

# **Emil Sax and Italy**

## **Three questions of priority**

**Manuela Mosca\***

### Abstract

The paper deals with the historical reconstruction of the relation between the Austrian economist Emil Sax and some Italian economists. It is focused on three questions of priority. The first concerns priority in the introduction of marginal analysis in public finance, seeing the works of Maffeo Pantaleoni (1883) and Sax (1884) as of primary significance. The second is about priority in the reception accorded to the 1887 Sax's work in Italy by Giuseppe Ricca-Salerno (1887), and by Augusto Graziani (1887). The third relates to priority in the development of a pure theory of public finance, and concerns the works of Sax (1887) and Antonio De Viti de Marco (1888).

Keywords: Emil Sax, Italian marginalism.

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Address for correspondence

Manuela Mosca

University of Lecce, Dipartimento di Scienze Economiche e Matematico-Statistiche, Via per Monteroni, 73100 Lecce (Italy).

E-mail: manumosca@economia.unile.it

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*“the followers of the Austrian school in Italy  
are nearly all writers on financial matters”*

*Ugo Rabbeno (1891: 461)*

## **Introduction**

The name of Emil Sax is frequently to be found in the history of Italian economic thought in the age of marginalism. As is well known, that era was a typical period of multiple discoveries, and for this reason has given rise to a good deal of debate on questions of priority. The relationship between Emil Sax and Italy can also be examined via the search for priority. It can even be entirely summed up in three questions of priority. The first concerns priority in the introduction of marginal analysis in public finance, seeing the works of Maffeo Pantaleoni (1883) and Sax (1884) as of primary significance. The second is about priority in the reception accorded to Sax's thought in Italy: his 1887 work was immediately examined, discussed and assimilated, especially by Giuseppe Ricca-Salerno (1887), and by Augusto Graziani (1887). The third relates to priority in the development of a pure theory of public finance, and concerns the works of Sax (1887) and Antonio De Viti de Marco (1888).

In this paper I shall be developing these three aspects. I must at once point out that I am not going to deal with the impact of Sax's work on the Italian theory of public finance from the perspective of the history of economic analysis, on which others have already written<sup>1</sup>. My aim is to reconstruct certain episodes concerning Emil Sax in Italy, trying at the same time to enquire into the contextual reasons for his very great impact on the Italian economists of that generation.

### **1. Priority in the introduction of the marginal analysis in public finance: Sax and Pantaleoni**

Pantaleoni (1857-1924), “the prince of [Italian] economists” (Sraffa 1924: 648), the “exuberant genius” (Loria 1924: 653), is famous internationally mainly for his treatise *Principii di economia pura* (Pure Economics, 1889)<sup>2</sup>. In his 1883 essay *Contributo alla teoria del riparto delle spese pubbliche* (Contribution to the theory of the distribution of public expenditures) Pantaleoni applied the marginalist theory of value to public finance. In this

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<sup>1</sup> See among others Pica (1966b and 2003), Gioia (2003), Kayaalp (2004: ch. 4).

<sup>2</sup> Published in 1889, the book was translated into English in 1898 and into Spanish in 1918.

work Pantaleoni explains how the average intelligence within the Parliament aimed at obtaining the largest sum of utility should establish the standards for the distribution of budgetary funds (Pantaleoni 1883).

In 1884, in his *Das Wesen und die Aufgaben der Nationalökonomie* (The nature and tasks of political economy), Emil Sax applied the subjective theory of value to public economics, finding similar motivations and criteria behind both individual and collective forms of economic activity<sup>3</sup>. His work was published one year after Pantaleoni's essay. There is no apparent problem of priority, because Pantaleoni's simply came first. Sax himself, in 1924, writing about the founders of the "new direction of public finance" admits that "Pantaleoni was the first to think of applying the new theory of value to the phenomena of public finance, though without developing his idea into a formal theory" (1924: 275). After Sax's admission, not much room is left for questioning Pantaleoni's priority. And indeed there is none to be found. The recent Italian literature allows Pantaleoni's priority without qualification: for example, Magnani writes that Pantaleoni's "is the first recognised attempt, not only Italian, to relate the financial phenomenon to the theory of final degree of utility" ([1995] 1997: 59). Nevertheless, the history is a little more complex.

Pantaleoni's priority in introducing marginal analysis into public finance was first stated in 1887 by Augusto Graziani, in his comment on Pantaleoni's *Contributo* of 1883: "an excellent essay in which the author tries to apply Ievons' (sic!) principles to public expenditure, in some basic points anticipating Sax's ideas" (1887: 301)<sup>4</sup>. In 1890 Ugo Mazzola also spoke of Pantaleoni's: "incontestable priority in the analysis aimed at applying the theory of value to public finance" (1890: 119)<sup>5</sup>. It should be noted that Mazzola does not restrict himself to affirming Pantaleoni's priority, but also lets it be known that it is already widely recognised: "Pantaleoni has already been accorded widespread recognition for having been the first to refer financial phenomena to the theory of the final degree of utility" (1890: 118).

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<sup>3</sup> On Sax's contribution to public economics see Neck (1989). On his role in the evolution of the theory of public goods see Pickhardt (2005a).

<sup>4</sup> In actual fact Graziani is referring to Pantaleoni's priority with regard to Sax's book of 1887, not to the essay of 1884; this latter work is not even mentioned.

<sup>5</sup> Elsewhere Mazzola reiterates that: "Pantaleoni's applications of the theory of the final degree of utility, *begin* the referring of the phenomenon of public finance to the general law of value" (1890: 123, italics added); and again: "recognition justly awarded to Sax's merits, for having, *though not being the first to do so*, but in the widest fashion, worked out this idea [of the maximum satisfaction]" (1890: 150-151 italics added).

To tell the truth we have been unable to find other recognition of Pantaleoni's priority dating from that age. There was no sign of it in Ricca-Salerno's article of 1887 (in which Pantaleoni is not even mentioned), in the editions of Luigi Cossa's manual of public finance after 1883<sup>6</sup>, in those of Ricca-Salerno (1888), and Graziani (1897)<sup>7</sup>. There is nothing even in the most detailed Italian text on the history of economic thought, that of Cossa himself (1892)<sup>8</sup>. On the contrary, they all praise Sax's originality. We shall see that Ricca-Salerno (1888), who makes very few citations throughout his manual, is explicitly inspired by Sax. Cossa considers Sax the one who "strongly insisted on the essentially economic character of some financial theories, deduced from the economic doctrine of *subjective value*" (Cossa 1892: 21, author's italics). Similarly Graziani, this time, allocates primacy only to Sax<sup>9</sup>. We shall keep our reflections on this strange phenomenon of anti-nationalism for our final paragraph.

On attributing priority to Pantaleoni or Sax the international literature is in general more vague: everyone recognises the importance of Pantaleoni's work, but no one risks taking a stance on his priority. For example Boggeri and Sundelson limit his impact to Italy, writing that Pantaleoni is "the founder of the modern economic school of public finance *in Italy* (1938: 252, italics added), while Musgrave and Peacock call it: "*One of the first attempts at dealing with the determination of the tax-expenditure plan as a problem of economic value*" (1958: XII, italics added). Groenewegen does not commit himself, affirming that "Pantaleoni ... applied the hedonistic principle to budget determination" (1998: 55). Medema finds in Pantaleoni's 1883 work "the linkage between the Italian approach to public finance and the methods coming out of the marginal revolution" (2005: 5), without mentioning problems of priority.

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<sup>6</sup> The first edition dates from 1875; we looked in the 1924 edition edited by Graziani. Pantaleoni's *Contributo* of 1883 is only cited in the bibliography of chapter three on the "Classification of public expenditures" (Cossa [1875] 1924: 44).

<sup>7</sup> Graziani even recalls Pantaleoni only in passing: "for his fine, insightful book on the shifting of taxes" of 1882, but not for the 1883 work (Graziani 1897: 39).

<sup>8</sup> Cossa wrote: "Maffeo Pantaleoni ... is the author of highly appreciated treatises on economic statistics ... Conspicuous among his writings is a paper on the "prospective probability of an increase in the private fortunes of Italy" (1884). ...[He] began by grappling in a most ingenious monograph with nothing less than a refashioned scheme of taxation (1882), and proceeded in 1889 to give signs of his ripened aptitude for exact research in a book entitled *Principii di economia pura*" (Cossa [1892] 1893: 508). In this scrupulously compiled list, the absence of Pantaleoni's 1883 *Contributo* is really surprising

<sup>9</sup> Graziani wrote that: "before Sax, a clear distinction in the working out of financial theorems between analysis proper to science and analysis proper to art was not made" (1897: 36).

## **2. Priority in the reception accorded to Sax's thought in Italy: Ricca-Salerno and Graziani**

### **2.1 Sax and Ricca-Salerno**

Giuseppe Ricca-Salerno (1849-1902) studied with Luigi Cossa<sup>10</sup> at Pavia, and then with Adolph Wagner at Berlin. He was the first in Italy to hold a chair of public finance, in 1878, set up by Cossa himself for the university of Pavia (Ferraris 1916). After a period in which he followed the German historical school, Ricca-Salerno joined the Austrian school “and soon became one of its most fervent and authoritative champions in Italy” (Loria 1912: 640). Ricca-Salerno’s fame abroad is quite evident from his publications and reviews in English<sup>11</sup> and German<sup>12</sup> language journals. His *Storia delle dottrine finanziarie in Italia* (History of Financial Science in Italy, 1881) was greatly appreciated worldwide<sup>13</sup>. He is especially remembered for his “great familiarity and sympathy with German science” and for his “singular attachment to the writers beyond the Rhine” (Loria 1912: 639).

Following an entirely different path from Pantaleoni’s, Ricca-Salerno adhered to marginalism precisely through Emil Sax<sup>14</sup>. In fact, with extraordinary timeliness, in an article published in the April 1887 number of the *Giornale degli economisti*, he set out the theory contained in Sax’s *Grundlegung der theoretischen Staatswirthschaft* (Principles of the theory of Public Finance), which had come out in the same year (Ricca-Salerno 1887). It may be asked how he managed to grasp its innovative quality, work out extensive critical treatment, and then also publish an article on it, practically at the same time as the publication of the book itself<sup>15</sup>.

The following year Ricca-Salerno (1888) took up Sax’s theory again in his manual *Scienza delle finanze* (Public finance). It is to this book that the secondary literature refers when it states that Ricca-Salerno, despite the remarkably original features, was mainly an

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<sup>10</sup> Luigi Cossa (1831-1896), after a period in Germany (with Wilhelm Roscher) and in Austria (with Lorenz von Stein), became an academically powerful figure in Italy, and an amazingly erudite historian of economic thought, whose works were translated and widely known throughout the world.

<sup>11</sup> There are reviews of his works in the *Political Science Quarterly* of 1889, 1892, 1895, 1897, 1900, and in the *Economic Journal* of 1896, 1901.

<sup>12</sup> Ricca-Salerno published in German in *Finanzarchiv* (in 1884, 1885 and 1886) and some of his work was reviewed in the same journal (in 1889, 1896 and 1962/63) and in the *Jahrbücher für Nationalökonomie und Statistik* (in 1896 and 1900).

<sup>13</sup> The book “had been recognised as the most complete of its kind and as a model of what such a work should be” (Bastable 1896: 105).

<sup>14</sup> Barucci thinks that: “He does not seem to have been directly influenced by the works of Jevons, Menger, or Walras; rather, it appears that he had gone through his own evolution by way of a work of completely internal reconsideration” (Barucci 1972: 524-525).

<sup>15</sup> As Barucci (1972: 524) writes, to properly understand how the events occurred, we would have to know the exact dates of publication of both the book and the journal.

interpreter of Sax. For example Ugo Rabbeno wrote: “Ricca-Salerno adopts in great part the financial theories of Sax... These he elucidates and explains, extending the applications of the theory of value in the field of finance” (1891: 461). And this was also Seligman’s opinion: “Many of his observations – he writes – show great acuteness, but his criticisms as well as his conclusions are based chiefly on those of Sax” (1892: 335). Mazzola even argued that “In setting out Sax’s theory, Ricca-Salerno noticed what was missing in it, and worked out how to complete it” (1890: 64-65)<sup>16</sup>.

Even if Ricca-Salerno were unable to find a place in a “thin” history of public finance, he would certainly be present in a “thick” one, since it is precisely to him that we owe the entry into Italy of the name of Emil Sax. Einaudi for example wrote that Ricca-Salerno “popularized with amazing success” Sax’s work (Einaudi [1934] 1936: 22). Some felt that Ricca-Salerno exaggerated his fame; for example Mazzola (1890) tried to diminish its importance when he wrote:

“despite his cleverness, his critical acuteness and his doctrine, [Sax] does not deserve, in Italy, that consensus which he does not enjoy in his own country; and since I see the theory accepted, in other later works, and the faults not pointed out, it seemed to me a good idea to waste no further time and express my own disagreements” (1890: pp. X-XI).

Ricca-Salerno is thus considered both the person who first understood the importance of Sax’s work in Italy, as well as the most faithful follower of his ideas, and finally as the one responsible for their diffusion in Italy.

## *2.2. Sax and Graziani*

Augusto Graziani (1865-1945) was the author of several studies on public finance, on economic theory in general and on the history of economic thought. He graduated in 1886 from Modena, where he had studied with Ricca-Salerno, and after his degree moved to Pavia under Luigi Cossa; he expressed his gratitude to these two teachers throughout his life. A work of his on the history of the theory of value in Italy was reviewed by Böhm-Bawerk (1890), while his manuals of public finance and political economy received words

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<sup>16</sup> According to Mazzola, Ricca-Salerno even deserves praise for having made clearer or more comprehensible Sax’s obscure and over-weighty prose (Mazzola 1890: 64-65).



of praise in two reviews by Edgeworth (1897 and 1904). Many other works of his were reviewed in German<sup>17</sup>, and he himself wrote reviews in the same language<sup>18</sup>.

Still in 1886, Graziani wrote *Sull'aumento progressivo delle spese pubbliche* (On the progressive growth of public expenditures), a work which won him a prize in a competitive examination organised by the *Accademia di scienze lettere ed arti* in Modena, and sponsored by Luigi Cossa himself. As can be seen from its title, the work consists of an application of “Wagner’s law” to Italian data<sup>19</sup>. In a note, Graziani wrote: “The classification of the financial theories in theory of consumption, of *exchange*, of *productivity*, and of *reproductivity* belong to Sax, and we treated this brilliantly distinguished book as if it were a *Leitfaden* for the writing of this preliminary chapter” (1887: 254, author’s italics). In this essay the author relates Sax’s criticisms of the various theories on the nature of public expenditures, and sets out his ideas in considerable detail; he had thus read, assimilated and utilised Sax’s 1887 work as soon as it had been published. In this work Graziani also cites Ricca-Salerno’s article of the same year, finding it “full of the most acute observations” (1887: 258), and in addition he calls him “the only writer who has examined this very latest book of Sax’s”, and as he who “after having summarised it ... found his work lacking in two respects” (1887: 264-265). At this point Graziani extensively sums up Ricca-Salerno’s criticisms of Sax.

To sum up: Sax published his book in 1887, and as we have seen, that same year Ricca-Salerno reviewed it extensively; we pointed out that such timeliness aroused a certain amount of surprise. But it doesn’t end here: a short while afterwards, still in the same year, a work of Graziani’s of considerable weight was published in which Sax’s theory was drawn upon a great deal and in which the 1887 Ricca-Salerno’s article was cited.

One explanation for this overlapping of publications may lie in the possibility that the journals came out later than their official dates; thus both the *Giornale degli economisti*, and the *Memorie* of the Modena *Accademia* might really have been published in 1888 with

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<sup>17</sup> There are reviews of Graziani’s works in the *Jahrbücher für Nationalökonomie und Statistik* (1904, 1911, 1912, 1935, 1938).

<sup>18</sup> Graziani was the author of reviews published in *Weltwirtschaftliches Archiv* (1914, 1927, 1930, 1931, 1938).

<sup>19</sup> An historical assessment of the Italian economists’ contribution to the theory of public expenditure growth is made by Mastromatteo (2003).

the date of 1887, and thus the authors would have had all the time necessary to do the reading and work out their analysis.

But the episode risks becoming quite mystifying when we realise that the deadline for handing in manuscript essays for the competitive examination at the Modena *Accademia* was December 31st. 1886, and we know for certain that Graziani's essay was actually handed in at that time<sup>20</sup>. Neither Sax's book, nor Ricca-Salerno's article had been published by then. Nevertheless, it must be remembered that on June 25th. 1887, at the end of the peer review process, Graziani withdrew his work from the *Accademia* to make the corrections that had been requested: he could perhaps have inserted the references to Sax and Ricca-Salerno while revising, *i.e.* starting from June 25th. 1887. This was a very quick revision, however, because on August 3rd. 1887, in a letter to the *Accademia*, Graziani wrote that he had already given the first chapter to the printer's, and this was precisely the chapter based on Sax's theory<sup>21</sup>. More probably Ricca-Salerno could have received Sax's book before its publication, and could have passed it on to Graziani together with the manuscript of his article on Sax later published in the *Giornale degli economisti*.

Whatever happened, we believe that it was certainly the case that Ricca-Salerno introduced Sax's work to Graziani. The latter never personally claimed priority in the reception of Sax's work in Italy, but always allocated the merit to his mentor Ricca-Salerno; in 1897 he was writing: "Prof. G. Ricca-Salerno ... was the first to set out the theory of Sax in Italy" (1897: 68). If the fact that Graziani's work had a rather limited circulation is remembered<sup>22</sup>, there is all the more reason for the merit of having made Sax's ideas known in Italy to be allocated entirely to Ricca-Salerno.

Graziani later translated Sax's *Gli ultimi progressi della scienza economica* (The latest advances in economic science, Sax 1889). Moreover, in his manual of public finance he explicitly declares that his interpretation is based on Sax's theory (Graziani 1897: 62), and in the one on political economy he repeatedly cites Sax, in particular for his contribution to

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<sup>20</sup> In the Modena *Accademia* we found the manuscript letter with which Graziani accompanied his work, dated December 31st. 1886; we also know that on January 13th., 1887 the work was sent to the first referee, and on February 3rd. to the second one (who, by the way, was Giuseppe Ricca-Salerno) (Archivio concorsi, 21/d).

<sup>21</sup> "I already gave the first chapter to the printer". Letter from Graziani to Pietro Bortolotti, general secretary to the *Accademia di scienze, lettere ed arti di Modena*, dated Modena, August 3rd. 1887 (Archivio concorsi 21/d).

<sup>22</sup> The essay was republished in 1966 with the title *Intorno all'aumento progressivo delle spese pubbliche* (On the increasing growth of public expenditure).



transport economics (Graziani 1904)<sup>23</sup>. His greatest tribute to Sax is in a publication addressed to the German public in 1912<sup>24</sup>. Sax in his turn recalled Graziani with especial gratitude “for having drawn the attention of scholars to his book” (Sax 1924: 299)<sup>25</sup>.

### **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*)<sup>26</sup>.

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 Pavia<sup>27</sup>. 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”<sup>28</sup>. 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 Montemartini<sup>29</sup>, one of the students of that academic year at Pavia who De Viti thanked. He states that the origins of De Viti’s attempt “to construct a pure public finance ... can be

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<sup>23</sup> On Sax’s theory of transportation see Pickhardt (2005b).

<sup>24</sup> 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).

<sup>25</sup> 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).

<sup>26</sup> 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).

<sup>27</sup> 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.

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

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

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 discipline<sup>30</sup>. In this case the priority of publication is certainly Sax’s<sup>31</sup>. 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 1887<sup>32</sup>:

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 1884<sup>33</sup>. After examining the writings of that age, we had the impression that before

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<sup>30</sup> For a detailed study of Sax’s *Grundlegung* see Pica (1966a).

<sup>31</sup> 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.

<sup>32</sup> We should notice that also De Viti got to know of Sax’s book very speedily, before July 1887.

<sup>33</sup> 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 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).

Ricca-Salerno's 1887 article the name of the Austrian economist was not known in Italy, and so his contribution of 1884 had gone unnoticed<sup>34</sup>. 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*<sup>35</sup> removes (almost<sup>36</sup>) 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)<sup>37</sup>; 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 Antonio Serra<sup>38</sup> and for his first work *Moneta e prezzi* (Money and prices, De Viti de Marco 1885).

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<sup>34</sup> 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).

<sup>35</sup> 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).

<sup>36</sup> 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.

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

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

### **School rivalries**<sup>39</sup>

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 history<sup>40</sup>. Briefly, Pantaleoni made a very serious charge of plagiarism against Menger, already in 1887<sup>41</sup>, 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 be<sup>42</sup>. 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 translation of his book<sup>43</sup>, as well as writing a quite complimentary preface to the Italian translation of Menger's *Grundsätze* (Pantaleoni 1909).

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<sup>39</sup> Many of the citations in this part of the work are drawn from the extensive passages quoted in Magnani's most valuable volume (Magnani 2003).

<sup>40</sup> 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).

<sup>41</sup> Pantaleoni wrote: "Menger's treatise is copied out of Jevons, and his *Methode der Sozialwissenschaften* copied from Cairnes" (1887: 78).

<sup>42</sup> 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).

<sup>43</sup> In the note against Böhm-Bawerk and Sax this time Pantaleoni restricts himself to affirming that they are "apparently unacquainted with the greater part of what has been written ... outside of Germany" (Pantaleoni [1889] 1898: 63).

But let us return to our problem of the priorities. Cossa recalls that Pantaleoni's "often quite baseless and captious points against the Austrian school have ... exposed him to some rather damaging rejoinders" ([1892] 1893: 508). It would be hardly surprising if in reaction to those points, which Cossa without hesitation believed "baseless and captious", the school of Sax's Italian followers felt so resentful they would not allow recognition to Pantaleoni's primacy.

It does not end here: in 1898 Pantaleoni wrote a review of Cossa's *Histoire des doctrines économiques* in which he vehemently attacked its author (Pantaleoni 1898)<sup>44</sup>. This is only one of the many manifestations of Pantaleoni's lack of esteem for Cossa. Magnani (2003: 63) recalls that already in 1882 he had chosen the University of Camerino rather than go to Pavia<sup>45</sup>; and in addition he cites the many occasions on which Pantaleoni severely censured Cossa's teachings<sup>46</sup>. Knowing that Sax's Italian followers were also Cossa's pupils, we believe that this critical attitude of Pantaleoni's perhaps played a part in provoking the anti-nationalism we mentioned previously. But this is still not the end of the affair: the relationship between Pantaleoni and Ricca-Salerno was not one of the best, either; against him, too, Pantaleoni made repeated charges of plagiarism<sup>47</sup>. Nor did Pantaleoni have a great opinion of Graziani: "from Graziani's brain – he wrote to Nitti in 1898 – not even one idea has yet sprung forth"<sup>48</sup>.

We should also recall the very close friendship between Pantaleoni and De Viti de Marco going back to when they were at university together (De Viti de Marco [1925] 1927: 41), an association Graziani was thinking of in his negative criticisms of De Viti's words commemorating the death of Pantaleoni<sup>49</sup>. We should not forget, either, that they were also closely linked to Ugo Mazzola: the three of them in 1890 took over the editorship of the *Giornale degli Economisti*. And in fact we have noticed the way Mazzola was

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<sup>44</sup> In the debate between Cossa and Pantaleoni on method in the history of economic thought see Mosca (2005).

<sup>45</sup> See the letter of Pantaleoni to Loria of November 3rd. 1882 in Fiorot (1976: 450-451).

<sup>46</sup> E.g. Pantaleoni writes to Sitta in 1891: "I am sorry to see Cossa bagging the best young economists for himself" (Stefani 1948: 343).

<sup>47</sup> The episode is recounted in Magnani (2003: 253-254). Of his bad relationship with Ricca-Salerno Pantaleoni writes in a letter to Colajanni of December 5<sup>th</sup>. 1897: "I know almost all of them, and except for Ricca-Salerno, I don't believe I have a bad relationship with any" (Ganci 1959: 335).

<sup>48</sup> Archivio Fondazione Einaudi, Fondo Nitti, *Carteggio, Pantaleoni*, 6/1/1898; quoted in Barbagallo (1984: 89).

<sup>49</sup> In a letter of June 15<sup>th</sup>. 1925 to Loria, Graziani considered De Viti's obituary good: "if he did not have the renewal of the Italian economic school begin with Pantaleoni" (Allocati 1990: 116-117).

determined to have his colleagues' priorities duly recognised, he also having expressed opinions on the Austrian School in tones similar to Pantaleoni's<sup>50</sup>.

A further aspect of the distance between the two groups lies in the fact that Pantaleoni, De Viti de Marco and Mazzola interpreted marginalism quite differently from Cossa, Ricca-Salerno and Graziani; the latter, in varying degrees, considered its revolutionary significance as relative.

### **Conclusions**

It has been pointed out elsewhere how the School rivalries set out here had lasting effects on the development of the theory of public finance in Italy:

“It is to the great merit of Ricca-Salerno that he realised the importance of Sax's introduction of marginal analysis in public finance as soon as the *Grundlegung* was published in 1887; unfortunately, the drawback was that most Italian authors followed the Austrian 'vulgate', instead of the better De Viti de Marco's version. Perhaps university rivalries were in part responsible for that, in so far as the first Italian followers of public finance marginal analysis were Ricca-Salerno and his pupil Graziani. Both these men accepted, and helped to spread, Sax's original version, including the cumbersome definition of public goods and services” (Fossati 2003: 109).

Whether held to be good or bad, Sax's influence on Italian economic thought was very great indeed. He is still cited in the Italian manuals of public finance<sup>51</sup>.

And as a matter of fact we should be careful not to give too much importance to these rivalries. Pantaleoni himself, in a review published in the *Economic Journal* in 1891, puts all the protagonists examined here into the same class: “In public finance – he writes – De Viti, Mazzola, ... Ricca-Salerno, and Graziani have created a literature which cannot be disregarded by the specialist of this branch” (Pantaleoni 1891: 768)<sup>52</sup>. If, in addition, we examine the way the condition of political economy in Italy was then presented abroad<sup>53</sup>,

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<sup>50</sup> Mazzola in fact points out that in the “Austrian School ... beside its merits ... it has to be noted with regret the late, incomplete and almost disrespectful recognition of the prior merits of Gossen, Jevons and the others” (1890 : 28-29).

<sup>51</sup> Sax is cited as initiator of the voluntary-exchange theory in Cosciani (1977), Petretto (1987), Brosio (1993), among others.

<sup>52</sup> All these names, as well as others, are included by Pantaleoni among those Italian economists who “would have a much greater credit abroad than they have if they were to write in a language more generally known than Italian” (Pantaleoni 1891: 768).

<sup>53</sup> In 1891 three articles were published in English in which three Italian economists described the state of economic theory in Italy: Pantaleoni (1891), Rabbeno (1891), and Loria (1891).



it can be seen that the Italian economists we have been dealing with here are all thought of as followers of the same school, precisely that Austrian School around which so many polemics had arisen<sup>54</sup>.

The relationship between Sax and Italy occurred within an extensive network of exchanges between Italian and Austrian economists. In Ugo Rabbeno's words: "the new Austrian school, ... in a short time has made a number of recruits among Italian economists" (1891: 449). Achille Loria, by no means in favour of the new direction<sup>55</sup>, went so far as to speak of the "great triumphs" of the Austrian School, with its "magical influence" on Italian economists (Loria 1891: 73). It is important to remember this link, especially in the context of public finance<sup>56</sup>, and in particular if it is compared to Anglo-Saxon realities of the age, as Seligman does when he writes: "The study of the science of finance, on which there is not yet a single book in English, continues to be prosecuted with great activity on the continent" (1892: 335)<sup>57</sup>.

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<sup>54</sup> As Magnani recalls (2003: 46), Hayek even believed that: "perhaps the most successful early exposition of the doctrines of the Austrian School in a foreign language was M. Pantaleoni's *Pure Economics*" (Hayek 1934: 409).

<sup>55</sup> Loria, considered the father of Italian Marxism, in 1890 wrote an article criticising the theories of the Austrian School (Loria 1890).

<sup>56</sup> On the reception of Italian financial thought in Germany and Austria see Hagemann and Rösch (2001: 196-198).

<sup>57</sup> Musgrave and Peacock also speak of the "lively debate" which took place after 1880 "between Continental writers on public finance" (1958: VII).

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