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Working Paper No. 47
July 2004

BERG Working Paper Series
on Government and Growth

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by

Stefan Hopp*

Abstract

Although historians of economic thought emphasize J.-B. Say’s contributions to utility theory, the structure of the subject matter of economics, entrepreneur theory and the construction of the “law of markets,” they rarely appreciate what Say accomplished in the first edition of the Traité d’Économie Politique. Only in chapters 21 and 22 of his 1803 Treatise, however, does Say sketch business firms as institutions that create and operate markets. In doing so, he essentially provides the basis for a non-walrasian concept of the coordination problem of a decentralized economic system. Thus, concerning Adam Smith’s metaphor of the “invisible hand,” Say ought to be considered as the first theorist to introduce into economic literature what Robert W. Clower called the “visible fingers” of the “invisible hand.”

Keywords: Invisible Hand, General Equilibrium Theory, Jean-Baptiste Say, Market Maker, Say’s Law, Des Débouchés

JEL Classification: B12, D50

The paper was presented at the annual meeting of the History of Economics Society (HES), July 4th - 7th, 2003, at Duke University in Durham, N.C., USA.

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Introduction

On the occasion of the 200th anniversary of the publication of Adam Smith’s classic, Roland H. Coase described *The Wealth of Nations* as a work that “still lives and from which we continue to learn” [1977, p. 309]. Although Say’s *Traité d’Économie Politique* 1 celebrates its 200th anniversary this year, no similar claim of timelessness has thus far been established. In spite of sporadic attempts to correct his standing in the history of economic thought, Say’s name would long have been forgotten were it not so tightly attached to the so-called “law of markets.” As Mark Blaug noted, “Jean-Baptiste Say is almost unread today” [1991, p. ix]. Valid for Say’s writings in general, Blaug’s judgment is all the more true for the first edition of the *Traité*.

Despite its marginality in modern economic discourses, Say’s *Traité* deserves recognition as a basis for an alternative foundation for applied economics. My paper suggests that Say’s work outlines a way toward the advancement of economic science by portraying money and trading firms as the institutions coordinating the economic exchange process. The term “coordination of economic activities” thereby refers to an actual economy’s ability to balance the transactors’ desired sales and purchases or, in other words, to the economy’s self-regulating capabilities. 3 The idea of the exchange economy as a self-regulating mechanism goes back, of course, to Adam Smith, and represents the gist of his famous “invisible hand”-metaphor. 4 In chapters 21 and 22 of his *Traité*, Say basically provides “a nontechnical portrait of the ‘fingers’ that […] are responsible for the visible action of Adam Smith’s ‘invisible hand’” [Clower, 1994, p. 3]. 5

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1 The full title is *Traité d’Économie Politique ou Simple Exposition de la Manière dont se Forment, se Distribuent, et se Consomment les Richesse*. Unless stated otherwise, references are to the original French edition, published in 1803 in Paris in two volumes (Tome I and II) with a total of more than one-thousand pages. Where the chapters of the original edition were not accessible to the author, the German translation of the *Traité*, published in 1807 in Halle and Leipzig, served as a primary text. All quotes from the 1807 German edition of the *Traité* have been translated by the author. Direct quotes from the 1803 *Traité*, except noted otherwise, have been translated by Baumol [1977].

2 See, for example, Koolman’s [1971] re-assessment of Say’s contribution to the theory of the entrepreneur. Palmer’s [1997] biography also analyzes the contributions of the first edition of the *Traité* to economic theory [pp. 1-5 and pp. 67-89].

3 For this definition see Axel Leijonhufvud [1973, p. 104-105].

4 Smith introduces and discusses the invisible hand in book IV, chapter ii of *The Wealth of Nations* [(1776) 1979, IV.ii.10, p. 456]. The economy’s “automatic” adjustment mechanism, the “System of Natural Liberty,” Smith discusses in his famous chapter vii “Of the Natural and Market Price of Commodities” [(1776) 1979, I.vii].

5 Clower [1994] named trade intermediaries the “visible fingers” of the “invisible hand,” because their activities lend order and coherence to the independent exchange decisions of millions of transactors and may thus be regarded as the real-world counterparts of Smith’s metaphor. In Germany, there are currently about 37 million households, more than 2 million enterprises and about 15,000 governmental institutions in exchange relations with one another.
A re-reading of the *Traité* from the point of view of the coordination of economic activities is not only instructive for an understanding of the working of a market economy. In addition, the inquiry reveals that one cannot ascertain any law-like proposition in the famous chapter “Des Débouchés,” the supposed origin of the law of markets. Furthermore, the proposed interpretation reveals that Say clearly recognized the importance of money for a highly subdivided exchange economy.

**Preliminary Note: The Smithian Diversion**

In her review of the discourse on Smith, Vivienne Brown [1997, p. 287] considers the Smithian market theory as a forerunner of neowalrasian economics. Despite carrying a positive note for some economists, this observation reveals an important shortcoming in Smithian as well as neowalrasian economics: regarding the coordination of economic activities, both abstract from money and markets and assume their functions to be performed by a mythical entity. Similar to Smith talking about individuals being led by an “invisible hand,” neowalrasians appeal to “the auctioneer” or to “the price system” in order to “explain” the adjustment process between supply and demand. In particular neowalrasians deflect theoretical attention from market processes to an impersonal set of (production or consumption) choices and consider them to be costless and executed perfectly.

Granted that Smith’s conceptual model of the economic system is as defective as that of modern neowalrasians, his approach equals that of other inductive sciences. Smith

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6 Following Clower [1995, p. 307, fn. 1], I regard the word „neowalrasian” as an impersonal noun that requires no capitalization as there exists only an inspirational connection between Walras’ *Eléments* and the writings of his followers (e.g., Hicks [1939], Samuelson [1947], Arrow and Debreu [1954], and Debreu [1959]). For an analysis of the gulf separating Walras’ work from that of his disciples see Costa [1999a].

7 See, for example, the statement of Arrow and Hahn [1971, pp. vi-vii].

8 For an analysis of the futility of money and markets in an Arrow-Debreu-world see Starr [1972]. Starr [1972] is a duplicated form of chapter 1 of Starr’s Ph.D.-thesis written under the supervision of Arrow in the late 1960s [Clower, 1994, p. 807, fn. 3].

9 Costa [1998a] analyzed how this conception constrained our understanding of the exchange process and, consequently, impeded progress in our understanding of the relevant stylized facts of an ongoing market economy. According to Costa, exchange theory developed into a sterile exercise where the question of existence of equilibrium prices for purely notional trading plans has been confused with the different question of how exchange plans can actually be carried out. See Clower [1994, pp. 807-808] for a comparison of the stylized facts of real-world economic behavior with the conception of economic „reality” implied by neowalrasian theory. Blaug [2003, p. 154] concludes that “[t]he best way not to learn how markets function and how a competitive economy actually works is to study general equilibrium theory.”

10 Clower [1989, pp. 12-14] uses the term “conceptual experiments” to refer to a category of scientific stories that “provides the reader with enough information to figure out not only what the teller of the story is saying but also what he is talking about.” Walker [1997] demonstrates that many general equilibrium theorists fail to specify their models such that the “reader knows what they are talking about.”
understood economics as the “study [of] observed actions of individuals interacting in trading relationships, with a view to discerning patterns of group behavior worth cataloguing, explaining, and communicating” [Clower, 1998, p. 401]. Hence, according to Smith, a theory is comparable to an “imaginary machine invented to connect together in the fancy those different movements and effects which are already in reality performed” [1980, HA, IV.19, p. 66]. The neowalrasians’ deductive approach, on the other hand, invented a world to inquire whether it was conceivable in this form [Arrow and Hahn, 1971, p. vii]. In order to emphasize the hypothetical character and formal nature of their models, “science fiction” would be a more appropriate term to label these works.

This is not the place, however, to elaborate the methodological foundations of either Smithian or conventional general equilibrium analysis. The claim I wish to establish is that, in contrast to the neowalrasians, Smith attempted to create a model description of an ongoing exchange economy. Nonetheless, Smith ignored the reflections of Richard Cantillon, Jacques Turgot and David Hume on the “entrepreneur market-maker as the essential coordinator of economic activity” [Clower, 1998, pp. 398-400; Koolman, 1971, p. 283]. Consequently, his retreat to the “invisible hand” deserves the label The Smithian Diversion [Clower, 1998, p. 401]. And, as far as the understanding of market processes is concerned, Smith’s procedure should be “treated not as an ingenious modeling expedient […], but rather as an explanatory evasion which opened a yawning gap in economic analysis that requires closing” [p. 401]. Describing the organization of exchange through trade specialists, Say was the first economist who attempted to remedy Smith’s misstep.

Markets as Institutions

Following the “Discours Préliminare,” Say begins his treatise by distinguishing three types of industry: agricultural, industrial (manufacture), and commercial. Commercial
industry is the type on which this discussion focuses. Say describes it as “transferring goods from places where they are plentiful to places where the consumers are [i.e., where they are scarce]” [1807, I.i.1, p. 3]. Say adds that, “[w]ithout commercial industry[,] this kind of connection [between producers and consumers] could never be established” [1807, I.i.1, p. 4]. Here, Say characterizes the essential function of trade intermediaries, which is to perform the necessary tasks to organize and to maintain a link or a channel through which spatially scattered buyers and sellers may trade. According to Say, the parties involved could not exploit the potential gains from exchange without the trade intermediary.\(^1\)

In a later edition of the *Traité*, Say characterizes commercial industry as placing “within our reach objects of want which would otherwise be beyond reach” [(1834) 1964, I.ii, p. 64]. In other words, the trade specialist concentrates on activities that enable exchanges otherwise uneconomical to be performed. A possible reason consists in the existence of a lump-sum component in the search and transaction costs that customers incur each time they trade.\(^\) The trade specialist helps to reduce these costs by engaging in what will hereafter be called market-making services, which include price formation, stockholding, and provision of information.\(^\) Say does not treat market-making functions explicitly, but proceeds by way of example. He emphasizes, however, that providing market-making services is a resource-consuming, productive activity identical with that of any other industry (agriculture or manufacture)\(^\) and, consequently, may be performed with more or less diligence.\(^\) Say was the first economic thinker to argue consistently that to produce, in economics, is to give utility to things [1807, I.i.6, pp. 21-22]. But how is utility to be measured? According to Say, the quantity of goods offered for one quantity of another good approximately measures the relative utility of the first good to an individual [p. 22].\(^\) Hence, the exchange value of a good provides a measure of the extent of production.\(^\) Since the ex-

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\(^1\) Refers to the German translation of the *Traité* [1807], volume I, book i, chapter 1, page 3.

\(^\) This also hints at the entrepreneurial and (search) cost reducing function of the trade intermediary. He specializes in discovering links (basically markets) to realize potential gains from exchange.

\(^2\) See Alchian [1969] and Hirshleifer [1973].

\(^3\) These include information on price, quality, location, availability of inventory or risk of stockouts, payment methods, quality of service, and so forth [see Costa, 1998a, appendix F].

\(^4\) Likewise, for example, Spulber [1999, p. 3]: “Just as producing goods and services consumes resources, so does the establishment and operation of markets to allocate those goods and services. Companies incur costs in adjusting prices and communicating price information to buyers and sellers.”

\(^5\) Here Say basically hints at Walras’ [1965, p. 87] equation of exchange: \(m_a \times v_a = n_b \times v_b\) in which \(v_a\) is the value in exchange of one unit of (A) and \(v_b\) is the value in exchange of one unit of (B). Thus, the price of one commodity in terms of the other (i.e., the ratio of the values in exchange) is equal to the inverse ratio of the quantities exchanged; that is, \(v_a/v_b = n_b/m_a\).

\(^6\) Say also outlines the relative nature of exchange value and distinguishes it from a goods money price (i.e., its exchange value relative to the commodity called “money”) [1807, I.6, p. 23].
change value of goods clearly depends upon their spatial location, and since commerce facilitates the exchange of things from one place to another, Say concludes that commercial activity is productive in the proper sense of the word [p. 25].

In the ensuing chapter “Des differentes manières de faire le Commerce” [1803, I.i.21, pp. 147-151], Say restates the necessity of trade due to the spatial separation of prospective buyers and sellers. Furthermore, Say lists various kinds of trade specialists and describes the market-making services they perform. The retail dealer, for example, provides a ready market for prospective buyers: he buys his products from the wholesale dealer and offers them for sale in his shop (store) to the customers. (And though Say did not mention this explicitly, a retail offer for sale usually involves the posting of an asking price.) Because the trade specialist organizes exchange prior to the final purchase, the customers are in a position to buy the goods offered in quantities as small as they desire [p. 148]. The broker, another example chosen by Say, lowers transaction and bargaining costs by providing information about the value of the traded objects (e.g., real estates), thereby enabling prospective buyers and sellers to locate each other.

Later in the chapter, Say adumbrates the market-equilibrating function of trade intermediaries. Due to the nature of commerce, trade specialists have a strong incentive to continually explore the current bid and ask prices of other producers. Thereby, the trade specialist directs his trade channels to those places and products that offer gains from exchange considered worth exploiting. Say concludes that competition among different trade specialists places a check on profits and ensures that gains from exchange are reduced to their average (normal) level [p. 150].

According to Say, profit-seeking business firms organize and operate markets for other (non-specialist) transactors and thereby effectively coordinate the economic exchange process. Consequently, Clower [1994, p. 13] demands that “we must focus on the activities of trade specialists] if we are to have any hope of one day understanding the

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23 Say wrongly assumes, however, that the exchange as such is not a productive activity (Say [1803, I.i.22, p. 147, fn. 1]; Gide and Rist [1913, p. 122, fn. 3]; Heyne [2000, pp. 134-135]). It should be noted, furthermore, that Say puts too much stress on the organization of exchange to the neglect of the production of information by trade specialists [Heyne, 2000, p. 160]. In any case, regarding the utility of trade specialists, public consciousness seems to change very slowly. Note that almost two-hundred years after Say, Heyne [2000, p. 134] still talks about the „public’s deep-rooted suspicion of middlemen.”

24 Refers to the French edition of the Traité [1803], volume I, book i, chapter 21, pages 147 to 151.

25 See Friedman [1989].

26 These include the purchase of the goods at the wholesale dealer, transport to the retail dealer’s location, and the arrangements at the retailer’s shop.

27 I have been unable to locate a similar passage in the second American Edition [Say, (1834) 1964].

28 Literally, Say wrote about the merchant’s industry and capital.

And although we are able to conceive a world without organized exchange, the importance of market-making firms for the economic well-being of every actual member of society cannot be questioned. In the absence of organized trading facilities, a great deal of society's resources would have to be used to perform costly search and transaction activities.

Contrary to Say, Smith uses the term “market” vaguely by referring to the general interdependence of its participants and its capacity for self-regulation (e.g., the invisible hand):

The town is a continual fair or market, to which the inhabitants of the country resort, in order to exchange their rude for manufactured produce. It is this commerce which supplied the inhabitants of the town both with the materials for their work, and the means of their subsistence. The quantity of the finished work which they sell to the inhabitants of the country, necessarily regulates the quantity of the materials and provisions which they buy.

As a result, one cannot ascertain, for example, the meaning of Smith’s hypothesis set forth in the chapter “That the Division of Labour is limited by the Extent of the Market”: Arrow [1980, p. 155] interprets Smith as follows:

[T]he more the selling of goods and services takes place, the greater can be the division of labour [...] The subdivision of labour can be made finer and finer as the market extends. There is a mutually reinforcing relationship between specialization, and therefore greater efficiency, on the one hand and the growth of the market economy in which people are buying and selling on the other. The resulting differentiation in tasks performed gives rise to the profitability of trade; because people are doing different things, they can gain by exchanging these services in effect.

Like Smith, however, Arrow remains unclear about the term “growth of the market economy.” Referring to “the extent of the market” in Smith, Starr [1972, p. 7] argues...
that “[t]he measure of the extent of an agent’s power of exchanging is the ease or difficulty of performing exchange.” In accordance with Say, trade channels organized by the network of trade specialists essentially determine the further development of society by rendering the performance of exchanges for non-specialists more or less routine.

Interpreting “Des Débouchés”

Literally translated, “des débouches” means “outlets” or “markets.” In defense of Say’s views on the organization of exchange, the term “des débouches” will henceforth be used to denote “an organized set of institutional arrangements for the negotiation [and execution] of exchange contracts among individual transactors” [italics removed; Clower and Due, 1972, p. 37]. Historians of economic thought single out the chapter “Des Débouchés,” because the “law of markets” supposedly originates from this three-page chapter in Say’s Traité [1803, I.i.22, pp.153-155]. Since its re-statement by Lange [1942], however, the “law” and its content have been subject to intense exegetical efforts, comparable only to the profession’s attempt to scrutinize the meaning of the “invisible hand.” Despite or because of their vague meanings, both concepts are considered to be equally “fundamental,” “essential,” “indispensable,” “vital,” “important” for a proper understanding of economic theory and, ultimately, the economic system.

In the recent past, Kates [1998, 2003] examined the early developments of the law of markets, arguing that “Des Débouchés” “is a chapter devoted to explaining how each person’s own productions create a market for the goods produced by others” [italics mine, 1998, p. 22]. A re-reading of Say [1803] shows, however, that Kates’ conclusion is much closer to James Mill [1807] than to anything in “Des Débouchés.” In Commerce Defended, Mill argues that “[t]he production of commodities creates […] a mar-
ket for the commodities produced” [italics mine, 1807, p. 81]. No sooner than in book iv of the second volume of the Traité [1803, II.iv.5, p. 175] may a similar proposition be found: “Is the quantity of outputs demanded consequently determined by the quantity of products created? Without any doubt.” In his review of Say’s Traité, Mill [1805, p. 419] describes this proposition as an “important relation between consumption and production.” Hence, Mill [1805] and later economists such as Kates [1998, 2003] ultimately ignored the contents of “Des Débouchés” and commented upon some of its purported implications discussed by Say in volume II (book iv) of the original Traité.

In order to ascertain the original meaning of “Des Débouchés,” one first has to take a look at chapters ii (“Of the Principle which gives occasion to the Division of Labour”) and iii (“That the Division of Labour is limited by the Extent of the Market”) in Smith’s Wealth of Nations [(1776) 1976].42 Here Smith reflects upon the mutual interdependence of individuals in a society organized by exchange, resulting from the social division of labor:

Among men […] the most dissimilar geniuses are of use to one another; the different produces of their respective talents, by the general disposition to truck, barter, and exchange, being brought […] into a common stock [I.ii.5, p. 30].

When the market is very small, no person can have any encouragement to dedicate himself entirely to one employment, for want of the power to exchange all that surplus part of the produce of his own labour, which is over and above his own consumption, for such parts of the produce of other men’s labour as he has occasion for [I.iii.1, p. 31].

Say illustrates the same idea in “Des Débouchés” [1803, I.i.22, pp. 153-154]:

Imagine a very industrious individual having everything he needs to produce things: both ability and capital; if he were the only industrious person in a population which, aside from a few coarse foods, does not know how to make anything; what could he do with his products? He will purchase the quantity of rough food necessary to satisfy his needs. But what can he do with the residue? Nothing.

Thus, Say concludes, the existence of a variety of useful goods or products is a necessary prerequisite for exchange to take place: “if the outputs of the country begin to multiply and grow more varied, then all of his produce can find a use, that is to say, it can

41 Probably Mill’s review influenced Say when the latter revised “Des Débouchés” for the second edition and expanded it from 3 to 16 pages. Niehans [1990, p. 111] states that it is unknown, however, whether Say has also been influenced by Mill’s Commerce Defended [1807].

42 See Clower [2003, p. 3].

43 Groenewegen [1987] differentiates between two kinds of the division of labor: „The division of labour may be defined as the division of a process or employment into parts, each of which is carried out by a separate person. This includes the separation of employments or professions within society at large or social division of labour as well as the division of labour which takes place within the walls of a factory building or within the limits of a single industry, the manufacturing division of labour” [p. 901]. Of course, Adam Smith was concerned with the social division of labor.
be exchanged for things which he needs or for additional luxuries he can enjoy, or for the accumulation of the stocks that he considers appropriate” [I.i.22, p. 154].

Similarly, economic thinkers recognized, long before Say, a further idea contained in “Des Débouchés,” namely that money serves “only” a facilitating function in the conduct of exchange [Gide and Rist, 1913, p. 129]. About half a century before Say, Smith’s friend and teacher, David Hume, stated that “[m]oney is not, properly speaking, one of the subjects of commerce; but only the instrument which men have agreed upon to facilitate the exchange of one commodity for another. It is none of the wheels of trade: It is the oil which renders the motion of the wheels more smooth and easy” [(1752) 1955, p. 33]. Likewise, Smith observes that “[m]oney [is] the great wheel of circulation, the great instrument of commerce” [II.i.23, p. 291] and “[t]he sole use of money is to circulate consumable goods” [II.i.12, p. 339].

In “Des Débouchés,” Say argues: “[M]oney serves approximately the same role as the posters and the handbills in a large city which facilitate the intercourse of persons who may want to do business with one another” [1803, I.i.22, p. 152]. Despite alluding to the information-producing function of monetary exchange, Say concludes that, ultimately, “[m]oney performs no more than the role of a conduit in this double exchange” [pp. 153-154].

From the general interdependence of economic actors and the intermediate role of money follows what is generally regarded as the gist of the law of markets, that is, “w hen the exchanges have been completed, it will be found that products with products” [italics mine; Say, 1803, I.i.22, p. 154]. Analogously, Smith states that “every man may purchase [with his product] whatever part of the produce of other men’s talents he has occasion for” ([1776] 1979, I.ii.5, p. 30).

According to Sowell [1972, p. 12], the law of markets “produced two of the most sweeping, bitter, and long-lasting controversies in the history of economics.” A less controversial interpretation of Say’s conclusion in “Des Débouchés” is possible, however, when reserving the term „purchase“ to transactions where an „exchange is made involving one commodity called „money“” [Say, 1807, I.1, p. 355]. Giving credit to Say concludes that “when a nation has too large a quantity of one particular type of product, the means of disposing of them is to create goods of another variety” [1803, I.i.22, p. 154]. According to Stigler [1953, p. 312], this sentence of “Des Débouchés” contains the gist of the law of markets.

44 Lavington [1925, p. 24] likewise observes the general independence of economic actors: “In a time of general depression the individual firm is working at low pressure because other firms are working at low pressure. [...] The inactivity of all is the cause of the inactivity of each.”

45 In the light of Hume’s and Smith’s statements, it seems unnecessary to underline Say’s “emphasis [on] [...] the unimportance of money” [Baumol, 1977, p. 153].

46 Sowell refers to the early nineteenth century and to the Keynesian revolution of the 1930s.
Say’s emphasis on the intermediate role of money, one might substitute the term „pur-chased” for the phrase „given in exchange.”\textsuperscript{48} In accord with the French historians Charles Gide and Charles Rist [1910, pp.129-131],\textsuperscript{49} the law of markets can now be stated as follows: “[P]roducts are given in exchange for products” [pp. 128-129].

Gide and Rist remark that “though [Say’s expression] is a happy phrase, it is not in truth very profound.” Referring to the high hopes that Say attached to the diffusion of his “discovery,” they characterize Say’s notion as “so vague and so self-evident as being almost useless” [p. 129]. Agreeing with Gide and Rist, Clower [2003, p. 4] justly regards Say’s proposition, “products are given in exchange for products,” as a mere “Platitude.” Nevertheless and in contrast to any theorems associated with Say’s Law, Say’s Platitude is neither contentious nor quantitative [Clower, 2003, p. 4; Gide and Rist, 1913, p. 129].\textsuperscript{50}

Despite Say’s statements in “Des Débouchés,” he does not consider trade-facilitating institutions (e.g., money and markets) to be unimportant. In fact, he stresses the importance of both of these institutions for the organization of the exchange process. As for money, he does so less in “Des Débouchés” than in the first chapter of book ii entitled “Of the Nature and Uses of Money.”\textsuperscript{51} The first part of this chapter, which stresses the want for exchange, represents an almost literal copy of the first part of “Des Débouchés.” Therefore, the content of the chapter “Of the Nature and Uses of Money” is indicative of Say’s view on the subject in general, including “Des Débouchés”. Say continues that trade-facilitating institutions “are indispensable in an advanced stage of civilization” and that “[i]n a very advanced state of civilization […] exchange becomes a matter of more urgent necessity, as well as much more frequent and more complicated […].” In summary, “[m]oney is the more requisite, the more civilized a nation is, and the further it has carried the division of labor” [1807, II.i.1, pp. 350-356].\textsuperscript{52}

\textsuperscript{48} See Gide and Rist [(1915) 2000, p. 115].
\textsuperscript{49} According to Gide and Rist, the only interesting aspect of the “law of markets” lies in its application to overproduction (“general glut”) theories.
\textsuperscript{50} Hobson [(1894) 1965, p. 289] remarks that “since all commerce is ultimately resolvable into exchange of commodities for commodities, it is obvious that every increase of production signifies a corresponding increase in the power to consume. […] But the fallacy involved in the supposition that over-supply is impossible consists in assuming that the power to consume and the desire to consume necessarily co-exist in the same persons. […] In order to be operative in the steady maintenance of industry the desire to consume must be a desire to consume now, to consume continuously, and to consume to an extent corresponding with the power to consume.”
\textsuperscript{52} See Say [(1834) 1964, pp. 217-219]. Say does not discuss the underlying forces that might make the use of exchange facilitating institutions more necessary. He recognized, however, that barter exchanges become more inconvenient the more subdivided the tasks performed. Arrow [1980, pp. 160-162] argues that an increased division of labor also increases the costs of coordination due to a more extensive need …
Conclusion

The passages quoted from the *Traité* reveal that, although the division of labor was less elaborate at the beginning of the nineteenth century, Say was impressed by the complexity of exchange relations. As far as concerns the analysis of the coordination of economic activity, Say’s *Traité* [1803] still offers many lessons to be learned. First, in contrast to Smith and modern equilibrium theorists, Say clearly appreciates and emphasizes the importance of trade specialists and money for the economic well-being of society. He considers trade-facilitating services as resource-consuming, productive activities indistinguishable from those performed by most other industries. Second, replacing Smith’s “invisible hand” with a description of the nature and use of trade specialists, Say deserves credit for introducing into economic literature what Clower called the “visible fingers” of the invisible hand. As indicated above, Say’s conception of a market economy allows one to ascertain the subtleties of some of Smith’s central doctrines. Replaced throughout later editions by issues pertinent to the overproduction crisis, chapter 22 of the first edition contains an unambiguous proposition concerning the interdependence of transactors in an exchange economy. Therefore, Say’s first edition of the *Traité* deserves more scholarly attention than it has so far received as a basis for inquiry into the coordination of economic activities.

for communication. Alchian [1977] analyzes the role of money in reducing information and transaction costs.

53 Commenting on the striking phenomena of the economic system more than a century and a half after Say, Knight [1967, p. 31] observes that “[w]e have an amazingly elaborate division of labour,” which implies a social order of “unfathomable complexity.”

54 On the complexity of (unintended) market-coordination, Smith remarks in the *Wealth of Nations*: “Observe the accommodation of the most common artificer or day-labourer in a civilized and thriving country, and you will perceive that the number of people of whose industry a part though but a small part, has been employed in procuring him this accommodation, *exceeds all computation*. [...] How much commerce and navigation in particular, how many ship-builders, sailors, sail-makers, rope-makers, must have been employed in order to bring together the different drugs made use of by the dyer, which often come from the remotest corners of the world! [...] If we examine, I say, all these things, and consider what a variety of labour is employed about each of them, we shall be sensible that without the assistance and cooperation of many thousands, the very meanest person in a civilized country could not be provided, even according to, what we very falsely imagine, the easy and simple manner in which he is commonly accommodated” [italics mine; (1776) 1979, I.i.11, pp. 22-23].

55 Modern research demonstrated that both institutions can be explained as arising from the same behavioral forces (see Howitt and Clower [2000]).
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<tr>
<th>No.</th>
<th>Author</th>
<th>Title</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Matthias Wrede</td>
<td>Shared Tax Sources and Public Expenditures</td>
<td>December 1996</td>
</tr>
<tr>
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<tr>
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<tr>
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<td>Matthias Wrede</td>
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<tr>
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<tr>
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<tr>
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<tr>
<td>30</td>
<td>Matthias Wrede</td>
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<td>July 1999</td>
</tr>
<tr>
<td>31</td>
<td>Andreas Billmeier</td>
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</tbody>
</table>
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