

Translating Léon Walras Études

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In order to make clear the desirability of translating Léon Walras's *Etudes* and in particular the *Études d'économie politique appliquée (théorie de la production de la richesse sociale)*, further to be called *EPA*, it seems useful to say something about the place of applied economics in the totality of economic science, as seen by Walras and how from this point of view the position of the books in the ensemble of his œuvre can be understood. Seeing how his fellow-economists were mixing up the various subjects and methods in their field made evident to Walras that there was a need for a classification of the subjects and the sub-sciences of economics to be derived from a general classification of the sciences. He therefore developed such a classification and he derived a classification of economic science from it, which provided him from the very beginning with a clear indication of what kind of problems had to be solved. This classification, moreover, supplied him a kind of filing system in which the results could be stored. His career consisted, as it were, in filling this system. The resulting œuvre shows a sensible degree of coherence. Walras's classification of (economic) science and the place of applied economics in it will shortly be dealt with in sections 1, 2 and 3. Section 4 shows briefly how this became concrete in Walras's two *Études*. Section 5 is devoted to the why and the how of translating the *EPA*. This results in a plan of the translation: section 6. We end with a conclusion.

I) Walras's classification of science

One can read in, for instance, Walras's *Mélanges d'économie politique et sociale* (1987, p. 414; Walras's italics; the passage dates from 1879): "Pure science establishes facts and relations; applied science prescribes rules of conduct. There exist pure natural sciences, studying facts and relations which have their origin in the play of the fatal forces of nature and pure moral sciences, studying facts and relations originating of the exercise of the free will of man[...]. There exist applied natural sciences, providing rules of conduct for man vis-à-vis impersonal things and applied moral sciences, providing rules of conduct for people vis-à-vis each other".

This leads to the following scheme:¹

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¹ The upper right cell of the scheme is necessarily empty because it does not make sense to speak about rules of conduct for nature vis-à-vis itself. All this and what follows about the classification of (economic) science has been developed in first instance within the framework of the research for Jolink's doctoral dissertation (1991, in particular Chapter 3). Jolink gave the table a slightly different form and did not draw the empty cell. This gave rise to the following setup of his table (Jolink 1991, Figure 3. 1, p. 60):

Fact	nature	Method	
		Pure	applied
persons	vs. nat.	pure nat. Sc.	
vs. persons		pure moral sc.	applied nat. sc.
			applied moral sc.

Figure 1: Walras's classification of the sciences

		Sciences	
		Pure	Applied
Object	<i>Nature</i>	pure natural sciences	(empty)
	<i>nature vis-à-vis persons</i>	pure moral sciences	applied natural sciences
	<i>persons vis-à-vis persons</i>		applied moral sciences

Pure sciences are for instance mathematics, physics, chemistry and philosophy. Applied natural sciences deal with the prescription of rules of conduct in the confrontation of natural and human phenomena, the relation Man-Things. Examples are geodesy, pharmacology and medicine. Applied moral sciences deal with the rules in the relations Man-Man. Examples are law, ethics and theology. Applied sciences should be preceded by and based upon pure science. The latter relationship may be more than only “horizontal”, for an applied science can be based upon several pure sciences. Hence, to Walras it was not pure theory vs. practice. There are rather three stages:

1. Pure theory.
2. Applied theory, or theory of the art.²
3. Practice of the art.

The ideas above existed already in 1874, as appears from the first edition of the *Éléments*. In a letter from Walras to E. Pfeiffer (*Correspondence*, L. 256, 2 April 1874; Walras's emphasis):

To be complete, one must distinguish three categories of questions that have to be solved: 1^o questions of *pure* economics, 2^o questions of *applied* economics, 3^o questions of *practical* political economy. Strictly spoken, when dealing with the last, one has left the domain of science and enters that of politics or of business. In other words, it is evident that I have here completed my first distinction between pure and applied science with a second distinction, viz. that between the theory of the art and the practice of the art.

In other words (*Mélanges*, p. 390; the passages dates from 1879):

Doing philosophy, history, pure economics is one thing. Presenting the theory of the family, of government, of property, of taxation, of industry, of credit is another thing. Legislation, administration relating to these matters is a third thing.

II) Walras's classification of the science of economics

For Léon Walras the motivation for studying economics was the desire (if not his vocation) to contribute to the solution of what he called the Social Question, i.e. to remove misery from society. This meant studying society on the one hand and, on the other, studying what society ideally should be. He said it himself as follows (1860: lix): “*The practical improvement and perfection of our actual social conditions, like the extinction of pauperism, the basis of taxation, the definitive organisation of labour and of property, require theoretical knowledge of the normal economic conditions of an ideal society and, more generally, a rational study of all social circumstances: civil, political, etc*”.

² The latter word is meant in the same meaning as in the word “artisan”.

Consequently, Walras's point of reference was the social ideal. Studying the ideal state of society is therefore doing science, the idealisation of reality. The realisation of the ideal is the opposite side of Walras's scheme: politics.

To Walras, the starting point of his economic research was the fact that people are living in a society and that they depend on each other because everyone has some specialisation. This gives rise to the phenomenon of exchange of things that are at the same time useful and limited in quantity, in other words, things that are scarce. The entirety of all these things, material or immaterial, he called Social Wealth.³ The phenomenon of exchange is closely linked to three other phenomena: (1) value in exchange (price), (2) property and (3) production, or industry, which can be seen from a technical point of view but also from an economical point of view. In Walras's opinion, value in exchange is a natural fact because it originates from the natural limitations of the quantities of the things, independent of our psychological freedom. This does not mean that we have not any control over the prices as natural facts. We should respect, however, the laws of exchange, as we are unable to change its essence, nor its laws.

Both property and industry arise, in Walras's scheme, from the exercise of the human will. Industry belongs to a category of phenomena that are manifestations of the human will with respect to natural forces. Property is a phenomenon that is the manifestation of the human will on the will or actions of other people. See further *Éléments*, § 19. For economics, figure 1 can then be specified into the following scheme:

Figure 2: Walras's classification of economics

		economics	
		pure	applied
nature		pure natural economics	—
Object	nature vis-à-vis persons	pure moral economics	applied natural economics
	persons vis-à-vis persons		applied moral economics

The classical economists regarded, roughly spoken, the labourers together with the wretched persons (the paupers) as one grey mass. In equilibrium, each member of this class just receives the minimum wage, according to the standards of time and place. However, if one wants to elevate these people to more favourable conditions one must devise a theoretical economic framework in which each person, or at last each family, is considered as an individual because the happiness of every person counts. Walras did so in his pure theory, which has been set out in his *Éléments d'économie politique pure* (first edition, in 2 instalments, 1874-77). In this book, he presented his theory of the utility maximising consumer and that of general economic equilibrium under the regime of free competition, the former being the ferment in the latter. This is the part of his research that is well known and on which rests his fame.

³ *Éléments*, Preface (1988, p 11). In first instance, Walras was not as explicit about the distinction between flows and stocks as was already Adam Smith. The latter's *Wealth of Nations* with words that are most interesting, in particular to the econometrician: "The *annual* labour of every nation..." (Smith 1994, p. lix; our emphasis). Walras must have read this.

Most economists, indeed, have restricted their attention to the *Éléments* only, in particular to its last edition (the posthumous one, 1926). There are several reasons for this nearly exclusive attention. First, Walras himself attached much care to the *Éléments*, as appears from the fact that during his lifetime he published four editions of the book, altering, rearranging and supplementing it every time. He himself presented it as his most important work. Obviously, the issue of general economic equilibrium was never out of his mind. Secondly, the 1926 edition of the *Éléments* is the only one of Walras's books that has, until now, been translated into English (by William Jaffé, 1954). Thirdly, as so many first-generation academic economists, Walras felt (and indeed was) obliged to provide an overall picture of the whole field. Starting with pure theory, however, he ran out of time and did not succeed in completing the two other treatises he envisaged⁴. Instead, he consolidated the bulk of his other research in two volumes, entitled *Études d'économie sociale* (EES, 1896) and the *EPA* (1898). Both books are no more than a collection of already existing papers. In this form, they could not compete with the *Éléments d'économie politique pure* and therefore the latter book received most of the attention.

The five editions of the *Éléments* and the two *Études* contain the essence of Walras's work. There are three main conclusions to be drawn from these books.

1. In his *analytical economics* of free competition, Walras was thinking in terms of what we call now temporary equilibrium. This means that he stylised economic life into consecutive periods during which trade and production, as well as saving and capital formation take place as described by a carefully devised mathematical model explaining general economic equilibrium per period, given some initial situation. Capital, including money, was to carry over value from period to period and economic growth was to be brought about by saving.
2. Though Walras was thinking in terms of subsequent periods, he devoted most of his attention to what happens during a period, leaving the transition from period to period at the background of his thinking. In the first three editions of the *Éléments* his mathematical models really were dynamic in that, among other things, they tried to describe how production and trade, starting from some initial situation were groping during the period in question to a state of equilibrium. In the fourth edition, he abandoned every trace of this dynamic approach and supposed production and trade only to take place, instantaneously, in a state of equilibrium.
3. In his theory of *applied economics* (perhaps one may also speak of his normative economics), Walras considered the possibility of equilibrium beyond the strict boundaries imposed by free competition and by the traditional institutions. He did so because, as we know, contributing to a solution of the Social Question was his aim. His economics, therefore, was primarily intended to provide instruments within the framework of this broader design, namely to unfold an optimal economic order and to produce prescriptions for reaching this ideal.

III) Applied economics

In this section, we shall be somewhat more specific with respect to the contents of the two cells of applied economics in the scheme above. In 1880 Walras wrote to Charles Gide (*Correspondence*, Letter 836; emphasis in original) “*Free competition in exchange, production and capital formation procures under certain conditions and within certain limits the maximum. In other words, the natural economic mechanism is, up to a certain point, a self-moving and*

⁴ *Éléments d'économie sociale* et *Éléments d'économie politique appliquée*. These books, meant to be just as sophisticated and systematic as the *Éléments d'économie politique pure*, never saw the light.

self-regulating mechanism”. This is a short characterisation by Walras himself of what has been set out in the *Éléments d'économie politique pure, ou Théorie de la richesse sociale*. The maximum meant is maximum utility.⁵ Walras, however, was of the opinion that not only individual satisfaction was maximised in equilibrium, but that there was also a kind of social maximum, albeit a “conditional” one. It can be argued that in the latter respect Walras was not right if the term “maximum” is understood in the formal, mathematical sense of the word.

Anyway, Walras declared free competition as the ideal, and hence desirable, state in which exchange and production should take place. Therefore, he made the *Éléments* the norm for his natural applied economics as exposed in his *EPA*. One of the main points of the latter book is, consequently, that, *where possible*, production and exchange of goods and services should be organised such that free composition results and that in the other cases the outcome of production and exchange should resemble that of free competition as much as possible. Therefore, Walras discussed at great length situations where free competition is not possible, because of what he calls economic, or natural, monopolies (gas and railway companies or coalmines, for instance). In these cases the State should intervene with regulations such that the firms operating in monopoly or monopoloid markets charge all individuals the same price for the same product; furthermore, prices per unit of product should be equal to costs per unit. This is because then the outcomes would be the same as for free competition.

As early as in the seventies of the nineteenth century, Walras was already aware of the bankers’ ability to create money. On the basis of his partial money model (see, e.g., Van Daal 1994), he analysed the consequences of issuing banknotes, in particular the increase of the quantity of money. To Walras, the balance of drawbacks and advantages of this was such that he concluded that one should bethink oneself twice whether or not to use such a dangerous instrument of credit like banknotes. In fact, he was in favour of a system where all money was for 100 percent (covered by) gold and/or silver. To be more precise, Walras propagated a gold standard with silver bullion to be brought in into, or withdrawn from circulation by the State in order to neutralise the effects of (long-run) cyclical movements; a sort of open-market policy *avant la lettre*. All this is within the realm of applied natural economics, particularly that of the production and exchange of private goods. That is not all. In his moral economics, he set out that there are also so-called social needs, to be fulfilled by public goods and services. These goods and services cannot be produced under conditions of free competition because there is no individual demand for them. This gives rises to what could be called public monopolies: the State itself produces the public goods and services.

The major difference between private and public goods is, according to Walras, that the need of the former is only felt by individuals, whereas the need of the latter may be considered as to be felt by the community as a whole. He discussed this at length in his *Etudes d'économie sociale*. In passing, we remark Walras clearly was of the opinion that, in fact, the production of public goods, together with the production and exchange of private goods, should be brought in into one large comprehensive system of general economic equilibrium. Where Walras’s applied natural economics established conditions for an abundant production of wealth, his applied moral economics dealt with the conditions for a just distribution of this wealth. This distribution has been dealt with in a number of separate studies collected in his *Etudes d'économie sociale*.

⁵ And not that of effectiveness, as Jaffé suggests within square brackets to the first sentence of the citation.

Walras's theory of the distribution of social wealth can be separated into a theory of property and a theory of taxation. His point of depart in dealing with the notion of property was that the “*owner of a thing is the owner of the service of that thing... [as well as] of the [money] price of that thing*”. (EES, pp. 206, 207; 1990, p. 178.) It follows, consequently, that the property rights of the products result, through exchange, from the property rights of the fixed-capital goods, i.e. land, personal faculties and capital goods proper. The latter kind of capital, however, consists of products as well. Those who have manufactured them should therefore own it. Hence, the problem appears to be reduced to the ownership of land and of personal faculties.

Personal faculties are clearly the property of the concerning individuals themselves; the times of slavery belong to the past. Land, according to Walras belongs to all of us and not only to this generation but also to all generations. Since all people have the same rights to pursue their destiny, they should all profit equally from the resources offered by nature to accomplish their destinies. Land, Walras argues, will therefore belong to the community, i.e. to the State. The State as owner of the land will then be the owner of the services of it and of the products or the rent obtained from the land. This provides the State with an own income and in that (ideal) situation all taxes should be abolished. The rent received will enable the State to pay the State expenses and to pay back the former owners because these rents will increase considerably, land becoming increasingly scarce in the future. As a matter of fact, the increase of rent due to increasing scarcity belongs to the community as a whole and not to the individuals who happen to be the owners of the land in question; in Walras's opinion this was another argument for putting all land in the hands of the State. Taxation, either on income or on capital other than land, either direct or indirect, is in Walras's view considered as unjust since it would be a claim of the State on something that is not hers. Taxes or subsidies therefore lead always to some kind of disturbance of the ideal of giving each economic agent what is rightfully his. Wealth is the reward of labour and savings; poverty is the consequence and penalty for idleness and prodigality. Walras says it as follows (EES, p. 438; 1990, p 404) : “*Individual moral will have its natural sanction and the State may leave it to the individuals to ask freely to religion or philosophy the aid they need to endure the hardships of nature or to overcome their own weakness. Taxation will bar the way to that ideal*”.

According to Walras, the State could consider both a land-tax as well as the expropriation of the land. In the first case, the State would operate as a kind of co-proprietor. The alternative would be the *rightful* repurchase of the land; this could only take place over a long period. The actual situation in Walras's days was one in which the land was privately owned. Unfortunately, he said, the French Revolution did not change this situation. Merely confiscating the land, however, he considered as much an injustice as maintaining the present situation. The question was then how the State could obtain the privately owned land. Gossen (1995, Chapter 23) already dealt with this question. On similar grounds as Walras, Gossen proclaimed the nationalisation of the land by the State. The latter would buy the land from the landowners and obtain the rent in return from the farmers and other users of the land. Gossen's idea was that, moreover, it would be profitable for the State to purchase the land since the value of it would increase continually.

IV) Walras's two *Études*

In line with the foregoing schemes and considerations, the three important books by Walras, can now be placed in the following scheme:

Figure 3: Walras's three main treatises

		texts	
		<i>pure</i>	<i>applied</i>
<i>Nature</i>		<i>Éléments d'économie politique pure, ou Théorie de la richesse sociale</i>	—
<i>object</i>	<i>nature vis-à-vis persons</i>	<i>Etudes d'économie sociale (Théorie de la répartition de la richesse sociale)</i> , Part I	<i>Etudes d'économie politique appliquée (Théorie de la production de la richesse sociale)</i>
	<i>persons vis-à-vis persons</i>		<i>Etudes d'économie sociale</i> , Parts II, III, IV

As the reader can see, Walras's ideas about pure and applied economics, natural or moral, are not entirely reflected in the titles of the three books. The term pure economics in the title of the *Éléments* relates to pure natural science only. The *EPA* only deal with the relation Man-Things in economics. The *EES* contain pure as well as applied work. Part I of it is entitled “RECHERCHE DE L’IDÉAL SOCIAL”. It takes nearly forty five per cent of the 462 pages of the second edition of the book and contains, indeed, mainly pure science in Walras's sense. Parts II, III and IV are adequately entitled “PROPRIÉTÉ”, “RÉALISATION DE L’IDÉAL SOCIAL” and “IMPOT”. Property seems at first sight to belong to the category of manifestations of the will of people in relation to the things that are appropriated. This is, however, not Walras's point of view. In his *Éléments* (§ 35; 1988, p. 62), he says that “while nature makes things appropriable, mankind determines and carries out the appropriation”. This appropriation, then, is a matter of the people of a society among themselves. An important conclusion of part II is that the property of land belongs to the State; see also above. How to implement this conclusion is the subject of part III. The implications for taxation are the subject of part IV. Taxation belongs to the category of the exercise of the free will of the community of all people vis-à-vis individual people.

Let us now stick to the *EPA*. This book consists of seven parts.⁶ Part I is entitled “MONEY” and comprises nearly forty per cent of the 496 pages of the second edition of the book. The part starts with two chapters entitled “Gold Money with Regulating Silver Token” and “Measuring and Regulating Variations in the Value of Money”. The latter consists of three papers of which the second one contains the only piece of empirical work initiated by Walras. (Further, this paper contains an interesting abstract reasoning, using the notion of marginal utility, to refute a purely empirical assertion by Jevons.) Then follows a “chapter” consisting of the complete, slightly revised, version of the booklet *Théorie de la monnaie*, published originally in 1886. The

⁶ See the Appendix to this paper for the Table of Contents of the book.

part ends with a chapter entitled “The Monetary Problem”, consisting of four papers. It is evident that, this way, several things have been told more than once. The main point of part I is, of course, Walras’s scheme for monetary reform as indicated above. Further, it should be noted that Walras’s activities during the twelve Parisian years prior to his emigration to Switzerland have been highly fruitful in the sense that he came to know thoroughly many facets of practical economic life from the inside. This knowledge he never neglected during the rest of his life. This makes the part also interesting from the point of view of economic history.⁷ Part II, “MONOPOLIES” (nine per cent of the book) sets out, with the railways as the main example, how monopolistic markets should be regulated and organised. Part III, “AGRICULTURE, INDUSTRY, COMMERCE” (fourteen per cent) deals with the consequences of the foregoing ideas for the different regions and their specific markets and for the wages. Moreover, it presents further confirmation of Walras’s point that free competition, if possible yields the “best” market structure that one can think of. Then follow the two highly interesting parts IV and V (nearly twenty percent, together), entitled “CREDIT” (on the principles of credit, types of credit, securities on credit) and “BANKS” (on banknotes and their dangers and on types of banks). Part VI is entitled “STOCK EXCHANGE”. It (nine per cent) is a typical fruit of Walras’s practical work in Paris. It presents an abundance of empirical facts and circumstances in the field. Walras’s principle is that speculation, properly defined by him, is good and useful, but that misuse (called “agiotage” by him) of the stock exchange should be prevented. The book ends with an untitled part VII (ten per cent), containing a long paper entitled “*Esquisse d’une doctrine économique et sociale*”, in which Léon Walras stated (and repeated) once more his position as a scientist.

As already has been said above, the *Éléments d’économie politique pure* form the theoretical base for the *EPA*. The main theorem of the *Éléments* is “Gossen’s second law”: in equilibrium the quotient of the *rareté* of a good or a service and its price is the same for all goods and services; maximum utility for the consumers is then assured. In the *EPA*, the main analytical instrument, however, is the “law of demand”: if prices (de)increase, demand will (in)decrease in general.

V) On translating Walras’s work

As said above, the totality of Walras’s economic work is reflected in the five editions of the *Éléments* together with the *EPA* and the *EES*. In our opinion, one can only get a good understanding of the *Éléments* if one knows all its editions; see, for instance Walker 1996 en Van Daal 2000. A still better understanding, indeed, can be obtained if one knows both *Etudes*, too. This means that, for scientific purposes, English translations should exist of the *Etudes* as well as of a variorum edition of the *Éléments*. Till now we have only Jaffé’s translation of the fifth edition of the latter book. Though this translation, together with the annotations, should be considered as a masterpiece, it is now somewhat dated. A revision of it and of the notes would be welcome.

As to the question whether a translation of work by Walras should cover the whole text or should be abridged, we may be short. One should not skip one word while translating a book by

⁷ This aspect, present throughout the whole book indeed, has been enriched further by the meticulous editorial work, in the form of historical, technical and biographical notes and several introductions and appendices by Jean-Pierre Potier.

Walras. Léon Walras has been and is a very important person in economics. Every economist with a good overview of the history of his science will rank Walras among the five most outstanding scholars who ever worked in the field. True, he is in particular known and important, for his theoretical work, but the knowledge of his other work can only improve our understanding of his theory. Furthermore, this other work is not without significance in itself.

Therefore, even the repetitions (in particular their different wording), the moralistic passages and those in which he gives his opinion about other people's work (never about the persons themselves), as well as the other digressions can be important to the student of Walras's work. Moreover, such a student will in the vast majority of the cases be a serious scholar and why should a translator decide what passage such a person would have to skip?

On the other hand, the student of Walras's work will certainly appreciate annotations, introductory texts and annexes that may be helpful in placing a work by Walras in the context of his whole work and of his thought, as well in that of the personal circumstances of Walras and of the (economic) history of the period in which he was living. Fortunately, all this is now at our disposal in the form of the editorial material provided by the members of the Centre Walras in the university of Lyon-2 and added to the volumes of *AUGUSTE ET LÉON WALRAS: ŒUVRES ÉCONOMIQUES COMPLÈTES (ŒEC)*. In translating Walras one should, in our opinion, take advantage of this circumstance and add translations of (parts of) the pertinent material to the translations of the work itself.

The Pole Histoire de la Pensée Économique of the Centre Walras has adopted our initiative to translate Walras's both *Etudes*. In the light of the foregoing considerations it is not amazing that the translations will be complete and that translations will be added of a considerable part of the editorial material, apart from introductions and annotations especially conceived for the English version.

VI) Plan of the translation

For translating Walras's *Etudes* one needs a person with:

1. Good knowledge of the French and of the English language
2. Knowledge of one of these languages at the level of a maternal language
3. Good professional knowledge of the theory and the history of economic science.
4. Good knowledge of the work of Léon Walras in particular
5. Unmistakable knowledge of mathematics
6. Good knowledge of the (economic) history of the nineteenth century
7. Material possibilities in terms of time and money
8. A desire to execute the work

It seems to us that looking for a person with all the above requirements is looking for the impossible. When suggesting some years ago to start with the work and taking up the preparations, we, Potier and Van Daal, realised that it would be difficult even to find all these requirements in a couple of two persons, let alone in the couple formed by us. Nevertheless, we decided to start ourselves the project and to begin with the *EPA*. In checking the eight points above, we admitted that we two, personally nor together, certainly did not fulfil all the requirements mentioned in the points 1 and 2. The points 3 through 6 we believe to cover more or less, together. The problem of time seems to be solved by Van Daal's early partial retirement. Money remains a

problem. Finally, there is enough mind to do the work. We devised the following procedure. Van Daal starts to translate the *Études d'économie politique appliquée* in the form of Volume X of the *ŒEC* into the international scientific language, namely broken English. Secondly, bit by bit, Potier reads the result to check it on forgotten passages⁸, on Walrasian orthodoxy, on historical accurateness and on errors in general. Thirdly, on the basis of Potier's findings we improve the text with as a result, we hope, a version that is more or less correct from the point of view of economics in general and of Walrasian economics in particular as well as from a historical point of view. Fourthly, the English will be professionally edited, whereby, however, no change shall be made without our consent. This editing will be executed under the auspices of the publisher, Routledge of London. Fifthly, the resulting text will be scrutinised in a redaction committee consisting of Potier and Van Daal and some internationally reputed scholars to be designated by the History of Economics Association, the Royal Dutch Association of Economics and the Association Internationale Walras. The final text will be established by this redaction committee.

VII) Conclusion

At this moment (September 2000) Van Daal has translated the whole *EPA* with an exception of some sections of the last two chapters and some of the editorial material. Potier has seen half of this translation. In fact, if we may believe what other translators said to us and what we know from Jaffé when translating the *Éléments*, it is now time to throw away all what we have and to start anew, making use of the experience obtained. We do not want to do that, but we want to make the best of it on the basis of what we have now. We ask you your suggestions to improve upon this work.

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⁸ Our experience with Walras's translation of Gossen (Gossen 1995) taught us the importance of this point.

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APPENDIX

Table of Contents of the translation of the *Études d'économie politique appliquée*

STUDIES OF APPLIED ECONOMICS

EDITORS' INTRODUCTION

Table of contents

PREFACE

I. MONEY

1. GOLD MONEY WITH REGULATING SILVER TOKEN (1884;1884)⁹
2. MEASURING AND REGULATING VARIATIONS IN THE VALUE OF MONEY
 - I. Critical examination of Mr Cournot's doctrine about the changes of relative and absolute value (1872; -)
 - II. A Method of controlling the variation of the value of money (1885; 1885)
 - III. A contribution to the study of the price variations since the suspension of the minting of silver écus (1885; 1885)
3. THEORY OF MONEY (1886; 1886)

Preface

Introduction. — Reply to some objections

FIRST PART. — Exposition of the principles

 - I. Of exchange and of production
 - II. Proportionality of values to *raretés*
 - III. Establishing the value of the money-commodity
 - IV. Variations of the value of the numéraire and of money

⁹ The dates between brackets indicate the year(s) in which Walras wrote the concerning paper and that of publication, respectively.

SECOND PART. — Critical discussion of the systems

- I.* Systems with a double standard or with two independent standards
- II.* The system with a double, interdependent standard, or bimetallism
- III.* Transformation of bimetallism into a system of gold money with regulating silver token
- IV.* Problems of realisation

THIRD PART. — Statistical desiderata

- I.* Of the determination of the price of social wealth in money
- II.* Construction of the curve of the variation of the price of social wealth in money
- III.* Correction of the curve of the variation of the price of social wealth in money
- IV.* The monetary quadruplet

Note on the “quantity theory” (1897; —)

4. THE MONETARY PROBLEM

- I.* Note on the solution of the Anglo-Indian monetary problem (1887; 1887)
- II.* The Anglo-Indian monetary problem (1893; 1893)
- III.* The monetary problem in Europe and in the United States (1894; 1894)
- IV.* The bimetallist danger (1895; 1895)

II. MONOPOLIES

5. THE STATE AND THE RAILWAYS (1875; 1897)

- I.* Of public services and of economic monopolies
- II.* Railways as public services and as economic monopolies
- III.* Of the railway tariffs
- IV.* Of the intervention of the State in railway business

III. AGRICULTURE, INDUSTRY, COMMERCE

- 6. THE INFLUENCE OF THE COMMUNICATION BETWEEN THE MARKETS UPON THE SITUATION OF THE AGRICULTURAL COMMUNITIES (1874; 1874)
- 7. APPLIED ECONOMICS AND THE PROTECTION OF WAGES (1896-7; 1897)
- 8. THEORY OF FREE EXCHANGE (1875; 1877)

IV. CREDIT

- 9. THEORY OF CREDIT (1872-98; 1898)
 - I.* The nature of credit
 - II.* Long-term credit and short-term credit
 - III.* Of credit securities. Special securities
 - IV.* Of credit securities. General securities
 - V.* General principles of credit

V. BANKS

- 10. MATHEMATICAL THEORY OF BANK NOTES (1879; 1880)
 - I.* Monetary depreciation caused by the emission of bank notes
 - II.* Capital increase because of the emission of bank notes. Emission period
 - III.* Impossibility of liquidating the emission of bank notes
 - IV.* Of the liberty of the emission banks
- 11. THE POSTAL SAVINGS BANK OF VIENNA AND SOCIAL ACCOUNTING (1897-8; 1898)
 - I.* Scheme of a transfer bank
 - II.* The postal savings bank of Vienna
 - III.* Social accounting: the fixed unity of value
 - IV.* Social accounting: forced currency. The genuine role of a clearing bank

VI. STOCK EXCHANGE

- 12. THE STOCK MARKET, SPECULATION AND AGIOTAGE (1874-5; 1880)
 - I.* Definition of financial speculation
 - II.* The nature of stock market operations
 - III.* Effects of stock market operations
 - IV.* Of the liberty of financial speculation
 - V.* Of the abuses of financial speculation
 - VI.* Financial speculation in France

VII.

- 13. SKETCH OF AN ECONOMIC AND SOCIAL DOCTRINE (1893-8; —)

- I.* Distinction between pure science, moral science, applied science and practice
- II.* Pure science of man and of society
- III.* Pure science of social wealth
- IV.* Moral theory of the distribution of social wealth. Repurchase of the land by the State
- V.* Applied theory of the production of social wealth. Regularisation of the variations of the value of money
- VI.* French politics. Prayer of a free-thinker (1898: 1898)

ADDENDA

Supplement I: Léon Walras, *Theory of money*

Supplement II: Study of two real curves of the variation of a certain number of commodities

Supplement III: The book reviews of the *Theory of money*

Supplement IV: The book reviews of *Studies of applied economics*

Biographical details of the persons cited by Léon Walras

Table of correspondence between editions 1,2 and the Potier edition

Index of names

Subjects index

Conventions