
Marshal Vauban, John Law, and the Loss of the French Tradition of Political Arithmetic

John A. Taylor

St. Petersburg State University

ABSTRACT

*A seventeenth-century tradition of British political arithmetic merged the empiricism of Sir Francis Bacon with an early version of statistical science. William Petty, John Graunt, and Gregory King were leaders in this work. They used no higher mathematics but only what English-speaking people called shop arithmetic, addition, subtraction, multiplication, and division. They debated how far statistical data should inform the decisions of statesmen, and that debate prepared the British political elite for their acceptance of state financial reform under King William III. We now draw your attention to the parallel suppression of the same tradition of early statistical science in seventeenth-century France. Using shop arithmetic, Marshal Vauban proposed a reform of taxation, but King Louis XIV rejected the proposal. Not only that. The king dismissed Vauban from all his offices, and the king suppressed Vauban's book, *The Royal Tenth*, thus preventing any wide discussion of Vauban's suggestions. As a result, no one ever prepared the French public to understand simple statistical data or to accept financial reforms under the old regime. When John Law tried to implement other reforms during the regency which followed King Louis XIV's death, the reforms failed because of this absence of public understanding.*

Keywords: *Marshal Vauban, John Law, financial reform, old regime France, duke de Saint-Simon.*

Do you know of Marshal Vauban? On the one hand, he was a famous man in his time so his name may be known to you if you read

military history. He was most famous for his design of fortresses. You may also have read the memoirs of the duke de Saint-Simon, a high aristocrat who kept a diary of his life at the court of King Louis XIV. The diary became famous for the purity of its French language and for the honesty and integrity of Saint-Simon's judgments. When the duke de Saint-Simon was a young man, he served as an officer in the same army unit as Vauban, so Saint-Simon knew the marshal for many years.

On the other hand, economists ought to think of Vauban not only as a military man but also as a skilled writer on taxation. He wrote a great book which he called *The Royal Tenth*. That book is the focus of this present essay. You can read Vauban's book online, and we urge you to do so. As a military man, Vauban saw a close connection between war and taxes. Here is a passage.

Par toutes les recherches que j'ay pû faire, depuis plusieurs années que je m'y applique, j'ay fort bien remarqué que dans ces derniers temps, près de la dixième partie du Peuple est réduite à la mendicité, et mandie effectivement; que des neuf autres parties, il y en a cinq qui ne sont pas en état de faire l'aumône à celle-là, parce qu'eux-mêmes sont réduits, à très-peu de chose près, à cette malheureuse condition; que des quatre autres parties qui restent, les trois sont fort mal-aisées, et embarrassées de dettes et de procès; et que dans la dixième, où je mets tous les Gens d'Epée, de Robe, Ecclesiastiques et Laïques, toute la Noblesse haute, la Noblesse distinguée, et les Gens en Charge militaire et civile, les bons Marchands, les Bourgeois rentez et les plus accommodez, on ne peut pas compter sur cent mille Familles; et je ne croirois pas mentir, quand je dirois qu'il n'y en a pas dix mille petites ou grandes, qu'on puisse dire être fort à leur aise; & qui en ôteroit les Gens d'affaires, leurs alliez et adherans couverts et découverts, et ceux que le Roy soutient par ses bienfaits, quelques Marchands, etc. je m'assure que le reste seroit en petit nombre (Vauban 1707: 3–4).

The Royal Tenth bore the date 1707, but, as Vauban himself said, it had been many years in the writing, and the book was polished – clear, brief, and witty. It said that the whole population of England and Wales amounted to slightly more than five million people. Similarly, Vauban then calculated that while France ought to support twenty-four million inhabitants, yet it had in fact fewer than half that num-

ber, and destitution in France was such that hardly more than five million French people bore the nation's whole burden of production, consumption, and taxation.

Vauban blamed the French system of taxation for the dearth of population in France and for the poverty of half of those who did manage to survive. He said that this taxation system was a greater danger to France than was any foreign enemy. Old-regime France had a forest, a warren, a nightmare system of taxation, most of which fell on the poor. As Thomas Carlyle said in his seminal nineteenth-century history of the French Revolution, you should imagine a poor widow gleaning a field after the crop was harvested. 'Look at it! The widow is gathering nettles for her children's dinner; a perfumed Seigneur, delicately lounging in the *Ceil-de-Bœuf*, has an alchemy whereby he will extract from her the third nettle, and name it Rent and Law: such an arrangement must end' (Carlyle 1851: 290).

Most historians agree with Carlyle that the tax system was a principal fault of the old regime and one of the major causes of the French Revolution of 1789.

Vauban thought the emperor of China had a better system of taxation and of state administration than did the king of France, and Vauban thought so because he had read Marco Polo carefully. The marshal proposed what he thought were Chinese-like reforms to his French readers. The marshal would abolish most taxes and most tax exemptions. He would replace them all with a single new tax which everyone, rich and poor alike, would pay at the same rate of ten per cent.

Of course, it did not happen. The king strongly criticized Vauban who lost both his great military post and all other favors at the royal court. Vauban died of dishonor after this rejection by the king.

Why? How to explain the suppression of Vauban's discussion of taxation in France? The duc de Saint-Simon told us how to explain it. The duke's *Memoirs of the Court of Louis XIV and of the Regency* was comparable to James Boswell's *Life of Dr Samuel Johnson* in English. Saint-Simon was an eyewitness of the rise and fall of Vauban, as we now remark here in this present essay, and the duke was also an eyewitness of the rise and fall of John Law in France, as we will remark soon. The duke therefore gave us an account of the failures of the two principal efforts at reform of royal finance under the French old regime (Rouvroy de Saint-Simon 2016).

The duke would not have been surprised if he could have learned in advance of the French Revolution. The duke could probably then agree with Carlyle's analysis of it. For the duke, everything was personal, you see. He read the Bible and may have followed the advice of Saint Paul not to study either vain philosophy or impersonal forces, what the saint called the elementary spirits of the universe.

As you read Saint-Simon you see how he understood things. To borrow one of Dr Johnson's quips, Saint-Simon was a great hater. The duke hated King Louis XIV for instance. That king emerged from the duke's pages as dirty in his personal habits, dishonest, cruel, rude, narrow-minded, ignorant, bigoted, greedy, and cowardly. As you read Saint-Simon you also see what a difficult place the royal court was. Swindlers and low-life crooks abounded there, the duke said. He hated them all. He also hated what he called 'the vile bourgeoisie'.

The duke, on the other hand, generously admired and praised good qualities when he found them. You might even say that King William III was the hero of the duke's memoirs. The duke presented that prince as everything Louis XIV was not. Brave, wounded in the first line of battle, constant to his friends, intuitive, visionary, a great patriot, and a victor.

The duke considered that Marshal Vauban also was an exemplary man, and the duke gave him unsparing praise. By contrast to the king and to the swindlers, to the lazy perfumed lords, Vauban was an honest man, a genius, a brave soldier, a hardworking man, a patriot, said Saint-Simon. Court intrigue alone and neither wisdom nor merit led the bad king to quash the good marshal's proposed reforms. The duke described it all in military terms. The marshal was not skilled in the politics of the court, vile as the duke described them, and the unskilled marshal allowed the skillful, base, dishonest men there to defeat him. The swindlers and crooks were the one army which Vauban could not defeat despite his bravery and his military art.

Saint-Simon thought the marshal's taxation reform scheme was ill-suited to a France which was ruled by a court of swindlers and by such a monarch as Louis XIV. These portraits alike of king and of the marshal and of the royal court were all so plausible that we may accept them as entirely correct and as needing no amendment. We should accept therefore Saint-Simon was right too that it was just as well that the king did not allow Vauban's scheme to be tried. Maybe the scheme would not have worked in old-regime France, this flat tax

of ten per cent. It was a soldier's solution. Quick. Clean. Simple. Complete.

On the other hand, discussion of Vauban's proposed reform would have been very valuable. I repeat. The plan might have failed in practice, but discussion of it would have been very valuable. When the king told Vauban to be silent, Vauban soon died – of a broken heart said the duke de Saint-Simon. That loss did great harm to France. A discussion led by a living Vauban would have prepared many people for better and more sophisticated reforms when they were at last tried by John Law under the regency which followed the death of King Louis XIV. *The Royal Tenth* was a valuable theoretical contribution, as good as anything in seventeenth-century England, and an ongoing discussion of it, one to which Vauban contributed as time went on, presuming he would have lived, would have brought long-term practical benefit to France.

France was full of wonderful people, yet French conduct of great affairs was deficient. The word 'deficient' was that of the greatest Polish historical novelist, Henrik Sienkiewicz, who said it of seventeenth-century Poland, and we can say it also of seventeenth-century France. He wrote of seventeenth-century Poland as follows.

The Poles, though intellectual, sympathetic, brave, and gifted with high personal qualities that have made them many friends, have been always deficient in collective wisdom; and there is probably no more astonishing antithesis in Europe than the Poles as individuals, and the Poles as a people (Sienkiewicz 2019: 13–14).

You see this deficiency, and specifically the need for French discussion of economic reform, when you read the English agricultural writer Arthur Young who visited France just before the French Revolution. Like so many elite British people, Young loved France, and he gave a charming and loving description of the French countryside and its inhabitants, saying not one bad word about France or the French, but he did say repeatedly how little official encouragement there was to French commerce. Internal tolls – that antiquated taxation system again – hindered the transport of goods from one part of France to another. As a result, the roads were poor, post horses scarce, good inns even more scarce, and commercial travelers almost entirely absent. You can see why many French writers thought land was the only

source of real wealth. Agriculture alone could flourish while trade and commerce failed, Young said (Young 1802).

The situation in England was once like that in France. King James I appointed Lionel Cranfield, earl of Middlesex, as treasurer. Royal revenue depended on a warren of medieval taxes which were all undoubtedly lawful, but which were also insufficient and which in addition were both loathed by taxpayers and cumbersome for the tax collectors. As historian Charles M. Gray wrote, the king's appointment of a skilled and experienced man was both 'wise and unusual'. The earl proposed a comprehensive reform of taxation, something which showed his skill and experience, but the proposal was to no avail. As Gray concluded, 'Cranfield applied his business ability and experience to good effect. His ruin (1624) resulted from the tangles of jealousies inside and outside the court' (Gray 1973: 124). The parallel with Vauban stands out. Of course, there was also a parallel with the French Revolution. In the British kingdoms, Civil War broke out in 1642, and it was a direct result of the chaos in royal finance which had continued unreformed under King Charles I, son of King James.

By contrast, King William III initiated many successful financial reforms, among them the establishment of the Bank of England and the reform of taxation. In the period after James I's reign, Sir William Petty and his friend John Graunt published extensively, and Graunt's work on the bills of mortality is said to have been the first work of statistical science. Graunt explicitly followed the lead of Sir Francis Bacon (Laslett 1973).

When King William III toyed with the idea of a tax on personal income or personal wealth, something which was familiar to him from its Dutch counterpart, the king eventually rejected it as not suitable for England. During the discussions about a personal tax, Gregory King came forward with estimates of the wealth and population of England. He shopped these estimates around to various persons of importance, and at last King's estimates earned a favorable reception from Robert Harley. Gregory King became a permanent advisor to Harley as Harley rose through various high offices to become later earl of Oxford and one of Queen Anne's secretaries of state. Harley paid King a generous salary, and Harley consulted with King on many questions of revenue and expenditure. As an advisor to Harley, King lived in honor and comfort to the end of his days.

Vauban's treatment by King Louis XIV was very different from that accorded Gregory King by Robert Harley, but Vauban's data, and

his proportions of the rich to the poor, were strikingly like those calculated for England by Gregory King. These data were in King's work for Robert Harley who kept them for his eyes only, but that great minister maintained other men in his circle whose job it was to publicize Harley's policies, presenting them in a favorable light to the common reader. Charles Davenant and John Chamberlayne were two of Harley's professional publicists. King did not publish his data himself, but the two publicists did print some of them. Vauban may well have read fragments of King's data in the writings of those two men.

Maybe also Vauban had secret sources. He was very certainly well informed about Britain, and perhaps because of his military rank he had access to secrets from the exiled court of James II. Many persons in high office in London kept up clandestine correspondence with that unhappy prince, as the duc de Saint-Simon called him. Meanwhile, Gregory King's full estimates were kept top secret by Robert Harley who filed them next to a top secret estimate of the strength of the French navy (Taylor 2005).

Vauban may also have learned of Gregory King's estimates by word of mouth. Scholars in the twenty-first-century placed too much emphasis on the importance of written material in the past. Great statesmen of the seventeenth century and the eighteenth century lived in a world of oral and face-to-face communication. They were seldom solitary readers. When they wrote, they often dictated to an amanuensis. When they read, they often had someone read aloud to them (Collins 1998).

Saint-Simon resembled the later conservative Irish politician Edmund Burke. They both disliked abstract analysis of political economy. They both preferred instead to praise virtue and to condemn vice. Saint-Simon did not write a treatise on the sublime, but one could imagine that he would enjoy hearing about such a thing. You get a taste of all this when you read Saint-Simon's account of John Law. 'Court vermin' Edmund Burke said later of Josiah Tucker, a pioneer of political economy, and that was exactly what Saint-Simon thought of John Law (Clark 1903: 26).

Saint-Simon was a close friend of the regent of France, the duke d'Orleans. When the regent took up John Law's reforms, the regent sent Law along to Saint-Simon to convert Saint-Simon to support Law's reforms. Law wrote a book, but Saint-Simon did not read the book. The regent did not support Law because of the book. He probably did not read it either. Nor did Saint-Simon give any close account

of the book by Vauban. The duke may never have read *The Royal Tenth*. Great men did not read. They talked.

Contrast Saint-Simon's earlier view of Vauban with his later view of John Law. Saint-Simon regarded the marshal as an equal and a highly-valued colleague. The duke saw Law as an infinitely inferior social being. The duke was surprised that Law spoke passable French, but nothing Law said convinced the duke to support his scheme of financial reform. The duke believed the scheme would have been appropriate in England – he said England – but he said it was not appropriate for France. England was a free country, he said, and France was an absolute monarchy. These were the same points which the duke had made before about Vauban.

John Law came to France with baggage. He was Scottish. The Darien project failed in Central America, for instance, and it left Scotland nearly bankrupt. Hoping to find an empire for Scotland, projectors raised huge sums of cash, and they lost all of it. Many emigrants died, and a few pitiful souls came to Jamaica where English authorities refused to receive them. Some of Law's baggage was personal. Allegations of crimes fouled his personal reputation.

This baggage did not diminish Law's status in the eyes of Saint-Simon, however. He who is down needs fear no fall. The duke viewed Law much as Olympian gods viewed mere mortals in Greek legends.

Although Saint-Simon was honest and sincere, yet he did both Vauban and John Law an injustice. The duke did not study the numerical data which was required to understand proposed financial reforms. You must remember that persons of quality in the seventeenth century did not touch money. The royal family in Britain is like that still. Once when a student, Prince William went into a shop to buy a pizza and to rent a movie. Kate Middleton was with him. She was then his girlfriend and is now his wife. She had to pay since the prince had no money, no credit card, and no ID. I am sure that Saint-Simon did not carry cash himself either. He described in his memoirs how the steward of his father's household stole fifty thousand francs and absconded. The steward prepared false receipts and other fraudulent paperwork to cover his speculation before his flight. The duke's father was not careful in his study of that paperwork, obviously. Neither did the duke study Vauban's data, nor those of John Law.

Two books help us to understand this situation.

One was Voltaire's *English Letters* written in the 1720s and first published in English and then in French soon thereafter. Saint-Simon

knew Voltaire, saying Voltaire had been a minor officer in the household of Saint-Simon's father. In the *English Letters*, Voltaire expressed many opinions which were similar or identical to those held by duke. The two men agreed about corruption at the royal court, for instance. They also agreed in avoiding discussion of mathematical data. When Voltaire wrote a book on Isaac Newton, Voltaire also avoided much discussion of mathematics. Where Voltaire differed from the duke de Saint-Simon was on the importance of merchants and trade. Voltaire had a whole chapter on merchants in his *English Letters*, and he gave examples of how English aristocrats accepted merchants as valuable members of the commonwealth. This acceptance contrasted with the disdain of Saint-Simon for commerce. Voltaire said all this, yet he discussed no financial data (Voltaire 1894). Manners not numbers. Again, he was like Saint-Simon.

In his book *Raw Youth*, the famous Russian novelist Fyodor Dostoyevsky had his protagonist give us an extensive analysis of John Law. The novel should be read alongside Voltaire's discussion of aristocratic respect for merchants in England. The raw young man in the novel was both of illegitimate birth and poor but also very bright. He wanted to be rich, and he wanted Russia to be rich. He studied John Law's scheme for reform, thinking to apply it to Russia. The passage about John Law in the novel was extensive, and it deserves a close reading. This passage is useful for the student of French old regime financial reform. There was no mention of statistics. The passage in the novel was instead about the shame and the chagrin of the young man at his poverty and lowly status, something like that emotion which must also have been felt by John Law when he stood before Saint-Simon (Dostoyevsky [s. d.]).

In conclusion, let us agree with Thomas Carlyle that the chaos of French government finance in the old regime was a principal cause of the French Revolution of 1789. If you can agree on that point without argument, then you will see in this paper details which support Carlyle's causal analysis. First, when the farsighted Marshal Vauban saw that chaos in official financial affairs would cause France to fall into political instability, and when he saw the danger clearly and correctly, doing so even one hundred years before 1789, he was silenced. His brilliant suggestions and his use of accurate statistical data did not result in any ongoing statistical discussion of financial reform. The

silence can be found in the fact that the duke de Saint-Simon did not offer the eighteenth-century French reader any summary of Vauban's statistical analysis of financial reform. The duke's omission of statistics was due to the political culture of France, of which the duke himself was a prominent part. The French did not develop further Vauban's statistical analysis of financial problems or remedies. Therefore, second, because the statistics of government finance were never widely discussed or understood in Vauban's time, so, therefore John Law's financial reforms were also neither understood nor welcomed later in France.

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