
ARTÍCULOS

THE REFORM OF THE UNIVERSITY OF COIMBRA: AN ANALYSIS OF QUANTITATIVE AND QUALITATIVE FINANCIAL SOURCES (1773-1777)

LA REFORMA DE LA UNIVERSIDAD DE COIMBRA: ANÁLISIS DE LAS FUENTES FINANCIERAS CUANTITATIVAS Y CUALITATIVAS (1773-1777)

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ABSTRACT: Within the context of the study of university finances, this article aims to compare sources of two different typologies, one quantitative and the other qualitative. The first corresponds to the University of Coimbra's revenue and expenditure books – a detailed record of the institution's cash flows – and the second, Rector Francisco de Lemos' *Relação*, which provides an explicit testimony of the University's finances. The accounting information provided by these sources was inserted into a database in order to categorise revenue and expenditure and calculate the balances. A comparison of the two sources shall seek to answer the central question of this study: what similarities and differences emerge when examining the two types of sources that document the financial situation of the University of Coimbra between 1773 and 1777? Among the two sources, the revenue and expenditure books emerge as more effective tools for conducting financial analysis. The most notable disparities between the two sources revolved around the omission of loans that were acquired to fund construction projects undertaken by the University, as well as Lemos registering expenses incurred as a result of works separately from other costs, to hide the levels of indebtedness faced by the University.

KEYWORDS: finances; University of Coimbra; Pombaline Reform; Francisco de Lemos; revenue and expenditure.

RESUMEN: En el contexto del estudio de las finanzas de la Universidad, este artículo pretende comparar dos fuentes de distinta tipología, una de carácter cuantitativo y otra de carácter cualitativo. La primera corresponde a los libros de ingresos y gastos de la Universidad, un registro detallado de todos los flujos de caja de la institución. La segunda fuente corresponde a la *Relação* do Rector Francisco de Lemos, que proporciona un testimonio detallado sobre las finanzas de esta Universidad. La información contable se introdujo en una base de datos para categorizar los diferentes ingresos y gastos y calcular las sumas. La comparación entre estos dos tipos de fuentes buscará responder a nuestra pregunta central: ¿cuáles son las similitudes y diferencias entre las fuentes, en relación con la realidad financiera de la Universidad de Coimbra entre 1773 y 1777? Los libros de ingresos y gastos resultan ser mejores instrumentos para el análisis financiero. Las mayores diferencias entre las cuentas fueron la no inclusión de los créditos solicitados para la ejecución de obras por parte de la Universidad, así como la separación de las obras de los demás gastos, por parte de Don Francisco, con el fin de ocultar el endeudamiento real de la Universidad.

PALABRAS CLAVE: finanzas; Universidad de Coimbra; Reforma Pombalina; Francisco de Lemos; ingresos y gastos.

Recibido: 14 de enero de 2022. Aceptado: 23 de marzo de 2023. Publicado: 21 de diciembre de 2023

Cómo citar este artículo / Citation: Barbosa, José Luís dos Santos y Alves, Carlos Fernando Teixeira, «The reform of the University of Coimbra: An analysis of quantitative and qualitative financial sources (1773-1777)», *Hispania*, 83/274 (Madrid, 2023): e039. <https://doi.org/10.3989/hispania.2023.039>.

Fuente de financiación / Funding sources: This work is funded by FCT – Fundação para a Ciência e a Tecnologia, I.P., project Ref. FCT: SFRH/BD/143897/2019. The authors are grateful to the Centre for the History of Society and Culture for the financial support.

INTRODUCTION

The eighteenth century was a period of significant transformation for European universities¹. However, despite the changes faced, these institutions maintained their central roles, specifically developing knowledge, drawing up social, moral, and religious codes of conduct, and training students to take over high-ranking positions and professions linked to the State and Church. With an increasingly complex bureaucratic network required by an expanding State and a greater need to control national finances and public balance, the various reformers came to see educational institutions as sources of the skilled labour they required to meet their changing needs. In Portugal², which followed many trends seen in the third wave of university reforms³, the reform sought to make profound changes to respond to the country's underdeveloped economy⁴. At this time, a sizeable investment was made into the University of Co-

imbra, seeking to optimise the institution's studies and curricula, management system, administrative capacity, and finances.

The subject of finance is not popular among historians who study universities, although significant contributions have been made to the subject area in the last thirty years. These have focused on analysing universities' assets, the constitution of their income, and the funds allocated to various expenses. As a general rule, university incomes were sourced from ecclesiastic rents, with the most significant slice of their revenue then being spent on salaries paid to professors and other officials, as well as works undertaken on university buildings. The chronic lack of financial resources in European universities and the fact that universities were dependent on central and local authorities constituted two major obstacles to managing the estates in question. In times of crisis, the solution found to growing negative balances was to cut down operational expenditure, and little effort was made to find new sources of income. No fundamental changes were made to the basic financial structure of universities between 1500 and 1800⁵.

Studies on universities in Portugal have addressed teaching and knowledge production above all else. The subjects of estate management and finance have proven out of favour among historians. The early modern University registered different types of incomes, the most notable of which was rents, the primary source of revenue⁶. However, the University of Coimbra also reported oth-

1 ANDERSON, 2004. BROCKLISS, 1987; 2003. CADILHON, MONDOT and VERGER, 1999. EMERSON, 1977. FRIJHOFF, 2002. HAMMERSTEIN, 2002a. JULIA, REVEL and CHARTIER, 1986-1989. KAGAN, 1974. KULCZYKOWSKI, 1980. MCCLELLAND, 1978; 1980. PEDERSEN, 2002. REILL, 2008. TURNER, 1974.

2 ANTUNES, 1982. COSTA, 2014. COSTA and MARCOS, 2014. FONSECA, 2014. MARTINS, 2013. 2014. PITA, 1996; 2014.

3 Although currently the big question is whether the second and third waves are essentially the same – indeed, we can even speak of a certain complementarity, since the reform of the University of Turin launched many of the ideas and methods that were then applied after 1760. However, after the expulsion of the Jesuits, several governments promoted university reforms that shared similar ideas, such as the adoption of practical disciplines – in all areas of knowledge –, the creation of new faculties (as was the case of the faculties of philosophy), the reduction of the influence of consolidated knowledge such as theology and, finally, the creation of several scientific facilities.

4 CARDOSO, 2002/2003. PRATA, 2014.

5 FLETCHER and UPTON, 1985. AYELMER, 1986. TWIGG, 1997. RODRÍGUEZ-SAN PEDRO BEZARES, 1994a, 1994b. RIDDER-SYMOENS, 2002. RODRÍGUEZ-SAN PEDRO BEZARES and POLO RODRÍGUEZ, 2004. FONSECA, 1995; 1997. CID, 1997. NETO, 1998.

6 FONSECA, 1995; 1997.

er types of income, such as interest and tuition fees, as well as lateral accounting, which was carried out by the *Arca dos Médicos e Boticários* (Doctors' and Apothecaries' Vault). In the seventeenth century, wages corresponded to about 68 % of expenses, whereas they made up about 60 % in the eighteenth century. Until the nineteenth century, the revenue model stayed constant, with rents making up about 80 % of the institution's revenue. Costs incurred from building contracts varied according to the availability of money and necessity of works. In the late seventeenth century, the University saw several difficulties and recurrent negative balances. In the eighteenth century, circumstances changed. On the one hand, there was an increase in the price of cereals, which allowed the value of rents (and consequently revenues) to rise. On the other hand, the election of the rector Carneiro de Figueiroa, who was an administrator who achieved better control of the accounts and positive balances until 1750. The University's economic relief was evident in the amount of money lent at interest: on 1 January 1773, the institution had lent 143 000 000 réis⁷. Improved financial stability resulted in a substantial 33.3% increase in salaries in 1754, a positive outcome largely attributable to a surge in student enrollment and, as a direct consequence, higher tuition fees.

There are various types of sources with information about accounting, finances, and assets of universities. Many studies have chosen to use both qualitative and quantitative sources, but the latter are usually not analysed from a serial perspective⁸. San Pedro-Bezares' studies are one of the few examples of the serial use of qualitative sources, in particular the revenue and expenditure books, but also sources related to the collection of rents and salary payments⁹.

As far as the finances of the University of Coimbra in the eighteenth century are concerned, there are two main sources for analysis: the finances as recorded by *Dom Francisco de Lemos* (rector be-

tween 1770-1779 and 1799-1821) in his bookkeeping —*Relação Geral do Estado da Universidade* which provides a summary of the early years of the University reform, namely between 1773 and 1776— and the accounts contained within the University's revenue and expenditure. The books of revenue and expenditure only exist from 1563 onwards. This explains why studies on the finances of the University of Coimbra in the Middle Ages are scarce and based on qualitative sources¹⁰. On the other hand, the *Relação* of *Dom Francisco de Lemos* relates to a specific period in the history of the University, which also justifies its limited use.

Some studies used the sources analysed in this article. As a general rule, qualitative sources were preferred to quantitative ones. António Madahil, published the book *Livro da Fazenda e Rendas da Universidade de Coimbra em 1570* and analysed the finances of the University at the turn of the eighteenth to the nineteenth century. In his exam the author used several sources, including the revenue and expenditure books. However, these were not serially examined, only for some periods that the author considered relevant¹¹.

Ana Bandeira, in her study on the assets of the University of Coimbra, used the *Relação* of *Dom Francisco* to analyse the maintenance of the churches of the University's patronage. This source was cross-referenced with other sources of a qualitative nature, such as memoirs, the University statutes, among other sources¹².

Fernando Taveira da Fonseca stands out as the author who extensively relied on the revenue and expenditure books in his research. These were used to examine the totals of income, expenditure, and balances between 1700 and 1771. The analysis of the revenue and expenditure components was carried out from the same sources, but not serially. A few years were chosen to serve as samples for the chronology (1721-22 to 1727-28 and 1761 to 1764)¹³.

More recently, Lílíana Ferreira's study on the accounting of the University of Coimbra used

7 The total (nominal) revenue for the year was 83 347 617 réis, although loans taken out by the University represented 46 % of that amount.

8 DAVILA CORONA, 1991. RIDDER-SYMOENS, 2002.

9 RODRÍGUEZ SAN PEDRO BEZARES 1994a; 1994b; 2000. RODRÍGUEZ SAN PEDRO BEZARES and POLO RODRÍGUEZ, 2004.

10 COELHO, 1997. LEITÃO 2018; 2019.

11 MADAHIL, 1940.

12 BANDEIRA, 1993.

13 TAVEIRA, 1995.

the same sources found at the previous works (among others) to conduct an analysis from a different perspective. The author aimed to examine the University's accounting practices and procedures between 1750 and 1800, placing some emphasis on the changes introduced by the Pombaline reform. The revenue and expenditure books were analysed from this perspective, examining the evolution of their bookkeeping. The work of *Dom* Francisco de Lemos was not chosen, due to its extra-organisational nature¹⁴.

The use of sources is intrinsically linked to the type of research that is intended to be carried out. For this reason, the discussion between the sources presented in this article also concerns the choice between the use of a qualitative or quantitative methodology but does not exclude a mixed approach.

In Shareia's work (2016: 3839), a summary of key concepts in the literature regarding the primary distinctions between qualitative and quantitative research methodologies was presented. Regarding qualitative methodology: it is closer to the relationship between researcher and subject; more subjective and related to reality has an image of social and where the relationship between theory, concepts and research is emergent¹⁵. This type of research generates findings that are not obtained through statistical procedures.¹⁶

As far as quantitative methodology is concerned, it is more distant in regard to the relationship between the researcher and the object of study; it has a more objective and singular perception of reality; the image of social reality is static and external to the actor; and the relationship between theory, concepts and research is based on the confirmation of hypotheses. It is also important to emphasise that, broadly speaking, theory is the starting point for quantitative research, whereas qualitative methodology aims to develop or refine theories¹⁷. The quantitative approach can be based, for example, on the frequency of occurrence of a phenomenon¹⁸.

The type of sources used in the different methodologies is also different. Quantitative research is structured from sample collections and data collection instruments that enable research. Whereas qualitative research designs the object as the study evolves – it is particularly useful when analysing fields where subjectivity is greater. In turn, quantitative research requires large amounts of data, much of it serial¹⁹.

Some authors claimed that the combination of qualitative combined with some quantitative data can contribute to a better understanding of different aspects of the same phenomenon²⁰. Although this article is more concerned with the comparison between the two sources, this does not imply that the two cannot be used simultaneously.

Financial studies, in general, use either a qualitative or quantitative research design. There appears to be a lack of research undertaking a mixed-method approach. As a consequence of the multifaceted nature of the research in economy, the use of mixed methods of research seems appropriate because they combine elements, such as the use of the qualitative and quantitative approaches, data collection, analysis, and inference techniques²¹. Most studies in accounting use quantitative methodologies and this type of research is customarily connected with sampling problems as well as with questions pertaining to modelling qualitative variables²².

In short, both qualitative and quantitative historical sources can be used in the study of university finances. This article shall analyse the University of Coimbra's finances between 1773 and 1776 by comparing two types of sources: the University finances as recorded by *Dom* Francisco de Lemos in his bookkeeping —*Relação Geral do Estado da Universidade*— and the accounts contained within the University's income and expenditure books for the period between 1773 and 1776²³. This investigation shall seek to as-

14 FERREIRA, 2016.

15 SHAREIA, 2016: 3839.

16 MOSKOVICZ, 2019: 106-108.

17 SHAREIA, 2016: 3839-3840.

18 MOSKOVICZ, 2019: 106-108.

19 SHAREIA, 2016: 3839-3840; RAHMAN, 2017.

20 MOSKOVICZ, 2019: 106-108.

21 MOSKOVICZ, 2019: 106-108.

22 GRUSZCZYŃSKI, 2009: 83.

23 This time interval is justified because the work of Francisco de Lemos represents the average income and expenditure found in the period.

certain the similarities and differences between these two historical sources, as one has qualitative characteristics and the other quantitative. It was applied the methodology for categorising revenue and expenditure used by Barbosa (2020 and 2021) to the case of the University. The central question to be answered is: what are the main differences in the use of two sources of different typologies? Other questions arise that deserve to be answered: what kind of information do they offer? Under what conditions were the sources produced? How can these sources be analysed?

THE POMBALINE REFORM IN THE CONTEXT OF UNIVERSITY REFORMS IN THE SECOND HALF OF THE EIGHTEENTH CENTURY

The 1772 Reform of the University of Coimbra was part of the third wave of university reforms in the second half of the eighteenth century²⁴. These reforms had motivations and results that were widely shared by various monarchs, ministers, and even university representatives throughout Europe. Its starting point was the expulsion of the Jesuits, which allowed the central authorities to remove all obstacles to a more effective control of these institutions. However, in the Portuguese case, this expulsion caused a «void» that was difficult to fill²⁵, and that may even have limited the scope of this reform.

The first motivation for these reforms was the need to respond to an increasingly complex bureaucracy²⁶. The introduction of a more intense specialization component was intended to create a «loyal class of bureaucratic servants». And perhaps most clearly in Southern Europe, these reforms were justified by the needs of the state as a source of education²⁷.

In the case of the University of Coimbra, this was an important aspect. For students in law schools, it was the rector himself, Francisco de Lemos, who, after the Reform, stated that these

faculties trained students in sufficient numbers to meet the needs that the Portuguese Crown had²⁸. Another interesting example was the creation of the new philosophy faculty and its new courses²⁹. The introduction of subjects such as natural history, zoology or agriculture, had the objective of training specialists in the efficient exploitation of the natural resources of the Portuguese Empire. This reform also shows an evident concern with public health on the part of the state, evident in the reform of the medicine course³⁰. The aim was to train physicians who could meet the real needs of the population. Thus, the reform of the University of Coimbra sought to respond to the needs and objectives outlined by the Minister and the Monarch, in what was a clear attempt at national modernization. Equally significant is the establishment of the Faculty of Mathematics in 1772, which exemplifies this idea. The national authorities understood that a solid knowledge in mathematics, «help, promote, and advantageously perfect a great number of Arts useful, and necessary to the State.»³¹.

Given the economically nature of these university reforms, as evident in the case of the University of Coimbra, one can concur with Anderson's assertion that these reforms went further in less economically developed contexts. The centralized, utilitarian, and state-run University — a hallmark of the Enlightenment and maintained until the nineteenth century— was also motivated by stimulating industry, agriculture, and public health. In his analysis of the thought of Rector Francisco de Lemos, Costa concludes that:

... the establishment of the natural sciences that was made at the University would make possible a better knowledge of the natural riches existing in the country, bringing to the industry new material resources, with the consequent development of trade (...). The teaching of natural sciences implemented could not fail to have as a reflection the development of new arts, new manufactures, new factories and the improvement of existing ones³².

24 ANDERSON, 2004: 23. FRIJHOFF, 2002: 70.

25 PRATA, 2014: 329-331.

26 ANDERSON, 2004: 20.

27 FRIJHOFF, 2002: 70.

28 LEMOS, 1777-1980: 60 and 62. See also *Estatutos da Universidade de Coimbra*, 1972, Livro II.

29 *Estatutos da Universidade de Coimbra*, 1972, Livro III.

30 *Estatutos da Universidade de Coimbra*, 1972, Livro III.

31 Translate by us from *Estatutos da Universidade de Coimbra*, 1972, Livro III: 141-143.

32 Translate by us from COSTA, 2014: 188, 207-208.

The introduction of the subject of natural history in 1772 represents the culmination of this new kind of understanding, «the challenges opened by the exploration of the colonies (...) the need for a strong administration and a properly qualified technical body (...) have (...) contributed to the political decision to introduce profound reforms in education»³³. As we can see, the 1772 reform of the Portuguese University shared and even accentuated this economistic vision.

The modernization of the University, in its curricular and even scientific aspects, was evident. In this sense, this reform is inseparable from the effort of the central power to reform its fiscal and military system, introducing new disciplines. The control of curricula, teacher appointments and the introduction of more practical subjects were all characteristics of this wave of reforms, to which Coimbra was no exception. As was the case at the University of Turin, the reform in Coimbra sought to follow ideas put forwards by the central authorities. One of the main changes registered was the University being regarded as part of the broader education system, which included other levels of education³⁴. This reform was also characterised by a significant increase in courses taught, with new faculties created, including philosophy and mathematics, and a thorough overhaul of the existing syllabus. These curricular changes were also reinforced with the construction of several scientific facilities, such as a botanical garden, fundamental for integrating more practical teaching based on observation and experimentation.

Another significant outcome of this reform was the shift in the mindset of academics and scientists, also noticeable in Coimbra, where the importance of professors such as Domingos Vandelli, for example, stands out³⁵. Francisco de Lemos made a point of recalling that for the faculties of philosophy and mathematics, the professors—as the Statutes of 1772 already mentioned—should be masters and inventors³⁶.

The reform of the Portuguese University also demonstrates a new functionality of the rising

states, the need to ensure some kind of education to their citizens. In the case of the University of Coimbra, it has followed the French model of the Age of Enlightenment. This reform sought to overcome circumstances considered unprogressive by the Portuguese authorities³⁷. As Anderson stated³⁸, the reform carried out by the Marquis of Pombal and his associates «showed how genuine intellectual reform could be combined with a complete lack of political freedom, and with the enforcement of the state's version of Catholic orthodoxy», to become «one of the most far-reaching and ruthlessly authoritarian reforms». At the same time, a progressive decline in the importance of theology and theologians to the detriment of new knowledge, such as philosophy or mathematics, was evident in several European universities, including Coimbra; and the introduction of new ideas and new books and authors marked the evolution seen in the institution until the early nineteenth century.

The Pombaline Reform shared many characteristics with this wave of reforms, although one notable difference was an attempt to break with the past. As Pimentel understood it, «The drastic intervention was intended to build, over the old corporate mesh of immemorial immunities and privileges, a modern and enlightened educational institution, immediately but above all administratively and pedagogically submissive to a superiorly determined State strategy. A Royal University, in the aptly named and opportunely formulated term. The work thus outlined had, therefore, also an appropriate name: New Foundation.»³⁹.

The Reform was also felt in the administration of the University. The previous administrative body, the *Mesa da Fazenda* was abolished, and the *Junta da Fazenda* was created in its place. The composition of the *Junta da Fazenda* was different from its predecessor—for instance, was presided over by the rector⁴⁰. The *Mesa* was composed of the most qualified *deputies*, that is, four

33 Translate by us from SANTOS, 2013: 114.

34 CRUZEIRO, 1988: 173.

35 CARDOSO, 2002-2003.

36 ARAÚJO, 2014: 45.

37 HAMMERSTEIN, 2002b: 604-608.

38 ANDERSON, 2004: 30-31.

39 Translate by us from PIMENTEL, 2014: 293.

40 We chose the word rector and not dean, because it was the former who exercised broad control over most of the University's matters and affairs, and not only—as the latter did—over the individual aspects of each faculty. As the

professors from the four faculties. The Pombaline reform removed the professors from the management of economic life. The structure of the *Junta* had a president (the Rector of the University), three deputies, a procurator of the treasury, a fiscal officer, a general treasurer, and a clerk. The deputies were professors of the Colleges of S. Pedro and S. Paulo and of the Military Orders, being proposed to the Rector by the respective Colleges, to serve for three years⁴¹.

As we will see, the sources of revenue for the University were varied. The most important ones came from its estate. The estate of the University of Coimbra had a manorial structure, based on agricultural rents (such as tithes and emphyteutic rights). The rents had burdens such as the payment of the priests' salaries, vestments, and church maintenance work. In the localities where the University collected the tithes, it had the right to present the local parish priests. For this reason, the University's estate was dependent on the ecclesiastical structure of the country for the collection of the tithe. They were also important elements in the communication between the University and the people, as well as in providing the University with important information about incomes⁴².

Due to the vastness of the University's assets, it used a method of indirect rent collection. That is, it hired private individuals (contractors/rent farmers) to collect the revenues on its behalf. These were selected through an auction process. They would undertake to pay the University an annual fixed amount, profiting from whatever they collected above that amount. Rents were the main source of revenue for the University but were almost entirely collected by individuals external to the institution⁴³.

THE RECTORSHIP OF FRANCISCO DE LEMOS

This profound reform of the University of Coimbra was only made possible with the help

various statutes mention, the rector was in fact the «head» of the institution.

41 NETO, 1998: 1-4.

42 NETO, 1998: 10-16.

43 NETO, 1998: 8-13.

of several collaborators, among them Francisco de Lemos, rector between 1770 and 1779 and then again between 1799 and 1820.

Born in Rio de Janeiro in 1735, he graduated in canon law at the University of Coimbra—with a doctorate in 1754—at the age of 19. It was after completing his studies at the University that he embarked on his social and political ascent⁴⁴. After several difficulties in pursuing a teaching career at the institution, Francisco de Lemos was eventually appointed to another position, Rector of the College of the Military Orders at the University. Subsequently, there ensued almost a decade during which he held various positions linked to ecclesiastical, public administration, and the Inquisition.. However, he returned to the University of Coimbra in 1770, after being appointed by the Marquis of Pombal. His proximity to the Minister of the Kingdom, the Marquis of Pombal, allowed him to become somewhat of an executor of the minister's ideas. The reform of education in Portugal was a broad project, and in this sense the Marquis of Pombal needed to surround himself with people he could trust.

The rector was, as one would expect in a Catholic country, «an illuminist. But his enlightenment is not that of the French 'lights' (...). It is the Catholic enlightenment (...) the faculty of thinking is free, but this freedom has two limits: reason and religion, not the rational religion, that of the deists, but the supernatural and revealed religion.»⁴⁵ And the choice for Francisco de Lemos was not only justified by his leadership ability and his knowledge of the University itself, but also by the sharing of ideas with the Marquis of Pombal regarding the importance of the University and its reform:

One should not look at the University as an isolated Body, and concentrated in itself, as is ordinarily done; but as a Body formed in the bosom of the State, by means of Wise Men, who create, spread the Light of Wisdom through all parts of the Monarchy; to animate, and vivify all the Branches of Public Administration; and to promote the happiness of men; illustrating their Spirits with the true notions of fair, honest, useful and decorous; forming their hearts in the practice of social and Christian Virtues;

44 ALVES, 2019: 9.

45 SANTOS, 2007: 40.

and inspiring them with Feelings of Humanity, of Religion, of Probity, of Honor, and of Zeal for the Public Good. The more this idea is analyzed, the more relations are discovered between the University and the State; the more we know the mutual dependence that these two Bodies have on each other, and that the Sciences cannot flourish in the University, without the State flourishes, improves and perfects itself⁴⁶.

In the case of the University of Coimbra and its reform, the rector supervised all the new introductions. He closely followed the restructuring of the medical school and the construction of new faculties of philosophy and mathematics. Simultaneously, he accompanied the construction of several scientific facilities such as the Astronomical Observatory (for math), the Natural History Office, the Botanical Garden, the Chemical Laboratory, the Experimental Physics Office (for philosophy), the Teaching Hospital, the Pharmaceutical Dispensary, and the Anatomical Theater, for medicine. But this period was in fact intense in changes, and the rector's work also extended to the supervision of the interventions in the school buildings, in the College of Arts, and in the creation of the university press. As Francisco de Lemos himself indicates, he carefully and closely followed the new statutes delivered to the University in 1772⁴⁷. Thus, we can also conclude that this proximity and supervision of the various constructions, allowed the rector to have a better idea of the expenditures.

In addition to the construction and remodeling of teaching spaces, another considerable expense was the purchase of textbooks. This need was constant, from 1772 until the 19th century, but the initial years were mainly hectic. In order to be able to control the heavy expense of building the university press and purchasing new books, the rector sought to secure a monopoly on printing and sales of all books used at the university – forbidding the purchase of books outside the institution⁴⁸.

The new statutes of 1772 were meagre in many respects and were unable to prevent sev-

eral situations. The administrative aspects were one of these cases. The hiring of new teachers was in charge of Francisco de Lemos. The 13 dispensations of professors —later confirmed by decree— were the responsibility of the rector⁴⁹. However, some of these faculty members kept their salaries so as not to present major resistance. At the same time, it was Francisco de Lemos who handled the new hires. In this sense, with the vacancies resulting from retirements and the needs for more teachers due to the creation of new subjects, there was a total of 33 professors and 20 substitute professors. Especially if we take into account that the number of teachers has increased compared to the previous period. Moreover, from 1772 on, in addition to the professors, we also see other positions connected to the teaching profession. In addition to substitute, there was a interim substitute, the extraordinary substitute and also the demonstrator – for practical classes conducted in the laboratory. Obviously, these changes in the teaching staff brought a greater burden.

But the hiring didn't stop there. Expenses have also increased with the arrival of new administrative staff. As the Marquis of Pombal indicates to the Rector himself, «it is served that thus be put into Execution: Naming now Your Excellency the capable subjects: And putting the competent, to be filled»⁵⁰.

In conclusion, the rector was a central player in this period of the University of Coimbra's history, closely followed the construction of various scientific facilities, the appointments and dismissals of professors, the choice of new books, and even the drafting of new statutes, his actions and testimony therefore able to provide relevant information about our subject⁵¹.

SOURCES AND METHOD OF ANALYSIS

As mentioned previously, this article analyses two sources, one quantitative and the other qual-

46 Translate by us from ARAUJO, 2014: 46.

47 LEMOS, 1777-1980: 8.

48 ALVES, 2016: 254.

49 BRAGA, 1898: 420-425.

50 Translate by us from ALMEIDA, 1937: 124.

51 ALVES, 2016.

itative. The quantitative source corresponds to the revenue and expenditure books of the *Tesouraria Geral da Junta da Fazenda* (Coimbra University Archive [*Arquivo da Universidade de Coimbra*, Coimbra, from now on AUC])⁵². With the Pombaline Reform, a new organisation responsible for the administration of the University was created: the *Junta da Fazenda*. With its creation, there was a directive to adopt the model established for the Royal Treasury, which implied the creation of an accounting model based on double-entry bookkeeping. These would serve to record the accounts for greater control and also to hold those responsible for the University's finances accountable⁵³.

These books were put together by the *Contador*⁵⁴, under the treasurer's supervision⁵⁵. These professionals would have been charged with recording and organising the University's income and expenses, that is, all cash inflows and outflows, as well as overseeing University officials' management of the institution's assets and ensuring the safekeeping of the vault. The system applied to these books was double-entry bookkeeping⁵⁶, introduced following an imposition by the Marquis of Pombal himself, leading to the creation of a management department within the University, the *Junta da Fazenda*. This new institution was to be organised similarly to the royal exchequer⁵⁷.

The introduction of double-entry bookkeeping led to the adoption of other types of auxiliary books, such as the *livro borrador* (draft book), *livro diário* (diary book), and *livro mestre* (master book). These were used to complement the income and expense books. However, unlike these, they do not form complete series as they were not always used⁵⁸. Therefore, the income and expense books have been favoured as a source for comparison to the accounts presented by Francisco de Lemos.

In this way, the Reform of 1772 brought about a new administrative structure, which was to use a double-entry accounting system, which allowed greater control of the University's accounts by the state. On the other hand, it allowed for greater internal organisation, ending some of the disorders that existed in the accounts. Still, the impact of these changes should not be exaggerated, as it was common for non-profit institutions not to fully master the double-entry system⁵⁹. Many practices and procedures have remained the same despite the changes, such as revenue collection mechanisms⁶⁰.

The revenue records provide helpful information, such as the type of income, payer's name, provenance of income, amount, and date of payment. The expenditure model is not much different. It indicates the payee's name, the local of the expense, the amount and the date of payment. Sometimes additional data was provided, such as the name of any partners and information on bankruptcies. Such information has been entered into a database and catalogued, allowing for a more detailed analysis to be carried out.

The qualitative source corresponds to a record, produced in 1777 by Francisco de Lemos,

52 The treasury (*Tesouraria*) was responsible for collecting the University's income and meeting its monetary obligations. On a monthly and half-yearly basis, the clerk (*contador*) counted the money handed over by the tenants and that collected by the collector (*cobrador*) in view of an annual chart, supervised by the treasurer. Then the *contador* would write down the income and expenditure in the books (FERREIRA, 2016: 93).

53 MADAHIL, 1940: XXXI-XXXV. FERREIRA, 2016.

54 The literal translation is accountant; however, his role was closer to that of a scrivener.

55 This officer was responsible for supervising the university's finances. He had to personally witness all deposits and withdrawals from the University vault. He would also have a smaller safe used for the payment of salaries and check the balance in the vault on a monthly basis (FERREIRA, 2016: 75).

56 Double-entry is a system of bookkeeping where every entry to an account requires a corresponding entry to a different account. The books have two sides known as debit, on the left, and credit, on the right (KING, 2006: 6-11).

57 MADAHIL, 1940: XXXI-XXXV. THOMAZ, 1988: 355-360; FERREIRA, 2016: 44-45. The information provided

by this type of source is rich. The revenue and expenditure books, for example, were recently used for the research project Prices, Wages and Rents in Portugal (1300-1900) (<http://pwr-portugal.ics.ul.pt/>). The potential they provide, however, is far greater, allowing for the study of aspects that include the evolution of prices, wages, and consequently purchasing power, expenses with the construction of scientific equipment, revenue collection networks, the relations between the landlord and his tenants, and so on.

58 FERREIRA, 2016: 95-104.

59 FERREIRA, 2016: 119-120. NETO, 1998: 4-6.

60 NETO, 1998: 6.

entitled *Relação Geral do Estado da Universidade* (henceforth *Relação*)⁶¹. The context in which this work was written is somewhat complex. Following the death of King José I, his minister, the Marquis of Pombal, was dismissed and many of his associates persecuted. Fearing the retrogression of measures introduced by the reform at the University, Francisco de Lemos wrote the *Relação* as a way to protect the advances made as part of the reform. He was replaced two years later (1779), but his report played an important role in defending the ideas brought about by the reform. Given this context, it must be noted that this work may have exaggerated or omitted certain, less successful, events between 1772 and 1777⁶².

The accounting data provided by Francisco de Lemos was analysed and categorised in a database, allowing for a comparison to be made between the two existing sources. As Francisco de Lemos's book offers an estimate for the period between 1773 and 1776, income and expenses registered in the revenue and expenditure books for the same period were averaged, rather than a specific year chosen for analysis, to make the comparison more accurate.

As stated, we implement Barbosa's methodology⁶³ to this study, regarding the definition of the categories of analysis, particularly for revenue and expenditure. This methodology consists of identifying general categories of income and expense that can be applied to different institutions in the Early Modern period. A second, more specific level of categorisation aims to include the subgroups that constitute the larger categories. The analysis of this lower level is what enables a clearer glimpse of the object of study.

The creation of a categorisation model considered three main factors: the understanding and inclusion of concepts used at the time and recorded in the sources; the representativeness of the records; the inclusion and standardisation of concepts used in the literature. Firstly, it is considered necessary to understand and include the

concepts used at the time and recorded in the sources. The designations used by scribes and treasurers were neither random nor arbitrary, corresponding to a typology that derived from the normative support that attributed legitimacy to the transaction (legislation issued by central or local authorities that took the form of a contract, laws, postures, orders). These documents contain a set of information and clauses that delimit the action (who did it, when and how it was done, what amount) and help define it, differentiating it from others.

A second aspect to consider is the «representativeness» factor. Some items, particularly expenses, were rare or unique cases. In other cases, their monetary value is not very significant. Representativeness is relevant, in the sense that even if a set of items fulfils the previous requirement, the creation of too many categories may cause excessive fragmentation, making the historian's task more difficult. The solution to this problem is categorisation on two (or more) levels, which consists in transforming these groups into subcategories, as subdivisions of the main categories.

The third factor is the inclusion and standardisation of the concepts used in the literature. Despite the differences found in the typologies used in the various studies of finances, it is possible to find some points of contact. This aspect derives from the fact that historians base their studies on primary sources that, regardless of the different geographies and typologies, present a certain regularity in terms of concepts⁶⁴.

With this methodology we intend to facilitate the comparison of the two sources under analysis, in order to make their similarities and differences more evident. The information for both sources was inserted into a database and the same categorisation methodology was applied. Then, the sums of income and expenditure, as well as for the different categories that make them up, were calculated.

61 LEMOS, 1777-1980.

62 ALVES, 2016, 2017.

63 BARBOSA, 2020; 2021.

64 BARBOSA, 2020; 2021.

DATA COMPARISON

To understand the comparison drawn between the two sources under analysis, the composition of the income and expense structure that allowed the University to operate must be understood. The University of Coimbra's estate was essentially based on crown's property, donated by successive Portuguese monarchs over time⁶⁵. Most European universities also followed this model. These assets included, farms, estates, houses and shops, making up the core of the institution's income⁶⁶. In 1772, these assets made up more than 80 % of the University's revenue⁶⁷. A generous 1774 donation, known as the new estate (*Novo Património*), did not significantly change the constitution of the University's estate. In essence, it was a strengthening of assets at the expense of the properties expropriated from the Jesuits, as well as the incorporation into the University of the hospitals existing in the city of Coimbra, along with their possessions⁶⁸.

As will be seen, where expenditure is concerned, no significant differences were found between this University and others within the European panorama. Most of the revenue was used to pay the salaries and pensions of teachers and officials, carry out construction work, purchase books and other materials, and cover administrative expenses⁶⁹.

Revenue

The University had access to diverse sources of revenue. However, income from land, particularly from agriculture, was the most significant over time⁷⁰. According to Francisco de Lemos, the University's income comprised rents, tuition fees, interest, fines, «contributions», and *gabelas*.

Each of these categories shall be explained in the following paragraphs.

Category	Amount	%
Rents	58 685 002	80.36
Tuition fees	6 400 000	8.76
Contributions	4 065 510	5.57
Interest	3 849 993	5.27
Fines	30 000	0.04
<i>Gabelas</i>	10 000	0.01
Total	73 030 505	100

Table 1. The University's income according to Rector Francisco de Lemos' testimony (average for the period 1773-1776, in *réis*), LEMOS, 1777-1980: 168-173, 186-189.

The first category consisted of different rents, among the most common of which were *dízimos* (tithes). The University had the right to patronage over some parishes. This right meant it could nominate priests and collect tithing, that is, ten per cent of the parishes' agricultural production⁷¹. The *foro* was a fixed annual payment, paid either in money or in kind, in recognition of the landlord's domain (in this case, the University). Its basic principle was the splitting of property ownership into two distinct parts: the original proprietor retained a nominal holding on the property, known as «direct» domain; the taker received the «useful» domain consisting of most of the remaining property rights, either for a specified number of successive lives, or in perpetuity. This kind of contract was also named an *aforamento* or *prazo*⁷². The *foros* were usually accompanied by *rações*. The latter comprised portions of the agricultural production paid by farmers to the landlord, similarly to tithes. The proportion varied between 10 and 33 %, depending on the location of the land and its productivity⁷³.

Moreover, the University had other types of income, which, although significant, were of secondary importance. The institution charged its students tuition fees. Some were paid directly to the University's teachers and officials, while others went towards funding the University's es-

65 FONSECA, 1997: 445-456.

66 RIDDER-SYMOENS, 2002: 185. RODRÍGUEZ-SAN PEDRO BEZARES and POLO RODRÍGUEZ, 2004: 295-300.

67 TAVEIRA, 1997: 470.

68 LEMOS, 1777-1980: 168-173, 186-189. MADAHIL 1940, XXXVII-XXXVIII.

69 RIDDER-SYMOENS, 2002: 187-192. TAVEIRA, 1997: 476. RODRÍGUEZ-SAN PEDRO BEZARES and POLO RODRÍGUEZ, 2004: 300-307.

70 FONSECA, 1997: 445.

71 BANDEIRA, 1993: 315-331. NETO, 2007: 20-22.

72 SERRÃO and RODRIGUES, 2017.

73 NETO, 2007: 22-24.

Revenue	Category	Amount	%	Total	%
Rents	Collected directly	1 053 313.63	0.87	35 973 940.46	30
	Collected indirectly	33 813 033.50	28.03		
	Pledged assets	1 107 593.33	0.92		
Contributions	Comarcas	2 589 126.25	2.15	2 589 126.25	2.15
Loans	Principal and interests	11 547 252.25	9.57	57 689 652.25	47.82
	Money borrowed to the University	46 142 400.00	38.25		
Tuition fees	Tuition fees	7 273 600.00	6.03	7 273 600.00	6.03
Other	Refunds	4 639 619.25	3.85	17 107 569.58	14.18
	Fines and <i>gabelas</i>	32 225.00	0.03		
	Sales	8 953 063.33	7.42		
	Departments	3 245 842.00	2.69		
	Rentals	236 820.00	0.20		
Total	Total	120 633 888.54	100	120 633 888.54	100

Table 2. University's income according to the revenue and expenditure books (average for the period 1773-1776, in réis), AUC, Fazenda - Receita e Despesa, 1773-1775 and 1776-1777.

tate⁷⁴. The contributions referred to annual payments made by the administrative districts, known as *comarcas*, aimed at funding the education and training of doctors and apothecaries.⁷⁵ The institution also lent money and profited from interest. On 12 December 1772, the institution had an active debt of 143 160 426 réis. Most of it originated from money loaned to religious communities, Crown institutions, and individuals⁷⁶. Lastly, fines were imposed on students who failed to meet their academic obligations, and *gabelas* were payments made by those who interposed appeals in the University the University Conservatory Court.

An analysis of the revenue and expenditure books provides a more detailed view of the University's finances due to the detail contained within this type of historical source. The same cannot be said of Lemos's book. Rents can be divided into three groups. The first consists of rents charged directly by university officials – a

significant part of the *foros* were collected using this method. The second group consists of income collected using intermediaries, known as *rendeiros* (rent collectors or rent farmers), responsible for collecting the institution's income in the form of fixed, annual payments. They collected in kind, then profited from the sale of products. Contracts generally lasted four years⁷⁷. The third group consists of *rendas consignadas* (pledged assets). These incomes were intended for specific expenses and could not be diverted for other purposes.

It is important to highlight the nominal difference between rents in both accounts. First of all, it is central to note that the data presented by Francisco de Lemos regarding rents generally coincides with the values recorded in the

74 FONSECA, 1995: 497-499, 635-644.

75 FONSECA, 1995: 644-657.

76 Among the largest debtors were several Crown institutions, such as the *Conselho Ultramarino* (Overseas Council, 40 000 000 réis), the Royal Printing House in Lisbon (40 000 000 réis) and the Royal Exchequer (8 000 000 réis), as well as the convents of Santa Cruz (17 190 062 réis) and Tomar (12 500 000 réis) (FONSECA, 1995: 619-635).

77 The same is true of the previous period, studied by Fernando Fonseca (1995: 558-587). This collection model was common in the early modern era, used by institutions such as municipal councils (BARBOSA, 2020: 115-127) and manor houses (NETO, 1997: 56-80). This type of levying was also common to some Spanish universities (RODRÍGUEZ-SAN PEDRO BEZARES, 1994: 193-198). This collection model was preferred over direct collection because institutions did not have a sufficiently efficient bureaucratic structure to carry out their own collection. Direct collection was chosen when no tenants were available to collect rents, or when the amounts proposed for contracts were lower than desired.

contracts signed between the University and its rent collectors, except for some minor mistakes⁷⁸. Clearly, a relevant factor was the delay or non-payment of some rents due to bankruptcies. A set of rents paid by the Bishopric of Lamego, leased in 1773 by Francisco de Oliveira, for example, were still being paid between 1833 and 1835⁷⁹. Besides, the University was unable to benefit from some of the income donated in 1774 immediately. This was the case with the parish of Roriz, for which the first contract was only drawn up as of 24 June 1775, with the first payment made only on the 5 July 1776, despite the parish having been donated in 1774. Payments made pursuant to this contract continued in the following years, only coming to an end in 1782⁸⁰.

Differences in nominal values can also be found in tuition fees and contributions. The tuition fees paid by students increased, revealing an increase in the number of students for a brief period. In contrast, the value of contributions recorded decreased in the income and expense books, compared to Lemos's records. Late payments can also justify these differences.

The main difference, however, comes down to credit. This type of income is somehow absent from Francisco de Lemos's analysis, despite being the most significant source of income from 1773 to 1776, making up almost 48 % of the total revenue. Credit can be subdivided into two categories. The first was the return of the principal and interest from loans to the Crown, religious organizations, and individuals cited by Lemos⁸¹. Though this was an important item, it made up less than 10 % of the overall income.

78 For example, in the parishes of Cárquere, Ervedal, and Oliveira de Frades (LEMOS, 1977-1980: 168-173. Coimbra University Archive, Coimbra [*Arquivo da Universidade de Coimbra*, from now on AUC], Escrituras da Universidade, 1773-1781).

79 AUC, Fazenda - Receita e Despesa, 1831-1835, fls 102v, 121v, 140v and 161v; AUC, Escrituras da Universidade, 1773-1781, fls 13-19.

80 AUC, Fazenda - Receita e Despesa, 1776-1777, fls 46v, 118v, 166v and 182v; AUC, Fazenda - Receita e Despesa, 1778-1779, fls 37v, 74v and 135v; AUC, Fazenda - Receita e Despesa, 1780-1781, fls 5v, 35v, 101v and 145v; AUC, Fazenda - Receita e Despesa, 1782-1784, fls 9v and 16v.

81 LEMOS, 1777-1980: 158-159.

The other was loans granted to the University from various public organisations⁸², which accounted for almost 40 % of the institution's total revenue⁸³. Minor revenues were also registered, the most notable of which was sales. Sales took various forms, including the sale of meat by the University's butchers and materials left over from works.

As mentioned previously, the university reform entailed the donation of an estate, considered critical to its success. According to Francisco de Lemos, despite the generous donations, most of the institution's revenues continued to originate from its *Património Antigo* (Old Estate). An attempt has been made to identify the rents generated from the old and new estates. However, the University's treasurer recorded multiple earnings in one item on several occasions, rendering comparison difficult.

Estate	Francisco de Lemos's book (%)	Revenue and expenditure books (%)
Old	51.26	24.42
New	43.17	7.16
Unknown	5.57	68.42
Total	100	100

Table 3. University income by estate according to Francisco de Lemos and the revenue and expenditure books (average for the period between 1773 and 1776), LEMOS, 1980: 168-173, 186-189, and AUC, Fazenda - Receita e Despesa, 1773-1775 and 1776-1777.

The University's properties were distributed across Portugal; however, this distribution was not uniform. With the 1772 reform, its assets incorporated incomes from other institutions, including the Hospital of Coimbra⁸⁴, *Madre Deus de Évora* college, and the College of Arts⁸⁵, which led to the institution's estate extending across the country.

82 For example, the loan granted by the *Cofre da Terra Santa da Cidade de Lisboa* (80 000 000 réis) and by the Mitra do Bispado de Coimbra (5 600 000 réis).

83 AUC, Fazenda - Receita e Despesa, 1773-1775, fls 2v, 7v, 60v, 96v, 145v, 152v, 158v, 180v.

84 On the incorporation of hospitals into the University's estate, see LOPES (2000: 643-646).

85 On the incorporation of Jesuit property into the University's estate, see MADAHIL (1940: XXXVIII-XLI).

Location	Francisco de Lemos's book (%)	Revenue and expenditure books (%)
Unknown	26.60	70.15
Lamego	21.45	7.12
Coimbra	15.28	9.83
Braga	12.22	2.60
Lisbon	7.21	1.85
Oporto	5.89	2.24
Bragança	3.67	1.48
Beira	1.92	1.17
Alentejo	1.71	1.10
Viseu	1.40	0.60
Extremadura	0.95	0.61
Algarve	0.78	0.16
Trás-os-Montes	0.49	0.09
Entre Douro e Minho	0.30	0.15
Évora	0.13	0.83
Total	100	100

Table 4. University income by bishopric according to Francisco de Lemos and the revenue and expenditure books (average for the period between 1773 and 1776), LEMOS, 1980: 168-173, 186-189, and AUC, Fazenda - Receita e Despesa, 1773-1775 and 1776-1777.

Institution	Francisco de Lemos's book (%)	Revenue and expenditure books (%)
University	81.94	19.87
Colleges	6.52	5.99
Contributions	5.57	1.72
Hospitals	5.52	1.31
Unknown	0.45	71.11
Total	100	100

Table 5. University income by previous ownership, according to Francisco de Lemos and the revenue and expenditure book (average for the period between 1773 and 1776), LEMOS, 1980: 168-173, 186-189, and AUC, Fazenda - Receita e Despesa, 1773-1775 and 1776-1777.

In Lemos's book, the highest rent percentages were registered as being paid by the bishoprics of Lamego, Coimbra, Braga, Lisbon, and Oporto. The lower percentages recorded in the revenue and expenditure books can be justified by the fact that the origin of most of the institution's earnings cannot be ascertained. However, it is

also worth noting that some of the revenue generated from Braga, Lamego, Oporto, and Lisbon corresponded to the *Novo Património* (New Estate), which was donated in 1774 and which, between 1773 and 1776, only marginally influenced the University's finances⁸⁶.

Francisco de Lemos also differentiated earnings according to its previous ownership. As previously mentioned, some income administered by the University originated from donations, incorporating revenues that belonged to colleges and hospitals. Comparisons between these incomes and the entries recorded in the income and expense books are also constrained by the absence of comprehensive information for several income sources. However, the University's estate continued to be the most significant.

Expenditure

As presented by Francisco de Lemos, expenditure was structured simply: salaries and pensions, works, departmental spending, and administration⁸⁷. Wages and pensions corresponded to payments made to professors (active and retired) and other employees. Works expenses corresponded, essentially, to investments made into new infrastructures as a result of the Pombaline Reform. The departmental expenditure category is more heterogeneous: it includes various types of expenses (salaries, administration, transport, etc.), which were all registered under a single category due to the impossibility of distinguishing between them. Lastly, administrative expenses related to office expenses and writing services.

The revenue and expenditure books exhibit a similar structure, with the most noteworthy categories aligning with those found in Francisco

86 AUC, Fazenda - Receita e Despesa, 1773-1775, and Fazenda - Receita e Despesa, 1776-1777.

87 In his book, expenditures related to constructions are presented as distinct from other expenses and are not incorporated into the overall total. This aspect will be analysed further on. A choice was made to include works in our analysis along with other expenditure so that all aspects could be examined together.

de Lemos' records. The big difference between the two is the expenses incurred in the repayment loans (under the category «credit», the payment of both interests and the principal). Another difference lies in the «other» category, which is made up of minor expenses related to charities, communications, and transportation.

Expenditure	Amount	%
Constructions	51 329 923	45.94
Wages and pensions	50 255 700	44.98
Departmental expenditure	8 152 730	7.30
Administration	2 000 000	1.79
Total	111 738 353	100

Table 6. University expenses according to Francisco de Lemos (average for the period between 1773 and 1776, in *réis*), LEMOS, 1777-1980: 174-185, 191-196.

Expenditure	Amount	%
Constructions	56 156 347	49.10
Wages and pensions	38 648 422	33.79
Other	8 362 050	7.31
Credit	6 400 451	5.60
Departmental expenditure	2 595 192	2.27
Administration	2 218 506	1.94
Total	114 380 968	100

Table 7. University expenses according to the revenue and expenditure books, (average for the period between 1773 and 1776, in *réis*), AUC, Fazenda - Receita e Despesa, 1773-1775 and 1776-1777.

The values presented by Francisco de Lemos for works and administrative expenses did not show substantial differentiation from the actual amounts spent. However, the most significant differences were noted in salaries, which differed by about 13 000 000 *réis*. Upon comparing the data provided by Francisco de Lemos with the information in the payroll books, it becomes evident that differences are marginal for the majority of cases⁸⁸. However, the University rector

88 These sources consisted of summaries of all salaries paid during a year. They indicate who was paid, the profession, the date (payments were usually made in four annual instalments) and the amount. These books were divided into four «sheets» (hence their name, salary slips or salary sheets): the academic sheet, which included the payment to professors and other teaching-related officials such as

presented some costs that do not show on the salary sheets, nor are they mentioned in the revenue and expenditure books. Among these are those paid to teachers of the *Colégio das Artes*, which was part of the University of Coimbra, as well as many teachers' retirement pensions.

Payment sheets	Francisco de Lemos	Payroll books	Difference
Academic sheet	32 964 000	36 378 100	- 3 414 100
Ecclesiastical sheet	1 144 600	1 612 095	- 467 495
Economic sheet	2 270 000	1 620 000	650 000
Civil sheet	1 246 100	1 199 575	46 525
Other	14 327 900	0	14 327 900
Total	51 952 600	40 809 770	11 142 830

Table 8. University salaries according to Francisco de Lemos and payroll books, (average in the period between 1773 and 1776, in *réis*), LEMOS, 1980: 174-185, 191-196, and AUC, Folhas de Ordenados, 1773-1776.

Despite the gap between the *Relação* and payroll books, the most significant difference lies between Lemos's account and the books of revenue and expenditure. Additional justifications for this discrepancy lie in the delayed payment of some salaries between 1773 and 1776. Examples of delays such these can be found with some regularity in the years following 1776. For instance, on 11 March 1778, the University paid a chemistry demonstrator 292 285 *réis*, for wages owed since 1773⁸⁹.

Another notable distinction between the two accounts relates to the renovations undertaken in the churches under the Universities' patronage. The 1774 donation granted the University the revenues and rights of patronage and the corresponding obligations, such as carrying out any work necessary on churches⁹⁰. Francisco de Lemos cal-

secretaries, librarians, etc.; the ecclesiastical sheet, which included the religious who worked in the University chapel and took part in the solemn essays; the economic sheet, which corresponded to the officials who participated in the management and administration bodies; and the civil sheet, which included other officials, such as those who administered justice, the university guards, etc.

89 AUC, Fazenda - Receita e Despesa, 1778-1779, fl. 5.

90 BANDEIRA, 1993: 316-336.

culated annual outgoings for such matters to be around 2 000 000 réis for the 107 churches under the institution's patronage⁹¹. However, the books of revenue and expenditure show that these expenses accounted for only 65 600 réis. Francisco de Lemos also mentioned that the University planned to spend 2 000 000 réis per year on inventories and property registries⁹². Yet, the amount quoted also fell short, with a total of 163 676 réis registered between 1773 and 1776.

Balances

The revenue and expenditure books having been analysed, the next step is a comparison of balance sheets between the two accounts: - 38 697 848 réis in Lemos's book and - 9 129 623 in the revenue and expenditure books.

Though the differences between expenses are not particularly significant, the most considerable variation lies in revenue. As mentioned previously, Francisco de Lemos's accounts did not register loans granted to the University. However, given the amount of correct information available to him relating to the University at the time of writing, it is worth exploring why the rector did not include this type of income in his analysis.

	Francisco de Lemos's book	Revenue and expenditure books
Revenue	73 040 505	105 530 344
Expenditure	111 738 353	114 659 967
Balance	- 38 697 848	- 9 129 623

Table 9. University balance according to Francisco de Lemos and the revenue and expenditure books (average for the period between 1773 and 1776, in réis), LEMOS, 1980: 174-185, 191-196, and AUC, Fazenda - Receita e Despesa, 1773-1775 and 1776-1777.

Considering his pivotal role in the University's reform, it appears improbable that this omission was accidental. It can reasonably be inferred that the deliberate exclusion of this information was an attempt to obscure the reliance of the Pombaline Reform on external funding sources rather than the University of Coimbra's own revenue.

91 LEMOS, 1777-1980: 180-181.

92 LEMOS, 1777-1980: 181-182.

This demonstrates the institution's inability to pay for its reform and reveals a high level of indebtedness. It's plausible that this decision was also motivated by the rector's desire to safeguard the reputation of the Marquis of Pombal, who was the benefactor behind these loans.

It is worth noting that, in his book, Francisco de Lemos listed the works separately from all other expenses⁹³. He presents the amounts spent in more detail for each of the years between 1773 and 1777 (the latter of which ended in June) but did not add up to the total expenses. Considering the adverse state of his finances (- 38,697,848 réis), it appears that this would have been a strategy towards promoting transparent and sustainable accounting practices. This, in turn, could have served as a means to highlight the significance of the reform effort. The separation of the works from the remaining expenses may have been facilitated because they could be seen as an extraordinary expense.

CONCLUSION

This work aimed to compare two sources of different typologies, one qualitative and the other quantitative in nature. The *Relação*, written by the rector *Dom* Francisco de Lemos, sought to defend the work done by himself and the Marquis of Pombal during the university reform. The books of revenue and expenditure were instruments of control, drawn up to organise the institution's finances, holding the officials responsible, and keeping information for posterity.

At first sight, the two sources present a similar revenue and expenditure structure. This can be explained by the fact that the Rector was the president of the body that administered the University's finances, the *Junta da Fazenda*, and, for that reason, to have kept the existing designations and structure (as it also had no reason to present something totally new). However, a closer look also allows us to find some important divergences in the sources.

93 LEMOS, 1777-1980: 174-185, 191-196.

The donation of 1774 entailed a strengthening of the institution's existing assets rather than diversifying them. The predominant source of regular income remained rents, with land tenures and tithes being particularly prominent in this category. In both primary sources, tuition fees and contributions made up a relatively smaller portion of the income.

It is essential to highlight the difference between balances in both accounts. The absence of a reference to loans granted to the University suggests that the rector sought to omit the fact in an attempt not to demonstrate the institution's inability to fund its reform on the one hand, and to hide the level of indebtedness granted by order of the Marquis of Pombal on the other.

In terms of expenditure, the most significant differences were in salaries, which were registered as being higher in the *Relação* as a result of Francisco de Lemos including extra items in his report. The most significant difference is his failure to include works in the remaining expenses. This influenced the final balance, therefore allowing it to be registered as positive. The reasons that can justify this non-inclusion have been stated – an attempt to hide the debt faced due to the works. The final balances are differentiated by loans and salaries variance and the works' non-inclusion in the total expenditure. It is also in the details that the revenue and expenditure books stand out. They make it possible to know the delays in the realisation of income and expenditure because they indicate the dates on which such payments were made. The *Relação*, on the other hand, is a description of a financial structure, but not of its concrete operation.

The nature of the sources and the circumstances under which they were created also play a significant role in shaping the availability of certain information and the absence of other. The books of revenue and expenditure served to hold the bodies and officers in charge of the administration of the University accountable, as well as allowing for better internal organisation. The *Relação* served to protect the image and work of the rector Francisco de Lemos and the Marquis of Pombal. This helps to explain some of the divergences between the sources.

In a general assessment, it can be affirmed that the revenue and expenditure books are the most reliable sources for conducting a financial analysis of the institution. This is primarily because the data recorded in these accounting books closely aligns with actual financial transactions. This level of accuracy can be attributed to the rigorous oversight maintained by officials over financial flows, which stands in contrast to the comparatively less stringent control exercised by Francisco de Lemos when composing his work. That said, *Relação* goes into further detail about the origin of the rents. As Moskovicz (2009) stated, for this case under analysis the use of sources of different typologies is the most advantageous solution since it allows to cross-reference the data and obtain a clearer view of the object of study.

We believe that this article has contributed to the understanding of the nature of universities' financial and accounting sources and their methodological value.

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