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When Italian Economics “Was Second to None”.

Luigi Einaudi and the Turin School of Economics

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The most benevolent observer could not have paid any compliments to Italian economics in the early 1870's; the most malevolent observer could not have denied that it was second to none by 1914. (Schumpeter 1954, 855).

These words embody the portrayal of economic science in Italy at the beginning of the XXth century as described by J. A. Schumpeter in *History of economic analysis*. It was Schumpeter himself who suggested the name of Luigi Einaudi as the catalyzer of an approach in which building an economic theory was seen as a fruitful interlacing of pure theory and applied analysis:

The really remarkable thing is ... that, even independently of Pareto, Italian economics attained a high level in a variety of lines and in all applied fields. Some of the excellent work done especially in money and banking, public finance, socialism and agricultural economics will be noticed later (in this book)., but it cannot be made to stand out a sit should. Not even the various currents in general economics can get their due, least of all those that originated in historical or other factual work which in Italy really fertilized general economics and did not, as in Germany, conflict with ‘theory’ – the kind of general economics that may be represented by the work of Luigi Einaudi. (ibid.).

The present essay is dedicated to the presentation of a school that was a splendid expression of this fertile season of Italian economic thought, which developed in Turin around the figure of Einaudi, and earlier, around that of his master Cagnetti de Martiis. For close to half a century it inspired intellectual production in Italy, both within and beyond the sphere of economics.

1. The “Turin School”: a preliminary overview

During the 1890s a group of economists belonging mainly to the School of Law of the University of Turin set up a research center where they would meet to engage in debate, their gatherings often joined by scholars of political, legal and sociological science. The first expression of the center was the Political Economy Laboratory of Turin, founded in 1893 by Salvatore Cognetti de Martiis, who held the Chair of Political Economy of the University of Turin. The Laboratory, conceived as an institution designed to “promote and facilitate the study of the phenomena of economic life and attendant questions”, became a venue for enquiry into the economic-social problems of the era. It grew into a widely recognized cultural institution in the Turin milieu, alongside the Industrial Museum (then, in 1906, the Turin Polytechnic) and the literary salons. Under Cognetti’s guidance, the Laboratory saw a flowering of social and applied economic studies, conducted on original data and statistical surveys. An impressive team of scholars was gradually built up (composed not only of economists): from Luigi Albertini to Luigi Einaudi, Pasquale Jannaccone, Giuseppe Prato, Gioele Solari. Some of the group subsequently left their university posts (like Albertini, who would later become editor-in-chief of the *Corriere della Sera* but still maintained close links with the Turin environment, in particular with Einaudi). For others, the Laboratory – and, from the early twentieth century onwards, above all *La Riforma Sociale*, under the leadership of Luigi Einaudi – became a center of inquiry and a focal point for debate and research. Thus at the outset of the twentieth century the core group of scholars were joined by others, among whom Attilio Cabiati, Riccardo Bachi, Gino Borgatta, Alberto Geisser, as well as Einaudi’s first pupils, Cesare Jarach and Achille Necco (both of whom died on the front in the first world war); later, up to the 1930s, other scholars also took part, including Vincenzo Porri, Renzo Fubini, Mauro Fasiani, Francesco Antonio Repaci, Carlo Rosselli, Mario Lamberti Zanardi, Aldo Mautino, Mario De Bernardi. Nor should one overlook figures who had significant relations with the Einaudian group yet without becoming integral members, such as Edoardo Giretti, Antonio Graziadei, Emanuele Sella, Giovanni Carano Donvito, Piero Sraffa, Ernesto Rossi.

Collectively, these men, who succeeded one another for three generations, constituted the so-called “Turin School”. Indeed, a veritable school of Economics arose around the Cognettian Laboratory of Political Economy, contributing to its development during the Einaudian years, their activity also centering on the journals *La Riforma Sociale* and, later, *Rivista di Storia Economica*. The term *school* is appropriate in this context because the full range of defining criteria of a school does indeed appear to be present in the case of the Turin economists. Such criteria can be identified as the existence of certain common elements such as the spatial and temporal dimension, cultural

vision, the theoretical dimension and the method adopted, the presence of a strong leadership, and the existence of channels through which the members' ideas and works can circulate. If these criteria are viewed within the history of the Laboratory over the whole span of the half century following its foundation, the assertion that this was genuinely a school is fully warranted. Turin, the University and the other cultural institutions present in the city represented its spatial base. Political liberalism and economic *laissez-faire*, not divorced from special attention to socialism, especially at the beginning, embodied the vision shared both by the Turin economists belonging to Cognetti's group and the young antifascists of the 1920s, all of whom were profoundly involved in the process of modernization of Italian society. The school's theoretical perspectives were underpinned by its exponents' familiarity with the old Cambridge Marshallian stream of thought, whose works they read with interest, and by the rigorous method that had its roots in Cognettian positivism and in the thought of Pareto (whereas the occasionally mentioned contribution of Achille Loria was in fact marginal). The elaboration of this approach, as developed in the writings of Einaudi, Cabiati and Jannaccone, provided the school with a structural grounding. The methodological discussions and theoretical reflections undertaken by the various figures, while not leading to a monolithically unitary conceptualization, reveal what could be described as a choral construct. Cognetti and Einaudi were indisputably the two great Masters, concerned with the organizational aspects (Cognetti above all within the Laboratory, Einaudi in particular with regard to the journals), and creating an environment where pupils and professors had the opportunity to study, exchange ideas and engage in research. Cabiati, Jannaccone and Prato likewise exerted considerable influence over the younger generations, as teachers and 'Masters'. *La Riforma Sociale*, founded in 1894 with Luigi Einaudi as the editor-in-chief from 1908 to 1935, and the *Rivista di storia economica*, set up by Einaudi when the fascist regime forcibly closed down the *Riforma*, published the essays of Cognetti's pupils and subsequently of the Einaudian *entourage*, which acted as the main channels for the spread of the thought of the Turin school. Mention should also be made of the important work of Einaudi and Cabiati in the sphere of journalism, which held considerable sway over public opinion.

On the theoretical plane, up to 1914 the Cognetti-Jannaccone-Einaudi axis appears to be representative of a highly original synthesis of Marshallian neoclassical orthodoxy and the Paretian approach, to which should be added Fisher's contributions on money and Knut Wicksell's writings on money and the public economy. It was precisely this modernity of the Turin School's theoretical approach that allowed its exponents to establish constructive relations with the major economists of the time, effectively "internationalizing" the School itself by expanding the range of discussants. Thus at its outset and up to the first world war the Turin school can be seen as a testing ground for

social-economic studies, adopting an original neoclassical perspective, incorporating classical elements. Between the two world wars, while methodological disputes gave way to the need to address the great themes arising from the post-war crisis, the economists of the Turin school, Einaudi and Cabiati in particular, tackled the issue of the crisis of the liberal order, in order to explain and found it anew. This programme spurred a reinforcement of the theoretical aspects, incorporating the contributions of the new exponents of the old Cambridge school (Pigou, in particular), those of the Neo-Austrians (in particular Robbins, Machlup, Morgenstern, more than Hayek and Mises, the latter being considered too ideological), and those of other scholars belonging to the German area, such as Röpke.

Finally, as far as empirical analysis was concerned, the School made an original contribution to the field of statistical analysis, where a central role was played by Riccardo Bachi and Pasquale Jannaccone.

2. The cultural, philosophical and political vision

Prompted by an “Anglophilly” that was shaped by Luigi Einaudi’s passion for eighteenth-century English thought, his reading of Mill, Carlyle and Ricardo and his knowledge of the British trade union movement, the liberal vision he embraced represents the philosophical-political framework that formed the background for the economists of the Turin School. (See: Viano 2005; Giordano 2006; Silvestri 2008).

After an initial moment of sympathy for the nascent Italian worker organizations between the end of the nineteenth and the beginning of the twentieth century, Einaudian liberalism, which was based on the *ethos* of the self-made man and on glorification of the middle class as a “universal class”, developed a coherent critique of socialism, with censorious assessments that became particularly pungent following the Bolshevik Revolution and the construction of the Soviet regime. His rejection of collectivism and his philosophical repudiation – springing from an explicitly Millian inspiration – of uniformity as an ideal of progress lay at the root not only of Einaudian antisocialism, but also of the clear-cut opposition to fascist corporatism that constituted a feature common to many economists of the Turin School.

Indeed, it was precisely during the years of forced silence imposed by the fascist regime after 1925 that the liberal vision of the Turin School blossomed into a stage of full philosophical maturity, through an exchange of ideas that saw Luigi Einaudi engaged in extensive debate with Benedetto Croce and John Maynard Keynes.

The dialogue with Croce, which took the form of a series of writings between 1928 and 1943, represented the main stimulus in Einaudi's intellectual itinerary towards a complex and anguished epistemological elaboration of his liberalism. The beginning of the controversy can be dated to 1928, the year in which *La Riforma Sociale* published a review by Einaudi of several of Croce's works. The philosopher espoused a stance that aimed to underscore the contingent character of the link between *laissez-faire* doctrine and liberalism and to deny any interrelations on the ethical, political and economic plane – to the point of hypothesizing the possibility of a coexistence of socialist proposals within the very bosom of the liberal conception. Einaudi countered such a position by initially declaring himself to be in agreement: *laissez-faire* is not an economic principle, but an “empirical rule”, a practical and “concrete solution” that was not in opposition to Croce's ethical liberalism. When Croce's positions became radicalized, as expressed in his 1931 *Introduzione ad una storia d'Europa nel secolo decimonono*, Einaudi (1931) reacted by setting aside his 1928 positions and giving a more precise account of the notion of *laissez-faire*. According to him, there were two meanings of *laissez-faire*: on the one hand, the “scientific” conception, totally devoid of any judgment of a moral nature with regard to the market system; on the other hand, the “religious” conception, being regarded as an intrinsic character of one who accepts “the maxim of *laissez-faire* and *laissez-passer* almost as if it were a universal principle”. In the last stage of his itinerary Einaudi delineated a “historical” interpretation of *laissez-faire*, “united in brotherhood and practically embodying liberalism, in such a manner as to make it almost impossible to sever the one from the other”. On the basis of this interpretation, the Crocean argument envisaging a form of *laissez-faire* compatible with some of the means of collectivist policy appeared to be unsustainable. Einaudi believed that given the characteristics of a collectivist regime, it was quite out of the question for greater individual freedom to spring from within it: communism and individual freedom, he declared, are two opposite poles.

From the second half of the 1920s up to the mid 1930s, in addition to his critical assessment of Croce, Einaudi voiced an element of polemical disagreement with Keynes. This difference of opinion likewise sprang from their discordant views on *laissez-faire*: in contrast to the Keynesian critique of *laissez-faire* (Keynes 1926), considered to be inadequate in the post-first world war context, Einaudi (1926) denied that the *laissez-faire* principle had any scientific value and raised the question of its relevance as a “practical behavioral rule”. He would then, in several essays that appeared a few years later (Einaudi 1932a; 1932b), express a critical attitude towards Keynes' underestimation of the role of two cardinal categories of the liberal vision, namely labor and saving. The background to their disagreement was constituted by Keynes' development of an interpretation of the Great Crisis as first and foremost a moral crisis, and more specifically, the crisis of an order

founded precisely on these classical categories. Einaudi, on the other hand, still considered these categories to be fundamental and a source of fertile inspiration for overcoming the crisis.

The polemic with Croce flared up again in 1937, after a few years during which Einaudi's growing awareness of the relations between ethics, economics and politics had been further sharpened by the rise of Fascist corporativism and the suppression of *La Riforma Sociale*. Einaudi's position towards Croce was clear-cut: "the argument that whatever the economic order, freedom can always be achieved does not seem to be acceptable without some reservations" (Einaudi [1937] 1988, 142). Both Soviet communism and monopolistic capitalism, he continued, shared the same tendency towards "economic conformism" (ibid., 143-44). He firmly believed that the "concrete freedoms" – as he was to define them in the *Lezioni di Politica Sociale* (1949) –, the freedoms "of the peasant, the merchant, the craftsman, the industrialist, the professional person, the artist", but also those allowing the "free thinker to meditate freely", the "clergyman to preach his own word", or "man in general to have legal equality with any other man", stood in opposition to Croce's abstract freedom, which was a feature of "heroes" and "hermits", and all such "concrete freedoms" can in Einaudi's view be traced back to the sphere of economic liberalism (ibid., 149).

The final act of the wrangle took place in 1940-41, on the pages of *Rivista di Storia economica* (Einaudi 1940). Responding to a Croce who had once again denied the existence of a relation between *laissez-faire* and liberalism, Einaudi wrote:

It is heart-rending to learn from such a discerning thinker that protectionism, communism, regulationism and economic rationalizing can, at different times and according to the historical circumstances, turn into means used by politicians for the purpose of the moral elevation and the free spontaneous creativity of man. (Einaudi [1941a] 1954, 254-55)

For the Piedmontese economist, means cannot be treated regardless of the ends: "a legal order of the economy that seeks to be a concrete approximation to the abstract hypothesis of free competition" or favors open competition among subjects, "each one according to his own aptitudes, all [competing] with one another, to reach the maximum of moral elevation" cannot be set on a par with legal orders "which experience has shown to portend oppression, monopoly, moral decline" (Einaudi [1941a] 1954, 257). Thus asserting, as claimed by Croce, that the path of freedom – and in other words of history, in the sense of the history of freedom – can also be ushered in through the establishment of collectivist regimes seemed to Einaudi to be little better than "a joke" (Einaudi [1941b] 1954). What emerges in the clash with Croce is the problem of the values and ends of economic science: an ineludible issue, in Einaudi's view, which would engage his attention in

subsequent years. But this Einaudian conception of liberalism as a “vision of the world” and of “life” - which he developed partly also through the contribution of his co-workers - probably embodied the essence of the intellectual enquiry of a School that strongly asserted the interdependence between morals, politics and economics.

3. The political economy of liberalism

3.1. Vision, method, analysis

An attempt at reconciling theory, history and statistics

In *History of economic analysis*, Schumpeter wrote that Luigi Einaudi as an economist was representative of those who performed that “historical or other factual work which in Italy really fertilized general economics and did not ... conflict with ‘theory’”(Schumpeter 1954, 1052). This methodological perspective, which establishes an *essential* relation between historical-empirical work and economic theory, characterized the Turin School’s approach for the entire duration of its activity. In effect, this approach was founded on a reflection concerning the nature and method of political economy, the starting point of which can be seen in the work of the founder Cognetti. In 1886, Cognetti published the essay *L’economia come scienza autonoma* on the dispute in Austria and Germany between classical economists (H. Dietzel, C. Menger and E. Sax) and the so-called “economists belonging to the political-social school and to the historical school” (respectively defined as “Chair Socialism” and “Historism”)¹. Cognetti argued in favor of the independent nature of economic science, but he emphasized the importance of the historical method, which he viewed not as a mere container of facts but rather as an appropriate tool for the study of economic phenomena. In his perspective, economics should be considered as a political discipline, in the etymological sense of the term: that is to say, it cannot disregard its public dimension; rather, the study of economics on the one hand allows greater understanding of a changing society and, on the other, it provides the opportunity to mould a ruling class capable of making decisions that will favor the country’s development and lead to an increase in the material welfare of the working classes. Such an outlook was an integral part of the positivist vision of the social development of liberal capitalism. Somewhat similarly to the approach Marshall and the Cambridge neoclassical school were delineating in those same years, Cognetti believed that economics should be considered as a human science, which cannot be “denatured” by means of artificially applied languages that are far-

¹ On Cognetti, cf. Becchio (2004).

removed from its original status. The importance of mathematical language, which other versions of marginalism – Walrasian in particular – were underlining during that period, was thus strongly downplayed in the methodological framework of the Turin School, whereas a central role in applied analysis was awarded to statistics, considered as the main tool for testing theoretical conjectures that aimed to interpret economic events. This position was investigated in further depth by Cignetti in an important 1894 essay,² in which the Marshallian conception of economic science and the theoretical foundations on value of Marshall's *Principles* were taken as the reference point.

At the turn of the century, however, the Turin School's attention to Marshall also encompassed a broader view which included an interest in the Austrian School of Menger and its methodological foundation in the debate with Schmoller. In fact the *Methodenstreit* became the subject of a short essay by Jannaccone in 1898, where he reviewed the opposing conceptions of Menger and Schmoller, endeavoring - fully in harmony with Cignetti's spirit - to achieve a mediation, and took up a polemical stance towards Pantaleoni's attitude to the methodological question. Maffeo Pantaleoni believed the methodological wrangle to be pointless, contending that pure economics was the only genuinely valid economic conception. Jannaccone was as critical towards those who - like Pantaleoni - held methodological disputes to be sterile as he was towards others who felt they were a necessary preparatory stage of theory (the Austrian economist). Jannaccone proclaimed the historical relativity of any method chosen as part of the study of a science, and at the same time expressed a firm conviction that the structure of any science can take on a multiplicity of forms. In his view, "A pure economics has the right to exist, provided it recognizes [...] that it is not the one and only economics and the whole of economics, but merely the science of economic equilibrium, of a limit state of economics" (Jannaccone 1899, 114). This position, probably influenced by Edgeworth,³ is associated in Jannaccone's framework with the position Pareto came to hold in the *Cours*:⁴

² Cignetti states: "Over the last few years, taking up again various attempts that date back to the first quarter of the century, the calculus has extensively been put to the service of this approach in economic studies, thereby endowing Political Economy with a mathematical character. The gravitation of the sciences towards mathematical aspects is a fact that can be understood only if one considers what is happening in Physics or chemistry. But in order for the effect to be usefully achieved, the sublimation of a non abstract science to the mathematical form presupposes that it has already undergone a sufficient degree of development for its subject matter to allow the reduction of concrete phenomena to abstract quantities. Is this the case as far as Economics is concerned? It would be rash to answer in the affirmative... Let us for now be content with history, statistics and the graphic method which is well suited both as a means of depiction and a means of study". (Cignetti 1894, 689-690).

³ The influence pertains first and foremost to the Edgeworth's critique of Walras at the beginning of the 1890s: on this, see Marchionatti (2007). A further important example of the attention devoted by Jannaccone to Edgeworth's thought can be found in a 1907 article in which Jannaccone addressed a major theoretical question, namely, whether the terms of trade in a bilateral monopoly are or are not determinate; his position expressed a polemical stance towards Loria, and in support of that held by Edgeworth and Marshall.

⁴ On Jannaccone and Pareto, Mornati (2004).

Pareto, another of the mathematical economists, admits that pure economics cannot be utilized for indicating the general form of the phenomenon, but must instead be accompanied by a version of applied economics, a science and not an art, grounded in the facts, assayed in reality, and capable of taking into account all the disturbances, all the energy losses, with regard to which the concrete fact appears to diverge from the typical fact (Jannaccone 1899, 114).

Jannaccone believed that economics should proceed via inductive approximations sparked by the observation of phenomena, and should thereafter reach the stage of a “morphological science, capable of eliciting the forms from this material of facts and then studying their differentiation and development” (ibid., 115). In November 1909, on the occasion of his prolusion to the course in political economy at the University of Padua Law School, he focused again on his critical enquiry into general economic equilibrium, recognizing the “conception of economic equilibrium” as the last great result obtained by political economy, which, by virtue of this very result, had become established as a science. The process of scientific creation, Jannaccone argued, ranged from concise representation of a group of facts and construction of a language and concepts appropriate for allowing the logical development of such a representation, to attribution of a systematic form to the representation itself. Accordingly, the growing plea that economists should shift from study of the static (mechanicistic) economic situation to that of the dynamic economic perspective amounted to recognition of the heuristic need to take non mechanicistic representations into account - if, that is to say, the dynamic economic perspective implies not only studying the repercussion of disturbances in the general economic equilibrium but also investigating variations affecting the structure of the economic system and the interactions among its agents.

As can be discerned from this reconstruction, the role of Pareto (both the Pareto of the *Cours d'économie politique* and the Pareto of the *Manuale di economia politica*) is central in the reflection of the Turin School, just as much so as that of Marshall and the English Neoclassical School. Among the economists of the Turin School, Attilio Cabiati defined himself as Paretian,⁵ but it was Jannaccone who meditated most comprehensively on the overall approach elaborated in Pareto's work. When perusing Pareto's *Cours*, he perceived the complexity of its methodology; with regard to the *Manuale*, he appreciated the completeness of its mechanicistic development, although he raised objections, perhaps with an excess of critical severity, against the lack of inevitable non mechanicistic complements. In both cases, however, Jannaccone strongly emphasized that mathematical economics is only one of the possible representations of the economic phenomenon.

⁵ On Cabiati: see Marchionatti (2010).

The mechanistic approach that characterizes it, he maintained, enjoys no particular right of methodological preference. Knowledge of an economic phenomenon, Jannaccone argued, is always obtained exclusively by overlaying on one another its various possible representations, and this operation is performed according to a basically arbitrary order, with the mechanistic representation essentially providing no more than a mental reference framework designed to act as a term of comparison with the development of the other representations.

Einaudi made a fundamental contribution to in-depth study of the methodological approach, which he investigated in a number of essays composed in the 1930s and early 1940s. These writings seek to appraise and read in the light of his own views the work of the classical economists and also of Pareto and Marshall, as well as the developments of methodological investigation in Austria and England through the work of Ludwig Mises and Lionel Robbins. In several studies on the relation between historical analysis and economic analysis,⁶ Einaudi argued in favor of an interpretation of the facts such that it would be capable of combining “the eye or economic sense” i.e. utilizing the logical tools of economic science – with “the historical eye”. In a long essay written in 1942-43, titled *Ipotesi astratte ed ipotesi storiche, e dei giudizi di valore nelle scienze economiche*, Einaudi not only delineated the nature and method of economic science based on the background of Marshallian-Paretian coordinates, but he also introduced “theoretical-historical frameworks” in order to heighten the fruitfulness of empirical observation. In the same essay he also took the further step of addressing the problem of the relation between the economist’s manner of proceeding as a scientist, and the expression of value judgements along anti-Robbinsian lines. Einaudi denied that the economist’s task begins only after choices have already been made: the economist, he believed, is not a cold investigator of the effects of choices performed by others; rather, an economist must also train the spotlight on the underlying premises of a line of reasoning, since such premises spring from the action of passions and ideals, that is to say, from value judgments. In other words, economists who are aware of “the laws that regulate a liberal or communistic or plutocratic-protectionist society” must make their choice “in conformity with their ideal of life” and “declare the reasons underlying their choice”. This, he went on, was the manner of proceeding adopted, before his time, by the classical economists and Pareto, whose economic arguments “proved highly fruitful and led to great results”, partly thanks to their “ideals of life” (Einaudi, 1942-43, 119). Einaudi thus raised the question of the relation holding between freedom and the economic system of a society: indeed this embodied the essence of his reflection on liberalism, treated in the previous chapter, and it is an issue that helps clarify the relation between his economic thought and the liberal ideal that constituted its underlying inspiration.

⁶ See, in particular, Einaudi (1936).

The conditions for efficient functioning of the market: regulated competition and drastic limitation of customs protectionism

Einaudi's advocacy of the liberal order of society reveals a substantially classical-neoclassical conception of the economy, centering on the concepts of the competitive market, labor and saving. He dwelt at particular length on the market concept, offering original insights into its structure.

The core of his conception is the argument that if the competitive mechanism is to be efficient, it must take place within a framework of rules. Left to itself, the market can destroy competition and cause inequalities that undermine its ideal significance. It follows that the State must set up "the framework" which enables competition to take place efficiently, and must therefore combat monopolies (through antitrust laws) and limit the forms of protectionism that grant privileges to a select few. Naturally, this was not meant to deny that at certain times some forms of temporary protection may theoretically be helpful, according to the classical Millian theory of the infant industry, but what Einaudi's argument underscores is that in practical terms those who enjoy protection seek to render this perpetual, and that the positive local effects can be canceled out by negative general effects. In Giolitti's era (1890-1914), Einaudi and his *entourage* focused insightfully on these issues, and put forward a number of original theoretical contributions. In addition to the many articles arguing against the system of agrarian protectionism that guaranteed rents for the landed aristocracy, at the expense of industrialists and workers, or against sugar and silk protectionism, or again, against the protectionism that benefited the iron and steel industry – a multiplicity of writings by Edoardo Giretti address this question – it is interesting to note the important contribution by Einaudi, who in 1911 launched his attack on the so-called "drillers" (Einaudi, 1911). Originally referring to State economic intervention in support of oil prospecting, the term was later extended to a whole host of industrialists – first and foremost those in the iron and steel industry – who wanted to hold on to their undertakings by fleecing the taxpayer, and then to all those who benefited from public subsidies and aid of various kinds the upshot of which was to limit or distort competition and induce other deleterious consequences, typically by keeping the price both of consumption goods and intermediate goods high, and placing a burden on the taxpayers' shoulders. Einaudi argued that protectionism and public intervention designed to assure protection limited the potential economic development of the Italian economy during the period extending from the 1890s up to the First World War (Cassata-Marchionatti, 2010).

As far as pure theory is concerned, the attention devoted by Cabiati and Jannaccone to study of the relations between monopolistic concentrations, dumping behavior and protectionism led to significant insights in a sector which had previously received only scant consideration in terms of

theory. Their work would later be taken up again in Viner's classic essay, dating from 1923 (Viner, 1923). In effect, the results of their research, published in a special issue of *La Riforma Sociale* in 1914, document one of the highest points of doctrinal debate within the Turin School. (Cabiati 1914; Jannaccone 1914a; 1914b). Cabiati's aim was to demonstrate, in a Paretian general equilibrium framework, that in order for dumping to occur the industry engaged in such a practice need not necessarily be protected in the country of origin. Nor need the industry in question be syndicated, since dumping is a form of price discrimination applied by the entrepreneurs of decreasing cost industries as a means to achieve maximum opheimity, and consequently it is advantageous for the consumers on whom dumping is practised. Jannaccone's important contribution, on the other hand, addresses the problem in the phenomenology of imperfect competition, offering an important early contribution that foreshadows the subsequent developments of the general theory in this sphere. Dumping, in Jannaccone's theoretical framework, is a special case of the more general price discrimination that occurs when individual units of the same good are sold simultaneously (Cantono-Marchionatti 2010).

Analysis of the international dimension constitutes the other fundamental element of the liberal conception of the market. The Turin economists underlined that the international liberal economic order, founded on free markets and the gold standard, played an important role in allowing international economic development and the convergence process of economies. The "happy" century was defined by Einaudi as the period from 1814 to 1914, during which the regulatory function of gold prevented countries from attempting arbitrary intervention and assured stability for the world economy. In the 1930s and early 1940s, Attilio Cabiati published several books⁷ and a series of fundamental articles that appeared in *La Riforma Sociale* (Cabiati, 1924), in which he described the worldwide economic crisis as due to the collapse of the liberal order, with the abandonment of gold and the introduction of forms of protectionism⁸, and then to its partial – or "lame", as he dubbed it - re-establishment⁹: the depth and duration of the crisis could only have

⁷ See, in particular, Cabiati (1937). On Cabiati and his analysis of the international economy, see Marchionatti (2004).

⁸ The topic of the "new mercantilism" was approached by Jannaccone in a 1927 essay, partly built on Jannaccone 1918. The "new mercantilists", Jannaccone maintained, believed it could sever the links economic analysis had shown to be necessary, in particular the concatenations between monetary circulation, value of currency, price level and exchange rate.

⁹ Cabiati's analysis, conducted in the light of classical Ricardian theory - In this regard two important articles by Cabiati on monetary theory and on Ricardo's theory of comparative costs appeared in *Rivista di storia economica* (see Cabiati (1938) and (1939)) -, focused on the actions and reactions taking place in the economic system once it had shifted from its initial equilibrium, within a perspective of general economic equilibrium. In order to describe this situation of crisis, Cabiati used the term "economic pathology".

been avoided through a strong policy of international cooperation, whereas what prevailed were managed currency policies on the national level and protectionist choices.¹⁰

Einaudi and Cabiati against Keynes: for price stability and the revival of the gold standard and free trade

Taken together, these analyses and reflections enabled Einaudi to maintain, towards the end of the 1930s, that the crisis and the depression should not be attributed to the “liberal plan” - to use Robbins’ words (Robbins 1934 and 1937) - but rather to the impossibility for the “liberal plan” to operate, and to the failure to maintain the barrier against arbitrary human will that the gold standard had ensured. This makes clear the profound diffidence, albeit not always total non-acceptance, expressed by Einaudi and Cabiati vis-à-vis intervention in the market mechanisms. Their attitude was testified, from the mid 1920s onwards and throughout the 1930s, by the constant polemic with Keynes (see Marchionatti 2000) and also, although to a lesser degree, with those who at various times sided with the Cambridge economist or supported interventionist arguments, as in the case of Cassel and Fisher. Furthermore, this explains why their interpretation of the Great Crisis differed from that of Keynes: it was not the severity of the crisis, which might indeed require exceptional intervention, that the Turin economists called into question but rather its causes. Another fundamental difference between the Turin economists and Keynes resided in the interpretation and evaluation of the state of international trade. Whereas the Turin School believed that rational and efficient organization of the economic system could best be achieved through the system of open markets and the gold standard, Keynes’s position was, as is well known, sharply critical of not only of the gold standard itself but more generally of the sustainability of the old liberal order. The Turin economists, on the other hand, felt that a monetary rule such as the gold standard, which assured automatic variations in the money supply in relation to the balance of payments, offered the best guarantee of a healthy monetary system. In this context, the relative values of goods could mirror their comparative costs, and it was this principle which, in Attilio Cabiati’s thought, acted as the logical starting point for the theoretical treatment of the subject: it formed a bridge that conceptually linked the theory of international trade to that of money, within a unitary structure. Cabiati argued that the abandonment of liberal economic principles, which had been forsaken in deference to genuine or supposed political and social requirements, had led to the “natural” consequence of precipitating the whole world into a series of economic disasters. These, in turn, by triggering further political-social measures under the pressure of the offended interests, had in his view

¹⁰ Interesting contributions on this theme were offered by a pupil of Einaudi’s, Vincenzo Porri, who endeavored to mediate between the traditional liberist positions, which were favorable to the gold standard, and the heterodox positions championed by Keynes. See Sterpone (2009).

brought about new and more profound reactions in the economic organism, deforming it and diverting it away from its efficient constitution. In his view, the preferences shown for liberalism by economists such as himself were the result of “a mental state and of unpretentiousness and of unpretentious trust in the capacity of our human minds”, aware as economists were of the fact that “no brain trust is capable of predicting with certainty the indirect and remote effects of collective economic measures, especially when it is a case of open markets” (Cabiati, 1934, 14).

Reconstitution of the prewar gold standard and of a market freed from customs duties and protections was, the Turin economists believed, the necessary condition for overcoming the crisis. Such conclusions – and this Einaudi readily acknowledged – were quite traditional: “a sound currency, contracts honored, certainty about the future, open customs borders or, if they are closed, then limited exclusively by duties in a fixed amount and for a specified period of time, interest rate maneuvered in time to avert speculative folly” (Einaudi 1935, 11), but they were conclusions which, he maintained, the experience of centuries had shown to be inescapable.

Crucial in this programme was a return to a sound currency. The traumatic inflationary experience of the 1914-20 period formed the basis of Einaudi’s conclusion that inflation was an intolerable evil. Price stability should be the main aim of monetary policy, in order to guarantee that variations in the value of money would not disturb trading exchanges, contracts and expectations. An essential point of the Einaudian analysis was the adverse effect of the inflationary process on the propensity to save, the latter being a key factor of growth inasmuch as it was a pre-condition for investment. Inflation discourages saving and compromises growth, whereas saving is a function of trust in the currency; consequently, monetary policy should pursue monetary stability. Monetary stability and free trade, Einaudi stated, are the cardinal pillars of stable growth, and if these two conditions are in abeyance the economic mechanism stiffens and then stalls. He argued that it was the task of the Central Bank to translate into reality the postulate of monetary stability: and to do so, the Central Bank must be independent of the political powers-that-be. This would have the benefit of enabling the Bank to act in order to avert crises and prevent a health-giving crisis from turning into a disaster. In this context, he felt that prompt intervention to put the dampers on the economy, rejecting requests for borrowing or increasing the cost of credit for rash operators before their reckless actions become dangerous, ranked among the most important preventive moves. Analyzing monetary reform in Italy in the period between 1927 and 1930 in two articles (Einaudi 1929 and 1930), Einaudi stressed the importance of ensuring stable monetary relations: it was vital, he argued, for the Central Bank to maintain a firm and uncompromising policy in pursuing the objective of a stable exchange rate. A sound currency would then allow the achievement of a virtuous economic mechanism.

3.2. The public economy analysis

Turin economists did not advocate the economic liberalism of “anything goes”. In the polemic with Benedetto Croce, Einaudi wrote that the liberal economists “would find it disturbing to be styled as liberists in the sense of ‘anything goes’. Rather, they would prefer the term ‘neoliberals’, which they would regard as more appropriate to portray them as men eager to see the premise of ‘full competition’ come into being in the economic field, with all the innumerable legal constraints this premise involves”(Einaudi [1941a] 1954, 253).

The dramatic crisis of the liberal order lay at the root of a reflection on the conditions and characteristics of a new liberal order. It was above all Einaudi who, in the 1930s and during the wartime years, was the leading figure of this line of enquiry, which to a large extent took up again, in an expanded and more penetrating version, the analysis of public economy and economic policy conducted in the previous decades. A number of his pupils also made insightful contributions, Renzo Fubini *in primis*.¹¹ The analysis was one that could be defined as an investigation into the role of the State in a liberal order, or an order of *Good Government*, aimed at defining the policies that are “compatible” or “in conformity” (the term is taken over from Röpke) with the existence of a market. The texts in which the analysis was given its definitive formulation are essentially the essays on the democratic taxation system, which are contained in the second edition (1940) of *Miti e Paradossi della Giustizia Tributaria*,¹² and in the *Lezioni di politica sociale*, completed in 1945 and published in 1949, concerning the model of the welfare state. The fundamental questions dealt with are the social and taxation policy of a liberal State, as well as the issues concerning industrial policy (the latter in the sense of the means to remove obstacles that thwart the functioning of free competition, i.e. essentially antimonopolistic policies) and the above mentioned issues of monetary and banking policy.

The issue of the taxation policy of a liberal State concerns the implementation of a policy designed to encourage taxpayers in the direction of virtuous actions, which will help the economy to function efficiently in a context of freedom. In *Miti e paradossi della giustizia tributaria*, Einaudi wrote that “the state creates the legal and political frame work in which men can organize, invent, produce” (Einaudi 1959 [1938], 196). The active presence of the State thus translates into the

¹¹ According to Francesco Forte, “the most Einaudian” among Einaudi’s pupils was Renzo Fubini, who built up a positive conception of the public financial phenomenon as the resultant of institutional choices and of the constraints constituted by the market and individual preferences. See Forte (2004).

¹² According to Francesco Forte, who was his successor to the Chair of Public Finance at the Law Faculty of the University of Turin, Einaudi’s thought of Public Finance reached its complete accomplishment over a prolonged period during the twenty-year span from 1922 to 1940, addressing themes that ranged from the concept of income, the taxing of savings and rents, amortization of tax, justice in taxation and the theory of public choice in a democratic regime. See Forte (2004).

creation of public services; furthermore taxation – a system of taxation that increases the efficiency of resources, defined by Einaudi as the “economic” or “optimum” tax, in contrast to what was dubbed a “taille-tax” and “hail-tax”, which refer to anti-economic uses of the state revenue – is a necessary condition in order for the State to take action in pursuit of the above end. Thus taxation becomes the means through which the state creates the setting wherein economic subjects can operate efficiently.

Liberal taxation policy has four characteristics. The first is the certainty and simplicity of taxes; the second is that taxes should be levied “on enjoyment and not on hard labor and toil”; the third characteristic is that they should be graduated in such a way as to attenuate inequalities in the distribution of wealth; and finally, that taxes should provide the means to multiply the use of goods that are free of charge, to the advantage of the whole population without affecting the interest in saving and investment. The specific issues of taxation of ordinary income and of the tax-exempt status of savings represent the nucleus of Einaudian theory of Public Finance, and this is the theme to which major contributions were made by his three most eminent pupils, Gino Borgatta, Fasiani e Renzo Fubini, as well as his minor pupil Antonio Calandra¹³. On the first of the above points, Einaudi counters the concept of ordinary (or normal) income with the traditional nineteenth-century concept of taxable income. He comprehensively explores the arguments of the earlier Italian economists who had underlined the stimulus given to progress by a taxation system that fixes the tax rate on the basis of average income potential, leaving the rate unaltered regardless of whether the owner obtains a greater or lower income. On the point concerning the tax-exempt status of savings, Einaudi made an important contribution to a theme which was first discussed organically by John Stuart Mill and later resumed by Marshall and Pigou in Cambridge.

Another issue which concerned Einaudi was that the market (within the liberal institutional framework) – as he pointed out in his *Lezioni di politica sociale* – is an efficient but “cold” mechanism that takes no account of human values. This raises the question of how to ensure that market efficiency can coexist with the requirement of social justice without forsaking liberal principles on individualistic bases. The social economic legislation of a liberal State pursues as its primary objective the reduction of inequality in starting points and a reduction of excessive concentrations of wealth. Such an aim, Einaudi argued, is to be achieved through public expenditure, progressive income taxation and an inheritance tax, and this manner of proceeding – it

¹³ Cf. Forte (2004; 2009a; 2009b) and McLure (2004). Michael McLure’s study on the financial sociology of Gino Borgatta testifies to the existence of a Turinese strand of public finance that was not directly Einaudian. McLure traces the epistemological difference between Borgatta’s financial sociology and that of Pareto to the character of causation rather than interdependence, and reconstructs the Borgatta’s financial investigation as a study, both static and dynamic and progressively distancing itself from the original Paretian approach, of the effects financial measures designed to redistribute income have on the social equilibrium.

should be underlined - allows more efficient selection and thus an improvement of human capital. In the second place, social legislation should guarantee a minimum income to all persons as a means of encouraging social cohesion, and should undertake action against poverty, in harmony with the ethical value of freedom. Through these measures the advantages of the operation of the free market coexist with the requirements of social justice.

3.3. Statistics

In 1894, Salvatore Cognetti de Martiis wrote an article that appeared in *La Riforma Sociale*, where, as he recalled the successes of the experimental method in sociology, criminal anthropology and economic studies, a rhetorical question arose in his mind: “Without diligent observation of reality how can one presume to build up a treatment which claims to be scientific in that it genuinely reflects reality in the very act of illustrating it?” (Cognetti 1894, 673). And he went on to indicate the models to be followed by any serious reformer, citing the great investigations into the conditions of workers and peasants conducted in England, Belgium, Holland and Germany. Undoubtedly it was this positivism springing from Cognetti’s mould that prompted Einaudi and the Turin School to attribute a central role to statistical data, seen as a fundamental scientific tool that would draw empirically on social reality and would help to interpret and sustain the economic modernization of the country. And it is no coincidence that historiography has placed particular emphasis on the interests of Turin economists in applicative statistics, with regard to the quantification of strikes, wages, migratory flows, or dwelling typologies (see Accornero 2004; Marucco 2000).

Within this broadly shared setting, however, two aspects deserve to be highlighted more prominently. First of all, the Turin School produced statistics, acting in a collective and coordinated manner in the processing and publication of statistical data, which above all in the first decade of the twentieth century contributed to filling the severe gap left by the crisis of Italian public statistics. Luigi Einaudi grounded his interpretation of Italian economic development from the 1880s up to the First World War (Cassata-Marchionatti 2010) on a variety of original statistical investigations, springing from the very core of the Turin School: in particular, the surveys by Attilio Cabiati-*Spectator* on the “economic movement” in Italy (1902-1906); the investigations into joint-stock companies and stock market quotations by Cesare Jarach and Achille Necco (1905-1912); the goods price data from 1881 to 1913, analyzed by Necco; and, finally, *L’Italia economica*, i.e. the statistical yearbook compiled by Riccardo Bachi and published as a supplement to *La Riforma sociale* from 1908 to 1921. Far from restricting themselves to the empirical and applicative dimension of statistics, the Turin School economists produced and analyzed historical series of

primary importance, contributing at the same time to upgrading statistical knowledge in Italy and, above all, to boosting the development of methodological statistics. Some of the most prominent figures in this perspective were Riccardo Bachi and Pasquale Jannaccone, to whom are owed the most significant theoretical contributions to the Turin School in the field of economic statistics.

In the framework of his statistical studies, between 1913 and 1921 Bachi developed an independent analysis of economic “thermometers” and “barometers”, which essentially constituted the theoretical-methodological backbone of the statistical studies published in the volumes of *L'Italia Economica*. June 1916 saw the publication, in the statistical supplement to *Il Corriere Economico*, of the first “Bachi indexes”, apparently a sort of continuation of the series of goods price indexes formulated earlier by Achille Necco and subsequently by Attilio Garino Canina. But a strong element of discontinuity was represented by the different calculation methodology employed in this case. While the “Necco indexes” were based on the “de Foville method”, the “Bachi index” was a monthly index, based on the individuation of forty goods, as well as on the method of the simple arithmetical average and on adoption of the average price over the five year period from 1901 to 1905 as the base (100). As far as possible, the computation was uniformed to the English series elaborated by *The Economist*, which explicitly constituted the statistician’s reference point.

A new series of indexes was inaugurated by Bachi in 1921. Among the innovations compared to 1916 one may note: a more extended, variable and progressively greater number of goods considered; the use of a mobile base; the method of the geometric average. Thus instead of forty goods, seventy-six goods were considered by the new Bachi indexes, and in this case the “rigid correspondence with the series of *The Economist*” (Bachi 1921, 212) was no longer adopted. The previous 1901-1905 fixed base was replaced – following a line of research traceable above all to Marshall and Edgeworth – by a mobile base, derived above all from the previous year’s average price level. From 1921 onwards, the overall calculation of the role of individual indexes in the formation of group indexes and general indexes was performed with the method of the geometric average. This was a cutting-edge approach at the time, theorized by F. Stanley Jevons in 1862 but applied concretely only by the British Ministry of Trade.

Bachi’s reflections on economic barometers took as its starting point the Italian semiological tradition but then increasingly drew inspiration from the pioneering United States and British experiences. In particular, in 1913 Bachi published an essay entitled *Metodi di previsioni economiche*, in which he conducted an in-depth analysis of the two main statistical economic forecasting systems that were in use at the time: the method conceived by Roger W. Babson in the United States and the *Business prospects year book* by Joseph Davies and C. P. Hailey in Great Britain. Bachi’s proposal consisted in devising a method “intermediate between the Babson type

and the type embodied by the *Business prospects yearbook*, “such as would focus distinctly, at short intervals, on numerical data pertaining to individual groups of economic phenomena, and then would follow their trends with the aid of suitable expedients, and bit by bit integrate and complete the meaning of the indexes thereby computed with a more analytical examination of the essential circumstances in which the phenomena occur, in order to use the result to express more solidly founded forecasts on future trends” (Bachi 1913, 156). After this pioneering 1913 essay, further original contributions by Bachi to the statistical methodology of economic forecasting would not be forthcoming until the end of the 1920s. The entry “Economic barometer” written for the *Enciclopedia Italiana* marked a significant turning point and the start of a more profound analysis:¹⁴ no longer was the *Babsonchart* the methodological bellwether, but rather the “Harvard barometer”, devised by Warren M. Persons and, as from 1919, the *Review of Economic Statistics*. Barometers such as that of the *Babson Statistical Organisation* or the *Brookmire Economic Service* now struck Bachi as mere “speculative operations, without a detailed picture of the data processed and of the processing methods” (Bachi 1930c, 222), whereas “a very different character of broad and rigorous description of the data processed and of the scientific processing methods” (Bachi 1930c, 222) was to be found in the works of the Harvard Economic Studies Committee.

Together with Bachi, the most significant contribution in the field of economic statistics arose, as mentioned earlier, from the analyses conducted by Pasquale Jannaccone, who since 1916 had been professor of statistics at the University of Turin and, between 1910 and 1912, general secretary of the International Institute of Agriculture, at that time the most important international organism of economic statistics. Moreover, Jannaccone was the author of one of the most insightful critical reviews of Irving Fisher’s celebrated essay, *The Making of Index Numbers* (Jannaccone 1923). Jannaccone’s text, published in May-June 1923, is important in that it represents the only Italian review – together with a memoir by Gini (Gini 1924) on elimination methods - mentioned by Fisher in appendix IX to the third edition of *The Making of Index Numbers* (Fisher [1922] 1997, 569). In Chapter Ten of *The Purchasing Power of Money* (Fisher, 1911) the US economist had achieved the definition of index numbers by starting from the exchange equation, with the aim of recording the variation in price levels and the purchasing power of money following a variation in the monetary mass. In Fisher’s work, technical verification of 44 formulas - on the basis of eight different tests – culminated in identification of the Paasche index as the “best formula” of the price index (Boumans 2001). Eleven years later, in *The Making of Index Numbers*, Fisher examined over a hundred formulas, checking their validity on the basis of two tests – the time-reversal test, already present in 1911, and the factor-reversal test, completely new – and presenting an “ideal formula” for *all*

¹⁴ The entry in the Encyclopedia develops some arguments already present in Bachi (1929) and subsequently taken up again, still in 1930, in two articles published in the “Barometro economico” (1930a; 1930b)

purposes, corresponding to the geometric average of the Paasche and Laspeyres indexes (Dimand 1998). Jannaccone believed that Fisher's "ideal formula" should now be established as a general "measurement model" (Jannaccone 1923, 245). However, despite championing Fisher's "ideal formula"¹⁵ - rather than the *different questions, different formulas* solution advocated by Mitchell¹⁶ - Jannaccone expressed fairly stringent criticism of *The Making of Index Numbers*. Notwithstanding his "agreement with regard to the conclusions and the general structure" of the work, the crux of his dissent lay in the "manner of interpreting the very genesis of index numbers" (ibid., 246). For Fisher, index-numbers can be expressed only by an average of the variations in individual prices and not the by variation in a price level, because the latter should be calculated with an average of the prices of the various goods, which are, however, "heterogeneous quantities that cannot be compared with one another" (ibid.). In contrast, Jannaccone contested Fisher's choice to neglect the notion of "price level", as this reduced index numbers to a "mere mathematical expression" (ibid., 246). The main limit of Fisher's study thus resided, Jannaccone maintained, in his having achieved an internationally recognized theoretical result – the "ideal" formula – yet without any awareness of the full scope of its economic meaning.

In addition to its work on the plane of theoretical elaboration, the Turin School's support for the development of methodological statistics in Italy was also expressed in the world of publishing and in the academic milieu. With regard to publishing, it is worth recalling that the Fifth series of the "Biblioteca dell'Economista" included among its titles two publications on methodological statistics, considered as pioneering studies in this field in Italy: *I principii di statistica metodologica* by Rodolfo Benini and *Indici di concentrazione e di dipendenza* by Corrado Gini. And as far as academic policy is concerned, the contribution of Einaudi and Jannaccone was decisive in the promotion to Full Professor, respectively in Padua and Messina, of two rising figures of Italian methodological statistics: Corrado Gini and Giorgio Mortara.

4. The channels for circulation of ideas

The effort towards publicizing their ideas and theories represented a fundamental component of the public dimension of Luigi Einaudi and of many exponents of the Turin School.

As a leading voice of a conception of public opinion that sprang from the writings of Mill, Bagehot, Dicey, Bryce, Lippman, but also from the Lombard journalistic tradition which had arisen

¹⁵ This agreement on the "ideal formula" draws Jannaccone's position closer to that held during that same period by Walsh and Edgeworth: see Dimand (1998).

¹⁶ For a comparison between Fisher's arguments and that of Mitchell, see Banzhaf (2004).

in the context of the Italian Risorgimento, Luigi Einaudi was certainly the foremost figure in weaving a national but also international network of publishing projects, reportages in the daily and periodical press as well as scientific publications, through which the Turin scholars communicated the School's political and economic orientations. Their message was addressed, synchronically, to the ruling class, the scientific world and also "the man on the street".

La Riforma Sociale and *Rivista di Storia Economica* acted as the major public venue for the presentation and debate on the ideas of the Turin School. Under Einaudi's guidance, *La Riforma Sociale* embraced a vision that placed increasing emphasis on problems of production efficiency and the battle against protections, constraints and monopolies.

On December 26, 1910, in a memorandum circulated to the promoting partners of *La Riforma Sociale* on behalf of the editorial board, which he headed, Einaudi announced his intention of transforming the periodical into "a watchful and combative mouthpiece of cultivated public opinion in all questions concerning the Italian economy".¹⁷ In the same year the editorial board, declaring that it was speaking above all to the cultivated public and to industrialists, politicians and the "organizers of the working classes", forcefully stated that "the contents of *La Riforma Sociale* are more and more committed to the objective of creating a bridge between scholars and practitioners, and of shedding light, with the benefit of science and experience, on the most serious and crucial problems of the political and economic life of our Country".¹⁸ "Truth" – the fruit of clashes between different opinions – constituted the main source of inspiration of the journal: "modern culture" – the memorandum continued – is not merely the quest for intellectual refinement, to be bestowed on individuals; it is a tool of life, a mighty weapon of struggle, a means of conquest, without which the Nations can enjoy neither wealth, nor true, lasting, efficient force or liberty". And building further on the basis of these ideal values, the Einaudian editorial committee would later go on to address its subscribers and supporters, defining them as "an elect group", an "aristocracy of scholars as also of the businessmen of the country".¹⁹ The approach espoused by *La Riforma Sociale* was celebrated as "a free civil training ground"²⁰ of debate, the intent of which was to make "a useful contribution to the exchange of ideas which, alone, offers the promise of a more enlightened public opinion and a wiser and more effective action by the Public Powers."²¹

¹⁷ Editorial Board to the "subscribers, readers and friends", 26 Dec 1910, AFLE, Box Correspondence, Folder Riforma Sociale Subscribers and readers (1900-1912).

¹⁸ Editorial Board to the "subscribers, readers and friends", 1910, AFLE, Box Correspondence, Folder Riforma Sociale Subscribers and readers (1900-1912).

¹⁹ Editorial Board to the "subscribers, readers and friends", 9 Feb 1923, AFLE, Box Correspondence, Folder Riforma Sociale Subscribers and readers (1913-1924).

²⁰ Editorial Board to the "subscribers, readers and friends", 7 Mar 1914, AFLE, Box Correspondence, Folder Riforma Sociale Subscribers and readers (1913-1924).

²¹ Editorial Board to the "subscribers, readers and friends", Mar 1919, AFLE, Box Correspondence, Folder Riforma Sociale Subscribers and readers (1913-1924).

Again – – *et pour cause* – in his last letter to the subscribers, in 1935, Einaudi was to have no hesitation in speaking of “spiritual correspondence”, proudly upholding his many decades of “endeavoring to contribute to the quest for scientific truth applied to analysis of the current concrete economic problems.”²²

The convergence between the Einaudian *Riforma Sociale* and the Turin School positions can be discerned not only in the common ideal project and the presence of a majority of scholars who had developed their work in the Laboratory of the School, but also in the *centralized and coordinated* character assumed by their theoretical studies, their statistical investigations and the polemical debates hosted from time to time in some issues of the journal. One need only mention the convergent plurality of voices that resounded in the journal’s campaign against customs protectionism, the State monopolies and the cartels tolerated or favored by the State itself.

The collective and choral dimension can also clearly be perceived in the manner in which Einaudi publicized the results of research published in *La Riforma Sociale*, which appeared on the front pages of daily newspapers such as *La Stampa* and above all the *Corriere della Sera*. In this perspective, Einaudi’s contributions as a journalist ended up “translating” the scientific production of the Turin School into economic and political behavioral guidelines destined to a broader public. For instance, the *Rivista economico-finanziaria dell’Italia nel periodo 1885-1901* that had been published by Cabiati in *La Riforma Sociale* became an important reference point for a number of articles by Einaudi, written in 1902 for the newspaper *La Stampa*, on the description of the “economic resurrection of Italy” (Einaudi 1902). In November 1905, on the front page of *Corriere della Sera*, Einaudi emphasized the “wide array of interesting considerations” contained in the study by Cesare Janach on the development and profits of Italian joint stock companies from 1882 to 1903 (Janach 1905). From 1911 onwards, Einaudi began to refer to the data contained in Riccardo Bachi’s statistical yearbook – *L’Italia economica* – in order to provide an empirical corroboration of his own “economic prophecies” published in the editorials of *Corriere della Sera*. By checking these publications against Einaudi’s correspondence it becomes clear that the Turin School extended far beyond a purely national dimension, and looked towards an international arena. An example taken from the exchange of correspondence between Einaudi and Irving Fisher will contribute to illuminating this aspect. In January 1911, Einaudi sent Fisher a copy of the Necco indexes, published in *La Riforma Sociale*.²³ One year later, the United States economist encouraged Einaudi to become involved in the plan for the constitution of an *International Commission on the Cost of Living*, which the United States economist was seeking to set up. Fisher was particularly

²² Editor-in-Chief to subscribers and readers, 3 Dec 1935, AFLE, Box Correspondence, Folder Riforma Sociale Subscribers and readers (1925-s.d.).

²³ Fisher to Einaudi, 25 Jan 1911, AFLE, Luigi Einaudi Papers Box Correspondence, Folder I. Fisher.

interested in asking Einaudi to intervene on his behalf and obtain the support of the political authorities, and more generally of the Italian audience.²⁴ Einaudi responded positively, publicizing Fisher's initiative in no less than *Corriere della Sera*, in the article *È possibile frenare il rincaro della vita ed il ribasso delle rendite pubbliche?*, published on 27 February 1912 (Einaudi, 1912).

As far as communication is concerned, a noteworthy feature within the Turin School is the subdivision of roles that appears to distinguish the position of Pasquale Jannaccone from that of Einaudi and Cabiati, the latter two names being often associated together. Jannaccone was very active in organizing collective projects underpinned by a broad theoretical and academic background: first and foremost the 5th series of the *Biblioteca dell'Economista*, which, under his editorship, published fundamental works of neoclassical economic thought, labor economics, the theory of finance and statistics; and secondly, the Laterza-Yale University Press series on the economic history of the first world war, several issues of which would publish two monographic studies by Einaudi on the taxation system and on economic policy during the conflict (Einaudi 1927; 1933) as well as the essay by Bachi on the problems of food and agriculture (Bachi 1926) and the contribution by Prato on the effects of war in Piedmont (Prato 1925).

Einaudi and Cabiati, on the other hand, long acted in a sort of synergy, where theoretical reflection, destined above all to *La Riforma Sociale*, was connected with a wide-ranging and convergent journalistic engagement in some of the major daily newspapers.²⁵ It was a young Einaudi, already a well-known economist and journalist, who in 1901 suggested to Cabiati that the latter should consider the opportunity of moving to Turin, in order to take up an editorial position with *La Stampa* and *La Riforma Sociale*. Cabiati accepted the proposal, beginning at *La Stampa*, and his activity at the Turin newspaper was soon extended to include *La Riforma Sociale*, where – between 1901 and 1904 – he published several contributions (reviews, essays, articles) on a variety of topics. After a brief Milanese intermezzo, where he was involved in the establishment of the Labor Bureau, Cabiati succeeded in returning to Turin and to the editorial staff of *La Stampa*, again through Einaudi's intercession. During this first period, the two economists, both strongly committed to the anti-protectionist and free trade struggle, looked favorably on reformist socialist conceptions, and between 1901 and 1903 they did not eschew voicing their opinions in Turati's *Critica Sociale* (Turati was the leader of socialist party at that time). A second phase of the close interaction between Einaudi and Cabiati can be observed in the early postwar period. Cabiati had established a stable working agreement with the Milan newspaper *Il Secolo*, thus breaking off his contributions to *La Stampa*, which he resumed in December 1921 and maintained until the end of 1925, when he was obliged to resign due to the complete fascistization of the newspaper, as

²⁴ Fisher to Einaudi, 19 Jan 1912, AFLE, Luigi Einaudi Papers Box Correspondence, Folder I. Fisher

²⁵ On the relationship between Einaudi and Cabiati, see Marchionatti (2005).

likewise happened to Einaudi with regard to the *Corriere*. During the years in question and up to the advent of Fascism these three newspapers represented the venues where Einaudi and Cabiati, benefiting from the extensive debate prompted by the coverage of their ideas in such important symbols of the Italian press, engaged in a concerted effort to further their liberal battles in economics. They shared the same positions on the main international problems of the day, and were far from complimentary in their assessment of the Italian ruling class. Their contributions in the field of journalism were also accompanied by their joint involvement in cultural and economic activities and projects, leading to what could be defined as a Turin-Milan axis. As from 1919, Cabiati worked with the Associazione Bancaria Italiana and with the Banca Commerciale, organizing these institutions' economic research office and directing the Association's *Bollettino economico* and, from 1920, the financial section of the *Rivista Bancaria*. Thus while Einaudi soon enlisted Cabiati to help with the Bocconi University project, Cabiati himself opened up the *Bollettino* and the *Rivista Bancaria* to figures (and ideas) forming part of the Turin School: not only Einaudi but also Prato, Borgatta and Fubini.

Starting from 1925, and for over a decade, *La Riforma Sociale* remained the School's chief means of expression, and the presence of Einaudi and Cabiati in its daily activities quite naturally became intensified, orphaned as they had been of their respective newspaper assignments. After 1935, the publishing house, founded in 1933 by Luigi Einaudi's son, Giulio Einaudi, took on the task of circulating and publishing the political-economic positions of the Turin School. It was here that a number of essays by Cabiati, Jannaccone and Bachi came out, but one of the most important undertakings of the Giulio Einaudi publishing house during this period was its publication of *Rivista di Storia economica*, where the majority of articles and reviews that appeared were those of Einaudi, followed by Cabiati, Bachi, Jannaccone, Repaci, Carano Donvito, and by some of the younger generations belonging to the School, such as Mario Lamberti, Mario De Bernardi and Aldo Mautino.

These were the years that saw increased focus on the international relations of the School, probably as a result of the growing pressure of censorship exerted by the fascist government. Einaudi, who in April 1921 had accepted the proposal put forward by the editor of *The Economist*, Hartley Withers, to become a permanent correspondent of the prestigious periodical, to which he had already been contributing since 1908, wrote over 220 articles for the English journal between 1920 and 1935, with an average of roughly 14 articles a year (Einaudi 2000). As far as the German-speaking cultural area was concerned, the *Zeitschrift für Nationalökonomie* hosted articles and reviews by Cabiati and Einaudi, starting from 1934 and 1936 respectively. Also, between 1930 and 1940 a number of articles by Cabiati, as well as Einaudi and Fubini, came out in the

Weltwirtschaftliches Archiv of Kiel. The presence of the Turin School in the *Finanzarchiv* was less evident, although a significant essay by Renzo Fubini was published in the latter journal in 1934.

This correspondence clearly indicates the international attention devoted to the Turin School. In 1932, Paul Rosenstein-Rodan mentioned to Einaudi that he had read out the just published issue of *Riforma Sociale*, translating it into English, to “an association of ours here (in the presence of Hayek, Robbins, Hicks, Dalton, etc.)”,²⁶ as well as having translated into English an article by Einaudi²⁷ at an *English Tea* gathering, an article “that represents the peak of elegance, spiritedness, clarity and precision in the sphere of monetary writings”. The reading, he went on, aroused “unanimous admiration and enthusiasm”.²⁸ Two years later, in 1934, Arthur W. Marget, in Italy for his sabbatical year, asked Cabiati if they could meet in order to enhance and explore in greater depth relations with the Italian economists, mentioning that he was already acquainted with their work, which he held in high regard²⁹ At the same time, Marget also contacted Einaudi, writing that he did not wish to miss an opportunity to convey his “profound admiration and friendship” towards the “Turin group”.³⁰ And again in 1934, Lionel Robbins wrote to Cabiati, defining his essay *Crisi del liberismo o errori degli uomini?* as “highly accomplished and important”.³¹ Three years later, Robbins once more expressed his solidarity towards Cabiati: “the work of you and your colleagues at Turin in these difficult times is a matter of admiration for all of us”.³²

Similarly, the diary of Henry Schulz, an economist at the University of Chicago who ranked as one of the major scholars in this field at the time, testified to the symbolic relevance of the antifascism expressed by the Turin School. Between August 1933 and August 1934 Schultz was in Europe for his sabbatical year, spending March and April in Italy. He met with Cabiati, Jannaccone and Einaudi, between 18 and 20 April. Of Cabiati he wrote in his diary: «Another true liberal. Claims he and Einaudi are the only men left in Italy who are not muzzled... Was denied passport to go to London. Laughed at the notion of the existence of a theory of corporative economics».

Einaudi described to Schultz the limitations on personal freedom imposed by the fascist regime. The American economist related the conversation as follows:

He explained to me his position and that of Cabiati, who with Croce, are the only unmuzzled men left in recent days in Italy. La Riforma Sociale is the only critical journal left in Italy. Its

²⁶ Rosenstein-Rodan to Einaudi, 4 Mar 1932, AFLE, Luigi Einaudi Papers, Box Correspondence, Folder Rosenstein-Rodan Paul N..

²⁷ The reference is probably to Einaudi (1932b).

²⁸ Rosenstein-Rodan to Einaudi, 9 Mar 1932, AFLE, Luigi Einaudi Papers, Box Correspondence, Folder Rosenstein-Rodan Paul N..

²⁹ Marget to Cabiati, 24 Jan 1934, AFLE, Attilio Cabiati Papers.

³⁰ Marget to Einaudi, 6 Sep 1934, AFLE, Luigi Einaudi Papers, Box Correspondence, Folder Marget Arthur W.

³¹ Robbins to Cabiati, 8 Mar 1934, AFLE, Attilio Cabiati Papers.

³² Robbins to Cabiati, 20 May 1937, AFLE, Attilio Cabiati Papers.

days appear, however, to be numbered for the newly-promulgated regulations require that the galley-proofs should be submitted to and approved by the local censor (prefect of police) before the article can be published. His mail is being opened and his telephone is being tapped. It appears that the contents of his mail (as well as that of other dissenters) are photographed and sent to Rome. The newspapers are told what to write and how much space to devote to each subject.³³

It is hardly a coincidence that precisely the international channels of communication once again offered the Turin School an opportunity for expression and survival. For instance, in 1933 Einaudi asked Rosenstein-Rodan and the Rockefeller Foundation for financial help in favor of *La Riforma Sociale* and the Laboratory,³⁴ while the role he had been awarded as advisor of the Rockefeller Foundation for the selection of scholarship candidates enabled him to assist the careers of some pupils of the Turin School. By 1938, however, it would no longer be a question simply of continuing scientific research, but of protecting the very essence of existential and professional equilibria: it was Einaudi himself who would mobilize his contacts to defend and safeguard the Jewish exponents of the Turin school, such as Riccardo Bachi, or of other academic environments, as in the case of the statistician Giorgio Mortara.

5. Conclusions

Schumpeter wrote that by about 1914 Italian economics had “attained a high level in a variety of lines and in all applied fields”. The present essay has re-examined the historical developments involving the economists who built up a group at the University of Turin centering around the figures, first, of Salvatore Cognetti de Martiis and subsequently of Luigi Einaudi. The findings of the paper delineate a forty-year period extending from the mid 1890s to the end of the 1930s during which the Italian scholars developed a school capable of expressing a range of thought of high value in the political and economic sphere.

The Turin school was the cradle of Italian economic and political liberalism in the first half of the twentieth century. Moreover, not only did it show itself capable of influencing national public attitudes and intervening in international debate, but it was a genuine protagonist in Italian

³³ Schultz’s diary has not been published. The citations are taken from the copy held by Schultz’s colleague and friend, the economist Frank Knight, which is currently part of the Knight Papers, stored at the Modern Archives, Regenstein Library of the University of Chicago. A special thanks to the librarian and the library staff for their kind assistance in my archival research.

³⁴ Rosenstein-Rodan to Einaudi, 5 Jan 1933, AFLE, Luigi Einaudi Papers, Box Correspondence, Folder Rosenstein-Rodan Paul N..

economic and public affairs right up to the 1940s, thereby acting as one of the focal points of resistance and opposition to fascism. In the economic field, the Turin School proposed a methodological perspective founded on the teachings of Menger, Marshall and Pareto, which established a fertile relation between historical-empirical work and economic theory. On this basis the School enquired into the interaction between freedom and the social economic order. In particular, grounding its arguments on a classical-neoclassical conceptual structure, the School conducted an in-depth investigation of the concept of the competitive market, considered as an efficient mechanism *if* appropriately regulated. As part of its investigation, the School offered important analyses on themes such as protectionism, dumping, and the conditions of the functioning of the international economic order. In fact it was precisely as a result of the crisis of the liberal international system after the First World War that Einaudi was prompted to study the possibility, conditions and characteristics of a new liberal post-war order, putting forward his penetrating analyses of taxation and of a model of the welfare state conforming to a liberal society. Finally, especially in the 1920s and 1930s, the Turin School contributed, to bridging the gap left by the lack of statistical information caused by the organizational crisis of Italian public statistics; thus the work achieved by the Turin group in this sphere encouraged a process of modernization and updating of knowledge on the subject of economic statistics.

The present study has set the history of the School within a forty-year span starting from the mid 1890s. Thereafter the Turin School, which became increasingly limited in its means of expression and its international relations during the dark years of fascism, progressively lost its thrust, above all from the mid-1930s onwards. The interruption of the publication of *La Riforma Sociale*, in 1935, followed by that of *Rivista di Storia Economica* at the end of 1943, marked two turning points in this process. The subsequent political events led to a decline in the public role of the masters: Einaudi fled into exile in Switzerland in 1943 in order to escape being arrested; Cabiati, dismissed from his teaching post in 1939 on account of his courageous stand against the racial laws, was struck down by a severe illness in 1940, which led to a relentless deterioration of his health and eventually to his death in 1950; Jannaccone remained on the sidelines of the world of public affairs throughout most of the 1930s. Many of the pupils who might have allowed the Turin economic School to develop further and undergo renewal could no longer take an active part: Sraffa, threatened by the fascists and invited to Cambridge by Keynes, had already opted for transfer to England from as early as the 1920s; Rosselli engaged in active resistance against the fascist regime until his assassination in 1937³⁵; Porri died suddenly in 1934; Fubini died in the Nazi concentration

³⁵ In the mid 1920s Cabiati had made plans for a university career in Italy for Sraffa and Rosselli. He wrote to Einaudi in late 1924 as follows: "Here [in Genoa] we have already made arrangements for political economy, appointing [Carlo] Rosselli, whom you know at Bocconi. Our desire, and mine in particular, would be to go on like this, for the moment,

camps in 1944; Bachi went into exile abroad; Mautino died in 1943; Lamberti in 1945. After the collapse of fascism, once the war had ended, the school no longer existed. And the endeavors of the now elderly Einaudi and Jannaccone, despite the public positions of prestige they occupied in postwar Italy (Einaudi was Governor of the Bank of Italy, Minister of Economy and then President of the Republic; Jannaccone was nominated Senator), were unable to re-establish it. The shared elements, such as the institutional environment, the existence of channels for circulation of the ideas and works produced, the awareness of being a *school*, in other words those very factors that had made the Turin group into a School in the strong sense, now were no more.

until these young researchers who are making their way in economics, such as Rosselli, Piero Sraffa, are able to take part in an open competition, in which they will undoubtedly be the victors, surpassing a quantity of our colleagues, who most certainly cannot rival them in mental force". (Cabiati to Einaudi, 26 Nov 1924, AFLE, Luigi Einaudi Papers, Box Correspondence, Folder A. Cabiati).

Appendix

Main epistolary relations of Luigi Einaudi and Attilio Cabiati with economists outside Turin School

Correspondents exchanges with Einaudi (n. letters) period exchanges with Cabiati (n. letters) period

In Italy:

Achille Loria	86 letters to E.; 48 da E.	1896-1932		
Antonio Graziadei	232 letters to E., 12 da E.	1896-1951		
Vilfredo Pareto	30 letters to E., 3 from E.	1897-1923	1 letter to C.	1920
Maffeo Pantaleoni	13 letters to E., 1 from E.	1898-1919		
Enrico Barone	31 letters to E., 3 from E.	1899-1924		
Antonio De Viti De Marco	59 letters to E., 4 from E.	1899-1939	11 letters to C.	1931-1938
Bresciani-Turroni	40 letters to E., 6 from E.	1904-1961	7 letters to C.	1926-1940
Umberto Ricci	255 letters to E., 3 from E.	1903-1944	4 letters to C.	1934-1941
Marco Fanno	44 letters to E., 6 from E.	1903-1960	2 letters to C.	1931-1937
Gustavo Del Vecchio	70 letters to E., 7 from E.	1904-1961	3 letters to C.	1927-1934
Giorgio Mortara	91 letters to E., 8 from E.	1907-1961	6 letters to C., 1 from C.	1925-1941
Corrado Gini	90 letters to E.; 21 from E.	1910-1959	3 letters to C.	1927

On the international level:

Irving Fisher	35 letters to E., 4 from E.	1911-1935		
Edwin R. A. Seligman	79 letters to E., 45 from E.	1898-1939		
Francis Y. Edgeworth	24 letters to E., 2 from E.	1900-1918		
Frank W. Taussig	40 letters to E., 10 from E.	1901-1937		
John Maynard Keynes	15 letters to E., 12 from E.	1915-1936		
Oskar Morgenstern	28 letters to E., 10 from E.	1928-1961		
Paul Rosenstein-Rodan	59 letters to E., 6 from E.	1930-1951		
Friedrich von Hayek	14 letters to E., 7 from E.	1932-1961		
Lionel Robbins	9 letters to E., 3 from E.	1933-1955	3 letters to C.	1934-1938
Wilhelm Röpke	30 letters to E., 6 from E.	1934-1961	3 letters to C.	1937-1940
Arthur Marget	16 letters to E.	1934-1959	3 letters to C.	1934-1937

Source: AFLE, Luigi Einaudi Papers and Attilio Cabiati Papers

References

- Accornero, C. 2000. Scienze sociali e città industriale. Alle origini della sociologia urbana. In *Una rivista all'avanguardia. La "Riforma Sociale" 1894-1935. Politica, società, istituzioni, economia, statistica*, edited by C. Malandrino. Florence: Olschki: 131-70
- Bachi, R. 1913. Metodi di previsioni economiche. *Rivista delle Società commerciali* 3. 8-9: 143-60.
- . 1921a. Nuova serie di numeri indici per il movimento dei prezzi delle merci in Italia nel commercio all'ingrosso. *L'Economista* 52.2451 (April 24): 210-17.
- . 1921b. Nuova serie di numeri indici per il movimento dei prezzi delle merci in Italia nel commercio all'ingrosso. *L'Economista* 52.2455 (May 22): 270-72.
- . 1926. *L'alimentazione e la politica annonaria in Italia*. Bari-New Haven: Laterza-Yale University Press.
- . 1929. *La politica della congiuntura: prevenzione e attenuazione degli effetti delle crisi economiche*. Rome: Bocca.
- . 1930 a. Il problema della previsione economica. *Barometro economico* 2. 4 (April):1.
- . 1930b. Il problema della previsione economica. *Barometro economico* 2. 5 (May): 1.
- . 1930c. Barometro economico, in *Enciclopedia italiana Treccani*, v. 6, Rome: Istituto della Enciclopedia Italiana: 221-22.
- Banzhaf, H. S. 2004. The Form and Function of Price Indexes: A Historical Accounting. *History of Political Economy*. 36, 4: 591-603.
- Becchio, G. 2004. Salvatore Cognetti de Martiis e il Laboratorio di Economia politica (1893-1901). *Il Pensiero economico italiano* 2: 11-24.
- Boumans, M. 2001. Fisher's Instrumental Approach to Index Numbers. In *The Age of Economic Measurement*, edited by J. L. Klein and M. S. Morgan. *History of Political Economy*. 33 (Supplement): 329-32.
- Cabiati, A. [Spectator] 1906. Alcuni indici del movimento economico in Italia. *La Riforma Sociale* 16.7: 537-54.

- . 1914. Prime linee per una teoria del “dumping” (a proposito dell’accordo siderurgico italo-tedesco). *La Riforma Sociale* 25.3: 193-226.
- . 1934. *Crisi del liberismo o errori di uomini ?*. Turin: Einaudi.
- . 1937. *Fisiologia e patologia economica negli scambi della ricchezza tra gli Stati*. Turin: Giappichelli.
- . 1938. Quel che è vivo e vero nella teoria quantitativa della moneta di Davide Ricardo. *Rivista di storia economica* 3. 2: 93-115.
- . 1939. La dottrina dei costi comparati ed i suoi critici. *Rivista di storia economica* 4.1: 1-31.
- Cantono, S., and R. Marchionatti, 2010. *Dumping as Price Discrimination. Pasquale Jannaccone's Dumping Theory*. CESMEP Working Papers. University of Turin.
- Cassata, F., and R. Marchionatti. 2010. *Cronache economiche di un trentennio. Lo sviluppo dell’economia italiana 1881-1913 nell’interpretazione di Luigi Einaudi e la sua scuola*. *Rivista di Storia Economica* 26.2 (August):
- Cognetti de Martiis, S. 1886. L’economia come scienza autonoma. *Giornale degli Economisti* 2: 166-203.
- . 1894. Lo spirito scientifico negli studi sociali. *La Riforma Sociale* 1.2: 673-92.
- Croce, B. 1931. *Introduzione ad una storia d’Europa nel secolo decimonono*. Bari: Laterza.
- Dimand, R. W. 1998. The Quest for an Ideal Index. Irving Fisher and *The Making of Index Numbers*, in *The Economic Mind in America*, edited by M. Rutherford. London: Routledge.
- Einaudi, L . 1902. “Una statistica lieta. Come in Italia i consumi aumentino.” *La Stampa*, February 16.
- . 1911. I trivellatori di stato. *La Riforma Sociale* 22.1: 1-14.
- . 1912. È possibile frenare il rincaro della vita ed il ribasso delle rendite pubbliche?. *Corriere della Sera* (February 27th).

- . 1926. La fine del“ laissez-faire” ?. *La Riforma Sociale* 37. 11-12: 570-73.
- . 1927. *La guerra e il sistema tributario italiano*. Bari-New Haven: Laterza-Yale University Press.
- . 1928. Dei concetti di liberismo economico e di borghesia e delle origini materialistiche della guerra. *La Riforma Sociale* 35.39: 501-16.
- . 1929. Il contenuto economico della lira dopo la riforma monetaria del 21 dicembre 1927. *La Riforma Sociale* 40.1-2: 505-23
- . 1930. Dei metodi per arrivare alla stabilità monetaria e se si possa ancora parlare di crisi di stabilizzazione della lira. *La Riforma Sociale* 41.5-6: 227-61.
- . 1931. Dei diversi significati del concetto di liberismo economico e dei suoi rapporti con quello di liberalismo. *La Riforma Sociale* 42.3-4: 186-94.
- . 1932a. Il problema dell’ozio. *La cultura* 11.1: 36-47.
- . 1932b. La crisi è finita ?. *La Riforma Sociale* 43.1: 73-79.
- . 1933. *La condotta economica e gli effetti sociali della guerra italiana*. Bari-New Haven: Laterza-Yale University Press.
- . 1935. Introduction to L. Robbins, *Di chi è la colpa della grande crisi* ?. Turin: Einaudi: 9-14.
- . 1936. Lo strumento economico nella interpretazione della storia. *Rivista di Storia Economica* 1.2: 149-58.
- . [1937]. 1988. Tema per gli storici dell’economia: Dell’anacoretismo economico. *Rivista di Storia Economica* 2.2: 186-95, republished in B. Croce, L. Einaudi, *Liberismo e liberalismo*, Ricciardi, Milan-Naples: Ricciardi, pp. 134-50.
- . [1938] 1940. *Miti e paradossi della giustizia tributaria*. Turin: Einaudi.
- . 1940. Le premesse del ragionamento economico e la realtà storica. *Rivista di Storia Economica* 5.3: 179-99.

-. [1941a]. 1954 Ancora su “Le premesse del ragionamento economico. *Rivista di Storia Economica* 6.1: 43-50, republished in L. Einaudi, *Il Buongoverno. Saggi di economia e politica (1897-1954)*: Bari: Laterza: 248-58.

-. [1941b]. 1954. Intorno al contenuto dei concetti di liberismo, comunismo, interventismo e simili. *Argomenti* 9: 18-34, L. Einaudi, *Il Buongoverno. Saggi di economia e politica (1897-1954)*: Bari: Laterza: 264-287.

-. 1942-1943. Ipotesi astratte ed ipotesi storiche, e dei giudizi di valore nelle scienze economiche. *Atti della R. Accademia delle Scienze di Torino* 78.2: 57-119.

-. 1949. *Lezioni di politica sociale*. Turin: Einaudi.

-. 2000. “From our Italian correspondent”. *Luigi Einaudi’s articles in The Economist, 1908-1946*, edited by R. Marchionatti. 2 vols. Florence: Olschki.

Fisher, I. 1911. *The Purchasing Power of Money*. London: Macmillan.

-. [1922] 1997. *The Making of Index Numbers*. London: Pickering & Chatto.

Forte, F. 2004. Alla scuola di Luigi Einaudi. Il risparmio e l’imposta da Einaudi a Fubini. *Il pensiero economico italiano* 2: 57-76.

-. 2009a. La teoria dell’economia pubblica e le regole dell’ottima tassazione secondo Renzo Fubini. In *La Scuola di economia di Torino. Co-protagonisti ed epigoni*, edited by R. Marchionatti. Florence: Olschki: 295-323.

-. 2009b. Attilio Garino Canina, Antonio Calandra e Francesco Antonio Repaci, studiosi di politica economica e scienza delle finanze. In *La Scuola di economia di Torino. Co-protagonisti ed epigoni*, edited by R. Marchionatti. Florence: Olschki: 165-93.

Gini, C. 1924. Quelques considerations au sujet de la construction des nombres indices des prix et des questions analogues. *Metron* 4.1: 3-162.

Giordano, A. 2006. *Il pensiero politico di Luigi Einaudi*, Genoa: Name Edizioni.

Jannaccone, P. 1899. Il momento presente negli studi economici *La Riforma Sociale* 9.2: 101-28.

-. 1907. Questioni controverse nella teoria del baratto. *La Riforma Sociale* 18.8: 645-75.

- . 1909. Alle frontiere della scienza economica, *La Riforma Sociale* 21.1: 18-42.

- . 1910. Alle frontiere della scienza economica. *La Riforma Sociale* 21.1: 18-42.

- . 1914a. Teoria e pratica del Dumping: a) il Dumping e la discriminazione dei prezzi. *La Riforma Sociale* 25.3: 234-76.

- . 1914b. Teoria e pratica del Dumping: b) prezzi di guerra: a proposito di sindacati, Dumping e protezione. *Rivista delle Società commerciali* 4.6: 492-507.

- . 1918. Relazioni fra commercio internazionale, cambi esteri e circolazione monetaria in Italia nel quarantennio 1871-1913. *La Riforma Sociale* 29.11-12: 513-90.

- . 1923. Note critiche di statistica economica. II. Sulla misura delle variazioni dei prezzi. *La Riforma Sociale* 35.5-6 (May-June): 241-65.

- . 1927. *La bilancia del dare e dell'avere internazionale con particolare riguardo all'Italia*. Milan: Treves.

- Jarach. C. 1905. Lo sviluppo ed i profitti delle società per azioni italiane dal 1882 al 1903. *La Riforma Sociale* 15: 669-766.

- Keynes, J. M. 1926. *The end of laissez-faire* (1926), London: Hogarth Press.

- Marchionatti, R. 2000. La “pericolosità del camminare diritti sui fili di rasoio.” Einaudi critico di Keynes. In *Una rivista all'avanguardia. “La Riforma sociale” 1894-1935*, edited by C. Malandrino. Florence: Olschki: 379-415.

- . 2004. Attilio Cabiati, un economista liberale di fronte al crollo dell'ordine economico internazionale. *Il pensiero economico italiano* 12. 2: 119-38.

- . 2005. Luigi Einaudi e Attilio Cabiati. Appunti su un'amicizia e un sodalizio intellettuale. In *Luigi Einaudi: istituzioni, mercato e riforma sociale*. Rome: Bardi Editore: 335-44.

- . 2007. On the Application of Mathematics to Political Economy. The Edgeworth-Walras-Bortkiewicz Controversy, 1889-1891. *Cambridge Journal of Economics* 31.2: 291-307.

- . ed. 2009. *La Scuola di economia di Torino. Co-protagonisti ed epigoni*. Florence: Olschki.
- . forthcoming. Attilio Cabiati. Profilo di un economista liberale. In *Bibliografia degli scritti di Attilio Cabiati*, edited by F. Cassata, and R. Marchionatti.
- Marucco, D. I numeri di una società dinamica. La scienza statistica e i suoi cultori. In *Una rivista all'avanguardia. "La Riforma sociale" 1894-1935*, edited by C. Malandrino. Florence: Olschki: 247-96.
- McLure, M. 2004. La sociologia finanziaria di Gino Borgatta. *Il pensiero economico italiano* 12. 2: 191-204.
- Mornati, F. 2004. La riflessione epistemologica della Scuola di Torino: Pasquale Jannaccone critico di Pareto. *Il pensiero economico italiano* 12.2: 155-66.
- Necco, A. 1910. *La curva dei prezzi delle merci in Italia negli anni 1881-1909*. Turin: STEN.
- . 1915. *Il corso dei titoli di borsa in Italia dal 1861 al 1912*. Turin: STEN.
- Prato, G. 1925. *Il Piemonte e gli effetti della guerra sulla sua vita economica e sociale*. Bari-New Haven: Laterza-Yale University Press.
- Robbins, Lionel. 1934. *The Great Depression*. London: Macmillan.
- . 1937. *Economic planning and international order*. London: Macmillan.
- Schumpeter, J. 1954. *History of Economic Analysis*, New York: Oxford University Press.
- Silvestri, P. 2008. *Il liberalismo di Luigi Einaudi o del Buongoverno*, Soveria Mannelli (CZ): Rubbettino.
- Sterpone, A. *Il libero scambio nel pensiero di Vincenzo Porri*. In *La Scuola di economia di Torino. Co-protagonisti ed epigoni*, edited by R. Marchionatti. Florence: Olschki: 195-223.
- Viano, C. A. 2005. Croce e Einaudi: due liberalismi. *Quaderni di storia dell'Università di Torino* 7: 99-121.
- Viner, J. 1923. *Dumping, A Problem in International Trade*. Chicago: University of Chicago Press.

