

transport economics (Graziani 1904)²³. His greatest tribute to Sax is in a publication addressed to the German public in 1912²⁴. Sax in his turn recalled Graziani with especial gratitude “for having drawn the attention of scholars to his book” (Sax 1924: 299)²⁵.

3. Priority in the development of a pure theory of public finance: Sax and De Viti de Marco

De Viti de Marco (1858-1943) is considered “the principal founder of the Italian public finance tradition” (Kayaalp 2004: 66); he is known for his hypotheses of the two types of state: the monopolistic and the cooperative. He is also the author of a very widely used handbook (*First principles of public finance*)²⁶.

To tackle the question of priority between Sax and De Viti de Marco on the working out of an economic theory of public finance, we have to start from the words De Viti himself wrote in 1927 in the *Preface* to the first edition of his well-known manual: “following a general order of ideas I had fixed in 1886-87, I set myself to make a *positive* exposition of the financial theories” (1928, author’s italics). De Viti is referring to the academic year when he gave a course of lectures at Pavia²⁷. In the sentence quoted, corresponding to the dates 1886-87, there is a bibliographical footnote referring to “*Il Carattere teorico dell’Economia finanziaria*, Roma, 1888”²⁸. We also recall that in the *Preface* to this latter book he thanks the students “who attended the 1886-87 course at the University of Pavia” (1888: VIII). All this implies a fact relevant to our reconstruction, *i.e.* that De Viti identified the content of his lectures of 1886-87 with that of the volume published in 1888. To confirm this, here is the evidence of another well-known Italian economist, Giovanni Montemartini²⁹, one of the students of that academic year at Pavia who De Viti thanked.

²³ On Sax’s theory of transportation see Pickhardt (2005b).

²⁴ Graziani wrote: “Sax’s book ... provoked lively debate and analysis. For the first time in that book ... a general principle was affirmed to which all financial phenomena tend to conform ... It may certainly be said that Sax’s work contributed considerably to the shape of today’s Italian public finance” (Graziani [1908] 1966: 146-147).

²⁵ Sax is referring to the citations of his 1887 work by Graziani in his book *Istituzioni di scienza delle finanze* (Principles of public finance, Graziani 1897).

²⁶ The book, written in 1928, was translated into German (1932), Spanish (1934) and English (1936). It received at first a very good review from Benham (1934), while it was heavily but unfairly criticised by Simons (1937). See Asso and Fiorito (2001: 355-358).

²⁷ There is a lithograph volume of these lessons (De Viti de Marco 1886-87). This volume is cited by De Viti de Marco himself in the note *To the reader* of the first edition of his *Principii* (De Viti de Marco 1928); unfortunately I have not been able to trace this edition of De Viti’s lectures.

²⁸ *The theoretical character of public finance*. Only the first chapter of this book is available in English.

²⁹ One of his contributions is translated in Musgrave and Peacock (1958: 137-151).

He states that the origins of De Viti's attempt "to construct a pure public finance ... can be traced back either to 1887 or 1888" (1902: 1). The aim of De Viti's 1888 book was to demonstrate that public finance has a scientific character and can be treated like a pure science.

We come now to Sax. His work, *Grundlegung der theoretischen Staatwirthschaft*, was published in 1887, before the publication of De Viti de Marco's 1888 book. From a methodological point of view the aim of Sax's book was similar to that of De Viti, *i.e.* to develop a pure theory of public finance and to give a theoretical character to the discipline³⁰. In this case the priority of publication is certainly Sax's³¹. It was indeed precisely the publication of Sax's work which provided De Viti with the spur to decide for publication, as we can read in his already mentioned *Preface*, dated 13 July 1887³²:

This short essay [...] was almost [finished] when the last learned work of Prof. Sax reached me. However, even if both of us started from the same base concept that public finance is a theoretical science like political economy, we proceeded on formally and substantially different paths. And this circumstance ... persuaded me that it was no longer necessary to delay the publication of the present work, with the idea of making it harmonise with the work of prof. Sax chronologically (De Viti de Marco 1888: X).

The testimony of Umberto Ricci is also interesting:

When De Viti was informed [of the publication of Sax's book] – he confided to me many years afterwards – he felt some consternation for a moment, since he feared that the ideas of two writers on the same subject could only be almost the same, so he would be accused of plagiarism. But he felt reassured – on reading Sax's work – when he recognised that the latter had nothing in common with his own (Ricci 1946: 82).

Despite not knowing Sax's book of 1887, De Viti de Marco could have read his work of 1884³³. After examining the writings of that age, we had the impression that before

³⁰ For a detailed study of Sax's *Grundlegung* see Pica (1966a).

³¹ The lithographed lectures of De Viti must have come out at the same time as Sax's book. Of course, if Sax had also published provisional versions of his 1887 work, something we know nothing about, it could have preceded De Viti's.

³² We should notice that also De Viti got to know of Sax's book very speedily, before July 1887.

³³ This is a hypothesis advanced by Fossati, who writes: "It is fair to remember that the origin of Sax's theory is to be found in *Das Wesen und die Aufgaben*, published in 1884. Thus, it seems quite likely that in 1888 De

Ricca-Salerno's 1887 article the name of the Austrian economist was not known in Italy, and so his contribution of 1884 had gone unnoticed³⁴. Nonetheless, De Viti's phrase cited above "when *the last* learned work of Prof. Sax reached me" (note our italics), surely allows us to affirm that he knew of Sax's previous work. Furthermore, the fact that in his 1888 book De Viti de Marco explicitly cited *Das Wesen und die Aufgaben*³⁵ removes (almost³⁶) any lingering doubt.

All the secondary literature recognises without the slightest shadow of doubt that the two economists developed their work at the same time, yet independently of each other. For example Lindahl writes as follows: "almost simultaneously, yet independently of each other, they attempted the causal explanation of the public finances", applying "the law of economic value to financial phenomena" (1919: 21; cited from Sax (1924: 275) himself. Fasiani liquidates the problem of priority very quickly: "We cannot make a historical issue of priority: as is well-known, Sax's volume saw the light when De Viti's text was already ready for the printer's" (1932: 123)³⁷; finally, Buchanan says that *Il carattere teorico dell'economia finanziaria* "was conceived independently of the work of Emil Sax which appeared in Austria one year earlier and it is, in many respects, vastly superior to the Sax effort" (1960: 31).

Also in this case, however, as in the case of Pantaleoni's priority, the Italian followers of Sax are biased: De Viti de Marco does not figure at all in the long list of "scientific studies about public finance" cited by Ricca-Salerno ([1888] 1919: VII-VIII); in his distinction between science and art with regard to public finance, Graziani does not mention De Viti, but Ricca-Salerno (Graziani 1897: 4), as well as Sax, as we have seen (Graziani 1897: 36-37). Cossa himself (1892) cites De Viti de Marco only for his essay on

Viti could have had some knowledge of Sax's theoretical structure, even if he actually read the *Grundlegung* after he had written his own book" (2003: 106-107).

³⁴ We have not found any citation of Sax's work of 1884 prior to Ricca-Salerno's article of 1887; on the notions of collectivism and individualism, he writes: "For the development of these ideas see also the interesting pamphlet of the author himself: *Das Wesen und die Aufgaben der Nationalökonomie* von E. Sax, Wien, 1884, p.50 ff." (Ricca-Salerno 1887: 395).

³⁵ Criticising Sax for the interpretation of the expressions "to be" and "to have to be" (De Viti de Marco 1888: ch. I, §2 note 6).

³⁶ Only by comparing the book with the lithographed lectures of 1886-87 can we learn whether De Viti had already inserted this citation before the publication of Sax's book of 1887.

³⁷ Fasiani's article was originally published in German, then translated into Italian.

Antonio Serra³⁸ and for his first work *Moneta e prezzi* (Money and prices, De Viti de Marco 1885).

4. School rivalries

As we have seen, the main Italian followers of Emil Sax were Ricca-Salerno and Graziani, both devoted pupils of Luigi Cossa. We also noticed that Cossa, famous for his impartial judgment, was by no means fair in his attribution of the priorities we have been dealing with here. Forcing things a little, we may say he carried out a kind of boycott to the advantage of his pupils, and that his pupils themselves were at least one-sided in their reconstruction of the priorities. This seems to have been particularly the case with Pantaleoni, and to a lesser extent with De Viti de Marco. What can have justified behaviour of this kind?

It is quite likely that the regrettable episode involving Pantaleoni, Menger and the Austrian School played a role in this history³⁹. Briefly, Pantaleoni made a very serious charge of plagiarism against Menger, already in 1887⁴⁰, and he continued this in the *Principi di economia pura* of 1889, where he wrote that Menger's *Grundsätze* was "one of the most audacious of plagiarisms of the publications of Cournot, Gossen, Jennings and Jevons" (1889:133). In the same book he also accused Böhm-Bawerk and Sax of not knowing "at all the greater part of what has been written ... outside of Germany ... Hence it happens, every now and then, they announce *urbi et orbi* they have rediscovered America" (1889: 86). Pantaleoni had attacked Sax on other occasions too, accusing him mainly of not being the innovator he made himself out to be⁴¹. These accusations provoked a sharp rejoinder from Böhm-Bawerk (1891), which Pantaleoni responded to by suppressing the most cutting phrases directed against the Austrian School in the English

³⁸ On this work of De Viti de Marco (1891) see Mosca (2005).

³⁹ The events are recounted in Magnani (1996: 16-17 and 2003: 47-48) and accurately reconstructed in the article *Il principe e il plagio* (The prince and the plagiarism, Nuti 1998).

⁴⁰ Pantaleoni wrote: "Menger's treatise is copied out of Jevons, and his *Methode der Sozialwissenschaften* copied from Cairnes" (1887: 78).

⁴¹ In a letter to Loria of 1889 Pantaleoni spoke out against Sax in these terms: "But is it possible that Graziani cannot hear all the base vulgarity and limitless hubris in that charlatan and braggart Sax? To listen to him only Sax exists. He is the beginning and end of economics; he must be adored; we must have recourse to his works and quote them, just as he himself only quotes himself". Letter to Loria of 1889, accompanying the *Principi* (Fiorot 1976: 471-472).