supervision of costing systems (*TAM*, 1929: 290-4; 1946: 378; Lee, 2006: 74-7).

Aside from its two partners above military age, the normal pre-war male employees of Barstow & Millar numbered 21 (HH30/12/3/32). By 1916 it had been reduced to only five. These comprised an employee aged over 70 years, two boys, one man deemed unfit for military service and another exempted from military service. Recruiting replacement staff with sufficient skill had proved impossible (HH30/2/6/56).

Wartime legislation had resulted in a substantial increase in client work. 21 of Barstow & Millar's 50 commercial audit clients had become excess profit duty cases and almost all of their owners were subject to higher rates of Supertax. The firm had also agreed to temporarily take on an additional 23 'official' audits (HH30/2/6/56). Barstow & Millar was remitted to audit the accounts of three controlled establishments, under the Munitions Acts and also dealt with five cases under trading with the enemy legislation. New work was coming from manufacturers and traders who had not previously been required to obtain accurate accounts (HH30/2/6/56). The partners claimed that the growth of government remits in the context of a depleted staff ensured that some of the firm's 'ordinary commercial work' had been abandoned (HH30/12/3/32). The 75% reduction in manpower also ensured that 'our work is already considerably behind' (HH30/12/3/32). Further, 'the strain is being felt by those who are left and illness is more frequent' (HH30/2/6/56).

The case of A & J Robertson indicates that the enlistment of high grade, pivotal staff could also increase vulnerability. The calling-up of a partner potentially disrupted the servicing of a client list. A & J Robertson was formed in 1870 and expanded rapidly following its involvement in cases arising from the winding-up of the City of Glasgow Bank disaster in 1878 (*TAM*, 1910: 8-12). The firm amassed a substantial and varied clientele including the audit of banks, insurance and railway companies. At the outbreak of the First World War the firm appears to have been the largest in Edinburgh. In 1916 the firm conducted 80 corporate and 100 trust audits; managed 20 judicial factories and curatories, as well as numerous trusts, five properties and estates. It also directed six liquidations, and performed 'general accounting work' (HH30/12/2/18). The pre-war staff of 27 men and seven women was reduced to six men and 13 women by the end of 1916.

Alexander Weir Robertson-Durham, CA had become a partner in his father's firm shortly after his admission to the SAE in 1900 (*TAM*, 1941: 507-8). At the outbreak of

War he was the junior of four partners in A & J Robertson. Before military tribunals in 1916 and 1917 much was made of Robertson-Durham's exceptional business obligations and the responsibility of individual partners for particular clients. It was contended that the withdrawal of any single partner would prove excessively disruptive. Robertson-Durham was auditor of the Commercial Bank of Scotland and The Great North of Scotland Railway, liquidator of two large businesses, Secretary and Actuary to the Scottish Reversionary Company Ltd, and held various appointments as a trustee, and performed the income tax and excess profit duty returns of most of the firm's audit clients (HH30/12/2/18; NATS 1/477, 1.12.1917).

Firms that focussed on labour-intensive areas of practice, such as auditing, were also vulnerable to the impacts of staff depletion, especially when they experienced a wartime increase in this work. Richard Brown & Co was a highly successful auditing firm that had 'attained a position well known in the profession' (*TAM*, 1918: 279-86; Lee, 1996). In early 1917 the firm boasted that: 'We audit the Accounts of two of the Scottish Banks, two Insurance Companies, and 35 other Limited Companies whose total Capital, excluding the Banks and Insurance Companies, amounts to over £5,000,000. We also audit the Accounts of 3 Town Councils, 7 Parish Councils, and 18 School Boards or Schools' (HH30/12/6/36).

Performing this audit work was seriously impacted by the wartime depletion of staff. In addition to three partners, the pre-war staff comprised 17 men and two women. Fifteen of the men had 'joined the Army within a few weeks of the outbreak of War'. In their place female clerks had been recruited as well as a number of 'male substitutes', most of who had since enlisted. By the beginning of 1917 the three partners were supported by three men rejected for military service, two 'lads under military age', and an audit clerk (HH30/12/6/36). The logistical difficulties of performing audits within reasonable time and maintaining the operations of the Edinburgh office with such a reduced staff was explained thus:

In the great majority of cases the work is done at the Offices or Branch Offices of the Companies. This involves sending qualified clerks from time to time to such places as Aberdeen, Dundee, Glasgow, Markinch, Galashiels, Nairn, Denny, London, Hull and Grimsby, besides a number of other towns nearer Edinburgh. About three-fourths of our total Staff are continuously at work away from our office. In addition there are a large number of audits, which though not statutory, require to be annually completed, such as the numerous Accounts of the Church of Scotland. In most cases the work of audit has to be brought forward monthly.

Besides the three Partners of our Firm, we have only available to take charge of the responsible work of Audits one other man in addition to Anderson [the audit clerk]. One of our Partners is much occupied in taking charge of a large Paper Mill. There is also much other work which necessitates regular attendance of the Partners at our own office (HH30/12/6/36).

The case of Maxtone Graham & Sime further illustrates how an audit department in a large firm, invariably comprising a high proportion of apprentices and clerks of military age, was vulnerable to disruption (*TAM*, 1940: 500-2; 1954: 60; 1954: 421). Here, a pre-war staff of 23 had been reduced to seven by 1917. The firm also had three partners. One, William Sime, was mobilised on the outbreak of war (*TAM*,

1954: 421). Another, Samuel W. Murphy enlisted in August 1916 (*TAM*, 1954: 60). The third partner, James Maxtone Graham, was above military age (*TAM*, 1940: 500-2). By 1917 four of the firm's staff serving in the armed forces had been killed (eg *TAM*, 1915: 319). The auditing department, whose clients included two banks, a number of limited companies, mercantile firms and local authorities, was deprived of all its manpower: 'The staff in the Auditing Department consisted, before the War, of seven men, under the supervision of one partner. All eight are now serving' (HH30/12/2/3). In their place the department was operated by a newly recruited male deemed medically unfit for armed service and 'some women Clerks, who have had no previous Audit training' (HH30/12/2/3). Attempts to find other 'satisfactory assistants' had proved unsuccessful.

The experience of Romanes & Munro also affirms the vulnerability of the audit departments of firms. The partnership of Charles S. Romanes, CA and Charles J. Munro, CA had been formed in 1884 (*TAM*, 1922: 579-80; 1941: 192-3). Although the firm assumed a reputation for insolvency work, during the war it also audited the accounts of various controlled establishments and other businesses for the purposes of assessing excess profits duty. At the outbreak of war the complement of male clerks was 12, but 9 of these soon joined the Army (HH30/32/1/11). By the end of 1916 there was only one clerk capable of performing audit work and he too had been called-up. The firm partners complained that although four boys and seven girls had been engaged 'It would considerably disorganise our business if this clerk were taken for military service, considering the very restricted conditions under which we are working in view of the number of clerks who have already gone to the colours' (HH30/32/1/11).

As suggested by the example of Romanes & Munro, the quality of substitute staff also rendered some firms more susceptible to the impact of labour depletion. At the outbreak of war the partnership C.E.W. Macpherson & Morrison comprised a male staff of 10, plus Charles E.W. Macpherson, the senior partner (*TAM*, 1932: 6-7), and Robert A. Morrison, CA, the junior partner (*TAM*, 1976: 72). Shortly thereafter four other men joined the firm. However, Morrison then departed for the Ministry of Munitions and 12 of the 14 men volunteered for military service. Of the male staff, only Macpherson, the cashier, and the principal audit clerk remained (HH30/12/4/4). The firm also employed two female typists and four 'girl clerks' but Macpherson considered these 'unskilled'. He contended that it was extremely difficult to meet the needs of the firm's substantial clientele with these meagre resources. Macpherson and his two male staff had 'worked strenuously for exceptionally long hours, night and day, to carry on the Office affairs and to do the work of those who are away, with such limited help as untrained girl Clerks can give' (HH30/12/4/4).

Given their access to limited resources, small firms are often perceived as being more vulnerable to the effects of external shocks than larger firms (Bhamra et al, 2011). Indeed, during the First World War the government was sensitive to the impact of enlistment on sole proprietors, particularly those operating in essential trades (McDermott, 2011: 5-6, 131-2). Leaving for military service could result in the termination of a small business and the dismissal of its employees. Perhaps not surprisingly, in 1916 amendments to the Military Service Act were proposed (though not accepted) to exempt sole proprietors whose businesses would be forced to close if they were called-up (McDermott, 2011: 137). Such vulnerabilities were evident in

small accountancy firms in Edinburgh, especially where a CA practised on his own account.

Such was the case of Hugh S. Hope Gill, CA. When war was declared Hope Gill had been in practice for 20 years. His business comprised the management of property, trust and endowment funds, insurance agency and also some auditing (HH30/7/8/8). He had served for many years in the local volunteer rifle brigade and in September 1914, while in his late 40s, enlisted for military service as Captain in the 2/9th Battalion (Highlanders) Royal Scots. In his absence, the practice was continued by Donald McNicol, a cashier and bookkeeper, and by a typist. In mid-1916 McNicol was called up for military service. Hope Gill argued that if his cashier were enlisted 'I would be compelled to close the Office, which would mean I would have nothing to return to at the termination of the War' (HH30/7/8/8). Hope Gill added that he had only volunteered for military service on the understanding that his cashier and bookkeeper would carry on the business in his absence.

Small practices were also vulnerable to the impact of the enlistment of key staff in contexts where a chartered accountant was incapacitated by infirmity or illness. An example is Archibald Langwill, CA. Langwill commenced in practice shortly after becoming a member of the SAE in 1880. He held various positions with charitable institutions and organisations associated with the Church of Scotland (*TAM*, 1928: 91-2). He also audited the accounts of a number of parish councils and school boards. During the First World War Langwill audited the accounts of a large controlled engineering firm. Before the war he had employed six male clerks but by the end of 1917 all except one had joined the Army (HH30/35/75). The continuity of the practice was imperilled when his remaining clerk was called-up and Langwill himself required a serious operation that would remove him from business for four months.

The case of Forbes Moncreiff & Douglas represents an instance of the vulnerability of a small firm where the principal practitioner was encumbered by infirmity. The partnership of Moncreiff (Forbes) & Douglas had commenced in 1884. The firm was heavily involved in the treasury management and audit of church and philanthropic institutions and trusts (*TAM*, 1926: 510-11; 1927: 247-8; HH30/15/1/101). Around 1916, Forbes Moncreiff, the senior partner who was approaching 70 years of age, retired due to failing eyesight. The practice was continued by his 67 year-old partner, Mowbray Douglas. In spring 1916, the firm's long-standing principal assistant was called-up. Douglas reported that he was effectively an invalid having suffered for many years with bladder and kidney problems. Consequently, he was often unable to attend to business except for a limited time each day and when the weather permitted. The principal assistant was thus indispensable and his loss would be to the 'irreparable misfortune' of the firm. Douglas claimed that 'In the event of my being laid aside by illness at any time, I have no one to whom I could entrust my business affairs with any degree of freedom from anxiety' other than his assistant (HH30/15/1/101).

Small practices comprising father and son were also vulnerable because the age for military service rendered the latter liable to calling-up. For example, George Lisle became a member of the SAE in 1887 and subsequently practiced on his own account and in the partnerships of Lisle & Drummond and Lisle & Middleton (*TAM*, 1940: 83-4). In 1912 William A. Middleton left the partnership to commence a civil service

career (*TAM*, 1940: 270). In July 1913 Lisle assumed his son, George Oldham Lisle, as his partner (GD470/1/3: 202), an unconventional move because his progeny was still an apprentice chartered accountant (GD470/1/3: 229, 251). By early 1916 six of the firm's eight male staff were serving in the army and navy. At this time the 22-year old George Oldham Lisle was also called-up (HH30/2/6/50). George Lisle related how the firm's work as auditor of the accounts of the City of Edinburgh as well as a number of treasuryship appointments could not be performed without his son.

ADAPTABILITY

In this section we explore how practitioners and the organisations that represented their interests responded to the disturbance afflicting accounting firms and attempted to address its consequences and moderate its impacts. Their adaptive activities during wartime focussed on attempts to counter depletion by appealing to military tribunals against the enlistment of staff; seeking to protect human resources by making representations to government; and recruiting women as substitute labour.

Applications to Military Tribunals

A significant number of CA firms responded to the disruption by resisting the enlistment of their staff. Numerous applications for exemption from, or deferment of, military service were presented to the City of Edinburgh military tribunal by the employees and partners of accountancy firms. Between January and May 1916 no fewer than 31 Edinburgh CA firms were involved in 60 cases. These concerned 42 clerks, cashiers, assistants, apprentices and qualified staff (HH30/36). On occasion, letters from important officials were presented in support of applications for exemption (HH30/2/6/50; HH30/12/6/32).

A degree of ideological adaptation was necessary in order to pursue these applications. Adherence to professional ideals such as altruism is compounded in wartime by the raised significance of patriotism. These can conflict with practitioner self-interest when the work of the firm is threatened by the loss of staff to military service (Walker, 2017). Military tribunal case files suggest that individual accountants responded to this conflict in diverse ways. While some prioritised the nation's cause at the risk of the survival of their firms, others appeared less inclined to make such a sacrifice. In some instances partners and their staff appear to have been prepared to advance various bases of appeal in order to prevent or delay enlistment. On occasion they felt it necessary to reaffirm their patriotism to the tribunal.

For example, Allan Scott Lawrie was accountant and cashier to C.E.W. Macpherson & Morrison, CA for 13 years. In August 1916 Lawrie was granted exemption from military service on grounds of conscientious objection. When his case for exemption was revisited in January 1917 the argument for its extension focused not on his conscientious objection but on the impact of his loss to the work of the firm; this being deemed of national importance. However, the local tribunal decided it was not in the national interest that Lawrie should remain in his present occupation. Thereafter C.E.W. Macpherson attempted to appeal the decision before the Central Tribunal on grounds that the accountancy profession was entitled to special consideration given its contribution to maintaining the nation's finances in wartime. Leave to appeal was

refused. Macpherson was at pains to assure the tribunal that 'I am not unpatriotic, considering the important national interests affected by my work, in appealing to retain Mr Lawrie' (HH30/12/4/4).

At the same time, Lawrie also pursued an appeal before the local tribunal on grounds of conscientious objection and this proved successful. But this did not secure Lawrie's retention by the firm. He was exempted only from combatant service. Both Lawrie and Macpherson argued strongly that he should perform non-combatant service by continuing to work in C.E.W. Macpherson & Morrison. Macpherson wrote 'with his knowledge of business and of our need of retaining his services, he would be more usefully employed in his present sphere than as in non combatant service' (HH30/12/6/32). Lawrie argued that his religious faith precluded engagement in non-combatant pursuits such as manufacturing munitions and that he would therefore best serve the nation by remaining with his firm.

There are also examples of cases for retaining staff on medical grounds to supplement claims that it was in the national interest that the individual be retained in the accounting firm. Other claims were supplemented by information about familial circumstances that would engender hardship if the staff member was called up, as well as suggestions that apprenticeships were close to completion and should be allowed to run their course (HH30/15/3/10; HH30/27/4/28; HH30/12/6/36; HH30/5/3/12; HH30/2/6/56; HH30/12/3/32). An example concerns the firm Barstow & Millar. In 1916 its partners sought the exemption of one of their apprentices, Adam G. Murray. The firm claimed that it was in the national interest that Murray should remain in his current employment. Furthermore, there were medical circumstances to take into account. Murray had defective hearing in his left ear, consequently 'He will not, without considerable risk to his unit, be put into the front line and there can be no doubt he is of greater value to the Country left where he is than in the employment he is likely to be engaged in as a soldier' (HH30/12/3/32).

Representations to Government

A further adaptive response to the wartime disruption of CA firms in Edinburgh was to seek government protection of the labour supply to accounting firms. This entailed a more robust approach to interest representation by the local professional organisation. In autumn 1915 the Secretary for Scotland established a Committee on the recruitment of substitutionary clerical and commercial labour during the war. When the opinion of the SAE was invited in December 1915 its President and Secretary reminded the committee that the efficient conduct of accountants' business, where work of national importance was being performed, depended on the retention of 'a nucleus of experienced staff' (HH31/27/19). In January 1916 representations were made to the Secretary for Scotland on the question of the exemption from military service of chartered accountants' clerks in Edinburgh. The representations were made by George W. Currie, a local MP and CA who sat on the Council of the SAE (*TAM*, 1950: 25). Currie had been requested to raise the issue by the secretary of his professional organisation (HH31/27/19).

In the same month, the Secretary of the SAE himself, Richard Brown, CA, wrote to the Scottish Office with a view to highlighting the plight of chartered accountancy firms. Brown alerted officials to the case of H.J Robison, CA who, before the war,

had conducted his practice in Dumfries 'practically single-handed'. Robison enlisted in October 1914 and secured the services of a young CA, Alexander S. Carson, to manage the firm in his absence. However, Carson was also called up. Attempts to find another CA to manage the business proved unsuccessful and in consequence: 'It would seem that Mr Robison's business must disappear' much to the detriment of the state given that the work it performed included 'the audit of Firms having Government Contracts and also the preparation of Income Tax and Excess profits Returns' (HH31/27/20). Robison's brother also complained that 'the office will require to be closed' and added that this was a high price to pay for someone who had been willing to serve his country.

In February 1916 the Scottish Office arranged for employers in important business and commercial occupations to submit to the local Military Representative the names of staff who had attested for military service but were considered indispensable (HH31/27/24). The SAE established an advisory committee to consider all applications for the exemption of staff from military service (GD470/1/3, 21.2.1916). A circular was sent to practicing members alerting them to this arrangement. In response it was reported that:

...numerous applications were received from members of the profession claiming exemption for managers, clerks, etc in their employment who were regarded as indispensable to the business, and necessary statistics were given as to the clerical staff employed. These were very carefully considered by a committee of our Society, and recommendations were sent in to the Military Representative of the district in those cases where the claim made appeared to be justified (HH31/27/37).

The Society assumed that where cases for exemption were agreed by the Military Representative there might be no need for the case to be heard by the local tribunal, and also that its recommendations would prove influential in decisions made by tribunals (HH30/15/1/101). However, it was soon discovered that the SAE's 'recommendations were not being given effect to, or even, so far as known, considered by the Local Tribunals, and that all the applicants had to support their claims before these Tribunals in the same way as if no report whatever had been made by our President and Council' (HH31/27/37).

In April 1916 this provoked a response by the Secretary of the SAE who complained to the Under Secretary for Scotland that the Society's recommendations were being overturned by the local Military Representative. In consequence, the advisory committee's work 'had little or no result' (HH31/27/37) and the disruption to the work of accounting firms was aggravated (HH31/27/20). The Secretary suggested that until the matter was resolved the Society considered 'it is quite useless to consider further claims or to send in recommendations to the Military Representative of this district' (HH31/27/37).

The Secretary for Scotland intervened. It was decided to explore whether arrangements could be revisited. Given the sensitivity of the issue it was suggested that the matter be taken up 'quietly' with a view to arriving at an 'understanding' between the SAE and the Military Representative. In response to the 'quietistic complaint' made by the accountants the Military Representative explained that

tribunals had to deal with each case on its merits and that while the recommendations of the accountants committee were ‘an important element’, in decision-making they were ‘not necessarily given effect to’ (HH31/27/37). The Secretary for Scotland also recommended discussions between the Secretary of the SAE and the Principal Staff Officer in Scotland of the Director General of Recruiting with a view to achieving ‘a better understanding’. As a result of these representations the SAE was given an assurance ‘that all cases recommended by the [Accountants] Committee for exemption which had not yet come before the tribunal would be *specialy dealt with* by the Military Representative’ (GD470/1/3, 19.7.1916, *emphasis added*).

As the war neared its end staff depletion continued to seriously disrupt the work of CA firms and the accountancy organisations became more assertive in their dealings with the state. In spring 1918 an appeal was made for accountants to volunteer for service in the Ministry of Munitions. The SAE was requested to provide a list of its members for such service. It refused. The Society also retorted that government work performed by CAs in Scotland should be conducted without the need to leave their places of business (NATS 1/1197, 23.4.1918; 6.5.1918; GD470/1/3, 20.5.1918, 17.6.1918).

This robust approach to dealing with the state proved effective. By early 1918 the Ministry of National Service had formed the view that the staffs of professional accounting firms in Scotland ‘have been so depleted by recruiting as to be unable to cope with the work of auditing the accounts of important companies’ (NATS 1/992). The Minister concluded that the recruiting authorities should give particular consideration to the position of practicing accountants and their expert staffs (NATS 1/992). Following negotiations with the accountancy bodies in Scotland, special arrangements were made for the recruitment of professional accountants and their clerks. In April 1918 a Scottish Regional Instruction was issued by the Ministry of National Service with a view to ‘not interfering unduly with the staffs of professional accountants in Scotland’ (NATS 1/992).

The Recruitment of Substitute Labour

Another adaptive response of accounting firms to the disruption caused by the depletion of their staffs was the recruitment of women as substitute labour. It is clear from the archival sources that women were employed in (especially larger) accounting firms before the war as clerical functionaries – as typists and cashiers. However, in wartime they ventured into client work as substitute labour, especially as audit clerks (Kirkham and Loft, 1993). The shortage of men was largely addressed by the recruitment of female audit clerks (*A History of the Chartered Accountants of Scotland*, 1954: 58; Shackleton, 1999). This represented a significant change to the life and work of accounting firms. Before the war, one tenet of male resistance to the admission of women to the accountancy profession was that the intrusion of females would seriously disturb office arrangements (Walker, 2011). However, such disruption was unavoidable if firms were to continue to function during wartime.

The employment of large numbers of women as substitute labour during the war could radically alter the gender composition of medium and large accounting firms. For example, before the conflict Richard Brown & Co. was populated by 20 men and two women, by 1917 this had altered to nine men and seven women (HH30/12/6/36).

Scott-Moncreiff, Thomson & Shiells comprised 12 males and one female before the war and six males and three females during it (HH30/9/3/29). At the outbreak of war Barstow & Millar comprised 21 males and three females, by 1916 this had changed to seven males and seven females (HH30/2/6/56). The largest firm in Edinburgh, A & J Robertson, experienced the most dramatic gender transformation, from 27 men and seven women before the war to six men and 13 women in 1916 (HH30/12/2/18). Perhaps reflecting the demand for female staff in his firm, from 1916 to 1918 one of the partners of A & J Robertson delivered courses of lectures to women assistants employed in accountants' offices (*TAM*, 1916: 462; 1934: 548). The courses were offered under the auspices of the SAE during the autumn/winter of 1916/17, 1917/18 and 1918/19. The number of attendees was 69, 98 and 69 respectively (*TAM*, 1917: 283-5; 1918: 308-9; 1919: 308).

RESILIENCE

Despite the disruption caused by labour depletion during the war, the accounting profession revealed its ability to absorb the impacts of the disturbance and preserve its institutional structures and ideologies (Holling, 1973). Adaptive activities ensured that chartered accountancy firms in Edinburgh returned to a state of equilibrium soon after the war. Arguably, their experience and that of the profession more generally, resonates with those conceptualisations of resilience that extend beyond the ability to accommodate the effects of a shock to embrace the capacity to regenerate.

Indeed, many accounting historians concur that the First World War represented a period of occupational advancement. Stacey (1954: 90-8) argued that the war years witnessed the 'strengthening of the profession'. Matthews, Anderson and Edwards (1998: 152) speculated that the conflict marked the transition of accountancy from a semi to a full profession. The contribution made by the profession to the war effort was rewarded by an enhanced reputation with the state. The content of wartime legislation suggested that chartered and incorporated accountants were deemed by government to be deserving of certain privileges. During the war, accountancy was officially identified as a profession of 'national importance' and its practitioners were applauded for their contribution in the country's hour of need (Garrett, 1961: 103-10). Commentators have suggested that the post-war honours conferred on accountants who had served in government departments signified the rising social status of the profession (Parker, 1986: 62-3). Close links forged with government from 1914 to 1918 were to endure. Senior accountants were appointed to 'numerous government committees and commissions after the war' (Matthews et al, 1998: 154).

Structures

In Scotland, immediately after the Armistice in November 1918, while it was lamented that some would never return, CAs expressed the hope that their offices would soon be 'replenished' (*TAM*, 1918: 445). These expectations were tempered by concerns that the depletion crisis might endure. Uncertainty existed over the speed of demobilisation and it was feared that those whose training had been interrupted by military service might prefer to remain in the Army or leave accounting practice for an 'outdoor' vocation (*TAM*, 1918: 464). The prospect of the comparatively unexciting routine of office work, the need to resume study, and limited knowledge of work relating to costing and taxation (the importance of which had increased during

the war), were deemed disincentives to return (*TAM*, 1919: 9-19). In response, professional journals propagandised that excellent prospects awaited those who returned to their accountancy firms and resumed training: 'At no time were the services of qualified accountants so much required as at present. In the days of reconstruction we are convinced the services of the profession will be more than ever required' (*TAM*, 1918: 398; 1919: 313).

It soon became apparent that CA apprentices were 'anxious to make up for the time lost, and to study seriously for the examinations' rather than seek alternative career paths (1918: 398, 464). Indeed, after the professional examinations of June 1919 it was stated 'With the signing of the Armistice large numbers of students were released, and although these students had lost much from a practical point of view in training and experience, they returned nothing daunted and set to to prepare for their examinations' (*TAM*, 1919: 269). Efforts to secure the early demobilisation of accountants (aided by the state's increased recognition of the importance of accounting firms), combined with the granting of examination concessions, reduced period of indentures and special classes for those who had served in the military, helped expedite the replenishment of CA firms (*TAM*, 1919: 7, 9-19, 113-114, 127, 179-180). It was observed that the returning apprentice had a greater respect for office hierarchy and a new self-confidence. Those who had experienced military rank were incentivised to achieve positions of authority in their profession (*TAM*, 1919: 412-413).

The author of *A History of the Chartered Accountants of Scotland* (1954: 62) reflected that recovery from the 'upheaval' of war was swift:

The years immediately following the First World War were years of rapid expansion. Those whose professional training had been delayed by war service entered into indentures and inflated the number of new apprentices, which had fallen very low during the war. Special classes were held for men returning from service, examination concessions accelerated their qualification, and the number of members admitted each year was fully twice the pre-war figure.

This recovery was apparent from the trend in recruitment. The number of new apprenticeships registered by the SAE had been 178 in the pre-war years 1909-1913. The number fell to 107 in 1914-1918 but recovered to 447 in 1919-1923. The number of new members admitted during the same periods was 129, 63 and 171, respectively (*A History of the Chartered Accountants of Scotland*, 1954: 173-4). Shortly after the Armistice was signed the local professional journal (*TAM*, 1918: 446) reflected on the resilience of firms despite the disruptive impacts of the war: 'Had any one suggested four years ago that offices would be reduced to about one-fourth or one-fifth of their then present staff, and still be able to carry on, he would not have been believed; and yet in many cases this is just what has happened'.

The post-1918 genealogies of the CA firms analysed earlier, confirms their ability to absorb the disturbance. They all remained as going concerns after the conflict. Scott-Moncreiff, Thomson & Shiells (now Scott-Moncreiff) continues in practice, boasting of its longevity as the oldest accountancy firm in Scotland. It is a member of Moore Stephens UK and a constituent of the Moore Stephens International network of firms (Stewart, 1977: 169). Once its junior partner returned from war service at the

Ministries of Munitions and Food, Dingwall, Peden & Henderson continued to prosper. In 1940 it was stated that from its foundation in 1912 the 'partners soon built up a large business as accountants, and for more than a quarter of a century the name of Messrs Dingwall, Peden & Henderson has been well known, not only in Edinburgh but in many other parts of Scotland' (*TAM*, 1940: 271-2). The firm subsisted under the same name until 1969 when it amalgamated with W.P. & J.A. Scott and thereafter became Scott, Peden & Co. and subsequently Scott, Oswald and Co. Likewise, Barstow & Millar continued to advance after the war (*TAM*, 1929: 290-4; 1946: 378), eventually becoming the Edinburgh practice of Pannell Kerr Forster (subsequently PKF) (Habgood, 1994: 47).

The major Edinburgh firm A & J Robertson, continued to progress after 1918. In 1961 it merged with its next-door neighbour, Maxtone Grahame & Sime, which also experienced expansion in Edinburgh and Canada in the postwar years (*TAM*, 1940: 500-2). The resultant firm, Robertson & Maxtone Graham, became part of Thomson McLintock & Co in 1975, and subsequently KPMG (Habgood, 1994: 189; Stewart, 1977: 173). Similarly, Richard Brown & Co. continued to service its list of major audit clients after the war (*TAM*, 1940: 224; 1947: 477). The firm merged with Lindsay, Jamieson & Haldane in 1967 as Haldane, Brown & Co. This later became the Edinburgh practice of Arthur Young, subsequently Ernst & Young (Walker, 1993).

The senior partner of Romanes & Munro, Charles S. Romanes, continued his 'unceasing' attention to business until his death in 1922 and contributed to the firm's high reputation 'throughout Scotland' by that time (*TAM*, 1922: 579-80). In 1970 the firm entered into partnership with Harwood Banner & Co. In 1974 the latter became part of Deloitte & Co (Stewart, 1977: 172). C.E.W. Macpherson and Morrison also prospered after the war. Its senior partner was of sufficient status to be elected as President of the Society of Accountants in Edinburgh in 1925 (*TAM*, 1932: 6-7). The firm amalgamated with Messrs R. & E. Scott in 1938 (*TAM*, 1938: 256). In 1971 the successor practice became part of Thornton Baker & Co, and subsequently Grant Thornton (Habgood, 1994: 135).

Vulnerable smaller firms also proved resilient. Despite fearing that he would have no practice to return to H.S. Hope Gill, CA completed military service to find his firm intact. In 1938 he entered into a partnership, Dodds, Hope Gill & Cameron. The firm became Dodds & Cameron when Hope Gill died in 1950. Archibald Langwill continued as a sole practitioner after the war until he assumed his son as partner in 1922. The firm of A. & L.G. Langwill continued until the 1960s (*TAM*, 1928: 91-92). At Forbes Moncreiff and Douglas, John Forbes Moncreiff retired due to failing eyesight in the closing years of the war (*TAM*, 1927: 247-8). The firm continued under the stewardship of Mowbray Douglas who died in 1926 (*TAM*, 1926: 310-311). George Lisle & Son continued to practice at 5 North St David Street, Edinburgh until the death of the George Oldham Lisle in 1952. George Lisle died in 1940 (*TAM*, 1940: 83-4).

Histories of accounting firms beyond Edinburgh reveal similar resilience despite the disruption of the First World War. Commentators chart an increase in auditing, taxation and consultancy work in accounting firms after 1918 (Matthews et al, 1998: 145-51). The London-based firm Whinney, Smith & Whinney experienced a

substantial increase in fee income from 1919 to 1923 and addressed the immediate post-war shortage of senior staff by acquiring another practice (Jones, 1981: 140-5). Although Price Waterhouse had been 'Disrupted by the First World War, the firm made a rapid recovery, its fee income more than doubled, from £102,398 in 1918 to £207,970 in 1922; when expressed in real terms this was nearly a threefold rise'. Profits increased in real terms by 178% in the same period (Jones, 1995: 132). Fee income had been £69,927 in 1914 (real fee income in 1914 was £82,267) (ibid: 399). Thomson McLintock & Co.'s move to larger offices in London in 1918 was soon discovered to be insufficient for accommodating its expanding clientele, and in 1923 the firm moved again (Winsbury, 1977: 33-4). Deloitte & Co. addressed the shortage of qualified staff arising from the dearth of new entrants to the profession during the war by encouraging unqualified employees to pursue accountancy qualifications that did not require articled clerkship (*Deloitte & Co.*, 1958).

Ideologies

The male dominated institutions of the accountancy profession also proved resilient. The employment of women as substitute labour in accounting firms during the First World War and their admission to the profession shortly thereafter, is often portrayed as an instance of how disruptions may accelerate progressive responses to long-standing issues (Seeger et al, 2003: 6). Punctuated-equilibrium models of the history of gender stratification identify extended periods of stasis interrupted by the shock effects of economic crises and wars (Charles and Grusky, 2004: 138-40). Indeed, the First World War has been identified as a catalytic in the gender history of the UK accountancy profession. For decades women's claims to enter the profession had been met with male resistance of 'mountainous' proportions (Stacey, 1954: 95; Kirkham and Loft, 1993; Shackleton, 1999; Walker, 2011). But, having been 'taken on to the staff in every professional and business office' in wartime (*The History of the Institute*, 1966: 65) and having come to the rescue (Stacey, 1954: 93), women were rewarded by successive rule changes from 1918 that permitted their admission to the major accountancy organisations.

However, the discourses to which the trauma gave rise also revealed the resilience of the patriarchal ideologies that had stultified change in the past and were to frustrate progress in the future (Kirkham, 1992; Lehman, 1992; Shackleton, 1999). The evidence presented to military tribunals related above, often portrayed female labour in unflattering ways. Women audit clerks and assistants were constructed as substantially untrained, lacking in skill and requiring close supervision (HH30/32/1/11; HH30/2/6/56). The military tribunal case files relating to accounting firms, akin to corporate archives of the period, contain predominantly masculine voices. In common with practices in other white-collar sectors, women were represented as anonymised groups of transient substitutes, defined by their sex as opposed to the roles they performed (Durepos, McKinlay and Taylor, 2017). Consistent with contemporary opinion, women continued to be deemed only fit for routine work in accounting firms (*Accountant*, 23.10.1915).

Although they had entered accounting practices in large numbers during the war, the reserve army of female labour was quietly sent back to the home when soldier-accountants were demobilised. While apprentice CAs in Scotland returning from the front reputedly found the intrusion of lady assistants 'rather trying' (*TAM*, 1919: 413),

they represented no significant challenge to the hegemonic masculinity and homosociality of the accounting firm. During the war their presence in accounting firms had been discursively constructed as different and temporary (Kirkham and Loft, 1993). When hostilities ceased, while there were undoubtedly exceptions, accounting firms were more inclined to retain the services of typists, telephonists and secretaries than women who had been employed as audit clerks (Jones, 1981: 136; *A History of Cooper Brothers & Co*, 1954: 27). The classes for women assistants, which had commenced in Edinburgh in 1916, and had 'assumed such large dimensions' that a junior and a senior course had been instituted, were last offered in early 1919 (*TAM*, 1919: 307-8). At their cessation it was explained that 'as the Armistice had now been declared, the object for which the lectures had been given had been obtained, and accordingly no further lectures would be given' (ibid: 308).

Although the admission of women to the chartered accountancy profession in Scotland was enabled following the passing of the Sex Disqualification (Removal) Act, 1919, there was 'no great rush of new entrants' (*A History of the Chartered Accountants of Scotland*, 1954: 63). The statute had little impact on the recruitment of women into Edinburgh accounting firms. Only 2% of new apprentices registered by the SAE between 1920 and 1929 were female and these were concentrated in a small number of firms, often where the woman had a family connection (Shackleton, 1999). The first female entrant to the SAE, admitted in 1925, was no exception (*A History of the Chartered Accountants of Scotland*, 1954: 63). Patriarchal structures such as the marriage bar evidently proved resilient in the majority of firms during the interwar period. At Price Waterhouse, for example, a policy of not employing female audit clerks was only relaxed in 1940 when a new war-induced depletion crisis emerged (Jones, 1995: 115, 199-200).

CONCLUSIONS

While technological change features large in contemporary analyses of disturbances to professional fields (Christiansen, Wang and van Bever, 2013; Susskind and Susskind, 2015: 109-10; Hasselbach, 2016), there are numerous other sources of disruption. One of the most insidious of these is international military conflict. Consistent with Hasselbalch's (2016) exhortation to open the black box on how individual professionals comprehend and navigate through disruptive events, the current paper has sought to explore the responses of a distinctive professional community to a disturbance that threatened the stability and survival of practices. This crisis arose during what has been described as the first hyperstatic disaster of the modern era, the First World War. It is suggested that archival microanalysis, informed by a vulnerability-adaptation-resilience framework, provides compelling insights to responses to disruption.

The analysis of vulnerability suggests a number of factors that could impact on the susceptibility of professional service firms to the adverse impacts of the focal disturbance. Those firms that suffered high rates of staff depletion in the context of increasing workloads during wartime were especially vulnerable. Sole practitioners could foresee the demise of their practices. In larger firms, the loss of a key partner could disrupt the servicing of a client list. Those firms that were forced to operate with low-skilled staff and poorly qualified substitutes were concerned about their ability to service clientele. Firms that relied heavily on labour intensive work, such as

auditing, also struggled to cope. The demographics of age, mortality and morbidity could render small partnerships especially sensitive to the consequences of losing staff.

The study has revealed that firms and the professional organisations that represented their interests, responded with adaptive activities intended to moderate the harm caused by disruption. Activities that reduced the sensitivity of firms to the adverse impacts of staff depletion included making applications to military tribunals to retain essential staff. Such resistance to enlistment in order to protect the interests of practitioners was sometimes manifest in mobilising diverse grounds for appeal and this implied a looser adherence to contemporary notions of altruism and wartime patriotism.

A related adaptive activity was to seek government protection for the supply of labour to firms. This involved senior members of the professional organisation lobbying ministers and officials. Although this was a time of fervent nationalism, the focal organization was not averse to making strong representations to government in order to protect the interests of its members and their firms. Given the sensitivity surrounding wartime recruitment to the armed forces, it did so in ways that were described as 'quietist'. Behind the scenes 'understandings' were reached with officials. During the last year of the war special arrangements were put in place for accountants and their staffs and instructions were issued to recruiting authorities not to unduly interfere with them. A final adaptive activity was to employ women as substitute labour. Women entered CA firms in numbers that could significantly alter the gender composition of staffs. The professional organisation also made arrangements for the training of women assistants.

Such adaptability helped ensure the resilience of chartered accountancy firms. They successfully mobilised resources to counter the impacts of the source of organisational stress and returned to functioning in the altered, post-war, environment. All the firms analysed in this study appear to have survived the trauma of war without fundamental changes to their functions, structures or ideologies. There is evidence that not only did they successfully return to the pre-war state of equilibrium, they experienced rapid post-shock regeneration. Staffs returned to their offices relatively expeditiously, the recruitment of the next generation of professionals advanced rapidly, and the income of firms appears to have increased significantly. Furthermore, the patriarchal ideology of accountancy firms was restored after the dislocation, despite the wartime intrusion of female substitute labour and conceding the admission of women to the profession.

The focus in this paper on the temporal sequencing of vulnerability, adaptability and resilience, suggests the utility of historical analyses of disruption. Longitudinal analysis gives visibility to the complex duality of continuity and discontinuity both during and subsequent to disruptions in professional fields. Disruptive events may engender change of varying degrees - sometimes major, other times minor. The pace of professional change may be fast or slow (Hasselbalch, 2016). But it is also suggested that the fundamental structures and ideologies of the past may resurface in the wake of disturbance and endure beyond it.

The study has also illustrated that periods of trauma often give rise to discourses that reveal the operation of professional institutions. In relation to the accounting profession the crisis brought about by international conflict generated documentary traces that offer rare historical insights to the configuration of accounting firms and the values of those who populated them. Accordingly, the paper answers the call to restore firms to the history of the accounting profession (Cooper and Robson, 2009). It also reveals the diversity of organizational experiences that may surface when analyses extend beyond the conventional fixation with large firms led by practitioner elites. Small practices were especially sensitive to the disruptive effects of war. Such firms are equally deserving of a permanent place on the professions and organisations research agenda.

This study of disruption is also offered as an example of the utility of historical analysis for investigating professions and organization. Given the emphasis in the contemporary research agenda on exploring the present and the future of professions, it is easy to overlook the importance of understanding professional pasts. Indeed, the professional past cannot be decoupled from consideration of the professional future. As Abbott (1988: 319) observed in *The System of Professions*, 'Because people and groups construct their future by interpreting their causal environment, the very knowledge of the [professional] past itself shapes the future'. Abbott also alluded to the merits of focusing on the past relative to the present. In attempting to elucidate the operation of his 'system' Abbott concluded that the past was more knowable than the present, declaring 'I am much more confident about my interpretation of professionalism around 1900 than about my interpretation of professionalism now' (1988: 323).

Abbott's work offers a foremost illustration of the role of historical studies in the development of new theories of professionalization and professionalism. During the 1970s Larson (1977: 10) envisaged a major role for historians. He contended that 'A first step to render modern professions sociologically intelligible is to reflect on their historical origins'. In the decade that followed, researching professions emerged as something of 'a cottage industry for historians' (Freidson, 1994, p. 5). It was their resultant investigations of a range of occupational experiences that revealed the deficiencies of existing conceptualisations and theorisations of professions.

Historical studies have been elemental to charting and explaining the 'rise' of professionals in industrial and post-industrial society (Reader, 1966, Larson, 1977; Perkin, 1989). They have illuminated the 'conditions for professionalism' (Johnson, 1972: 52), the trajectories of professionalization projects and the resources deployed to ensure their success (Macdonald, 1995: 51). Historical analyses have rendered visible the emergence of new professions (McKenna, 2010). They have the potential to further reveal shifts in professional fields, work, knowledge, status, identity, institutions and ideologies, as well as identifying professionals as products of, and agents in, processes of economic and social transformation.

In their articulation of the mission of the *Journal of Professions and Organization*, Brock, Leblebici and Muzio (2014) encouraged research in a number of areas. These concerned investigations of organizational models and structures, micro-organizational issues, diversity and inclusion, emerging professions and new models of professionalization, and the social role and impact of professions and professional

organisations. It is contended here that there is considerable scope for historical investigations of these themes. Moreover, the historian's concern with continuity and change, causation and context are evident in the articulation of this mission. Historians have a key role to play in its realisation.

REFERENCES

Manuscripts

National Archives, Kew:

- NATS 1/477. Release from Colours of Accountants: Letter to Lord Derby, 1917-1918.
NATS 1/992. Protection of Accountants in Scotland. General File, 1918.
NATS 1/1197. Accountants. Position of Under Certified Occupations Order, 1918-1920.
NATS 1/1198 Professional Accountants and Their Skilled Clerks. Proposed Advisory Committee, 1918-1920.

National Records of Scotland, Edinburgh:

- GD470/1/3. Society of Accountants in Edinburgh. Council Minute Book, 1903-1921.
GD470/1/16. Society of Accountants in Edinburgh. Minute Book of General Meetings, 1916-1946.
GD470/5/1. Joint Committee of Councils Minute Book, 1915-1924.

First World War: Recruiting and Substitutionary Labour:

- HH31/27/19. Correspondence relating to proposal to release certain chartered accountants' clerks from enlistment, 1916.
HH31/27/20. Correspondence relating to the case of an accountant in Dumfries, 1916.
HH31/27/21. Second Report of the Scottish Committee on Substitutionary Labour During the War (Clerical and Commercial), 1915.
HH31/27/24. Memorandum from the Scottish Committee on Substitutionary Labour During the War (Clerical and Commercial), 1916.
HH31/27/37. Complaint from the Secretary of the Society of Accountants in Edinburgh, 1916.

Military Service Appeal Tribunal Records (Lothian and Peebles):

- HH30/2/6/50. George Oldham Lisle
HH30/2/6/56. William Booth Beattie
HH30/7/8/8. Donald McNicol
HH30/5/3/12. Gregory M. Garvie
HH30/9/3/28. John Moodie Wallace
HH30/9/3/29. William Easton Ritchie
HH30/12/2/3. John Alfred Fenton
HH30/12/2/18. Alexander Weir Robertson Durham
HH30/12/3/32. Adam George Murray
HH30/12/4/4. Allan Scott Lawrie
HH30/12/6/32. Allan Scott Lawrie
HH30/12/6/36. Thomas Gibson Anderson
HH30/15/1/101. William Strang Thomson
HH30/15/3/10. James Samuel McLaughlin

HH30/27/4/28. Arthur Kenward Shiells
HH30/32/1/11. William McIntosh
HH30/35/75. John Alexander Innes
HH30/36. Derby Register: City of Edinburgh Local Tribunal, 1916.

Other sources

Abbott, A. (1988) *The System of Professions. An Essay on the Division of Expert Labor*. Chicago: Chicago University Press.

The Accountant.

The Accountants' Magazine (TAM).

Adger, W.N. (2000) 'Social and Ecological Resilience: Are they Related?'. *Progress in Human Geography* 24 (3): 347-64.

Adger, W.N. (2006) 'Vulnerability'. *Global Environmental Change*, 16 (3): 268-81.

Bankoff, G. (2004) 'Time is of the Essence: Disasters, Vulnerability and History'. *International Journal of Mass Emergencies and Disasters*, 22 (3): 23-42.

Barkun, M. (1977) 'Disaster in History'. *Mass Emergencies*, 2: 219-31.

Barton, L. (2001) *Crisis in Organizations: Managing and Communicating in the Heart of Chaos*. Cincinnati: South-Western Cengage Learning.

Beckett, I.F.W. (2007) *Riflemen Form: A Study of the Rifle Volunteer Movement 1859-1908*. Barnsley: Pen & Sword Military.

Bhamra, R., Dani, S. and Burnard, K. (2011) 'Resilience: the Concept, a Literature Review and Future Directions'. *International Journal of Production Research* 49 (18), 5375-93.

Birkmann, J. (2012) 'Measuring Vulnerability to Promote Disaster-resilient Societies: Conceptual Frameworks and Definitions'. In J. Birkmann (ed), *Measuring Vulnerability to Natural Hazards*. Tokyo: United Nations University Press, 9-54.

Bogart, E.L. (1919) *Direct and Indirect Costs of the Great War*. New York: Oxford University Press.

Boyns, T. (2017) 'The Impact of the First World War on British and French Management Thought and Practice', in A. Smith, S. Mollan and K. Tennent (eds), *The Impact of the First World War on International Business*. London: Routledge, 244-64.

Boyns, T. and Edwards, J.R. (2013) *A History of Management Accounting. The British Experience*. London: Routledge.

- Britton, N.R. (1988) 'Organized Behaviour in Disaster: A Review Essay', *International Journal of Mass Emergencies and Disasters*, 6 (3): 363-95.
- Brock, D.M., Leblebici, H. and Muzio, D. (2014) 'Understanding professionals and their workplaces: The mission of the *Journal of Professions and Organization*', 1 (1): 1-15.
- Brown, R. (ed) (1905) *A History of Accounting and Accountants*. Edinburgh: T.C. and E.C. Jack.
- Charles, M. and Grusky, D.B. (2004) *Occupational Ghettos*. Stanford: Stanford University Press.
- Christensen, C., Wang, D. and van Bever, D. (2013) 'Consulting on the Cusp of Disruption', *Harvard Business Review*, 91 (10), 106-14.
- Coombs, W.T. (2015) *Ongoing Crisis Communication: Planning, Managing and Responding*. London: Sage.
- Cooper, D.J. and Robson, K. (2006) 'Accounting Professions and Regulation: Locating the Sites of Professionalization', *Accounting, Organizations and Society*, 31 (4/5): 415-44.
- Cooper, D.J. and Robson, K. (2009) 'Practitioners, Work and Firms', in J.R. Edwards, J.R. and Walker, S.P. (eds). *The Routledge Companion to Accounting History*. Abingdon: Routledge, 274-96.
- Curtis, D.R. (2014) *Coping with Crisis: The Resilience and Vulnerability of Pre-industrial Settlements*. Farnham: Ashgate.
- Deloitte & Co. 1845-1956* (1958) Oxford: Oxford University Press.
- Durepos, G., McKinlay, A. and Taylor, S. (2017). 'Narrating Histories of Women at Work: Archives, Stories, and the Promise of Feminism', *Business History*, 59 (8): 1261-79.
- Engle, N.L. (2011) 'Adaptive Capacity and its Assessment', *Global Environmental Change*, 21: 647-56.
- Fischer, M.D. (2012) 'Organizational Turbulence, Trouble and Trauma: Theorizing the Collapse of a Mental Health Setting', *Organization Studies*, 33 (9): 1153-73.
- Flesher, D.L. and Previts, G.J. (2014) 'Haskins & Sells During the First World War and its Aftermath', *Accounting History Review*, 24 (2-3): 211-25.
- Freidson, E. (1994) *Professionalism Reborn. Theory, Prophecy and Policy*. Cambridge: Polity Press.
- Gallopin, G.C. (2006) 'Linkages Between Vulnerability, Resilience, and Adaptive Capacity'. *Global Environmental Change*, 16 (3): 293-303.

- Garrett, A.A. (1961) *History of the Society of Incorporated Accountants, 1885-1957*. Oxford: University Press.
- Gregory, A. (2003) 'Military Service Tribunals: Civil Society in Action, 1916-1918', in Harris, J. (ed) *Civil Society in British History: Ideas, Identities, Institutions*. Oxford: Oxford University Press, 177-90.
- Grievess, K. (1988) *The Politics of Manpower, 1914-18*. Manchester: Manchester University Press.
- Gundel, S. (2005) 'Towards a New Typology of Crises'. *Journal of Contingencies and Crisis Management* 13 (3): 106-15.
- Habermas, J. (1976) *Legitimation Crisis*. London: Heinemann Educational Books.
- Habgood, W. (ed), (1994) *Chartered Accountants in England and Wales. A Guide to Historical Records*. Manchester: Manchester University Press.
- Han, Z. and Zhang, Q. (2013) 'Disruption of Organizations', in Penuel, K.B., Statler, M. and Hagen, R. (eds). *Encyclopedia of Crisis Management*. Thousand Oaks: Sage, 293-4.
- Hasselbalch, J. (2016) 'Professional Disruption in Health Regulation: Electronic Cigarettes in the European Union', *Journal of Professions and Organization*, 3 (1): 62-85.
- Herbane, B. (2010) 'The Evolution of Business Continuity Management: A Historical Review of Practices and Drivers', *Business History*, 52 (6): 978-1002.
- Hermann, C.F. (1963) 'Some Consequences of Crisis which Limit the Viability of Organizations'. *Administrative Science Quarterly*, 8 (1): 61-82.
- Hinkel, J. (2011) 'Indicators of Vulnerability and Adaptive Capacity: Towards a Clarification of the Science-policy Interface'. *Global Environmental Change*, 21: 198-208.
- Hirst, F.W. (1934) *The Consequences of the War to Great Britain*. London: Oxford University Press.
- A History of Cooper Brothers & Co, 1854-1954* (1954). London: B.T. Batsford.
- A History of the Chartered Accountants of Scotland from the Earliest Times to 1954*. (1954) Edinburgh: ICAS.
- Hobsbawm, E. (1994) *Age of Extremes. The Short Twentieth Century 1914-1991*. London: Michael Joseph.
- Hobsbawm, E. (1998) *On History*. London: Abacus.

Holling, C.S. (1973). 'Resilience and Stability of Ecological Systems'. *Annual Review of Ecology and Systematics*, 4: 1-23.

Hwang, P. and Lichtenthal, J.D. (2000) 'Anatomy of Organizational Crisis', *Journal of Contingencies and Crisis Management*, 8 (3): 129-39.

The Incorporated Accountants' Journal.

Johnson, T.J. (1972) *Professions and Power*. London: Macmillan.

Jones, E. (1981) *Accountancy and the British Economy 1840-1980. The Evolution of Ernst & Whinney*. London: B.T. Batsford Ltd.

Jones, E. (1995) *True and Fair. A History of Price Waterhouse*. London: Hamish Hamilton.

Kedslie, M.J.M. (1990) *Firm Foundations: The Development of Professional Accounting in Scotland 1850-1900*. Hull: Hull University Press.

Kelman, I., Gaillard, J.C., Lewis, J. & Mercer, J. (2016) 'Learning from the History of Disaster Vulnerability and Resilience Research and Practice for Climate Change', *Natural Hazards*, 82 (S1): S129-S143.

Kenefick, W. (2014) 'War Resisters and Anti-conscription in Scotland: an ILP Perspective', in MacDonald, C.M.M. and McFarland, E.W. (eds) *Scotland and the Great War*. Edinburgh: John Donald, 59-80.

Kirkham, L.M. (1992) 'Integrating Herstory and History in Accountancy', *Accounting, Organizations and Society*, 17 (3/4): 287-97.

Kirkham, L. and Loft, A. (1993) 'Gender and the Construction of the Professional Accountant', *Accounting, Organizations and Society*, 18 (6): 507-58.

Larson, M.S. (1977) *The Rise of Professionalism. A Sociological Analysis*. Berkeley: University of California Press.

Lee, C.H. (2014) 'The Scottish Economy and the First World War', in C.M.M. MacDonald and E.W. McFarland (eds), *Scotland and the Great War*. Edinburgh: John Donald, 11-35.

Lee, T.A. (1996) 'Richard Brown-Chartered Accountant and Christian Gentleman', in T.A. Lee (ed), *Shaping the Accountancy Profession. The Story of Three Scottish Pioneers*. New York: Garland Publishing, Inc., 153-221.

Lee, T.A. (1997) 'The Influence of Scottish Accountants in the United States: The Early Case of the Society of Accountants in Edinburgh', *Accounting Historians Journal*, 24: 117-41.

Lee, T.A. (2000) 'A Social Network Analysis of the Founders of Institutionalized Public Accountancy', *Accounting Historians Journal*, 27: 1-48.

- Lee, T.A. (2006) *Seekers of Truth: The Scottish Founders of Modern Public Accountancy*. Oxford: JAI.
- Lee, T.A. (2010) 'Social Closure and the Incorporation of the Society of Accountants in Edinburgh in 1854', *Accounting, Business & Financial History*, 20 (1): 1-22.
- Lehman, C.R. (1992) "'Herstory' in Accounting: The First Eighty Years', *Accounting, Organizations and Society*, 17 (3/4): 261-85.
- Leicht, K. (2016). 'Market Fundamentalism, Cultural Fragmentation, Post-modern Scepticism, and the Future of Professional Work', *Journal of Professions and Organization*, 3: 103-17.
- 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): 137-69.
- 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 the First World War*. London: CIMA.
- Macdonald, K.M. (1984) 'Professional Formation: The Case of Scottish Accountants', *British Journal of Sociology*, 35 (2): 174-89.
- Macdonald, K.M. (1995) *The Sociology of the Professions*. London: Sage.
- Maclean, M., Harvey, C. and Clegg, S.R. (2016) 'Conceptualizing Historical Organization Studies', *Academy of Management Review*, 41 (4): 609-32.
- Marwick, A. (2006) *The Deluge*. Basingstoke: Palgrave Macmillan.
- Matthews, D., Anderson, M. and Edwards, J.R. (1998) *The Priesthood of Industry. The Rise of the Professional Accountant in British Management*. Oxford: Oxford University Press.
- McDermott, J. (1989) "'A Needles Sacrifice': British Businessmen and Business as Usual in the First World War", *Albion*, 21 (2): 263-282.
- McDermott, J. (2011) *British Military Service Tribunals 1916-1918*. Manchester: Manchester University Press.
- McKenna, C.D. (2010) *The World's Newest Profession. Consulting in the Twentieth Century*. Cambridge: Cambridge University Press.
- Meyers, G.C. (1986) *When it Hits the Fan. Managing the Nine Crises of Business*. New York: Mentor.
- Milward, A.S. (1970) *The Economic Effects of the World Wars on Britain*. London: Palgrave Macmillan.

- Mitroff, I.I., Pauchant, T.C. and Shrivastava, P. (1988) 'The Structure of Man-made Organizational Crises. Conceptual and Empirical Issues in the Development of a General Theory of Crisis Management', *Technological Forecasting and Social Change*, 33: 83-107.
- Mollan, S. and Tennent, K.D. (2015) 'International Taxation and Corporate Strategy: Evidence from British Overseas Business, circa 1900-1965', *Business History*, 57 (7), 1-28.
- Muzio, D., Brock, D.M. and Suddaby, R. (2013) 'Professions and Institutional Change: Towards an Institutional Sociology of the Professions', *Journal of Management Studies*, 50 (5): 699-721.
- Norris, F.H., Stevens, S.P., Pfefferbaum, B., Wyche, K.F. & Pfefferbaum, R.I. (2008) 'Community Resilience as a Metaphor, Theory, Set of Capabilities, and Strategy for Disaster Readiness', *American Journal of Community Psychology*, 41 (1-2), 127-50.
- Parker, R.H. (1986) *The Development of the Accountancy Profession in Britain to the Early Twentieth Century*. Academy of Accounting Historians, Monograph Five.
- Perkin, H. (1989) *The Rise of Professional Society. England since 1880*. London: Routledge.
- Ramirez, C., Stringfellow, L. and Maclean, M. (2015) 'Beyond Segments in Movement: A 'Small' Agenda for Research in the Professions', *Accounting, Auditing & Accountability Journal*, 28 (8): 1341-72.
- Reader, W.J. (1966) *Professional Men: The Rise of the Professional Classes in Nineteenth Century England*. London: Weidenfeld & Nicolson.
- Seeger, M.W., Sellnow, T.L. and Ulmer, R.R. (2003) *Communication and Organizational Crisis*. Westport: Praeger.
- Shackleton, K. (1999) 'Gender Segregation in Scottish Chartered Accountancy: The Deployment of Male Concerns about the Admission of Women, 1900-1925', *Accounting, Business & Financial History*, 9 (1): 135-56.
- Simkins, P. (1988) *Kitchener's Army: The Raising of the New Armies, 1914-16*. Manchester: Manchester University Press.
- Spence, C., Vulgaris, G. and Maclean, M. (2017) 'Politics and the Professions in a Time of Crisis', *Journal of Professions and Organization*, 4 (3): 261-81.
- Stacey, N.A.H. (1954) *English Accountancy, 1800-1954. A Study in Social and Economic History*. London: Gee and Company.
- Stevenson, D. (2012). *1914-1918. The History of the First World War*. London: Penguin Books.

- Stewart, J.C. (1977) *Pioneers of a Profession: Chartered Accountants to 1879*, Edinburgh: ICAS.
- Supple, B. (2014) 'War Economies', in J. Winter (ed), *The Cambridge History of the First World War. Volume II: The State*. Cambridge: Cambridge University Press, 295-324.
- Susskind, R. and Susskind, D. (2015) *The Future of the Professions. How Technology will Transform the Work of Human Experts*. Oxford: Oxford University Press.
- The History of the Institute of Chartered Accountants in England and Wales 1870-1965* (1966) London: Heinemann.
- Vollmer, H. (2013) *The Sociology of Disruption, Disaster and Social Change. Punctuated Cooperation*. Cambridge: Cambridge University Press.
- Walker, B., Holling, C.S., Carpenter, S.R. and Kinzig, A. (2004) 'Resilience, Adaptability and Transformability in Socio-ecological Systems', *Ecology & Society*, 9 (2): 5 (online).
- Walker, S.P. (1988) *The Society of Accountants in Edinburgh 1854-1914. A Study of Recruitment to a New Profession*. New York: Garland.
- Walker, S.P. (1991) 'The Defence of Professional Monopoly: Scottish Chartered Accountants and 'Satellites in the Accountancy Firmament'', *Accounting, Organizations and Society*, 16 (3): 257-83.
- Walker, S.P. (1993) 'Anatomy of a Scottish CA Practice: Lindsay, Jamieson & Haldane 1818-1918'. *Accounting, Business & Financial History*, 3 (2): 127-54.
- Walker, S.P. (1995) 'The Genesis of Professional Organization in Scotland: A Contextual Analysis', *Accounting, Organizations and Society*, 20 (4): 285-310.
- Walker, S.P. (2000) 'Editorial', *Accounting in Crises*, *Accounting History*, 5 (2): 5-12.
- Walker, S.P. (2003) 'Agents of Dispossession and Acculturation. Edinburgh Accountants and the Highland Clearances', *Critical Perspective on Accounting*, 14 (8): 813-53.
- Walker, S.P. (2008) 'The Accountancy Profession in Scotland', in Mulhern, M.A. Beech, J. and Thompson, E. (eds) *Scottish Life and Society: The Working Life of the Scots, Volume 7*. Edinburgh: John Donald, 280-99.
- Walker, S.P. (2011) 'Professions and Patriarchy Revisited. Accountancy in England and Wales, 1887-1914', *Accounting History Review*, 21 (2): 185-225.
- Walker, S.P. (2017) 'Accountants and the Pursuit of the National Interest: A Study of Role Conflict During the First World War. *Critical Perspectives on Accounting*, 47: 8-25.

Winsbury, R. (1977) *Thomson McLintock & Co – The First Hundred Years*. London: Seeley, Service & Co.

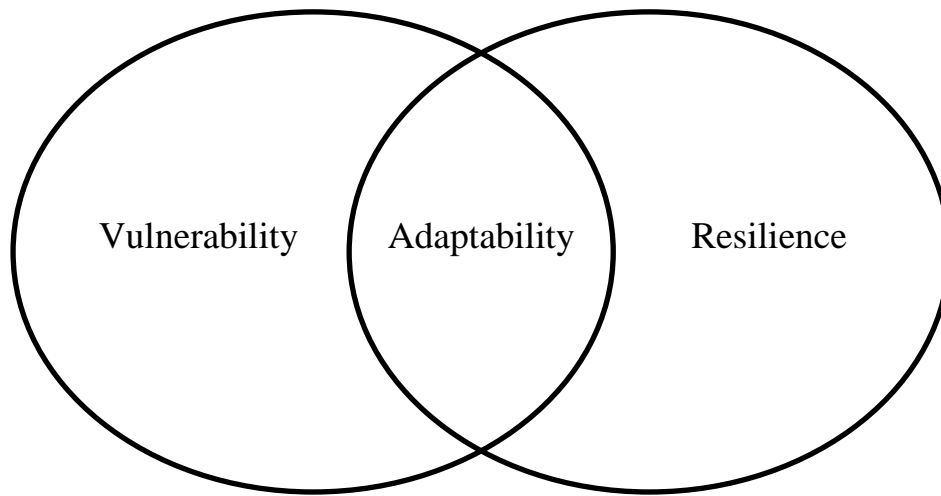
Winter, J.M. (2003) *The Great War and the British People*. Basingstoke: Palgrave Macmillan.

Wise, T.A. (1982) *Peat, Marwick, Mitchell & Co. 85 Years*. Peat, Marwick, Mitchell & Co., privately.

Wisner, B. (2016) 'Vulnerability as Concept, Model, Metric, and Tool', in Cutter, S. (ed) *Oxford Research Encyclopedia of Natural Hazard Science*. New York: Oxford University Press.

Witz, A. (1992) *Professions and Patriarchy*. London: Routledge.

Figure 1. The Interlinked Concepts of Vulnerability, Adaptability and Resilience



Adapted from Engle (2011).