Public finance in Old Regime France*

François R. Velde Federal Reserve Bank of Chicago May 19, 2008

^{*}Prepared for the Public Finance Workshop, PSE 2008. This paper is so preliminary, it doesn't even exist.

1 Introduction

I spent the last few months wandering through the archives in search of clues about a man named Nicolas Dutot. A few people, especially in history of economic thought, will have heard of this man. He belongs to the Dark Ages of economic thought, before Adam Smith, before even Quesnay and the physiocrats, when the word "economist" didn't exist. Without being a major figure, he is interesting on several counts: as a close witness and exceptional historian of John Law's System, as the inventor of the "Dutot price index" (so named by Diewert, the unweighted price index) and a pioneer in the quantitative study of economic phenomena, and as one of the earliest students of the effect of money on output and prices. But none of this concerns me here.

Biographical information on him was so scant that not even his first name was known until recently. Antoin Murphy made some headway, but I found that some additional research yielded an amazing amount of information on his life and career. His dates of birth and death, his place of origin, his family background, his early career are now known. The contents of his library are exhaustively documented. His income, the contents of his lodgings, even his wardrobe and the shape of his wigs are known. But none of this concerns me here.

It turns out that following the career of Dutot led me through the backstage of French public finance between 1680 and 1720, where I met a number of secondary figures, far too secondary to even warrant mention in Dessert's magistral opus on the world of public finance in that period. But I learned a lot about the mechanics of the French government's revenues and expenditures, and this has raised for me a host of questions (no answers, though).

What I would like to try and do here is organize some of these questions, using anecdotal details about Nicolas Dutot's life as an Ariadne thread. I think these questions are of prime importance for the study of public finance in that period.

The Problem of Taxation

One of the constant themes of the historiography of the period is the contest and contrast between France and Great Britain during the "second Hundred Years War" from the landing of William of Orange at Brixham in 1688 to the "morne plaine" of Waterloo in 1815. Why was France outmatched by a country with a quarter of its population? Why did Britain enjoy the Glorious, the Financial, the Agricultural, and

the Industrial Revolution, and France suffered through its Revolution?

Britain won the wars and achieved supremacy because its economy grew faster, and it mobilized more resources than France. The question then has two components: Why did Britain grow faster? Why did it mobilize more resources? The second question decomposes into a fiscal question and a debt management question: Why did it better tax its economy? Why did it better mobilize resources across time?

Of course, France had a number of fiscal institutions in place, which may or may not have evolved over time. On the fiscal question, the starting point is, or ought to be, a definition of the taxation problem faced by a government and an economy like France's in the 18th century. My general view of institutions is that they are mechanisms or arrangements designed, by trial and error, imitation and adaptation, to solve certain problems under certain constraints. The nature of the constraints may change over time, and institutions either succeed or fail to adapt to these changes. Only if we have understood the nature of the problem and its constraints can we state whether a given set of institutions was helpful or a hindrance in achieving a specific goal, such as winning wars.

There is a vast body of economic literature on public finance which approaches the question in this manner. An objective is defined, an environment is set out that places constraints on the entity designing institutions (choosing tax rates), and an optimal solution is found. Existing institutions can be measured against this optimal solution. As historians, we can be tempted to proceed in the other direction: when we observe certain institutions, we can reverse-engineer the problem which they may be designed to solve.

As I wandered through the life of Dutot, I was struck by the recurrence of certain questions asked by contemporaries, and by peculiar features of the fiscal institutions, both of which seemed to point to certain features of the environment that must have seemed of first-order importance to people at the time. All I am attempting to do here is collect these features and questions in the hope of finding a coherent way of evaluating the quality (or optimality) of the institutions. Some of these features are well-known, others perhaps not (they were new to me at least).

2 Taxation and Information

Imagine you are Louis XIV sitting down with your cabinet in Versailles to decide the State's budget (you, of course, are the State). Out there, over thousands of square miles,

are your subjects and your dominions. They produce and consume. You want to tax them. What do you do?

What Louis XIV did was as follows. Let us consider the *taille*, a tax of medieval origin which is still the largest single component of his revenues. You decide on a number, say N. This number (in units of account, or livres), is what he expects to collect from his subjects. How will he collect it? He breaks down $N = \sum_{i=1}^{I} N_i$, where i indexes the I provinces of France. He then mails to his representatives in each province i the number N_i , and then waits.

The representative in province i receives his assigned number. Consider first the so-called *pays d'élection*. The representative is the *intendant*. His job is to break down $N_i = \sum_{j=1}^J N_{i,j}$, where j indexes the J *élections* in his province (there are on average about 20 in each province). He then mails the number to his subordinates, the *subdélégués* in each *élection*. They, in turn, will break down $N_{i,j}$ into another collection of numbers $N_{i,j,k}$ for each parish in the *élection* and mail the number to each parish.

The parish is liable for the sum $N_{i,j,k}$. The parish elects one of its own, the assessor-collector. He is chosen for one year only. His job is to allocate the assigned sum across all the taxpayers in his parish. The taxpayers, in the case of the taille, includes every household with the exception of the clergy and nobles. He has some general guidelines, but otherwise must rely on his knowledge to achieve an allocation. He is personally responsible for the sum: he must make up any shortfall. He is paid a fixed proportion of the sum (2.5%), so he can collect up to $1.025N_{i,j,k}$. If he goes bankrupt, the parish is collectively responsible for the sum, and the authorities have the power to allocate the sum as they wish.

There are a number of intricate safeguards. The allocation can be disputed in court. If a taxpayer decides to dispute his share, he sues the parish (not the assessor). The parish decides whether or not to endorse the allocation as a whole. If it does, a special court hears the case, and if it finds for the plaintiff and reduces his share the parish as a whole is responsible for the shortfall. If the parish disowns the allocation the assessor starts over. After the assessor's job is done his own share of the tax cannot be increased relative to the year before, for another three years. He cannot be assessor again for a number of years.

Once the allocation is decided, it is recorded as a simple list of names and sums, with no additional information. The tax is arbitrary in the literal sense, that is, it is decided by an arbiter (the assessor). The assessor is also responsible for the collection. He must go to each household and collect the tax. There are again elaborate procedures to handle non-payment. In particular, the tax liability is junior to other liabilities of the

taxpayer, such as his rent. But in the end, there can be no shortfall for the king.

Once the tax is collected at the parish level, it is sent to the tax receiver of the *élection*, or *receveur particulier*. He is an officer of the State, but he is personally liable for the sums collected. He in turns sends them to the *receveur général* of the province, who then sends it to the Royal Treasury in Paris.

This is the procedure in the pays d'élection. In the other regions, the pays d'Etat, the procedure is different. The number N_i is the responsibility of local bodies, the Estates (Etats) who collect it according to their customs. Typically, in those regions the tax is owed not by individuals, but by the real estate. Just as individuals are either nobles or commoners, so land is either noble or commoner (roturière), and whoever owns commoner land (whether noble or not) must pay. In those areas, there are registers of assessed values of land which serve as a basis for the collection of the tax.

Truthful revelation

Throughout the 18th century there were various attempts at reforming the system of assessment of the taille. One of the concerns was for fairness. It was felt by many that the "arbitrary" form of assessment was arbitrary in the secondary sense of the word. The yield of the tax could be improved if taxpayers were convinced of the fairness of the assessment, and tried less hard to evade the tax. Jacques Auber, whom I will discuss later, proposed in 1721 a mechanism whereby taxpayers would voluntarily report their income. The report would be made publicly, in the presence of the rest of the parish. Since the parish's assessment would have to be met, the rest of the taxpayers would have an incentive to report any one taxpayer's self-assessment if it was lower than the truth. The idea of taxing income on the basis of self-assessment (as opposed to withholding at the source) remains a peculiar feature of the French tax system to this day.

Other concerns about the *taille* revolved around the fact that some incomes were less costly to verify than others. Vauban's proposal for a Royal Tithe was to levy the tithe in kind on agricultural output, because this was more easily verified; income from rental of capital (land or buildings) could also be verified from lease prices. But income from craft, trade and industry remained difficult to observe. In fact, throughout the 18th century the income from non-agricultural entrepreneurial activity was probably relatively under-taxed.

Tax exemptions

Nobles were famously exempt from the *taille*. The medieval theory was that all subjects contributed to the king's expenses, but nobles contributed in kind by providing military service. Nobles were not exempt from consumption taxes (although exemption from the salt tax was relatively widespread through the *franc-salé*, the right to buy a quantity of salt at a preferential rate). And, in a way, they did not completely escape the *taille* either, or at least the new nobles (by the late 18th century, the majority of noble families were of recent ennoblement). Most ennoblement took place through the acquisition of certain offices that ennobled the first owner (if he held the office long enough) or his descendants. The price of the office presumably reflected in part the net present value of the tax exemption: thus the king, when selling off these offices, did receive tax revenues on these seemingly exempt individuals, once and for all at the time of initial purchase.

Coercion

XXX

3 Taxation and Risk

T versus τ

A simple version of the government's (static) budget constraint is:

$$T = \tau u$$

where T is tax revenue, τ is the tax rate and y is that which is being taxed (income, output, a factor). A tax where T is chosen is distributive; a tax where τ is chosen is proportional. When all is known, it does not matter which of T or τ is chosen, and which is inferred.

In the case of the *taille*, as we saw, the king chose T, and it was up to the assessor to figure out what y was and infer $\tau = T/y$. There were several attempts during the late 17th and 18th centuries to introduce proportional taxes on income, although they tended, for practical reasons, to follow the model of the taille and end up as distributive taxes. Even Vauban's famous proposal for a Royal Tithe (1706) was ultimately a distributive

tax, since he wanted to determine first the level of tax revenues needed, and then determine the single rate that would apply to all incomes.

The indirect taxes or taxes on consumption were, by their nature, proportional taxes, since they were defined as either a sum per unit of goods taxed, or as a rate on the value. The total amount was then determined by the (stochastic) quantity of goods taxed during the fiscal year. In practice, however, the government turned it also into a distributive tax, at least from its point of view, through the system of tax farming.

In 1790, when the National Assembly completely reformed the fiscal system, it explicitly opted for a distributive tax, rejecting the physiocratic theories of the king's co-ownership of his subjects' incomes. The concept of distributive taxation was linked to despotism. Not until the late 19th century did distributive taxation become the norm.

Tax farming

Between 40 and 50% of tax revenue was farmed. The mechanics were simple. At recurrent intervals, the king auctioned off the right to collect a given tax. Private individuals bid for the right, and the highest bidder (in principle) received the lease. The amount he bid was the annual payment due to the king for the tax, for which he was responsible. He had to make up any shortfall, conversely he kept any surplus. The mechanism thus shifted the fiscal risk entirely onto the private sector.

Through most of the period the bulk of farmed taxes were gathered into a single 6-year contract, an innovation of Colbert: the so-called "united farms" or "general farms". The individual who actually bid and signed the lease contract with the king's government was always a fronting man, who in a separate document disclaimed any rights to the contract. The real farmers were his securities, a group of twenty of forty people who were called the farmers general.

sub-farming

To illustrate the phenomenon of sub-farming I will rely on anecdotal evidence that I encountered when researching Dutot's life. It turns out that Dutot's early career (from 1708 to 1716, from the ages of 24 to 32) was spent as the employee of the partnership in charge of collecting the revenues of the bishopric of Strasbourg. This partnership

was originally set up by one Jacques Auber (1645-1730), whose own career began in the sub-farms of Normandy.

In 1682, the lease for the *gabelles* of France (salt tax) was awarded to one Jean Fauconnet (the front man for a company of farmers). On August 7, 1682 Fauconnet signed a contract with Joseph Cannin leasing to the latter the right to license small-scale salt retailers (*regrattiers à sel*) in the province of Normandy. Cannin (or whoever he was fronting) did not manage this lease himself, but gave a proxy to Jacques Auber. Auber in turn leased the same licensing rights in different towns of Normandy: I have found six such leases between March and October 1683, to seemingly local people.

Jean Fauconnet was the front man for the general farms, so his lease included other taxes, such as beer and wine duties (*aides*). These were also parceled, since Auber also worked as treasurer for the sublease of the *aides* in Rouen and the Caux region. Other rights included in the general farms were the royal domain and regalian rights (*domaines et droits*). Again, we find subleases: Jean Buffet was awarded the sublease for the province of upper Normandy. In turn, he leased the management of the royal domain in the election of Caudebec (near Rouen) to François Marchandise on July 28, 1682. He in turn did not manage it himself, but gave a proxy to Jacques Auber.

When we know that France had about thirty provinces and 600 élections, we can imagine the astounding number of subleases for the various branches of the general farms. The pattern that is manifest in the case of Auber is that there were three or four levels of subleasing, but at the bottom of the pyramid the same man (Auber) could be in charge of the leases for one particular élection (in Auber's case, his home region around Caudebec). This strongly suggests the value of local knowledge in tax collection, whereas financing did not have to be locally arranged.

The partnerships formed to manage the leases were private acts which were seldom kept in notarial archives, so we only occasionally find information on the terms. These were unlimited partnerships in which shares were given to the partners in proportion to the capital they contributed (this was expressed as "shillings in the pound", one shilling representing 5%). These shares could be bought and sold, and we often see them being sold or exchanged. Sometimes, a partner who failed to make his required contributions ceded his share to the treasurer of the partnership: that is how Auber moved up the ladder from being an employee to a partner.

Another interesting pattern to emerge from the case of Auber is the division between management and financing. When Auber held the proxy, he brought his managerial talent to the enterprise. Unfortunately, the proxy documents do not specify what his remuneration was.

Parallels in direct taxation

Auber provides an example of the parallel features in direct taxation. In 1687 he acquired the office of tax collector in the élection of Caudebec. He actually did not carry out himself the duties of the office, but appointed a proxy (a lawyer resident of Caudebec) to do the work for him. Here too, then, financing the collection activity and managing it were separated. In fact, when he ran into difficulties he sold the office to one of his creditors, although he retained the title. The arrangement with the real owner varied: initially, Auber was to turn over the profits to the latter; then, the arrangement was revised and Auber was allowed to pay a flat annual fee. The owner was thus financing through a bond rather than an equity stake.

Parallels in spending

Jacques Auber worked as farmer of the revenues of the bishopric of Strasbourg from 1693 to 1708. Since many land rents in Alsace were paid in kind, the farmers of the bishopric were also to some extent in the wine and grain wholesale business. Being in a frontier province, this naturally positioned them to work on provisioning the armies of Louis XIV during wartime.

The provisioning of armies was at the time wholly in the hands of private entrepreneurs. Every year, in the fall ahead of the next campaign, the war and finance ministers signed contracts with partnerships for the provision of food and fodder for the armies. These contracts bore some resemblance with the farming arrangements for tax collection. There was competitive bidding, and the contract specified fixed prices for the provisions. Thus the entrepreneurs bore the risk of price variations on food and fodder, variations which could be sizeable depending on the conditions of the harvest in the following year.

In provisioning activities, we find again the system of sub-contracting. Auber and his colleagues would sign specific contracts with the provisioning entrepreneurs for the provision of quantities of grain in certain places.

The value of insurance

It is rather puzzling to see the French government's strong aversion to risk, as manifested in its arrangements on both side of the budget constraint, revenues as well as expenditures. One tends to think of the State as being better able to insure than the private sector. A major consideration in models of optimal taxation is the desire on the part of the benevolent social planner to provide insurance to private agents. It seems clear that, in the case of early modern economies (the insurance feature being common to many countries, including Britain until the late Stuarts), the risk preferences of the government need to be taken into account to understand the nature of the arrangements in place.

4 Taxation and Liquidity

Vauban's proposal for a Royal Tithe called for taxing the income from land in kind. In 1725, a 2% tax (the *cinquantième*) was levied in kind, but it was abandoned within two years. The king needed cash, not poultry and barley.

It is often said that the introduction of coined money in antique times was linked to taxation: money was invented to provide a liquid form of payment for taxes. A recurrent problem in France was liquidity of tax revenues. Once the tax had been collected at the parish level, how was it sent to Paris?

A striking characteristic of the French fiscal system, both on the revenues side and on the expenditures side, is the multiplicity of treasurers and cashiers: individuals who were charged with holding and either receiving or disbursing the "King's money" (*les deniers du Roi*). The *taille* had its pyramid of receivers. Likewise the general farms had multiple cashiers. On the expenditure side, there were also many *trésoriers* for the various branches of public spending.

Transferring large sums of money across space was not a trivial problem. The private sector of course faced the same problem in the normal course of trade. We know that there were domestic exchange rates, even though France was under a single monetary system. But, as in the Arrow-Debreu model, cash at location i is not the same economic good as cash at location j, and there can be a relative price between the two.

Netting of flows

One of the ways of handling the liquidity question was to net out flows to the greatest extent. It was not efficient to ferry cash all the way from every part of France to Paris as revenue and then send it back where it came from as expenditure. Therefore, the central government arranged for expenditures to be paid locally by the receivers.

Over the course of the 18th century, the network of tax receivers (both in direct and indirect taxes) played a major role in the provision of liquidity and payments services in France. The bills issued by the receivers were available to the private sector to transfer funds between Paris and the provinces.

The government's ability to draw checks on its collectors presented a slippery slope; this form of borrowing against future revenues could lead to an accumulation of short-term debt that outstripped the collectors' ability to pay. There were several episodes akin to the famous "Stop of the Exchequer" in England in 1672. In 1710, 1759, and 1770 the government relieved collectors from their obligation to repay the notes drawn on them by the government. In all cases the notes were ultimately converted into long-term debt.

5 Taxation and Debt

The medieval tradition conceived of taxation as a temporary aid to the king for extraordinary expenditures; his normal expenditures were to be covered by the income from his royal domain. It took a long time for the concept of tax smoothing to take hold. Vauban's proposal was intended to make it easy to adjust tax revenues to expenditures by varying the tax rate according to present needs, thus eliminating the need for debt.

The two standard models of optimal taxation yield different implications on this question. The Barro model predicts tax smoothing and the use of long-term debt, while the Lucas-Stokey model predicts the government acquiring state-contingent claims on the private sector. If "defaults" are seen as realizations of an implicit state-contingent contract between the government and the private sector (a possibility which their recurrence allows) then the French policy looks more like the Lucas-Stokey model than the Barro model, while the reverse holds for Britain.

Collateralized debt

XXXX

Short-term versus medium-term debt

A puzzling feature of the history of French debt management is the shift from perpetual annuities to medium-term debt. One aspect of the "Financial Revolution" in Britain is the development of the consols, or perpetual and callable debt. The curious thing is that France had abundantly used this form of debt in the 17th century, and used its callable feature to refinance the debt when interest rates fell (Colbert did this a couple times). Yet after 1720, very little perpetual debt was issued. To finance the War of Austrian Succession and the Seven Years War, the French used either term loans (from 5 to 15 years) or life annuities, which lasted on average 30 years or so.

6 Taxation and Growth

To outsource or not to outsource

Throughout the 18th century a debate went on in France over the merits of direct management of tax collection (the *régie* system) versus farming. The main questions were costs, insurance, financing, information and incentives.

Briefly put, the farming system was seen as less costly, because there was no need for the government to engage in monitoring, either of taxpayers or of tax collectors. It also provided the right incentives, or more precisely left it to private sector profit maximization to design the right incentives for tax collectors. It also quickly mobilized funds for financing, either short-term (to smooth within-year fluctuations) or long-term, since the tax collectors had to appeal to private capital to finance themselves. Finally, it provided the government with insurance against year-to-year fluctuations in revenues. The régie system had for itself the fact that it provided the government with information about the possible tax yields.

the Dutot hypothesis

Dutot thought that "the French have a happy genius for trade; but they apply it to the false branches thereof." They would engage in trade "if the alluring prospect of gain which flows faster and in greater plenty in posts belonging to the Finances, did not divert from this pursuit most of those whose genius is proper for it. Every man, who is capable of canvassing and concluding an affair of interest, and in whom this genius well regulated prevails, is a trader or merchant born, and may succeed in trade; but if this genius turns irregular; if the desire of an immense fortune leads him to be a farmer of the revenues, and vanity to be a magistrate (which sometimes is the case) this is to deprive trade of the Men and Money that were proper for it, and in a manner destin'd to it by nature. In the mean time, trade can only extend itself in proportion to the forces which it receives; and where it is not supplied with these forces, there must necessarily be a gap."

What I call the Dutot hypothesis is the idea that the French system of outsourcing tax collection and (to some extent) spending diverted scarce managerial and commercial talent to service the State, and away from engaging in wealth-creating activities. It is difficult to estimate the size of the workforce engaged in all aspects of tax collection, but it must have run in the thousands. The level of education was not very high, so human capital was relatively scarce. Furthermore, if one distinguishes between the kind of human capital that can be accumulated through education and the rarer entrepreneurial talent, it may be that the latter was in fixed supply, and not very differently distributed between France and Great Britain; but in France, this scarce resource was devoted to the fiscal system. Could this have hindered growth in a lasting, and damaging, fashion in France?