

Accounting transitions.

A silk firm's bookkeeping between tradition and modernity (18th to 19th century)

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Abstract:

This paper contributes to the history of accounting by drawing on evidence from the bookkeeping of a merchant firm that had a systematic accounting system in the eighteenth century, despite not introducing double-entry bookkeeping until the early nineteenth century. The study centres on the *Valentino e Isidoro Salvadori* family firm, which had been located in Trento since the late seventeenth century, at the crossroads of important commercial routes linking northern Italy, particularly the Venetian Republic, to the transalpine markets across Tyrol and the prince-bishopric of Trento. This family business embraced the silk manufacturing in the late eighteenth century and their usage of the double-entry bookkeeping and the accounting books provides interesting examples of an industrial accounting system aimed at controlling internal transactions and monitoring the silk business in particular.

Keywords: double-entry bookkeeping, Trento, silk, manufacturing, trading, industrial accounting

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Introduction

This paper contributes to the history of accounting by drawing on evidence from the bookkeeping of a merchant firm that had a systematic accounting system in the eighteenth century, despite not introducing double-entry bookkeeping until the early nineteenth century. The study centres on the *Valentino e Isidoro Salvadori* firm, which had been located in Trento since the late seventeenth century, at the crossroads of important commercial routes linking northern Italy, particularly the Venetian Republic, to the transalpine markets across Tyrol and the prince-bishopric of Trento.¹

There are two main reasons why the Salvadori firm is a relevant subject of study. First, it was a diversified business firm, which engaged in long-distance trade as well as in retail sale and manufacturing and credit activities, while focusing from the last quarter of the eighteenth century on the manufacturing and trading of silk. Thus, it is of interest to investigate how the Salvadori managed to develop an accounting system that enabled them to record and organise information properly.² Second, to be noted is that the firm, one of the main businesses in Trentino-Tyrol with widespread international relations, did not for long resort to double-entry bookkeeping. The latter's adoption in the early nineteenth century, therefore, makes Salvadori a good case for investigating the reasons for this "accounting transition".

In the early modern period, several treaties eased access to accounting principles for a broad range of actors, among them the Salvadori. In addition, they could take advantage of widespread business relations with correspondents on both sides of the Alps, from Venice to Frankfurt am Main and beyond. Thus, we can presume that they had the means to introduce double-entry bookkeeping if they wanted. Nevertheless, they adhered throughout the eighteenth century to "old" accounting practices, which highlights that knowledge of accounting techniques—gained from manuals or through direct relationships with other merchants, for instance on the occasion of apprenticeships³—was a necessary but not sufficient condition for introducing double-entry bookkeeping. Indeed, this latter was also affected by the nature of the firm and its information needs.

For this reason, after discussing the role of accountancy (and double-entry bookkeeping) in a period when formal prescriptions were still lacking, I will examine the nature of the firm and its strategies to gain better understanding of the features of its accounting system. I will then analyse the main types

¹ Lorandini, *Famiglia*; ead., "Looking." The institutional framework changed over time: in 1803 the prince-bishopric of Trento (roughly corresponding today to the autonomous province of Trento) underwent a secularisation process, and in 1815 the county of Tyrol incorporated its territory, which was to be annexed to Italy after WWI.

² The business documents are conserved in the State Archives of Trento; an inventory project financed by Fondazione CARITRO is still in progress; hence I use the old archival references.

³ See Zanini, "Saperi," and Leonardi, "Corporation."

of ledgers kept in the second half of the eighteenth century, and I will finally investigate the circumstances of the transition to double-entry bookkeeping.

On the usefulness of accountancy (and double-entry bookkeeping)

In *The Book of the Art of Trade* (1458), Benedetto Cotrugli stressed the importance of writing for a merchant: “And you can readily see how a merchant whose pen weighs heavily, one, that is, indisposed to put it to paper, can hardly be said to be a merchant”.⁴ This sentence is at the beginning of chapter 13, *On Keeping One’s Books in a Mercantile Manner*, which consists of a few but significant pages that provide the first known description of the double-entry bookkeeping system.⁵ Furthermore, Cotrugli observed that, besides being skilful in writing, a merchant must “know how to organise his writings”.⁶ An accurate keeping of records belonged among those fundamental skills that a merchant needed to be successful in business.⁷ The regular and careful recording of business events had several functions: keeping track of the firm’s transactions, avoiding (or at least reducing) disputes with correspondents,⁸ enabling reciprocal monitoring between partners, and determining the firm’s profits and losses.⁹ Proper accounting promoted the profitable management of a firm, but what role did double-entry bookkeeping play within this framework? Early modern manuals emphasised the merits of this technique, but what do we know about its actual spread? Most of all, can we assume a causal relationship between double-entry bookkeeping and a firm’s economic performance?

According to Werner Sombart, double-entry bookkeeping epitomised the capitalist spirit.¹⁰ The German scholar argues that the advent of proper accounting and the regular keeping of books were a crucial step towards the rise of the capitalist firm in that they enabled a “de-personalisation” of the firm, which means that the business took on a life of its own, separate from the entrepreneur’s. Particularly, the use of double-entry bookkeeping and the ensuing development of the idea of profit and of economic rationalism had a pivotal role in the development of a capitalist mentality.¹¹ As stated by Giuseppe Felloni, “the idea of profit stems directly from the juxtaposition of writings that express increases or decreases of capital. As for economic rationality, only through double-entry bookkeeping is it possible to know in quantitative terms the management’s performance and provide for its rationalisation.”¹²

⁴ Cotrugli, *The Book*, 70. The oldest surviving copy of the manuscript dates to 1475 (Sangster, *Libr.* XV), while the earliest printed copy dates to 1573. A critical edition has been recently issued (Cotrugli, *Libro*), followed by the first English translation.

⁵ The *Summa de arithmetica* by Friar Luca Pacioli, printed in Venice in 1494, was the earliest printed work that described the double-entry bookkeeping system; the English translation already appeared in 1924. See Eldridge, *The evolution*, 25–28.

⁶ Cotrugli, *The Book*, 70.

⁷ See Angiolini and Roche, *Cultures*.

⁸ As written by Cotrugli himself: “le scripture [...] non solamente conservano et ritengono in memoria le cose tractate e facte, ançi sono cagione di fugire multi litigii” (Cotrugli, *Libro*, 82).

⁹ On the role of merchants’ writings, see Arlinghaus, *Zwischen Notiz*.

¹⁰ Likewise, Weber and Schumpeter emphasised the importance of double-entry bookkeeping. See Carruthers and Espeland, “Accounting.”

¹¹ Sombart, *Il capitalismo moderno*, 251–263.

¹² Felloni, *Profilo*, 97.

But there are other positions that have been adopted in the historiographical debate. Some authors claim that the importance of double-entry bookkeeping has been at times exaggerated in that it was attributed merits that no accounting technique could have.¹³ For everyday decisions, perhaps it was not so important to know the overall amount of profits, whilst this information was important when a partnership was ending, in order to distribute profits and losses.¹⁴ Also in this case, however, the outcome could be established by comparing the final capital with the initial capital without necessarily using double-entry bookkeeping. Barry Supple has argued that the main objective of a preindustrial firm's accountancy was not to determine the profitability of single areas of business for planning purposes, but rather to keep internal and external transactions under control.¹⁵

Despite the scant evidence, one can reasonably assume that in most businesses the accounting system did not involve double-entry bookkeeping throughout the early modern period. According to Basil S. Yamey, "even if one were to exclude from consideration the large number of small businesses that were unlikely to have used DEB, it is reasonably certain that the spread of the system was rather slow in Western Europe until at least the eighteenth century, and its use still rather patchy in that century."¹⁶ Yamey claims that even major businesses did not necessarily have double-entry bookkeeping,¹⁷ and the lack of it can hardly be regarded as a synonym of inefficiency and backwardness.¹⁸ Hence, if it was possible to run a business successfully using less elaborate accounting techniques like single-entry bookkeeping—provided books were kept in order and accurately—one may legitimately inquire as to what were the driving factors in the adoption of double-entry bookkeeping.

The Salvadori firm: nature, strategies and accounting system

"A history of accounting ... without some knowledge of the actors—those for whom as well as those by whom the records were kept—must be rather anaemic and thin".¹⁹ Any discussion of accountancy is fruitless if not related to the actors in whose interest the books were kept. In investigating the Salvadori firm's accounting system it is therefore important to take both the nature of the firm and its strategies into account.

With regard to the first aspect, the Salvadori firm was a family business with the typical features of a Venetian *fraterna*, which means that it was characterised by an undivided patrimony of several

¹³ Yamey, "Bookkeeping," 184–187; Ramsey, "The Unimportance."

¹⁴ Kellenbenz, "La tecnologia," 177.

¹⁵ Supple, "La natura," 474–475.

¹⁶ Yamey, "The historical significance," 81.

¹⁷ Yamey recalls that in the seventeenth and eighteenth centuries many large companies in France did not use double-entry bookkeeping, nor was it introduced by major actors like the Rothschilds until the twentieth century. By contrast, recent research has refuted Yamey's contention that Fuggers of Augsburg did not use double-entry bookkeeping at the apex of the firm's success in the early sixteenth century. See Yamey, "The historical significance," 81; Baker and Quéré, "Governance."

¹⁸ Yamey, "Bookkeeping," 163, 173, 184.

¹⁹ The quotation is from Dell'Osa and Lippolis, "La diffusione," 96.

members and branches of the family used for business purposes.²⁰ The firm's origin can be traced to the entrepreneurial ventures of Valentino (1641–1692) and Isidoro (1645–1701) Salvadori in the last decades of the seventeenth century. At that time, the two brothers left their home village, Mori, and moved to Trento, where they started a new business, while maintaining joint ownership with their family. In 1716 the offspring of Isidoro and Valentino—founders respectively of the lineages of Trento and Pergine—separated from the Mori relatives, but they preserved an undivided property among themselves, thus constituting a *fraterna* in its own right.²¹ In 1747 a further division followed between the two branches, with the lineage of Trento carrying on the enterprise and maintaining joint ownership among its members for the rest of the century. In that period, the structure of the family patrimony became more complicated in that in addition to the firm's assets—which included both family and business assets—there emerged some properties belonging to particular individuals or family branches. Simultaneously, separate series of books flanked the firm's accounting system, on which this essay focuses.

Like all family firms based on an undivided patrimony, the Salvadori did not stipulate any formal partnership agreement defining the amount of capital invested and the partners' rights and duties, nor was there any calculation of profits and losses of the overall business. It is only by means of some occasional inventories of assets and liabilities that we can observe the business performance as it appears from the evolution of the firm's net value. A U-turn occurred in the period 1810–1826, when the Salvadori firm transformed into a formal partnership involving a non-family member. As we shall see, this was a major factor inducing a transition to double-entry bookkeeping, which was to be preserved even after the firm again became entirely family-owned.

As to the firm's activities, in the mid-eighteenth century its main businesses were long-distance trade and shipments, attendance at the fairs in Bolzano—where Italian and German-speaking merchants gathered on a quarterly basis²²—the manufacture of silk in the silk mills of Trento and Calliano,²³ and the retail trade in the Pergine shop. Particularly, the silk business—in which the Salvadori would specialise from the 1780s onwards—earned the firm inclusion in the circle of the more prominent commercial houses in Trentino-Tyrol. The Salvadori competed on an equal footing with merchants of the nearby proto-industrial district of Rovereto, in southern Italian-speaking Tyrol, whose silk threads were renowned on the transalpine markets.²⁴

Maintaining control over a business conducted in different locations and markedly diversified for most of the eighteenth century required a complex accounting system, with some books compiled in Trento and related to the general management, and other books specifically devoted to transactions concerning a particular locality and/or type of business. Leaving aside the general administrative

²⁰ Lorandini, "Patrimoni."

²¹ Pergine and Mori were both located in the prince-bishopric, to the east and south of Trento respectively.

²² See Bonoldi, "Mercanti," and Denzel, *Die Bozner Messen*.

²³ Calliano was a bishopric's village south from Trento.

²⁴ Leonardi, "Il setificio;" id., "Il distretto."

books—letterbooks, books recording information on correspondents, commissions received, incoming goods and shipments—I shall focus here on the books of accounts *stricto sensu*.

As said, the Salvadori did not use double-entry bookkeeping in the eighteenth century, although we can suppose they would have been able to adopt the technique if they had wanted to. Besides the opportunities offered by the accounting treatises and the many contacts with prominent merchants, the Salvadori could resort to local experts able to teach double-entry bookkeeping. We find evidence of this in an agreement struck in 1727 in Rovereto whereby a silk merchant committed to financing a training course in double-entry bookkeeping for his employee. Luca Barozi, employed by the firm Gio. Domenico Perottoni for two years, wished “to advance his fortunes by learning the rules of double-entry bookkeeping”, but since his father lacked the means to provide him with the necessary training, Luca asked his employer, who agreed to pay a priest named Gio. Batta Marosi to teach him.²⁵

Despite the lack of double-entry bookkeeping in the accounting system of the Salvadori, their books evidence an accurate and rational recording of transactions which met different information requirements according to the type of book, and which warrants detailed analysis.

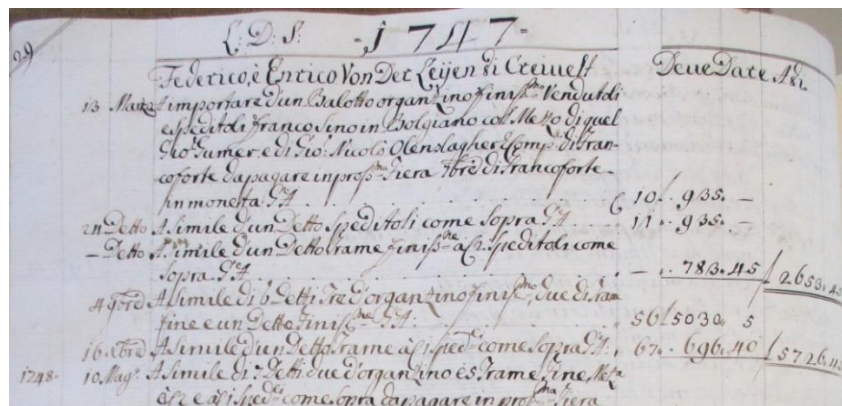
On the general and fairs’ accounting

The accounting techniques and flow of transactions in the firm’s bookkeeping system have several similarities with the methods of accounting portrayed in early modern treatises, among them the conventional use of the terms *Dare* and *Avere* and the prepositions *Per* and *A* to designate respectively the account to be debited and credited. At the core of the bookkeeping system were the three ledgers mentioned by Cotrugli and Pacioli, and which corresponded to what we know nowadays as book of original entry (*prima nota*), journal and general ledger. These were compiled together with the cashbook at the firm’s headquarters in Trento, while further books were compiled at the fairs in Bolzano.

The *strazetto* (*ricordanze* for Cotrugli and *memoriale* for Pacioli) worked as a *prima nota*: it was devoted to a first recording of transactions in chronological order in order to keep track of them (Fig. 1). This ledger—which bears different kinds of handwriting belonging to the various members of the family who ran the firm—had a function preparatory to the compilation of the journal. The entries were at times hasty and incomplete; they sometimes lacked the operation amount and used different units of account. Afterwards, the records were usually reported in neat script in the journal after notating *Rig.^o*, which means *rigirato* (i.e. transferred) at the margin; following the transfer of all records, the page was crossed out.

²⁵ The cost of training, equal to 140 florins, was rather high if one considers that Barozi was paid 70 florins in his first year of employment plus an additional 10 florin increase each year, which means that his wage was to reach 110 florins in the fifth year. ASTn, AN, Rovereto, Turrini Giovanni Francesco, b. XVI, 21 Jan. 1726; b. XVII, 23 Nov. 1727.

In the *libro maestro* or general ledger—the *libro grande* for Cotrugli and *quaderno* for Pacioli—the transactions were reported in the accounts of the firm’s correspondents. In accordance with the technique called *alla veneziana*, the accounts consisted of two juxtaposed sections with *Dare* on the left page and *Avere* on the right page (Fig. 3). Each record included the date, the account—if any—that moved in the opposite direction, a description, the reference to the book (the journal or, as we shall see, the *quadernetto* of the fairs) and the page from which the record was transferred, and the value.²⁶ The use of the terms *Dare* and *Avere* and the Venetian model of the general ledger must be interpreted with caution in that they were not necessarily related to double-entry bookkeeping:²⁷ indeed, the firm’s accounting failed to fulfil some basic requirements, and was therefore based on single-entry bookkeeping. In order to have double-entry bookkeeping—i.e. a double record on two opposite pages, so that an account is debited for the same amount for which another is credited—a prerequisite is the creation of accounts registering assets like cash and inventory, as well as capital, and revenues and expenses, besides personal accounts.²⁸ By contrast, the Salvadori general ledgers included only accounts held by correspondents, testifying that the main objective was to monitor financial relationships. This is the reason why there are only occasional double entries in the journal. Keeping the firm’s liquidity under control was also deemed important. Hence, in addition to the triad *strazetto-giornale-maestro*, a cashbook was kept for recording inflows (*Dare* section on the page on the left) and outflows (*Avere* section on the right) of money.



²⁶ From 1747 onwards, the accounts of correspondents concerning loans at interest were put in a separate ledger. See ASTn, AS, vol. 734.

²⁷ The terms *deve dare* and *deve avere* were already in use before the advent of double-entry bookkeeping: we can find some evidence in the fragments of a business ledger kept in 1211 in Bologna. As for the Venetian model of the general ledger, it was adopted also by firms that did not practise double entries. Yamey, “The historical significance.”

²⁸ Sombart, *Il capitalismo moderno*, 254.

C.D.S. 1747

29

Dare Avere R.

1747	maestro Per Gio. Nicolo Olenstlager Comp. a segnaione	146/2633.45	2633.45
1748	maestro Per Gio. Nicolo Olenstlager Comp. simile	9/57.26.45	57.26.45
1749	maestro Per Gio. Nicolo Olenstlager Comp. simile	147/57.88.45	57.88.45
1750	maestro Per Gio. Nicolo Olenstlager Comp. simile	516.60.	
1751	maestro Per Gio. Nicolo Olenstlager Comp. simile	170.77.55.	77.55.
1752	maestro Per Gio. Nicolo Olenstlager Comp. simile	12.7.60.	
1753	maestro Per Gio. Nicolo Olenstlager Comp. simile	159.56.93.45	
Restanti li portiamo in debito in quest' avanti		26/92.40	92.40

Fig. 3. *Libro maestro*, 1747–1753, *Dare* and *Avere* sections of the account held by the Von der Leyen firm of Krefeld (ASTn, AS, vol. 140)

The difficulty of moving bulky and heavy books like journals and general ledgers, and the need to preserve them from damage, led the Salvadori to maintain a separate accounting system during the fairs that took place every three months in Bolzano, 50 km to the north. The main books were the *notarella* and the *quadernetto* or *quaderno*, similar in function and structure to the main ledgers, albeit with some significant differences. For instance, the *notarella* differed from the journal in that it comprised mostly double entries (Fig. 4). The reasons are the special nature of transactions that took place during the fairs—payment assignments and clearing of balances, which involved crediting and debiting different accounts simultaneously—and the presence of the cash account in the fair ledgers. In fact, the *quadernetto* (Fig. 5), unlike the general ledger, opened with a cash account recording the money brought to Bolzano, subsequent cash movements and, at the end of the fair, the cash brought back to Trento. The *quadernetto* then reported a list of negotiations of letters of exchange, followed by the accounts of correspondents, which were closed at the end of the fair to be transferred into the general ledger. There was even an account held by *Valentino e Isidoro Salvadori* of Trento in order to keep track of internal transactions.

Date	Name	Value
1747	Fra. A. Bartolamio Bolzano	
	Lorenzo Hermon d'Ala Dare	94 37
	Gio. Michele Leprecher di Hoffner d'Ala Dare	191 140
14 Gennaio		191 115
31 Maggio		188 140
6 Luglio		
	Avere sotto Fra. Guis. Dini	200 11
	Bartolamio Lent d'Ala Dare	85 11 2
	Giov. Giacomo Linder d'Inverault Dare	35 31 38
	Vedova di Gio. Matteo Daneman d'Inverault Dare	15 140, 203 115

Fig. 6. Scartafaccio of the Bolzano fairs, 1747–1752 (ASTn, AS, vol. 31)

On the special and industrial accounting

Similarly to the case of transactions during the fairs, the Salvadori kept distinct ledgers for special branches of activity. Some of the most relevant are the books for the Pergine shop and those for the manufacturing of silk. A major difference with the other accounting books is that the main purpose of the entries was to record and control internal movements as well as to determine the economic performance of particular activities. The unit of account was also different in that the *lira tron*—a monetary unit of Venetian origin, the use of which was widespread in the Trentino area—replaced the Austrian florin.

In the mid-eighteenth century the Pergine shop was managed by an agent of the Salvadori, with whom they had established a partnership. The firm was run under the title of *Valentino e Isidoro Salvadori di Pergine*. As main financiers, the Salvadori were entitled to a majority of the profits, while the remaining share (initially 1/4, then increased to 1/3) was owed to the partner for the firm's management. The original agreement stated that a balance sheet had to be drafted periodically, and that the partner had to compile the journal, the general ledger and all necessary books, so that the *dare* and *avere* were recorded carefully to avoid errors. A separate book was devoted to recording the value of goods and money exchanged with the Salvadori, which enabled the two parties to compare their records and check if they matched every month or two months.²⁹ Unfortunately, we do not know the actual accounting methods of the Pergine shop, because the only documents available are the books kept by the Salvadori. The *Libro di Pergine* consisted in the current account of the Pergine firm, which was debited and credited by the Salvadori of Trento for transactions undertaken with the shop.³⁰ Another book collected the inventories and balance sheets drawn up at the end of the partnership for a proper

²⁹ Lorandini, *Famiglia*, 148–154.

³⁰ ASTn, AS, vols. 1193, 656.

distribution of profits before the company's renewal.³¹ This book documents that the economic result originated from a comparison of the initial capital with the final capital as it emerged from the inventory. Therefore, we have no evidence of double-entry bookkeeping.

The firm's performance was also calculated with regard to the manufacture of yarns in the silk mills of Trento and Calliano. In this case, however, the objective was not the calculation of profits in order to distribute them between the associates, as silk manufacturing was an integral part of the Salvadori firm of Trento, and the family was the sole owner. The aim was probably that of controlling the firm's salaried agents in charge of the silk mills' supervision. On the other hand, determining the profitability of the silk mills was a means to monitor a process that, compared to trading, entailed more difficulties in controlling costs, besides being centred on the transformation of a high-value raw material.

Since I cannot provide here a full account of silk accounting, I shall focus on the *Monte sete* ledgers and the books of the silk mills of Trento and Calliano.³² These are particularly interesting because they took the form of an industrial accounting system aimed at controlling internal transactions. In the *Monte sete* ledgers, through a series of accounts, the Salvadori recorded the incoming raw silks and followed their destination, noting down both value and weight. Thus, we find the following accounts: *Sete in monte proviste, e uscita* (raw silk inflows and outflows), raw silk sold, raw silk transferred to the silk mill in Trento to be processed into trams, raw silk to Trento for organzine, and the same for silk sent to Calliano. Further accounts concerned silk waste and cocoons unsuitable for reeling, for which—like the raw silk sold—the Salvadori recorded inflows and outflows, as well as the gains from trading.³³

For the silk mills of Trento and Calliano there are two separate series of books available. Each book started with a cash account where the Salvadori recorded all money paid to the agent for running the silk mill, and how the money was used. There followed the accounts registering the inputs of the production process—raw silk for trams and raw silk for organzine—and the output—trams, organzine and waste silk. Records concerned both values and weight, and led annually to compilation of a balance sheet of the silk business in Trento or Calliano in regard to each season from June-July until the “new” silk started being processed.

The silk accounting is unique in the Salvadori bookkeeping system for two main reasons, i.e. the annual compilation of the balance sheet and the way in which profits were calculated. In fact, the balance sheet took the form of a profit and loss statement showing expenditures, revenues, and net profits (or losses). When cash outflows recorded in *Dare* exceeded actual expenditures, the “matching” principle was met by introducing in *Avere* some rectifying items, for instance receivables from the agent or the workers or from the Salvadori of Trento themselves, in the case of costs borne by the family with the silk mill's cash (Fig. 7). The profit and loss statement was followed by a weight balancing, which recorded weight losses or wastes incurred in processing raw silk into thrown silk.

³¹ ASTn, AS, vol. 489.

³² See ASTn, AS, vol. 772 for Trento, and vol. 814 for Calliano.

³³ See ASTn, AS, vol. 744.

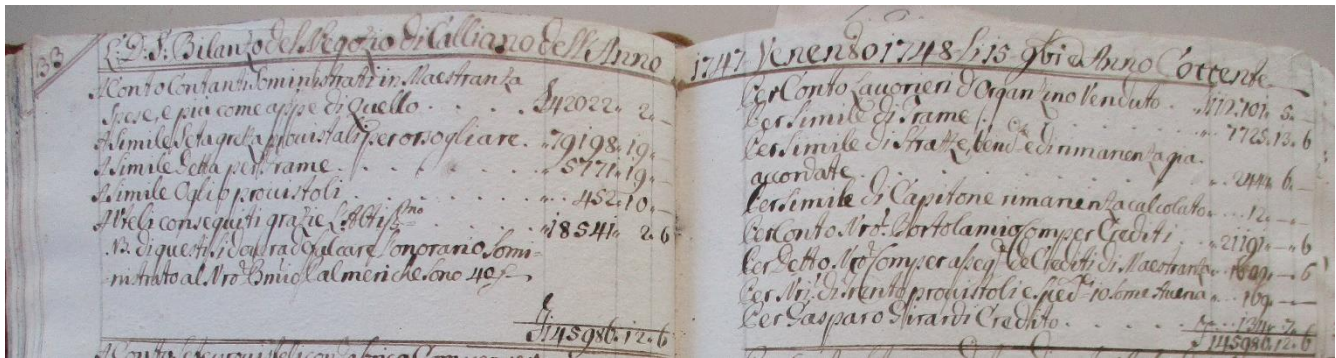


Fig. 7. *Libro per il negozio di Calliano*, 1747–1755, balance sheet (ASTn, AS, vol. 814).

The transition to double-entry bookkeeping

Double-entry bookkeeping entered the Salvadori accounting system in 1810, when the firm established a partnership with Giuseppe Rungg, the former director of a Swiss firm, who became an associate of the Salvadori firm of Trento.

Amidst a difficult period due to the Napoleonic wars and frequent political-institutional changes, the family tapped into external skills.³⁴ The newly established firm, which maintained the old title, led for the first time to a formalization of partnership relationships between the associates.³⁵ Hence, there was a transition from a family firm based on an undivided patrimony to a partnership endowed with its own distinct capital, to which Rungg contributed 25,000 florins and the Salvadori altogether 200,000. Both parties were entitled to 5 percent interest on capital and a profit share amounting to two thirds for the Salvadori and one third for Rungg. The agreement bore the signatures of Valentino Salvadori (1752–1833) and his cousin Giovanni Battista (1761–1825), acting also on behalf of his brother Francesco (1766–1824).

The formal partnership with a non-family member made it necessary to keep the evolution of capital under control, and periodically calculate the economic results in order to determine the profits (or losses) owed to the partners. This was arguably the reason which, in addition probably to Rungg's competencies, led to modernisation of the accounting techniques with the introduction of double-entry bookkeeping. Thereafter, the balance sheet reporting the firm's assets, liabilities, equity and profits (or losses) was drafted regularly on an annual or biennial basis. Thus, in the general ledger we find new accounts which made it possible to have double entries for each recording: the capital accounts of Valentino Salvadori, Giovanni Battista Salvadori and Giuseppe Rungg,³⁶ the accounts related to exchanges, silk and cash, and those concerning the expenses and the profits and losses. There followed the current accounts of the three partners and those of the correspondents.³⁷

³⁴ See Lorandini, "Sailing."

³⁵ ASTn, AS, sc. 67, b. 24, Partnership agreement Salvadori-Rungg, 24 March–1 April 1809.

³⁶ The general ledgers covering the period before the partnership with Rungg are missing; however, the journals document that at the time the Salvadori still practiced single-entry bookkeeping (ASTn, AS, vols. 86, 981).

³⁷ ASTn, AS, vol. 132.

Compared to the eighteenth-century accounting system, also the *prima nota* and the journal had partially different features. Unlike the *strazetto*, the book that for the first time came to be called *prima nota* had a more formal character and maintained only a preparatory function to the journal; it lacked the role of keeping also track of events other than those recorded in the journal. The recordings were in neat handwriting and always included the transaction's value and a reference to the journal's page where the recording was transferred (Fig. 8). On the other hand, the recordings in the journal were not made daily as before, but rather grouped on a monthly basis. The various movements of the same account in a month, corresponding to a movement in the opposite direction of other accounts, were grouped in a compound journal entry by resorting to the *partite collettive* "seguenti debitori" (i.e. following debtors) or "seguenti creditori" (following creditors).³⁸ There followed details of the debited and credited accounts, each of them with a description of the transaction and a reference to the corresponding pages in the general ledger and the *prima nota* (Fig. 9).

In 1826, when the partnership came to an end and the firm returned to exclusive ownership by the family,³⁹ the capital invested remained separate from the family's patrimony, and the double-entry bookkeeping system was maintained until the final demise of the firm in the late nineteenth century.

Mese di Agosto 1810		
3	Conto Rete Devo a Valentino e Isidoro Salvadori Conto vecchio a caposi 26 43-6 Schia a due pretti	no / 284 368 602 44
2	Giuseppe Thurner di Qui Devo a Conto Utile e Avanzo a parti deli e provig. abbonati a Milano per le cont. fatte da Valabio m	no / 10 322 22 31 7
3	Valentino e Isidoro Salvadori Conto vecchio Devo a Alfonso Muralt di Luxigo in Conto solo a metà a rimasta creditori nel Conto a metà dell'anno 1809	no / 156 418 331 45
2	Conto Camisi Devo a Giuseppe Punggi nostro Conto Capitale a caposi per Francesco 1682-26 M. da du Neufville Montano, e Bernard f. li 20 Febbr.	no / 2669 25646 9 3
2	Giuseppe Antonio Holzhamer da Volturno Devo a Conto spese diverse a incassati da quel Gio. Gno. Graff	no / 5 10 37 7

Fig. 8. *Prima nota*, 1810–1813 (ASTn, AS, vol. 1257)

³⁸ On the use of *partite collettive*, see Dell'Osa and Lippolis, "La diffusione."

³⁹ Valentino's sons, Isidoro (1783–1848) and Valentino (1799–1885), assumed management of the firm, which was run by the latter after Isidoro's death.

Nel Nome di Dio 1810					
L.M.A.	Giornale	Mese di Luglio 1810			
5	Conto Cambi Dere a Seguenti Creditori				
13	10 a Giuseppe Ant. Molleggi d'Augusta	a contante a li 24 gho. 1810	1779 27	2135 20	4514 10
13	10 a Valentino e Bice Salvadori e Prechia	a contante per l'agosto 1810	334 14	740 34	8
13	17 a Suetelli	a contante da Roma per 3 ag. 1810	2785 36	5892 32	2
13	17 a Suetelli	a contante per Venezia S. 8. 18. 2 a li 24 gho. 1810	82 37	174 76	8
13	20 a Giuseppe Punggi molo C. Capolaba	a contante per 21. 8. 1810	1523 28	3226 84	2
13	20 a Valentino e Suetoro Salvadori e Prechia	a contante da diversi per l'agosto 1810	13110 17	27752 62	0
				20002 28	42343 00 9
5	Seguenti Debitori Derram. Conto Cambi				
14	10 a Ber. Ligis molo Hoffner di S. S. S. S.	a contante da Molleggi per l'agosto 1810	2135 20	4514 10	
13	10 a Ber. Giuseppe Ant. Molleggi d'Augusta	a contante per l'agosto 1810	334 14	740 34	9
13	17 a Ber. Suetelli	a contante da Roma per 3 ag. 1810	2785 36	5892 32	4
13	17 a Ber. Suetelli	a contante per Venezia S. 8. 18. 2 a li 24 gho. 1810	82 37	174 76	5
13	20 a Ber. Valentino e Suetoro Salvadori e Prechia	a contante da diversi per l'agosto 1810	13110 17	27752 62	3
				20002 28	42343 00 9
14	Conto Seta Dere a Lorenzo Chimelli di Bergamo				
		a contante per 106 S. S. S. S.	563 10		
		a contante per 75 S. S. S. S.	444 41		
		a contante per 245 S. S. S. S.	1987 52		
				2995 52	6337 47 9

Fig. 9. *Giornale*, 1810–1819 (ASTn, AS, vol. 120)

Conclusion

The Salvadori case provides some interesting insights into the functions of accounting for an early modern firm. The markedly diversified business, particularly before specialization in the silk trade, made it necessary to use several types of books for the recording of transactions, for partially different purposes. Analysis of the general and the special bookkeeping shows the rationality of an accounting system that made it possible to keep track of internal and external transactions, reduce disputes, monitor partners and agents, and determine the performance of particular business areas.

Although the Salvadori had the means to introduce double-entry bookkeeping, they neglected this opportunity throughout the eighteenth century. On the other hand, given the distinctive nature of the firm, which resembled a Venetian *fraterna*, a fundamental prerequisite was lacking, namely a conception of the firm's capital as something distinct from the family's properties. This notwithstanding, the firm maintained a rational and careful accounting system, which contributed to expanding and consolidating the business. Compensating for the absence of any calculation of the overall economic results was the constant monitoring of both liquidity and financial relationships, as well as determination of the annual performance of the silk mills and, on a multi-year basis, of the profitability of the Pergine shop.

It is noteworthy that the transition to double-entry bookkeeping happened in the early nineteenth century, following establishment of a partnership with a non-family member, and continued even after the firm returned to exclusive family ownership. Providing the Salvadori firm with a capital distinct from the family's patrimony led to a further advancement of the “de-personalisation” process *à la* Sombart, and perhaps to a capitalistic turn in the merchant-entrepreneurs' mentality. Within the framework of a partnership including an external associate, double-entry bookkeeping provided a more effective and

efficient means to keep records and calculate economic results, and once the Salvadori had learnt the new technique, they maintained it.

Any effect on the firm's performance, however, must be evaluated with some caution. An effective accounting system was a major prerequisite for successfully managing a business. However, the very real and simple fact that at the end of the nineteenth century the Salvadori ceased any activity—while they had done business for a century and a half using more traditional accounting techniques—points to the need to refrain from monocausal explanations and consider bookkeeping as one of many factors affecting a firm's destiny.

Archival sources

ASTn = Archivio di Stato di Trento (State Archives in Trento)

AS = Archivio Salvadori (Salvadori Archives)

AN = Atti dei Notai (Notarial records)

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