

# The Neglect of the French Liberal School in Anglo-American Economics: A Critique of Received Explanations

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For roughly the first three quarters of the nineteenth century, the “liberal school” thoroughly dominated economic thinking and teaching in France.<sup>1</sup> Adherents of the school were also to be found in the United States and Italy, and liberal doctrines exercised a profound influence on prominent German and British economists. Although its numbers and authority began to dwindle after the 1870s, the school remained active and influential in France well into the 1920s. Even after World War II, there were a few noteworthy French economists who could be considered intellectual descendants of the liberal tradition.

Despite its great longevity and wide-ranging influence, the scientific contributions of the liberal school and their impact on the development of European and U.S. economic thought—particularly on those economists who are today recognized as the forerunners, founders, and early exponents of marginalist economics—have been belittled or simply ignored by most twentieth-century Anglo-American economists and historians of thought.

A number of doctrinal scholars, including Joseph Schumpeter, have noted and attempted to explain the curious neglect of the school in the English-language literature. In citing the school’s “analytical sterility” or “indifference to pure theory” as a main cause of its neglect, however, their explanations have overlooked a salient fact: that many prominent contributors to economic analysis throughout the nineteenth and early twentieth centuries expressed strong appreciation of or weighty intellectual debts to the purely theoretical contributions of the liberal school.

In this article, I present evidence demonstrating that economists as diverse in analytical approach and ideological preference as Eugen von Böhm-Bawerk, Vilfredo Pareto, Francesco Ferrara, Gustav Cassel, and Othmar Spann found scientific merit in the works of various liberal economists. In addition, I suggest that the Turgot-Say subjective value tradition, as embodied and extended in the works of later French liberal economists, was the primary scientific inspiration for two important movements in the evolution of nineteenth-century Anglo-American economics.

One such movement involved British Commonwealth economists writing in opposition to the declining but entrenched Ricardo-Mill orthodoxy in the 1850s and 1860s. Their explicit and thorough grounding in subjectivist liberal economics led them to construct alternative theoretical organons which comprised significant marginalist insights. This movement culminated in the publication of William Stanley Jevons' momentous work (Jevons [1871] 1970).

The second movement, which was heavily indebted to the French liberal Frederic Bastiat, emerged in the post-Civil War United States and involved a thoroughgoing attempt to recast economics as a pure science of exchanges or catallactics whose foundations lie in the subjective data of human wants. American catallactic economists also perfected a tradition of analysis of money, banking, and macroeconomic fluctuations that was traceable to earlier French liberal economists, especially Count Destutt de Tracy. Significant elements of the United States catallactic tradition were embodied in the work of Francis A. Walker, one of the first American economic theorists to achieve worldwide recognition.

In the second section of this article, I adduce significant evidence of the neglect of the French liberal school in the Anglo-American doctrinal literature. The third section surveys the explanations of this oversight proposed by earlier writers and suggests that these explanations fail to come to terms with the extensive influence of liberal economics on the evolution of general economic theory in the latter half of the nineteenth century. Detailed exploration of some of the channels of this influence is undertaken in the next section. The article concludes with a brief suggestion of the direction in which an alternative resolution of the issue must be sought.

## Evidence of Neglect

The leaders of the later British classical school dismissed their French contemporaries as, at best, epigones of Adam Smith and David Ricardo. As Marian Bowley ([1937] 1967, 85) points out, compared to Ricardo's abstract analysis, "Say's work necessarily appeared superficial and to have been directed solely to the elucidation of what Ricardians considered the simple problems of market value."

For example, the arch-Ricardian J.R. McCulloch ([1864] 1965, 13–14) charged that "almost all continental economists," in following Say's utility approach to value and price theory, "stumble at the very threshold of the science" and "have yet to make themselves acquainted with its merest elements."

In the view of J.E. Cairnes ([1873] 1965, 232), "every great step in the progress of economic science (I do not think an important exception can be

named) has been won by English thinkers.” With respect to the French liberal school, Cairnes wrote that “the most characteristic doctrines of the English school of Political Economy . . . found some of their most powerful champions and most skilful [sic] expositors on the other side of the Channel.” Cairnes proceeded to characterize a number of leading liberal economists, including J.-B. Say, Joseph Garnier, J.G. Courcelle-Seneuil, and A.E. Cherbuliez, as “the interpreters to their countrymen of Adam Smith and Malthus, Ricardo and Mill” ([1873] 1965, 313).

Not only did Cairnes portray liberal economists as little more than popularizers of classical doctrines, he also questioned their scientific methods. Regarding Say, he argued that “his reasoning on economic problems is throughout carried on with a side glance at the prevalent socialistic doctrines” (Cairnes [1888] 1965, 30). In particular, Cairnes ([1888] 1965, 31) questioned the *Wertfreiheit* of Say’s protomarginal productivity theory of factor pricing, which conceived the various income shares as dependent on “the utility of the functions which land, capital, and labor respectively perform in the creation of the ultimate product.” According to Cairnes ([1888] 1965, 31), in this theory, “economic laws . . . are confounded, in order to introduce a *moral* argument in defense of the existing structure of society.”<sup>2</sup> In general, Cairnes found “characteristic of the French school . . . a tendency to vicious generalization . . . which, instead of elucidating, darkens the problems.”<sup>3</sup>

The attitude of the British classical economists, typified by the statements of McCulloch and Cairnes, that the liberal school contributed nothing that was both original and worthwhile to scientific economics carried over to mainstream Anglo-American economics in the neoclassical era. As T.W. Hutchison (1973, 177) has noted:

The history of economic thought in the first half or three-quarters of the nineteenth century was and still is portrayed in very Anglo-centric terms, as though the theories which achieved for so long in Britain such an extraordinary dominance and authority . . . enjoyed a similar hold and authority elsewhere in Europe.

This is most clearly evidenced in the fact that standard Anglo-American histories of economic thought typically include treatments of one or two isolated French economists, usually Say and Bastiat, as examples of classical thought on the Continent. Those authors who do identify a specifically French tradition in economics still end up conflating the liberal and classical schools.

For example, Lewis Haney (1949, 847) duly recognizes that “the French school of Liberalists has never been quite identical with the English in its thought.” However, Haney (1949, 856) does not acknowledge any substantive doctrinal differences between the two schools and ultimately judges the “Liberalists” to be the “French representatives of the Classical School.”

Eric Roll (1953, 319–21) points out that Say's work is firmly rooted in the utility approach to value theory initiated by eighteenth-century Italo-French writers such as the Abbé Condillac. In view of his development and refinement of this approach, Roll (1953, 323) regards Say "as one of the chief founders of the formalist, equilibrium analysis which is the essence of present-day value theory." He also notes that Say "had an almost immediate influence in setting up a tradition. No important French economist after him returned to the Ricardian theory of value" (Roll 1953, 323). And yet, in the same work (318–19), Say is characterized as "an immediate and most faithful disciple of Smith," who gave a peculiar "twist" to the master's doctrines. With the exception of a deprecatory reference to the "optimism" and "providential harmony" characterizing Bastiat's work, Roll (1953, 302) does not discuss Say's French successors in the subjective-value tradition.

The liberal school fares no better in more recent works on economic thought. Two illustrations will suffice.

In his text on economic thought, Henry William Spiegel (1983, 257–60) disposes of Say's contributions in a few pages at the end of a chapter entitled "The Details of Smith's System and Its Reorganization by Say." For Spiegel (1983, 258), Say's *Traité* was not a scientific contribution in its own right, but "the foremost instrument of propagating Smith's thought in the early nineteenth century." Spiegel attributes the great success of Say's book on this level to the fact that "French writers have the great gift of orderly and coherent exposition, which displays logic and consistence in a manner especially suited for purposes of instruction." Finally, Say's position in the subjective-value tradition is given short shrift by Spiegel (1983, 259), who contends that Say was "a forerunner more of the thought than of the full-fledged theory [of subjective value], of which their were earlier pioneers in French economic thought." Following up on this view, Spiegel (1983, 340) summarily dismisses Say's successors in the liberal school with the comment that "classical economics found a persuasive apologist in Bastiat, but there was little scientific work that would have continued the tradition of Say."

Similarly, D.P. O'Brien, in his survey of the classical economists, does not recognize a unique French tradition in economics that extended beyond Say. Thus he writes: "Say it is true was followed by Destutt de Tracey [sic] but the latter was a minor writer and Say's influence was on the whole limited at least in respect of his value theory. Only in Dublin, at Trinity College, was there a continuing tradition of subjective value theory" (O'Brien 1975, 106).

O'Brien's statement epitomizes the almost total ignorance of nineteenth-century French economics that characterizes modern English-speaking economists and even historians of thought. In fact, as I shall argue below, for over one century following the publication of Say's *Traité*, the keystone of French theoretical economics was precisely the subjective theory of value as it was formulated by Say.

## Previous Attempts at Explanation

Since World War II, there have been a number of attempts by doctrinal scholars conversant with the development of Continental economics to explain and rectify the lack of recognition accorded the French liberal school in the Anglo-American literature. In his monumental *History of Economic Analysis*, Joseph Schumpeter (1954, 491) challenged the long-entrenched British classical view of Say as one “who had been able to rise to Smithian, but had failed to rise to Ricardian, wisdom.” Schumpeter (1954, 492) countered with the insight that Say’s work “grew purely from French sources” and represented a development of the great “Cantillon-Turgot tradition” which reached back to the Scholastics. More importantly, Schumpeter (1954, 497) called attention to Say’s successors “in spirit and in doctrine” as a self-conscious school of thought which, dating from the appearance of the *Traité*, “boasts of a history of about a century.”

Additionally, Schumpeter suggested a number of factors that tended to militate against due recognition of the liberal school. First, Say’s facility for clear and concise expression or “superficiality of exposition” is easily confused—and was so confused by the Ricardians—with “superficiality of thought.” Ironically, it was the very success of Say’s *Traité* that “confirmed contemporaneous and later critics in their diagnosis that he was just a popularizer of A. Smith” (Schumpeter 1954, 491). Second, Say’s later followers, in reaction to a strong socialist presence in France prior to 1848, were vociferous in their support of laissez-faire and anti-étatiste doctrines and policies, and, according to Schumpeter (1954, 497), “this naturally accounts for the hostility of modern critics [to Say]. Finally, as a result of their almost exclusive focus on economic policy, French liberal economists “lacked interest in purely scientific questions and were in consequence almost wholly sterile as regards analytic achievement” (Schumpeter 1954, 497).

Seven years prior to the publication of Schumpeter’s work, Maurice Lamontagne (1947) published a neglected though important article on French contributions to economic theory in which he anticipates some of the main points made by Schumpeter.<sup>4</sup> In this article, Lamontagne (516–17) notes that Say drew his inspiration, especially in value and price theory, from eighteenth-century Italian and French subjective-value theorists such as Galiani, Turgot, and Condillac. By virtue of their adherence to a utility-based explanation of value and price, liberal economists following Say constituted a self-conscious school of thought, one distinct from the British classical school. According to Lamontagne, “the psychological aspect of value, so clearly indicated in Condillac’s work, has never disappeared from the French economic literature. Even Say and his immediate disciples followed the tradition; for that reason they never identified themselves with English Classicism” (522).

Lamontagne demonstrates, moreover, that Say’s influence on French eco-

nomics persisted well into the twentieth century. He concludes that "Say is probably the economist who exerted the greatest influence in France; we have to go back to him if we want to give a full explanation of the trend which economic theory has followed in that country. He set up a tradition which is still strong, even in present-day literature" (LaMontagne 1947, 523).

Finally, like Schumpeter, Lamontagne (1947, 528) attributes the modern neglect of the liberal school to its lack of innovation in pure theory dating from the time of Walras.<sup>5</sup> Unlike Schumpeter, however, he ascribes the alleged theoretical sterility of the school to Say's methodological aversion to "the use of formal mathematics" (LaMontagne 1947, 523). He argues further that Say's strictures against the use of mathematics in economics also account for the failure of the Lausanne school and of marginal utility theory to have taken root in France.

In his recent treatise on economic thought, the late Karl Pribram (1983, 191), a European-trained economist, has emphasized the "fairly general indifference of the French nineteenth-century economists to problems of economic theory." He does not believe that this fact can be fully explained by the liberal economists' overriding concern to refute the claims of socialism or by a narrow institutional focus absorbed from the Physiocratic tradition. Rather, Pribram (1983, 191) argues along the lines of Lamontagne that strict adherence to methodological precepts originally laid down by Say "prevented the elaboration of concepts of higher abstraction and the development of procedures of refined hypothetical reasoning."

According to Pribram (1983, 190), Say's position was a reaction against Ricardian economic theorizing that "started from abstract principles which were not perfectly founded in the facts." Say "insisted on the use of Baconian methods of observation as exclusive instruments of economic analysis." Thus, for Say, the task of political economy was to establish "connections among observed facts."<sup>6</sup>

Peter Groenewegen has recently reaffirmed and elaborated Turgot's influence on Say and the liberal school. Groenewegen (1983, 599–605) demonstrates that it is precisely in those areas in which Turgot's influence on Say and French economics is strongest (namely, value and interest theory and economic policy) that the differences between the British classical and French liberal schools are greatest. Even the characteristic French liberal welfare doctrine of "the existence of social harmony under conditions of free trade" is shown to be foreshadowed in Turgot's writings (Groenewegen 1983, 603). In general, the liberal economists considered Turgot "a hero and great precursor of their views" (Groenewegen 1983, 602).

Groenewegen (1983, 605) also argues that the neglect that Turgot's economics has suffered in the twentieth century is largely due to the fact that "his uncompromising position of economic liberalism was seized upon and fully exploited by the French school and carried to extremes." Nor did it help

matters that the liberal school, as the bearer of Turgot's influence in theoretical economics, "was not strong in economic analysis" (Groenewegen 1983, 603).

In sum, doctrinal experts have cited three factors as contributing to the neglect of Say and the French liberal school by English-speaking economists. First, there is the tendency to perceive Say as a superficial expositor of Smithian doctrines, due to the unusual clarity of his style. Second, the tenacity with which Say and the liberal school opposed socialism and government intervention in the economy has provoked the view, especially among modern critics, that liberal economists in general were little more than polemicists and apologists for ultra-laissez faire liberalism. Finally, there is the apparent unwillingness or inability of the school to initiate or absorb innovations in economic theory, especially after the advent of the marginalist revolution.

The problem with ascribing the lack of recognition received by the liberal school wholly to these three factors is that it fails to explain a salient fact: that many prominent nineteenth- and early twentieth-century economists throughout Europe and in the United States expressed a strong appreciation of the purely theoretical contributions of the school. The following section provides a survey of the attitudes of leading Continental economists toward the liberal school and an appraisal of the influence of liberal economic theory on prominent British and American economists who rejected the Ricardian-classical orthodoxy.

## **The Liberal School's Influence on the Development of Economic Theory**

### *A Survey of Continental Economists*

Leading Continental economists were quite cognizant of the French liberal school and its scientific contributions. This is illustrated by numerous references to individual liberal economists in the scientific works of a doctrinally diverse group of Continental authors.

The Swede Gustav Cassel (1903, 25) credits Say with "having introduced the conception of pure interest into the science" and with having "separated the functions of the capitalist from those of the '*entrepreneur*,' capital from business ability, and interest from the reward for such ability." Cassel (1903, 25) also expresses appreciation for Say's "very complete and profound analysis of the mechanism of the market." With this analysis, Say has "provided the general scheme into which every explanation of particular points or sides of [the interest] problem must be fitted as parts of an organic whole."

In Cassel's eyes, however, Say's explication of the market mechanism has implications for economic science far beyond the narrow confines of interest

theory. According to Cassel (1903, 27), “greatest honour” is due Say for having “for the first time, stated *the mutual dependence of demand, price, and cost of production*.” Compared to what Cassel conceives as Say’s mutual interdependence analysis of market processes, the account of the market mechanism provided much later by the Austrian school is, according to Cassel (1903, 26 n. 1), “much inferior.”

Cassel (1903, 39–40, 62) also notes certain “valuable remarks” of Frédéric Bastiat on the conception of the lender’s function and points to Bastiat as an earlier writer who formulated the idea of time preference “in very much the same words as those used by Bohm-Bawerk.”

Finally, Cassel (1932, 310) attributes to Paul Leroy-Beaulieu, as well as to the American Francis A. Walker, the seminal development of a theory of wages which “sees in the productivity of labour the essential determinant of wages” and which, therefore, foreshadows the marginal productivity theory of factor pricing.

Although he is emphatically out of sympathy with their approach, Knut Wicksell ([1934] 1977, 4–5, 27–28) gives recognition to the “harmony economists,” including Bastiat, and “their numerous disciples in different countries.” In particular, Wicksell ([1934] 1977, 146) identifies Bastiat’s and J.R. McCulloch’s conception of the nature of interest as representative of the pre-Bohm-Bawerkian view.

In his monumental *History and Critique of Interest Theories*, Bohm-Bawerk (1959) singles out the interest theories of a number of liberal economists for careful and extended scrutiny. These include Say, Pellegrino Rossi, Bastiat, and Courcelle-Seneuil.

Despite his strong criticisms of Say, Bohm-Bawerk acknowledges the great influence of the latter on the development of nineteenth-century interest theory. Bohm-Bawerk (1959, 80) writes that “despite the obscurity of his views, Say occupies a preeminent position in the history of the theories of interest. He constitutes a sort of junction point at which two of the most important theoretical branches of economic science begin their respective courses.”

Although he undertakes a scathing refutation of Bastiat’s interest theory, Bohm-Bawerk (1959, 191) is constrained to admit that the theory “created a great sensation in his [i.e., Bastiat’s] day . . . and has exerted considerable influence right down to the present” (1884).

In general, however, Bohm-Bawerk appreciates the scientific merit of the endeavors of liberal economists in this field of economics. For example, he refers to Cherbuliez as one of “the more prominent among the economists” who adhered to Senior’s abstinence theory of interest (Bohm-Bawerk 1959, 190). Maurice Block is cited as an “outstanding scholar” and “the learned and brilliant author” who penned “richly charged discussions of our theme” (Bohm-Bawerk 1959, 426). Leroy-Beaulieu’s work on distribution theory is



hailed as “the most highly respected monograph to appear in France on the distribution of wealth” (Bohm-Bawerk 1959, 88). And Rossi is chosen by Bohm-Bawerk (1959, 323) to represent the many economists who offered eclectic combinations of the productivity and abstinence theories of interest, partly because Rossi’s “version of the productivity theory has some marks of originality.”

The French liberal school had a profound effect on the course of development of Italian economic thought in the nineteenth and early twentieth centuries.

Francesco Ferrara<sup>7</sup> is generally recognized as the key figure in the revival of scientific economics in Italy in the late nineteenth century.<sup>8</sup> He was an unabashed admirer of the liberal economists and adopted most of their theoretical as well as political doctrines. Indeed, Ferrara’s views so closely parallel those of the liberal school that modern doctrinal scholars consider him virtually a member of the school. Thus Schumpeter (1954, 513) refers to Ferrara as an “ultra-liberal,” and Haney (1949, 833) describes his views on economic method, theory, and policy as similar to “those of Bastiat and the French optimistic school.”<sup>9</sup>

As a proponent of liberal economics, Ferrara considered Say to be the most eminent successor of Adam Smith (Weinberger 1940, 95–96); he also held in high esteem French liberal economists Charles Dunoyer and Michel Chevalier (Cossa 1893, 494). At the same time, Ferrara considered Ricardo’s importance to be “overrated,” especially in relation to his theory of value (Weinberger 1940, 96), and he belittled the merits of Mill’s work (Cossa 1893, 494). Seen in this light, it is clear that Ferrara’s innovative “cost-of-reproduction” theory of value, with which he attempted to unify the whole of economic theory, was not intended as a mere improvement on the Ricardian-classical labor theory of value but as the definitive answer to it from the liberal-subjectivist perspective.

As Piero Barucci (1973, 260) argues in his important article on the dissemination of marginalism in Italy, Ferrara’s value theory:

Was meant to be a critical reply to Ricardo’s labor theory of value, in which Ferrara did not see any element of subjectiveness. With his reproduction cost he intended to work out a theory of value which took into account both the element of cost and that of utility of goods. The value of a good would be, in this way, the comparison between the utility attributed by a subject to the good itself and the cost he thinks he would have to incur to reproduce the good. Indeed, this theory emphasized the fact of the utility of goods.<sup>10</sup>

Ferrara founded a school that dominated economic thought in Italy from the 1850s to the early 1870s.<sup>11</sup> Like Ferrara, the members of his school “belauded Carey and Bastiat, considered Ricardo and Stuart Mill as dangerous

and sophisticated theorists and abhorred the German economists” as advocates of socialism and interventionism (Loria 1900, 116).

The historicist and Ricardian reaction of the 1870s in Italy overwhelmed Ferrara and his immediate followers, but it did not end the liberal school’s influence on Italian economics.<sup>12</sup> In fact, Ferrara’s subjectivist and proto-Austrian theory of value and distribution had prepared the ground for what Barucci (1973, 264) refers to as “the army of marginalist-liberalists”<sup>13</sup> that coalesced in Italy in the years 1886–90, mainly under the influence of the Austrian school.<sup>14</sup> By 1890, the doctrine of marginal utility was well entrenched in Italy and “the work which Ferrara had patiently prepared was complete at last” (Barucci 1973, 264).<sup>15</sup>

Among the later Italian marginalists who revolutionized public finance theory, Vilfredo Pareto and Giovanni Montemartini owed a substantial intellectual debt to the French liberal economist Gustave de Molinari. In anticipating modern public-choice theory, Pareto and Montemartini drew heavily upon Molinari’s path-breaking socioeconomic analysis of the state.

Specifically, Pareto (1966, 18, 108–11) employed Molinari’s concept of “tutelage” in developing his own theory of aristocracy.<sup>16</sup> Pareto (1966, 136–37) also integrated his famous theory of the circulation of elites with Molinari’s concept of the “silent revolution.”<sup>17</sup> At the conclusion of a discussion in his *Manual* of how public office and the taxing process are sought after as means enabling one class to despoil other classes in society, Pareto (1971, 347 n. 8) directs the reader to “the numerous works of G. de Molinari.” Finally, we are informed by S.E. Finer (Pareto 1966, 18) that Molinari was “a man whom [Pareto] admired till his dying day.”

In his classic protopublic choice analysis of the state as a profit-seeking “public enterprise,” Montemartini employs key elements of Molinari’s thought. Montemartini ([1900] 1958, 142–43) accepts Molinari’s characterization of war as political competition among public enterprises designed to gain and secure income for its proprietors (politicians and bureaucrats) by enabling them to extend their hegemony and taxing power over the populations of rival states.<sup>18</sup> Montemartini ([1900] 1958, 141–42) also affirms Molinari’s point that “the suppression of all political enterprise . . . would imply a reduction of costs for the community, because the political enterprise is always a costly form of enterprise, and also because it does not allow free play to private initiative.” Barring the economically optimal solution of total abolition of the state, Montemartini ([1900] 1958, 142), following Molinari, expects a reduction in costs as the rights of secession and of formation of competing public enterprises become more widespread.<sup>19</sup>

German economists have always recognized the formative influence of Say and the liberal school on the evolution of theoretical economics in Germany.

Melchior Palyi (1928, 213), in his classic discussion of the introduction

of Smithian ideas on the Continent, contends that “it was the Smith-Say combination rather than Adam Smith alone which, for the following generation in Germany, as all over the Continent, served as the basis for economic thought.” On the other hand, “for the German economists, disregarding Thunen, Ricardo remained for at least another fifty years the originator of some rather curious *weltfremd* exaggerations and never became really influential” (Palyi 1928, 191).

Palyi (1928, 214–15) notes that, particularly in the area of value theory, “a strong tradition of theoretical analysis prevailed . . . mostly in the sense of the Smith-Say type of approach.” This tradition produced a line of price theorists who formulated supply-and-demand analysis “with an additional emphasis on the subjective factor” and “with closer approach than in the works of the classical writers to modern price-equilibrium concepts.” The tradition culminated in the work of F.B.W. Hermann who, starting from basic concepts formulated by Say, developed an approach to price theory “emphasizing consumers’ desires and incomes,” which came to serve later “as the starting-point of Menger’s utility analysis.”

In the case of one German theorist who attempted to develop a labor theory of value, which contradicted his earlier subjectivist approach, Palyi (1928, 214) points out that the author was “influenced, as most of the early labor-value theorists on the Continent were, probably more by [the liberal economist] Destutt de Tracy than by Ricardo.” Palyi (1928, 209) also recognizes the tremendous influence of Bastiat, whose *Harmonies Économique* “hammered the doctrine of laissez faire and of the natural division of labor into the capitalist minds of the whole Continent.”

Hayek (1952, 529) argues that “classical doctrines never really established themselves in Germany” because due “partly to the influence of Condillac and other French and Italian authors of the eighteenth century a tradition had been kept alive which refused to separate value entirely from utility.” The writers in this tradition, “of whom Hermann was probably the outstanding and most influential figure . . . tried to combine the ideas of utility and scarcity into an explanation of value, often coming very near to the solution provided by Menger.”

Schumpeter (1954, 600) also notes the “utility-theory tradition” that developed in Germany, “perhaps in part under French influence.” Hermann is named by Schumpeter (1954, 644) as one who attacked the British classical wage-fund theory, on the basis of Say’s insight that “production and distribution reduce to an exchange of services.”

Bohm-Bawerk (1959, 124) has called attention to the fact that the use theory of interest, after its original suggestion by Say, had been worked out “entirely by German economists.” In particular, it was Hermann who, prior to Menger’s perfected formulation of the theory, “put the theory on a firm foundation.”

The influence of the French liberal school in Germany is also recognized by the rabidly anticlassical founder of German "universalist" economics, Othmar Spann. In his history of economics, Spann (1930, 108) refers to Say as "the godfather of Adam Smith's doctrines on the Continent" and declares that it was Say's "brilliancy" in systematizing and propounding the ideas of Smith that played a "notable part in their diffusion." Spann (1930, 109) also points out that the long series of "German Smithians," whose "most notable member" was Hermann, rejected Smith's labor theory of value and, following Say, "tried to explain value as arising out of utility." The textbook by K.H. Rau, an early member of this German "use-value" school, "dominated German economic thought for half a century, and had an influence in foreign countries as well" (Spann 1930, 109).

Spann (1930, 209) also remarks on the fact that "Bastiat's teaching . . . exerted much political influence in Germany as well as France," and supplied the theoretical underpinning of the German Manchester school.

In his discussion of contemporary developments in pure theory, Spann (1930, 307) is led to sharply distinguish between German "universalist theory" and "the individualist Anglo-French doctrine." He (Spann 1930, 308) recommends Leroy-Beaulieu's four-volume treatise on liberal economic theory and policy (Leroy-Beaulieu 1910), along with Marshall's *Principles of Economics* and J.B. Clark's *The Distribution of Wealth*, as important textbooks of "individualist classical economics."

### *The British Anticlassical Movement*

The liberal school had an important and substantive influence on a number of eminent representatives of the anticlassical movement that had begun to flourish in Britain during the two decades between the appearance of J.S. Mill's *Principles* and the marginalist revolution. This heterodox group of anti-Ricardians included among its number not only historicists, but also writers whose roots lay in the subjective-value tradition, such as Henry Dunning MacLeod, William E. Hearn, and, of course, Jevons.<sup>20</sup>

The weightiest challenge to the prevailing classical attitude toward the French liberal school was issued by Jevons. In his eagerness to work his way free from the hidebound Ricardian orthodoxy, Jevons looked to Continental, and especially French, economic thought for inspiration and guidance. Thus, in the concluding paragraph of his seminal marginalist work, Jevons ([1871] 1970, 261) expressed appreciation for "a long series of French economists from Baudeau and Le Trosne down to Bastiat and Courcelle-Seneuil." These economists, he argued, had been unduly neglected, "because the excellence of their works was not comprehended by David Ricardo, the two Mills, Professor Fawcett and others who have made the orthodox Ricardian school what it is."

Two years later, in a review of Cairnes' *Essays in Political Economy*, Jevons strongly defended Bastiat against Cairnes' criticisms and upheld the scientific merit of the former's work. In a telling passage, Jevons (1873, 6) lauded Bastiat for, in effect, standing J.S. Mill on his head:

While Mr. Mill has most erroneously denied that consumption of wealth is a branch of political economy, Bastiat logically commenced with human wants and made the consequent demand and consumption of commodities the natural basis of the science of human wealth. It is probable that when the true logical order of treatment of the science comes to be carefully reconsidered, the order adopted by Mr. Mill will be rejected, and that of Bastiat more nearly followed.

In a lengthy preface to the second edition of his *Theory of Political Economy*, Jevons took pains to identify his predecessors in the mathematical and the subjectivist approaches to economics. At one point, he dismisses the classical doctrine of the wage fund and contends that "the true doctrine may be more or less clearly traced through the writings of a succession of great French economists," including members of the liberal school such as Say, Des-  
tutt de Tracy, Bastiat, and Courcelle-Seneuil (Jevons [1871] 1970, 67). Jevons ([1871] 1970, 67) is thus led to conclude that:

The only hope of attaining a true system of economics is to fling aside, once and for ever, the mazy and preposterous assumptions of the Ricardian school. Our English economists have been living in a fool's paradise. The truth is with the French school, and the sooner we recognize the fact, the better it will be for all the world.

Finally, in surviving fragments of what was intended to be a comprehensive treatise on economic theory, Jevons (1905, 6) grounds economic science on utility, which he declares to be "plainly the subject matter of economics from beginning to end" and "the alpha and omega of the science." In adopting this approach, Jevons (1905, 7) is explicitly following the French economists, "who, almost from the birth of political economy, have placed a chapter on 'Besoins' [wants] at the beginning of their treatises." In sharp contrast, "with few exceptions, English economists have entirely omitted to notice the groundwork of their own science" (Jevons 1905, 7).

Most importantly, there is clear indication in this work that Jevons (1905, 4–5) has come to perceive the marginal concept itself as a means to amend and complete Say and the liberal school's utility approach to the explanation of price formation.<sup>21</sup> In the same vein, Cairnes ([1874] 1967, 17) criticizes Jevons' value theory as no more than an ingenious attempt to revive Say's theory, allegedly already refuted by Ricardo.

Another important anticlassical writer who owed a substantial intellec-

tual debt to the liberal school was William E. Hearn, an Australian economist, historian, and legal theorist of Irish descent.<sup>22</sup> A contemporary of Jevons, Hearn's major work on economics, *Plutology* (Hearn 1864), was published in Australia in 1863 and was first issued in London a year later (Copland 1935, 19; La Nauze 1949, 96). Although the book received almost no critical notice when it first appeared, it later found use as a university textbook in Great Britain (Copland 1935, 19).

The work eventually garnered high praise from a number of prominent economists, including Jevons, Marshall, Edgeworth, F.A. Walker, Sidgwick, and Ingram (La Nauze 1949, 49–52; Copland 1935, 18–19). Of modern economists, Hayek (La Nauze 1949, 52) has referred to Hearn as a “great economist . . . who had a singular gift for stating original and penetrating observations in the most apt and lucid language.”

Jevons recognized Hearn as a kindred spirit in the struggle against the Ricardian orthodoxy. Having favorably cited *Plutology* a number of times in the main body of his *Theory of Political Economy*, Jevons devotes a section of the concluding chapter to “Professor Hearn's Views.” In this section, Jevons ([1871] 1970, 258–59) declares: “I have the more pleasure and confidence in putting forward these somewhat heretical views concerning the general problem of economics, inasmuch as they are nearly identical with those arrived at by Professor Hearn. . . . It would be a somewhat long task to trace out exactly the coincidence of opinions between us.”

Regarding this “coincidence of opinions” between Hearn and Jevons, Schumpeter (1954, 826 n. 2) acknowledges that Hearn's work “in parts does read curiously Jevonian,” especially in light of the fact that the work contains a clear statement of the concept of diminishing marginal utility. However, Schumpeter hastens to defend “Jevons' independence as regards the utility aspect.”<sup>23</sup>

Turning to the issue of the doctrinal roots of Hearn's economics, the very title of his treatise suggests a strong French influence. As Hearn (1864, 7) notes in explanation, *plutology* is borrowed from the prominent liberal economist Courcelle-Seneuil, who adopted the term to designate the “pure science” of economic theory<sup>24</sup> and distinguish it from the “art” of economic policy, to which he applied the term *ergonomy*.

An examination of the substance of Hearn's treatise further reveals a profound doctrinal and expositional affinity with the liberal school. Like most French economists after Bastiat, Hearn commences with a chapter on human wants. As one modern writer (La Nauze 1949, 56–58) has pertinently commented:

It was an innovation in English political economy to begin a treatise with a chapter on human wants, and to make the satisfaction of wants a central

theme. . . . But this is an innovation only in English writing. The prominence which Hearn gives to wants is simply a reflection of his reading from French literature. His chapter is in places almost a transcription from Bastiat's *Harmonies*, and his sub-title echoes Bastiat's frequently repeated phrase, "Wants, Efforts, Satisfaction."<sup>25</sup>

Significantly, it is in this chapter that Hearn (1864, 17–18) formulates the concept of diminishing marginal utility. As Hearn presents it, the concept is a logical deduction from Bastiat's postulates that human wants are unlimited and are hierarchically ordered (Bastiat 1964, 34–46).<sup>26</sup>

In analyzing exchange, Hearn (1864, 237) adopts a sophisticated version of Bastiat's effort-saved approach, which emphasizes that the mutual benefits of exchange derive from the fact that each transactor "obtains at a smaller cost than he otherwise could the means of satisfying a desire or accomplishing a purpose." However, Hearn (1864, 238) advances beyond Bastiat's erroneous deduction that exchange reflects an equality of value between the two goods and anticipates the Jevonian position that "men give objects which they desire less, in return for objects which they desire more."

Hearn (1864, 244–53) employs Say's demand-and-supply approach in explaining the determination of market price. "Desirability" and "difficulty," comparable to Say's "utility" and "scarcity," are seen as the factors underlying demand and supply, respectively. Demand is implicitly treated in the modern sense of a schedule relating quantities purchased to prices, and Hearn (1864, 249–51) gives a clear literary exposition of elasticity of demand or "degrees of desirability."<sup>27</sup> There is also a discussion of the notion of "consumer's surplus" (Hearn 1864, 333, 338).<sup>28</sup>

In distribution theory, where the differences between the French liberal and British classical schools tend to be most pronounced, Hearn stands with the former on most of the disputed issues.

Hearn (1864, 329) explicitly distinguishes the entrepreneur from the capitalist and treats profit as a dynamic and residual income separate from interest. He analyzes wages and interest, not as a question of an aggregate distribution of income shares, but, following Say, as "an ordinary case of exchange" explicable "in the same manner as all other questions of price" (1894, 329). On the issue of land rent, Hearn (1864, 318–19) accepts without qualification the doctrine, peculiar to Bastiat and his followers, that "in human industry the cooperation of nature is always gratuitous." In this view, all rental income is theoretically resolvable into wage and interest income derived from the application of labor and capital to the transformation of natural resources to satisfy human wants (Hearn 1864, 318–25).

Although his discussion of capital may be heavily influenced by John Rae, as La Nauze (1949, 65–71) claims, Hearn (1864, 325–28) adopts the

characteristically French doctrine that capital accumulation leads to a progressive reduction in the rate of interest and, hence, in the relative share of the capitalist vis-à-vis that of the laborer in the final product.<sup>29</sup>

Like most liberal economists, Hearn (1864, 389–94) strongly rejects the more pessimistic implications of the Malthusian population doctrine. His opposition rests on Bastiat's argument (Bastiat 1964, 412–42, 557–67) that a greater population brings with it greater per capita income and wealth. This result is deduced from the observed effects of a larger population, first, in facilitating an extension of the market and the concomitant intensification of the division of labor and specialization and, second, in stimulating increased capital accumulation and more intensive exploitation of economies of scale. The wealthier the population, in turn, the more powerfully does the preventive, as opposed to the positive, check to its growth operate.

Neither are there pessimistic implications to be drawn from the law of diminishing returns to agriculture, so emphasized by the Ricardian school. Hearn (1864, 116) argues that the “steady tendency toward diminishing returns” is not peculiar to land but applies to all “natural agents.” As Hearn (1864, 117) correctly explains:

The comparison has generally been made between a particular portion of land, and some other agent to the quantity of which no limit is expressed; and not, as it obviously ought to be, between a specific portion of each. If we direct our attention to some such definite portion of any other natural agent, we shall at once observe that it presents the same phenomena as land.

Moreover, as Hearn recognizes, the operation of the law assumes a static technology and cessation of capital accumulation. However, according to Hearn (1864, 118–19):

The condition upon which the law of diminishing returns comes into operation is never realized. That condition assumes that the skill and the power of the labourer are unchanged. But the state of knowledge and of skill, and the resources for aiding his labour at the disposal of the labourer, never do remain unchanged.

Hearn's strikingly modern formulation of the law of diminishing returns is inspired by Say and the liberal school's proto-Austrian emphasis on the crucial link between capital accumulation and the growth of labor productivity, both of which are understood to be theoretically, as well as practically, unlimited.<sup>30</sup> As Say ([1880] 1971, 118) wrote, “the powers of man, resulting from the faculty of amassing capital, are absolutely indefinable; because there is no assignable limit to the capital he may accumulate, with the aid of time, industry, and frugality.”



Along with capital, Hearn (1864, 115–16) includes “invention” as another “aid to labour” serving to counteract the tendency to diminishing returns to land or natural resources. The prominent place given to invention in *Plutology* is further evidence of the French, and especially Bastiat’s influence on Hearn.<sup>31</sup> This is recognized by La Nauze (1949, 70–71), who observes that the “very prominent place” given to invention in *Plutology*:

was something new in an English theoretical treatise. . . . The prominence which Hearn gives to Invention is related to his stress upon Wants. . . . Wants are the compelling force in economic life; a confidence that their urgent presence will lead to improvement rather than misery is strengthened by faith in man’s inventive ability.

Another noteworthy British anti-Ricardian of this period who drew on the ideas of the liberal school is the obscure, though not uninfluential, writer, Henry Dunning MacLeod. Schumpeter (1954, 1115 n. 7) has summed up MacLeod as “an economist of many merits who somehow failed to achieve recognition, or even to be taken quite seriously, owing to his inability to put his many good ideas in a professionally acceptable form.”

Although his efforts were generally ignored by his contemporaries, seminal importance was attached to MacLeod’s work by both Marshall and Jevons. Marshall (Haney 1949, 516–17) specifically mentions MacLeod as among the predecessors of Jevons “whose writings before 1870 anticipated much both of the form and substance of recent criticisms on the Classical doctrines of value in relation to cost, by Professors Walras and Carl Menger . . . and Professors v. Bohm-Bawerk and Wieser.”

Jevons himself cites MacLeod a number of times in his *Theory of Political Economy*. In the final paragraph of the book, Jevons ([1871] 1970, 261) names MacLeod, along with Hearn and other British and French economists, as one whose work contains “valuable suggestions toward the improvement of the science” but is neglected because of the “noxious influence” of the dominant Ricardian school. In the preface to the second edition of the book, Jevons reveals MacLeod’s influence on his own thought. Remarking upon the “mathematical spirit” of the latter’s works, Jevons ([1871] 1970, 57) declares: “While I certainly differ from him on many important points, I am bound to acknowledge the assistance which I derive from the use of several of his works.”

MacLeod’s important contributions to economics emerge from his endeavor to “lay altogether new foundations of the science” (MacLeod 1857, v). MacLeod was unhappy with the prevailing conception of political economy as the science of the production, distribution, and consumption of wealth. MacLeod (1857, 12) argues that “the subject of Exchanges” constitutes “the limit of the pure science of Political Economy.” In other words, for

MacLeod (1857, 12), political economy “treats of and includes all things, of whatever nature they may be, whether actually, or potentially existing, that may be bought or sold. These are . . . its proper limits, and its object is to discover and ascertain the laws which regulate their values.”

It has been recognized that MacLeod developed his catallactic conception of economics under the influence of earlier British anti-Ricardians (such as Lord Lauderdale and Archbishop Richard Whately) and writers of the French subjective-value tradition, including Condillac, Say, and especially Bastiat (Haney 1949, 513–21; Kirzner 1976, 72–73).

In working out this catallactic approach to the science, MacLeod arrives at a number of protomarginalist insights. For instance, he denies the contention of Smith and Ricardo that the producer confers value on a thing, and he holds that “it is unquestionably certain that it is the *consumer* who bestows value” (MacLeod 1857, 111 emphasis in original). “Value does not spring from the labor of the producer, but from the desire of the consumer” (MacLeod 1857, 127). Political economy is therefore “founded upon the natural wants of the members of Society” (MacLeod 1857, xix).

In analyzing human wants as the foundation of economics, MacLeod (1857, 51) advances beyond Jevons and other early marginalists by explicitly purging the concept of all hedonistic or other psychological connotations. Thus, he reasons that:

Political Economy has nothing to do with the reasons why people are led to desire certain objects rather than others. . . . [It] has no more to do with the reason *why* people desire certain things, than Astronomy has to do with the metaphysical cause of gravity. All it has to do is to accept the fact, and trace its consequences.

In explicating the determinants of “Instantaneous Value” or “the price actually paid in any transaction,” MacLeod (1857, 98–99) clearly formulates the principle of diminishing marginal utility under the heading of “services of different degrees of intensity.” The general rule, according to which price is determined, is then expressed by MacLeod (1857, 100) as follows: “Price varies directly as the intensity of the service rendered, and inversely as the power of the buyer over the seller [i.e., competition].” This rule is conceived to be “of universal application” and “to comprehend all transactions of whatever nature they be.”

In emphasizing that “the relation between demand and supply is the sole regulator of value,” MacLeod (1857, 111), echoing the French subjective-value theorist, Abbé Condillac, anticipates the position of the Austrian marginalists, who were to argue that market prices unilinearly determine, rather than are determined by, costs of production incurred. According to MacLeod (1857, 111):

It is indisputably true, that things are not valuable because they are produced at a great expense, but people spend much money in producing because they expect that others will give a great price to obtain them. . . . Buyers do not give high prices because sellers have spent much money in producing, but sellers spend much money in producing because they hope to find buyers who will give more.

As noted, MacLeod's reconstruction of economics on catallactic foundations and the rich harvest of marginalist insights to which it gave rise were partly inspired by writers in the French subjective-value tradition. In tracing the development of economics as a catallactic science, MacLeod himself emphasizes the important contributions of members of this tradition. Thus, the Physiocrats are designated "the true founders of the Science of Political Economy," and Quesnay is called "the patriarch of modern political economy" and "the Copernicus of Political Economy" (MacLeod 1857, 4–5).

Condillac is viewed by MacLeod as one of the most important writers, along with Adam Smith, to have "emanated from [the Physiocratic] school" (MacLeod 1896, 69). Condillac's treatise, published the same year as the *Wealth of Nations*, "lays down the broad, general outlines of true Economics." Moreover, "in scientific spirit it is infinitely superior to Smith. It is beyond all question the most remarkable work that had been written on Economics up to that time, and it plays a most important part in the history of the science" (MacLeod 1896, 73). In particular, Condillac, like the ancients and the Italian economists of the eighteenth century, "places the origin and source of Value in the human mind, and not in labour, which is the ruin of English Economics" (MacLeod 1897, 70). It is a "fundamental doctrine" formulated by Condillac, namely, that the value of the product determines the costs incurred in producing it and not the other way around, that was later used by Archbishop Whately to send "a deadly shaft into the Economics of Smith and Ricardo" (MacLeod 1896, 71).

In assessing nineteenth-century French economists, MacLeod (1896, 113) severely criticizes Say for abandoning the catallactic approach to economics by defining it as the science of the production, distribution, and consumption of wealth. Say is also condemned for basing value on a nonsubjectivist and contradictory notion of utility as an intrinsic quality of an object (MacLeod 1896, 114).

Despite these criticisms, MacLeod (1896, 111, 120) views Say as a preeminent figure in economic thought, referring to him as a "very distinguished French writer" and to John Stuart Mill as a "disciple of Say," in Mill's rejection of "the fundamental concept of Economics as being the Science of Commerce, or Exchanges, or the Theory of Value." Again, in criticizing Mill's characterization of economics as an "*a priori* science," MacLeod (1896, 120) states that "Mill is in flat rebellion against his master Say," whom MacLeod

(1896, 122) himself follows in identifying economics as an “experimental” science that reasons from observed facts and not hypothetical assumptions. Finally, MacLeod (1896, 135) tells us that “the Economics of J.B. Say reigned supreme in France” for one-half century and was introduced by Mill into England “though with many divergences.”

The economist whom MacLeod (1896, 148) admires the most is Bastiat, although he apparently had not read the latter’s works prior to his initial attempt at reconstructing economics. Bastiat is described by MacLeod (1896, 135) as “the brightest genius who ever adorned the science of Economics.” It was Bastiat’s achievement to have “entirely abandoned” the “system of Say and Mill” and to have substituted for it the conception of economics as the “Science of Exchanges” or the “Theory of Value” (MacLeod 1896, 135–36). MacLeod (1896, 138) thinks so highly of Bastiat’s contribution that he appears to abandon all scientific reserve when describing it: “Thus Bastiat entirely emancipated himself from the evil influence of J.B. Say. . . . He plucked up by the roots the noxious fallacies which are the Economics of Adam Smith and Ricardo. . . . He simply cleared away the stupendous chaos and confusion and mass of contradictions of Adam Smith and J.B. Say.”

### *The American Catallactic Tradition*

After the Civil War, there appeared on the scene a catallactic and subjectivist-oriented movement in American economics which was heavily indebted to liberal economic doctrines, especially as presented in the works of Say, Destutt de Tracy, and Bastiat. Adherents of this approach included such notable economists as Amasa Walker, Arthur Latham Perry, and the former’s son, Francis Amasa Walker.

Say exercised an influence on American economic thought that is difficult to overestimate. His *Traité*, in particular, is recognized by doctrinal scholars to have been enormously influential (Haney 1949, 880; Ferguson 1950, 239; Conkin 1980, 28; Bell 1953, 486; Dorfman 1946, 2: 513–14). The book was translated into English in 1821 and went through numerous editions. It was widely used as a college textbook before the Civil War and continued to be used at some schools as late as the 1880s. Moreover, the American textbooks “which were commonly used were adjusted to the teachings of J.B. Say” (Pribram 1983, 206).

Say’s influence on the American catallactic economists can be seen in a number of areas. One was methodology, where Say approached economic science as a system of theorematic deductions from a few general and “observable” facts of experience (Roll 1953, 322–23; Rothbard 1979, 45–48; Salerno 1985, 312–14). Say’s utility-and-scarcity or supply-and-demand approach to price theory was accepted without reservation as was Say’s catallactic approach to distribution theory which “takes value and distribution to

be parts of one problem” (Davenport [1908] 1964, 114). Say’s emphasis upon the role of the entrepreneur or “undertaker,” as distinct from that of the capitalist, also finds expression in some of the works of the American catallactic tradition.

Tracy’s *Treatise on Political Economy* (Tracy [1817] 1970) was translated into English from the unpublished French manuscript under the supervision of his friend and disciple, Thomas Jefferson.<sup>32</sup> The book appeared in 1817, four years prior to the English translation of Say’s *Traité*. It was Jefferson’s stated hope that Tracy’s work would become the “elementary book of instruction” in political economy (Tracy [1817] 1970, i), but the work “found little recognition in the colleges” (O’Connor [1944] 1974, 25). Nonetheless, Tracy’s work had a formative influence on Jeffersonian economics and, through the writings of Jefferson himself and his early follower, John Taylor,<sup>33</sup> Tracy’s ideas were transmitted to later American economists.<sup>34</sup>

One element of Tracy’s thought that was reflected in the works of American economists was his emphatic depiction of society as a purely catallactic phenomenon.<sup>35</sup> Tracy ([1817] 1970, 6, 15, 92) stated it thusly:

Society is purely and solely a continual series of exchanges. It is never anything else, in any epoch of its duration, from its commencement the most unformed, to its greatest perfection. And this is the greatest eulogy we can give to it, for exchange is an admirable transaction, in which the two contracting parties always both gain. . . . *Commerce is the whole of society.*

It therefore follows that, when the political authorities impose universal price controls that effectively preclude market transactions, “in the strictest sense . . . society is dissolved; for there is no longer any free exchanges.”

The liberal economist whose works served as the immediate and explicit inspiration for the American catallactic movement, however, was Bastiat.

The initiator of this movement was Amasa Walker, whose main work, *The Science of Wealth* (1875), was published in 1866 and quickly “attained wide popularity as a textbook (Ferguson 1950).”<sup>36</sup> It went through eight editions and was also translated into Italian (Newton 1968, 6). A condensed “student’s edition” was brought out in 1871 and had already gone through four editions by 1875 (Walker 1875, v–x).

In the tradition of Say, Walker (1875, v–vi) founds political economy “like every true science, upon the observation of facts.” The foundations of the science reside in two facts (Walker 1875, 18): The “*first fact* of the science” (emphasis in original) and “the foundation of all” is that man “has wants.” The second fact is that “these wants can only be satisfied by efforts.”

Since its premises are thus demonstrably true, Walker (1875, 19) argues, *contra* J.S. Mill, that political economy is a “positive,” and not a “hypothetical,” science:

While the one element of wants or desires is secured in the constitution of man's being, the other element—viz., the relation of labor or effort to them—is fixed in the constancy of nature, and the permanence we attribute to the created world. . . . But, as man's being and nature's laws are found in experience, political economy is to be regarded as a positive science. Nothing in its fundamental principles is hypothetical or problematic.

As O'Connor ([1944] 1974, 264) has noted, "Walker extends the tendency to restrict economics to a science of values." According to Walker (1875, 22), political economy is the science of wealth where "the term 'wealth' includes all objects of *value*, and no other." In strict accuracy, political economy is the "science of values," but the term *wealth* is retained "as being more popular, and as nearer to the customary use of the words." *Value*, in turn, is defined catallactically as "the exchange power which one commodity has in relation to another" (Walker 1875, 23).

The notions of wealth and value employed by Walker come directly from Bastiat's *Harmonies*, and, indeed, Walker (1875, 24) declares that, "of all the writers on the subject, no one seems to have been more full and clear in the definition and illustration of value than M. Bastiat." Walker (1875, 24–27) follows this declaration with almost three pages of quotations and examples drawn from *Harmonies*, which are intended to establish the dual proposition that the value of a thing depends on "the will of the purchaser, as determined by his judgment" and "is the service or labor which [the thing] will command in exchange."

Without examining Walker's theoretical system in any great detail, suffice it to say that, in the departments of production and distribution, his doctrines show a much greater affinity with Say, Bastiat, and the liberal school than with the classical school.<sup>37</sup>

For example, Walker (1875, 27–31), like Bastiat, holds that Nature provides her "utilities" gratuitously, "adds *value* to nothing," and, therefore, land as a purely natural agent generates no income return for its owner. Rent, as conceived by Walker (1875, xiv, 325–26), is the "reward of fixed capital," i.e., the interest return to capital invested in land.

Following Say, Walker views the distributive shares accruing to the various factors of production as determined catallactically, i.e., by the laws governing exchange. Thus, according to Walker (1875, 276, 316–17, 320, 332):

The law of value is the law of wages. . . . [Wages] depend essentially on the conditions of cost, supply, and demand. . . . The average rate of profits . . . is determined by the same law as wages. Profits are merely *wages received by the employer*. . . . If there are more laborers than are wanted, wages fall; if fewer, they advance: just so with employers or business undertakers. . . . Interest will be governed by the law of supply and demand. This is so evident as not to require argument or proof. . . . rents regulate themselves; or, in other words, are governed entirely by the operation of the laws of value.

Newton (1968, 6) has argued that “the primary contribution [of Walker’s work], from the perspective of the development of American theory, was its conception of the entrepreneur as a separate productive factor which must be distinguished from the capitalist.” This, of course, is completely consistent with the thesis that the primary influence on Walker’s economics was the French subjective-value tradition, which, from the time of Turgot, sharply distinguished the function of the “undertaker” from that of the capitalist.<sup>38</sup>

Walker introduced his close friend, Arthur Latham Perry, to Bastiat’s work (O’Connor [1944] 1974, 265; Dorfman 1946, 2:981). Perry’s reading of Bastiat inspired him to attempt a radical transformation of political economy from a “science of wealth” to a “science of exchanges.”<sup>39</sup>

Perry’s description of his efforts in this respect is instructive, because it brings to light the profound influence of Bastiat on his thought. After detailing the early misgivings he had entertained regarding the adequacy of the term *wealth* to encompass the phenomena treated by political economy, Perry (1878, vi) declares:

My mind had almost reached the conclusion in which it has now rested for many years with perfect composure, when my late friend Amasa Walker . . . recommended to me Bastiat’s *Harmonies of Political Economy*. I had scarcely read a dozen pages in that remarkable book, when the field of the science, in all its outlines and landmarks, lay before my mind just as it does to-day. I do not know how much I brought to that result, and how much towards it was derived from Bastiat. I only know that, from that time, Political Economy has been to me a new science.

In Perry’s hands, political economy is reformulated as the “Science of Buying and Selling,” and its domain becomes “Value, or Sales, or Exchanges” (Perry 1891, 61, 66). Accordingly, the “law of supply and demand” is given center stage as “the most comprehensive and beautiful law in Political Economy,” and Perry (1891, 52) devotes his treatise to “filling in” the details of this law.

Perry, like Bastiat, seeks the foundations of the science in subjective phenomena connected with human wants and their satisfaction. This is reflected in his dictum that:

Invisible Desires and Satisfaction felt in connection with Exchanges are among the most constant elements of human nature; they . . . give birth to the relatively more transient (though visible) data of Efforts and Renderings; while inferences and conclusions and even predictions may be securely drawn from all of these, giving a solid ground for political economy to stand on. (Perry 1891, 31–32)

Perry’s understanding of the subjectivist basis of economic activity leads him to a radical and un-Ricardian accentuation of the inherent changeability

and unpredictability of economic data and outcomes. This is graphically illustrated in the following quotation (Perry 1891, 42):

One of the chief charms of Political Economy is the open secret, that it deals not with rigidities and inflexible qualities and mathematical quantities and the unchanging laws of matter, but with the billowy play of desires and estimates and purposes and satisfactions, all of which are mental states, and all of which are subject in the general to ascertainable laws, though laws of a quite different kind from those of Mechanics. Values come and they go. Within certain limits and under certain conditions they may be anticipated and even predicted, but never with the precision of an eclipse or the result of a known chemical combination. . . . [The Science of Value] is a science that deals primarily with *persons* and only secondarily with *things*, with mind and not with matter. . . . And all this is so because Values are relative, because announcements in the market-place to-day may stand listed differently tomorrow and very differently next year, and because old values may disappear altogether and many new ones come in, all in accordance with the incessant changes in the wants and labors and fashions and projects of men.

Perry's theories of exchange and welfare are logically linked with his theory of human wants. Exchange is a mutually beneficial enterprise catering to increased want-satisfaction. Any barrier to this enterprise, such as government intervention, *ipso facto*, reduces economic welfare. The laissez-faire policy prescriptions of the liberal school are thus given a logical foundation in catallactic science.<sup>40</sup>

According to Perry (1891, viii):

As these universal actions [i.e., buying and selling] among men are always voluntary, there must be also a universal motive leading up to them; this motive on the part of both parties to each and every Sale can be no other than the mutual satisfaction derivable to both; the inference, accordingly, is easy and invincible, that governmental restrictions on Sales, or prohibitions of them, must lessen the satisfactions and retard the progress of mankind.

In the theory of distribution, no less than the theories of value, exchange and welfare, Perry is greatly inclined to take up positions originally staked out by liberal predecessors, especially Bastiat.<sup>41</sup> Thus, for example, Perry (1891, 146–47) denies Ricardo's dictum regarding the existence of "original and indestructable powers of the soil" and counters with the assertion that "There never was any land anywhere fit for cultivation and sale without more or less expenditure of human labor and reserved capital upon it." Moreover, the powers of the land are hardly "indestructible," but "require a constant application of labor and capital to keep up their fertility." For Perry (1891, 148), then "nearly all valuable lands are Capital also, that is to say, products reserved to aid in a further and future production."



From the inclusion of land under the rubric of “capital,” Perry deduces several anticlassical and proliberal implications for distribution and production theory.

First, the essential identity of rent and interest is emphasized in the following proposition (Perry 1891, 151): “*the Rent of leased lands whether for buildings or harvests is the same in nature with the Interest on money loaned, and is the measure of the service rendered by the owners to the actual users of the Capital.*” It follows that, since labor and capital are the only two productive factors, the only two distributive shares are interest and wages. Accordingly, “the aggregate products created by the joint agency of Capitalist and Laborer are wholly to be divided between the two. There can be no other claimant even” (Perry 1891, 235).

Second, far from denying the operation of the “law of diminishing returns” in agriculture, Perry (1891, 153), like Hearn, naturally broadens it to apply to all forms of capital, though only under static conditions: “Increase of efforts in connection with any form of capital unimproved by new inventions and uninigorated by fresh skill, though they may indeed increase the aggregate return, cannot . . . *secure an increase proportioned to the increase of the efforts*”<sup>42</sup> (emphasis in original).

Based on the foregoing considerations, Perry (1891, 176) concludes that Ricardo’s rent doctrine is “superannuated”; moreover, the doctrine is inadmissible in subjectivist-oriented catallactic science, because, according to Perry, Ricardo “makes everything turn on the Cost of Production of the Produce, which is Effort, ignoring the ever-varying demands for the produce, which is Desire.”

Perry’s circumscription of economics within the boundaries of catallactics leads him to reject classical teaching in other areas of distribution theory as well. For example, he argues the “irrelevancy of Malthusianism to the Science of Economics” (Perry 1891, 217), based partly on the view that population questions should properly be regarded as data by a science focussing on exchanges. Perry (1891, 216) reasons that:

Political Economy presupposes the existence of Persons able and willing to make exchanges with each other, before it even begins its inquiries and generalizations. How they come into existence, the rate of their natural increase, and the ratio of this increase to the increase of food, however interesting as physiological questions, have clearly nothing to do with our Science.

Additionally, while Perry (1891, 217) admits that there is an “abstract antagonism” between “the law of the increase of population” and “the law of diminishing returns from Land,” he denies that there exists any “practical tendency” for this to be the case currently or in the future.

In analyzing distribution phenomena as the logical outcome of welfare-optimizing market-exchange processes, Perry affirms the liberal doctrine that

the capitalist and laborer are natural allies, and not antagonists, in the production process.<sup>43</sup> Accordingly, Perry (1891, 238) characterizes the relationship between capitalist and laborer as “a case of pure Buying and Selling.” As mutual beneficiaries of this ongoing exchange relation, capitalist and laborer coexist as “joint partners in the same concern,” and their “interests are identical” (Perry 1891, 193). In normal circumstances, “The Demand of each class for the product of the other will continue unabated. Profits and wages reciprocally beget each other” (Perry 1891, 193). This is necessarily so, because “It is out of the return-service received from the *sale* of the commodities produced jointly by the capitalists and laborers, that both wages and profits must ultimately be paid” (Perry 1891, 195).<sup>44</sup>

To underscore the mutually beneficial catallactic relationship that is the basis of income distribution and to emphasize the fact that “Economics is a science of Persons from beginning to end,” Perry (1891, 181, 183, 238) would replace the standard English terms *labor* and *capital* by *labor-givers* and *labor-takers*, respectively, which are English renderings of terms used by contemporary German economists.

Lastly, while Perry adheres to a flexible variant of the classical wage-fund theory (Newton 1968, 87; Bell 1953, 500),<sup>45</sup> he does affirm the proposition, enunciated by Bastiat and accepted by Hearn, that capital accumulation always results in declining rates of profit and interest and a corresponding increase in the absolute and relative share of labor in the net product (Perry 1891, 233–35).

Perry has been described as “one of the best equipped economists that America produced prior to 1885” (Turner 1921, 179) and his work had a substantial influence in the United States. His textbook, *Elements of Political Economy*, was first published in 1866 and went through twenty-two editions (Bell 1953, 498). Furthermore, as Dorfman (1946, 2:983) notes, “for almost a quarter of a century it was the most popular treatise in the country.” O’Connor ([1944] 1974, 265) judges it “the outstanding book of its period.” In 1876, Perry’s text ranked third behind Mill’s *Principles* and Smith’s *Wealth of Nations* on a list of the ten “most salable books on political economy” (Bell 1953, 498). Also, the Japanese translation of the 1876 edition “became one of the main sources for the teachings of economics in the early years when Western ideas were being adopted in Japan” (Bell 1953, 498).

Perhaps the most influential American economist of the last quarter of the nineteenth century, however, was General Francis A. Walker, son of Amasa Walker. It has been said of the younger Walker that he “turned classical theoretical ideas on their heads” (Ekelund and Hebert, 1983, 402). And it may be added that he did so under the influence of liberal economic doctrines that he had absorbed from the American catallactic movement.

Walker had helped his father in preparing the latter’s textbook for publication in 1866 (Bell 1953, 495; Newton 1968, 7). He published his own treatise on general theory in 1883 and “the book follows the same outline as

his father's [book]" (Bell 1953, 507). The younger Walker's work quickly became "the most popular treatise used in the basic college economics course" and maintained that position until the turn of the century (Newton 1968, 12).

Although Walker diverged from his father and especially Bastiat and Perry on particular questions of scope and method, distribution theory, and labor policy (Newton 1968, 18, 20, 40, 51, 80, 84, 153–54), he generally adhered to the liberal-inspired catallactic approach in most departments of pure theory. Thus, for example, the French historian of thought, Carles Gide (1905, 23 n.1), includes Walker, along with Ferrara and a number of French economists, among the "principal representatives" of the liberal school in the nineteenth century.

Walker (1888, 1) identifies the subject of political economy as "wealth," where wealth is defined as comprising "all articles of value and nothing else." Value is defined in Bastiat's sense of "power-in-exchange."

In his discussion of the appropriate methodology of economics, Walker places himself in the liberal camp. While Walker (1888, 27) chides certain liberal economists such as Bastiat for their lapses from strict *Wertfreiheit*, he declares that "the French writers . . . have, in general, been singularly just in their apprehension of the character and logical method of political economy." He supports the position of Cairnes—which was also that of Say and his father, though Walker does not mention it—that the "premises" of political economy must be factual and realistic as against the position of J.S. Mill and what he refers to variously as "a priori," "Ricardian," or "English" political economy that the assumptions of the science are merely hypothetical (Walker 1888, 12–17).<sup>46</sup>

In value and price theory, also, Walker (1888, 87) declares for the liberal rather than the classical line of approach, contending that "neither cost of production nor cost of reproduction determines the power which an article shall have in exchange. . . . Value depends always on the relation between demand and supply."

Walker, however, does not rest content with a simple supply-and-demand theory, but integrates it with Jevons' theory of final utility. According to Walker (1888, 101), therefore, "market price always measures Final Utility of the commodity, that is, the utility of it to the last purchaser to whom it is just worth while to buy of it, at that price."<sup>47</sup>

A few writers (Bell 1953, 508–9; Newton 1968, 104–5) have noted that Walker developed concepts in value and price theory whose origination is usually ascribed to Alfred Marshall. For various reasons, Walker's contributions in this area were relatively neglected and did not influence his contemporaries (Newton 1968, 106–7). What is of interest here is that these innovations were undertaken by Walker within the framework of the liberal-subjectivist catallactic approach.

The area in which Walker is widely recognized to have made original

contributions is distribution theory (Bell 1953, 509–11; Haney 1946, 880–81; Newton 1968, 39–97). Schumpeter (1954, 867) lists the residual-claimant theory of wages, emphasis upon the role of the entrepreneur, and criticism of the wage-fund theory as Walker's "contributions to economic theory." But all of these are positions that were long held by liberal economists.

From the time of Turgot ([1898] 1971), French economists, in contrast to their British counterparts, sharply distinguished the dynamic and activist role of the entrepreneur, the recipient of profit, from the relatively passive role of the capitalist, who provided monetary advances to initiate the production process and received interest in return. Newton (1968, 33) points out that Francis A. Walker initially "derived the fundamental concept of the entrepreneur from his father." However, the younger Walker eventually became "fully cognizant of the contribution of a line of French writers who, following the precedent of . . . Say, delineated the function of the entrepreneurs, and separated out of English classical gross profits, the interest earned by the capitalist" (Newton 1968, 33–34, n. 21).

The catallactic theory of wages deriving from Say's writing was inconsistent with the concept of a wage-fund and later French liberal writers would have none of it. Walker (1888, 251) himself comments that "when, in 1874, I had occasion to trace the genesis and the literary history of the Wage Fund Theory, I did not find a single French economist infected by the pernicious doctrine which long held sway across the channel." Walker's positive theory of wages, which stressed the productivity of labor, also had its roots in the Say-Bastiat tradition. This is evidenced by the fact that two prominent French liberal economists, Leroy-Beaulieu and Emile Levasseur, independently and concurrently formulated very similar theories (Cassel 1932, 310; Newton 1968, 83; Levasseur 1900, 370–71, 389–90).

Writers of the American catallactic movement were also greatly influenced in the area of money and banking theory by liberal doctrine. This was manifested especially in their staunch opposition to all but 100 percent specie-reserve banks.

For example, Amasa Walker (1875, 151–241) spends almost one quarter of his 450-page treatise on general theory arguing that a "mixed currency," consisting of specie and fractionally backed bank notes and deposits is unfit to act well as either a standard of value or a medium of exchange.

Perry (1866, 246–66), at least in his early writings, goes further than Walker and even questions "the issue of paper money with a 100 percent reserve" (Bell 1953, 501).<sup>48</sup> For Perry (1866, 254), the "fundamental vice" of all forms of paper money, including convertible bank notes or "credit-money,"

is that there is no natural limitation of its supply. There is relatively no obstacle to its indefinite increase; and therefore the value dependent on such conditions of supply has no sufficient stability; and therefore credit-money

is necessarily, and by demonstration, inferior to gold and silver money in the cardinal point of a steady value.

Regarding the U.S. experience with “free banking,” Perry (1866, 258) argues that natural commercial occurrences such as foreign payments deficits have led to panics that have

compelled all the banks to confess, what everybody knew before, that they were unable to redeem their promises. These repeated suspensions of specie payments proclaim the whole system to be unsound. They show that credit is no proper basis on which to build a currency. . . . There can be no hesitation in affirming that the expense of maintaining a gold and silver currency for all the wants of the whole country might have been met many times over from the losses resulting from the bank-paper system.

Nor is Perry (1866, 260–61) much more enamored of the National Bank system, which had just replaced the free banking system in the United States. For Perry (1866, 260–61):

The mischief of it is, this money [i.e., National Bank note issues] cannot regulate its own quantity; it is not guarded, as gold and silver are, by a natural limitation of supply. The vote of Congress would be sufficient to double or treble its quantity. . . . After all that can be said in favor of it, it is credit-money still, and exposed to the dangers inseparable from credit-money, namely, distrust of the people, the undue enlargement and sudden diminution of its volume, a consequent unsteadiness of value, and inconvertibility.

Finally, Perry (1866, 263) praises Peel’s Act as a “well-considered scheme of restraint” on the note issues of the Bank of England. Nevertheless, he contends that, the stated intention of the framers of Peel’s Act notwithstanding, “the present convertible money of Great Britain does not in fact vary so perfectly in volume and value as a metallic money would do under the impulses of trade” (Perry 1866, 264–65). In fact, Perry (1866, 265) argues that the very existence of Peel’s Act “shows that there is something factitious and unnatural about paper money, when so rigid a system of restraint is considered needful to prevent disastrous fluctuations in volume and value.”<sup>49</sup>

F.A. Walker ([1878] 1968, 524), in his influential treatise *Money*, critically analyzes the various arguments in favor of fractional-reserve banking and concludes with the proposition that “a paper issued above the amount of specie held for redemption, however carefully managed, tends to excess in greater or less degree.”<sup>50</sup> Elsewhere, Walker (1888, 171) argues that “there resides in bank money, even under the most stringent provisions for convertibility, the capability of local and temporary inflation.”

Now hostility to banks in general and to fractional-reserve banks in par-

ticular has a long tradition in American economic thought, traceable back to Thomas Jefferson. Jefferson's attitude toward banks is illustrated in one of his typical attacks on the Federalists for trying to establish an aristocratic government "founded on banking institutions, and moneyed incorporations under the guise . . . of their favoured branches of manufacturers, commerce and navigation, riding and ruling over the plundered ploughman and beggared yeomanry" (Dorfman 1946, 1: 444). Jefferson "attacked any issue of bank paper beyond the supply of specie," and, in reaction to the Panic of 1819, he proposed a plan that would lead to "the eternal suppression of bank paper" (Rothbard 1962, 137, 140).

The leading Jeffersonian political economist, John Taylor, elaborated and systematized Jefferson's critique of the Federalist's drive for a "financial aristocracy, based upon a monopoly of monetary powers and privileges" (Wilhite 1958, 335). According to Taylor ([1814] 1950, 268, 313):

It is . . . the office of paper currency to transfer wealth . . . from man to man, or from nation to corporation. . . . So long as it represent wealth, corporations able to create it [i.e., banks] can . . . draw wealth from the rest of the nation by its means. . . . If then a nation bestows a pecuniary income on an order of nobles or bankers, it conveys so much of its services to this order as the money represents. . . . It is clear that nations, by giving any species of currency to an order or interest, will give it a title to every species of service from the multitude; that the revival by law of a title to such services through the intervention of a currency is a substantial revival of the feudal system.

Taylor's perception of banks as privileged, monopoloid, and inherently inflationary institutions, fundamentally inconsistent with a free society, led him to oppose private as well as public banks (Wilhite 1958, 342; Conkin 1980, 65–71; Dorfman 1946, 1: 301–4).

The Jefferson-Taylor analysis of banks, in turn, can be traced directly to the work of Destutt de Tracy. As Leonard Liggio (1984, 81–82) has recently emphasized, with respect to banking theory, "American economic thought in the 19th century was dominated not by English economic writing but by the political economy treatises of Jean Baptiste Say and Destutt de Tracy, both of which were published in America through the efforts of President Thomas Jefferson."

In his brief but incisive analysis of fractional-reserve banks, Tracy ([1817] 1970, 104) emphatically argues that "these large companies" always have their origination in monopoly privilege granted to them by government, which they receive in exchange for low-interest or gratuitous loans to the political authorities. "It is thus that the one sells its protection and the other buys it" (Tracy [1817] 1970, 105). Inevitably, however, the privileged bank's note issues expand to such an extent that the bank is unable to maintain convertibility and it then is compelled to seek from government the additional

privilege of suspending redemption of its outstanding note liabilities. When the bank receives authorization to suspend specie payments, “Society finds itself in the full state of *paper money*. . . . It is thus all privileged companies end: they are radically vicious; and every thing essentially bad always terminates badly” (Tracy [1817] 1970, 105).

After a sophisticated account of monetary inflation, which emphasizes its sequential diffusion through the economy and its nonneutral “distribution” effects, Tracy ([1817] 1970, 93–94) concludes:

In vain would it be said that paper money, may be used, without being abused to this excess, constant experience proves the contrary; and, independently of experience, reason demonstrates . . . that it is not made *money*, that is to say having a forced circulation, but on purpose to be abused. . . . All paper money is a phrensy of despotism run mad.

Even in the case where banks are “so sophisticated” not to produce the “horrible danger” of inconvertible paper money, “the advantages promised by them would be illusory or very inconsiderable, and could add but very little to the mass of national industry and wealth” (Tracy [1817] 1970, 105). Tracy therefore prefers a 100 percent specie currency.

## Conclusion

My purpose in this article has been to demonstrate that the contributions of the French liberal school to economic theory were recognized and utilized by some economists who are generally considered to have played prominent roles in the initial development of modern marginalist economic theory or who have anticipated and influenced such development. If this much is accepted, then the attempt of Schumpeter and other scholars to explain the Anglo-American neglect of the liberal school in terms of the latter’s analytical sterility or indifference immediately founders. While an alternative explanation has not been provided, considerable progress has been made by radically shifting the focus of research from alleged analytical shortcomings of the liberal school to the identification of the institutional factors that have impeded recognition by (most) English-speaking economists of the substantive theoretical content of liberal economics.

## Notes

1. The school is perhaps better known to Anglo-American economists as the “optimist” school. However, the latter is an epithet invented by opponents of the school and explicitly repudiated by those whom it was intended to designate.

2. Ironically, Cairnes ([1888] 1965, 31 fn. 2) characterized this theory as “no doubt, irreconcilable” with Say’s supply-and-demand approach to the determination of wages.

3. This statement appears in a letter written to J.S. Mill by Cairnes in 1870 and cited by de Marchi (1973, 92). De Marchi (1973, 92 fn. 45) also reports that, in an earlier letter to Cairnes, Mill had expressed the opinion that “French political economists shared largely in the defects of French philosophic writers in general, these being ‘decidedly inferior in closeness and precision of thought to the best English.’”

4. Schumpeter does not appear to have been familiar with Lamontagne’s contribution, since it is not cited in his *History of Economic Analysis* (Schumpeter 1954). Marian Bowley was another writer whose contribution in this area seems to have been neglected by Schumpeter. Bowley ([1937] 1967, 66–116) sketched out the “Continental” subjective-value tradition in her discussion of the doctrinal roots of Nassau Senior’s subjectivist-oriented approach to the theory of value.

5. While Walras certainly emerged from the Say tradition, there were important methodological issues separating him from the mainstream of the French liberal school, including the latter’s uncompromising rejection of mathematical economics.

6. For treatments of Say’s methodology that emphasize its procedure of deductive reasoning from factual premises, see Roll (1953, 322–23), Rothbard (1979, 45–49), and Salerno (1985, 312–14).

7. For an overview of Ferrara’s contributions to economic theory, see Weinberger (1940).

8. The Italian historicist and socialist, Achille Loria (1900, 117; 1891, 61), one of the fiercest contemporary opponents of Ferrara’s economics, refers to Ferrara as “the greatest Italian economist of the nineteenth century” and “without doubt, the greatest genius of which the economic science of our country boasts.”

9. This accords with the view of Ferrara’s contemporaries, who saw him as an Italian representative of the French liberal school. For example, Cossa (1893, 494) classifies Ferrara as a “scientific optimist,” Rabbeno (1891, 446) calls him “the prince of the Italian liberals,” and Loria (1891, 74) refers to “the absolute domination of Franco-American optimistic theories under the intellectual dictatorship of Ferrara.”

10. Thus, the older view, as expressed by Weinberger (1940, 97 fn. 20), that Ferrara was inconsistent in “admitting the equivalent importance of utility in respect to the quantity of value” rests on a fundamental misconception of Ferrara’s research program. A striking exception to the older view of Ferrara’s work as a belated rear-guard action to preserve the classical system is presented in the work of Arthur Marget. Marget ([1938–42] 1966, 2: 355–56) views Ferrara as a protogeneral equilibrium theorist, whose literary exposition of the “circular flow” of economic activity was superior to Walras’s in its emphasis upon “the mutual interdependence of economic phenomena *in time*.”

11. On the dominance of Ferrara’s school during this period, see Cossa (1893, 493–513), Loria (1891), and Rabbeno (1891).

12. Details of this reaction and the controversy it provoked can be found in Rabbeno (1891 442–46), Cossa (1893, 504–6), and Haney (1949, 832–35).

13. Barucci (1973, 264) explains that “this double name is on the banner round which economists rallied in Italy.”



14. While the acknowledged leader of this movement, Pantaleoni, developed marginalism “along the Gossen-Jennings-Jevons line . . . the Austrian school was the most influential among Italian economists in the period 1886–90” (Barucci 1973, 257, 265). It was, in fact, the liberal Augusto Graziani who did the most to familiarize Italian economists with Austrian contributions (Barucci 1973, 261–62). In declaring the victory of Austro-marginalism over the doctrines of the Lausanne school in Italy, Loria (1926, 909) states:

Indeed, whilst the liberal school from the beginning praised the mathematical method as being the only means of bringing to light the laws of economics, its later representatives have admitted this method has not up to the present discovered any economic truth hitherto unknown. . . . In the same way, whilst formerly the liberal economists applying purely intellectual mathematical methods proclaimed the inter-relationship of all economic phenomena, and excluded entirely from our science the principle of causality,—on the other hand their more cautious successors have restored to this principle the crown of economic investigation.

15. Weinberger (1940, 100) also notes the parallel between the Austrian imputation theory of factor pricing and Ferrara’s application of his law of reproduction to the phenomena of distribution.

16. For a discussion of this concept, see Molinari ([1904] 1971, 81–95, 144–53) and Hart (1981–82, 5: 416–21).

17. On the “silent revolution,” see Molinari ([1904] 1971, 138–43, 168–74).

18. War as a form of political competition is discussed in Molinari ([1904] 1971, 19–28) and Hart (1981–82, 5: 421–23).

19. On these and related points, see Molinari (1977) and Molinari ([1904] 1971, 75–101).

20. As Hutchison (1973, 185) has pointed out, “there was much less agreement between the rebels regarding what should replace the orthodox theories than that these theories should be rejected. For nearly two decades there was in Britain a somewhat confused interregnum.”

21. On the problem that Say failed to resolve in relating utility to price and that led to the subsequent victory of Ricardian cost-of-production analysis over utility analysis in British value theory, see Bowley (1972, 15–18).

22. For overviews of Hearn’s life and work, see Copland (1935) and La Nauze (1949, 45–97).

23. La Nauze (1949, 87–88) also defends Jevons’ originality, asserting that what Jevons found “in *Plutology* was a welcome and encouraging confirmation of some of the lines of thought he had been developing.” Hayek (1952, 529 n. 1), however, expresses a somewhat divergent opinion.

24. La Nauze (1949, 97–98) supplies a brief etymology of the word in economic discourse. Also see Gide and Rist (1948, 380) and Copland (1935, 19–20).

25. In countering Cairnes’ claim that Bastiat had no following, Jevons (1873, 6) points out that Courcelle-Seneuil’s general approach to economics, “followed since by Professor Hearn,” derives from Bastiat.

26. Cf. Copland (1935, 21–22, 30–31). La Nauze (1949, 72), however, strains to deny the claim of Jevons, Edgeworth, and others that “Hearn grasped the idea of diminishing marginal utility in a way relevant to the theory of exchange.”

27. Copland (1935, 31) argues that Hearn “had probably a clearer conception

of the nature of demand than most of the classical economists, and among British economists he suggested principles of diminishing utility and elasticity of demand before their classical statement by Jevons."

28. La Nauze (1949, 76) notes the discussion but belittles its significance.

29. This is not to say that the capitalist suffers a diminution in the absolute size of his interest income, because, as Hearn (1864, 328) points out, "although the capitalist's share of the product is thus diminished, yet as the product itself continues to increase, the smaller share of the larger product is more than equivalent to the larger share of the smaller product." Were this not the case, "there would be no motive for investment," since "the increase of investment implies gain." The foregoing argument was initially propounded by Bastiat (1964, 92–96).

30. La Nauze grudgingly admits that Hearn's statement of the law of diminishing returns constitutes a definite advance over that of earlier economists, including the two Mills. Thus, La Nauze (1949, 83–84) comments that "[Hearn's] view shows a change of emphasis, not a new approach. . . . Properly worked out it could lead to a more satisfactory discussion of the question of the combination of factors and the variation of costs than earlier economists were able to achieve."

31. Hearn (1864, 167–99) devotes two full chapters to a discussion of the causes and consequences of invention. In his *Harmonies*, Bastiat (1964, 284–301) places great emphasis on the market processes by which individual acts of capital accumulation, invention, and appropriation of natural resources are translated into rising living standards for the entire economy.

32. On the peculiar circumstances surrounding the translation of Tracy's manuscript into English, see Dorfman (1946, 1: 434, 2: 532) and O'Connor ([1944] 1974, 25–26).

33. For discussions of Taylor's economic thought, see Conkin (1980, 43–76), Dorfman (1946, 301–4), Grampp (1945), Stromberg (1982, 35–48), Foshee (1985), Macleod (1980), and Wilhite (1958, 320–46).

34. Tracy's influence on Taylor is noted by Stromberg (1982, 41, 47–48 n. 32) and O'Connor ([1944] 1974, 25–29, 57). Also, Teilhac (1936, 33, 107) refers to "the Franco-American tradition of Destutt de Tracy, Say, Bastiat, Raymond, Carey and George."

35. Recognition of the strong catallactic orientation of Tracy's economics can be found in Kirzner (1976, 72) and O'Connor ([1944] 1974, 28).

36. Bell (1953, 495, 498) writes that Walker's book "was widely used in its day. . . . [It] was well received and extremely influential."

37. For an insightful discussion of Walker's rent theory that emphasizes its non-Ricardian orientation, see Turner (1921, 173–77). Bell (1953, 495–98) and Dorfman (1946, 2: 749–52) also present good summaries of Walker's thought.

38. However, Newton's overall conclusion is that A. Walker's work "was, in the main, in the orthodox English 'classical' tradition" (Newton 1968, 6). Newton's assessment of Walker's doctrinal heritage is curious, in view of the fact that Newton (1968, 100) himself recognizes that Walker's value and price theory is "considerably influenced by Bastiat's approach."

39. For a discussion of Bastiat's influence on Perry, see MacLeod (1896, 154–55). In his later work, Perry (1878, x–xi) also acknowledges intellectual debts to

MacLeod, Jevons, and F.A. Walker. Also, Perry's son and biographer, Carroll Perry (1923, 7), briefly discusses the doctrinal influences on his father's work.

40. Rothbard's judgment that the writings of the French liberal school "reveal that their *laissez-faire* conclusions were post-judices—were judgments based on their analysis, rather than preconceptions of their analysis" (Rothbard 1977, 30) certainly applies to Perry.

41. A critical summary of Perry's distribution theory is provided by Turner (1921, 182–90).

42. Turner (1921, 188–89), however, points out several confusions marring Perry's treatment of the law of diminishing returns.

43. Thus, Perry's work "denies the old category of distribution" and focusses on "the natural God-appointed test of free exchanges" (O'Connor [1944] 1974, 266). Commenting on the original features of his own work, Perry (1878, viii–ix) declares: "I dropped entirely the long-maintained distinctions between the Production, Distribution, and Consumption of Wealth."

44. For a discussion of Perry's theory of the division of the "return-service" between wages and profits, see Bell (1953, 501–2). It should be noted that Perry, closely following Bastiat, diverges from the mainstream of French liberal distribution theory in ignoring the analytical distinction between the capitalist and entrepreneurial functions and income shares.

45. Under the force of F.A. Walker's influential criticisms, Perry (1878, x–xi) was led to surrender almost the entire original concept, although he continued to employ the term *Wages-Fund* in his theory of wages.

46. In his discussion of Walker's rejection of the Ricardo-Mill methodology, Newton (1968, 19–23, 27) overplays the influence of the German historical school on Walker, while ignoring the methodological tradition of Say, which Walker absorbed through his intimate familiarity with the works of his father and Perry. Newton's oversight is understandable, in light of the fact that Walker (1888, 1–33) appears to have taken pains to avoid references to the ultra-*laissez faire* American cattalactic school, replacing them with citations of the scientifically more respectable works of Senior and Cairnes, whose positions on the scope and method of economics paralleled or were influenced by Say.

47. Newton (1968, 103–4) denies that the concept of final or marginal utility plays a significant role in Walker's exposition of price theory.

48. By the publication of his most mature work in 1891, however, Perry (1891, 286–302) had retreated to a defense of the fractional-reserve, free-banking system.

49. Despite his advocacy of a 100 percent specie currency, Perry does not oppose market-produced "near moneys," which operate to naturally economize on the costs of a specie standard. Thus Perry (1866, 265) argues that his position in favor of an all-specie currency

does not exclude the freest use of those convenient economizing commercial expedients, such as bills of exchange, drafts, checks, money-orders through the post office, and so on, which are sufficient to prevent for the most part all burdensome transfers of coin. . . . Let the currency stand securely in its own right as value-money [i.e., gold and silver], and then the various forms of paper credit will safely come in to remove all the inconveniences and secure all the advantages of a perfectly sound, and everywhere acceptable, and a naturally self-regulating money.

50. Newton (1968, 111) writes that Walker's *Money* "became the standard work by which to train the increasing numbers of teachers and students that were emerging on the American scene in the two decades following its publication." Also see Dorfman's reference to Walker's authority on monetary economics (Dorfman 1946, 3:103).

## References

- Antonelli, Etienne. 1923. "Recent Tendencies in French Theoretical Economics." *Journal of Political Economy* 31 (June): 561–64.
- Barucci, Piero. 1973. "The Spread of Marginalism in Italy, 1871–1890." In R.D. Collison Black, A.W. Coats, Craufurd D.W. Goodwin, eds., *The Marginal Revolution in Economics: Interpretation and Evaluation*. Durham, N.C.: Duke University Press. Pp. 246–66.
- Bastiat, Frederic. 1964. *Economic Harmonies*. Trans. W. Hayden Boyers. Ed. George B. de Huszar. Irvington-on-Hudson, N.Y.: Foundation for Economic Education.
- Baudin, Louis. 1945. "An Outline of Economic Conditions in France under the German Occupation." *Economic Journal* 55 (Dec.): 326–45.
- . 1954. "Irrationality in Economics." *Quarterly Journal of Economics* 67 (Nov.): 487–502.
- Bell, John. 1953. *A History of Economic Thought*. New York: Ronald Press.
- Black, R.D. Collison. 1981. "W.S. Jevons, 1835–82." In D.P. O'Brien and John R. Presley, eds., *Pioneers of Modern Economics in Britain*. Totowa, N.J.: Barnes & Noble. Pp. 1–35.
- Blanqui, Jerome Adolphe. [1880] 1968. *History of Political Economy in Europe*. Trans. Emily J. Leonard. Reprint. New York: Augustus M. Kelley.
- Block, Maurice. 1893. "The Progress of Economic Ideas in France." *Annals of the American Academy of Political and Social Science* 4 (July): 1–33.
- . 1897. *Les Progres de la Science Economique depuis Adam Smith*. 2 vols. 2nd ed. Paris: Guillaumin.
- Bohm-Bawerk, Eugen von. 1959. *Capital and Interest, Vol. 1: History and Critique of Interest Theories*. Trans. George D. Huncke and Hans F. Sennholz. South Holland, Ill.: Libertarian Press.
- Bonar, J. 1896. Review of *Traite Theorique et Pratique d'Economie Politique* by P. Leroy Beaulieu. *Economic Journal* 6 (Dec.): 573–82.
- Bowley, Marian. [1937] 1967. *Nassau Senior and Classical Economics*. Reprint. New York: Octagon Books.
- . 1972. "The Predecessors of Jevons: The Revolution That Wasn't." *Manchester School* 40 (March): 9–29.
- Cairnes, John E. [1873] 1965. "Bastiat." In John E. Cairnes, ed., *Essays in Political Economy: Theoretical and Applied*. Reprint. New York: Augustus M. Kelley, Pp. 313–344.
- . [1874] 1967. *Some Leading Principles of Political Economy*. Reprint. New York: Augustus M. Kelley.
- . [1888] 1965. *The Character and Logical Method of Political Economy*. 2nd ed. Reprint. New York: Augustus M. Kelley.

- Cassel, Gustav. 1903. *The Nature and Necessity of Interest*. New York: Macmillan.
- . 1932. *The Theory of Social Economy*. 2nd ed. Trans. S.L. Barron. New York: Harcourt, Brace.
- Castelot, E. 1891. Review of *Notions Fondamentales d'Economie Politique et Programme Economique* by G. de Molinari. *Economic Journal* 1 (Sept.): 601–3.
- Chevalier, Michel. 1859. *On the Probable Fall in the Value of Gold: The Commercial and Social Consequences Which May Ensnare, and the Measures Which It Invites*. Trans. Richard Cobden. London: W.H. Smith and Son.
- Clark, Archibald B. 1908. Review of *L'Individualisme Economique et Social* by Albert Schatz. *Economic Journal* 18 (June): 298–302.
- Clark, J.B. 1889. Review of *Principles d'Economie Politique* by Charles Gide. *Political Science Quarterly* 4 (Sept.): 548–49.
- Coats, A.W. 1960. "The First Two Decades of the American Economic Association." *American Economic Review* 50 (Sept.): 555–74.
- . 1961. "The Political Economy Club: A Neglected Episode in American Economic Thought." *American Economic Review* 51 (Sept.): 624–37.
- Conkin, Paul K. 1980. *Prophets of Prosperity*. Bloomington, Ind.: Indiana University Press.
- Copland, Douglas B. 1935. *W.E. Hearn: First Australian Economist*. Melbourne, Australia: Melbourne University Press.
- Cossa, Luigi. 1893. *An Introduction to the Study of Political Economy*. Trans. Louis Dyer. 2nd ed. New York: Macmillan.
- Davenport, Herbert J. 1894. "The Formula of Sacrifice." *Journal of Political Economy* 2 (Sept.): 561–73.
- . [1896] 1968. *Outlines of Economic Theory*. Reprint. New York: Augustus M. Kelley.
- . [1908] 1964. *Value and Distribution: A Critical and Constructive Study*. Reprint. New York: Augustus M. Kelley.
- De Marchi, N.B. 1973. "Mill and Cairnes and the Emergence of Marginalism in England." In R.D. Collison Black, A.W. Coats, and Craufurd D.W. Goodwin, eds., *The Marginal Revolution in Economics: Interpretation and Evaluation*. Durham, N.C.: Duke University Press. Pp. 78–97.
- Dorfman, Joseph. 1946. *The Economic Mind in American Civilization: 1606–1933*. 5 vols. New York: Viking.
- . 1955. "International Flow of Economic Ideas: The Role of the German Historical School in American Economic Thought." Papers and Proceedings of the American Economic Association, *American Economic Review* 45 (May): 17–28.
- Dunbar, Charles F. 1876. "Economic Science in America, 1776–1876." *North American Review* 122 (Jan.): 124–54.
- . 1886. "The Reaction in Political Economy." *Quarterly Journal of Economics* 1 (Oct.): 1–27.
- Edgeworth, F.Y. 1907a. "Appreciation of Mathematical Theories—II." *Economic Journal* 17 (Dec.): 524–31.
- . 1907b. Review of *La Monnaie* by A. de Foville and *La Science Economique* by Yves Guyot. *Economic Journal* 17 (Sept.): 407–12.
- Ekelund, Robert B., Jr., and Robert F. Hebert. 1983. *A History of Economic Theory and Method*. 2nd ed. New York: McGraw-Hill.

- Ferguson, John M. 1950. *Landmarks of Economic Thought*. 2nd ed. New York: Longmans, Green.
- Fetter, Frank A. 1920a. "Price Economics Versus Welfare Economics." *American Economic Review* 10 (Sept.): 467–87.
- . 1920b. "Price Economics Versus Welfare Economics: Contemporary Opinion." *American Economic Review* 10 (Dec.): 719–37.
- . 1921. Introduction to *The Ricardian Rent Theory in Early American Economics* by John R. Turner. New York: New York University Press. Pp. vii–xiv.
- . 1923a. "Value and the Larger Economics: I. The Rise of the Marginal Doctrine." *Journal of Political Economy* 31 (Oct.): 587–605.
- . 1923b. "Value and the Larger Economics: II. Value Giving Way to Welfare." *Journal of Political Economy* 31 (Dec.): 790–803.
- . [1927] 1977. "Clark's Reformulation of the Capital Concept." In Murray N. Rothbard, ed., *Capital, Interest, and Rent: Essays in the Theory of Distribution*. New York: New York University Press. Pp. 119–42.
- Foshee, Andrew W. 1985. "Jeffersonian Political Economy and the Classical Republican Tradition: Jefferson, Taylor, and the Agrarian Republic." *History of Political Economy* 17 (Winter): 523–50.
- Foville, A. De. 1890. "The Economic Movement in France." *Quarterly Journal of Economics* 4 (Jan.): 222–32.
- . 1898. "Spanish Currency." *Journal of Political Economy* 7 (Dec.): 1–25.
- . 1903. Review of *Les Systemes Socialistes* by Vilfredo Pareto. *Economic Journal* 13 (March): 99–106.
- . 1907. Obituary—Emile Levasseur. *Economic Journal* 21 (Sept.): 488–90.
- Gide, Charles. 1890. "The Economic Schools and the Teaching of Political Economy in France." *Political Science Quarterly* 5 (Dec.): 603–35.
- . 1891. *Principles of Political Economy*. Trans. Edward Percy Jacobsen. Boston: D.C. Heath.
- . 1896. Obituary—Leon Say. *Economic Journal* 6 (June): 318–22.
- . 1898. "Has Co-operation Introduced a New Principle into Economics?" *Economic Journal* 8 (Dec.): 490–511.
- . 1905. *Principles of Political Economy*. Trans. C. William A. Veditz. 2nd ed. Boston: D.C. Heath.
- . 1907. "Economic Literature in France at the Beginning of the Twentieth Century." *Economic Journal* 17 (June): 192–212.
- . 1912. Obituary—Frederic Passy. *Economic Journal* 22 (Sept.): 506–7.
- . 1922. *Consumers' Co-operative Societies*. Trans. Staff of the Co-operative Reference Library. New York: Alfred A. Knopf.
- . 1924. *Principles of Political Economy*. Trans. Ernest F. Row. 3rd ed. Boston: D.C. Heath.
- . 1926. "French School of Political Economy." In Henry Higgs, eds., *Palgrave's Dictionary of Political Economy*. Vol. 2. London: Macmillan. Pp. 154–60, 869–71.
- . 1928. Obituary—Yves Guyot. *Economic Journal* 38 (June): 332–35.
- Gide, Charles, and Charles Rist. 1948. *A History of Economic Doctrines*. Trans. R. Richards and Ernest F. Row. 2nd ed. Boston: D.C. Heath.

- Godkin, E.L. 1891. "The Economic Man." *North American Review* 153 (Oct): 491–503.
- Goodwin, Craufurd D.W. 1973. "Marginalism Moves to the New World." In R.D. Collison Black, A.W. Coats, and Craufurd D.W. Goodwin, eds., *The Marginal Revolution in Economics: Interpretation and Evaluation*. Durham, N.C.: Duke University Press. Pp. 285–304.
- Grampp, William D. 1945. "John Taylor: Economist of Southern Agrarianism." *Southern Economic Journal* 11 (Jan.): 256–68.
- Groenewegen, Peter D. 1970. "A Reappraisal of Turgot's Theory of Value, Exchange, and Price Determination." *History of Political Economy* 2 (Spring): 177–96.
- . 1983. "Turgot's Place in the History of Economic Thought: A Bicentenary Estimate." *History of Political Economy* 15 (Winter): 585–616.
- Guyot, Yves. 1892. *Principles of Social Economy*. Trans. C.H. D'Eyncourt Leppington. 2nd ed. New York: Charles Scribner's Sons.
- . 1910. *Economic Prejudices*. Trans. Fred Rothwell. London: Swan Sonnenschein.
- . 1910. *Socialistic Fallacies*. New York: Macmillan.
- . 1912. Obituary—Gustave de Molinari. *Economic Journal* 22 (March): 152–56.
- Haney, Lewis H. 1949. *History of Economic Thought*. 4th ed. New York: Macmillan.
- Hart, David M. 1981–82. "Gustave De Molinari and the Anti-Statist Liberal Tradition." Parts 1–3. *Journal of Libertarian Studies* 5: 263–90, 399–434; 6: 83–104.
- Hayek, Friedrich A. 1952. "Hayek on Menger." In Henry William Spiegel, ed., *The Development of Economic Thought: Great Economists in Perspective*. New York: John Wiley & Sons.
- Hearn, William Edward. 1864. *Plutology: Or the Theory of the Efforts to Satisfy Human Wants*. Melbourne and Sydney, Australia: George Robertson.
- Hirschman, Albert O. 1973. *Journeys toward Progress: Studies of Economic Policy-Making in Latin America*. New York: W.W. Norton.
- Howey, Richard S. 1973. "The Origins of Marginalism." In R.D. Collison Black, A.W. Coats, and Craufurd D.W. Goodwin, eds., *The Marginal Revolution in Economics: Interpretation and Evaluation*. Durham, N.C.: Duke University Press. Pp. 15–36.
- Hutchison, T.W. 1955. "International Flow of Economic Ideas: Insularity and Cosmopolitanism in Economic Ideas, 1870–1914." Papers and Proceedings of the American Economic Association, *American Economic Review* 45 (May): 1–16.
- . 1973. "The 'Marginal Revolution' and the Decline and Fall of English Classical Political Economy." In R.D. Collison Black, A.W. Coats, and Craufurd D.W. Goodwin, eds., *The Marginal Revolution in Economics: Interpretation and Evaluation*. Durham, N.C.: Duke University Press. Pp. 176–202.
- Jevons, W. Stanley. [1871] 1970. *The Theory of Political Economy*. Ed. R.D. Collison Black. Baltimore: Penguin Books.
- . 1873. Review of *Essays in Political Economy* by J.E. Cairnes. *Manchester Guardian* (April 10), p. 6.
- . 1905. *The Principles of Economics*. New York: Macmillan.

- Kirzner, Israel M. 1976. *The Economic Point of View: An Essay in the History of Economic Thought*. Kansas City, Mo.: Sheed and Ward.
- Kriz, M.A. 1947. Review of *La Monnaie et la Formation des Prix* by Louis Baudin. *American Economic Review* 37 (Dec.): 978–81.
- Lamontagne, Maurice. 1947. “Some French Contributions to Economic Theory.” *Canadian Journal of Economics and Political Science* 13 (Nov.): 514–32.
- La Nauze, J.A. 1949. *Political Economy in Australia*. Carlton, Australia: Melbourne University Press.
- Laughlin, J. Laurence 1892. “The Study of Political Economy in the United States.” *Journal of Political Economy* 1 (Dec.): 1–19.
- Laveye, Emile De. 1888. *The Elements of Political Economy*. Trans. Alfred W. Pollard. New York: G.P. Putnam’s Sons.
- Leroy-Beaulieu, Paul. 1883. *Essai sur la Repartition des Richesses*. 2nd ed. Paris: Librairie Guillaumin.
- . 1891. *The Modern State in Relation to Society and the Individual*. Trans. A.C. Morant. London: Swan Sonnenschein.
- . 1908. *Collectivism: A Study of Some of the Leading Social Questions of the Day*. Trans. and ed. Sir Arthur Clay. New York: E.P. Dutton.
- . 1910. *Traite Theorique et Pratique d’Economie Politique*. 4 vols. 5th ed. Paris: Librairies Felix Alcan et Guillaumin Reunies.
- Levasseur, Emile. 1892. “The Recent Commercial Policy of France.” *Journal of Political Economy* 1 (Dec.): 20–49.
- . 1894. “The Assignats: A Study in the Finances of the French Revolution.” *Journal of Political Economy* 2 (March): 179–202.
- . 1896. “Wages in the United States: The Causes Which Determine Wages.” *Journal of Political Economy* 4 (March): 166–86.
- . 1900. *The American Workman*. Trans. Thomas S. Adams. Baltimore: Johns Hopkins University Press.
- . 1905. *Elements of Political Economy*. Trans. Theodore Marburg. New York: Macmillan.
- Liggio, Leonard P. 1977. “Charles Dunoyer and French Classical Liberalism.” *Journal of Libertarian Studies* 1 (summer): 153–78.
- . 1984. “The History of Currency Competition: Further Remarks on Past Experiences.” In P. Salin, ed., *Currency Competition and Monetary Union*. Boston: Martinus Nijhoff. Pp. 80–83.
- Loria, Achille. 1891. “Economics in Italy.” *Annals of the American Academy of Political and Social Science* 2 (Sept.): 60–80.
- . 1900. Obituary—Francesco Ferrara. *Economic Journal* 10 (March): 114–17.
- . 1906. “Economic Studies in Italy.” *Economic Journal* 16 (March): 149–55.
- . 1926. “Italian School of Economists.” In Henry Higgs, ed., *Palgrave’s Dictionary of Political Economy*. Vol. 2. London: Macmillan. Pp. 460–70, 909–12.
- Lutfalla, M. Michel. 1984. “19th Century Enlightenment: French Economic Liberals, 1789–1815.” Paper presented at History of Economics Society 1984 Meetings, Pittsburgh, 22–24 May 1984.
- Luttrel, Clifton B. 1975. “Thomas Jefferson on Money and Banking: Disciple of Da-



- vid Hume and Forerunner of Some Modern Monetary Views." *History of Political Economy* 7 (Summer): 156–73.
- McCulloch, John R. [1864] 1965. *The Principles of Political Economy*, 5th ed. Reprint. New York: Augustus M. Kelley.
- Macleod, Duncan. 1980. "The Political Economy of John Taylor of Caroline." *Journal of American Studies* 14, No. 3. Pp. 387–406.
- Macleod, Henry Dunning. 1857. *The Elements of Political Economy*. London: Longman, Brown, Green, Longmans, and Roberts.
- . 1875. *The Principles of Economical Philosophy*, Vol. 2: *Completing Pure Economics*, part 1. 2nd ed. London: Longmans, Green, Reader, and Dyer.
- . 1896. *The History of Economics*. New York: G.P. Putnam's Sons.
- Marget, Arthur W. [1938–42] 1966. *The Theory of Prices: Re-Examination of the Central Problems of Monetary Theory*. 2 vols. Reprint. New York: Augustus M. Kelley.
- Marshall, Alfred. [1920] 1949. *Principles of Economics*. 8th ed. Reprint. London: Macmillan.
- Miller, Harry E. [1927] 1972. *Banking Theories in the United States before 1860*. Reprint. New York: Augustus M. Kelley.
- Mitchell, Wesley C. 1969. *Types of Economic Theory from Mercantilism to Institutionalism*. 2 vols. New York: Augustus M. Kelley.
- Molinari, Gustave De. [1904] 1971. *The Society of Tomorrow*. Trans. P.H. Lee Warner. Reprint. New York: Garland.
- . 1977. *The Production of Security*. Trans. J. Huston McCulloch. New York: Center for Libertarian Studies.
- Montemartini, Giovanni. [1900] 1958. "The Fundamental Principles of a Pure Theory of Public Finance." Trans. D. Bevan. In Richard A. Musgrave and Allen T. Peacock, eds., *Classics in the Theory of Public Finance*. New York: St. Martin's. Pp. 137–51.
- Nataf, Philippe. 1984. "Competitive Banking and the Cycle, 1850–1868." Paper presented at History of Economics Society 1984 Meetings, Pittsburgh, 22–24 May 1984.
- Newton, Bernard. 1968. *The Economics of Francis Amasa Walker: American Economics in Transition*. New York: Augustus M. Kelley.
- Nogaro, Bertrand. 1949. *A Short Treatise on Money and Monetary Systems*. New York: Staples.
- O'Brien, D.P. 1975. *The Classical Economists*. New York: Oxford University Press.
- O'Connor, Michael J.L. [1944] 1974. *Origins of Academic Economics in the United States*. Reprint. New York: Garland.
- O'Driscoll, Gerald P. 1982. "Monopoly in Theory and Practice." In Israel M. Kirzner, ed., *Method, Process, and Austrian Economics: Essays in Honor of Ludwig von Mises*. Lexington, Mass.: D.C. Heath. Pp. 189–213.
- Palyi, Melchior. 1928. "The Introduction of Adam Smith on the Continent." In John Maurice Clark, et al. *Adam Smith 1776–1926: Lectures to Commemorate the Sesquicentennial of the Publication of the "Wealth of Nations"*. Chicago: University of Chicago Press. Pp. 180–233.

- Pareto, Vilfredo. 1966. *Sociological Writings*. Trans. Derick Mirfin; ed. S.E. Finer. New York: Frederick A. Praeger.
- . 1971. *Manual of Political Economy*. Trans. Ann S. Schwier. New York: Augustus M. Kelley.
- Parrish, John B. 1967. "Rise of Economics as an Academic Discipline: The Formative Years to 1900." *Southern Economic Journal* 34 (July): 1–16.
- Perry, Arthur L. 1866. *Elements of Political Economy*. New York: Charles Scribner.
- . 1878. *Elements of Political Economy*. New ed. New York: Charles Scribner's Sons.
- . 1891. *Principles of Political Economy*. New York: Charles Scribner's Sons.
- Perry, Carroll. 1923. *A Professor of Life: A Sketch of Arthur Latham Perry of Williams College*. Boston: Houghton Mifflin.
- Pirou, Gaetan. 1925. *Les Doctrines Economiques en France depuis 1870*. Paris: Librairie Armand Colin.
- Pribram, Karl. 1983. *A History of Economic Reasoning*. Baltimore: Johns Hopkins University Press.
- Rabbeno, Ugo. 1891. "The Present Condition of Political Economy in Italy." *Political Science Quarterly* 6 (Sept.): 439–73.
- Rist, Charles. 1932. Obituary—Charles Gide. *Economic Journal* 42 (June): 333–38.
- . [1940] 1966. *History of Monetary and Credit Theory: From John Law to the Present Day*. Trans. Jane Degras. New York: Augustus M. Kelley.
- Roll, Eric. 1953. *A History of Economic Thought*. 3rd ed. Englewood Cliffs, N.J.: Prentice-Hall.
- Rothbard, Murray N. 1962. *The Panic of 1819*. New York: Columbia University Press.
- . 1977. *Toward a Reconstruction of Utility and Welfare Economics*. Occasional Paper Series no. 3. New York: Center for Libertarian Studies.
- . 1979. "Praxeology as the Method of the Social Sciences." In Murray N. Rothbard, ed., *Individualism and the Philosophy of the Social Sciences*. Washington, D.C.: Cato Institute. Pp. 31–61.
- . 1986. *The Brilliance of Turgot*. Auburn, Ala.: Ludwig von Mises Institute.
- Rowe, Leo S. 1892. "Instruction in French Universities." *Annals of the American Academy of Political and Social Science* 2 (Jan.): 62–85.
- Salerno, Joseph T. 1978. "Comment on the French Liberal School." *Journal of Libertarian Studies* 2 (Spring): 65–68.
- . 1985. "The Influence of Cantillon's *Essai* on the Methodology of J.B. Say: A Comment on Liggio." *Journal of Libertarian Studies* 7 (Fall): 305–16.
- Samuelson, Paul. [1962] 1970. "Economists and the History of Ideas." *American Economic Review* 52 (March): 1–18. Reprinted in Ingrid H. Rima, ed., *Readings in the History of Economic Theory*. New York: Holt, Rinehart and Winston. Pp. 282–95.
- Say, Jean-Baptiste. [1880] 1971. *A Treatise on Political Economy*. 6th ed. Trans. C. R. Prinsep. Reprint. New York: Augustus M. Kelley.
- Schumpeter, Joseph A. 1954. *History of Economic Analysis*. Ed. Elizabeth Boody Schumpeter. New York: Oxford University Press.
- . [1954] 1967. *Economic Doctrine and Method: An Historical Sketch*. Trans. R. Aris. Reprint. New York: Oxford University Press, Galaxy Books.

- . 1965. *Ten Great Economists From Marx to Keynes*. New York: Oxford University Press.
- Seligman, Ben B. 1962. *Main Currents in Modern Economics*. Glencoe, Ill.: Free Press.
- Sherwood, Sidney. 1897. "Tendencies in American Economic Thought." *Johns Hopkins University Studies in Historical and Political Science* 12 (Dec.): 7–48.
- Skousen, Mark. 1980. *The 100 Percent Gold Standard: Economics of a Pure Money Commodity*. Lanham, Md.: University Press of America.
- Spann, Othmar. 1930. *The History of Economics*. Trans. Eden Paul and Cedar Paul. New York: W.W. Norton.
- Spiegel, Henry William. 1983. *The Growth of Economic Thought*. Rev. ed. Durham, N.C.: Duke University Press.
- Stigler, George J. 1949. *Production and Distribution Theories: The Formative Period*. New York: Macmillan.
- . 1973. "The Adoption of the Marginal Utility Theory." In R.D. Collison Black, A.W. Coats, and Craufurd D.W. Goodwin, *The Marginal Revolution in Economics: Interpretation and Evaluation*. Durham, N.C.: Duke University Press. Pp. 305–20.
- Stromberg, Joseph R. 1982. "Country Ideology, Republicanism, and Libertarianism: The Thought of John Taylor of Caroline." *Journal of Libertarian Studies* 6 (Winter): 35–48.
- Subercaseaux, Guillermo. 1922. *Monetary and Banking Policy of Chile*. Oxford: Humphrey Milford.
- Suranyi-Unger, Theo. 1931. *Economics in the Twentieth Century*. Trans. Noel D. Multon; ed. Edwin R.A. Seligman. New York: W.W. Norton.
- Taylor, John. [1814] 1950. *An Inquiry into the Principles and Policy of the Government of the United States*. Reprint. New Haven: Yale University Press.
- Taussig, Frank W. 1888. Introduction to Emile de Laveleye, *The Elements of Political Economy*. Trans. Alfred W. Pollard. New York: G.P. Putnam's Sons. Pp. xi–xviii.
- Teilhat, Ernest. 1936. *Pioneers of American Economic Thought in the Nineteenth Century*. Trans. E.A.J. Johnson. New York: Macmillan.
- Tracy, Count Destutt. [1817] 1970. *A Treatise on Political Economy*. Ed. and trans. Thomas Jefferson. Reprint. New York: Augustus M. Kelley.
- Turner, John R. 1921. *The Ricardian Rent Theory in Early American Economics*. New York: New York University Press.
- Walker, Amasa. [1874] 1969. *The Science of Wealth: A Manual of Political Economy Embracing the Laws of Trade, Currency, and Finance*. 7th ed. Reprint. New York: Kraus Reprint Co.
- . 1875. *The Science of Wealth: A Manual of Political Economy Embracing the Laws of Trade, Currency, and Finance*. 4th student's ed. Philadelphia: J.B. Lippincott.
- Walker, Francis A. [1878] 1968. *Money*. Reprint. New York: Augustus M. Kelley.
- . 1888. *Political Economy*. 3rd ed. New York: Henry Holt.
- . 1889. "Recent Progress of Political Economy in the United States." *Publications of the American Economic Association* 4, Proceedings (July): 2–40.
- Weinberger, Otto. 1940. "The Importance of Francesco Ferrara in the History of Economic Thought." *Journal of Political Economy* 48 (Feb.): 91–104.

- Wicksell, Knut. [1934] 1977. *Lectures on Political Economy*, vol. 1: *General Theory*. Trans. E. Classen. Reprint. New York: Augustus M. Kelley.
- Wilhite, Virgle Glenn. 1958. *Founders of American Economic Thought and Policy*. New York: Bookman Associates.
- Wu, Chi-Yuen. 1939. *An Outline of International Price Theories*. London: George Routledge & Sons.
- Yeager, Leland B. 1984. "Henry George and Austrian Economics." *History of Political Economy* 16 (Summer): 157-74.