Seeing the Moat: Why Accountants Need to Recognize the Value of Corporate Archives

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Abstract

We highlight the role of privately held corporate archive collections as strategic assets and examine possible approaches to reflect their value as such in corporate financial statements. To do this we propose a valuation and disclosure conceptual framework based on assets specificity and the probability of future benefit. We examine the framework by conducting an analysis of the Barclays Group Archive, demonstrating that the strategic use of the archive implies value relevant accounting responses. In doing so we set out circumstances in which corporate archives might be better accommodated by accountants and accounting standard setters, with implications for the treatment of intangible assets more generally.

1. Introduction

The paper investigates the question of how corporate archives might be valuable, and how such value might be reflected in the financial statements of corporations. Archives currently form part of the much larger category of *heritage assets*, a catch-all term that is defined by Financial Reporting Standard (FRS)30 (ASB, 2009, p.5) as an artefact with "historical, artistic, scientific, technological, geophysical or environmental qualities that is held and maintained principally for its contribution to *knowledge* and *culture*". Classification as such is the sum of the guidance offered by the Standard for the treatment of archives, which is thus governed by principles articulated for heritage assets more generally. Heritage assets, including archives, may perhaps have public good characteristics that drive societal value, which receive attention in the Standard, but defining corporate archives as mere heritage

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assets obscures their strategic value to private-sector corporationss. Indeed our argument that corporate archives are a source of competitive advantage for firms illustrates that they are fundamentally different from the public-sector archives other heritage assets that were apparently envisioned by the creators of the Standard.

Our term *corporate archive* requires definition. An archive is a collection of documents that have been selected for perpetual preparation according to pre-established criteria. The task of an organization's archive thus differs from that of its record management service, which preserves and manages a wide range of documents that are in current use, most of which will be regarded as being to ephemeral in value to warrant permanent preservation in an archive (Wiltshire, 2017). The specialized professionals who work in the archives are *archivists*. Although archivists are not a self-regulating profession similar to accountants or medical doctors, the archivist community meets all of the criteria of a profession: it has a strong sense of identity, a recognized system of training in universities, scholarly and practitioner journals, and national and global representative bodies (Cappon, 1952; Cox, 1986). The Section on Business Archives (SBA) within the International Council of Archives has, since 1990, been generally regarded as the representative body for the world's corporate archivists (Deserno, 2009).

Many archives are in the public sector and are tasked with preserving the records of government departments and political leaders, an activity that is best conceptualized as a public good (Wilson, 1973). Corporate archives, in contrast, are owned and maintained by profit-seeking corporations and are generally located on company property, often inside the firm's headquarters building. Firms in many industries and countries have corporate archives, although not all companies have decided to create internal archive (Bakken, 1982; Bieri, 2014). Corporate archives are heterogeneous in their financial resources, collection mandates,

and reporting relationship to top management teams, but they all exist because of the belief they somehow contribute to the firm's bottom line (Strickland, 2017; Turton, 2017).

To support our argument that corporate archives are strategic assets, the paper brings together literatures that suggest intangibles are significant source of competitive advantage (Pastor *et al.*, 2017, p.388) with the often more sceptical position of the accounting literature on the questions of their valuation and capitalisation (Wallman, 1996; Lev *et al.*, 2005; Powell, 2003; Skinner, 2008) and accounting standards. These literatures are in contradiction, since by definition uniqueness leads to competitive advantage, superior profits and higher value on the one hand, but the greater the uniqueness the greater the problem of accurate valuation with reference to comparative data on the other. In this paper, we argue that corporate archives, which are a neglected class of intangible asset in the wider literature, offer some insights into how this underlying contradiction might be resolved. We explain the circumstances under which corporate archives might be assigned value and/or disclosed in the financial statements. We argue that like a castle moat, archives may be a component of overall value, by analogy, as a feature of the building, or separately, as a specific defensive characteristic.

In the sections that follow, we begin with a detailed review of the accounting literature, revealing the contradictory motives for inclusion and exclusion of corporate archives in balance sheets and financial statements. We then supplement the literature by considering research that has successfully highlighted circumstances where corporate archives might drive competitive advantage and business value. Recognising the corresponding pressures of conservatism towards intangible asset value from the accounting profession, we propose a new theoretical model that signposts alternative accounting treatments according to the archive content and its relationship to the future cash flows of the

business. The model is illustrated using a case study of how a major bank has applied its corporate archive to assist with significant, often value relevant, business decisions. A final section draws conclusions on the possible accounting treatment of corporate archives and the wider significance of our approach for valuing intangibles more generally.

2. Accounting and strategic approaches to valuing corporate archives

The accounting profession has attracted significant criticism for its failure to promote techniques recognising the value of intangibles (Haskel and Westlake, 2017, p.5), in the light of a wider literature that promotes knowledge and knowledge assets as a significant form of competitive advantage, superior profits and hence asset value (Grant, 1996; Teece, 1998, Galliers and Leidner, 2014), and where written codification may facilitate value creation and retention (Cattani et al., 2013, p.814). Heritage assets, and their valuation, suffer from the more general problems of all intangible assets associated with variability, non-specificity and imprecision of future benefits. The consequential prescriptions of accounting regulatory bodies to exclude such assets, notwithstanding their commonly understood importance for investor decision making, has resulted in sustained calls for non-financial voluntary disclosures (United Nations Global Compact - Accenture, 2014; Castilla-Polo and Gallardo-Vazquez, 2016). Research into the effects of excluding intangibles has produced mixed evidence about whether there are negative consequences for investor behaviour (Cañibano et al., 2000; Lev 2001; Meritum, 2001) or whether additional disclosure and asset recognition are unlikely to improve capital market performance (Skinner, 2008), suggesting the value of further research into specific categories of knowledge asset.

As a special class of intangible asset, of potential value to a broader group of stakeholders, there has also been some debate about whether or not heritage assets should be included in financial statements. Mostly the focus has been on assets held by public sector

organisations, where the definition of an asset has been modified to include service potential as well as, or instead of, cash flows (ASB, 2007, para. 4.10, and adopted in FRS30, ASB, 2009, p.11). At the same time, public sector organisations have been increasingly subject to private sector style accounting. In line with this approach, recognition of heritage assets might promote managerial efficiency and accountability (Micallef anod Peirson, 1997). However, where the assets in question have public good characteristics (Barton, 2000; Barton, 2005), there are obvious limitations on the transferability of private sector methods (Burritt et al. 1996; Ellwood and Greenwood, 2016). Like the ASB (2007, 2009) prescription, justifications for inclusion of heritage assets on public sector balance sheets include their non-monetary, cultural and community value (Pallot, 1990; Ferri and Zan, 2014).

Even in public sector contexts, the inclusion of archival collections in balance sheets is unlikely. Carnegie and Wolnizer (1995) caution against the recognition of cultural, heritage, scientific and community collections as financial assets on the grounds that they do not conform to standard definitions of assets, there is no demand from end users and the costs of providing the information may be prohibitive. Such concerns are echoed by practitioners and by standard setters. In the example provided in FRS30, such a treatment is adopted for "a collection of around 25,000 documents representing the business records of the Stoneworth company", (ASB, 2009, p.41) which, in line with the standard, is disclosed as a note to the accounts, because it falls into the category of asset which, in the opinion of the Trustees, could only be valued at disproportionate cost. It should also be noted that this example concerns a set of private business records that now form part of a publicly held collection of heritage assets.

Whereas this literature provides guidance for public sector organisations, and points towards their inclusion in defined circumstances, a neglected consideration is how private sector firms might account for their own holdings of heritage assets. Some guidance can be

found in FRS30, which supports the extended definition of tangible fixed assets to include heritage assets with public good characteristics, regardless of the organisational context (ASB, 2009, p.5). The case of a private archive held by a private sector company has not been considered in the Standard, and perhaps as a consequence, has not received any direct attention in the wider literature. At first this may seem as expected; if such records are marginalised in the public sector context, then marginalisation is all the more likely in the private sector. Bearing in mind the stipulations of FRS30, it should come as no surprise that archival records held by private sector organisations might be typically excluded from company balance sheets. Moreover, as public sector organisations face pressures to include assets of wider cultural significance, private sector firms may face different pressures, sometimes pushing in the opposite direction. According to the Standard, where there is no reliable information on the cost or value, or such information can only be obtained at significant cost, there is no requirement to recognise an asset in the balance sheet (ASB, 2009, p.20). Such a provision can be used by private sector firms to exclude assets that might have been included in a public sector context on the grounds of service benefit. Even so, the motivations for disclosure by private sector firms are different, and are substantially informed, and in some circumstances incentivised, by the relationship between the value of heritage assets and business strategy. It is the purpose of the paper to investigate this hitherto unexplored relationship.

By definition, private sector firms do not face the same pressures to account for assets that they may hold and which have public good characteristics. On the contrary, if a privately held heritage asset does not generate future cash flows, it fails the definition of an asset and can be excluded. Where the asset does have significant value in terms of future cash flows, even then, under competitive market conditions there may be incentives for exclusion from the financial statements, for example where the associated information is proprietary

(Verrecchia, 1983, Dye, 1985). Such information is defined as any information whose disclosure potentially alters a firm's future earnings. An example might include the generation of commercially valuable knowledge that is hoarded within an organization (e.g., the trade secret formula for Coca-Cola). Such archives might also include scientific or artistic insights that are valuable to the wider public and which might constitute non-proprietary information. Archives store both of these types of knowledge, which is one of the reasons why the staff who work within corporate archives carefully select which documents will be made available to academics and other outside researchers (Business Archives Council, 2009; Popp and Fellman, 2016; Strickland, 2017). Such decisions, which also imply willingness or otherwise to make public disclosures of the content of the archive will in part be governed by the proprietary nature of the information and competitive conditions.

In summary, the literature suggests that where private sector firms are in possession of archives of value, they may face significant disincentives for asset recognition and disclosure. Where the value is significant and strategic, the barrier may be the proprietary nature of the information. Where the archive is of significant value, but to wider stakeholders rather than investors, the costs of valuation and disclosure may be a further deterrent. The question, then, of when there may be positive incentives to value and disclose corporate archives is therefore a useful one for purpose of further interrogation and potential questioning of this literature.

A useful starting point is adjacent literature that identifies circumstances where corporate archives may be of significant value in their own right. Narratives, as embedded in and nurtured by corporate archives, may promote competitive advantage, and hence firm value. Management research has demonstrated that the production of credible historical narratives can be extremely important to a wide range of firms, as such narratives can allow managers to persuade other internal stakeholders and thereby achieve obtain a competitive advantage (Suddaby *et al.* 2010; Foster *et al.*, 2011; Maclean *et al.*, 2014; Ybema, 2014;

Rowlinson *et al.*, 2014; Foster and Lamertz, 2017). Contexts for research of this kind include French aerospace firms (Anteby and Molnár, 2012), the US consumer products giant P&G (Maclean *et al.*, 2014), and Colt, a US firearms manufacturer (Poor *et al.*, 2016).

In addition to examinations of how firms use rhetorical history in their internal communications with their workers, another stream of literature focuses on the use of history in communication with the general public (for example, Balmer and Burghausen, 2015). Miller et al., (2017) demonstrate the important role of corporate archives in sustaining history-themed advertising. They discuss how Canadian Tire, a retailer founded in Toronto in 1922, uses historical artefacts and images extensively in its communication with workers, consumers, and investors. A range of historic texts and images played an important part of the firm's 2012 celebrations of its 90th anniversary, allowing the firm to use heritage to stress its Canadian identity, thereby securing the loyalty of consumers after Wal-Mart, a formidably competitive American retailer, moved into the Canadian market in the 1990s. They note that the firm's heritage activities are supported by the Canadian Tire Heritage Collection, an "extensive archive and collection of artefacts" that constitutes an invaluable resource for this firm (Miller et al., 2017, 249). In similar vein, Smith and Simeone (2017) discuss the role of corporate archives advancing a new model for understanding when, why, and how firms use history. They argue that a firm's use of history is more likely to be strategically efficacious (i.e., create competitive advantage) if the historical narratives produced by the firm are aligned with the historical culture of the wider society in which the firm is embedded. In part, this means that the creators of the historical narratives used by firms need to be aware of the evidentiary standards that are part of the historical culture in which they operate. Not all historical cultures expect historical narratives to be based on primary sources created at the time of the events described. However, in Westernized cultures in which the credibility of

historical narratives is partly a function of the citation of primary sources, investments in the creation of internal corporate archives will be worthwhile.

The take-home lesson accountants can derive from the management research papers discussed above is that the adroit use of historical materials in corporate archives can help firms to attain a competitive advantage. In other words, these materials create sustainable streams of abnormal returns, justifying their value as intangible assets. Moreover, as the discussion of literature above makes clear, there is a high degree of asset specificity in the materials that enable firms to use history: in creating useful historical narratives about their past, firms draw on a very specific range of archival documents, namely, documents created by the firm and stored in the firm's archive. For instance, when Canadian Tire celebrated its 90th anniversary with documents, images, and artefacts from its founding period, it used Canadian Tire materials rather than more generic materials from the same historical period (Miller *et al.*, 2017). The management research therefore suggests that corporate archives are a resource that conforms to the resource-based view of being are valuable, rare, inimitable and non-substitutable (Barney, 1986).

Broadly similar conclusions about the value of corporate archives can be taken from the parallel body of research by academics in the field of archival science. Archival science, which is sometimes known as archival studies, is a well-established discipline that is based in the university departments that train future archivists who are studying for postgraduate degrees in Library and Information Science and in Archives Studies (McKemmish and Piggott, 2013). Debate in the field of archival science about the commercial value of business archives began in 1981, when two seminal articles on the utility of having a corporate archive were published. Levy (1981) asserted the value of in-house corporate archives as a key decision resource for executives. Smith and Steadman (1981) discussed the role of archives in supporting a range of corporate activities that included marketing, the creation of

organizational identity, and the making of strategic decisions. Bakken (1982, p.279) expressed scepticism about Levy's claim that archive's value to firms lay mainly in its role in providing historical information to key decision-makers, suggesting instead that the main value of corporate archives was in supporting "marketing programs, facilitating trademark protections, and documenting employee participation." However, Bakken conceded (p.281) that materials in corporate archives had the potential to inform decision-making by senior managers: "corporate archives contain appropriate documentation of decisions made by" their predecessors. Bakken also noted seventeen of the top 100 US firms as measured by annual turnover maintained corporate archives.

Throughout the 1980s, archives science journals have published articles that dealt with the question of whether it is possible to prove the commercial value of a corporate archive (Hives, 1986; Mitchell, 1989). A focus on cost-cutting in US firms in the 1980s and 1990s (Lazonick and O'Sullivan, 2000) pressured archivists to demonstrate the commercial value of archives to sceptical senior executives. The papers typically listed the various ways in which corporate archives contributed to the bottom line of firms without determining which of these functions of the archive were the most important. In the mid-1990s, there was an effort to systematically determine the value to US companies of their archives (O'Toole, 1997): the Records of American Business Project succeeded in obtaining testimonials of the value of corporate archives from CEOs and other business leaders. A recent paper in the field of archival science (Lasewicz, 2014, p.103) argues that the best quantitative evidence to date of the value of corporate archives comes from the 2011 celebrations of IBM's centenary, which was jointly managed by the firm's archives and communications department and which coincided with a measurable increase in the value of the firm's brand as determined by the Interbrand survey. This paper suggests that IBM centennial marketing campaign was

more effective than the firm's concurrent Smarter Planet campaign, which did not include historical material that had been stored in the firm's archive.

These examples reveal some specific uses of corporate archives that can be linked to created competitive advantage. That corporate archives may have significant value is therefore clear, but the question of how such value is reflected in corporate financial statements requires further consideration. In the above review of the accounting literature and current practice, we also noted a lacuna in practical prescriptions for the accounting treatment of private archives held by private companies. The next section therefore proposes a new model, addressing the relationship between the strategic role of corporate archives and their accounting treatment.

3. A New Theoretical Framework

The gap in the literature identified above begs the question, what would the valuation methodology be, were archives to be included in company balance sheets? Specifically, how would the costs of the archive be matched with the revenues they would be expected to generate? Table 1 sets out a model illustrating example answers to the above questions. In table 1 asset specificity refers to particular income generating capability, where the more specific the asset, the easier it is to isolate the cash flows associated with it. Such income can be generated with theoretical probability ranging from impossibility to certainty. For the convenience of presentation probabilities might be assigned low or high values. Based on combinations of these two dimensions, there are four alternative generic accounting treatments for archive costs, set out in the four quadrants (Q1-Q4).

Table 1 – Accounting for archival costs

		Probability of realisable benefit	
		High	Low
Degree of asset specificity	High	Q1: Value as specific intangible asset	Q2: Treat as contingent asset
	Low	Q3: Assess as part of general goodwill	Q4: Related costs expensed

Highly specific assets are closely linked to existing or potential commercial revenue streams, and may underpin knowledge based competitive advantage. Such assets are of potentially high value, but it is also likely that their disclosure would negatively impact future earnings, since such proprietary information would be of potential use to competitors, regulators, lawyers, creditors etc., and managers typically choose not to disclose any detail. A business would not wish to make its archive accessible to researchers or members of the public for these reasons. Assets which are highly valuable, through their specificity, but whose value is largely contingent on their non-disclosure, pose an obvious problem for regulators and accountants. However, the situation is analogous to the recognition of profits from commercially confidential contracts generally. In such cases value is incorporated into the balance sheet as an intangible asset as indicated in Q1, but without disclosing contract specific detail.

As with commercial contracts, profit recognition, and value, depends on an assessment of probability of realisable benefit. In such situations, particularly where disputes between contracting parties are possible, accurate and detailed record keeping potentially advantages the most diligent party. Insofar as archival records assist favourable litigation outcomes, where such litigation is highly contingent, they are therefore a contingent asset, as indicated in Q2. Typically such assets can only be offset against provisions for losses arising where contracts are subject to litigation, subject to a maximum of 100% of the projected litigation costs.

Assets with lower specificity are linked to reputation, but not to identifiable income streams. In such cases, disclosure of the archive could be construed as non-proprietary, so it may impact the firms share price but not its future earnings potential. In this situation, managers may release information voluntarily. For example the archival information disclosure adds to the reputation of the firm. Such cases are analogous to investments in social and environmental responsibility, with the potential, through disclosure, to add to the firm's reputation within and beyond the capital markets. The archive potentially enhances the general reputation of the firm in the same fashion as other non-asset specific categories of goodwill, as indicated in Q3. Insofar such investments can be related to future realisable benefits, they should be treated as goodwill assets and be disclosed accordingly. Unlike generic goodwill assets, archives have characteristics that assist specific valuations in such cases. Where a firm's reputation is based on longevity, for example, the archive can promote investor and public appreciation of specific characteristics, which can in turn link to milestone dates. Corporate anniversaries, based for example on significant decile years, can offer the basis for periodic revaluation of the firm's heritage status and impairment testing.

In certain cases, across Q1-Q3, the archive potentially provides inside information, which renders the estimation of future benefit more reliable. Unlike commercial contracts, where information is necessarily shared between the parties, the archive provides user specific and private information that can be used to achieve more reliable valuation results.

Finally in cases where such benefits have low probability, or where valuation would be disproportionately costly, the cost of running the archive is included in general expenses, but may be disclosed as a note to the accounts, as indicated in Q4. Such a treatment would be consistent with the prescription for the Stoneworth archive in FRS30.

4. Case study: The Barclays Group Archive (BGA).

We have adopted a single-case rather than a multiple-case approach in the belief that the presentation of a single study would allow us to provide readers with an extended and empirically rich study in which the theoretical literature discussed above is related to a specific organization. As Yin (2013, p.48), has noted, the exploration of one or more "critical or revelatory" cases can be a powerful aid to theory development. We focus on the role of the archives of Barclays bank for three main reasons: the importance of this financial institution, the fact it had a near-death experience during the financial crisis, and the fact one of the paper's co-authors has a strong working relationship with personnel within the bank. As Eisenhardt has recently observed (see Gehman *et al.*, 2017, p.10), single-organization case study research should be based on multiple data sources. Our research into the role of archives in supporting the bank's strategy was based on multiple data sources including interviews, multiple site visits to the BGA near Manchester, as well as the analysis of printed sources.

Barclays Bank: Historical context

Barclays Bank plc, which is now a global bank holding company, traces its origins to a simple banking partnership established in 1690 by two Quaker goldsmiths. After the Industrial Revolution, the bank evolved into a multinational with extensive operations throughout the British Commonwealth. The bank's organizational culture was transformed in the 1980s and 1990s, as it became more entrepreneurial and less risk-averse (Pierce *et al.*, 2017; Salz and Collins, 2013). In the period of reflection and humility that followed the 2008 financial crisis, people in Barclays would refer to the bank's organizational culture in period from 1986 to 2007 as the "chasing alpha decades" (Augar, 2009; Salz and Collins, 2013, p.183). During this controversial period in its history, Barclays expanded and diversified its operations in the United States, a process that culminated in its acquisition of the assets of

Lehman Brothers in September 2008. It also acquired a brash and highly visible American CEO, Bob Diamond (Salz and Collins 2013).

Barclays' experienced an existential threat beginning in the autumn of 2007, when rumours that it had invested in unsound mortgage-backed securities eroded its market capitalization. Barclays was forced to obtain a lifeline from the Bank of England, its lender of last resort, as early as August 2007. During 2008, the bank sought additional financial support from investors from the Middle East. During and after the Global Financial Crisis, the United Kingdom and other Western countries saw increased anti-banker sentiment in the political arena and changes in banking regulations. In 2011, regulators forced all of the large UK banks, including Barclays, to pay compensation to customers who had purchased Payment Protection Insurance (PPI) (Ferran, 2012). Barclays has also been forced to make other compensation payments in relation to such illegal activities as money laundering and the LIBOR rate manipulations revealed in 2012 (Ashton and Christophers, 2015, Chu, 2017).

In August 2012, Diamond was as CEO by Antony Jenkins, a British citizen who sought to reverse many of the changes in the bank's organizational culture that had occurred during the Chasing Alpha period. Jenkins re-oriented the bank away from investment banking towards the safer, albeit less profitable area of retail banking (Jenkins and Massoudi, 2013). Jenkins created the "Transform Programme", which sought to counteract Diamond's influence by restoring traditional British banking values such as "respect, integrity, service, excellence, and stewardship" (Salz and Collins 2013, p.93). He then appointed two conationals, Anthony Salz and Russell Collins, to review of the bank's business practices, culture, and governance systems. Their report revealed that many Barclays executives felt that bank had abandoned the values of its Quakers founders. Indeed, Salz and Collins were "struck by the number of references to the history of the bank and how, as Barclays grew

away from its family origins, it failed to develop a strong culture that could have avoided some unacceptable business practices" (Salz and Collins 2013, p.28).

Use and value of the archive

During the difficult years after 2007, historical narratives supported by the firm's archive were an important element in Barclays' communication with internal and external stakeholders. In 2017, one of the authors interviewed the head of the BGA to learn more about how the bank uses its archive (Sienkiewicz, 2017a). The interviewee noted that the archive discharged four main functions: storing the most valuable documents, such as board minutes; preserving historic customer records; supporting the efforts of the internal communications team to instil "pride" in the firm's history; and facilitating the "quick retrieval of information" useful to the board and other senior decision-makers.

The head of the BGA reported that the use of archival materials to build employee pride was most important in anniversary years, such as the celebrations of the bank's 325th anniversary, which took place in 2015. Similarly, in 2017, the archives helped the bank to celebrate the fiftieth anniversary of the world's first ATM, which was installed in a Barclays branch in 1967. The head of the BGA conceded that while the bank's internal communications and marketing units could potentially run campaigns that celebrate the firm's history without material from the BGA, these provision of historic images and texts from the archive help make such campaigns more vivid and persuasive in the eyes of internal stakeholders. She also noted that historic customer records had recently acquired considerable importance as a result of a court case related to the aforementioned PPI claims due to 2009 court case in which a UK government agency, the Office of Fair Trading, was seeking to allow millions of customers to reclaim "billions of pounds" from the UK's commercial banks for allegedly unauthorized overdrafts. Since the BGA had saved all of the

fine-print terms and conditions that had been sent to historic accountholders, its lawyers were able to convince the UK's Supreme Court that the charges had been legitimate (United Kingdom Supreme Court, 2009, para. 74). As a result, Barclays and the other banks involved in the court case achieved a major saving: although they still did have to pay billions in compensation, the total cost was less because of the documents saved and retrieved by the BGA. In this case, "the value of the archives in preserving and making this material accessible was beyond dispute" (Sienkiewicz, 2016).

The head of the BGA told us that the use of historical documents in the archive to support the making of strategic decisions by the bank typically relates merger and acquisition activity by the Group: whenever the board were "looking at selling a subsidiary company" they would ask for historical information about that subsidiary and the reasons for its establishment. Typically, the relevant facts would be located in a resolution of a committee of the board. In her experience, the historical information that was most "pertinent" to the making of current firm strategy related to the last three decades. (Sienkiewicz, 2017b). To sum up, our interview with the head of the BGA suggests that documents stored in the archive are valuable both for the use in supporting managerial rhetoric (i.e., enriching a speech designed to strengthen organizational identity) and in strategic decision making.

As is any large and old corporation, Barclays is the subject of periodic attacks on its legitimacy, some of which are related to its history. According to the head of the BGA, the accusation that the bank was "founded on the profits of" the trans-Atlantic slave trade "is levelled at Barclays with alarming regularity." Since the Barclays Group operates in both Africa and in the multicultural context of modern Britain, such accusations are potentially damaging to the firm's reputation, even if though it could not result in actual litigation. Documents stored in the BGA show that the accusation of profiting from slavery is based on a few half-truths: one of the early partners, David Barclay, unintentionally became a slave-

owner "as the result of a debt that was owed to him." However, letters in the BGA also show that David "Barclay freed the slaves, provided the funding to train them in trades, and relocated them from Jamaica to Philadelphia." These documents, which help to exonerate the bank, can be cited whenever the bank needs to defend itself against the accusation that its profits were based on slavery (Sienkiewicz, 2016).

Another example of materials in the BGA contributing to the bottom line of the firm relates to the analysis of historical data in the BGA using modern econometric techniques. While the historical analysis of long stretches of financial-market can give equity investors valuable insights, interpreting such data requires a rare combination of powerful financial skills and the knowledge of historical documents. A team of analysts used the BGA to study a wide range of financial records from the period 1896 to 2016 (Sienkiewicz, 2017b). These data allowed them to arrive at the first accurate estimate of the relationship between ROTE (Return on Tangible Equity) and COE (Cost of Equity) in UK banking for this historical period. On the basis of this historical pattern, the analysts predicted that future ROTE in the UK banking sector would "be no higher than 11%, while COE would be 8%". This conclusion allowed the bank to discover a market opportunity that had not yet been discovered by other investors (Pierce *et al.*, 2017). The work by the analysts prompted a senior executive to comment on the "real value" the archive brings "to today's business" (Sienkiewicz, 2017b).

Analysis

As previously discussed, Table 1 highlights the various methods that firms might use to value corporate archives depending on the degree of asset specificity and the probability of realisable benefit. In Table 2, we provide examples from our case study of types of

documents stored in the Barclays Group Archive that correspond to each of these four alternative generic accounting treatments for archive costs.

Table 2: Accounting for archival assets for BGA

		Probability of realisable benefit**		
		High	Low	
Degree of asset specificity	High	Q1: Items to be treated as specific intangible asset	Q2: Items to be treated as a contingent asset Terms and conditions sent to	
		No items in BGA identified	Barclays customers Financial records consulted by Pierce <i>et al</i> .	
	Low	Q3: Items to be assessed as part of general goodwill Historical branding material in BGA Records of Barclays board decisions; correspondence of senior executives	Q4: Items whose costs are to be expensed as related costs No documents matching this description present in BGA. Such documents are unlikely to be retained	

Our case study investigation of the BGA did not identify any highly specific assets with highly probable and relatable future benefits (Q1). Nonetheless, there are suitable examples from other corporate archives that fit these criteria. For instance, Hollywood studios contain vast archives of films and scripts that can be monetized on an individual basis (Global Survey of Corporate Archivists, 2017). In our view, such archival assets should be treated as *specific intangible assets* by the accountants concerned with such firms.

Our narrative descriptive of the work of the BGA contains a very clear example of archival assets that were specific, but where the probability of future benefit was contingent (Q2). In the event, documents stored in the BGA which played a crucial role in a 2009 decision by the UK's Supreme Court proved highly valuable. Like the castle moat, in this case the archive possessed a distinct and valuable defensive characteristic. In that instance, the ability of the bank to produce documents showing the small-print terms and conditions of customer contracts saved the bank from having to pay "billions" in damages. As we noted above, the BGA stores copies of all of the terms and conditions sent to Barclays customers. These documents, which are preserved as a matter of routine, unexpectedly proved to be of crucial importance in the 2009 court case related to PPI claims; the fact the company had preserved these documents saved it a large sum. These items were of high asset specificity but the probability of realisable benefit that comes from preserving such items should be assessed as low, since at the time of their preservation, it was not anticipated they would play such an important role in a court case. Similarly, the financial records consulted by the team of researchers led by Pierce et al. (2017), which allowed the firm to identify a profit opportunity in an unanticipated way, should be characterised as high in asset specificity and low in probability of realisable benefit. In summary, when stored in a corporate archive, items of this character should be classified as *contingent assets* for accounting purposes.

The BGA also contains items which although of lower asset specificity than the customer records, nonetheless have a high probability of realising future value, corresponding to Q3. Again, using the castle moat analogy, the archive contributes value to general picture of the Bank as a historic organisation. A large number of historical branding materials allow us to determine why the firm's logo, uniform, etc appeared like in any given historical period. Historic photographs are part of this collection. This material is regularly used in the bank's marketing campaigns, particularly those that run in conjunction with major anniversaries.

These materials are best regarded as having fairly low asset specificity, for while they would not be of use to another bank, and thus have a low resale value, we cannot identify a specific cashflow that would come from their use. The materials have the characteristics of generic goodwill assets. Moreover, the probability that the bank will use them in the future is high, since they are used frequently in marketing. Similarly, the records of the decisions of the Barclays board and other senior executives, which are preserved in the corporate archives, are used frequently and are characterized by low asset specificity. We believe that archival materials that include historical branding material and the correspondence of previous generations of executives should therefore be treated as generic goodwill assets.

At first sight, our allocation of these functions of corporate archives to various quadrants in table 2 might appear arbitrary. However, in making judgment about the degree of asset specificity and probability of future benefit a dialogue between accountants and archivists is necessary, and potentially productive, in any given organisational context. Such a dialogue must be informed, systematic and auditable. To identify the features of the dialogue, we use the dimensions of table 2 in combination with best practice, as drawn from other contexts in which accountants rely on expert opinion on asset recognition and valuation.

The pooling of the expertise of accountants and non-accountants is common whenever firms are required to value complex assets. For instance, when oil companies value their proved and probable assets, their accounting staff typically rely on the Annual Reserve Reports produced by the firm's geologists and engineers, individuals who are members of the Society of Petroleum Engineers rather than the local accountants' professional body (Misund, Osmundsen, & Sikveland, 2015; Misund and Osmundsen, 2018). Even though the Annual Reserve Reports are not prepared according to internationally accepted accounting standards and are not scrutinized by the external auditors, "data from the reserve report is an integral part of the company's financial reporting process" (Olds, 2012, 1). Similarly, when firms

need to value the company's Intellectual Property (IP), the firm's accountants will work closely with the specialist lawyers most familiar with a given class of IP assets. In fact, the accountants will rely on the lawyers to assign "importance ratings" to each asset (Parr, 2018). As these two examples show, the valuation of complex assets requires accountants to liaise with and rely on the expertise of other classes of professionals.

The literature on the processes by which complex assets are valued suggests that years or even decades can pass between the recognition of the need for a common international standard for valuing a type of asset and the introduction of a common system. The valuation of the mineral assets of multinational mining companies has long been a major challenge. Discrepancies between companies and countries in the system for valuing sub-surface mineral deposits meant that it was very hard for an investor to make sense of the valuation statements of global mining firms. An initiative begun in 1994 sought to bring about a global standard for valuing mineral deposits that would apply to all companies and all of their worldwide assets. The Committee for Mineral Reserves International Reporting Standards (CRIRSCO) did not, however, publish its first "template" for the use of accountants in 2006. Those of us interested in developing a global standard for valuing corporate archives should observe that the creation of the International Mineral Valuation Committee (IMVAL) system took twelve years and a large number of international conferences (Uberman, 2014; Njowa, et al., 2014). The lesson for us is that while the development of a global system for valuing corporate archives may take some time, since there is the need to achieve agreement among a wide range of stakeholders. If the experience of the mining and oil companies is any guide, accountants will need to cooperate with the archivists' professional bodies, such as the Section on Business Archives (SBA) within the International Council of Archives and the Business Archives Section (BAS) of the Society of American Archivists (SAA), in developing a common approach for valuing corporate archives,.

The evolution of such co-operation will involve the application of accountancy principles, such as those used to underpin table 2, with the expertise of archivists, underpinned by the process called "accessioning". When a set of documents arrives into a corporate archive, accessioning involves the document being described and catalogued before being placed in a designated location for future retrieval (Wiltshire, 2017). We propose that during the accessioning process, archivists now should be required to answer a checklist of questions about the material so that the firm's accountants can determine whether a given set of archival documents should be classified as being high or low in probability of realisable benefit and high or low in degree of asset specificity. Having this information would allow the accountants to make a decision about the asset classification of a set of documents.

The checklist we envision would have to be designed by archivists working in consultation with accountants. The pooling of knowledge between these two groups of professionals is required because neither profession has, by itself, sufficient expertise to develop the checklist. Although table 2 suggests generic parameters that may underpin the development of all questionnaires, and may draw on general principles used in valuing other assets in, for example mining and IP, exact questions will be organisation and context specific. For illustrative purposes we therefore suggest only generic questions at this stage. For instance, since highly specific assets are closely linked to existing or potential commercial revenue streams, the checklist must ask the archivist to specify the ownership rights of the document, noting potential third party claims and interests or and the nature of links to possible revenue streams. Questions might identify potential users of the document and the end purpose of such use, and identify the any relationship to other assets. To address proprietary issues and disclosure decisions, the checklist might also pose the following question: "Would the sharing of this document with people outside the firm be likely to have a negative impact on future earnings?" The checklist would force the archivist to reflect

whether the value of the document to another firm would be similar to its value to the firm that created it. Other questions in the same vein might include: "How long will document remain useful to the firm as a potential source of revenue?" and "How much would an outsider likely pay for this asset?"

These are indicative questions. They inform the dimensions of our theoretical matrix, which applies recognisable principles of asset valuation in a competitive environment. They also draw on best practice in adjacent fields of specialist asset valuation. The use of a questionnaire provides a systematic basis for documenting the dialogue between accountants and archivists and for evidencing valuation decisions in a form subject to scrutiny from internal and external audit processes.

5. Conclusions

This paper's task is to demonstrate the need for accountants to recognize the strategic value of corporate archives and to suggest some broad principles that could inform the valuation of such assets. Designing a system that would allow the world's companies to value their corporate archives would require extensive consultation between accountants and the corporate archivists. In our introduction, we noted a contradiction between the propensity of intangible assets to create value and the likelihood of accounting standards to advocate balance sheet recognition for such assets. The framework set out in table 1 and tested empirically in table 2 presents a possible resolution of this contradiction using the example of an important but neglected example of privately held corporate archives. It does so by proposing that a determinant of value for strategic intangible assets, ie asset specificity, be used in conjunction with the fundamental accounting principle of conservatism, by an evaluation of the probability of future benefits. Asset specificity also facilitates the application of the matching concept, thereby linking strategic assets to their future values.

In proposing the new framework our analysis goes beyond existing accounting standards. In doing so, we note that the most relevant, FRS30, does not deal explicitly with privately held corporate archives. As our review of the wider literature has shown, such archives are increasingly recognised as being of strategic value, and therefore deserving of the attention of accountants and accounting policy makers. Our framework also accommodates a possible role for professional archivists at the interface of the accounting system.

The evidence from the BGA offers some empirical illustration of the utility of the framework. In particular, it illustrates possible treatments of information held in corporate archives as having value as contingent assets or as inherent goodwill. Like a castle moat, a corporate archive may have specific defensive value, or be integral to the holistic value of the building. This single organisation case study allows us to offer detailed justifications for these

treatments, but does not offer examples of all permutations. Other cases offer possible examples, but further research is necessary to provide comprehensive and confirmatory evidence. Such evidence might usefully be drawn from sectors beyond banking and notwithstanding the international scope of the Barclays operation, from international jurisdictions beyond the United Kingdom.

The valuation of intangibles poses significant challenges to the accounting profession against the backdrop of a rapidly changing economy. Corporate archives document such changes, but, as our analysis demonstrates, also have value in themselves as strategic assets. In presenting them as such, we have suggested approaches to value and asset recognition that may be utilised across a wide range of intangible assets. This paper, therefore, may of interest to many accountants, not just those interested in the question of how firms should value their archival holdings.

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