

# An ‘Exception culturelle’? French Sensationist political economy and the shaping of public economics

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**Abstract.** This paper examines some ideas developed in the field of public economics by French Sensationist political economists, from Turgot and Condorcet to the young Jean-Baptiste Say. An ideal-typical account of their position is based on the fact that issues raised by public expenditure and revenue are not dealt with independently. Instead, a strong link between the two sides of the budget is emphasised, an approach arising out of political considerations concerning human rights and equity. Following on from this they develop a theory of public expenditure based on public goods — national and local — and externalities, and a theory of taxation culminating in a justification of progressive taxation. The central section of the paper forms a kind of pivotal point in the analysis, showing how the above political and ethical requirements of the theory lead to the first estimation of the optimal amount of public expenditure and revenue — involving an equilibrium at the margin.

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## 1 Introduction

This paper examines some ideas developed in the field of public economics by authors who are, in my opinion, among the most innovative thinkers in France in the field of political economy and ‘public finance’ in the second half of the eighteenth century, that is, from the end of the reign of Louis XV to the Consulat. These authors all belong to what I call the *école de Turgot*, or to French *économie politique sensualiste* proper.<sup>1</sup> Turgot certainly sought, in the most rigorous fashion, to develop a coherent set of economic and political ideas based on Sensationist philosophy as developed by Locke and Condillac, combining this with an assumption that the economic behaviour of people was fundamentally self-interested. Building on the basic ideas of Boisguilbert as subsequently elaborated by Quesnay, he systematically developed an analysis based on the concepts of capital and free competition; and a theory of value and prices expressed in terms of utility, demand and supply — a practical framework for an understanding of the various aspects of public finance. Sharing this theoretical ground were friends and/or more or less distant followers, first among whom was Marie-Jean-Antoine-Nicolas Caritat de Condorcet, but also the *abbé* André Morellet, Pierre-Louis Rœderer and the young Jean-Baptiste Say.<sup>2</sup> They do not, of course, systematically agree on all points of doctrine. Despite some disagreement, however, they do share the same perspective and develop public economics in a similar direction.<sup>3</sup>

An ideal-typical account of their position *qua* public economics is developed in the following pages. Section 2 outlines their basic *problématique* which — a kind of ‘exception culturelle’ at that time? — contrasts with that of the English

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1. Faccarello 1991, 1992, 1998. I reconsider and develop here some ideas expressed in these previous papers. For the period under consideration, Seligman (1894), Stourm (1895), Vignes (1909) and Marion (1974-25) remain very useful.

2. Jean-Baptiste Say, following Alexandre Vandermonde (Faccarello 1989, 1993), generalized an argument based on utility. We are only concerned here with his early writings — his utopia *Olbie* (1800) and the first edition of the *Traité d'économie politique* (1803) — together with an article by his elder brother Horace (1796) to whom he was intellectually very close.

3. It is of course tempting to add Jean-Joseph-Louis Graslin to this list: Turgot thought that his 1767 *Essai analytique sur la richesse et sur l'impôt* was of interest, and parts of Graslin's analysis are indeed close to those of Sensationist economists. But his system is so idiosyncratic (Faccarello 2005) that I prefer to concentrate on the above-mentioned authors. The same can be said of Condillac, *qua* economist — in spite of the fundamental importance of Condillac, *qua* philosopher (see for example Orain 2003).

Classical economists.<sup>4</sup> The issues raised by public expenditure and revenue are not dealt with independently; instead, a strong link between the two sides of the budget is emphasised, an approach arising out of political considerations concerning human rights and equity. Following on from this sections 3 and 4 develop a theory of public expenditure based on public goods — national and local — and externalities; and sections 5 to 8 present a theory of taxation culminating in a justification of progressive taxation. Section 6 forms a kind of pivotal point in the analysis, showing how the above political and ethical requirements of the theory lead to the first estimation of the optimal amount of public expenditure and revenue — involving an equilibrium at the margin. Section 9 concludes the paper, outlining a plausible sketch of the evolution of public expenditure and taxation through time.

## 2 Setting the stage : the link between public expenditure and taxation

Like most political writers in France, one of Turgot's main concerns was public expenditure and revenue. The problem of equity was of course central. The question of efficiency was very closely linked to it — collecting taxes should be as economical as possible so that pointless additions to existing political and financial burdens be avoided. Proper analysis of these aspects, moreover, required a clear view of another important point : the incidence of taxation. But the story does not end here. Most of the time these aspects were not treated in isolation, and they were linked to the question of public expenditure. Equity in taxation was not just a problem of how to distribute the tax burden among citizens in a 'just' manner : equity could not be determined independently of the justification for, or the purpose of, taxation — or government expenditure. Thus the expenditure and the revenue sides of the budget were thought to be intimately connected.

There were of course some precedents. Montesquieu, for example, dedicated

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4. 'An essential feature of the classical approach, still widely followed, is that the economics of expenditure and taxation are pursued as separate issues : while benefit taxation was viewed as the ideal, the bulk of tax revenue and hence tax analysis had to be examined in a context of ability to pay, with the required total set from the expenditure side' (Musgrave 1985 : 3). See also Creedy 1984 : 88.

Book XIII of *De l'Esprit des lois* to taxation and also reminded his readers of these connections, if in a very general manner. The revenue of the State, he emphasised, is a portion of wealth that every citizen gives up for his own security so that he might be able to enjoy the remainder of his wealth in peace. An essential task of government is therefore to determine this portion in a fit manner. The State should only seek money to meet its real needs, and not to finance ‘imaginary needs’ such as those dictated by the search of a futile glory — needs arising from ‘vainglory’ are in fact the consequences of ambition or whim on the part of those in power. Public revenue should not be fixed in terms of the amount that people *can* give, but according to what they *have* to give.<sup>5</sup> In Book XIII Montesquieu also revived a long tradition which considers that the form and the amount of taxation depends on the nature of the political regime. However, many of these ideas were expressed somewhat elliptically. In any case, they were about to be transformed and developed in a totally different context : this was the task taken up by French Sensationist political economists.

## 2.1 Public expenditure and finance in a modern State

The starting point of their analysis is a clear conception of a social organization which should be the source of political authority and of the State. Political organization should not only preserve and protect natural human rights in an abstract legal way, but also secure their realization. These human rights — liberty, security, property — are inferred from Sensationist premises. And as far as beneficial political institutions are concerned, our authors almost all accept that Jean-Jacques Rousseau’s conceptions of sovereignty and general will are of fundamental importance — even if they do not all use these terms. This point cannot be developed here but, since it is often overlooked, it should be noted.<sup>6</sup>

Turgot — like other members of the school — wrote very little on Rousseau ; his views however can be found in his correspondence with David Hume at the

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5. In the entry ‘Impôt’ of the *Encyclopédie* Louis de Jaucourt (Jaucourt 1765) reproduces Montesquieu’s ideas.

6. For some parallel developments concerning the links between the Physiocrats and Rousseau, see Charles and Steiner 1999.

time of the Rousseau/Hume quarrel, and especially in a letter of 25 March 1767. Turgot was not personally acquainted with the *Citoyen*<sup>7</sup> but, contrary to most of the Philosophes, he consistently supported him and was full of praise for his work. Of course, like most of his contemporaries he did not agree with the 1751 *Discours sur les sciences et les arts* and with all the 'paradoxes' that Rousseau, in his opinion, later felt obliged to pile up in an attempt to defend his first 'paradoxical ideas'. Turgot was also suspicious of Rousseau's Christianity and, contrary to general opinion, did not like *La Nouvelle Héloïse*.<sup>8</sup> But he thought highly of *Émile*, and of *Du contrat social*.<sup>9</sup> 'Unlike you', he wrote to Hume,

I do not judge them [Rousseau's writings] as injurious to the interest of mankind; on the contrary, I believe that he [Rousseau] is one of those authors who best serve morals and humanity. Far from criticizing him for diverging from common ideas on this topic, I believe instead that he remained respectful of too many prejudices; but we have to follow his road if we are to attain his goal, which is to bring men closer to equality, justice and happiness. (Turgot 1913-23, II : 659-60)

He added (*ibid.* : 660) :

And should the *Contrat social* count for nothing? In fact, this book distinguishes precisely between Sovereign and Government; and this distinction presents a genuinely illuminating truth which, in my opinion, resolves forever the idea of the inalienability of the sovereignty of the people under any form of government.

This is also a reason why he never liked Physiocratic phrases such as *despotisme légal* and *autorité tutélaire* as characterizations of political authority<sup>10</sup>

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7. He met him only once, at Baron d'Holbach's salon at the time of the writing and publication of *Discours sur l'origine et les fondements de l'inégalité* (Turgot to Hume, 25 mars 1767, in Turgot 1913-23 : II : 659).

8. In a letter to Dupont (24 October 1773) he wrote against 'cette pédante de Julie' (Turgot 1913-23 : III : 628).

9. In the entry 'Économie politique' of the *Encyclopédie* Rousseau wrote : 'The power of the laws depends even more on their own wisdom than on their ministers' severity, and the public will derive its greatest influence from the reason which dictated it : this is why Plato considers it a most important precaution always to place at the head of all edicts a reasoned preamble which shows their justice and utility' (Rousseau 1755 : 11). This is exactly what Turgot did in his celebrated 1774-6 'édits'.

10. See his letters to Pierre-Samuel Dupont : 10 May 1771, 14 and 25 March 1774 (Turgot

— and Morellet was even more critical.

Rousseau's name is also highly praised in the ninth epoch of Condorcet's *Esquisse* (1795 : 377). Indeed, Condorcet's writings on election schemes and what we today call 'social choice' can be thought of as a way of expressing and clarifying Rousseau's concept of general will.<sup>11</sup>

Turgot developed his ideas on public expenses and revenue along these lines. As regards taxation, he sought to analyse it in the context of a modern State where the liberty and property of citizens is respected, and where the realization of 'happiness for all' is the ultimate purpose of the government (Turgot 1776b : 183). This is why, for him, questions of equity and efficiency are linked, and why all forms of inquisitorial or harmful tax should be banished (Turgot, 1763, 1777). He asked :

What is a tax? Is it a burden imposed by the powerful upon the weak? This idea would be like the idea of government based only on the right of conquest. The Prince would then be considered to be the common enemy of society; the strongest would protect themselves as they could, the weakest would let themselves be crushed. The rich and powerful would shift the burden on to the weak and the poor, and would be proud of this privilege. (Turgot 1776b : 183)

Condorcet also stressed the fact that there is a strong link between the nature of the political régime and the system of taxation : 'not all forms of taxation are suitable for a free Constitution, nor for the means that the respect for human rights permits' (Condorcet 1790b : 436). He also argued, like Turgot, that if the purpose of the government is 'happiness for all' and the respect of the liberty and property of citizens, then these two aspects are in fact two sides of the same coin. In a system of civil laws, he writes in his *Vie de M. Turgot*, 'nothing should be arbitrary and all should aim, not at the greatest utility for society — a vague principle, and a fertile source of bad laws — but

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1913-23, III : 486, 662, 663). 'The words *tutélaire* and *protectrice* are inappropriate, tend to heresy and hurt free ears . . . ; whoever says tutor says minor, whoever says protector says *protégé* . . . , a relation where one side submits to the other . . . whereas the real relation is between principal and agent' (III : 663). The idea of a *despotisme légal* 'tarnishes the writings of the économistes and ought only to be read in Linguet' (III : 486-7).

11. See Baker 1975, chap. 4; Grofman and Scott 1988 and the subsequent debate : Estlund, Waldron, Grofman and Scott 1989; Young 1988; McLean and Hewitt 1994.

at maintaining the enjoyment of natural rights’ (Condorcet 1786 : 186-7) i.e., liberty, security and property.

In a modern State, therefore, a good tax system should not antagonise individuals against society or government ; it should respect the fundamental rights of citizens ; and citizens must understand for which purpose taxes are levied. ‘Public expenditures are made in the interest of all, all should contribute.’ (Turgot 1776b : 183)

## 2.2 ‘L’institution des dépenses publiques’

This is the reason why, before dealing with the question of taxes in detail, we need to address the question of what the State should do ‘in the interest of all’ — and, quite possibly, how much should the State do. Sensationist political economists were aware of the importance of this question, and Condorcet in particular sought an answer. But the problem itself was stated most clearly and explicitly by Røederer in the ‘Prospectus’ of a book he was planning to write on public finance.<sup>12</sup> Hitherto, he notes, authors who dealt with public finance limited their attention to the revenue side of the question — taxes, public debt — and neglected the expenditure side ; or, when they did take it into account, it was only to state that : ‘*One must economize on expenses*’. But, he went on, this principle is totally inadequate, and not even true for all cases because it is impossible to reduce public expenditure beyond a certain point (Røederer 1791b : 3).

What Røederer calls the ‘institution of public expenditure’ — ‘bound so closely to the foundations of society and to the Constitution’ (ibid. : 2) — should come first : and from its knowledge ‘a large part of the principles of a good system of public revenue’ will follow (ibid.). It is thus necessary to establish the principles which will clearly show :

which properties must be in common or national, what works or functions — if any — must be paid for by the nation and in what proportion . . . , what are the effects of such and such public expense on the revenue of private individuals, etc. (ibid. : 3)

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12. This announced book (see Røederer 1791b) was never completed. A small part of it was published as an article nine years later (see Røederer 1791c). Ten years earlier he was already projecting a treaty of the kind (Røederer 1782).

### 3 Public goods

What are the duties of the State? At the end of the 17th century, Boisguilbert maintained that the State should not interfere with economic agents in markets, and in substance limit its action to the minimum but fundamental tasks of police, justice and defence (Faccarello 1986 : ch. 4). Turgot agrees with this : the first duty of the State is certainly to use public and military strength ‘in order to maintain the private property of people in the country and to protect them against foreign attack’ (Turgot 1776b : 183). Consequently, he wrote to Richard Price, criticizing the constitutions of the various American States, of the necessity that one ‘reduce to a minimum the number of tasks that a government should undertake’ (22 March 1778 ; in Turgot 1913-23, V : 535). These ideas were already expressed in the ‘Éloge de Vincent de Gournay’ which he wrote for Marmontel in 1759 (Turgot 1759 : 602-3).

#### 3.1 Rivalry and exclusion

But the role of the State does not end here. While the public authority should not do what people can do for themselves on a private basis — and in a much more efficient way (ibid.) — it has nevertheless to intervene each time that markets fail to work properly, i.e. each time that there is, in modern words, a ‘market failure’. These interventions also entail expenses made ‘in the interest of all’ : the State has to finance the production of some public goods other than police, justice and defence, or even limit the scope of property rights.

This is also what Condorcet meant when, among the many definitions he gave concerning the object of public finance, he always mentioned ‘public prosperity’. Taxation, as he writes for example in his *Essai sur la constitution et les fonctions des assemblées provinciales*, ‘ceases to be legitimate if it exceeds the amount necessary for the defence of the State, for the maintenance of the peace and security of the citizens, and for those works and establishments really useful to common prosperity’ (Condorcet 1788b : 279).

But what are these ‘works and establishments’ of which the State should be in charge? Under what circumstances should they be introduced? Some interesting pointers on these issues can be found.

A first issue has to do with the nature of goods. In a discussion of the usual definition of the right of property as the right to use and abuse, Turgot describes the problem of rivalry or non-rivalry in consumption. 'There are some objects', he writes,

that ... all people can enjoy at the same time without harming one another. There are also other objects which are destroyed in use or, even if they are not destroyed, can only satisfy one man at a time ... such as *food*. (Turgot 1753-4a : 381)

And he adds : 'All the objects in nature can be classified under these two groups', or find themselves in an intermediary position ; 'from the sky that everyone can see, to the food which can satisfy only the hunger of a single individual, the endless variety of all beings surrounding us compose all possible shades between these two extremes' (ibid.).

The criterion of exclusion is not explicitly dealt with here by Turgot but we must note that, of the two extreme points of the spectrum, the first — the sky — has no price and nobody can be excluded from its enjoyment ; whereas the second — food — is, according to Turgot, the best example of a good for which private property and, at the origin of society, exclusive possession by the 'first occupier' is most complete. Such a good can only be acquired through work, or by paying a price to the owner. The context of this discussion is a book on trade, money and wealth that Turgot intended to write and for which he stressed the importance of the determination of prices in markets through the free movement of supply and demand, the efficiency of free competition, and the fundamental role of private property in all these processes.

By contrast, however, a criterion for exclusion is clearly stated by Condorcet in *Essai sur la constitution et les fonctions des assemblées provinciales* where he raises the problem of the free rider. He notes that if the principle of justice is to be interpreted rigorously, an expense financed by taxation on account of its general utility should only be introduced if all the taxpayers agree to pay for it ; otherwise some people can benefit from it without giving anything in exchange. But, he remarks, this may not always be the case :

if, at the same time, it is impossible or very difficult to prevent those who did not wish to contribute towards this expense from benefiting from it, we can consider as legitimate the obligation to

contribute, even independently of unanimous consent. (Condorcet 1788b : 280)

It is true that in this text, when citing expenses having a common ‘utility’, Condorcet only refers to public expenditure in respect of public works, and not in respect of the fundamental duties of police, justice and defence — all items for which, quite probably, the problem was thought obvious. Nevertheless the general criterion is stated explicitly :

Two conditions are therefore necessary to legitimate the devotion of tax to useful expenses : it is necessary that the utility of these expenses be proved, and also that they not be at the sole expense of those who consent voluntarily to them, if they are unable to prevent others from also benefitting from them. (ibid.)

This is the reason why Condorcet, in his *Vie de M. Turgot*, listed ‘public works’ as an expense to be financed by taxation. ‘The state of society’, he writes, ‘necessarily requires public works useful to all citizens or to the inhabitants of city, village, or district’ (Condorcet 1786 : 185). And, in fact, one of the main examples of such works concerns the basic infrastructure of a country : rivers, canals and especially a developed road network allowing easy communication between provinces, towns and villages. This is not only of importance to the political and administrative organization of the kingdom. In the opinion of Turgot and Condorcet, this is above all an essential condition for the realization of free trade and its efficiency — especially as regards the grain trade and thus the uniformity and stability of agricultural prices.

Two problems, however, require discussion here. The first concerns the possibility of the private construction and/or exploitation of roads ; the second, the level — central or local — at which the expense should be determined and also paid by the public authorities.

### **3.2 Against private concessions**

As with many public goods, it is clear that financing the construction and/or maintenance of roads does not necessarily entail public expenditure ; it can also be done privately in exchange for a concession such as a system of tolls. But by the end of the Ancien Régime public opinion was overwhelmingly against tolls which were regarded at the very least as arbitrary, unjust and

damaging to trade — they were considered to be naked *privilèges*. A Committee was established in 1724 to examine the legitimacy of these tolls;<sup>13</sup> and in 1738 the Contrôleur général Orry decided in favour of the *corvée* system for the construction of the *routes royales*. But as criticisms of the *corvée* increased, tolls were again proposed by some as a solution for roads as well as for canals. The Contrôleur général Bertin was supposed to have begun plans for this at the beginning of the 1760s. Later on, authors like the *abbé* Coyer (1779) and Fer de la Nouerre (1786) wrote in favour of a reformed system of tolls, following the English model of the 'turnpike toll' and 'turnpike trusts'. However, the great majority of authors always opposed tolls (Conchon 2002 : chap. X).

Turgot also rejected this conception. In a letter to Daniel Trudaine, then director of the administration of Ponts et Chaussées, he argued against it. This letter, dated 7 September 1762, seems unfortunately to have been lost. But Vignon (1862 : 62) summed up Turgot's arguments : a system of tolls is troublesome for trade ; and it is moreover unable to yield sufficient money to repay the invested capital and also make a profit.

The first argument relates to the basic hostility of Sensationist economists to all kinds of impediment to the free circulation of commodities as well as of persons. Naturally this was for economic reasons :<sup>14</sup> complete free trade was needed in order to stabilize the economy and generate prosperity ; and tolls were considered to be a kind of indirect tax and as such damaging to the *produit net*. Moreover, the history of tolls in France showed — this was a usual and important complaint — that those who benefited from toll fees did not properly maintain, if at all, the sections of road or canal they were supposed to manage. In this respect private enterprise proved to be deficient, probably because competition could not function properly in this area of economic activity.

The second argument is rendered more clear if we note that the kind of road necessary for agriculture and the implementation of free trade were not just the highways linking big towns, but also, as Condorcet stresses (Condorcet 1788b :

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13. The task was immense. The Committee was still active some decades later.

14. But the reasons could also be political : Condorcet, for example, was of the opinion that roads and streets are by nature the property of all in general and of nobody in particular : this is a just and necessary condition for the enjoyment of human rights (Condorcet 1788b : 429, 513).

408), a network of good roads linking up districts and villages. The provision of such roads was probably not profitable for private entrepreneurs, even if their toll rates were very high — and therefore also economically damaging.

### 3.3 Local public goods and clubs

It should be noted however that although roads have to be financed by the State, such finance need not be centralized in the hands of the government itself. This kind of public good is best financed and produced by local assemblies or authorities — Turgot’s *assemblées municipales*, Condorcet’s *assemblées provinciales* — naturally in coordination with each other and with the central government. Contrasted with defence, for instance, they are a kind of local public good. Turgot wrote to Price that it is necessary ‘to institute local subordinate assemblies which, carrying out all the local tasks of government, discharge the members of general assemblies from the duty of so doing’ — the authority of a general assembly being directed only to ‘general objects’ (22 March 1778, in Turgot 1913-23, V : 535-6).<sup>15</sup>

The need to distinguish different levels for the imputation of public expenditure — and implicitly the distinction of different kinds of public goods : general or local — is also dealt with by Condorcet and Røederer. Two interesting suggestions can be noted briefly here.

The first came from Condorcet. His ideas on the constitution of different kinds of assemblies and their voting processes are well known. But it is often forgotten that in the *Lettres d’un bourgeois de New Haven à un citoyen de Virginie* (Condorcet 1788a) and the *Essai sur la constitution et les fonctions des assemblées provinciales* (Condorcet 1788b), he also covered problems such as the determination of the size of the budget, whether at national or provincial level — public finance belonging to those ‘general objects’ which, in a free nation, political institutions should decide upon in a democratic way. However this way of deciding public expenses and revenues does not gainsay the rational and theoretical determination of what exactly the State should do. According to Condorcet, the voting process should not only respect some basic democratic rules ; it should also be organized *in such a way that the outcome*

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15. Another echo of Rousseau may be seen here.

be in conformity with truth, i.e. with that which reason suggests. This point is of course linked to the problem of expressing more precisely the meaning of Rousseau's general will. This aspect of the question is worth emphasizing for modern readers, who might find it unfamiliar. As Keith Baker rightly emphasised,<sup>16</sup> Condorcet's aim, especially in another well known book of his, the *Essai sur l'application de l'analyse à la probabilité des décisions rendues à la pluralité des voix* (1785), was to address a major political question :

Under what conditions will the probability that the majority decision of an assembly or tribunal is true be high enough to justify the obligation of the rest of the society to accept that decision? ... Condorcet saw the process of political decision-making, as did Turgot, not as a means of ascertaining the strongest among a number of opposing parties — not, that is, as a mere expression of will — but as a method for the collective discovery of truth. (Baker 1975 : 228)

The problem is of course to determine what is the truth, i.e. what 'reason' has to say on this point of public economics.

The second proposal came from Røederer. In his article 'Des dépenses des villes' (1797b) — intended to oppose the re-establishment of city tolls — he tries to state clearly how city expenses should be financed. The just way to determine who should pay for these expenses, he writes, is to distinguish the expenses which benefit all society and which should therefore be charged to the State from those which benefit only the local landowners and which 'like the expenses of an association or a club' (Røederer 1797b : 568) should be paid by them in the form of a local tax. We cannot here enter into the details of the analysis. But the principle is clear enough (ibid.) :

If towns were only used by landowners for their pleasure, the expenses of towns would only be the expenses of a club and should be charged to those who find in them pleasure or utility, and landowners living in the countryside should not be asked to contribute. But as towns are also the place where those who have public employment live, since public employments are established for general interest, the expenses of towns seem in this respect to be due from the whole society ; or, at least, society must pay a share proportional to the number of citizens carrying out public functions.

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16. See also Granger 1956, Rashed 1974, Grofman and Feld 1988, Young 1988, 1997.

## 4 Externalities and merit goods

As Sensationist political economists started their analysis from natural human rights, they were careful to suppress anything that might diminish these rights and favour everything that might make them more effective. No wonder, then, that they paid great attention to what, today, we call externalities and merit goods — from their point of view there was no doubt that this was a second kind of market failure.

### 4.1 Coping with negative externalities

We first have to confront the existence of negative externalities. In the economic field they are a consequence of the misuse of liberty and private property. This is why, while necessary public expenditure on police, justice and defence is made to assure the liberty and the security of citizens and their private property, liberty and the right of property are not to be understood in an absolute way. The latter can harm people and they therefore have limits of which the legislator must be aware. The right of property is, admittedly, a natural right, and it is useful to society so long as it possesses positive externalities with respect to the incentive to work, to invent and hence generate prosperity and growth. But this right must be regulated as soon as these positive consequences are reduced, or checked, by negative effects. Turgot clearly states this in an early manuscript :<sup>17</sup>

Natural right seems to allow everyone to use his landed property as he wishes. This is a consequence of the right of property . . . but there is no doubt that the legislator can regulate this use for the general utility of society . . . The right of property is established on general utility; it therefore depends on it, and the legislator has the right to keep a watchful eye on the way in which each owner uses his land (Turgot 1753-4b : 439).

With this qualification, however : ‘public equity and interest’ also command the legislator ‘to damage as little as possible the interests of the owner’ (ibid.). Condorcet is of the same opinion. ‘Be careful not to give the right of property

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17. See also, for example, Turgot’s *Encyclopédie* article ‘Fondation’ (Turgot 1757), and Condorcet’s comments in his *Vie de M. Turgot* (Condorcet 1786 : 142, 180, 188 for example).

a scope it does not have', he warns (Condorcet 1788b : 450). In the presence of negative externalities and the unwillingness of some owners to alter their property in order to suppress these effects, the State is not only entitled, but also obliged, to intervene. The right of public authorities here cuts across the right of property. In what way, and to what extent? 'This right of the public authorities does not consist . . . in taking away a property, it is a right only to change its form' (1788b : 509), i.e., the right 'to replace it by another property of an equal value; to require from the owner, not the sacrifice of his property but that of the personal reasons which induced him to prefer this particular property to any other of a similar value' (ibid. : 428).<sup>18</sup>

In the text quoted above, Turgot gives an example : in his opinion, the legislator 'can prevent a man from altering a useful fecundity into a sterile magnificence, from transforming a piece of land able to feed people into a promenade for a few idle men'. This is of course rather radical and, as a matter of fact, Turgot never advised public authorities to forbid the transformation of cultivated land into ornamental gardens — probably because people were not starving at the time. But he was seriously concerned about similar problems. At that time, in France, a typical and important question of negative externalities was raised by the existence of undrained marshes which were maintained as such by their owners either out of ignorance, lack of money or, more often, because these marshes were used by millers or blacksmiths for their activities, or even considered to be places for fishing and hunting. Sometimes, temporarily stagnant and unhealthy water was even the consequence of road or canal construction. These marshes obviously had a strong negative externality impact upon their surroundings, damaging the health of people and animals and bringing about an undercultivation of land.

Turgot's concerns are reported by Condorcet in his *Vie de M. Turgot* (Condorcet 1786 : 147-8) and he himself came back to the problem two years later in his *Essai sur la constitution et les fonctions des assemblées provinciales* (Condorcet 1788b : 421-8). In 1786,<sup>19</sup> he proposed that public authorities buy the marshes and even the watermills or other workshops built on them, drain

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18. The same idea will be expressed in the 1789 'Déclaration des droits de l'homme et du citoyen', Article 17.

19. In 1788 the details were somewhat different and sometimes unclear.

them and transform them into agricultural land. The increase of the *produit net* of these pieces of land makes them more valuable and permits the authorities to be repaid for all expenses incurred in this process — a process which also generates increased revenues for surrounding properties on account of the suppression of former negative externalities. And last but not least : the intervention of public authorities has to be made at the local level for three reasons : an adequate knowledge of local details is required ; people must know and trust the institution in control of the operation ; and the expense has to be born locally because of the purely local expected benefits.

## 4.2 Encouraging merit goods and positive externalities

Merit goods can also give rise to some public expenditure. Turgot, for example, was aware of popular interest in plans for social and health insurance, and of course for education. But for insurance (Turgot 1762) as well as for education (Turgot 1757 : 590-1) he first thought that such expenses should be left to the private decisions of the people. Later, however, in the context of his grand scheme aimed at the reform of French administrative and political structure on the basis of a series of *assemblées municipales* (Turgot 1775), he planned compulsory civic education.

Condorcet developed these ideas and included expenditure upon merit goods as part of necessary public expenditure. In the first of the two *Mémoires sur la fixation de l'impôt* he stressed the importance of an institution that could be of some assistance to citizens and their families in case of accident, death, or simply old age. According to him, 'everybody is interested in buying, sacrificing a part of his present enjoyment, the certainty of protection for himself or his family from falling on hard times' (Condorcet 1790a : 430-1). It is true that, in his view, subscription to a form of life insurance would not have been compulsory. The implementation of the project would however have required the creation of a public financial institution which could repay to all depositors, or his or her family, 'either a proportionate amount of money, or a life annuity the payment of which would start after some years' (ibid. : 431).<sup>20</sup>

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20. In his *Esquisse d'un tableau historique des progrès de l'esprit humain* Condorcet admits that such an institution can also be established with private capital ; but he still thinks that public authorities have an important part to play in this field (Condorcet 1795 : 439).

But with respect to merit goods, the main public concern should be *instruction publique*. Condorcet always insisted on this point, before and after 1789. He put forth a scheme for public education in his *Essai sur la constitution et les fonctions des assemblées provinciales* (1788b : 471-87) and extensively developed his ideas in a series of five memoirs published in the *Bibliothèque de l'homme public* (1791) and a report for the National Assembly (1792). In his opinion, *instruction publique* is necessary for four main reasons : firstly as in Adam Smith, as an antidote to the destructive personal effects of the division of labour ; secondly, as a powerful agent of social unity, so that growing differences between rich and poor, the ignorant and the learned be avoided ; thirdly, permitting a high rate of scientific progress and economic growth, i.e. strong positive externalities ; finally, and this is probably the main reason — as a powerful factor in the respect for and implementation of human rights. ‘Up until the present’, he stresses in his *Essai*, ‘no nation had public education worthy of the name : i.e., an education in which all individuals could acquire, in their first years, precise ideas of their rights and obligations ; learn the main provisions of the laws of their country ; and acquire the elementary knowledge necessary for the conduct of common life’ (Condorcet 1788b : 471). Some people, he notes, would object that these establishments cost money. But :

few establishments are so useful ; and we can even say that these expenses are necessary, such as those devoted to the execution of laws — for, without public instruction, one can only superficially fulfil the object of laws : the preservation of the rights of all citizens. (ibid. : 481)

## 5 The role and meaning of taxation

We will have to return to State expenditure in the next section, but, in order to do so, we first have to specify more exactly the nature of State revenue. Suppose that the tasks to be assumed by the State are known : what is the proper way of financing them ? And is there any link between this ‘proper way’ and the general theory of value and markets ?

## 5.1 Making the right choice among ‘ways and means’

As for the first question, different solutions are possible, to be implemented in isolation or in coordination. Money can originate in Crown property; it can also come from a monetary source, or be borrowed from the public; finally it can be obtained through taxation. In France, the first possibility had been considered for centuries to be the only just solution, and generations of lawyers and political thinkers had supported the dictum : *le roi doit vivre de son domaine*. But it had for a long time been more evident that great transformations in the role and functions of the State should be financed in some other way. Crown property only yielded a small part of public financial means; it was also seriously mismanaged. In addition, and more fundamentally, the very existence of State property was seriously questioned : it was thought to be the heritage of the dark ages. For all these reasons, said the Sensationist political economists, a modern and rational State should dispose of it — the principle that Crown or State properties are inalienable simply not being true.<sup>21</sup> According to Condorcet, this was Turgot’s opinion, and this sale was one of the functions of the *assemblées municipales* which the minister was seeking to establish (Condorcet 1786 : 143-4). This is also what Condorcet himself proposed (Condorcet 1788b : 451). As for Røederer, he repeated in the ‘Prospectus’ of his projected book on public finance that ‘a great nation should never obtain revenue from common properties’ (Røederer 1791b : 3).

The second possibility listed above — the monetary source — was discounted in a country like France which, unlike England, did not have a modern banking system; in which John Law’s ‘system’ and bankruptcy were still remembered; in which, finally, ‘monetary’ State finance meant in fact monetary manipulations. This point was again to be illustrated dramatically when the *assignats* became money during the Revolution.

But the monetary solution actually also means public debt — the third possibility — and State borrowing was strongly rejected by our authors. State borrowing had been extensively used by the French Monarchy and the result was disastrous : a huge public debt, high interest rates, and successive postponements of necessary financial, administrative and political reforms. ‘No loans’

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21. Such a sale, together with that of the clerical, would also have had the advantage of paying back part of the public debt.

Turgot told the King when he accepted his nomination as Contrôleur général des finances. Why? 'because a loan always diminishes the available income; it requires after some time either a bankruptcy or an increase in taxation' (24 August 1774, in Turgot 1913-23, IV : 110). This is not to say that loans should never be taken out. But they must only be used in exceptional circumstances. 'In peacetime one can borrow only in order to settle an old debt, or to repay previous loans made at a higher interest rate' (ibid.), i.e., for the management of outstanding debt inherited from the past.

Symptomatically Røederer did not even mention borrowing when he listed the sources of public finance (Røederer 1791b : 3).<sup>22</sup> And when Condorcet proposed a resort to State borrowing in 1790, he did it in dramatic circumstances — as part of the administrative, political and economic reorganization of the country. 'A loan is impolitic and even unjust', he writes, 'if, in order to spare those in favour of whom expenses are made, the burden is placed upon their descendants.' But given the situation of France in 1790 and the scope of the new policy — especially proper management of public finances, repayment of debt and the sale of Crown properties — the situation of the country would inevitably have improved, wealth increased and future taxation diminished. This is why borrowing in such circumstances was not unjust : future generations who would have benefited greatly from the Revolution, should also be required to contribute to present and significant efforts on the part of the nation and thus share its costs (Condorcet 1790a : 414-5).

Of all the possible solutions listed above there thus remains only the fourth : taxation. And, according to Sensationist economists, this should be the normal way of financing public expenditure. Røederer reminds his readers of this in the introduction of the first issue of the *Journal d'économie publique, de morale et de politique*, following the political, economic and financial turmoil of the first Revolutionary years which ended with the collapse of the *assignats*.

Incorrect ideas in finance disappeared with forged currency . . . All  
now agree to make taxation the source of State resources, and to

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22. Røederer however did not reject loans entirely : see his comments on a question asked by the Institut national for the prize of the Classe des sciences morales et politiques : 'For which objects and on what conditions can a Republican State issue a public loan?' The question was officially asked four times but the Classe — and Røederer himself who was a member of the Institut — did not apparently receive any satisfactory contribution. See for example Røederer (1797c).

levy taxes through institutions favourably disposed towards property and aware of its true interests. (Rœderer 1796 : 160)

This position also accords with the conception of the nature of the State in a free nation where sovereignty lies with the people, citizens are responsible, and public expenditure made for the common good.

## 5.2 Benefit approach and/or ability-to-pay principle ?

The normal way to finance public expenditure was thus taxation. But how should taxes be levied equitably ? It is certain that the (now) well-known clear-cut distinction between two views — the benefit approach and the ability-to-pay principle — would have puzzled eighteenth-century authors who would have thought rather in terms of the complementarity of these two views rather than of their opposition. Nevertheless, is it possible to determine which of the two approaches best describes the *problématique* of Sensationist economists ? Here equity, efficiency and incidence are intertwined.

There is no doubt that the position of Turgot and Condorcet is best described as a ‘benefit approach’. For them just taxation is where each pays in proportion to the benefit received from public expenditure. ‘The public expenses’, Turgot writes, ‘are made in the interest of all, all should contribute ; and the more one benefits from the advantages of society, the more one should feel honoured to share their charge.’ (Turgot 1776b : 183) And he adds :

One must return to the true principles, to justice, which charges the expense to those who have an interest in it. (ibid. : 191)

Condorcet was of the same opinion. The duty of obeying public authorities and paying taxes, he writes, is ‘the price of the benefits that every citizen’ receives from political association (Condorcet 1788b : 280). Taxation, ‘in order to be just, must be distributed proportionally to the advantages derived from society’ (Condorcet 1786 : 186). At the end of the Revolution, Jean-Baptiste Say wrote in a similar vein (Say 1803, II : 457).

Here we must again distinguish between two kinds of public expenditure : for the general services of police, justice and defence — the ‘absolutely necessary expenses’ in the words of Condorcet — or for public works, or for establishments of general utilities — the ‘useful expenses’.

That citizens must share the costs of the former seems evident to Turgot and Condorcet and they do not emphasize the point. Problems arise however when, as a consequence of the Physiocratic theory of the exclusive productivity of agriculture, they impute the burden of the tax solely to landowners. There seems to be a contradiction, for it seems that landowners, even if they get the entire *produit net*, are not the only ones benefiting from this public expenditure. All that it is possible to say is that landowners benefit more from the general services of the State : they are supposed to be in need of more protection from the State, and to be more attached to their country, than the rest of the population. This is what our authors try to prove, stressing for example the fact that they cannot conceal their estate or leave the country — carrying with them their wealth — in case of danger.

Who really benefits from public expenses ? asks Turgot. He notes a point to be dealt with in detail in a projected book on taxation, that landowners only have an interest 'in the preservation of all other properties, the maintenance and the free disposal of which is necessarily of benefit to them' : seeking to refute 'all pretexts according to which it is alleged that people with only movable properties have the same interest.' (Turgot, 1763 : 295-6) And further :

I have said already that only the landowner should contribute to taxation ; one reason is that he alone finds his interest in the preservation of the permanent order of society. What does the future of the government matter to the industrious man ? He will always have the same resources in his hands : it is perfectly indifferent to him whether Pierre or Jacques puts him to work. The strongest argument is that the landowner alone has a true income. (ibid. : 301)

Just taxation, Condorcet writes, 'must be proportional to the *produit net* because the advantages generated by establishments financed through taxes are enjoyed more securely and are an improvement of this very product — advantages that we can also consider as proportional to it' (Condorcet 1788b : 292).

In fact the contradiction stated above cannot be resolved in pure economic terms. All such arguments are closely linked to political debate about who, in society, is a member of the political community, i.e., who is a citizen, with the capacity to vote. In 1788 Condorcet developed his position in *Lettres d'un*

*bourgeois de New Haven à un citoyen de Virginie* and in his *Essai* on the *assemblées provinciales*.<sup>23</sup> All the above arguments depend thus on a specific conception of the nation, and on the definition of the *droit de cité* by the possession of a piece of land. The problem is settled, but only formally : the underlying question remains, and can only be answered more cogently with the aid of the distinction, clearly made by Røederer, between owners of the *produit net* and landowners. Røederer still accepts the Physiocratic conception of the exclusive productivity of agriculture which remains, in his opinion, the true explanation of the origin of the *produit net*. But this *produit net* is not entirely appropriated by the landowners. They must share it with all other owners of capital, whatever the sector in which these capitals are invested and whatever their type — productive, financial or even human capital. And the distribution of the *produit net* is effected by competition, in proportion to the amounts of capitals invested (Faccarello 1991 : 69-78). This is what Røederer calls the 'right of capitals'<sup>24</sup> which, without modifying the Physiocratic view of the incidence of taxation — the tax bears always ultimately on the *produit net* — nevertheless explicitly makes the doctrine of the *impôt unique* on the revenue of landowners unnecessary.<sup>25</sup>

Turgot and Condorcet analyse in a more detailed way the other type of public expenses — the 'useful' ones, like those for public works. The point is well illustrated in the case of the construction of roads, about which Turgot wrote for over 15 years.

The main roads in France were built under the supervision of the administration of Ponts et Chaussée. This administration had *ingénieurs* in the Généralités who worked as subordinates to the Intendants. But the roads were made and repaired by unpaid peasants and workers — the régime of *corvée royale*. For reformers like Turgot, this was of course an inequitable and inefficient way of organizing things.<sup>26</sup> It was inefficient because the cost for the

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23. He changed later his position.

24. A process similar to the one proposed later by Marx with his transformation scheme of labour values into production prices.

25. Theoretically the tax can be levied on the revenue from any type of capital : capitalist competition will facilitate the distribution of the tax burden between all capital owners proportionally, i.e. on all those who have a right to share in the *produit net* (Faccarello 1991).

26. The case of Rousseau who was in favour of *corvée*, is the most important exception.

people and for the economy was very high — people were not paid, they worked unwillingly, had to neglect their own works in the fields, did not know how to do the different tasks in a proper way, and so forth.<sup>27</sup> It was inequitable because those who paid such a high tax were by no means those who benefited. In Turgot's writings, this is a persistent *leitmotiv* which induced him to abolish the *corvée* and to replace it by public works supervised by professionals and financed by a special tax (Turgot 1776a-c). He wrote to the King :

The spirit of this operation is to consider the contribution for roads as a local charge, supported by those who benefit from this expense. (Turgot 1776a : 151)

In Turgot's opinion only landowners benefit from the construction of roads, through an increase in the value of their estates. This is what he repeated time and again — for example to Trudaine de Montigny (20 September 1764, 1913-23, II : 353). And the preamble of the edict abolishing the *corvée* stresses the fact that 'public roads are useful to landowners because of the value that an increase in communications lends the product of their land ... Only the landowning class will benefit from a rapid and immediate increase of wealth, and this new wealth will diffuse to the people only in so far as these people purchase it with new labour. It is thus the landowner class which benefits from the making of roads ; it alone should provide the *avances* because it gains in so doing' (Turgot 1776c : 204-5).

During the governmental discussion preceding the edict, the minister of Justice Armand-Thomas Hue de Miromesnil raised the obvious objection that landowners are not the sole beneficiaries of roads, but that travellers, hauliers and peasants also benefit. Turgot answered :

Travellers go faster thanks to the beauty of roads. The beauty of roads attracts travellers, and multiply their number. These travellers spend money, consume local goods, and this always turns to the advantage of the landowners. As for hauliers, their expenses diminish as they spend less time on roads and use more sparingly their carriage and their horses. From these reduced transportation costs results an ease in transporting goods farther, and selling them for

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Turgot alludes to him.

27. Arguments summed up in Turgot 1776c : 201-4.

a good price. All the advantage is thus on the part of the landowner who sells his goods for a better price. As for the peasants, Mr Keeper of Seals will allow me to think that the pleasure of walking on a well-metalled road does not compensate them for the pain they suffered in constructing it without any wage. (Turgot 1776b : 169)<sup>28</sup>

So far, only the ideas of Turgot — shared by Condorcet — have been summarised, and they undoubtedly follow what was to be called later the benefit approach.<sup>29</sup> As for Morellet and Rœderer, it seems that, during the Revolution, they insisted on the ability-to-pay principle (Morellet 1790 : 118 ; Rœderer 1791a : 515-6). In this respect, they were more in line with predominant opinion in the National Assembly. It is to this principle to which the celebrated 1789 ‘Déclaration des droits de l’homme et du citoyen’ refers in its Article 13. But this conception of taxation can lead to the same practical conclusion as that of the benefit approach. This is true for Morellet : the criterion of the ability-to-pay is the annual revenue ; and as the *produit net* is paid to the landowners as rent, they alone should be taxed. The case of Rœderer is a bit different : in his opinion, while the *produit net* is created in agriculture, while taxes are paid out of this *produit net*, the landowners must not necessarily be the sole taxpayers. Competition will in any event distribute the amount of taxes proportionally towards those who share the *produit net*.

## 6 The optimal amount of public expenditure and taxation

If both sides of the budget — public expenditure and revenue — have to be considered in connection with each other, the question naturally arises of the determination of the total amount of expenditure and taxation. Some expenditure is absolutely necessary, and has to be made : for justice, police

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28. As for merchants, the case is similar. ‘If the merchant benefits from the better condition of the roads, this is good for the landowner. What is the function of a merchant ? Is he not the agent of the landowner for the sale of his goods and for the acquisition of commodities for his enjoyment ? Is the landowner not paying for all the expenses and costs supported by the merchant ?’ (Turgot to Fontette, 6 February 1775, in Turgot 1913-23, IV : 354).

29. It is interesting to note that Turgot argued against taxation according to the ‘faculties’ (Turgot 1763 : 297-8).

and defence. But what about the remainder? Even if the State should only spend for the benefit of all, the list of the projects which could be realized in this way could be long. 'Some public expenses', Røederer writes (1791b : 3), 'are absolutely sterile, such as expenditure for war, and for the navy; but they are nevertheless necessary because they are protective. Some expenses are also really productive, for example on roads and canals; these must be increased . . . ; and taxes which facilitate their construction must be considered as savings, as capitals that taxpayers invest at the highest rate of interest.' But how is it to be decided what should be done? Obviously the State cannot do everything supposed 'useful', and it is necessary to determine a limit. Which criterion should be adopted, so that a choice can be made?

Condorcet (1786, 1793) sought an answer by relying precisely on the interdependence of State expenditure and revenue. Once it is clear that, for any citizen, a tax should be the counterpart of the utility generated by the public expense it helps finance, it is necessary to recognise that paying a tax also prompts a kind of pain : the sacrifice — and sometimes 'painful hardship' (Condorcet 1793 : 17) — which results from transferring money to the State — a sum which therefore cannot be used for private expenditure. From this point of view, argues Condorcet, a tax necessarily ceases to be equitable if the pain it provokes is greater than the utility generated by the public expense. When he examined the free rider problem and the criterion of price exclusion, he wrote that 'if . . . it is impossible or very difficult to prevent those who did not want to contribute towards this expense from benefiting from it, we can consider as legitimate the obligation to contribute, even independently of unanimous consent' (Condorcet 1788b : 280). But he also stressed a dual condition : this public expense is only legitimate :

if it is obviously useful to all and if it is proved that they [the taxpayers] will gain from it a greater benefit than the burden that it generates for them. (ibid.)

This constitutes in fact a criterion for the determination of the amount total of public expenditure. At which point should this expense stop? In *Vie de M. Turgot*, Condorcet gives us an initial answer : 'The amount of taxation [i.e. the volume of public expense] must not exceed what is strictly necessary for the maintenance and prosperity of the people, or rather it should cease at the point where it is in general more useful to each individual to pay the

tax than not to pay it' (Condorcet 1786 : 185-6). How should this sentence be understood? Condorcet comes back to the problem in his 1793 article on progressive taxation and provides a definition for this point :<sup>30</sup>

In the first place, not all public expenses are absolutely necessary ; some are only useful ; and, in this case, they have a limit : the point where the utility of the expense becomes equal to the evil generated by the tax. (Condorcet 1793 : 16)

In modern terms, the optimal amount of public expenditure is determined when the marginal utility of this expenditure is equal to the marginal disutility of the tax.

On the one hand, all public expenses do not have the same utility : it is thus possible to rank them in descending order, from the greatest utility generated to the lowest. Let us imagine a graphical representation : it would indicate, on the abscissa, the successive volumes of these expenses — starting with the most necessary and useful — and, on the ordinate, the utility generated by each given volume of expense : an amount of utility which is, it is assumed, smaller and smaller. We will thus obtain a decreasing marginal utility curve of public expenditure.

But, on the other hand, how should we determine the evolution of the marginal disutility of taxes and find the corresponding graphical representation? A tax means a reduction in disposable income or wealth<sup>31</sup> — and the disutility of an amount of taxes is given by the diminution of utility generated by the consequent lowering of disposable income. The hypothesis of a declining marginal utility of income — or wealth — thus implies an increasing marginal disutility of taxes. We obtain, in this way, an increasing marginal disutility curve.

As all public expense must be financed through taxation, each amount of

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30. It is true that, in 1793, Condorcet, unlike in 1786, seems to limit this principle to the determination of the 'useful' public expenses, i.e. those who are not 'absolutely necessary' — for the latter, i.e. the expenses for justice, police and defence, the principle may have been considered as applying in all cases, their usefulness being so great. Here we will disregard this point.

31. Condorcet sometimes hesitates over which concept to use : 'wealth' or 'income'. In the manuscripts, he has the tendency to write first 'income', and then to cancel and replace it by 'wealth'. For exemple : 'suppose a man who has ~~an income~~ a wealth of two millions' (Condorcet 1785-6 : 585).

such expense also represents an equal amount of tax. In the graphical representation imagined above, the decreasing marginal utility of public expenditure can thus be confronted with the corresponding increasing marginal disutility of taxation : the equilibrium amount of total public expenditure is thus determined — where the two curves cross.

What do we know of Condorcet's opinion on marginal utility of income? As a mathematician, a disciple of D'Alembert and a member — actually the 'secrétaire perpétuel' — of the Paris Académie des sciences, he knew of course the works and publications of the Bernoulli family,<sup>32</sup> and especially Daniel Bernoulli's celebrated essay published in the series of memoirs of the Saint Petersburg Academy. Some of his manuscripts comment on Daniel Bernoulli's opinions. And it is of great interest to see that, while Condorcet disagrees with the substance of Bernoulli's essay, he nevertheless accepts the hypothesis of a decreasing marginal utility of wealth. In his 'Notes sur la thèse de Nicolas Bernoulli' (1785-6), he writes :

We are now going to discuss the principles established by Mr Daniel Bernoulli in vol. V of the memoirs of the Petersburg Academy. This renowned mathematician rightly notices that the value of the same amount of money is not the same in all circumstances and for all men ; that one hundred pounds, for example, are of greater value for a man whose wealth is worth one thousand pound than for a man who has one hundred thousand. (Condorcet 1785-6 : 582)

And he concludes : 'any sum of money necessarily has a greater value for a man with a smaller wealth' (ibid. : 583). Of course this reasoning implicitly assumes that a comparison of interpersonal utility is possible and that all people have the same utility schedule. But in spite of these assumptions, later explicitly made in economic theory and never totally abandoned, Condorcet's astonishing innovation is clearly evident here.

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32. Daniel Bernoulli was 'associated foreign member' of the Paris Académie des sciences. After his death in 1782 Condorcet read his 'Éloge' on 30 April 1783.

## 7 'Impôt de quotité' or 'impôt de répartition'?

Now that the Government knows whom to tax and by how much, what is the best tax to be employed? Are for example the different kinds of income tax equity-neutral, or must one form be preferred to any other?

### 7.1 The choice of a 'direct' tax : economic and political arguments

The first thing to do is discard all kind of taxes not directly levied on the *produit net* because they increase, in a damaging and unjust way, the tax burden; and their collection is harmful to human rights. This had been well known since the Physiocrats, and even Røederer shares this general sentiment. The defects of 'indirect' taxes are summed up concisely by Condorcet :

All indirect tax is paid out of the *produit net* of land; it is impossible to set this kind of tax so that its incidence is proportionate to this produit net. Collecting indirect taxes entails considerable additional costs [beyond those arising from a direct tax] which it is not just to charge to the landowners. And indirect taxes can only be productive by assailing the rights of the citizens with prohibitions and humiliation. (Condorcet 1788b : 339-40)

But the question of the practical implementation of direct taxation has to be answered. Two different systems are possible, both of which were actually used in France. One requires the payment of a given percentage of the revenue of the taxpayer : it was known under the name of *impôt de quotité*; in our case, the landowner should pay, every year, this percentage out of the *produit net* of his land. A second system, known as *impôt de répartition*, consists first in determining the amount needed for public expenditure, and secondly in distributing this amount across taxpayers according to their income — in the present case, again, the *produit net* of land. With the first system, the percentage of the *produit net* paid as a public revenue is known in advance, but the total amount of taxation is unknown; in the second system, the total amount is known but the percentage of the *produit net* it represents is unknown. The two systems, moreover, are by no means socially and politically equivalent.

In his 'Plan d'un mémoire sur les impositions' Turgot noted that the sys-

tem of *impôt de quotité* has many advantages (Turgot 1763 : 306-7). First of all 'a law could put an end to all the disagreements between the King and the people, above all in fixing a percentage for wartime and another one for peace'. Second, people, knowing these rates, would take them into account when buying and selling land and would not count this percentage of *produit net* while determining the price; thus, 'after some time, it is true to say that nobody would pay the tax; but the king would be the owner of a proportionate share of the revenue of the land.' Third, government revenue will vary with the revenue of the nation; and since an increase in wealth also increases the need for public services, these services can thus be automatically financed.<sup>33</sup> Fourth, the variation of public revenue — reflecting that of the nation — would indicate to the Administration whether its policy is good or bad for the country. Finally a fifth advantage, Turgot stresses (*ibid.*), is to render the power of King or government more independent of the people :

These advantages are important, above all in a monarchy; because in a republic, or in a limited monarchy such as in England, the nation could not be content faced with the fact that the Prince would have no need of conferring with it; with such a law, the Parliament of England would lose its greatest influence and the King would soon be as absolute as that of France.

Turgot however thinks that this system of *impôt de quotité* to be undesirable on account of two important negative aspects — political and social — induced by the divergence of interests it creates between the government and the taxpayers. 'With this system', he notes, 'the King or government is alone against all, and the interest of everybody is to conceal the value of his estate' (*ibid.* : 307). This is sufficient, in his opinion, to surrender any idea of its implementation, and adopt instead the *impôt de répartition*.

He expressed his thought more precisely when, in 1777, having sent a memoir on taxation to Benjamin Franklin,<sup>34</sup> he answered some questions raised

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33. This is, in Turgot's text, a simple hypothesis that he did not develop. Morellet maintained the opposing supposition (see section 9).

34. Turgot would have liked to prevent some American States from adopting a system of excise as in England and his purpose was thus to convince Franklin that the best tax is a direct tax on the *produit net*. Ten years before, Turgot had had a discussion with David Hume on the question of the supplementary burden generated by 'indirect' taxes (Turgot to Hume, 7 September 1766 and 25 March 1767, in Turgot 1913-23, II : 502-3, 662-5).

by his correspondent. While the political element is still stressed,<sup>35</sup> two other aspects in favour of the *impôt de répartition* are also emphasized. In the first place, this kind of tax includes, so to speak, a built-in mechanism preventing people from infringing the law — it obliges them to reveal their actual income and, accordingly, to pay the appropriate tax amount. In the second place, thanks to this mechanism, the *impôt de répartition* requires a less extensive knowledge of the income and properties of the taxpayers — and, in 18th century France, with no reliable cadastral survey, this was of course of great interest.

With the first system [*impôt de quotité*], the State ... finds itself alone against all the citizens who are all equally interested in disguising their income. With the second system [*impôt de répartition*], the citizen who would like to hide his income finds himself alone against all others who are interested in discovering it in order not to be burdened with his share. The government, indifferent spectator to this dispute, can only act as an arbiter and impose distributive justice. With the first system, the government must know the absolute value of the income of each landowner, because it has to receive a given percentage of this income. With the second system, one is seeking less to know the absolute value of each estate than its relative, or comparative, value. (Turgot 1913-23, V : 519-20)

## 7.2 The development of Turgot’s ideas

Condorcet, Morellet and Røederer developed this viewpoint. The fundamental argument in favour of *répartition* is straightforward and follows from all that has been said about the basic link between the expenditure and the revenue sides of the budget. Taxation must pay for necessary public expenditure, no more, no less : ‘it is thus a fixed amount that it is always necessary to levy’ (Condorcet 1788b : 303) and only the *impôt de répartition* can do the job. ‘The law demands a fixed amount, because the needs of the State, and not the revenue of the taxpayers, should determine the measure of the contributions’ (Røederer 1791c : 179). Morellet approves of this point :

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35. Condorcet also maintains that the *impôt de quotité* — contrary to the *impôt de répartition* — creates a damaging divergence of interests between the government and the nation, a divergence ‘from which disorder, inaccuracy and arbitrariness can only result’ (Condorcet 1788b : 304; see also 1790b : 440).

It is an indisputable principle that taxation must be exactly what is needed to satisfy the real needs of the nation . . . . But this is . . . totally independent of the proportion of the tax relative to the income of the landowner ; in some circumstances, the amount sufficient to the needs of the nation will be one tenth of the income of all taxpayers ; in some other circumstances, these needs will require two or three tenth of this same income. (Morellet 1790 : 102-3)

Morellet also emphasizes some important and contrasting consequences of these two kinds of tax. The negative effects belong to the *impôt de quotité* : while, in his opinion, the real needs of the State do not grow in the same proportion as national wealth, this kind of tax induces governments to spend more in a wasteful manner, simply because they automatically receive more (ibid. : 106). And, infringing upon the right of property, such a tax would have the 'disastrous effect' of halting the 'progress of wealth', (ibid. : 107) for the industrious citizen would be discouraged and find less and less incentive to work hard and better his condition. If the State constantly seeks a portion of this increment, 'the active, industrious and thrifty citizen would feel partly deprived of his work and less inclined to increase national wealth through augmenting his own' (ibid. : 105). By contrast the *impôt de répartition* — or 'absolute tax' — presents the important advantage of favouring economic growth :

if taxation is fixed as an absolute amount induced by the real needs of political society and invariably fixed until these needs change, . . . national wealth can safely make all the progress entailed by the industry of men and time : and the tax department, with the tax share already determined, cannot have any claim on it. (ibid. : 104)

Another important point is worth emphasizing. The equity/efficiency aspect most extensively dealt with by these authors concerns the possibility open to taxpayers for tax evasion. In Condorcet's opinion, the *impôt de quotité* is likewise unjust and immoral because if a citizen wishes to pay less than his or her share, he or she can do it easily ; and 'it induces a desire to infringe the law ; and the way is neither long nor difficult from the desire to infringe upon a law and the actual infringement of this law and all other laws' (Condorcet 1788b : 295). The basic problem with this kind of tax lies in an asymmetry of information between taxpayers and the tax administration, and in the fact that the interest of each individual taxpayer is apparently independent of the interests of all other taxpayers.

This is the reason why only the *impôt de répartition* can be just and efficient. As already noted by Turgot, it entails an obvious interdependence between taxpayers : whenever one of them evades taxation, the amount which is not paid in this way will necessarily be added to the share of all others. Under these circumstances, each taxpayer is, in a sense, competing with all others because their interests are opposed ; and, through this rivalry of interests — and through a process of complaints, discussions, verifications — each of them is eventually obliged to reveal his real level of income. ‘Any particular interest . . . will be fought and subordinated by the interest of all’ (Morellet, 1790 : 109).

This process — which Condorcet calls the mechanism of ‘contradiction’ due to self-interest, and Rœderer the ‘mutual censorship among citizens’ or euphemistically ‘la douce compression de l’opinion publique’ (Rœderer 1791c : 180)<sup>36</sup> — was supposed to work at all levels of the distribution of the *impôt de répartition* i.e., not only between individuals, but between villages, districts and provinces or *départements*. ‘This contradiction . . . is the only way to establish justice at each stage of distribution’ (Morellet, 1790 : 111). It was also supposed to converge, within a couple of years, towards a proper evaluation of the real estates and incomes of the citizens (Condorcet 1792b : 442 ; Morellet 1790 : 116 ; Rœderer 1791c : 186). The land tax established by the National Assembly in 1791 was inspired by this system.<sup>37</sup>

## 8 Proportional or progressive taxation ?

An effective and just tax system thus requires that an *impôt de répartition* be levied on the *produit net* and be proportional to it. No portion of income should be exempt : the tax on *produit net*, Condorcet reiterates, is a tax on things, not a personal tax. The law concerns ‘property, not its owner’ writes

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36. An obvious objection is that the process of ‘contradiction’ could have negative consequences on relationships between citizens. Condorcet argued against it (Condorcet 1790b : 444).

37. Actually the land tax was a mixture of *impôt de quotité* and *impôt de répartition*. It was basically an *impôt de répartition* ; but it was specified that the distribution of the total amount of the tax among citizens be such that each taxpayer should not pay more than a given percentage of his or her income. Rœderer (1791c : 181-186) approves of this, but not Condorcet (1790b : 439-41).

Rœderer (Rœderer 1791c : 179). And this is also the reason why the proportion must be uniform : if the tax disregards the actual situation of the owner, why should one piece of land pay proportionally more (or less) than another ?

In some exceptional circumstances however — such as a Revolution and a general reorganization of State administration — it might be necessary to establish a personal tax. And this was the case in France after 1789. The old taxes had to be abolished and a new system introduced (Condorcet 1790b, 1793 ; Rœderer 1791c). But at the same time both people and State had to respect former contracts and agreements made in totally different circumstances ; imposing only a single tax on landowners would thus have been inequitable. For example, taxes formerly paid by farmers would have been abolished and shifted to landowners ; but this would have been unjust as long as the old leases — which took these former taxes into account — were not renewed. The situation was similar for money loans : those made before 1789 involved a high interest rate because of the monarchy's financial policy and lack of confidence in the capacity of the State to honour its obligations, and also because of the prevailing law on usury which restricted the number of lenders. The situation changed greatly with the Revolution, and it became just to tax abnormal benefits brought about by the old state of affairs.

A personal tax, of course, if necessary, must not harm human rights : this is the reason why Condorcet argued the importance of avoiding an inquisitorial stance in determining the tax base, i.e., in ascertaining citizens' incomes, and basing taxation instead on a single and obvious criterion : the rent of houses. A personal tax must above all respect justice. Accordingly, it must be progressive.

One argument advanced by Condorcet — but also stated by many authors like Montesquieu, Smith, and accepted by Rœderer — is certainly not new : a part of the personal income of the citizens must not be taxed because it corresponds to a minimum wage, just enough to cover subsistence. In the case of a direct tax on *produit net*, this circumstance does not arise because the owner of this income always has the possibility of working and receiving a wage (Condorcet 1788b : 292 ; 1793 : 14). But a personal tax must of course respect this minimum. Thus, even if the rest of the income is taxed at a uniform rate, taxation would be progressive on the whole revenue, and this progression conforms with the dictate of justice.

## 8.1 Condorcet's arguments

Condorcet however went further, and proposed an additional purpose. Much public expenditure, financed by taxation, is 'employed . . . to finance commitments from which the rich benefit more' (Condorcet 1790c : 473). This idea is developed in 1793.

First of all, as we know, not all kinds of public expenditure are strictly necessary, and their utility can vary; all of it must be useful, but some expenditures are more useful and some less. 'In fact, the utility of some expenses is greater than the sacrifice generated by taxation only for those from whom taxation removes superfluities.' (Condorcet 1793 : 16) As a logical consequence, only those who benefit from them should pay the tax.

Second, a given public expenditure can be seen as generating a dual utility : in a sense, then, public expenditures give rise to *public joint products*. One kind of utility is common to all citizens, but a second kind is peculiar to the rich. Condorcet asks :

is it not true that the same expense can have for the rich a utility that they alone benefit from, without diminishing the utility common to all? Such is, for example, the case of the expense laid out for main roads, which enhance the ease with which the rich travel from one place to another for pleasure; while the utility of these same roads — for the transportation of commodities, commercial activities and business trips — is the same for all. (ibid.)

This kind of analysis is repeated for other State measures, for example when useful skills and crafts are encouraged : the average quality of commodities will be improved, and this will benefit everybody in society ; but at the same time more perfect luxuries are generated which only the rich enjoy. The same is true for agriculture (ibid. : 16-7). All this is enough, in Condorcet's opinion, to justify a progressive income tax :

It would thus be just to say : all incomes will be taxed proportionally ; but, above a certain level, a further, proportionate, contribution will be paid from the surplus. This contribution will be devoted to these expenses which, though having real utility, cannot compensate the individual for whom it would cause painful hardship. It will be intended to oblige rich people to finance certain exclusive advantages that they receive from expenses which are, it

is true, made for general use, but which necessarily also generate enjoyments for them alone. (ibid. : 17)

This is a second reason why, Condorcet adds, 'progressive taxation complies with justice' (ibid.). Of course a modern reader will not consider this enough to prove the necessity of progression above the minimum wage — even if Condorcet agrees with the hypothesis of the diminishing marginal utility of income or wealth. According to the benefit principle, something more is needed : namely that the income elasticity of the demand for public goods be greater than its price elasticity. But we must also note, as Musgrave warns (Musgrave, 1985 : 17), that the benefit principle can be interpreted in two different ways, depending on whether the focus of the analysis 'is on the cost of the service rendered to a particular person, or whether it is on what a person (given his or her income and preferences) would be willing to pay. In the latter case, the benefit tax ... becomes a Lindahl price'; and 'the issue of progressive taxation ... hinges on the income and price elasticities of demand' in this second case only (ibid.).

In spite of some similarities, Condorcet's case falls into the first category : the amount of public goods, as we know, is determined by a vote in an assembly, and the cost of the public goods represents the total amount of taxation. It is thus quite natural, then, to shift to what, today, we call ability-to-pay — especially because this principle could certainly have been thought, at that time, as a complement to the benefit approach, and not as a substitute. Here things look better. We know that with the hypothesis of a diminishing marginal utility of income or wealth, taxation has to be progressive. This hypothesis, however, is only sufficient for what was called the 'equal marginal sacrifice' principle about which Condorcet, obviously, did not know.

I think we can resort to a more intuitive criterion of equity : 'equal absolute sacrifice'. The hypothesis of a diminishing marginal utility of wealth is likewise here insufficient to generate progressiveness : in addition, as has been long known (Cohen Stuart 1889, Edgeworth 1897), the elasticity of the utility of marginal income with respect to income must be greater than unity. As Pigou (1928 : 86) put it simply and clearly :

All that the law of diminishing utility asserts is that the last £1 of a £1000 income carries less satisfaction than the last £1 of a

£100 income does. . . . In order to prove that the principle of equal sacrifice necessarily involves progression we should need to know that the last £10 of a £1000 income carry less satisfaction than the last £1 of a £100 income; and this the law of diminishing utility does not assert.

It is thus not without interest to see that the additional hypothesis is also to be found in Condorcet's writings — like the principle of a diminishing marginal utility of wealth, it is stated in the manuscript on Nicolas and Daniel Bernoulli noted above (Condorcet 1785-6).

While Condorcet agrees with Daniel Bernoulli on marginal utility, he does however criticize another important hypothesis advanced in the Petersburg paper : namely that 'the utility resulting from any small increase in wealth will be inversely proportionate to the quantity of goods previously possessed' (Bernoulli, 1738 : 25) i.e., that the elasticity of this marginal utility with respect to wealth is equal to unity.<sup>38</sup> As Bernoulli emphasised, assuming two persons with different amounts of wealth, respectively 100.000 and 50.000 ducats, this means that 'to the former a ducat has exactly the same significance as a semi-ducat to the latter' (ibid.).

This is an arbitrary hypothesis (Condorcet 1785-6 : 584). Taking the example of a game for which a gambler has to pay half of his wealth in order to have a chance of  $\frac{1}{2}$  to win the exact amount of his original wealth, Condorcet points out that, for different persons with different amounts of wealth, the same proportion of wealth has very different subjective values.

If I have wealth [just] sufficient to my needs, I would act in a very unwise manner if I were to halve it and become destitute, having just the probability of  $\frac{1}{2}$  of doubling my wealth; and I would act less unwisely if, having significant wealth, I risk losing half of it in order to double it, for this half would still be sufficient for my needs. (Condorcet 1785-6 : 584-5)

All the theoretical components in support of a progressive income tax were thus formulated by Condorcet. One question remains however at this point : is it legitimate to attribute to Sensationist political economists the idea of 'equal absolute sacrifice' as a criterion of equity? In fact, this principle was explicitly

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38. In the context of the equal absolute sacrifice principle, this hypothesis entails a proportional rate of income tax (see for example Musgrave 1959 : 99-100).

formulated in the same period, during endless debates on revolutionary public finance.

## 8.2 From Condorcet to Horace and Jean-Baptiste Say

During and after the Convention, the idea of a progressive income tax was discussed with great passion, all the greater because it was not just a proposition coming from some 'levellers': Montesquieu himself wrote in favour of it in *De l'Esprit des lois* (Book XIII, chap. 7).<sup>39</sup> The National Assembly voted for the introduction of such a tax on 18 March 1793.

Alarming statements were made: Jean-Paul Rabaut Saint-Étienne, for example, declared that society could make use of citizens' wealth, or at least that part of it which was 'superfluous'. Many authors — like Morellet and Røederer — reacted against this. Røederer published in January an article in the *Journal de Paris* (Røederer 1793) critical of Rabaut and declared himself against a law imposing a maximum level of wealth that a citizen might be allowed to possess. This would perhaps generate more equality in the country, but — supposing that the law could be enforced — it would be an 'equality in misery'. A book by Jean-Baptiste-Moïse Jollivet, *De l'impôt progressif et du morcellement des patrimoines* (Jollivet 1793), arguing strongly against progression, was published<sup>40</sup> during the same year and it was in circulation during 1795, after Thermidor, when discussion was renewed in Parliament.<sup>41</sup> The aim of the book was to show how destructive this tax was, both for property and for the prosperity of the country. It even includes some graphs which purport to show that progression will tend, after a point, to take away the entire income and even part of the wealth of taxpayers.

In all such responses, arguments are formulated which point out the disincentive effects of this tax for work, investment and economic activity, in the same way that Morellet had three years previously with respect to the *impôt*

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39. Montesquieu's ideas on taxation were well known and could also be read about in Jaucourt's article 'Impôt' in the *Encyclopédie* (Jaucourt 1765). Graslin (1767 : 149-50) also quotes Montesquieu in support of progressive taxation.

40. The publisher was Dupont de Nemours.

41. See for example the book review signed J.M. in the 11 October 1796 (20 vendémiaire an 5) issue of Røederer's *Journal d'économie publique, de morale et de politique* : 216-26.

*de quotité*. In fact Condorcet himself devotes half of his 1793 article to a warning against the disincentive and negative effects of too severe a progression : 'nature herself put limits to this kind of tax' (Condorcet 1793 : 17). But some other arguments are obviously exaggerated and rely, for example, on idiosyncratic formulations of the progression principle and on the choice of very severe and unrealistic marginal rates. This point was stressed by J.-B. Say.

Following Thermidor the idea of progressive taxation did gain the support of Horace and Jean-Baptiste Say. The position of Jean-Baptiste on this is not obvious in the first edition of his *Traité d'économie politique* (1803) but it was however formulated three years earlier, in an appendix — 'Note G' — to his utopia, *Olbie* (Say, 1800 : 228). Here he stresses two points. The first is that progressive taxation forms a strong disincentive to economic activity and is an expropriation only for some versions of a geometric progression. The choice of different progressions would not entail such a consequence at all. The second point states that progressivity is in accordance with justice. One argument is of interest : it refers to the difficulty or painfulness of earning a particular revenue, and to the fact that the wealthier a person is, the easier it is for her or him to earn an additional income. It is therefore just to take away proportionally more from the rich than from the poor — provided, of course, that the progression be moderate. A moderate progressive tax, Says writes,

is ... equitable for this reason : in a condition of civilization, an increase of income is all the more difficult if the income is low. According to a popular saying, the first hundred crowns are harder to get than the last hundred thousand francs ; i.e., once wealth reaches a certain amount, the ease of gain is augmented by a proportion of 333 to 1. I am far from counselling that the progression in taxation should increase in this proportion which, if the saying were correct, would still comply with equity. (ibid.)

To understand this statement we must of course revert again to the equal absolute sacrifice principle — even if Say seems also to propose the benefit principle in the first edition of his *Traité*. And we have to link Say's position in 1800 with that of his elder brother Horace to whom he was very close. Like Jean-Baptiste, Horace collaborated with the journal of the Idéologues, *La Décade philosophique, littéraire et politique*. In May 1796 he published<sup>42</sup>

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42. The article is not signed, but attributed to Horace Say (Kitchin 1966).

an article, ‘*Sur les impositions*’, coinciding with the resumption of debate on taxation in the new Assembly, the Conseil des Cinq-Cents. Writing in favour of a moderate rate of progression, he stresses that a simple proportional income tax is unjust, because what the same given proportion takes from a modest income is ‘much more painful’ than when demanded of a greater one (Horace Say 1796 : 315). And he states the following rule for equitable taxation (*ibid.*), which is nothing other than the equal absolute sacrifice principle :

Taxation must be distributed in such a way that it generates in the different classes an equal inconvenience, an equal painful diminution.

It is also supposed that the elasticity of the marginal income utility with respect to income is greater than unity.<sup>43</sup>

## 9 Conclusion

In the preceding pages I hope to have shown how idiosyncratic and innovative the approach of French Sensationist economists was to public economics, and how their views on many points of theoretical importance were, to use a customary phrase, ‘far in advance’ of the development of the discipline. Be it in the definition of public goods, in negative and positive externalities, in the theory of taxation — including progressive taxation — and in the determination of the optimal amount of public expenditure and revenue, most of their analyses were potentially quite novel. And it is also of great interest to see how, at each stage of the analysis, their arguments are closely connected to an ethical and political foundation : namely, the vision of a democratic political organisation for a society based on free trade, where justice and equity could go hand in hand with efficiency.

To conclude, let us consider the natural evolution of public expenditure — and thus taxation — from this perspective. Can we detect any significant

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43. ‘However, it is obvious that a charge on a revenue that produces only ease is much more painful than a proportional charge on a revenue which produces superfluity. Take 100 francs from someone who only has 1200, and you will force him to remove one dish from his table. Take 10 thousand francs from someone who has an income of 120 thousand from rents, and he will still have 110 thousand and you will only make him supervise his steward more closely’ (Horace Say, 1796 : 315).

trend? Linking economic analysis and political reflections on the nature of the political regime once more, Morellet addressed this problem in a paper read in 1790 before the Comité des contributions of the National Assembly. Is it true, he asks, that public expenditure must increase together with national wealth? His answer is in the negative. In his opinion there should be an inverse relationship between the magnitude of national wealth and the relative weight of public expenditure — a kind of anti-Wagner's law *ante litteram*.

In fact, the profile of the trend depends on the nature of the political regime of the country. The law of a decreasing burden of public expenditure is only valid in a democratic State where public needs and public expenditure are well defined. The burden of public expenditure can grow, of course, but only under a despotic government : 'it is the misfortune of nations which do not possess in their constitutions forces capable of redressing abuses, that, as they grow richer, governments give surrender themselves to ever greater expenses. Useless ventures, senseless wars, domestic splendour and all kind of extravagance consume the increment of national wealth' (Morellet, 1790 : 105). However these abuses are eradicated in a free nation and public expenditure is there limited to what is strictly necessary : taxation is required, but for 'real public need', in order to finance 'genuinely public or national expenditure', i.e. 'implemented for the public and the nation and devoted entirely to their advantage' (ibid. : 106). And this 'genuinely public or national expenditure' does not increase together with wealth : 'on the contrary, it decreases — at least after society has endured for some time — for the simple reason that, the more things that are done in this field, the less there remains to be done' (ibid.). The kind of expenditure Morellet had in mind is investment in infrastructure and, generally speaking, in all kinds of indivisibilities.

When in a country there are roads, canals, bridges, harbours, public buildings, the nation endowed with these objects of need can grow wealthier without an increase of these needs; and it is at least certain that they do not increase in proportion with wealth. (ibid. : 107)

This is the reason why 'there is certainly less public expenditure to be laid out in Holland than in Hungary, and in England than in America' (ibid.).

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