

REFERENCES IN THE EVOLUTION OF ACCOUNTING IN THE PERIOD OF ROMAN IMPERIUM

**Elena HLACIUC, elenah@seap.usv.ro,
Ioana Veronica NICULICA,
Stefan cel Mare University of Suceava, Romania**

Abstract. *The objective of the paper is focused on capturing the most important landmarks in the history of accounting in the period of the Roman Empire, when the development of trade and transport activities at sea has experienced a massive geographic expansion.*

Keywords: *accounting, evolution, Roman Empire*

JEL: *M 41*

Roman education, culture and economic forms

In the Roman epoch education began to spread around the year 2000 B.C. The basics of literature, writing and arithmetic operations were taught; learning Latin, Greek, grammar and literature in general was provided. Certainly, education was still a privilege, and poor families couldn't afford it, nevertheless, it led to a remarkable evolution of techniques, arts, architecture and so on.

We must not forget that the territorial expansion meant an extraordinary expansion of trade and market activities which, always, led to the evolution of economy and methods of accounting emphasis.

The control of the Mediterranean guaranteed the prevalence of maritime commercial wheels, more rapid than the terrestrial ones.

The territorial field offered the possibility to impose taxes and obligations to the subordinate population; it led to the public administration and to an accounting practice capable of presenting and being able to register very big values of treasury.

So, one could think that the Romans knew well structured forms of accountancy and inventory; from it derives different debates on knowing the accounting writing with the double entry method by the Romans.

Returning to the Roman economy, the population growth in cities favoured the formation of the market in cities, the banking activities and the particular productive forms like workshops. We can imagine the last ones like the present equivalents of small family craftsmanship, that the commander who owned them was also the owner of the production, the productive processes and supervised the apprentices or the assistants.

Here were made products with the biggest added value; craftsmanship began to generate a substantial part of incomes and products in the urban society.

Rural economy was marked, on one hand, by big owners, led by the wealthy Roman families of patricians, who carried out agricultural activities by exploiting slavery; on the other hand, we find small landowners, rural families characterized by closed economic systems, based on their own consumption, with no market transitions or subsistence economies.

We considered and described these economic mechanisms, like shops and small nuclei from the rural area- countryman, or owners of small lands, the future standard of all productive and agricultural activities, from this moment to the end of the Middle Ages.

In fact, after the barbarian invasions and the constitution of feudalism, the rich landowners disappeared, being replaced by the noble and feudal families who obtained the possession of the lands.

The rebirth of trade between the 11th and 15th centuries, by the maritime republic, the war of the centenary (from 1337 to 1453 A.D.) and the subsequent appearance of nation- states would

pass until the end of feudalism and the rebirth of economy which resulted, due to the new figure of the merchant- entrepreneur from 1500, in the first industrial revolution at the end of year 1700.

Accountancy in the Roman epoch and the debate on the double entry

After the assimilation of Greek accounting culture, the Romans developed and improved very much accountancy; some researchers assumed that this civilization was the first which knew about the accountancy method in double entry.

Among the supporters of this thesis is Plinio Bariola in a dispute with Giovanni Rossi who wanted to prove the impossibility that double writing would have been invented by the Romans.

Bariola (1897) was in favour of the thesis of Georg Niebuhr¹; his researches at Vatican led to the appearance of some ancient parchments by Seneca and Cicero, from which the researcher convinced himself of finding the use of the double entry method. He didn't bring any proof to support his thesis, but being very well known at that time, many accepted his researches.

The key to this story would be a brochure in which Cicero wrote about the Manio Fontejo's² work, a Roman clerk who held many civil services, who, returning to Rome, was accused of stealing three millions of sestertii during his mission as treasurer. Cicero wrote in defence of Fontejo, quoting some accounting books and their use; these had to comply with the requirements imposed by the Valerian law, remembered in the accounting tables introduced by Irtulejo, in which it was specified that a quarter of the value of the credit was returned to the creditors, specifying that the rest of three quarters from that value would be paid by debtors to extinguish completely the credit.

Based on Irtulejo's accounting directives, to demonstrate the correctness of the registers, Fontejo had to have two tables, one with one quarter and the other one with three quarters:

- In the quadrangular table with one quarter were present the collected and paid sums, with the evaluation of the quarter;
- In the table with three quarters were written the unpaid sums and unobtained earnings with respect to the three quarters.

From these manuscripts, Niebuhr deduced the knowledge of the quaestors of the balanced double entry, precisising that:

“ [...] if one had been paid a quarter from his credit, the paid sum was due to his debts, and the unpaid three quarters were registered as an earning ” Niebuhr quoted above.

According to Rossi (1896), this conclusion cannot be proven and the only plausible interpretation regarding what Cicero wrote is that the tables were written in order to remember:

- the paid or collected sums, of the quarter
- the earned or lost sums, for the three quarters;

The purpose would be to allow the treasury to take it back, with the possibility to have an answer with the cash and the debt or the credit inventory. As Rossi himself emphasized:

“ [...] it is not enough to be one or more double roundings in order to form the double writing method.

[...] All who know how to write and want an elementary and natural way of keeping their things, will do hundreds of double roundings; without doing a double writing.”

Even in this case, the lack of direct and complete sources makes impossible the confirmation of respecting the objective question. It remains, however, that it is not possible to confirm or to deny the possibility that the Romans knew the double entry method, already in the 2nd century B.C., even if, in Stefano Coronella's opinion, it would be most unlikely.

Certainly, the development obtained by accountancy was due to the evolution of Roman culture and society from the years 100 B.C. to the epoch of barbarian invasion in the 5th century

¹ BerthodGeog Niebuhr was a historian, born in Copenhagen in 1775, from 1815 remained seven years at the Vatican to research in the archives where he also found fragments of writings by Cicerone, Tito Livio e Seneca

² ManioFontejo has held many public works in Rome and in areas of the Roman Empire. He was accused of embezzling unduly during his Office as public Treasures money for which he was tried. Cicero made two speeches in his defence that Niebuhr has founf the fragments where in some notes he describes rules for keepingof accounting books.

A.D.; especially, in the complex system of accountancy books, many of them being the present accountancy books.

The main actors and accountancy books

The art of keeping the accounts in Roman civilization was already known from the period from the seven kings of Rome.

All the upper-class families had and made accounts, in fact, the economic events of private managements were reported in the writings of the so-called Paterfamilias.

It was proven that Roman accountancy developed first in the private area and then spread and improved at the state level in public administration.

Before Egypt annexation to the Roman Empire in 30 B.C., accountancy was kept on wax tables named tabulae; used to wipe the wax from the old tables, containing dated information, so that to re-use it by updating it. If we consider the decay that the same wax has in time, it is easy to guess how difficult it is to find an integral tabulae.

By the Egyptian annexation, after having used the wax and clay tables for many centuries, writing on parchment and papyrus spread. Despite this, even this type of supports were decayed in time, but some very rare manuscripts were found.

Among these, one of the most important discoveries dates back to the 2nd century B.C.; it is the Karanis papyrus in which some accounts seem to be written in double entry. Historians managed to rebuild the complex Roman accountant and to go back to the books used in that epoch due to some discoveries. Referring to such book-keeping, it is necessary first to make the distinction between the private books related to leadership and the books with public and commercial character.

The ones of private nature were:

- Kalendarium was the book where the payments, the collections, the lent and the borrowed capitals with the relevant interests were written. Some claim that it is about a register for special administrative -accounting registrations (regarding individual clients or individual activities), towards creditors and debtors, but it is not possible to check this hypothesis;
- Liber patrimonii or libellus familiae, was an inventory book of descriptive form, in which were registered different patrimonial goods and different categories of such goods, like stocks, metals, lands. In the richest families, this book was accompanied by commentarium, a subsidiary register;
- Codex accepti et expensi, was the register in which were indicated the payment obligations and the sums at the due date that must be collected. Some think that this book is similar to the “cash book”, however, it looks more like the present register in which all the documents on the basis of which actions of sale and purchase were done, were written down, with the difference that, the Codex accepti had a legal value, and the present one has only an informative and mnemonic purpose;
- Codices rationum domesticarum, was a set of auxiliary books in which the most important values were written or emphasized.

The Roman traders and bankers and then the public administration developed other accounting books of commercial nature:

- Nevertheless, Kalendarium and Codex accepti et expensi, similarly to the previously seen accounts;
- Codex rationum, namely “the register of accounts” was the main accounting register and looked like the present register (journal);
- Adversaria or Ephemerides, was a document of “first entry” in which were registered and annotated memories and events, in a simple way;
- Transcriptitium, was very similar to a journal book; in it, the annotations and registrations from Adversaria were written, but here, in a detailed and exact way.

3.1 *The role of the church and the monasteries*

After the constitution of the Papal States in 752 A.D., the role of the church became overwhelming and not to be neglected.

From the beginning of the 4th century, the Roman episcopacy became the owner of buildings and lands as a result of many donations of the believers, so that in a short time the accumulated property reached a significant entity.

Thanks to the papal officials and priests that had to make many inventories, also the reference, the practice of accountancy resumed and caught interest; many accounting charges became so important that they gave birth to the class of Logothetes. Within a short time, papal Accountancy resumed to a level similar to that seen in the previous Roman period.

Another important factor is education; it was a luxury for the rich and the leaders, but the monks and the monarchs wanted to keep and transmit classical Greek and Latin cultures after the barbarian invasions which provoked the degradation of the culture and literacy levels.

These religious figures were counter-tendencies, carried out study, reading and meditation activities in monasteries and often taught basic elements of education to the poor.

Thus, the accounting practices soon spread among these houses of worship and bees, many inventories and reports found in monasteries are a proof of it.

3.2 *Invention of double entry: the birth of modern accountancy*

From a historical point of view, officially identified by the publication of "Liber Abaci" by Luca Pacioli in 1494, with the illustration of the writing method in double entry, modern logic begins.

Over the centuries, such surveys would evolve in modern ways of accountancy and registration; nevertheless, the debate over where and who first invented this methodology is in progress, there are, also, many theories regarding the reasons for which this new technique appeared.

With the historical digression, previously described, we tried to offer the reader an idea about the forces, the causes and motivations that led to the development of double entry; in this respect, it seems that now it is clear the change of context and culture, followed by resuming education and the accounting technique, together with the increase of trade and mercantilism, led to the necessity of a more appropriate method of registration of the exchange of economic activity at that time.

Werner Sombart (1902) considered the invention of this new method as a result of "rationality of economic thought", derived from a logic that now we will name capitalist.

Nevertheless, Basil Yamey (1940), another well known economist, decided to confront Sombart showing that there is only a small correlation between following the profit of the traders and the new types of accounting calculations.

Other two authors, especially Franz Arlinghaus (2006) and Ulla Kypta proposed some theories about this topic, considering the commercial and social- cultural context between 1350-1500.

Arlinghaus focused on the analysis of accountancy of a trade company in 1370, managed by Toro di Berto (from Florence) and by Francesco Datini (from Prato).

We must remind, as we will see later, that the double entry developed on the Italian territory, in the banks of the merchants and probably in Venice.

According to the scholar, this new keeping of accounts was more strictly related to what he called " biological memory" of merchants, with this term he meant the union between their vision, their logic and the way in which they memorized information.

Conclusion

The Romans taking the knowledge of conquered peoples gave a strong innovative contribution to accounting measurements by introducing many tools used today. They have introduced the Adeversaria that corresponds to the current Prime Note book and the Codex Accepti ed expensi the current Cash Book. In this regard some scholars have hypothesized the existence of

double entry-bookkeeping system already in Romans time arguing that the terms “accepti” and “expensi” are equivalent to the current “input” and “output” due to the literal meaning of the verbs “to give” and “to have”. Undoubtedly the balancing accounts principle which represents the cornerstone of the double entry accounting system was already present at the time of the Sumerians but not enough to structure a complex accounting system.

References

1. S. Coronella, Sull'esistenza della scrittura doppia in epoca romana: una disputa dottrinale sul finire dell'ottocento, in *Contabilità e Cultura aziendale*, n. 2, 2006, pp. 63-88
2. Rossi G., *La computistica dei romani e l'invenzione della scrittura doppia. A proposito di una opinione dello storico G.B. Niebuhr con una lettera a sua eccellenza Gaspare Finali Senatore, già Ministro del Regno d'Italia*, Società Editrice Dante Alighieri, Roma, 1896.
3. Bariola P., *Storia della Ragioneria italiana premiata al Concorso della Società storica Lombarda*, Tipografia ambrosiana, Milano 1897.
4. Sebastian Felten (2015) Accounting evolution to 1400: how to explain the emergence of new accounting techniques?, *Accounting History Review*, 25:2, 167-171, DOI: 10.1080/21552851.2015.1052194
5. Arlinghaus, Franz-Josef. 2006. “Account Books.” In *Transforming the Medieval World: Uses of Pragmatic Literacy in the Middle Ages (Utrecht Studies in Medieval Literacy 6)*, edited by Franz-Josef Arlinghaus, Marcus Ostermann, Oliver Plessow, and Gudrun Tscherpel, 43–69. Turnhout: Brepols
6. Sombart, Werner. [1902] 1919. *Der moderne Kapitalismus: Historisch-systematische Darstellung des gesamteuropäischen Wirtschaftsleben von seinen Anfängen bis zur Gegenwart*. 3rd, unaltered ed. München: Duncker & Humblot.
7. Smith, Murphy, Luca Pacioli: The Father of Accounting (2013). Available at SSRN: <https://ssrn.com/abstract=2320658> or <http://dx.doi.org/10.2139/ssrn.2320658>
8. Luca Pacioli - *Summa de Arithmetica, Geometria, Proportioni et Proportionalita*, 1494
9. Basil Yamey - *The functional development of double entry bookkeeping*, 1940