Accounting for family and business overlaps

Purpose
This paper draws on a family business perspective to explore the historic accounting records of an Italian liquorice juice business. The applicability of the three-circle model of family business systems to such an historic context is examined.

Design/Methodology/Approach
Using archival records, the Cassa accounting book of the business is studied. Its transactions are examined to distinguish family and business items over the period from 1875 to 1920.

Findings
Through an analysis of the accounting records, the family, ownership and business systems are shown to overlap more than typically expected in a contemporary setting.

Originality/value
Contemporary literature suggests the three-circle model of a family business is relatively static, but it has not been applied to an historic context. This study suggests that the model can be applied in historic studies, but it is not static over time with its elements needing refinement.

Keywords: Family business, accounting, three-circle model, cash statements

Classification: Research Paper
Introduction

In contemporary management literature, a significant uptake of interest in family businesses can be observed (e.g. Gedajlovic et al., 2012; Prencipe et al., 2014; Quinn et al., 2018; Salvato and Moores, 2010; Sentlechner and Hiebl, 2015; Songini et al., 2013; Xi et al., 2015). One reason for this increased interest is the reported peculiarities of family business (e.g. Berrone et al., 2012; Habbershon and Williams, 1999; Sirmon and Hitt, 2003). These peculiarities include the fact that family businesses are a system comprised of various sub-systems; the business system, family system and ownership system are referred to as the three-circle model of family business (Gersick et al., 1997, 1999; Tagiuri and Davis, 1996), which is one of the most widely referenced frameworks in family business research (Chua et al., 2003; Litz et al., 2012; Moores 2009; Yu et al., 2012).

In historical research, family businesses have long featured a prominent role (e.g, Colli, 2011; Colli and Fernández-Pérez, 2013; see later also). However, historical research on family firms explicitly informed by family business theory are scarce. The infusion of family business theories holds the potential to facilitate theory building across disciplines (cf. McWatters, 2017). Consequently, the first aim of this paper is to examine how far the three-circle model proves useful as a lens for historical research. For this purpose, we suggest that the original focus of the three-circle model on locating and analysing various actors in the larger family business system can be adapted to the analysis their accounting records. Empirically, we draw on the historic accounting records of Amarelli, an Italian family firm still operating today.

The original three-circle model suggests that in a family business, actors may be part of all three systems; for example, family managers, who hold shares, are reflective of all three sub-systems: they have ownership through shares, their management role reflects the business system and they are a family member. Other actors may however only be present in one or two sub-systems.
For example, a business founder’s spouse who has no formal role in the business and no ownership stakes would only be reflective of the family sub-system. Although “only” part of the family sub-system, the founder’s spouse may nevertheless exercise decisive influence on his/her husband/wife and the family business system as a whole (Astrachan et al., 2002; Poza and Messer, 2001). Thus, to fully understand the family business system, all three sub-systems (business, family, ownership) need to be analysed (Gersick et al., 1997, 1999).

Despite this three-circle model being widely used in research on family businesses (Carney and Jaskiewicz, 2015), it is often presented as a rather static model (Sharma, 2004). This appears at odds with literature which suggests processes of change occur over time, and even what may appear as relatively stable practices in organizations, change or have the potential for change (see for example, Becker, 2004; Burns and Scapens, 2000; Quinn, 2014). While Gersick et al. (1997, 1999) suggest that there may be various developments in each of the three systems over time, explicit historical research on such developments is scarce (see Colli and Fernández-Pérez, 2013; Sharma, 2004). Thus, this paper adopts a historiographic approach to research on this particular family business model. Such research is useful as it seems taken-for-granted in the family businesses literature that the three-circle model is a stable concept, and can be used to analyse family businesses in various stages of history.

Thus, the second aim of this paper is to begin to question the predominant view of the three-circle model being a static concept through a case study. By static, we mean that the model reflects actors as being part of one or more of the three subsystems at a given point of time, or that there were always three subsystems. The historic accounting records of Amarelli are analysed in varying degrees of depth over a period of 45 years or so, with a view to interpreting the three systems proposed by Gersick et al. (1997) in an accounting sense. These historic accounting records are a non-human actor in themselves, and are representative of underlying human actions (see later). Thus, we can analyse them in terms of typical overlaps of the three-
circle model and compare with contemporary overlaps as conveyed through the accounting records of family firms. For example, in contemporary family firms, we would expect that the accounting records reflect the business subsystem in the recorded of day-to-day income, expense and cash transactions. The ownership subsystem would be reflected in payments (e.g. dividends or drawings) to family members, or purchase of shares by the family. The family subsystem would typically be less reflected in accounting records as an isolated item due to the entity concept in accounting; however, a family/business interaction could be expected, in for example a payment of a salary to a family manager or employee. As our historic case shows, these contemporary expectations, do not necessarily apply to family firms of earlier times.

Consequently, our study contributes to the literature in two primary ways. First, our study develops an important boundary condition of the three-circles model and therefore refines the basic model proposed by Gersick et al. (1997, 1999) to studies of a historic nature. That is, at least from an accounting perspective, the assumed applicability of the modern-day business entity concept is questioned. Second, our study indicates that management history research can very much help in developing and refining contemporary theories of family firms. Given the significant growth in family business research (e.g., Chrisman et al., 2017; Daspit et al., 2018; Sharma, 2017; Xi et al., 2015) and the so far-limited usage of theory-informed management history research on family firms (Colli, 2011; Colli and Fernández-Pérez, 2013), our study suggests there are more research opportunities for management history scholars.

The remainder of the paper is organized as follows. In the next section, some detail on the three-circle model and historic research on family businesses is given. In the following section, the case firm, Amarelli is presented, some detail on historic search of accounting in the context of Italian family firms is provided, and the methods applied outlined. Afterwards, the research findings are presented and discussed. Some closing remarks and implications for future research are then presented in the final section.
Literature review

The literature review consists of two parts. First, the three-circle model of family business and its developmental stages as outlined by Gersick et al. (1997, 1999) is reviewed and an amended application to an accounting context suggested. Second, accounting and business history literature with a particular focus on aspects of family business is outlined.

The three-circle model

As indicated, a family business may be understood as a system encompassing three subsystems (Gersick et al., 1997; Tagiuri and Davis, 1996). The inner part of Figure 1 displays these three subsystems as partly overlapping circles: family, ownership, and business. In every family business, these three subsystems may show distinct degrees of overlap and thus constitute idiosyncratic forms of family businesses (Tagiuri and Davis, 1996). In addition, each circle may have varying numbers of family and non-family actors. Based on these considerations, Gersick et al. (1997) depict four typical configurations of overlaps between the three subsystems through the family firm lifecycle. Similarly, Sharma (2002) builds upon the three-circle model and creates a taxonomy consisting of a total of 72 different types of family firms.

While the three-circle model can be used for creating taxonomies of family firms, it has theoretical limitations as it excludes cause-and-effect relationships (Chua et al., 2003). In our view, these limitations may also be due to the fact that the model has mostly been used in a static way to compare and classify various forms of family business (see Sharma, 2002). However, insights on how the nature of the family business changes if the overlaps change are scarce. Such a view may enable the three-circle model as a dynamic model and better reflect key ingredients of a theory—that is, encompassing cause-and-effect relationships (cf. Chua et al., 2003; Herschung et al., 2018; Luft and Shields, 2003). This may, for instance, be realized
if antecedents to changing overlaps between the three subsystems over time can be identified.

It should be acknowledged that some of the key developers of the initial three-circle model have discussed that change in the three subsystems may occur. Gersick et al. (1999) have suggested certain developmental stages in each of the three subsystems and, these developmental stages are also shown in Figure 1. For instance, Gersick et al. (1999) suggest that in the ownership subsystem, family firms typically develop from a business controlled by a single owner initially, to a sibling partnership and eventually to a cousin consortium. While these subsystem-specific developmental stages may prove valuable in analysing and foreseeing certain family business developments (Gersick et al., 1999), these stages remain focused on developments within the subsystems.

However, it can be argued that some of the developments mentioned by Gersick et al. (1999) affect more than one subsystem, and—more importantly here—may change the overlap between the three subsystems. As indicated above, in the original three-circle model, these overlaps have been identified by actors being located in two or more subsystems (and circles). For instance, a typical owner-manager in a family firm would be part of all three sub-systems since he/she is part of the family, has an ownership stake in the firm and is actively involved in managing the firm. That is, the original three-circle model is very much actor-centric.

As we draw on the historic accounting records of a case study Amarelli – see later – any analysis using the three-circle model must be aligned with these records. This is achieved by classifying accounting records/transactions as relating to one or more circles. For example, accounting records of transactions only associated with business purposes are allocated to the business

[insert Figure 1 about here]
system. Accounting records associated with both the business circle and the ownership circle, such as dividend payments, would overlap the business and the ownership circle. If the latter transaction affects owners belonging to the family, such a transaction would be situated at the overlap of all three circles. When applying this logic to accounting records of contemporary family firms, we could expect that the business circle would be affected by all transactions as firm-related accounts are all related to business purposes. However, as the case will show, such contemporary thinking may not be applicable in a historical context. That is, the three circles/subsystems may not be easily distinguished for family firms of earlier times.

Another potential issue arising from using a contemporary framework such as the three-circle model in a historic context are different historic and contemporary assumptions about key terms inherent in such a framework (cf. Previts and Bricker, 1994). The key terms in the three-circle model are the three constituting circles i.e. family, business and ownership. While some historic context on the business (Amarelli) is given below, how comparable the concept of “family” as incorporated in the three-circle model is to that of earlier times is first considered.

A comprehensive discussion of the evolution of the family concept is beyond the boundaries of this paper, but it is useful to examine its meaning in late 19th and early 20th century Italy, where our case firm Amarelli is situated. At this time, complex family household structures were widespread in southern Europe, reflective of how family was understood at that time (Kertzer and Brettell, 1987). In this sense, the term “complex family household” refers to a household of kin beyond the nuclear family, the latter usually being interpreted as a married couple and their children (Kertzer, 1991). While in the Iberian Peninsula and northern and central Italy, complex family households were the norm, in southern Italy in the late 19th century, nuclear family households were more prevalent (Kertzer and Bretell, 1987). This notion is particularly relevant as the Amarelli case is/was situated in the south of Italy. Also, in southern Italy of that time, it was mostly not considered proper for married women to work outside the house (Calise,
Consequently, we see some similarities, but also differences between the prevalent family concept in late 19th and early 20th century in Italy and the prevalent family concept in late 20th century US—the context where the three-circle model was developed. First, in both contexts, the nuclear family household was the norm. This does not necessarily indicate that no kin beyond this nuclear family household would be involved in a family business, but it gives an indication that general prevalent family concepts were not so different. Second, employment of women outside the house was not common in the historic Italian context, but was common in the US when the three-circle model was developed (e.g., Kessler-Harris, 2003). For family businesses, this difference may imply a higher likelihood for the historic Italian context that (mostly male) family business owners’ wives would work in the family business compared to a more contemporary US context (cf. Kessler-Harris, 2003; Willson, 2010). In the latter context, women clearly had more “outside options” beyond the family context when it comes to employment. However, in contemporary family firms, many spouses of family business owners also work in the firm (e.g., Danes and Olson, 2003; Getz and Carlsen, 2005), which again shows similarities in the two contexts. That is, although not fully comparable, the family concepts as prevalent in the context of the development of the three-circle model and the historic case study are similar. Put another way, from this brief discussion, we cannot identify reasons to prevent the application of the three-circle model to a historic family context. However, at this stage while we have not yet presented any empirical data, the meaning of terms within the three-circle model is suggesting the model itself may not be static in nature.

**Accounting and business history of family firms**

The family business literature has evolved into a somewhat independent discipline, with its own emerging theoretical base such as the three-circle model (Gersick *et al.*, 1997, 1999), the
socioemotional wealth perspective (e.g. Berrone et al., 2012) and the AGES framework (Craig and Moores, 2015). However, Songini et al. (2013) note that accounting as one of the oldest business disciplines has only recently penetrated family business literature. A similar scenario applies to accounting and business history and the peculiarities of family business. In contemporary studies, it is the norm for studies to be informed by a well-developed theoretical base (e.g., Shepherd and Wiklund, 2019). The theory base applicable to the specific of family firms is arguably quite novel, which may explain a lack of studies with a focus on accounting in family business in the accounting/business history literature. This is not to say that families and family businesses have not featured in accounting and business history literature, as we shall see below. Another reason for a lack of historical studies on accounting in family businesses could also be a lack of, or yet to be uncovered, primary records.

Here, we initially searched broadly in management and accounting literature for relevant research during the period 1990 to 2017 using the Scopus database. The year 1990 was chosen as a start date given following the work of Colli (2011) – see below. The accounting literature was one focus given the nature of the data source used (see later). Our results revealed a concentration of research in five key journals. Thus we narrowed our search for relevant literature to the title, abstract and keywords of these five leading English language accounting and business history journals1 as well as three most important (cf. Daspit et al., 2018; Stewart, 2018) contemporary family business journals Family Business Review, Journal of Family Business Strategy and Journal of Family Business Management. We used the search term “family business” and “accounting history” as these opposing terms in the two specialist streams of literature. The search terms were deliberately broad in an effort to capture as many

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1 Accounting History, Accounting History Review, The Accounting Historians Journal, Business History and Business History Review. The choice of the first three journals is based on several prior studies noting them as the leading journals – see for example Sánchez-Matamoros and Hidalgo (2011) or Spraakman and Quinn (2018). The latter two journals are the top two specialized business history journals per the ABS journal ranking.
potentially relevant papers as possible. The search resulted in many matches, and a manual review of these matches revealed few papers which specifically detailed family businesses from an accounting perspective or utilise aspects of family business theory and detail aspects of accounting. We briefly summarise these papers now, starting with accounting history papers, to give a flavour of the present state of research which encapsulates family businesses.

Gervais and Quinn (2016) recount costing at the Waltham and Lowell cotton mills in the 1820s. Although they do not include any family business theory or concepts, there is a suggestion that the Appleton family may have been actors to an extent in the business, to at least a family involved in business in general. Robb et al. (2006) tell the story of the demise of a family business, Ernest Adams Ltd, as professional managers (i.e. non-family managers) influence grew. Robb et al. (2006) do engage with the family business literature available at the time—especially with agency costs specific to family firms (Schultze et al., 2001). Of course, the family business literature has greatly expanded since the Robb et al. (2006) study has been published (e.g. Chrisman et al., 2017; Daspit et al., 2018; Sharma, 2017; Xi et al., 2015). This more recent literature suggests an ever increasing role of professional managers (such as accountants or chief financial officers) as family businesses grow (Hiebl, 2017; Hiebl and Li, 2018; Klein and Bell, 2007; Tabor et al., 2018)—which is what happened at Ernest Adams Ltd.

Oldroyd (1999) details management practices employed on the Bowes family estates from 1700 to 1770 and he reveals the estates were managed as profit centres, thus accounting played a key role. He notes several ways how the accounts of the estates “safeguarded the interests of the proprietor” (Oldroyd, 1999, 184)—that is, the family—but no reference is made to family business literature. Finally, McWatters (1993), on a study of The Calvin Company, while not mentioning family business literature, does make several comments which presently can be readily connected to family business literature. For example, in relation to contextual variables impacting the company’s accounting systems McWatters notes “the importance of family
connections to provide for stewardship and accountability, and to reduce problems of agency” (1993, 40), which is well in line with much of the contemporary accounting literature on family firms, which is often based one key concepts from agency theory and stewardship theory (Prencipe et al., 2014; Siebels and zu Knyphausen-Aufseß, 2012). On The Calvin Company itself, McWatters notes that “family members did not distinguish [the company] from the estate of D. D. Calvin” (1993, p.50); on the style of business, “the family style of business, was an important factor in [the company’s] evolution” (Calvin, p. 54); and, “family style of business was reflected in [its] operations and in its accounting for them” (Calvin, p. 54). Though there would be more examples from McWatters (1993), it is clear from such comments that already in the accounting history literature in the late 20th century, the overlaps between various subsystems of family firms as suggested by Gersick et al.’s (1997, 1999) three-circle model become apparent.

On papers within the general business and family business literature with a historic context, we similarly found few. A paper by Colli (2011) is a useful starting point. Colli notes that in “business history before the 1990s, there was a lot of research on family firms, both at the ‘micro’ level—that is about the dynamics internal to family firms—and at the ‘macro’ one—that is regarding the relationships between family firms and the more general environment, as well as the respective national economies. Simply, the descriptive approach prevailed and very little effort was made to draw generalizations going beyond the stereotype that family control was [...] something destined to introduce inefficiency” (2011, 19). This suggests that studies of family business history pre 1990 did not incorporate family business specific thinking, concepts models. Colli also notes that “family business started to attract business historians quite explicitly during the 1990s” (2011, 18), noting studies from this time which did indeed focus more on the unique attributes of family business. Colli (2011) offers several areas where family business and business history scholars could collaborate. One is “performances” which
potentially could include accounting, another is “resources”, where again an accounting perspective may be relevant. However, accounting as an area is not specifically mentioned by Colli (2011). In addition, Colli (2011) sees a premier opportunity for historic studies of family firms to inform and refine theories of family firms.

In 2013, *Business History* published a special issue titled “Long Term Perspectives on Family Business”. While the issue contained a collection of interesting papers around the title theme, and with a historic perspective, none could be said to have a clear focus on accounting. This of course is not unexpected given the more general business focus of the journal. Colli and Fernández-Pérez (2013) provide a useful summary of several decades of literature on family business histories. They note this body of literature “has been not only used for descriptive purposes, but also to understand the relationship of between family-business management and topics of great relevance in economics and management in general” (Colli and Fernández-Pérez, p.272). Colli and Fernández-Pérez (2013) also suggest several topics in which historical research on family business can play a role. One area is ownership and control, and they specifically note “business history provides a relevant contribution [in the] analysis of ownership transformation during the process of the evolution of family firms” (2013, p.273) – see also Berger *et al.* (2016) and Trevinyo-Rodriguez (2009). This issue relates to our research objective noted earlier. To sum up here, our brief review of accounting and business history literature has revealed family business focused material. However, it seems reasonable to conclude that this literature is more general in nature. By this we mean it seems not to take what are now-developed family-business theoretical approaches to explore accounting historically; or, does not take a historic view on accounting to inform that same body of theory.

In summary, the review has revealed a lack of research in the accounting history literature on family firms which draws on family business theoretical perspectives. Even contemporary family business literature would seem to be lacking in accounting related studies (Songini *et
Joining the two perspectives of family business theory and accounting history as here is thus relatively novel. Taking the lack of literature and the objective of this paper together, the approach of this paper is similar to that of Rowlinson and Hassard, who refer to neo-institutionalist history as “the use of historical research to illustrate or advance neo-institutionalist theory” (2013, p. 111). Here, it is hoped that the historical exploration of accounting records can shed some light on our understanding of a contemporary family business model, namely the three-circle model described above, and thus contribute to contemporary management studies (cf. Colli, 2011). At the same time, we also examine if theory (i.e. the three-circle model) borrowed from contemporary family business research proves to be a useful lens for historical research on family firms.

Case, context and methods

We now describe our case and methods. We begin with a brief history of the Amarelli family business, which is followed by some detail of the legal and local context in which it operated. We then outline our methods, including a description of the source documents drawn upon and some commentary on why a historic approach to family business history is useful for our contemporary knowledge.

**Amarelli**

Our case firm, namely Amarelli, is a well-established, family-owned firm (see Figure 2, below) based in a rural area of Southern Italy, namely the town of Rossano. The facts and information recounted here emanate from visits to the Amarelli museum—see the methods section later—which included a short informational interview with a current family member.

The present-day firm can be traced to 1731—which in terms of the family and business systems depicted in Figure 1 could be equated to the “baton is passed” and “mature”. The Amarelli
family ancestors moved from the North to the South of Italy, arriving in Rossano at the beginning of the eleventh century. The firm at that time could be considered a diversified family-holding, with all members of the family involved in different activities: liquorice production, agriculture (including some rental to sharecroppers), corn, trade in olives and wood production. However, even with this original diversified nature, the main activity became liquorice production. Around 1500, Amarelli and many other entrepreneurs realised that liquorice-roots growing nearby had a special flavour and also had medical uses, so they began to plant and trade liquorice roots. The Amarelli factory was founded in 1731 by Fortunato Amarelli (see Figure 2) and his son Paolo, with an objective to enlarge the activity and make the root more storable. The factory was given the name *Concio* (likely referring to a type of building stone). This name is still used today and the building of the factory represented the first organization with a pre-industrial character. Around 1800, improvements in sea transport and a tax relief brought crucial economic growth in the *Regno delle Due Sicilie* region (Picconi, 2009), with beneficial consequences for Amarelli. The business developed foreign markets—Great Britain, France, Germany and Spain, for example—and liquorice was often bartered for other goods such as mineral water and horse saddles (still stored in the museum). The liquorice production system remained unchanged for almost two centuries, until 1907 when Nicola Amarelli installed a new steam boiler. To this day, a combination of technical innovation (the production system is fully automated today) and the traditional hand craft has been a key factor in Amarelli’s success on the global market (Mussolino et al., 2005). To the present day, ownership of the business has remained 100% in the hands of the Amarelli family.

A reconstruction of family events between about 1875 and 1920 allows us to depict the family tree (see Figure 2) and business succession—the latter is depicted by family members shown with solid lines. As can be seen in Figure 2, a family influence on the firm’s management (and, in turn, on its bookkeeping/accounting system in the context of this paper) is quite apparent.
From 1890 to 1901, Barone Fortunato Amarelli managed the liquorice firm and the whole family-holding—thus in terms of Figure 1, there was an overlap between the family, business and ownership systems. All the business units of the family-holding were owned by the family members, but some units were managed by non-family members (e.g. Gennaro Fusaro managed the corn and olives). In 1901, after Barone Fortunato's death, the succession process involved his four children—Pasquale, Giuseppe, Nicola and Giuseppina. Pasquale moved to Genova, Giuseppe died early, while Giuseppina, according to succession tradition of the time was excluded due to gender. From 1901 Nicola managed liquorice production, giving it a boost by installing a new steam boiler to improve efficiency. Later, during the First World War, Giuseppina Amarelli became the owner of all family assets. “Uncommonly for that period she was in charge of the Concio and land management: a negative economic situation and a dark outlook brought her to lead the Company” one of the present owners noted. As she was not married, Giuseppina stated a strict succession rule for the properties with an original will to be considered as a "family pact". She bequeath the liquorice firm and lands to her nephews (Nicola's sons), while other property was assigned to their future sons (Bronzetti and Mazzotta, 2015).

Today, Amarelli claims the title of the oldest firm in the Italian liquorice industry. In 1996, the company joined the prestigious club Les Hénokiens whose members are family enterprises handed down for two centuries at least, without interruption, typically from parent to child—again confirming the family system per Figure 1 as being well developed. Thus, although a generally accepted definition of what constitutes a family firm in the literature is still somewhat elusive (O’Boyle et al., 2012; Steiger et al., 2015), due to its high level of family involvement over centuries, Amarelli—irrespective of any specific family business definition—cannot but be classified as a family firm.
Context

As noted, Amarelli was active in both the production and sales of liquorice juice and agricultural activities. This implied it was subject to various judicial and local contexts, which we summarise briefly here. The judicial context is relevant as it influences what type of accounting records were kept. As Amarelli was a diversified firm it was, at least potentially, affected by two different sets of judicial norms during the research timeframe, namely those for industrial/trading firms and those for agricultural firms. The reference framework for industrial firms during the timeframe of this study was the Italian Commercial Code of 1882, which provided a distinction between limited companies and individual firms (similar to a sole trader). This Code was not overly restrictive, allowing firms to choose their own bookkeeping system. For an individual firm, which Amarelli was, Articles 20 to 22 of the 1882 Code obliged a firm owner to keep a day book (libro giornale), which we detail more later. These books are to be kept irrespective of other account books which may be useful for the trade—such latter books are not specifically named. A book to record inventory (inventario) of movable and immovable assets, as well as debits and credits of these items was also required. The end result of this inventario book was annual accounts, including a profit and loss account and a statement reporting the business wealth. The reference framework for agricultural firms was the Civil Code of 1865, which regulated sharecropper contracts. This 1865 code did not oblige agricultural firms to keep any specific accounting records. Thus, the 1882 Commercial Code played a role in determining the books of account to be maintained by Amarelli, and the Code seemed to encompass the cash book system as proposed by Venturi (1655)—see also Mussari and Magliacani (2007). However, unlike Venturi’s work, the 1882 Code does not provide any examples or templates of accounting books to be maintained.

2 The original Italian text of Article 20, 1882 Commercial Code, reads as “delle somme impiegate per le spese della sua casa”, which translate as “of sums used for the expenses of his house”.
In terms of the local context, Amarelli is based in Calabria, southern Italy. The business and agricultural contexts of the region are worthy of mention. The former is relevant as the main production activity was liquorice juice. During our analysis period—the late nineteenth and early twentieth century—farming was the most widespread business sector in Calabria (Merzario, 1975). A Census from 1881 suggests owner-run farms as the most widespread between the nineteenth and early twentieth centuries (owner-run farms 69%, leased farms 18%, sharecropper farms 13%, see Argenziano, 1914). Calabria is an area where the production of liquorice juice has been historically most successful, and particularly so Northern Ionian Calabria, where Amarelli is located. Calabrian firms produced the largest quantities of liquorice juice, of best quality and thus obtained the best price on the world market (Piccioni, 2009).

During the 18th and 19th centuries, Calabria experienced a mix of mainly small firms, often with a short lifespan, and some larger firms embedded within the aristocratic latifundiae (large estates). For the owners of latifundiae, the production of liquorice juice was typically the most profitable activity, and it was carefully managed to improve the economic wealth of the estates. These estates also owned a large amount of land, allowing them to harvest the liquorice root more easily, making cultivation overall less effort intensive. Thus, during the eighteenth and nineteenth centuries, a solid network of well-established Northern Ionian enterprises emerged and their trademarks became famous globally (Piccioni, 2010).

Accounting history of Italian family firms

A brief review of accounting history literature of Italian family firms is useful as accounting records are the key data source for this study (see later). Antonelli et al. (2009) provide an interesting account of the emergence of cost accounting theory and textbooks in Italy over the period 1800-1940. They relate the developments in theory to practice, and provide some detail
on accounting change at four companies, noting “all four businesses were initially family-owned or owned by a small partnership” (Antonelli et al. p. 494). They suggest that in the family-owned businesses, accounting changes (i.e. more use of cost accounting) did not occur until the 1930s in some instances.

Although focusing on an earlier timeframe than the present study, a paper by Mussari and Magliacani (2007) is similar to our case as they describe the account books maintained by a Tuscan farm during the 1850s. The study is of relevance here for two reasons. First, the farm described is a family farm, and thus a family business. Second, Mussari and Magliacani (2007) note a cash account book as part of the farm records, and this book was required by sharecropper law. Rubino et al. (2016) note the Amarelli business included an element of sharecropping, and thus we would expect a cash book to be maintained—and one was, as we reveal later. Mussari and Magliacani (2007) also refer to the writings of Bastiano Venturi, who they describe as “the illustrious bookkeeper of Princess Vittoria of Urbino, Grand Duchess of Tuscany” (2007, 91). A work by Venturi dating from 1655 titled Della Scrittura Conteggiante di Possessioni “introduced a model of the journal which adds two columns to the traditional format to show Cash Inflows and Outflows (Giornal-Cassa)” (Mussari and Magliacani, 2007, 91). The original work of Venturi (1655) does indeed provide an example of a two-column cash book, with columns labelled “Entrata” and “uscita” (transliterally, úscita) which simply means “in” and “out”. As we will see below, a similar cash book is an important focus of this study.

Finally, as revealed earlier, the work of Rubino et al. (2016) was an inspiration for the present study. While the chapter by Rubino et al. (2016) followed different research objectives ours (i.e., a Bourdesian analysis of Italian accounting practices in the late 19th century), their work hinted that the accounting records of the Amarelli family and business might be interesting from the three-circle model viewpoint, but without mentioning any specific focus on family business research or literature. Similarly, Taveau and Touchelay (2018) in their recounting of the
accounting records of two *Maisons de Vin* in the Anjou region in the early 1800s, also hint at some interesting accounting records but again with no family business research focus. With reference to a key accounting book, the *Grand Livre*, they note “this book also indicates that this was a family business”. They describe an entry from 1 July 1820, where a barrel of wine “sent by my mother” to a widow was accounted for in this book. The *Grand Livre* is similar to a present day general ledger (see Lemarchand, 2016).

**Method and sources**

As noted, one of our research objectives is challenging the predominant view of the three-circle model of a family business being static. Thus, we explore the historical degree of overlaps between the three subsystems—family, business, and ownership—as conveyed through the accounting records over time. The three-circle model is of course typically used to position or reflect actors on each circle. Given the historic approach of this study, we are not positioning actors *per se*. Having said that, accounting has been classified as an actor in contemporary literature, a non-human actor (see for example, Briers and Chua, 2001; Jollands and Quinn, 2018). Here, we equate accounting transactions as reflective of underlying human actors, and can thus position the transaction accordingly in the three-circle model.

Given 100% family ownership for the entire period of this study, the ownership system of the three-circle model fully overlaps with the family system in our study. Consequently, we will not distinguish between ownership and family systems below, but focus on the potential overlaps between the family and the business system. Note, however, that every overlap between the family and the business systems examined below can, in fact, be interpreted as an overlap of all three systems due to the full overlap between the family and the ownership system.
In accounting, the entity concept dictates that accounting records should reflect the business transactions of the relevant business entity only, with personal transactions not accounted for in the accounting books. Thus, in contemporary accounting practices of small and family firms, the owners would not include personal/family expenses within the accounting records—most likely from the advice of an accountant or public accounting firm (e.g. Maingot and Zeghal, 2006; Sian and Roberts, 2009). Thus, the family and business systems (expenses in this example) should not in general overlap from an accounting perspective. However, a family/business system interaction could be expected as mentioned above—a payment of a salary to a family manager or employee, for example. In this instance, the expense of a wage to a family member is a legitimate expense wholly for the purpose of the business and would be accounted for within the accounting entity. In turn, the family member could spend his/her wage on food for example. However, an overlap of the family/business systems would not be expected according to the entity concept of accounting, whereby for example food for the family was paid by the business.

Our source of material is from the archive of the Amarelli company. Records of the company, in particular the *Giornale di cassa*, were available to us at the Amarelli museum. Our attention was drawn to this accounting book from the earlier work of Rubino, Mazzotta, and Veltri, who noted “*Cash (cassa) is the principal account of Amarelli, in which every transaction was recorded regardless of the area or subject involved***” (2016, 110). Although the precise format of accounting records may vary from firm to firm, from a historic perspective accounting documents and records are likely to be available than other business records and thus are a valuable resource to business researchers in general (see for example, Cleary *et al.*, 2019). Their greater availability is primarily due to almost the ubiquitous legal requirements to maintain accounting records since about the 1850s. As we have established Amarelli as a family firm, we were intrigued to explore the *Giornale di cassa* in more detail. Each page of the *Giornale*
di cassa contained a column for the date, a narrative, and two columns—one for cash amounts paid in (Introito), one for cash payments (Escito)—and thus is reflective of examples of such books presumably perpetuated since Venturi (1655). The balance of the Giornale di cassa represented the cash balance of the business at a point in time—a total and balance was calculated monthly. However, bank records or balance sheets are not available for the time period of our analysis and verification of the cash balance was not possible. The Giornale di cassa books were digitally photographed for the period of our analysis and subsequently used for off-site analysis. In addition to our documentary analysis, we conducted an interview with one of the present day owners, a member of the Amarelli family. The main purpose of this interview was to confirm the family (business) history.

The Giornale di cassa (GC) book was maintained for the entire period of our research and beyond. The book reflects the cash transactions of Amarelli on a daily basis and on average contains 1,500 to 2,000 line items per year. We selected a random year (1910) and conducted a line-by-line analysis of just over 1,600 recorded transactions (see Table 1). In addition, for each decade we analysed the GC books to confirm format, layout and recording of transactions remained similar, and they did. We also took a further sample of transactions from various years throughout the period (see Tables 2 and 3)—these years were also randomly chosen. Thus, our analysis is based on one detailed year from the GC, and samples from other years. Based on this data from the GC (the 1910 full year and other years), we examined the transactions for evidence of family-related transactions in particular. The presence (or not) of such transactions on a regular basis will form the basis of our discussions later. To determine a transaction as family-related (as opposed to business-related) we examined the words used and the amount of the transaction. For example, transactions which included the word *famiglia* or mentioned a specific family member were easily classified as family items. Similarly, smaller amounts were typically a sign of family-related items, which examination of the narrative text confirmed or
otherwise.

A comment on the analysis period is also useful. In a similar way to Hiebl et al. (2015), we limit our analysis to a period before the introduction of substantial accounting regulation such as company legislation and/or accounting standards. As detailed above, in an Italian context, the main legal framework on accounting at the time of our study was the 1882 Commercial Code. As noted by Camaran and Pettinicchio, an earlier 1865 Commercial Code “did not include specific articles aimed at regulating economic actors” (2010, p. 95). They also recount how economic development in Northern Italy showed up shortcomings in the 1865 Code, which ultimately resulted in the 1882 Code and its accounting provisions (see earlier for mention of specific articles from the 1882 Code). The 1882 Code remained in force until 1942 (Camaran and Pettinicchio, 2010, p. 97), when a new Commercial Code was introduced. Thus, we can state that the legal framework remained stable during our analysis period. A second factor is the political history of the Italian state. Benito Mussolini was Prime Minister from 1923 to 1925, after which point he ruled Italy as an effective dictatorship until the 1940s. During Mussolini’s time, the agricultural sector was corporatised and this had effects on land ownership—see, for example, Sargiacomo et al. (2016) for more detail. The corporatisation, while an interesting topic and subject of extant studies, is beyond the scope of this paper. We thus deliberately exclude the timeframe after 1920 as the focus of this study is on the overlaps in the three-circle model, which is at a more micro level and does not include actions of the State. However, we should note that we are aware of the continued use of the GC by Amarelli after 1925, and into the 1940s.

Finally, some comments on the use of a historic method in this study are useful. While the historical accounting records of Amarelli are utilised in this study, and accounting is a key

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3 The 1942 Code required more detailed financial statements from companies and required specific valuations on some balance sheet items (Camaran and Pettinicchio, 2010, 98).
theme of this paper, it may contribute in more general terms to the historic literature. While historical studies are common in many fields of research, there are no dedicated academic journals which focus solely on family business history—be it on accounting on other functions/tasks within a family business. Earlier, the work of Colli and Fernández Pérez (2013) was mentioned, and based on their work and the literature search undertaken for this study, it is reasonable to state that historical family business history studies are less common, and thus may present an opportunity to contribute to current research topics. Colli and Fernández Pérez (2013, p. 277) question “do we need a historical approach” to family business research, also asking why is history relevant? They suggest to adopt an historical approach provides a “longitudinal perspective [and is] useful to interpret many of the features which the present family firms show across the globe, and to contribute to a better conceptualisation of what family businesses are” (Colli and Fernández Pérez, 2013, p. 277). This is similar to the proposal of Rowlinson and Hassard (2013) mentioned earlier. Thus, it is hoped that the historical method and accounting focus of this paper may contributes to the body of accounting history research, and reveal value which family business history studies may offer to contemporary understanding of family businesses theory.

Findings and discussion

We now present our findings in two parts—data on the randomly chosen full year 1910, followed by a sample of transactions from other years. The GC book itself was consistently maintained during the entire analysis period (1875-1920). As mentioned, each page of the GC consisted of four columns—date, narrative, debit and credit. The majority of transactions were recorded as credit columns entries, signifying cash outflows. At the end of each month, the debit and credit columns were totalled and the difference brought forward to the next month—as would be expected in a cash book. Before detailing some transactions, some further detail
on the 1882 Commercial Code is useful. Part 4 (Titolo IV, Dei libri di commerico) of the 1882 Code details the books of accounts required to be maintained by a trader. Article 20 of this Code is of particular interest. This article requires the trader to keep a day book (libro giornale), which records all debits and credits of receipts and payments on a daily basis arising from le operazioni de suo commercio, or the operations of (his) trade. The distinction of daily recording of items related to trade is important, as Article 20 later refers to a monthly requirement to prepare a declaration of “somme impiegate per le spese della sua casa”, or amounts paid for the upkeep of the trader’s house. Thus, although the libro giornale would appear to be representative of both business and personal transactions (i.e. those for the house), there is a clear separation specified in the code (daily for business, monthly for house) and thus the accounting entity concept is reflected. The GC book at Amarelli is their equivalent of the libro giornale as expected by the 1882 Code, and the findings are now presented.

Table 1 presents a breakdown of all cash inflows and cash outflows for the randomly chosen year 1910—a total of over 1,600 entries in total. In terms of cash inflows, we found a negligibly small number of entries which were classified as related to the Amarelli family. This is not unexpected, as most income transactions are from the sale of liquorice juice and clearly represent business transactions. To give an example, in June 1910, cash from the sale of a hunting rifle to a person called Tucci for 8.6 Lira (the Italian currency at that time) was recorded; in October, cash from the sale of toys (2.6 Lira) was recorded. However, there are a significant amount of cash outflows relating to the family. As Table 1 shows, 21 per cent of all cash outflows were classified as attributable to family items. This 21 per cent of transactions
recorded reflects nine per cent of the value of cash outflows in 1910 as measured in Lira. The detailed analysis of the year 1910 as depicted in Table 1 thus suggests that the GC includes a significant portion of family-related cash outflows. Table 2 provides some detailed examples of cash outflows which have been classified as family-related transactions, and the reasoning for each classification.

[insert Table 2 about here]

Turning now to samples of GC transactions from other selected years, namely 1876, 1877, 1890, 1892, 1908, 1915 and 1916. Together with the above detailed analysis of 1910, detail to some degree of eight years of the GC is given. Table 3 provides some examples from the mentioned selected years. Focusing on the family items, as can be seen from Table 3, the various types of family expenditure recorded in the GC for these years are similar to that shown for the year 1910 in Table 2. The expenses include children’s toys, donations, cigars, ice cream, flour, wine and insurance. The latter item, denoted by payments to Fondiaria (see also Table 2) and labelled as family or with a person’s name, are a regular feature. The Fondiaria company dates from 1879 and offered many forms of insurance, including vehicles, life, health and fire products. It is still in existence today⁴. The sample entries from the GC as shown in Table 3 also reveal payments to Fondiaria for insurance of some variety on the Concio, or liquorice factory. Thus, personal and business payments to Fondiaria are both recorded in the GC. As with 1910, the sample years in Table 3 also show a small number of cash inflows. For example, in 1916, Lira 37.20 was received from a shepherd for 3 tomolate (a measure of weight) of olives. Thus in summary, Table 2 and 3 reveal that the GC as maintained by Amarelli certainly contains items of expenditure (mainly) which are family related, which is contra to the separation of family/business transactions as suggested by the 1882 Code.

As mentioned earlier, in contemporary accounting, the entity concept would dictate family personal expense items and business transactions be separated, as the former are not expenses of the entity. While the entity concept is not expressly stated in the 1882 Code, it does suggest a separation of business (*suo commercio*) and family transactions (*sua casa*), with the latter being recorded in a separate monthly book/statement. If the entity concept were to be applied circle model can be depicted as per Figure 3. Some examples from Tables 2 and 3 are used for illustrative purposes. However, as described earlier, the sample transactions shown in Tables 2 and 3 are from the same accounting book, the GC, and are recorded together. In addition, despite the 1882 Commercial Code stipulation, the totals of the GC each month are not separated to show items for the family transactions (*sua casa*). Thus, the entity concept is not applied in the GC as per the 1882 Commercial Code. The location of the sample transactions depicted in Figure 3 is thus not reflective of the actuality of the GC. The transactions are depicted again in Figure 4, which is reflective of their actual location in the visualization of the three-circle system in the case of Amarelli. As can be clearly seen in Figure 4, there are not three circles, but two. The family and ownership circle are combined as one as the business was 100% family-owned for the entire period of analysis (see above). In addition, while the family and business circle remain separate, they overlap to a greater extent than expected by the entity concept and visualized in Figure 3. This greater-than-expected overlap is due to family expenditures being accounted for in the GC and thus, within the overlap of the family and the business system, and not just in the family system as displayed in Figure 3. Thus,

[insert Figure 3 about here]

[insert Figure 4 about here]

Overall, reflecting on the Amarelli family business as portrayed through the GC from 1875 to
1920, it has become apparent that the family system and the business system of the Gersick et al. (1997) are overlapping to a greater degree than would be expected by the contemporary entity concept. The GC is the only surviving cash book within the Amarelli archive collection, and as outlined earlier, it is reflective of the books to be maintained by a business of the time according to the 1882 Commercial Code. However, as revealed in Tables 1 to 3, the GC of Amarelli portrays the business and the family as very much overlapping systems as conveyed by the accounting records (see Figure 4). Why we cannot determine for sure, as with much historic archival research, we cannot get behind the data to interpret the relevant actor’s reasoning for a particular course of action. While the GC as maintained did capture expenses of sua casa (the family) as required by the 1882 Code, it did not separate them as seems to be quite implicit in the Code. This non-separation was done on a regular and prolonged basis (at least for the period of analysis here). Thus, we can only tentatively suggest that the Amarelli records were kept this way as the family did not distinguish family from business in terms of the balance of cash in the bank (as reflected by the GC). This non-separation of family and business records may be reflective of a feature of many—also contemporary—family firms: a structure where business finances are closely interwoven or intermingled with the owning family’s finances (Haynes et al., 1999; Ehmer, 2001; Yilmazer and Schrank, 2006). Our case evidence indicates that in earlier times, the enforcement of the entity concept and thus a more clear-cut separation of business from family and ownership was weaker than today, which may explain why the Amarelli family chose to keep the two systems within one book—potentially a choice that was natural to business-owning families of the time: seeing the business and the family as a whole. This view is also in line with contemporary research suggesting that institutional voids such as a lack of institutional norms or regulations affect family ownership in corporations (Chakrabarty, 2009). In our case, there may have been institutional voids in Italy in the early 20th century in terms of a weak enforcement of the entity concept or less
accounting rules which enabled business families of the time to treat family and business as a whole—also in accounting terms.

The research here tentatively suggests that the model of Gersick et al. (1997) with three clear-cut circles may be more applicable to contemporary family firms. This assertion is based on how the accounting transactions reflect the three subsystems of the model, which as outlined earlier are not in line with the entity concept; that is, the accounting records do not typically separate family and business transaction as would be expected today – or indeed as suggested by the 1882 Commercial Code. Put differently, the Amarelli case suggests that the analysis of accounting records of family firms of earlier times will reveal the three-circle model as less applicable, and indeed we have already noted the family and ownership systems may fully overlap (see Figure 2). While a full overlap of family and ownership is of course still possible in a contemporary setting, our findings suggest that overlaps between family/ownership and business are likely to be much larger than in contemporary family firms (see Figure 4). More importantly, if we compare the expectations of how accounting records would typically be reflected based on the contemporary entity concept (see Figure 3) with the ones observed in the Amarelli case (see Figure 4), this comparison suggests that the three-circle model is not a static model, but a model where overlaps between the circles may show considerable movement over time. This is something that Gersick et al. (1999) and others such as Sharma (2004) seem to have not taken into account in reflections on how family businesses evolved over time. Even if such movements of overlaps between the circles could not be identified within the time period of this study, the comparison of Figure 4—the illustration of the circles as identified through our analysis—with Figure 3—the illustration of the circles as they would be expected today by the entity concept—suggests that over extended periods of time, overlaps between the circles can move. This notion, so far, has not been detailed or analysed in prior studies of the three-circle model.
The data from Amarelli’s GC also reveals the interactions of change and stability over time, which has been highlighted in the contemporary accounting literature (see for example, Quinn and Hiebl, 2018; Quinn, 2014). The context of this study is relatively stable – the Commercial Code applied for the entire period of our study, and accounting at Amarelli (as conveyed through the GC) was similarly stable. However, in contrast to the present day, this context is different in terms of the applicability of the entity concept (Figure 3), and thus as shown, a dynamic approach to the elements of the three-circle model was needed in this research. While this study has examined a period of about 45 years to 1925 which were relatively stable, an extended study from say 1880 to present day would likely show more clearly the dynamic nature of elements of the three-circle model needed to reflect changes in accounting over a more prolonged period of time.

**Final comments and implications**

As noted earlier, historic research drawing on accounting records and taking on board specific family business models and/or theories would seem to be scarce. Such research can aid knowledge building by infusing additional and alternative views on historic family firms (cf. McWatters, 2017). Indeed, the work of Cleary et al. (2019) has, in a similar way to this study, used historic accounting data to provide some insights into family business theory. In their work, the notion of socio-emotional wealth in family firms was studied for change over time, and as a result some new insights into its nature materialized. This paper similarly took a family business theoretical construct—the three-circle model—and using historical accounting records, has first shown the model can be applied to such records, and second, offered a view that the model needs to be refined to consider historical context. That is, our application of the three-circle model suggests that indeed, contemporary models from the evolving field of family
business research may be useful to shed light on historical studies, but at the same time, our findings also suggest that researchers need to remain open to adapt contemporary models to a historic context.

Our study has two important implications. First, our study shows that in management history research, contemporary family business frameworks such as the three-circle model may not be readily applicable. However, such management history research can help identify the boundaries or implicit assumptions of contemporary frameworks. Our case suggests that an important boundary condition of the three-circle model is that Gersick et al. (1997, 1999) seem to rest their model on the applicability of the entity concept. As our case illustrates, this implicit assumption does not hold at least for the context of early 20th century Italy. Consequently, both family business researchers and management history researchers need to consider this boundary condition when applying the three-circles model, and remain open to developments in the overlaps of the three-circle model.

Second, a related, but more general implication for management history research is that to further our theoretical understanding of historic family firms, we cannot simply assume that widespread contemporary frameworks for understanding family firms apply to historic family firms. So when applying such frameworks to management history research, caution is warranted. At the same time and as our example of adding an important boundary condition of the three-circles model shows, our study underpins Colli’s (2011) assertion that management history research can help develop and refine family business theory (see also Cleary et al., 2019). Given that the growing field of family business research has so far mostly neglected historic studies of family firms (Colli, 2011; Colli and Fernández-Pérez, 2013), our study indicates that there is ample room for management history researchers to help refine family business theories and therefore improve their applicability both in contemporary and historic contexts.
Of course, our study is not free from limitations. One is that the intention of the Gersick et al. (1997) framework was not solely to reflect accounting records of a family business. As researchers we can easily map accounting transactions, records and roles to the family, business and ownership systems. As the Amarelli case has shown, not only our historical, but also our present day understanding of family business models may be enhanced using historical accounting data. Amarelli is of course a single case, in which we have randomly selected sample data, and thus more similar research is need to support (or challenge) the view presented that the three-circle model is not a static one. The historic nature of the data is also a limitation, as we cannot be certain of actor’s intentions as they recorded business transactions in the accounting books. However, research of the type presented here is still quite limited, although some research which is not family business focused per se (see for example, Taveau and Touchelay, 2018) seems to suggest that accounting records did not distinguish family and business transactions. Further inter-disciplinary research crossing the management/accounting history and the family business fields is encouraged to add to the efforts presented in this paper. In particular, research spanning a longer time period than the present study would be useful, to fully capture changing business contexts over time in terms of models such as that of Gersick et al. (1997). Such research may in particular add to the growing theoretical base in the family business literature, but may also infuse the theory base in historic studies.
References


