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Economic perspectives

What we learn from a sovereign debt restructuring in France in 1721

François R. Velde

Introduction and summary

A debt is a promise to perform a certain action (make a payment) in the future. A default is a failure to perform the action when the time comes to do so. If performance of the action were always in my interest, the promise to perform it would be superfluous. When we promise to do something, it is precisely because we may well not want to do it. Debt usually takes the form of a contract, which courts can enforce. But sovereign debt (debt issued by governments) is harder to enforce, because governments aren't easily constrained by courts. How can sovereign governments make promises and be believed?

Governments routinely issue debt; yet defaults have a long history and remain highly topical. In June 2015, Greece failed to make a $1.6 billion repayment to the International Monetary Fund; and in June 2016, Puerto Rico sought the U.S. government's help in managing $72 billion in public debt that the territory's government could not repay. For economists, the central question remains: "What motivates sovereigns to repay, and why do investors ever lend to them?" (Tomz and Wright, 2013). To answer these questions, we need to understand the alternatives to repayment, namely, the costs of defaults.

A number of costs, sufficient to induce sovereigns to repay, have been suggested (see Pitchford and Wright, 2013, for a review). If sovereigns borrow, there must be some benefits to doing so. Cheated lenders may punish the defaulter by refusing to lend again and withholding those benefits in the future; this threat may be a sufficient inducement. Typically, however, the theoretical literature finds that the loss of access to capital markets is not sufficient to induce a government to keep its word, and other costs such as disruptions to output and the economic and political effects of redistribution among citizens have to be assumed, more or less arbitrarily. The costs will vary depending on the details of the default procedure, and to some extent sovereign governments contemplating or implementing defaults will look for ways to mitigate these costs. In turn, prospective lenders will want to assess these costs and, if possible, increase them, so as to keep their borrowers on the straight and narrow. What these costs are, exactly, and how governments can alter them, is therefore of crucial importance to understanding the very existence of sovereign debt.

As highlighted by Reinhart and Rogoff (2011), domestically held debt has been somewhat overlooked by the theoretical and empirical literature. Recently several researchers have modeled the costs of default through its impact on holders of domestic debt. Governments can be presumed to care more about the welfare of their residents, in which case the redistributive impact of default can make default costly (Guembel and Sussman, 2009; Ferriere, 2014; and D'Erasmo and Mendoza, 2016). Alternatively, it may be that domestic debt plays an important role in the local economy, say, through the banking sector (e.g., Bolton and Jeanne, 2011; Brutti, 2011; Gennaioli, Martin, and Rossi, 2014). If a sovereign cannot distinguish between different types of creditors, domestic and foreign, or rich and poor, then it will have less incentive to default. The theoretical literature thus tends to assume that defaults cannot be discriminatory, in spite of known counter-examples (Tomz and Wright, 2013).

Knowing what happens, or can happen, in case of default is therefore important. Moreover, sovereign defaults are not such frequent events that we may dispense with past examples of defaults or debt restructurings. Much work has been done to collect information about defaults and their correlates (Oosterlinck, 2013). The literature usually tries to infer general patterns from large samples of defaults, which is the right approach if explanations are to be tested against data, but this sometimes comes at the cost of glossing over the details of the cases, if not actually misunderstanding them.[1] Focusing on specific but remarkable instances is therefore a useful complement (see Álvarez-Nogal and Chamley, 2014, for a sixteenth century example or Hall and Sargent, 2014, for examples in U.S. history). At a minimum, close study of such examples enriches our sense of the objectives and constraints of a sovereign borrower.

The example I treat here is perhaps ancient, but it is important. France was one of the leading powers in Europe and borrowed extensively for centuries. Its record as a debtor was checkered, but outright defaults have been comparatively rare of late—indeed, the last one, arguably the most drastic of its history but also the most simple, was a straightforward and uniform reduction of the public debt by a factor of three in 1797. But prior to that episode, we find the restructuring of 1721 (later I will address the question of whether it was in fact a default). The 1721 restructuring had some features in common with previous episodes but was also unique in many ways. Most strikingly, it was a very well planned, extensive, and costly operation that sought to balance the need for reducing outstanding liabilities with fair treatment of the creditors. What makes this particularly interesting is that France was, at the time, an absolute monarchy, whose powers were, at least formally, unlimited. In other words, it was the kind of government that we would imagine had a free rein and could have defaulted much more simply and ruthlessly if it had wanted to (in contrast, the default of 1797 was carried out by an elected assembly of representatives operating under a constitution).

A recently discovered document, a narrative commissioned by the planners of the restructuring, provides an unparalleled view from the inside of this operation. My purpose in this article is to summarize this narrative and assess the restructuring.

The context

This story takes place during the early eighteenth century in France, which was then an absolute monarchy. The previous king, Louis XIV, had reigned from 1643 to 1715 and pursued a very aggressive foreign policy. A series of wars from 1667 to 1684 had substantially enlarged France's territories and left France as the dominant force in Europe. The end of Louis XIV's reign, however, was marred by two long and costly wars, in which Great Britain, the Netherlands, and the German Empire curbed French ambitions. The wars ended in 1714, leaving France in great financial difficulties.

Louis XIV died in 1715 and was succeeded by the five-year-old Louis XV. From 1715 to 1723, the government was led by a regent, Philippe, Duke of Orléans; after the king became legally of age, the government continued to be led by the former regent, and after his death by another royal prince, the Duke of Bourbon, until 1726. The period from 1715 to 1726 can be seen in three distinct periods. From 1715 to 1718, a period of fiscal consolidation brought about a partial default, tax increases, and spending cuts. The unsecured debt left over from the war was converted into State bills. As the situation improved, the regent let a Scotsman named John Law undertake some radical experiments, which, however, turned into a disaster, setting the stage for another period of consolidation, and in particular a debt restructuring.

To understand what was restructured, we need to briefly describe the nature of John Law's experiment.[2] Part of John Law's plan was to replace the existing monetary system based on gold and silver coin with a paper standard, which he thought could be used to stabilize prices, lower interest rates, and stimulate the economy. To achieve this goal, he received a charter for a note-issuing bank, the first of its kind in France, and similar in many respects to the Bank of England, founded in 1694 (Clapham, 1945; Quinn, 2008). The bank was a private corporation whose initial shareholders were holders of the State bills issued in 1716 to consolidate the unsecured war debts. In effect, the bondholders traded their bonds for shares in a company whose assets were a government annuity (replacing the bonds) and a (hopefully profitable) banking license.

In parallel, Law established another company, again funded with government bonds, whose other asset was the undeveloped colony of Louisiana. This company grew by a series of mergers and acquisitions, financed by equity issues, and became in 1719 the Indies Company, with a monopoly on most overseas trade, as well as other activities such as running the mints and the tobacco monopoly. It expanded its activities further, into tax collection. Much of tax collection in France was subcontracted to private entrepreneurs who paid a fixed annual sum for the right to collect taxes. The difference between the actual amounts collected and the fixed sum represented the profits (or losses) of the entrepreneur. The Indies Company acquired most of the contracts for tax collection. In the summer of 1719, the company proposed a radical solution to the government's persistent debt problem. The plan was for the company to refinance the whole national debt at a favorable interest rate. To finance this operation, it issued large amounts of equity. This was once again an exchange of debt owed by the State for equity in a private company, but the assets of the company now included not only trade, but also tax revenues. This was the same model of debt securitization employed in the case of the Bank of England or the English South Sea Company (founded in 1711), but on a vast scale. If successful, it would solve France's financial problems permanently.

Law's system rested on two financial instruments. First were the shares in the Indies Company, bearer securities easily traded on the secondary market (and the object of much speculation, as well as derivatives contracts), which had replaced government debt. Second was paper money, issued by Law's bank (nationalized in 1718, but still headed by Law), technically convertible into gold or silver on demand, but which Law planned to turn into the exclusive medium of exchange. The critical mistake made by Law was to link the two instruments. The debt conversion relied on bondholders' willingness to trade in their bonds for shares, and since they were given lengthy installments to do so, it became necessary to maintain the price of shares at a high level to entice them. Ultimately, Law was led to peg the price of shares at too high a level; and the bank found itself buying large quantities of shares, resulting in excessive money creation. Law, who had become minister of finance, tried to prop up his currency by making it the sole legal tender and requiring the conversion of all gold and silver into notes, but this did not prevent a growing devaluation of the French currency on foreign exchanges. In May 1720 Law tried to curb looming inflation by devaluing shares and bank notes, precipitating a run on the bank and a suspension of payments. He next tried large-scale "open market operations" to reduce the money supply, issuing new government bonds as well as shares and bonds of the Indies Company, creating a new instrument in the form of bank credits (exchangeable by transfers on the books of the bank), and using all his gold and silver reserves. These operations left the bank and the company bankrupt, and Law was forced to leave the country in December 1720.

The situation in 1721

In January 1721, an emergency meeting of the government took stock of the situation. All of the government's fiscal resources (tax revenues) were controlled by the Indies Company, but its coffers were empty. The bank, whose management had been entrusted to the company, had large outstanding liabilities, namely its notes, which no one wanted (they had lost their legal tender status). Its assets consisted essentially of IOUs from the company. The debt conversion had failed and been partly reversed: In June and August 1720, new bonds had been issued to absorb some of the bank notes. Because of this partial reversion, there were two kinds of debt outstanding: the debt owed by the king, about 1.2 billion livres (the French unit of account); and the debt owed by the company and the bank, about 1 billion livres. To give a sense of scale, the total represented roughly 50 percent of France's gross domestic product. This may not seem unsurmountable by modern standards, but government revenues were much smaller at the time, and the debt represented something like ten times the revenues.

Not only was the debt very large, it was also very heterogeneous.

Some of the king's debt took the form of perpetual annuities, a standard debt instrument used by the public and private sectors for centuries. A perpetual annuity was a contract of sale between lender and borrower: The borrower created an annuity, or promise to pay a fixed amount every year forever, and sold it to the lender. The borrower's only obligation was to pay the specified amount; he could, however, at his option, choose to end the obligation by repaying the purchase price. It was, in effect, a perpetual bond with a call option. Annuities were considered a form of real property in French law, which meant that they could be bought and sold but also mortgaged. Frequently, the annuity payments were secured by collateral, either an asset or a revenue stream—in the case of the king's debt, specific tax revenues.

Another form of debt owed by the king was life annuities. In this case, the annuity was payable for the duration of a specified individual's life (it need not be the lender) and there was no option of redemption. Three series of annuities had been issued: perpetual annuities at 2.5 percent, collateralized by indirect taxes and payable in Paris in June 1720; and perpetual annuities at 2 percent and life annuities at

TABLE 1

Securities submitted to the restructuring

	Submitted to restructuring			Not submitted	Total
	Paris	Province	Other		
Perpetual annuities	899.4	119.8	0.9		1,020.1
Life annuities	83.3	7.5	0.7		91.5
Provincial perpetual annuities	15.6	15.1	0.1		30.8
Receipts for same	16.5	66.6	0.0		83.1
Other	9.7	2.1	0.0		11.8
King's debt	1,024.5	211.1	1.7		1,237.3
Bank notes	207.5	428.6	20.8	28.3	685.2
Bank accounts	72.9	74.7	1.0	38.8	187.4
Bonds	63.8	22.9	0.3		87.0
Life annuities	87.7	3.0	2.0		92.8
Company's debt	431.9	529.2	24.1		1,052.4
Total	1,456.4	740.3	25.7		2,289.7
Shares (number)	111,788	7,982	5,254		125,025

Note: Millions of livres, except shares.
Source: Deschamps (2015), Introduction.

4 percent in August 1720, both collateralized by direct taxes and payable by the provincial tax collectors. Formal contracts had been written for the June 1720 issue, but not for all August 1720 annuities, and there were various receipts floating around. The Indies Company's liabilities were more diverse. It issued life annuities in May 1720 at 4 percent. It also issued bearer bonds at 2 percent. The bank's liabilities consisted of bank notes, which had been demonetized and were therefore of uncertain legal standing, as well as bank accounts. Finally, the company had a large number of shares outstanding, which were claims on its net profits. The shares were also bearer securities. Of all the company's liabilities, only the bonds had been formally guaranteed by the king.

The liabilities ranged from formal claims on tax revenues based on contracts, like the annuities, to bearer instruments, like the bank notes, whose only promise (payment in coin) had long since been voided. Aside from the shares, they all had in common a face value, either the sum promised or (in the case of life annuities) the sum initially paid in exchange. This face value was expressed in the same unit of account. But the real value of that unit of account had varied over time: The legal value of the main silver coin had changed 17 times in 1719 and 1720. The market value of the securities had fluctuated as well. For those securities that had a face value, then, it was difficult to attach meaning to it. The bank note of 1,000 livres was traded for 70 livres on the market in January 1721. The shares, with no face value, had seen their market price fall from a peak of 10,000 livres (in bank notes) to 175 livres in January 1721.

Table 1 shows the amounts of the different securities that were submitted to the debt restructuring. For some, it is possible to know the total amount outstanding.

What, then, could be done with the eclectic mass of paper? One possibility would have been for the king to cut down the debt from 2.2 billion livres to 1 billion livres by letting the bank and the company fail and walking away from the mess. True, the bank had been nationalized in December 1718 when its private shareholders were bought out by the Treasury. But it was originally a limited liability company (the shares were bearer shares, like those of the company). When it was nationalized, the treasurer, as accounting officer, became answerable to the Chamber of Accounts for losses. Since the management of the bank had been entrusted to the company in February 1720, he might have tried to deflect the liability onto the company, but it too would have been bankrupt.

Most of the discussion at the cabinet meeting concerned the bank and who would take responsibility for it. The Duke of Bourbon, who was also an important shareholder of the company, did not want the company to do so. They argued that the responsibility for the bank had been foisted on the company, and that in practice the bank had been run by Law, who was also the minister of finance. Indeed, the promise made in February 1720 not to increase note circulation without the company's permission had been repeatedly ignored, and several note issues had been made illegally. The regent blamed Law, but then questions arose as to how Law had been allowed to leave France. His passport had been issued by order of the regent, and the Duke of Bourbon had provided an escort. Both men realized that they would not benefit from extending this discussion further, and it was agreed that the company would account for the bank, but with the implicit understanding that the company would be saved from failure, which meant that the bulk of the liabilities would have to be assumed by the king.

The company, however, would have to return to its original commercial purpose, and the liabilities would have to be restructured.

This was not, of course, the first time that the French monarchy had run into financial trouble, and there were two types of policies providing precedents and models, depending on which part of the debt was being dealt with.

The first type of policy dealt with the long-term annuities, first issued to the public in 1522. They were subject to unilateral reductions in 1604, 1662–65, and 1713–15. In all three instances the annuities were treated differently, depending on the date and circumstances of issue, their rate of interest, and whether they had been sold or were still held by the original creditor. A recurring concern was to distinguish creditors of good faith who had paid the full cash value of the annuity from speculators or "profiteers" who had bought the annuities secondhand or with discounted government paper. In the 1604 reduction, for example, the king gave himself the option to redeem an annuity at the price for which it had last been sold between private parties. Distinctions were also made when annuities had been issued to pay off war debts which, it was claimed, had not been verified and were likely to reflect inflated claims by providers of goods and services.

The second type of policy was implemented by chambers of justice (used in 1604, 1624, 1661, 1700, and 1716). These courts were tasked with examining the accounts of the financiers (the individuals who provisioned the army or made loans to the government during wartime) and imposing taxes for excess profits, but the taxes were usually paid by reducing the financiers' claims on the government. These operations targeted a different group of creditors and usually involved inquiries in the creditors' personal affairs. The most recent one, in 1716, had explicitly taken into account the overall fortune of the financiers in determining the tax they each owed and allowed them to pay off the tax in government short-term debt.

The operation carried out in 1721 incorporated elements of both types of policy, but differed significantly. Like the annuity reductions, it distinguished by type of security, but like the chambers of justice it also included information on the individuals. It affected all creditors of the State, not specifically the financiers, but the numbers involved were much larger than in any previous operation, by one or two orders of magnitude. Unlike the chamber of justice's approach, it was not a judicial proceeding and was not presented as primarily punitive; like the reductions, it was guided by general principles of fairness but applied more finely because of the individual information. Finally, it was made more complex by the involvement of the company, with respect to which it represented an administrative bankruptcy proceeding. The company, however, was more public than its technically private status might lead one to think, as the government considered its prosperity a matter of national policy.

A note on the source

Before I delve into the history of the debt restructuring, which came to be known as the "Visa" (because it began with a visual inspection by government officials of all securities), I describe the main source that I have used.

The restructuring was the brainchild of four brothers: Antoine Pâris the Elder (1668–1733), Claude Pâris La Montagne (1670–1744), Joseph Pâris-Duverney (1684–1770), and Jean Pâris de Monmartel (1690–1766) (see Cheynet de Beaupré, 2012). They were the sons of an innkeeper in Moirans, in southeastern France. During the wars of Louis XIV, the father worked with suppliers of the French armies fighting in Italy and the two elder brothers continued in the provisioning business. They distinguished themselves by their hard work and talent and rose to a major position in the world of "financiers," a term that covered anyone involved in either tax collection, lending to the government, or war supplies—businesses that were largely contracted out to private partnerships. The brothers found political favor in the early years of the Regency but fell out with John Law and were exiled in June 1720. Within days of Law's dismissal in December 1720, they were called back to Paris by the new finance minister, who had worked with them as a government official in Alsace during the recent wars. They immediately proposed the plan for the restructuring, which they had sketched out during their exile.

It was said that the plan was conceived by Antoine and executed by Joseph, and the latter certainly took the most active part in its implementation. The Pâris brothers liked to work behind the scenes but were highly sensitive to their public image and to posterity. Presumably anticipating how controversial the restructuring would be, Pâris-Duverney decided to have the history of the restructuring written as it occurred. For this purpose, he hired François-Michel-Chrétien Deschamps (1688–1747), the orphaned son of a cavalry officer. Deschamps had made a career as a clerk in the tax administration, as well as being an occasional playwright. In 1726, with the change of government, the Pâris brothers were once again exiled, although the two younger ones gradually regained favor in the early 1730s and would continue to play a major role in government finances until the 1760s.[3] The manuscript was finished in 1731 and probably intended for publication as a justification of the Pâris brothers' actions, but it remained unpublished until 2015 (Deschamps, 2015).[4]

The restructuring process

The restructuring took place in three major steps. First, it was necessary to collect the information about all individual claims and process it. In the second stage, the government decided how much debt it could sustain and proceeded to reduce the claims individually. The final stage involved issuing a new security to claimants and clearing the claims on the Indies Company.

The operation began with the order in council of January 26, 1721. The order specified a list of securities that were to be submitted by their owners to officials. There was no explicit penalty for failure to submit, other than the cancellation of the securities not submitted before the deadline; there were penalties for misstating the ownership of the securities.

The submission was to take place with the help of public notaries, whose fees would be paid by the government. The submitters were required to provide an itemized list of the securities they owned, with their names, addresses, and status or profession. With the list they also had to provide a statement of the origin of the securities, that is, how they acquired the securities and with what funds. The status of the submitters was required for identification purposes, but importantly it played no direct role in the liquidation process. Nor was their total wealth or income reported, but only that part of their portfolio that was in the form of the securities.

The information was received at offices set up in the Louvre for submitters residing in Paris, or at the offices of the king's representatives in the provinces. The Paris offices opened only on March 10, and the deadline for submission was extended to June 30.

The securities and documents were returned to the owners after the information had been transcribed on registers. The information was then compiled by type of security, by origin, and by individual. This allowed two things: aggregating the information to have totals for securities and a breakdown by origin; and composing a "dictionary" of all individuals, so that an individual could be tied back to his claim.

The origins of the securities were self-reported, which raised an obvious question: Could the statements be trusted? To verify them, the government knew where the information was. France had a network of thousands of notaries: public officers whose function was to help parties write contracts and to keep copies. Executing an act before a notary was not always required, but it made it authentic and enforceable. Many financial transactions were therefore recorded by notaries. In September 1721, notaries were ordered to provide abstracts of all transactions conveying property and creating or extinguishing debt executed between July 1719 and December 1720. It would have been clearly preferable to take this measure at the beginning of the restructuring, but there was considerable opposition within the royal council against this unprecedented intrusion of royal power into private affairs, and it took the regent a long time to defeat it. The order itself promised that all documents would be destroyed afterward so that the information could not be used for any other purpose.

Only the abstracts for large transactions were actually used. The names of the parties were excerpted, found in the dictionary, and the information compared with the parties' statements. When a discrepancy was noticed, a letter was sent to the parties requesting further clarification. More than 75,000 such letters were sent. The bulk of the verification was done in the space of three months.

Meanwhile, steps were taken to begin the second stage. The ledgers were completed and balanced by October, and aggregate sums were computed. On November 23 the royal council received summary tables detailing the debts by type and origin. Several decisions were made.

The first was to separate shares in the Indies Company from all other securities. This reflected their fundamentally different nature: They were claims on the uncertain profits of a commercial enterprise, and each share was entitled to the same portion independently of the price that had been paid to acquire it. There was no sense in trying to ascribe any value to them and make them commensurate with the other securities. Moreover, the company was to continue as a going concern and therefore represented an asset that could be assigned to those claims. All other securities were, explicitly or implicitly, claims on sums of money, owed either by the king or the company. It was decided that the king would assume all liabilities, leaving the company answerable only for the shares. This implicitly recognized that the company's liabilities had in large part been incurred on behalf of the king.

The next decision was to assign a fund for these liabilities. The fund was set at 40 million livres (compared with around 188 million livres of revenues in 1724). The fund was supposed to operate as a sinking fund. Since a large part of the liabilities would take the form of life annuities, the actual interest payments would diminish over time, and the corresponding reduction would be used to redeem the debt progressively, until complete extinction.

The fund of 40 million livres was the asset assigned to the aggregate mass of all securities assumed by the king. The final decision was to break down this mass into each individual's final claim according to a set of coefficients, depending on the type of security and the origin. The coefficients were made public, which promoted some degree of transparency for the process.

The coefficients were not chosen at random, but were the result of a careful evaluation. In a way, the ideal would have been to rewind the past and undo the redistribution, but the government had neither the information nor the processing power to do so. The coefficients should be seen as a form of approximation. To understand the principles guiding the choice of coefficients, take two polar cases. One is that of a government creditor, a longtime holder of a perpetual annuity, who was caught up in the reimbursement of the public debt in 1719 and, as a result, through no choice of his own, ended up holding these securities. The opposite case is that of a "vulture" speculator who bought securities at the last minute on the open market at a deep discount. Between these two extremes were a great number of intermediate cases. It was impossible to assign each claim to each case; instead, a probability of being the "innocent" type was assigned, and the claim was reduced correspondingly.

To assign the probability, the government used the available information, which had two dimensions: the type of security and the origin. Each (type, origin) pair was assessed according to the degree of liquidity (for type), the degree of choice (in the original transaction), and the verifiability of statements. More liquid securities, especially bearer securities leaving no written trace, were more suspect. The degree of choice in the transaction (for example, a merchant voluntarily entering into transactions in contrast to a creditor obliged to accept a reimbursement) also increased suspicion. There was, however, a favorable presumption for lower incomes: Origins such as payment of wages were treated relatively well.

The origins were distributed among five major categories: 1) reimbursements of debts by the government, 2) reimbursement by private parties, 3) sale of real estate, 4) sale of goods and chattel, and 5) no stated origin. The fourth category was found to be too broad and was further subdivided, depending on the ultimate origin of the funds—wages, interest income, pensions, commercial transactions, and so on. The fifth category is remarkable: Even if the claimant was unable or unwilling to document the source of the funds, he would still receive something.

Table 2 shows the coefficients applied by type and origin.

Once the matrix had been announced, the actual reduction of claims could begin. Forty commissioners were appointed, and a set of instructions was given to each. Clerks prepared liquidation sheets that showed the amounts of each type and origin; separately, the application of the coefficients to the sums was calculated several times to avoid any errors and then copied onto the sheet. The commissioners reviewed and signed the sheets. When a difficulty arose, the case was referred to one of four committees for resolution. The most difficult cases were sent to a higher committee, chaired by the minister of finance, which interpreted the rules or created new rules in unforeseen cases; copies of these decisions were circulated to the commissioners.

The work began in December 1721 with the smaller claims (under 10,000 livres), followed by the larger claims, which were subject to additional verifications. The politically sensitive claims (those of royal princes, senior civil servants, the commissioners themselves, and foreign diplomats) were reviewed by the minister of finance. By September 1722, the work was done and preparations were made to burn all the documents, as promised. Only the documents necessary to finish the liquidation and to balance the books were reserved. The rest were put into large iron cages in the courtyard of the building where the work was being done and burned over the course of several weeks.

TABLE 2

Reduction matrix

Class	1	2	3	4				5
Subdivision				1	2	3	4	
Annuities	1.00	1.00	0.50	1.00	0.67	0.50	0.33	0.05
Notes, depending on size of total claim:								
Above 10,000L	0.67	0.67	0.33	0.67	0.50	0.40	0.25	0.05
6,000–10,000L	0.75	0.75	0.60	0.75	0.60	0.60	0.50	0.05
2,000–6,000L	0.80	0.80	0.67	0.80	0.67	0.67	0.60	0.05
500–2,000L	0.83	0.83	0.75	0.83	0.75	0.75	0.67	0.05
Less than 500L	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.05
Other	0.60	0.60	0.33	0.60	0.33	0.33	0.20	0.05
Number of shares								
1 or fewer	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0
1 to 2	0.9	0.9	0.7	0.9	0.7	0.7	0.7	0.0
2 to 5	0.8	0.8	0.5	0.8	0.5	0.5	0.5	0.0
5 or more	0.6	0.6	0.3	0.6	0.3	0.3	0.3	0.0

Note: L indicates livres.
Source: Deschamps (2015), Introduction.

The third and final stage of the restructuring consisted of issuing a new security for the old securities. The process so far had been adjudicatory; now, a financial structure was required. In January 1722, an accounting officer was appointed to issue a new security, take in the old securities, and then engage in three-way compensations with the king's Treasury on one hand and the Indies Company on the other. This was the eighteenth century equivalent of a "special purpose vehicle." In modern terms, the sole equity owner of this vehicle was the king, to whom all profits would accrue. The new security would be the sole liability, and the old securities received in exchange would be the assets. The compensations with the company would consist in the company delivering sufficient assets (in effect, liabilities of the Treasury) to redeem its liabilities.

In most cases, the new security was a bearer certificate stating the total sum at which the claim had been settled or, in the case of shares in the company, the number of shares. But in the case of the king's annuities, it was simpler to amend the original contract to reflect the reduction in the capital sum and the corresponding reduction in the annuity. The owners of annuities also had the option of compensating part or all of the reduction on the annuity with certificates.

The government provided various outlets to convert these certificates into new debt. The most substantial, by far, was life annuities at 4 percent, although perpetual annuities at 2 percent were also available. Since the certificates were to the bearer, they were easily traded (until the deadline for redeeming them into annuities), and a secondary market quickly developed.

In total about 2.2 billion livres in securities were submitted, independently of the shares. Of those, 1.2 billion represented liabilities of the king, of which 1.1 billion was in annuities. The annuities were reduced by 7 percent in the aggregate, while all other securities were reduced by 41 percent. The total reduction, taking into account the fact that some certificates were never withdrawn by the claimants, was 27 percent.

A corruption scandal

The closing days of the restructuring were marred by a corruption scandal. It would be the most serious affair of the whole eighteenth century involving senior magistrates of France. Two commissioners, named La Pierre de Talhouët and Clément, conspired with several cashiers and the chief comptroller of the restructuring to forge liquidation sheets, issue corresponding certificates, and sell them on the market. They took advantage of the fact that the very last operations consisted in revising erroneous liquidations. Individuals had been allowed to appeal the treatment of their claims and, in some instances, the minister of finance gave an order to revise the liquidation and issue a supplementary certificate. The commissioners started out by revising sheets, but without any authority, and keeping the supplementary certificate for themselves without informing the individual concerned. Later they hit upon the idea of forging fictitious liquidation sheets with invented names, a more discreet method than the first. Indeed, their greed had induced them to ask the cashiers to look for sizable liquidation sheets to revise; but the true claimants, almost by definition, were persons of substantial means. Clerks in the liquidation office noticed the revisions and informed the individuals named on the sheets, presumably hoping for a tip from the grateful beneficiaries, some of whom had been soliciting for revisions in vain. The victims, astonished rather than grateful, inquired with the commissioners, who brushed them off; they then appealed to the minister of finance. At the same time, the restructuring was being wound down and the different cashiers were required to submit their accounts; discrepancies in several cashiers' accounts aroused further suspicions. Concrete evidence was finally at hand when a man tried to exchange a certificate for new shares and the clerk noticed that the certificate was antedated.

Talhouët and several cashiers were arrested in April 1723. A special court was created to handle the matter, since the restructuring itself was operating outside normal jurisdictions. The commissioner refused to recognize the court's jurisdiction and remained silent. But after a few weeks of interrogations, one cashier agreed to talk in exchange for clemency; the others, confronted with this testimony and with documentary evidence, admitted guilt and implicated Clément, who also confessed. The two charges were forgery and embezzlement of public funds, but both were problematic. Technically the certificates were not forgeries, because they were signed by commissioners. More seriously, the fraudulent certificates were shares in a private company, hence no public funds were involved. Moreover, no money was actually stolen, although the defendants enriched themselves at the expense of other shareholders. The prosecutor took some time to respond to this objection: The Indies Company was private, but its charter had been registered by the courts. Many families had invested considerable sums, and the fact that the shares were to the bearer implied that their circulation was a matter of public policy. Furthermore, the king had directly intervened in the company's organization and management. In effect, defrauding the company meant defrauding the State.

TABLE 3

Reduction on securities

	Contracts	Other securities (millions of livres)	Total	Shares
Submitted	1,142.3	1,080.2	2,222.5	125,025
Liquidations	1,062.5	638.2	1,700.7	55,735
After compensations	1,079.7	619.9	1,699.6	55,735
Certificates issued	1,088.0	588.5	1,676.5	55,482
Certificates redeemed	1,088.0	525.3	1,613.3	55,317

Source: Deschamps (2015), Introduction.

TABLE 4

Restructuring balance sheet (millions of livres)

Assets		Liabilities	
King's debt			
Contracts	1,142.4	Write-downs on contracts	1,087.9
Other securities	83.1	Certificates issued and redeemed	82.9
		Profit on contracts	54.6
Total	1,225.5		
Indies Company's debt			
Miscellaneous	11.8	Certificates	
Bank notes	656.9	Issued and redeemed	442.3
Bank accounts	148.5	Issued, unredeemed	63.2
Other	179.8	Not issued	31.4
		Profit on company's debt	460.0
Total	997.0		
	2,222.5		2,222.5

Source: Deschamps (2015), Introduction.

Talhouët (who remained silent to the end), Clément, and their accomplices were found guilty and sentenced to death (except the cashier who had provided evidence in return for clemency; he was later pardoned). The sentences were commuted to banishment for life. After some years in prison, Clément found a position in the colonial department of the Indies Company and died of fever somewhere in equatorial Africa. Talhouët spent the rest of his life in prison. The severity of the punishment is remarkable, given that the two commissioners were senior magistrates and well connected. Talhouët's father-in-law was the attorney general of the Court of Excise, and Clément's father had been midwife to the royal family.

Final settlement

The final deadline for redeeming the certificates into annuities was March 1724. Meanwhile, the final settlement between the restructuring, the Treasury, and the Indies Company was prepared. First, the bank was liquidated and its account presented to the Chamber of Accounts in November 1723. Next came the company. Because the debt conversion of 1720 had been reversed, some of its liabilities had been exchanged for public debt (the annuities issued in 1720) and were now held by the Treasury. The rest had been exchanged by the public for certificates that were now held by the restructuring. The company's liabilities were about 2.1 billion livres, while its assets consisted of about 1.1 billion livres in claims on the king (for the debt it had converted). To plug the hole, the king (as owner of the restructuring) ceded the profits on the restructuring, that is, the effect of the reduction on the securities, or 550 million livres, to the company. In addition, the company was granted an "indemnity" of 514 million livres, nominally as compensation for the losses it had incurred in the service of the king in 1720 and for the contracts that had been rescinded. The size of the indemnity was in fact calculated to make the company whole. It now had enough assets (claims on the Treasury) to retire its securities held by the restructuring and by the Treasury. The final settlement was enshrined in a series of royal edicts in June 1725, which confirmed the privileges of the Indies Company, declared it free of any debts to the Treasury, and confirmed all the operations of the restructuring.

The restructuring had been an enormous enterprise, as the following figures will show. The total number of claims was nearly a half million (France had at the time a population of 20 million, or 4 million households), half of which were for sums of 500 livres or less (perhaps half of average household income). By comparison, the restructuring that took place at the same time in Great Britain, after the South Sea bubble, involved about 30,000 people out of a population of 5.3 million (Dickson 1967, p. 272). The notaries sent nearly 1.4 million abstracts of financial transactions, of which 360,000 were processed. The restructuring employed up to 1,900 clerks at a time, and its total cost to the government was 9 million livres (the total expenses of the royal court were 12 million livres per year). The bulk of the work was carried out in three years, but at its peak it mobilized almost all the available senior personnel of the Royal Council.

The restructuring drew a line under the financial experiments of the Regency.

Was the restructuring a default?

So far I've called the restructuring operation a debt restructuring. Was it also a government default?

In legal terms, a default is a failure to fulfill a contractual obligation. As we saw, there were two types of debt involved in the restructuring: liabilities of the Indies Company and liabilities of the king, mainly the annuities issued in 1720. Strictly speaking, the company was a private entity; as for the king's obligations, we have seen that the annuities came out almost unscathed from the restructuring. The king fulfilled his obligations; if anything, he went beyond, since he made a gift of half a billion livres to save the company.

This, of course, ignores the origin and nature of the Indies Company. It was created initially to replace part of the government debt, and it ended up replacing most of the public debt with its liabilities. Though technically private, it was in essence a quasi-public entity, a point acknowledged in the proceedings of the Talhouët affair. So we need to delve a little deeper into the treatment of the company's liabilities.

Here again, a lawyer arguing for the government could make the case that there was no default after January 1721. Most of these liabilities (83 percent, to be exact), the notes and bank accounts, had no monetary value. In the last months of Law's system, the notes and bank accounts had been deprived of their legal tender status and made receivable for taxes or convertible into annuities bonds of the company until December 31, 1720; past that deadline, they were deemed void. Of the company's liabilities, only the bonds had received a guarantee from the king.

In truth, the restructuring cannot be judged in isolation from the events that made it necessary. When did defaults begin? If we return to the start of John Law's operations, we find that the government bonds of 1716 that formed the initial capital of both Law's bank and the Indies Company in 1716 and 1717, respectively, were traded voluntarily. The conversion of the national debt in 1719 was compulsory, but legal: The government's annuities were always callable. The exchange of the annuities' capital for shares in the Indies Company was also voluntary. We begin to see John Law using compulsion when, to accelerate the conversion, he announced that annuities not converted would have their interest rates reduced from 4 percent to 2 percent. At that time, he also used usury laws to lower the ceiling on interest rates to 2 percent. Thus, when the conversion was reversed in June 1720, the new annuities were issued at the unfavorable rate of 2.5 percent; and those issued in August were at 2 percent, the same rate as the company's bonds. The first half of 1720 was also the period when the bank's notes became legal tender and the holding of gold and silver became illegal.

Another approach is to consider the total value of public debt before and after the restructuring. This remarkably modern approach was taken by a contemporary: The economist Nicolas Dutot, a former employee and defender of John Law, criticized the restructuring for having severely reduced the value of debt (Dutot, [1738] 1935). Deschamps, our author, was tasked by Pâris-Duverney to write a response to Dutot's book (Deschamps, 1740). Part of the debate revolved around the choice of the dates at which to make the comparison. Dutot chose to compare the outcome of the restructuring with the state of affairs in September 1720, before the complete rout of Law's system, arguing that rumors of a restructuring were

TABLE 5

Market value of securities before and after the restructuring

	Nominal amount (millions of livres)	Price		
		7 Jan 1721	Apr–Jun 1722	1723
Indies Company debt				
Bank notes	685	0.095		
Bank accounts	187	0.075		
Bonds	87	0.045		
Life annuities	92	0.081		
Total	1,051			
Liquidation certificates	525		0.250	0.197
Market value (millions)		90.2	131.3	103.3
Indies Company shares				
Number before	125,025	312		
Number after	55,735		850	1280
Market value (millions)		39.0	47.4	71.3
King's debt				
Annuities	1,237	0.095		
After haircut	1,087		0.250	0.197
Market value (millions)		116.9	272.0	213.9
Total market value (millions)		246.1	450.7	388.5

Note: Share prices are in livres; others as percentage of face value.
Source: Deschamps (2015), Introduction.

already circulating. It seems fairer to follow Deschamps and start the comparison when the Pâris brothers returned to Paris in early January 1721. Table 5 uses available information to make that comparison as precisely as possible, using two possible end dates: the second quarter of 1722, when the certificates first began to circulate, and the whole of the year 1723. The table shows that the market value of the securities subjected to the restructuring operation increased by 60–80 percent.

Of course, if we chose the peak of Law's system in May 1720 as our starting point, we would find that the market capitalization of the Indies Company was 2.7 billion livres and that the circulation of notes was around 2.1 billion. Taking into account the changes in the metallic content of the livre (for example, using an index of foreign exchange rates), we find that the market value of the company's liabilities fell by a factor of 8. But this tells us more about the overvaluation of Law's system in May 1720 than about the degree to which the ensuing restructuring was a default.

A last possible approach is to look at the extent to which the debt burden changed. Data availability limits the comparison to the years 1720 and 1724. I find that, between these dates, the nominal capital of the debt was reduced by 17 percent, and the interest burden by 36 percent. It should be noted that, after the Pâris brothers were exiled again in 1726, the new government unilaterally reduced the interest on the annuities created by the restructuring, entailing a further reduction in the interest burden of 21 percent compared with 1720.

It seems clear, then, that during the period from 1720 to 1723 a sizable reduction in the national debt took place, but that the restructuring of 1721–22 cannot be separated from the experiment of 1719–20. Ultimately, however, the French government did not gain much fiscal room. The total debt service was 82 million livres in 1717, against revenues of 145 million, and 87 million in 1724 against revenues of 188 million (the intrinsic content of the livre having fallen by 47 percent in the meantime). Moreover, the price of French debt had not changed much in the same period: Perpetual annuities bearing 4 percent traded for 35 percent of their face value in 1718 (an interest rate of 10–11 percent) while liquidation certificates, which could buy 2 percent perpetuals, traded at 20–25 percent in 1722—a similar, and high, level of rates (interest rates on long-term government debt were around 5 percent at the time in Great Britain). Only by the late 1720s did prices on French 2.5 percent perpetuals reach 40 percent of face value (a 6.25 percent rate); they reached 50 percent (a 5 percent interest rate) by 1740, a price that they maintained until the catastrophic events of the French Revolution.

Conclusion

The French debt restructuring of 1721 had winners and losers. Whatever default there was started during Law's system, and it seems fair to say that the purpose of the operation was to limit the damage. The driving principle of the restructuring was to mitigate the redistributive effects of the system while trying to avoid rewarding speculators. This last impulse was perhaps naive. Speculators, in this as in other instances, serve a purpose: They provide liquidity and insurance to creditors. They assume a large risk in the hope of outsized rewards. Punishing them reduces their incentives to provide the same services the next time around, making the restructured debt less liquid, all other things being equal. It is true that the main instrument chosen to recreate the public debt, life annuities, was not particularly liquid to begin with. Although life annuities were transferable, they remained assigned to the original life on which they were contingent. Insuring a death risk of one's kin may be useful to the original purchaser, but there will not be much of a market for such an idiosyncratic security. This suggests that maintaining the liquidity of the public debt was not an important consideration. Nevertheless, when the French government resumed borrowing in later decades, it mostly used more liquid securities (until the late eighteenth century, when it returned to life annuities [Velde and Weir, 1992]).

The operation was costly and difficult. However, one cannot help but admire the thoroughness and precision devoted to it, however misguided it may have been. The Pâris brothers later embarked on a deflationary policy intended in part to revalue the debt and further compensate the creditors, but this policy had disastrous consequences (Velde, 2009a) and probably contributed to the harsh judgment passed by posterity on the government they advised. Still, the French government was able to steer clear of outright default for a couple of generations, regain access to capital markets, and maintain the stability of its constitution. Although the counterfactual is not at hand, it is tempting to think that the restructuring of 1721 bought the French monarchy a lot of breathing space. Whether it used it wisely is another question.

What might the sovereign debt literature learn from this episode about the constraints or objectives of sovereign borrowers? As I explained in the introduction, a sovereign's ability to treat creditors differentially can mitigate the pain of default, which in turn makes default easier and hence borrowing harder. Treating creditors differentially requires information about the creditors that the government may not have. The procedure followed in 1721 offers an interesting solution: It amounted to a repudiation of the whole debt as a first offer, followed by a proposal of better terms to those creditors who were willing to supply verifiable information; and the mechanism seemed to work well. This is all the more remarkable given the rudimentary state of information technology in the eighteenth century. More broadly the assumption made in the literature ruling out differential treatment ought perhaps to be revisited and greater attention paid to actual treatment of creditors in default episodes (as in Erce and Díaz-Cassou, 2010).

As for the sovereign's objectives, modeling government preferences remains difficult. Whereas private agents are readily assigned preferences, governments are not individuals. The political economy literature has modeled government preferences in the case of democracies as the outcome of a strategic electoral process involving individuals (Persson and Tabellini, 2014), but modeling governments in non-democracies remains challenging (Acemoglu, Egorov, and Sonin, 2009). France in the eighteenth century was nothing like a democracy, yet the government's concerns with fairness and redistribution are striking, although whether they stem from the government's preferences or from strategic considerations is harder to tell. What is clear, however, is that the government was explicitly considering two trade-offs, one between bondholders and taxpayers, the other within bondholders themselves; the former trade-off could be related to preferences and the latter to concerns about its reputation as lender. These two trade-offs appear in D'Erasmo and Mendoza (2016), who study the sustainability of domestic debt in an economy with inequality, although a very stylized one, with two types of agents. They find that incentives to default are weaker if the government is not strictly utilitarian (weighing the welfare of all agents equally) but rather places a greater weight on bondholders. Moreover in their model, the incentives are weaker the more bondholdings are concentrated, although in 1721 holdings of claims on the government were much more diffuse than usual, because of the preceding episode of paper money. Another point recently considered (Broner, Martin, and Ventura, 2010) is the existence of secondary markets and the ability of agents to trade government debt anonymously; while the French government was in practice unable to rule out these markets, it did take the tradeability of debt into consideration in its treatment of creditors. The 1721 episode suggests that governments may care about finer distinctions than just creditors versus bondholders, either for political economy reasons or for strategic purposes.

The 1721 restructuring thus speaks to the current literature on sovereign debt and suggests additional avenues of research.

NOTES

[1]For example, Reinhart and Rogoff (2011, p. 343) fail to see that interest reductions in the United Kingdom represented the exercise of an option specified in the original loan.

[2]The vast literature on this experiment includes Forbonnais (1758), Levasseur (1908), Thiers (1858), Marion (1914–31), Faure (1977), Lévy (1980), Neal (1990), Thiveaud (1995), Murphy (1997), and Velde (2009b).

[3]Pâris-Duverney is better known today for founding the school for army officers that Napoléon Bonaparte attended and for launching the career of Beaumarchais, author of *The Marriage of Figaro* and gun-runner for the Continental Congress.

[4]The tables in this article are taken from my introduction to the book.

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François R. Velde is a senior economist and research advisor in the Economic Research Department at the Federal Reserve Bank of Chicago.

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