

A Work Project presented as part of the requirements for the Award of a Masters
Degree in Finance from the Faculdade de Economia da Universidade Nova de Lisboa

**“The Accounting System of the
Hieronymite Monastery of
Santa Maria de Belém circa 1833”**

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Abstract

Accounting History can be seen as a source of data and a tool for economic history. This project aims to present the accounting system of the Monastery of Santa Maria de Belém in its last reporting period (1833). After a brief characterization of the monastery, the research follows with the analysis of its Inspection Book of Expenses and Receipts. The Monastery accounting did not use the double-entry system, neither the accruals concept. Instead, it adopted a cash basis accounting and the charge and discharge system. Accounts are organized by activity centers which proved to be useful for economic analysis.

Keywords: monastic accounting, accounting history, Hieronymite Monastery, charge and discharge system, financial reporting, Portugal

1. Introduction

Human activities have economic consequences and can be studied through its accounting records. The Hieronymite Monastery of Belém¹ has a considerable amount of accounting books and well preserved documents deposited at *Torre do Tombo* Library. Probably most of them have never been read for research purposes.

Usually when people start learning accounting at school, they contact with theory, the double bookkeeping system, accounting regulation and current practices rather than the historical perspective of accounting (Gomes et al., 2009, p.212). However, the study of accounting history is important due to several reasons: human curiosity to understand how things were done by their ancestors, research or academic reasons, and the fact that historical knowledge decreases the risk of misinterpretations.

Research in accounting history can be done on distinct categories such as religious orders or aristocratic households and accounting of ecclesiastical institutions (Faria, 2008, p. 18)². According to Hernández (2008), these subjects have been scarcely researched. Due to the considerable amount of income and wealth owned by the Catholic Church in many European countries, ecclesiastical institutions played an important role on the development of accounting in order to facilitate the wealth administration process (Hernández, 2008, p. 121). The religious orders in Portugal and their households had a considerable weight in the religious, economic and social environment at the time. Thus, monastic accounting is very relevant to accounting history.

¹ Throughout this work project the Monastery of Santa Maria de Belém or Jerónimos Monastery (Portuguese designations) will appear as *Hieronymite Monastery of Belém, Monastery* or *HMB*.

² According to Ana Rita Faria (2008), Portuguese accounting history can be divided in ten categories, namely general history; institutional history; biographies/bibliographies; education; development of accounting thought; public sector accounting; accounting of ecclesiastical bodies; religious orders or aristocratic households; research in coinage, currency and historiography; others (auditing, cost and management accounting, studies of surviving business records of firms, taxation).

The Hieronymite Monastery of Belém is a very good example of Manuelina's architecture³ and a landmark of the royal power⁴. It was built near the maritime port of Lisbon from which Portuguese discoverers have departed, such as Vasco da Gama (to India) and Álvares Cabral (to Brazil). There are 38 accounting books and other documents from the HMB available at Torre do Tombo, covering the XVI, XVII, XVIII and XIX centuries until 1833.

This study describes the accounting and financial reporting system of the HMB. Its purpose is to understand how the system was designed, who the preparers were and which roles they had in the Monastery. This work project contributes to the discussion of a broader question that is how the accounting system could be a reflex of the economic activity of organizations identifying to which extent the accounting records of the HMB reflects the economic activity of the Monastery and its organizational structure.

This research proceeds as follows: Section 2 presents the accounting system framework. Section 3 reviews previous research on monastic accounting. Section 4 presents a brief history of the Monastery. Section 5 describes the research questions and methodology. Section 6 discusses the accounting system of the HMB and its context, and, finally, Section 7 presents the main conclusions of the research, contributions, limitations and possible future research.

2. What is an accounting system?

An accounting system *“collects and processes (analyzes, measures, and records) financial information about an organization and reports that information to decision*

³ http://www.unesco.pt/cgi-bin/cultura/temas/cul_tema.php?t=14 accessed on 27th April 2010.

⁴ <http://www.malhatlantica.pt/netescola/patmundial/jeronimos.htm> accessed on 12th February 2010.

makers” (Libby et al., 2009, p.4). According to this definition the elements of an accounting system are: the transactions timing (when transactions happen), measurement (physical and monetary units) and classification (type of transactions, titles); their processing (system design, internal checks); their recording and grouping (bookkeeping); feedback (internal reporting); testing (internal and external auditing); and the fitting of transactions groups into “conventional” patterns (Kohler, 1975). Briefly, accounting systems as information systems involve four pillars: what, when, how and who. This is, they specify what type of information a bookkeeping process contains; those records are made on a specific moment in time and are related to a certain period in the past (accounting period); how the records are constructed; and, the bookkeeping process involves people who prepare those records, who approve and attest the accordance of records with the reality (accountability process) and who uses the information for the decision making.

Regarding periodicity, two different concepts have to be presented: accounting period and accounting cycle. The former is related to the time period covered by the financial statements (Libby et al., 2009) or the time period for which an operating statement is customarily prepared. (e.g.: a month, a quarter of a year). Accounting cycle is related to the process in which a period of time is established; during that period, transactions are recorded and, in the end of the accounting period, balances are made and complete financial statements are prepared and disseminated to users. Typically, organizations record transactions through specific formats, as happens with the accounts used nowadays. Accounts are used to accumulate the monetary effect of transactions on each financial statement item and so they are recorded under a unit-of-measure assumption (monetary unit). (Libby et al., 2009).

Currently bookkeeping follows the double-entry system, in which the accounts format is the so-called “T”, where debit entries and credit entries have to be equal in monetary units. However, it was not always like this. The alternative format used is the charge and discharge system, in which payments or receipts are recorded.

Bookkeeping can be done under the accrual or the cash basis. The economic effect of transactions can be recognized when the events occur independently of when the payment occurs (accrual basis of accounting) or when the money is collected or the payment is done (cash basis) (Williams et al., 2002). The accounting system of HMB will be analyzed based on these concepts.

3. Literature Review

Research in accounting history initially focused on the evolution of accounting techniques and on the study of old authors. However, a different view of accounting started to emerge, which is accounting as business history and so, the effect of accounting in subjects such as organization, management, information and control of companies started to be studied, making a bridge with economic history (Hernández, 2000). A few years ago an increasing interest in accounting history research emerged (Carmona, 2005; Cinquini et al., 2008; Faria, 2008; and, Hernández, 2006, 2008).

The papers about accounting history can be classified as Traditional Accounting History (TAH) or as New Accounting History (NAH). **(See Appendix 1)**

Concerning monastic accounting research, several studies were made in Spain, Italy, England and Portugal.

Research on the records of Spanish monasteries, of Guadalupe (Hieronymite monks), Silos (Benedictine Order) and Oseira (Cistercian Order) focused on the evolution of

accounting systems, the economic and financial activities, accounting regulation and procedures, and bookkeeping systems.

The study of the Monastery of Guadalupe (Llopis et al., 2002) analyzed the evolution of its accounting system between 1597 and 1784, specially the shift from the cash approach to the “Livestock Sheets approach”. Llopis et al. (2002) reconstructed the linkage between organizational and accounting structures of the monastery, which demonstrated evidence of a structure where the decision power and economic administration were clearly separated functions, with control mechanisms recurrent from the accounting records of each activity center. The new accounting system, besides the relationship between receipts and payments, was drawn with the objective to analyzing the profit by type of stock (activity) and, at the same time, they made the inventory, the sources and amount of income and expenses of each stock. Moreover, these monks had incorporated the use of opportunity costs and understood the use of transfer prices in their analysis of the accounting records from the “Livestock Sheets Approach” and its importance to the decision making process. The Silos Monastery was studied by various authors. Lorenzo et al. (2004) analyzed the financial activity of the monastery throughout the seventeenth and eighteenth centuries (1665-1835) describing and analyzing the book of “censos”, presenting possible reasons for this financial activity in institutions as monasteries, as well as giving some insight on why small farmers got in debt with the monastery. Maté et al., (2008) studied the bookkeeping system adopted by the monks, presenting a breakdown of the different types and sources of income arisen from the exploitation, administration and economic management of its assets during the ancient regime.

The accounting system of the Monastery of Oseira was the subject of several studies. Fernández et al., (2005) studied the accounting regulation adopted specifically about rendering accounts in the period between 1614 and 1832. Through the analysis of the norms (called *definitions*) a drawing was made of the structure of the congregation and the functions assigned to each administrator inside the management structure of the monastery; Additionally, the control and supervision mechanisms (internal and external) of the monastery were analyzed, and evidence was found of the effort of the congregation and the monastery in having a homogeneous system across monasteries within the congregation, to help on the control and verification tasks and to allow comparison between them. Gallego et al., (2007) analyzed the sources and uses of cash flows of the Monastery of Oseira. This study was deeply detailed; however, it was not possible to quantify and analyze debt and credit due to the lack of information in the accounting books of the monastery across time.

Several studies were conducted about Italian monasteries, especially those from the Benedictine order⁵. For example, the accounting system of the Benedictine Abbey of San Pietro in Perugia was studied through the analysis of the journal and ledger from 1461 to 1464, demonstrating the usage of the double entry method thirty years before the Pacioli Tractatus. (Montrone and Chirieleison, 2009). The authors also identified several areas in the operating cycle and different activities of the monastery.

⁵ "Garigali [1993] and Di Giacomo [1993] both analyze the accounting practices of a monastery in Messina in the early 18th century'; Serra [1995, 1998a, b, 1999, 2001] describes the supplying and productive centers of the Monastery of Montecassino; and Barnabe and Ruggiero [2004] study the forms of the accounting control system adopted by the Monastery of Monte Oliveto Maggiore in the 20th century." (apud Cinquini et al., 2008, p. 32).

In England, a study on the Durham Cathedral Priory from 1278 to 1398 described sources of receipts, types of expenditures, and the format of the bursars' accounts (Dobie, 2008). It was found that special care existed in monitoring cash position.

In Portugal, during the last twenty years, a few journals have been exclusively dedicated to accounting history topics, and some master and one doctoral thesis on this topic were concluded (Faria, 2008). About Portuguese monastic accounting, only two studies were published, and both relate to Cistercian Order monasteries. Gonçalves da Silva (1985) briefly analyzes the accounting system and organizational structure of the Monastery of Alcobaça from its creation in seventeenth century until its extinction in 1834, while Oliveira and Brandão (2005) describe in detail the accounting system of the Monastery of Arouca between 1786 and 1825. The former described the various types of books of the monastery (Silva, F., 1985), but without an in deep analysis of any. On contrary, the latter presented the economic structure of the monastery, its accounting books and procedures and it was given the idea that despite the crown efforts in the application of the double-entry accounting system around mid-eighteenth century, monasteries and religious orders maintained the charge and discharge system until the beginning of the nineteenth century. The existing literature about monastic accounting (**See Appendix 2**) covers periods from XIII till XIX centuries, but mostly eighteenth and nineteenth centuries and several religious orders, including the hieronymite order (Guadalupe Monastery). Research in Portuguese monastic accounting includes only two monasteries of Cistercian Order. It is noteworthy that despite the vast existing research about the HMB, this is mostly about the history of Portugal, architecture and art and none about its accounting records. Thus this research adds the Hieronymite Monastery of Belém to the existing literature on accounting history.

4. Brief History of the Monastery⁶

Abbot Castro e Sousa (1837, p. 7 and p. 8) mentioned that a hermitage dedicated to Saint Mary of Belém was constructed in the place of the HMB, ordered by the prince Henrique (first duke of Viseu and Grandmaster of the Christ Order). The hermitage and surrounding territory (composed by lands and orchards) were delivered to the monks of the Christ Order. The Monastery replaced that church⁷ and its construction lasted for almost one century. Later on, King Manuel I chose the Hieronymite monks (**Appendix 3** presents the Hieronymite Order) to live there and in 1498 everything was donated to them (Silva et al., 1925, p.9). They started living in the Monastery by 1500⁸, and lived there for almost four centuries⁹. Praying and community services were a constant in the day to day life of these monks. The monks' main activities were to pray for the king and all royal family souls¹⁰. Monks were also responsible for providing assistance to sailors and navigators who left from Lisbon (Belém)¹¹.

According to the description given by the monk Sousa (1837), the Monastery was surrounded by a large fence, where there were a great dovecote, lime kilns and a house where the person responsible for what was inside the fence lived. The same author states that, outside the fence, there were wild trees and a wood¹². Another monk, Jacinto

⁶ The HMB was classified as a “World Heritage” site by UNESCO in 1983 and became one of the first Portuguese three places/buildings to be considered as “world heritage” - http://whc.unesco.org/en/list/263/multiple=1&unique_number=1630 accessed on 5th May.

⁷ The Abbot Castro e Sousa (1837, p. 7 and p. 8) mentioned that in the place of the HMB was constructed an hermitage dedicated to the Saint Mary of Belem, ordered by the prince Henrique (first duke of Viseu and Grandmaster of the Order of Christ). The hermitage and surrounding territory (composed by lands and orchards) were delivered to the monks of the Christ Order. However, in 1498 everything was donated to the Hieronymite Monks (Silva et al., 1925, p.9).

⁸ <http://www.malhatlantica.pt/netescola/patmundial/jeronimos.htm> accessed on 23rd April.,

⁹ http://www.mosteirojeronimos.pt/web_mosteiro_jeronimos/frameset.html accessed on 23rd April

¹⁰ The hieronymite monk Jacinto de S. Miguel in his book published only in 1901 refers to the amount and the type of prayers that was established for each member of the royal family.

¹¹ http://www.mosteirojeronimos.pt/web_mosteiro_jeronimos/frameset.html accessed on 12th February 2010.

¹² The wood was called ‘Cunhoso’ and known as the place where the king used to hunt

de S. Miguel (1901) informs that inside the fence existed more than one orchard where a wide variety of fruits were collected, several water resources, a farm and workshops to support the agricultural activities. According to him, these agricultural activities were the basis of the entire community (Jacinto de S. Miguel, 1901). According to Silva et al. (1925) some parts of the Monastery were conceived to shelter the pilgrims and wayfarers, but through time these facilities were used as warehouses generating income (rents) to the Monastery. The Monastery was also used as a hospital to the English troops during the French invasions¹³. Regarding the organizational structure of the Monastery, in 1519, the holy Pope named the Monastery as the provincial of the Congregation in Portugal, and subsequently ordered that the provincial father/priest would be selected *ad eternum* from this Monastery. Every two years a new provincial priest was to be elected: the election was made by four monks appointed by the Board members of HMB, who only had voice to elect the provincial. The Board was formed by the provincial and deputies (Jacinto de S. Miguel, 1901). The Hieronymite Order was suppressed in Portugal by 1834 and in the Iberian Peninsula by 1835, as all the other monastic orders. At the time, the number of monks living in the Monastery was not superior to fourteen. This was the reason to send the remaining monks to other places¹⁴. All its properties and other assets were nationalised¹⁵.

5. Research Questions and Methodology

The purpose of this study is to describe and discuss the accounting system of

¹³ See the official website of the Hieronymite Monastery at http://www.mosteirojeronimos.pt/web_mosteiro_jeronimos/frameset.html

¹⁴ Since then the Monastery has served as part of a charity institution that receives and supports children (Casa Pia Institution)

¹⁵ Joaquim António de Aguiar, who enacted the law of extinction and expropriation started to be known by the nickname of "monks' killer", which in Portuguese is "matafrades". <http://www.agencia.ecclesia.pt/cgi-bin/noticia.pl?id=9837> accessed on 27th April 2010.

Hieronymite Monastery of Belém. This section presents the research questions assigned in the study and describes the research method, with emphasis in data collection.

According to the definition of accounting system and its elements described in section 2, the following research questions arose:

RQ 1: How is the accounting system designed?

RQ 2: What is the accounting cycle?

RQ 3: Which bookkeeping technique is used in the accounting records?

RQ 4: Which system of accounts is adopted by the Monastery?

RQ 5: How was accountability established?

RQ 6: How can the accounting system be used for financial reporting?

This research is a descriptive case study¹⁶ (Ryan et al., 2007). Considering the debate between Traditional Accounting History (TAH) and New Accounting History (NAH) as possible research methods in accounting history (Donoso, 2005; Carmona et al., 2004; Gomes and Rodrigues, 2009), this study fits better in the traditional approach, because it is mainly descriptive and is not discussed under a specific organizational theory or social science (which is a common characteristic of the NAH). However, it uses secondary sources; thus, it has characteristics of NAH method. In part, this case study uses TAH and NAH as complementary, which in the opinion of Hernandez (2008) is the best strategy (**Appendix 1** presents a comparison between TAH and NAH)

The data collection started with the identification of the accounting books and documents from the HMB deposited in the *Torre do Tombo Library* (**Appendix 4** provides the full list of raw data). Despite the initial information of the existence of

¹⁶ Ryan et al., (2007) state that descriptive case studies describe accounting systems, techniques and procedures used, which are useful to explore the use of traditional or more modern accounting techniques and procedures.

round 60 books about the HMB, from the identification process was found that only 38 books were accounting books exclusively related to this Monastery. The remaining 22 books: some were from other buildings of the hieronymite order in Portugal and others were wrongly catalogued, as they were not related with the HMB and other buildings of the hieronymite order.

The accounting books of the HMB deposited in the *Torre do Tombo* Library can be grouped in five categories as shown in **Table 1**.

Type of Books	Number of Books	Period Covered
Expenses and Receipts - Monastery	22	1783-1834 ¹⁷
Expenses and Receipts - Farm ¹⁸	8	1783-1833
Expenses and Receipts - Sacristy	1	1813-1833
Repairs and Improvements - Houses	1	1797-1833
Colleting Rents, Interest and Forums	6	1549-1833 ¹⁹
TOTAL	38	

Table 1 – Accounting books of the Monastery of Santa Maria de Belém

The documents available cover the period from 1549 till 1833, which is the extinction year of the Monastery. Books from the mid-sixteenth century until early-eighteenth were excluded from this analysis because they are difficult to read, and inclusively require knowledge in paleography. Several researchers (e.g. Fernández, (2005), Lorenzo et al., (2004), Calvo and Castro (2005) and Llopis et al., (2002) analyze data from the end of eighteenth and early nineteenth centuries. Thus, to facilitate the comparison of the findings with previous studies, this work project analyses in detail the last reporting period of the HMB, once that monastic orders were extinguished in Portugal by 1834

¹⁷ Records from years 1824 to 1827 were not found in the library, probably the book that contained these four years of information was lost or is not correctly catalogued..

¹⁸ Also appears with the title 'Farm Administration'.

¹⁹ The years between 1601 and 1603 are missing.

but they started the liquidation process in 1833. It is worth noticing that the consulting and reading processes had to follow specific rules²⁰ due to the age of the books, and their rarity. The books and the six packets with various documents contained both financial and non-financial information²¹, and all types of books from the last decade of existence of the MSMB were browse. Thus, books were identified and grouped according to the type of information disclosed and location. It is worth mentioning that all the books are manuscript and old, therefore difficult to read. Moreover, for the fact that its preservation rules impose short consulting periods, few daily hours can be used to withdraw the books from the Torre do Tombo files, and a maximum of three books may be consulted per day. Photocopies are not allowed and the books understandably cannot be taken out of Torre de Tombo premises. Hereafter, because all the books were from the same type (expenses and receipts), only one of those books was transcript and analyzed, which was the book from the year 1833 called “*Livro da Despeza e Receita do Mosteiro*” (Book of Expense and Receipt of the Monastery - Fund of the Monastery of Santa Maria de Belém, Book 14). However, information from the books browsed was also taken into account in answering the research questions.

In order to obtain a better description of the Monastery and the way of living of these monks, sources deposited in the Library of the Cultural Casapiano Center were also consulted. Despite the indication in the official website of the existence of a book with

²⁰ Research at *Torre do Tombo Library* has to follow specific procedures, such as: having a reader card, limited schedules for consulting, sometimes the usage of gloves in specific areas in the library depending on the state of conservation of the books requested. These aspects of the investigation made it in somehow peculiar. An acknowledgement has to be given to the employees of Torre do Tombo who helped access and to the understanding of books and documents.

²¹ What makes this investigation hard is the long time needed to read one book, because of calligraphy and language used.

the rules of the hieronymite monks of Belém, this book was not found in this library, and it is possible that it is lost.

6. Case Narrative

This section provides the answers to the research questions set in the previous section. The discussion is based in comparisons between the findings in the HMB and those from previous research, namely the studies on the Monastery of Arouca (Oliveira and Brandão, 2005) and the Monastery of Guadalupe (Llopis et al., 2002). The choice of these two studies was due to the common characteristics existing between the HMB and those two monasteries, that is a Portuguese monastery and a Hieronymite monastery, respectively.

RQ 1: How is the accounting system design?

The accounting system of the Monastery is organised in five activity centres, each one represented by one accounting book, as follows: Monastery, Farm, Sacristy, Repairs and Improvements (Convenant's House), and Income Collection. **Figure 1** summarizes the system design.

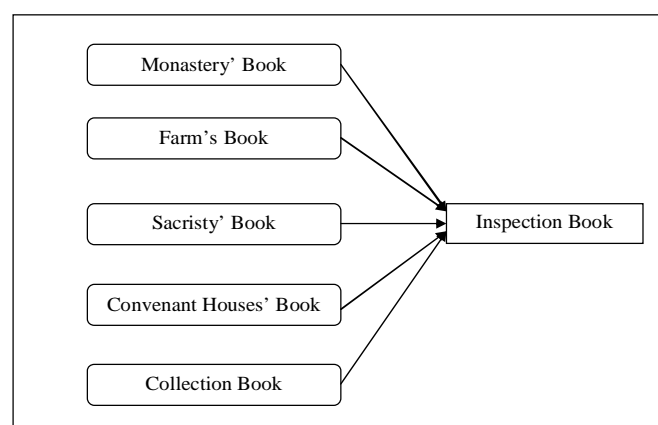


Figure 1 - The accounting system of the HMB

All the books include an initial inscription and a final inscription (**Appendix 5**). Those inscriptions identify the subject of the book, the dates when it started to be written and when it finished. Also the monks who ordered the book and the one who posted the transactions there are identified.

The Books of Expenses and Receipts of the Monastery contain information about the running day to day life inside the Monastery (mainly provisions). The information about the expenses is more detailed, and represents great part of the books' sheets. The Books of Expenses and Receipts of the Farm record events and transactions related to farm administration, such as the amount of seeds bought or the amount of fruits sold. Records in this type of book disclose the receipts with higher detail than the Monastery book of the same type (**Appendix 6** shows the sources of expenses and receipts from the Monastery).

The Book of Expenses and Receipts of the Sacristy includes expenses and receipts information related to the administration of the Chapel of Santa Maria de Belém. While disclosures about the receipts are scarce, details concerning expenses are shown. (e.g. the amount of wax bought and the amounts paid to the priest), but the source of receipts is not disclosed. The Book of Repairs and Improvements in Houses informs about the payments, the items fixed or improved and the identification of the building to which the expense was assigned. Works in progress are also specified. Finally, the Book of Collecting Rents, Interests and Forum contains data about rents received from permits, land, houses or custom letters, the amount that should be received, the debtor identification and the period of time where the payment should occur. Similar information is given about forums and the respective interest.

The five books mentioned were copied to another book which was specifically prepared

to the inspection team on the inspection date (discussed hereafter in this report) each four years²². The accounting records of the Hieronymite Monastery of Guadalupe were also organized by activity centres (Llopis et al., 2002); however, those of the Monastery of Arouca were organized by responsibility centres (Oliveira and Brandão, 2005).

RQ 2: What is the accounting cycle?

The accounting cycle of the Monastery lasts for one year: from October to September²³. The accounting books are organized in three parts: a weekly journal during three or four months for the several accounts; then a balance between expenses and receipts is presented in summary accounts; and, finally the financial records are approved, including a short explanation of surplus or deficit²⁴.

Figure 2 summarizes the accounting cycle of the Monastery.

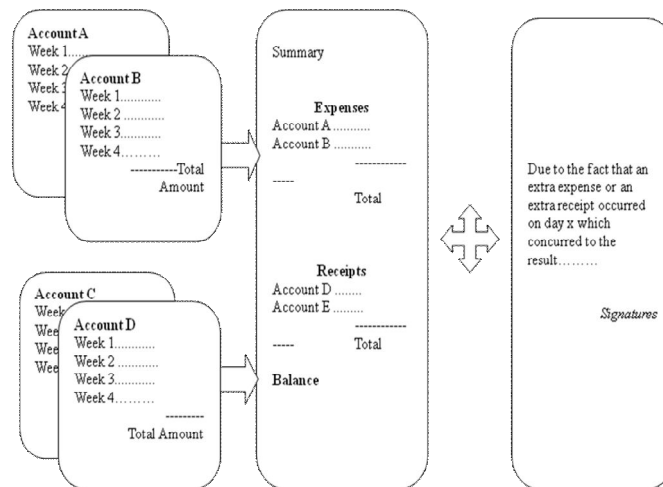


Figure 2 - Accounting Cycle of the HMB

²² Besides the information contained in the official website of the HMB about the existence of a book with the rules for the hieronymite monks, where possibly were the rules for financial and accounting reporting, that information was not found and so it was not possible to access whether the inspection book had to be prepared. http://www.mosteirojeronimos.pt/web_mosteiro_jeronimos/cent_07ordem.html.

²³ Due to complete ignorance of the accounting rules followed by the Order, no justification was found to this accounting period.

²⁴ This final text was not included in the book analyzed but was found in several books that were browse.

Each quarter an inspection book had to be prepared. The Book 14 – Expenses and Receipts of the Monastery was prepared for inspection and covers the last four months of 1833. It confirms the periodicity of inspections. Summary accounts disclose only the total of each account, taken from weekly journal. According to Oliveira and Brandão (2002) in the Arouca Monastery the summary accounts are presented each four months and full detailed accounts every three years to the Congregation of Alcobaça (the Principal House of this religious order in Portugal). Monks from the Monastery of Guadalupe presented their financial records every year but its accounting period coincides with the civil year (Llopis et al., 2005).

RQ 3: Which bookkeeping technique is used in the accounting records?

The Monastery of Belém used the charge and discharge system of accounting, The same happened both in Guadalupe (Llopis et al., 2002) and in Arouca (Oliveira and Brandão, 2005). The double-bookkeeping was considered as a modern accounting method and became compulsory for trade companies since mid-eighteenth during Marquis the Pombal government (1755-1777)²⁵. However, Catholic Church and religious institutions were not included in those rules (Oliveira and Brandão, 2005).

RQ 4: Which system of accounts is adopted by the Monastery?

Transactions of the Monastery include mainly expenses and receipts, in a cash basis. However, the system keeps track also of those that did not result in a cash flow (amounts due and payable, as reported in a balance sheet). The separation between cash inflows and cash outflows was made. The cash flow amount that should result from the

²⁵ Double entry bookkeeping began to be taught at “*Aula do Comércio*”, the first public governmental school of accounting in the world, -to prepare people in accounting and business.

(account *Despeza com os Padres Fora do Mosteiro*); works made on houses and buildings inside the fence of the Monastery (account *Obras*); interests and benefits paid to the crown (account *Juros, Decimas, Prestações*); expenses with visits to Lisbon and to the general attorney (*Procuradria Geral*); expenses with judicial issues (*Demandas*); expenses with educational institution (*Partidos*); employees salaries (*Salarios*); clothing (*Vestiarias*); chapel and religious services (*Capellas e Missas*); payment of debt (*Dividas Atrazadas*); Expenses with in monks and other people (*Hospedaria*); the payments of interest and bills (*Debates*). The receipts present much less categories, from farm and agriculture to the Monastery (*Pomares*) and the record of more debt (*Dividas Passivas*).

According to the characteristics of the Order, monks did not have much free time to dedicate to activities other than prayers and religious services (Liturgy of Hours). This can explain the balance and account titled ‘Salaries’, because they needed to have employees taking care of kitchens and laundry. Employees were also necessary in the agricultural services (orchards or farms).

Transactions related to inventories²⁶ include information about the quantity bought/sold and the respective unit price before the total is presented in the table. **(See Appendix 7)**

All the amounts observed in the accounting records of the Monastery, as in Arouca (Oliveira and Brandão, 2005), were expressed in the monetary unit at the time - “réis”.

The unit prices and quantities (expressed in weight or capacity) were also disclosed²⁷.

Again, measurement issues coincide with what was made in the monastery of Arouca (Oliveira and Brandão, 2002).

²⁶ Meat, fish, cereals, vegetables and others from agriculture are inventories/accountable products.

²⁷ According to the National Association of Cruise, “*arrateis*”, “*alqueire*”, “*almudes*”, “*centos*”, “*arroba*”, “*molho*” were the most common measures that can be converged in kilos or liters (<http://www.ancruzeiros.pt/ancunidades.html> accessed on 18th April 2010).

Less detail was provided on receipts than on payments; overall, most of the lines written in the accounting books related to expenses rather than receipts.

RQ 5: How was accountability established?

Accountability in the Monastery is divided in three phases: preparation of the accounting records, approval of accounts and control of reports. **Figure 4** illustrates this process, the roles of people involved and its frequency, according to Book 14.

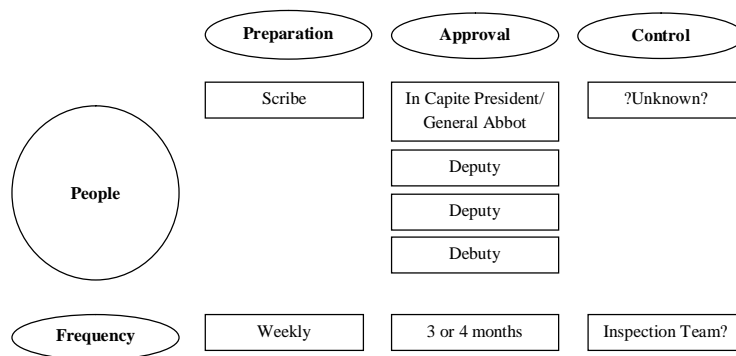


Figure 4 - Accountability Process

Financial and accounting reporting activities include recording in a journal, usually in a weekly basis. Accounts related to payment of salaries and other expenses was recorded on a monthly or quarterly basis. The responsible person and preparer for that was the scribe (the “*escrivão*”), while in Guadalupe the accountants were the Steward and the Treasurer (Llopis *et al.*, 2002), and in Arouca he was the Steward (Oliveira and Brandão, 2005). The scribe’s signature can be found at the end of each book. The scribe took an oath that he was doing what was ordered by his superior, and also identified himself as the scribe of the Monastery, and the date of signature. Also he signed each sheet of the book. (**Appendix 5**)

The accounts of the HMB were approved either quarterly or every four months by the “*In Capite*” President or by the general Abbot, the deputies (usually three) and the

scribe who was also a deputy. Despite the lack of rules, the books analysed contain the names of who approved the accounts. The books were approved by different people every three or four years. In Book 14, accounts from September to December of 1833 were approved in the end of December of that year.

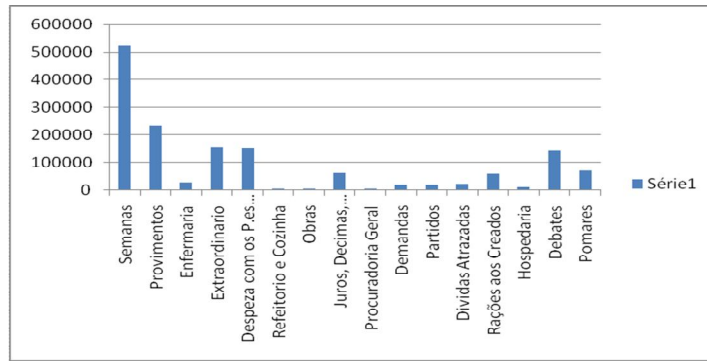
The preparation of an inspection book leads to the thinking that the book will be analyzed for someone superior. However, there is no evidence of that fact due to the absence of rules (unknown). Probably the financial records were analyzed by an inspection team, different from the approval team. Concerning the date of inspection, Book 14 allows only understanding when the book was written but not the inspection date. Book started to be prepared on day three of September 1833.

On the contrary, in Arouca there were strict and formal rules concerning the disclosure of accounts, and the accounting records were reviewed by the Congregation of Alcobaça. External visits were programmed as well (Oliveira and Brandão, 2005).

RQ 6: How can the accounting system be used for financial reporting?

The Monastery's administrator (possibly the General Abbot or Provincial), Board of Directors of the Monastery or even managers, through the analysis of the summary accounts and all financial reports could understand which were the main sources of expenses and receipts and understand which amount was already a cash outflow or inflow and which were not (**Figure 3** and **Table 1**). It is also possible to know if the Monastery is suffering a cash deficit or enjoying a cash surplus.

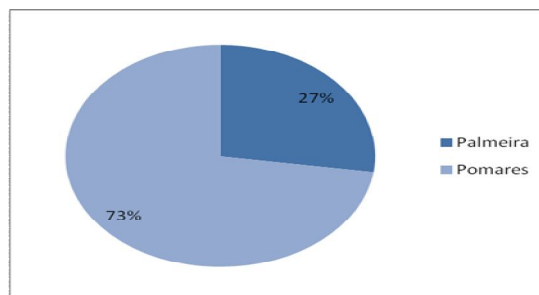
Graphic 1 was prepared using the information provided in the Summary Account of Book 14.



Graph 1 - Expenses of the Monastery of Belém from September to October of 1833

Graph 1 shows that the main sources of expense of the monastery were the two accounts “*Semanas*” and “*Provimentos*” which appeared in the first pages of the book. This proves that the running expenses of the monastery, such as food, are the great concern of the monastery. The case of Arouca was similar to this – expenses related to daily maintenance of the residents were the most significant (Oliveira and Brandão, 2002).

Regarding the sources of receipt of the Monastery, **Graph 2** shows that most of them came from orchards and the Palmeira farm.



Graph 2 - Receipts of the Monastery of Belém from September to October of 1833

The hieronymite monks in Guadalupe (Llopis et al., 2002) also had rents and agriculture as source of income, but they had the particularity of the existence of livestock. The importance of livestock in Guadalupe justified changes in the financial records in the way that developed specific Sheets (Livestock Sheets) to control the number of animals.

In the accounting period analyzed, receipts were lower than expenses. **Table 2**, based in data from the Summary accounts, shows that part of the total amount of expense (Coin Side – “M”) remains as debt (Paper Side –“P”). The amount in the left column corresponds to receivables. The summary of the Monastery’ activities were negative in 641\$981 réis from September to December of 1833.

<i>Expenses</i>	<i>Réis</i>	<i>Receipts</i>	<i>Réis</i>
<i>Total</i>	<i>R\$ 1.522,616</i>	<i>Total</i>	<i>R\$ 880,635</i>
<i>Debt Amount</i>	<i>R\$ 85,800</i>	<i>Receivables</i>	<i>R\$ 85,800</i>
<i>Accounts Payable</i>		<i>Cash Inflow</i>	<i>R\$ 794,835</i>
<i>Cash Outflow</i>	<i>R\$ 1.436,816</i>		
<i>Net Result = Receipts-Expenses</i>			<i>R\$ -641,981</i>

Table 2– Summary from September to December of 1833

Debt was also an important item on the accounting system of the Monastery. Monks carefully identify the Monastery’ lenders and other people who owed money to the monastery, usually in the form of rents, forums and interests. These activities match the description given by the hieronymite monk Jacinto de São Miguel (1901).

7. Conclusion

This project described the accounting system of the Hieronymite Monastery of Belém. It followed a case study approach and used the traditional accounting history method. Primary sources of data for this research were the accounting books deposited at *Torre do Tombo* Library. Thirty eight books were read and one was copied and analyzed in detail (Book 14 – Book of expenses and receipts of the Monastery in 1833).

The Monastery accounting system was composed by five books plus an extra one that is prepared for inspection. The main activities of the monastery were agriculture, renting houses and forums. The five books corresponded to five different activity centers, and included three groups of books of expenses and receipts (from the Monastery, the Farm

and the Sacristy); one book of repairs and improvements in houses and one book of rents, interest and forums. The accounting cycle lasted one year, from October to September. The accounting system of the monastery followed the cash approach and the charge and discharge system, and the accounting system showed concern in keeping track of receipts and expenses from all the activities mentioned. Summary accounts was prepared by the scribe and approved by the *In Capite* President (or General Abbot) and the deputies each three or four months. The Book 14 was prepared for inspection, and proved the concern for control of the accounting records. However, there was no evidence about the rules that had to be followed neither in the construction of accounting statements nor in the rules of controlling (who audit and controls and frequency that was made). The detailed analysis of Book 14 and browsing the remaining books proved the usefulness of the accounting system as a reflex of the economic activity of the monastery.

The accounting books of the Monastery of Belém not yet transcript (farm, sacristy, forums and rents, monastery administration and covenant houses) open possible ways for future research. To extend the analysis to a different period, to non financial documentation and books related to other convents and college from this order in Portugal and who had to report to the HMB once this was the provincial). Else, the liquidation process at the time of the extinction of the Monastery (1833), can be analyzed through the documents from the Historical Archive of Finance Ministry (e.g., an inventory).

Besides adding a second Monastery to the Portuguese accounting history research literature, this work project had a practical contribution: it generated the correct reclassification of the books in Torre do Tombo files, which were wrongly catalogued.

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9. Appendices

Appendix 1 – Comparison between TAH and NAH

The debate between “Traditional Accounting History” (TAH) and “New Accounting History” (NAH) is an issue of current debate (Donoso, 2005; Carmona et al., 2004; Gomes and Rodrigues, 2009). Carmona et al. (2004) compared TAH to NAH in four dimensions which are presented forward in this report, namely what counts as accounting, origins *versus* genealogies, roles of accounting and sources of historical material. The debate around the best research strategy in accounting history discusses not only how historical material should be collected, but also how it should be interpreted, analyzed and presented (Carmona et al, 2004, p. 24).

Comparing TAH to NAH along the four dimensions introduced by Carmona allows a better understanding the differences between the two methods. According to Carmona et al. (2004) TAH gives an objective view of history and follows the “demand-response theory” while NAH gives a critical and interpretative view of history, going further on different roles of accounting in organizations beyond the practical one. Firstly, it depends on the definition of accounting. This is, it depends whether a researcher does an investigation on accounting history under a contemporary notion of accounting practice or in its historical context (Carmona et al., 2004, p. 27).

Secondly, Carmona et al (2004) argue that TAH and NAH diverge on the origins and genesis of accounting, not about dates but about the view of progress and evolution concepts but while TAH is concerned with origins and evolution of accounting seeing evolution as progress, NAH considers those areas problematical and therefore need to be analyzed under different perspectives in order to understand the emergence of certain accounting practices. Afterwards, the same authors point that TAH and NAH differ on

the roles of accounting practices in organizations. TAH suggests that “*any accounting development must be explained in terms of response to an economically motivated demand by some user*” (Carmona et al., 2004, p. 41) and not by any economic explanation. Even if NAH researchers present some demand-response theories for the appearance of some accounting practices, they do not stand only on this explanation; they go deeply and try to present alternative explanations that may have even more importance than the demand-response theory (Carmona et al., 2004).

Lastly, TAH uses more frequently original and primary archival material, in contrast with NAH, whose recurrent source is secondary data (Carmona et al., 2004, p. 43). TAH and NAH can be briefly defined as narrative and interpretative perspectives respectively. The narrative perspective tries to identify objectively the facts and results without an analytic view and, by contrast, the interpretative perspective seeks to identify and classify all the information systematically and under all possible explanations and interpretations of the object in study, just like in a social science (Donoso, 2005; Gomes et al., 2009). Besides all the differences among both types of research Hernandez (2008) states that one complements the other, and so a description of the facts is not enough without the correspondent interpretation. “Accounting historians should not be satisfied limiting themselves to the study of formal and technical aspects of account books, such as recording techniques and procedures. (...) accounting historians have to go far beyond it: they have to describe, analyze and interpret the operations recorded in the accounting documentation, placing their studies into the pertinent context” (Hernandez, 2008, p. 132).

Appendix 2 – Literature Review Summary

Author	Monastery (Order)	Country	Period	Objectives
Llopis, et al. (2002)	Guadalupe (Hieronymites)	Spain	1597-1784	Analysis of “Livestock Sheets”
Lorenzo et al. (2004)	Silos (Benedictines)	Spain	1665-1835	Comparison, analysis, interpretation and quantification of each activity; different kinds of income
Rivero et al. (2005)	Oseira (Cistercian)	Spain	1614-1832	Evolution of rules throughout time related to regulation; supervision; control accounts
Maté et al. (2005)	Silos (Benedictine)	Spain	“Ancient Régime”	Observe the complex bookkeeping system; show the utility of the register and control of a variety economic activities
Calvo, et al. (2005)	Parish of Agüimes Town	Spain	1730-1830	The importance of the parochial administrator and its economic-countable implications
Oliveira et al. (2005)	Arouca (Cistercian)	Portugal	1786-1825	Organizational, economic and hierarchic structures; sources of income and expense; decision making; internal control
Dobie. (2008)	Durham Cathedral Priory	England	1278-1398	Sources of receipts, types of expenditure, description of accounts formats
Montrone & Chirieleis (2009)	Abbey of San Pietro in Perugia (Benedictine)	Italy	1461-1464	Analysis of the journal and the ledger and the usage of the double entry method.

Appendix 3 – List of accounting books and other documents available at *Torre do Tombo*

- **Packet 1-6:** several documents with non financial information (judicial orders and official letters of the Monastery)
- **Packet of the Archive of the Financial Ministry:** documents related to the extinction of the Monastery
- **Books:** Accounting books as follows:

Book	Year	Title
1	1800	Livro de receita e despesa do Mosteiro de S.Jeronimo de Belem
2	1801	Livro da receita e despesa do Mosteiro de Belem
3	1802-1804	Livro da despesa do R. Mosteiro de Belem
4	1804-1805	Livro da receita e despesa do Mosteiro de Belem
5	1807	Livro da receita e despesa do Mosteiro de Belem
6	1808	Livro da receita e despesa do Mosteiro de Belem
7	1809	Livro da receita e despesa do Mosteiro de Santa Maria de Belem
8	1813-1815	Livro da receita e despesa do Mosteiro de Santa Maria de Belem
9	1816-1818	Livro da Receita e despesa do Mosteiro de Santa Maria de Belem
10	1819-1821	Livro da receita e despesa do Mosteiro de Santa Maria de Belem
11	1823	Livro da receita e despesa do Mosteiro dos Jeronimos de Belem
12	1828-1833	Livro da receita e despesa do pomar e orta do mosteiro de Nossa Senhora de Belem
13	1831	Livro da receita e despesa Mosteiro de Santa Maria de Belem
14	1833	Livro de receita e despesa do Mosteiro de Santa Maria de Belem
15	1813-1833	Livro da receita e despesa da Sachristia do Real Mosteiro de Belem
16	1800	Livro do rendimento e despesa da quinta da Palmeira
17	1805	Livro da administração da quinta da Palmeira
18	1814-1815	Livro da administração da quinta da Palmeira
19	1816-1817	Livro da administração da quinta da Palmeira
20	1830-1833	Livro da administração da quinta da Palmeira
21-25	1783-1822	Livros da receita e despesa do pomar e casa do Mosteiro de Santa Maria de Belem (5 books)
26	1819	Livro da receita e despesa do Mosteiro de Belem

27	1806	Livro da receita e despesa do Mosteiro de Santa Maria de Belem
29	1829-1833	Livro da despesa do Mosteiro de Santa Maria de Belem
31	1799-1817	Livro de receita e despesa do Mosteiro de Santa Maria de Belem da Ordem de S.Jeronimo
32	1818-1822	Livro da receita e despesa do Mosteiro de S.Jeronimo de Belem
33	1829	Livro da receita e despesa do Mosteiro de S.Jeronimo de Belem
34	1830	Livro da receita e despesa ao Mosteiro de S.Jeronimo de Belem
36	1820-1827	Livro das contas da quinta da Palmeira
37	1805-1806	Livro da receita e despesa do Mosteiro de Jeronimos de Belem
38	???	Livro onde se contem os assentos e resoluções da Mesa da Fazenda do Mosteiro de Belem, sobre cada um dos artigos pertencentes á mesma Fazenda, as ordens emanadas do W sobre as decimas, contribuições extraordinarias, e bem afim o estado das contas da Fazenda do mesmo Mosteiro com a Fazenda Real
39	1828	Livro de receita e despesa do Real Mosteiro de Santa Maria de Belem
40	1797-1833	Livro da despesa feita no Concerto das casas pertencentes ao Mosteiro de Belem
41-43	1755	Livros do index do cartorio do Mosteiro de Santa Maria de Belem (3 books)
44	1741	Livros de todos os casaes foreiros ao dito mosteiro (foros de Margarida)
45	1509-1639	Livro das profissoes

Appendix 4 - The Hieronymite Order

As Ferreira (1916) mentioned, Saint Jeronymo was known as a pedagogue, and the order founded with his name in the fourteenth century, followed his steps, teaching and creating schools and colleges. Many educators today known by their techniques in ancient times had left from the Hieronymite Order (e.g. Fathers Heitor Pinto and Miguel Soares). However, their main activity was the contemplation and prayers as explained previously.

The Hieronymite Order is a monastic institution with a contemplative intention, which in silence, loneliness, prayer and penitence approximates monks to God²⁸. The main residence of this order in Portugal was the HMB. However, they had several convents spread in Portugal, which is the case of the convents in Penha Longa (Sintra) and in Alenquer. (Silva *et al.*, 1925, p. 8)

According to the official webpage of this order, nowadays the day to day life of these monks is devote the morning working to meet their needs and maintain inner balance and, the afternoon is devoted to contemplation and intellectual life, praying, reading and studying. Along the day they celebrate the Liturgy of Hours²⁹ and the Hieronymite monks are known by their hospitality in which they express charity (there are a considerable amount of people knocking on the door of these monks usually with the aim of live a monastic solitude time to find at least inner peace.

²⁸ <http://www3.planalfa.es/msmparral/orden.htm> accessed on 23rd April.

²⁹ According to the official site of the Hieronymite Monastery, monks had to remain in the “Coro Alto” at least seven hours per day. The Coro Alto was the area/room of the monastery determined to the main monks’ activities, namely prayers, songs and religious services. The workload was imposed by the Saint Augustine rule. http://www.mosteirojeronimos.pt/web_mosteiro_jeronimos/flash_mj/visita_jeronimos.swf

Appendix 5 – Initial and Final Inscription of Book 14: Book of expenses and receipts of the monastery in 1833.

"Livro da Despeza e Receita, para servir na Junta da Inspeção da Fazenda do Real Mosteiro de Santa Maria de Belem, do Instituto de S.Jeronymo, no Governo do Rmo.Pe. Presidente incapite Fr. Joaquim Joze Pereirados Santos, que teve principio em 3 de Setembro de 1833, por Ordem de S.M. J. o Duque de Bragança, regente em Nome da Rainha, expeditampela Junta do Exame do Estado actual, e Melhoramento temporal das Ordens Regulares, de 2 do mez, e anno Supra" (Initial transcript)

"Por ordens do nosso Rmo. Pe. Presidente in CapiteFr. Joaquim Joze Pereirados Santo, mumerei este Livro,o qual, alem desta, e da primeira folha, tem cento e quarenta e duas; e igualmente o rubriquei com o meu cognome = Costa=. Em fé do que fis este Termo, que assigno aos 6 de Setembro de 1833, no Real Mosteiro de Belem. Fr. Manoel do Bom Jesus Costa. Escr.am do Mosteiro." (Final Transcript)

Appendix 6 – Index of book 14 “Expenses and Receipts of the Monastery”

Index da Despeza		Index do recibo	
Semanas; Dividas Escripturadas.....	afl. 1. 2.	Palmeira.....	afl. 22.
Provimientos.....	afl. 6.	Pomares.....	afl. ia.
Enfermaria.....	afl. 11.		
Extraordinario.....	afl 14.		
Desp ^a com os Pes. Fora do Mbstr ^o	afl. 16.		
Refeitorio e Cozinha.....	afl. 17.		
Obras.....	afl. 18.		
Juros, Decimas, Prestações.....	afl. ia. V ^o		
Procuradoria Geral	afl 19.		
Demandas.....	afl. ia.		
Partidos.....	afl. ia. V ^o		
Salarios.....	afl. ia. ia.		
Vestiaras.....	afl. 20		
Capellas, e Missas.....	afl. ia.		
Dividas Atrazadas.....	afl. ia. V ^o		
Rações aos Creados.....	afl. ia. ia.		
Hospedaria.....	afl. 21.		
Debates.....	afl. ia.		
Pomares; Dividas passivas.....	afl. ia.		
Saldo das Contas.....	afl. 23.		

Appendix 7 – Copy of sheet number 1 of book 14 “Expenses and Receipts of the Monastery in 1833”

Semanas	P.	M.		1. Costa
2 de Setembro de 1833. 1ª Semana				
219 arrateis de Vaca....a 85.....	"	18\$615		
520 pães.....	"	11\$690		
Peixe.....	"	3\$850		
Correio.....	"	\$285	34\$440	
9 de Setembro. 2ª Semana				
224 Arrateis de Vaca....a 85.....	"	19\$040		
420 pães.....	"	9\$450		
Peixe.....	"	3\$280		
Correio.....	"	\$180	31\$950	
16 de Setembro. 3ª Semana				
112 Arrateis de Vacaa 85	"	9\$520		
64 ditos de vitella.....a 80.....	"	5\$120		
428 pães.....	"	9\$630		
Peixe.....	"	1\$440	25\$710	
23 de Setembro. 4ª Semana				
165 Arrateis de Vaca....a 25.....	"	14\$025		
400 pães.....	"	9\$000		
Sardinhas.....	"	\$800	23\$825	
30 de Setembro. 5ª Semana				
174 Arrateis de Vaca.....a 90.....	"	15\$660		
36 Ditos de Carneiro....a 60.....	"	2\$160		
428 pães.....	"	9\$630		
6 Arrateis de Talharim.....	"	\$480		
1 Dito de queijo.....	"	\$280		
2 Ditos de Manteiga.....	"	\$560		
6 Ditos de Assucar.....	"	\$720		
3 Duzias d'Ovos.....	"	\$600		
Leite.....	"	\$210		
Agoardente,	"	\$160		
1 Alqueire de Batatas.....	"	\$340	30\$800	
6 de Outubro de 1833. 1ª Semana				
188 Arrateis de Vaca....a 95.....	"	17\$860		
400 pães.....	"	9\$000		
Correio.....	"	\$120	26\$980	
13 d'Outubro. 2ª Semana				
185 Arrateis de Vacaa 85.....	"	15\$725		
370 pães.....	"	8\$325		
150 sardinhas.....	"	\$260		
Peixe.....	"	2\$600	26\$910	
21 d'Outubro. 3ª Semana				
193 Arrateis de Vaca....a 75.....	"	14\$475		
350 pães.....	"	7\$875		
Peixe.....	"	2\$300		
Correio.....	"	\$200	24\$850	225\$465