Priceless Markets II: Time and Space

Chapter 1:

1740 and the rules of the games

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In 1740 borrowers living near Bellac in central France (see Map 1) had notaries draw up 108 loan contracts for a total of twenty thousand *livres*[1]. These loans were expected to be paid back in about two years. Given that the population of this tiny town and the surrounding villages of this remote part of France was likely near 8,500 at that time, it seems that relatively few people in this area availed themselves of such credit. But if we think about households rather individuals, the participation rate was far from trivial. Counting one household for every four persons, only 6 percent of households took out a loan that year, which would suggest (at two year's duration per loan) that in 1740 about 12 percent of households were borrowing in this market. Given that many lenders made multiple loans, it seems that about 20 percent of the households interacted with notarial credit.

Bellac is only one example. But such numbers can be produced throughout France. And if we take all of our 108 markets together extrapolate to France as a whole, it suggests that there were at least 400,000 loans contracted that year for a total of 160 million livres and some 1.5 million contracts outstanding worth nearly one and a half billion livres. These numbers are large; the stock of outstanding debt is dwarfed only by the state's borrowing: the national debt at the time was in the neighborhood of 2 billion livres. The volume of notarial loans made annually amounted to twice the lease on the government's General Farms, which was essentially a loan against the next year's indirect tax receipts. At about 80 million francs it was the Crown's most significant source of short term funds. Even more astounding, the number of contracts outstanding was sufficient to give one in every four households in the kingdom access to credit.

From the outset, we must note that there is a very clear urban hierarchy behind these figures that runs in two directions. On the one hand, participation rates in the local credit markets fall as the population of the market's major settlement increases: only about 1 percent of

[1] From 1726 to the Revolution the French unit of account was the *livre* it is the currency with which all of our markets transactions were denominated except in the Vosges and the Nord. It was worth 4.45 grams of silver. The post revolutionary currency, the franc had the same unit value of silver.

Parisian borrowed, while twice as many did in the most rural areas in our sample. On the other, the size of each loan increased with city size. The average loan size in Paris was 7,200 livres while in the other large cities it was less than 1500. In the least urban areas it was about only 170 livres (still a big sum, equivalent to more than 6 months wages). The second effect dwarfs the first so that the per-capita size of the market in fact increases with settlement size. In Paris, the ratio of the value of loans to population was 76 versus only 4 in the least urban areas. Loan durations also rose with settlement size, so that Paris had a per capita stock of debt five times larger than the biggest cities in the kingdom and 36 times larger than those of the most rural markets. Even in 1740 Paris and the largest cities were financial centers. Taken together, the amounts were sizeable: average debt was about 370 livres, roughly the same as capita income. The value of outstanding debts reached 15 percent of national output. This number may seem paltry compared to the level of mortgage debt reached in some economies on the eve of 2008 crisis, but it is larger than what mortgage markets achieve in many developing economies today.

These piles of loans--whether it is the small heap in Bellac or the mountain in France as a whole raise some serious questions. First of all, there is the basic question of how we historians and economists can reconstruct the past credit dealings of a society? How do we know what happened, and how reliable is our knowledge? Second, even if we establish that we can count these loans, add up their values, or average their maturities, how can we speak of credit markets? After all this is Old Regime France, not exactly the obvious place to look for capital markets. Indeed, the usual actors and many of the visible symbols of credit markets are absent. In 1740 there were no banks, no credit rating agencies, no organizations to provide escrow services, and the stock exchange, the *Bourse*, was moribund. Most of the debts did not state interest rates, others did not state a repayment date. Instead, borrowers and lender met in the offices of a notary, a legal expert who drew contracts for private individuals. Although these contracts specified how interest and capital were to be repaid, there were no formal or systematic mechanisms to facilitate these payments. Finally, aggregating these local data into a national total presumes that the different localities melded into a meaningful national market. This chapter answers these questions, leaving for later chapters the more arduous task of understanding how these markets functioned.

As our readers may have guessed, all these questions can be answered in the affirmative: there was indeed a mortgage market in France in 1740 and we can grasp its quantitative dimension with a good deal of accuracy. Yet, loans were beset by a panoply of obstacles that economists call transaction costs. Some of these obstacles have to do with the need for information; others involve transport and travel costs. Lenders had to decide who to lend to, thus acquire some notion of the ability of borrowers to repay. If collateral was posted, lenders had to figure its value and their ability to repossess it. Failure to get adequate information about these matters would allow particularly awful borrowers to undermine credit markets—what economist call adverse selection. Second, once a loan was made, its return, and the value of the collateral was influenced by actions of the borrower, what economists call moral hazard. The borrower,

for instance, might plant riskier crops than the lender would like, or, if he fell in arrears, the borrower might fail to maintain the value of the property. Because most loans involved repaying the principal at maturity, borrowers wanted to know the extent to which the lender would be willing to roll over the loan or to accommodate any short-term liquidity problem. A good lender would be accommodating, while a bad one might use his power to foreclose strategically. A borrower who could not discern which kind of lender she faced might well shy away from credit. Although these problems seem familiar in the post 2008 explosion of the mortgage market in the U.S., they are as old as credit transactions. Finally, for anyone lending at a distance, the payment mechanism was rudimentary, and lenders might have to personally visit their debtors to get paid. These obstacles were real and such that one might have expected lending only to arise among people who had other reasons to trust each other.

One final issue concerns the year 1740 itself. It is not representative and it is certainly not the dawn of the capitalist era or the beginning of credit markets in France. But pushing further back into the past with the sources that exist for the 16th or 17th centuries would have been so time consuming that we would have never completed this book. The year 1740 is convenient because, by that time, a fiscal source (the *Contrôle des Actes*) was sufficiently well organized and sufficiently ambitious in what it recorded that we could rely on it and thereby side step the notarial archives that preserve complete copies of the original loan contracts. The trouble with the voluminous notarial archives, as we shall see, is that sampling them on a national scale demands orders of magnitude more research time. As it is, the Contrôle and its post-French Revolution successor (the *Enregistrement*) already represent significant piles of archival material, even if they pale relative to the mountain of notarial archives.

Notaries and the Fisc

That we can say so much about credit in Old-Regime France stems from the critical role of obscure scriveners: notaries and the receivers of the Contrôle des actes, an even less well known group of officials who recorded summaries of private transactions as they collected taxes. While threatened by reform during the French Revolution, notaries emerged from the maelstrom with their responsibilities broadly intact. The Contrôle des actes tax on notarized transactions morphed into the similar Enregistrement. And so for the reader who is not well versed either in Roman law or in French fiscal history, it is worth introducing the notaries, the Contrôle des actes, and precisely what they did.

In the Middle Ages, notaries had been appointed by courts to record what had previously been oral contracts and agreements. They arose throughout Western Europe save the British Isles. While clients would be given copies of the contracts, another record (the minute) was often deposited in a separate section of the court's archives. Because the notary was court appointed, the contracts and any legal document he drew up were presumed valid when challenged, and he faced severe penalties for fraud.

From the Middle Ages to the 18th century, the rules under which notaries operated diverged across Europe and what follows only applies to France. By the eighteenth century a notary purchased his office. As such it was attached to a locality though no longer linked to a particular court. Rather someone who wanted to become a notary had to go through some legal training, serve a period of apprenticeship as a clerk and then purchase a position from an incumbent. Once installed, a notary, like attorneys elsewhere, drew up private contracts and legal documents for his clients. Unlike attorneys, he was required to keep a copy of everything he drew up in perpetuity. For those contracts in *minutes* the notary would preserve an exact copy signed by all the parties (they also offered to draw up contracts *en brevet* for which only summaries were preserved). By the eighteenth century when a notarial office changed hand the *minutes* went with it. Then, starting in the nineteenth century most of the notaries deposited their old records with the local (departmental) archives. (France is divided into approximately one hundred departments, which are about twice the size of US counties.) Absent destructions due to wars or fires, the entire set of *minutes* ever signed is available to researchers, as long as the records are over 100 years old. This hoard includes credit contracts, but much more as well, making it is the Mount Everest of archival records sets. The reason is that notaries, as we have said, were required to preserve everything they drafted—not just loans, but marriage contracts, estate settlements, powers of attorney, real estate sales or leases—and they could pile up as much a six foot high stack of documents each year, often without any sort of index except a chronological one. French departmental archives measure the size of their notarized contracts in kilometers of linear shelf space. The *minutier central* of Paris, where Parisian notaries' archives are stored, alone boast that it holds better than 20 million documents.

For many scholars, the solution to this surfeit of evidence has most been to focus on a region or a town (Servais, Brennan, Poisson), much as we did for Paris in our earlier work. While such an approach is extremely valuable, it unfortunately cannot help us understand the impact of variation in institutions on credit markets and their growth. For that, we need data from a variety of locations, which does not exist before World War I. The only way to get it is to sample. Certainly if we wanted to capture credit in France rather than in a trivial number of locations we would not be able to recover anything like two centuries of quarterly loan totals loans as we had for Paris.

Fortunately the fisc came to our rescue. Conveniently, the Sun King's appetite for revenue provided us with a short cut. A decree of 1693 set up the administration of the Contrôle des Actes whose purpose was to levy a tax on all newly-signed notarized documents. All un-notarized contracts (*sous-seing privé*) had to pay the tax too before they could introduced as evidence in a judicial proceedings, and there is also evidence that some private debts were registered even if no formal complaint was filed with a court. To collect this tax, the crown set up bureaus all over the country except in Paris and a few recently acquired eastern and northern provinces (e.g. Alsace and Artois). Place like the Papal states and Savoy, which at the time were still independent from the kingdom also escaped the tax. As in any major administrative effort,

the initial distribution of bureaus was unstable, and the preservation of records spotty. Over time, however, the system came into its own. By the 1740s registers of the Contrôle des Actes survive for most bureaus. They retain a chronological order (urban notaries tended to present their acts every other day, rural ones, once a week; in no case could registration occur later than two weeks after the act was signed by all the concerned parties). And they have the advantage over the notarial archives in that they are complete, for they will enumerate all the transactions signed in front of the local notaries (whether or not the individual notaries' records survived). The notarial records have at times been lost, and—worse yet--because there is no census of notaries for the Old Regime, we cannot even tell what notarial records have been preserved and what has been lost in any specific region.

The summaries of the Contrôle do, however, have one drawback: they are sparser in information because the recording clerks did not copy the whole of the notarized contract. Initially, the information recorded included only names, type of contract and value. Then over starting in the middle of the eighteenth century more detail (addresses and occupations) was added and even more in the nineteenth century. Even at the end of the period, in most locations, the summaries recorded in the registers take up less than half a page. Thus, although voluminous, these records are compact. In a small market like Bellac the whole of 1740 represents 160 pages in two volumes. Even at the end of our period a year's worth of these records in Paris, which was covered by the Enregistrement (the post-Revolution successor to the Contrôle) runs only to 100 volumes or so. These fiscal registers can be photographed in their entirety, without having to sift out the non-credit transactions, and as noted above they have the critical advantage that each office (bureau) of the tax administration recorded documents registered the dealings by all the notaries in the vicinity.

What is Credit?

Notaries and the Contrôle gave us our data. But what did we count? What, in other words, qualifies as credit? At one extreme any inter-temporal contract could be counted since it involves someone getting something today in return a promise of some future payments. Clearly that definition would be too extreme; it would also be impractical since it is not always possible to infer just how credit a transaction involves. A second approach would have included all loans and all situations where as a part of a larger transaction one party extends credit to another. The most salient of the issues is real estate sales where it was common for the seller to extend credit to the borrower (Baehrel 1962:600). We chose a restrictive definition and counted only those contracts that were exclusively credit; it seem to us that if we were going to argue about the size of the credit market one would not want to include lending as part tied contracts. Indeed these tied contracts can be interpreted as evidence that the credit market does not function very well—otherwise why would the seller of an asset (who is selling to realize the value of the asset) extend credit to someone else?

Even our restrictive definition leaves us with plenty of contracts to contend with. Indeed the Old Regime had not fully shed the restrictions imposed by French and by cannon law on capital markets. The problem was that in nearly all of France jointly specifying interest rate and term in a contract was illegal—it was evidence of usury. Europeans had long developed two solutions to these constraints: annuities and obligations. Annuities specified a set of payments, but no repayment date. In the perpetual annuities (*rentes constituées*), the borrower made an annual interest payment and could repay the capital when ever convenient. Of the 108 contracts in Bellac in 1740, there were five of these perpetual annuities. In then life annuities, when a person named in the contract (the "life," who was often the lender) died payments ceased; Bellac had only three of those. In either case the lender had surrendered control of his capital and that allowed him to earn a return without running afoul of legal or religious strictures. What interest could be charged was decided by royal edict. In the eighteenth century the cap for perpetual annuities was 5 percent. Life annuities most often involved payments of 10 percent of capital per year but when older individuals were named, payments could rise to 14 percent or more.

If a lender was not willing to enter into such a contract, she could still accept an obligation, a promissory note that specified that the borrower would return a certain sum of money at some specified time in the future. Except in some regions or for a restricted set of circumstances (such as loans by Jews, or loans financing international trade), these loans could not and did not specify interest rates. Interest was paid in one of two ways: first the capital to be repaid could include both the sum lent and the interest payments. The note in that case was effectively discounted. This stratagem worked well when debts were medium or short term. A second stratagem was for the borrower to pay interest on the side. Over time, obligations became more popular but it was not until the Revolution allowed interest rates to be specified in all contracts that they came to dominate.

These two contracts were not distributed uniformly. In 1740 (and at earlier times as well), annuities tended to have larger capital values and in most places they were collateralized by real estate. Obligations' value grew over time but lenders accepted a variety of security including real estate and livestock, but also co-signers, and in many case a general lien on the borrower's assets. Annuities were relatively more prevalent in the North of France than in the South where an earlier transition towards obligations seems to have taken place. Finally, annuities predominated more in urban areas than in the countryside even though the collateral for urban loans was often farm land.

Many, though not all, of these debts were mortgages: loans collateralized by real estate. Broadly speaking there were three ways to specify collateral. One was to have no mention of any collateral, which was extremely rare. A second was to have the borrower pledge all his goods: movable and real, present and future. The third was to have the borrower pledge a specific asset, most often a piece of real estate. Should the borrower fail to pay in the first case, the lender had little recourse; then as now an unsecured loan did not entitle a creditor to grab a defaulter's assets. If some sort of pledge had been given, then the creditor could have it seized. The

problem was that French law had a specific interpretation of seniority. If a borrower defaulted on a loan with a general pledge (option 2) and the creditor had his assets seized, all creditors (including the unsecured ones) shared equally from the proceeds. If a specific lien had been given then the creditor who held that lien was the residual claimant *after* all individuals with claims senior to his (including holders of general liens and unsecured creditors) had been paid off. The value of a lien then depended crucially on what prior debts existed. If a borrower was severely indebted, a lien could be nearly worthless. Hence lenders would have wanted reliable information about the value of the pledge, about whether it had been pledged before, and all the other elements that would make up the debtor's credit history. That lenders wanted this information is obvious, but so did borrowers, for it improve their access to credit. Unfortunately at the time there were no credit rating agencies, credit scoring firms, lien registries. There were, however, notaries and as we shall see they could help solve the problem.

Before delving into what notaries actually did, one should note there was no requirement at law to have any of these contracts drawn up a notary. Notaries' legal expertise did not provide much additional security since the language of these contracts is profoundly formulaic and thus easy to produce. There was also no requirement that notaries have a role in the creation of mortgages. Had the social networks of the moral economy sufficed to solve the asymmetric information problems, French people could have done without notaries. And it is likely that some of them did. Our Normand markets, for instance, all feature privately signed annuities that were being registered several years after they had been initially agreed upon. This is a likely sign that they were arranged by the borrower and lender themselves. The fiscal records also contain many private bills that were alternative way of writing up obligations (35 of these contracts were registered after the fact in Bellac in 1740). Yet from a variety of sources it is clear that the bulk of long-term credit agreements (loans intended to last at least a year) were drawn before notaries. And mortgages were rarely signed without a notary.

People used notaries for many reasons. Clearly the substantial fraction of illiterates would have wanted to rely on the services of someone who could reliably draw up a contract. That original medieval function did not fully disappear. And there clearly were cases when the legal expertise of the notary mattered –for instance when loans involved minors or incompetents. But in the vast majority of cases people turned to notaries because they wanted information. Because people used a notary for real estate transactions, to arrange marriage contracts, and to deal with inheritances, he had access to a lot of information about people's asset positions, and as long as people used notaries for credit, he also had access to their credit histories. As we shall see, the ability of notaries to manage this information was critical to how debts were contracted.

Building a data set

We thus chose to consider a well defined set of credit contracts: those that were notarized. Because these have been preserved, we can count them, but the reader must keep in mind that they are a subset of credit transactions: letters of exchange and other commercial

transactions were rarely notarized and private I. O. U.s (though small in value) abound. One of our ambitions was to estimate the level of credit in France at different times, while another was to capture regional differences. One thing was clear, we could not hope to recover the whole of all the loans that survived for any year. That task is simply beyond the resources of even well funded researchers; as we said, we had to sample. The sampling strategy, as well as the methods we used to build our estimates for 1740, was repeated for each of the following cross section. The choices we made are important and bear going into some detail.

One could imagine sampling contract randomly. Doing so would have required knowing roughly the size of the population of contracts and their locations—which is what we hoped to establish. It would also have been extremely inefficient since we would have had to access the records of very large numbers of notaries in a very large number of locations. One could imagine sampling notaries, but there again, at the time this project began, just the task of establishing how many notaries' records have survived in each department would have required visiting each departmental archive. Instead we decided to sample bureaus of the Contrôle des actes, which had the added advantage that it would allow us to recover all the notarized credit for a given geographical area.

For forty departments the inventories of the Contrôle des actes can be found online.[2] With a little patience one can draw up a list of all the bureaus that were in operation in 1740. Doing so led us to find nearly 1260 bureaus or just about one for each of the cantons of the early nineteenth century (see Map 1).[3] They are, however, not evenly distributed. There is an area ranging from the Oise through the Côte d'Or and the Moselle that was abundantly endowed with bureaus, while the rest of the country seem more sparsely populated with fiscal offices (see Map 2). Nine departments Alpes Maritimes, Nord, Pas de Calais, Bas Rhin, Haut-Rhin, Paris, Savoie, Haute-Savoie, and Vaucluse had virtually no bureaus in 1740.[4] For most it was either because they were not yet part of France or had been recently acquired (and exempted from this tax). For Paris, however, it was because the notaries of the capital had bought the tax back when it was first instituted. In any case it is safe to say that there were at least 2,500 bureaus in France. How might we sample among them?

Initially, the most appealing approach would be sample randomly among the candidate bureaus. In this case, French totals would equal the sample totals times the inverse of the sampling rate. This approach, however, would have required a heavy sampling rate. Indeed in 1740 there were about 123 cities and towns of population greater than 10,000. Each had its own

[2] Departments: 5, 6, 9, 10, 13, 15, 16, 21, 22, 23, 24, 25, 26, 27, 31, 32, 34, 37. 39, 40, 43, 47,48, 49, 54,55,56,58,60,63,69, 71, 72, 76, 78, 81,83, 89.

[3] Since the French administrative structure has four levels: some 400000 municipalities are organized into about 2800 cantons that are grouped into some 400 arrondissements. These are then collected into 90 departments.

[4] The Savoie and Haute Savoie were not French (as was the case for most of the Alpes maritimes). The Vaucluse had a few bureaus in the parts that were part of Provence but none in the Papal States or the Principality of Orange. Haut Rhin, Bas Rhin, Pas de Calais, and Nord were late acquisitions where the reforms were not implemented.

bureau. There were also 237 towns with a population between 5 and 10,000. Nearly all had their own bureau. That left about 2300 bureaus with a population less than 5000. If we collected a random of 1 percent of the bureaus (or twice as many as we actually collected), we would have data from one or two cities, two or three towns, and 200 or more of the rural locations. But financial transactions were not distributed evenly across space. Even in 1740 they were concentrated in cities, it was imperative that we oversample the more urban locations.

We therefore collected a stratified sample, where the stratification depended on urban population. To begin with, Paris had to be in the data, and that required a return to the notarial archives themselves (because Paris had no Contrôle). Then we wanted some big cities (initially Lyon and Rouen), some medium sized cities above 10,000, and a reasonable sample of the rest of the distribution. This led us to a simple strategy which was to try to collect data for the main city in each department (e.g. Troyes in the Aube) and then for one medium town (Arcis-sur-Aube) and one or two smaller markets (Bar-sur-Seine, and Vendeuvre). The second, temporal, dimension of the sample we will discuss in the second chapter, but between our desire to collect data for three or four locations in an archive and the desire to do so for six dates from 1740 to 1899, we required the cooperation of the archives.[5] Some were more forthcoming than others and we ended up collecting data from 109 locations in 35 departments.[6] For nearly all these locations we photographed the registers of the Contrôle des actes (and of the Enregistrement in 19th century) for the entire year.[7]

Then all that was left to do was to go through the photographs and enter data for each loan in a spread sheet. For 1740 this leads us to 27,186 debt contracts (of which 20,267 are obligations, 6,239 perpetual annuities and 490 life annuities).

From Counting Loans to French totals

To get an estimate of the national total number of loans from the data set we collected involved a number of steps, and since most of these steps are repeated for each cross section, we will describe them in detail. Readers uninterested how we did this can simply skip to the next section. To begin with, we had to correct our data. For a small number of markets we had information on less than the full year of tax records. In correcting for theses lacunae, we assumed that any missing data was random. That involved only a small number of markets and

[5] Indeed in each department a complete collection involved extracting from storage at least 150 volumes to produce a photographic record set that runs well beyond 10,000 images—a task we expected to complete in 3 to 4 days.

[6] Departments:02, 03, 07, 10, 13, 14, 15, 16, 18, 21, 22, 23, 24, 25, 26, 27, 30, 31, 34, 36, 38, 41, 53, 56, 59, 69, 71, 72, 75, 76, 80, 82, 84, 87, 88.

[7] The data collection effort behind this book first began in 1992 when digital cameras were at best an exotic dream. Some record were collected on paper, other were microfilmed. It was not until 2001 that affordable digital cameras were sufficiently flexible that they could reliably photograph double pages of the registers in the often dubious light of the archives.

mattered little for the outcomes, save in Paris (where we have only one loan in 5), and in Blois and Angoulême (where we have only a six month sample).

To blow up our stratified sample to France, we had to allocate our localities to population bins. For a given bin—say cities other than Paris with population 60,000 or larger—the inflation coefficient is simply the French population living in that category of cities divided by the population of those cities that appear in our sample. In 1740 the French cities in that category were Bordeaux, Lille, Lyon, Marseille, and Rouen, and their total population was 420,000. Our sample includes Lyon and Rouen for a total of 197,000. This suggests an inflation coefficient of 420,000/197,000= 2.13.

In large cities, bureaus tended to be restricted to the municipality so different definitions will produce the same result. We did have to consider less urban markets, though, and there the problem was a bit more complex. If there had been notaries in every municipality or parish, we could have simply used municipal populations. But notaries in fact resided only in about 10 percent of all municipalities, because they tended to congregate in large villages, towns, and cities. Clearly then we need a geographic unit greater than the parish or municipality. Although bureaus of the Contrôle nominally had a well defined geographic purview, it is rarely possible to decipher which parishes belong to what bureau.[8] To keep things simple, we chose to use 1806 cantons the level of political administration just above the municipality. Doing so would allow us to match two well defined values: the population of the canton with the set of contracts drawn up in the canton. For that year we can get population totals by aggregating the population of the villages in the canton including the chef lieu (the administrative center, and typically most important community, of the canton). Then we restricted our data set to include only those notaries whose residence would have fallen in the jurisdiction of the canton of the bureau. For example, the Contrôle des actes registers of the bureau of Pontivy contain the acts of notaries in Pontivy, Noyal-Pontivy, and Moustoir which are localities within the canton of Pontivy in 1806. They also contain the acts of notaries from Neuillac and Cléguérec which lie in a different canton. The contracts from Neuillac and Cléguérec must be removed to allow us to match notaries to cantons. Because it is possible (though unlikely) that some notaries in the villages in the 1806 canton reported to another bureau, we may be undercounting credit, but at least we are sure we are not over-counting it.[9]

Having estimated total lending totals for well defined geographical units (the cantons), we have to calculate corresponding population totals as well. We had selected 5 population bins based on chef-lieux populations: Paris, other cities with more than 60,000 inhabitants, cities between 60 and 10 thousand people, towns between 10 and 5 thousand people, and the rural cantons (chef lieu population less than 5000). From 1806 onwards there is a census that within 4

[8] This is a problem the departmental archives' research guide make quite plain. See, for instance, AD Cotes d'Armor, C. Georges et A. Droguet, *Répertoire numérique de la sous-série 2C*, p. 295-330.

[9] We do have an example of this again in the Morbihan. In 1740 the notary of Baden from the canton of Vannes registers his contracts in Auray. We did net him out of Auray but did not add him back into Vannes.

years of each of our survey years that provided populations. Before then we relied on data developed by urban and demographic historians. The urban historians offered us the population of each city greater than 10,000, and population living in towns between 5,000 and 10,000 inhabitants. The total urban population (in municipalities with population above 5,000) comes out to just above 3 million. Since the population of France as a whole was 24.6 million in 1740 and 29.5 in 1806, by subtraction we get the population of all communities with fewer than 5000 people to be 21.6 million in 1740 and 25.23 million in 1806. Comparing these two levels suggests that the 1740 rural population was 85 percent of its 1806 value. For chef lieux below the 10,000 inhabitant threshold in 1740, we give them 73 percent of their 1806 population if they were larger than 5000 in 1806, and 85 percent of their 1806 population if they had a population less than 5000 in 1806.[10] Everywhere the population not living in the chef lieu is estimated at 85 percent of its 1806 level. We apply this procedure, which is both simple and reasonable, to estimate population levels for our cantons and the different parts of the French city size distribution. We can then produce inflation coefficients that are the ratio between the French population living in a size category of cantons divided by the population of those in cantons of our sample. Not surprisingly the inflation coefficient declines with city size (it is 1 for Paris, between 2 and 4 for cities above 10,000, then jumps up to 8.4 for cantons with chef-lieux between 5 and 10 inhabitants and 39.6 for those with less than 5,000 inhabitants.

Table 1 displays the results of applying these coefficients to our sample. It is the source for the totals given at the beginning of the chapter. We have tried a variety of different techniques to inflate the sample totals. Although they do produce somewhat different estimates, the French totals are very likely to be in within an interval of plus or minus ten percent of the estimates reported in Table 1.[11] One thing is evident: the number of notarized credit transactions was very large and the sums involved significant. At 200 livres, the average loan in rural areas represented multiple months' income. At 7000 livres, average loan size in Paris was many times per capita income. These loans, however contracted, thus represent an important flow of resources across the early modern French economy. They were dispersed throughout the kingdom and not concentrated (like commercial letters of exchange) in the largest cities, or in the hands of a small number of bankers. The second thing that emerges from the totals (a point which we will return to in the last section of the chapter) is that they display a clear urban hierarchy. We estimate that the value of loans made in the 65 bureaus with population greater than 10,000 is larger than those arranged in the 2,500 bureaus where population was less than 5,000, even though the markets in the first category held about 10 percent of the French population, while the second was home to more than 80 percent of the population.

From loans to Credit Markets

[10] These difference simply reflect the fact that towns above 5000 grew faster than those smaller than 5000 between 1740 and 1806.

[11] L'incertitude vient pour une part de la population. Dans cette mesure, elle est maximale en 1740 et se réduit par la suite.

For many scholars a capital market is an exchange mechanism that features anonymous transactions that all clear at the same price in the same location. One might further require that supply curve slope upwards: if a customer can get more of the good or service in the market by paying more. This is after all how modern equity markets seemed to work when exchange was centralized on a trading floor. But if markets have to adhere to any of these criteria, then notarized loans are not market transactions. None of the transactions are anonymous; to the contrary, the bilateral nature of credit made it essential that the lender and borrower know each other. It was also essential that the size of loans depend on the characteristics of the borrowers. These are contracts where identity matters, a fact that remains true to this day. Second we certainly cannot establish that transactions all clear at the same price, since we do not observe interest rates in the vast majority of transactions. Third, transactions are dispersed in what is likely to have been more than 5,000 different locations in France, and even in Paris, transactions took place in each of the office of the 113 notaries not in some central market place or *Bourse*.

And yet each of these was a market. The fact that loans were not priced did that mortgage markets were rationed. There was an interest rate and a borrower with a given credit history, a given income, and a given collateral asset could borrow up to some amount (usually the minimum of some multiple of his or her income or some fraction of the collateral value). In any case, in markets with rationing, a borrower cannot offer to pay a higher interest to get a larger loan because lenders have concerns about adverse selection (the kind of borrower most willing to make such an offer is the one that is least likely to repay).[12] Deviating from these rules can cause havoc, as the recent subprime mortgage crisis shows. In effect, markets of this sort use an allocation mechanism that is different from that which we are most accustomed to. In 'normal' markets there is no asymmetric information and the allocation mechanism is an auction (the goods or services go to the highest bidders). In mortgage markets price competition is suppressed; there are no bids. Instead, would be borrowers compete on information. To increase the likelihood of getting a loan clients offer more collateral, more precise collateral, and other kind of information—indeed once one has fixed the interest rate, lenders are most attracted to the safest borrowers.

We shall not read too much either into the fact that these markets did not to aggregate demand and supply through financial organizations we might call banks. Though 1740 is not the dawn of credit in France it was a period in time when there were very few banks (and none in small localities), and those banks certainly were not involved in the long term credit market. In fact, as we will argue more abundantly in Chapters 6 and 7, these markets remained local and bilateral because a good flow of information was more important to these transactions than whatever efficiency increases might have been attained by entrusting mortgage lending to a bank as we do today. To see why, consider how a mortgage bank might operate. To start with, it could act as a limited partnership (investors hold shares in the bank but these are not tradable).

[12] There is a vast literature on credit rationing. The core model is Stiglitz and Weiss (). For a recent summary see ().

Its assets would be a portfolio of mortgages, and its liabilities the investors' equity. The investors might well find that the reduced risked from getting the average return from the portfolio more attractive than the more variable return from holding a specific mortgage (this after all is one reason to create mortgage backed securities). But if information is good (if default rates on individual mortgages are low and recovery rate high), the gain in risk reduction will be small. The bank could provide another benefit, liquidity, by allowing investors to sell their shares. That would make our mortgage bank essentially a mutual fund. The supply of credit might well increase because now lenders could recover their funds if they needed to. There might be a further advantage in that investors might allow loans of longer maturity if their investments are tradable. But as long as the mortgage portfolios are local, the market for the equity in the mutual fund is going to be very thin, and the liquidity it provides may well be expensive. A third possibility is that the bank issues debt to fund the mortgages, in effect offering investors a choice between a higher risk (and higher return) equity investment in the bank or a safer (and thus lower return) investment in its bonds. This organization would combine the three key functions of a bank: risk diversification, liquidity, and financial transformation. Yet these benefits would likely be small unless the bank could operate beyond the local geographic scale, which in our case means the canton. An individual investor might well spurn the average return on a portfolio of mortgages offered by the bank and instead invest in a mortgage whose return is negatively correlated to his or her own income: a wine grower, for instance, might lend to an artisan or to someone who raise cattle or grows wheat. If information is good locally such an alternative to a bank might well be feasible().

The true advantages of a mortgage bank do not lie in risk diversification, transformation, or liquidity; they lie with a different form of diversification: a regional rather than a local source of supply and demand. If loans are restricted to the locality, local supply has to be matched with local demand. In boom times local demand for loans is likely to outstrip local supply, while in bad time local supply is likely to drop more than local demand. In the same way that merchant banks smoothed the working of the European commercial system, mortgage banks could smooth out the local peaks and troughs of mortgage markets by moving resources through space. A bank could draw on resources from localities with net savings and place them in localities where loan demands exceed local supply. But that requires that information be able to travel over space, for potential investors might well hesitate to put their money in the bank out of fear that the bank would face adverse selection relative to better informed local lenders. Instead, they might well prefer to place their funds with specific borrowers whose characteristics they understood well. These fears are not idle. In fact there are plenty of historical examples where the entry of sophisticated financial institutions has been defeated by informational problems and not just in France.[13].

Taken as a whole, the problems inherent in of mortgage markets imply that they will work in a very different way from an anonymous full information market. Indeed our markets

[13] Cite Banque territoriale, Snowden and explain briefly.

feature exchange in two dimensions: money and information. That these two dimensions matter implies that the mortgage market cannot be anonymous (because the lender has to know something about the borrower both before the loan is made and while it is in progress). Second, constraints on the flow of information are likely to play a critical role in the structure of the market (for example, how far it extends spatially, how long the loans are contracted for, and who is matched with who). If we accept that these local collections of loans might reflect the existence of mortgage markets, we can move on to exploring the characteristics of these transactions, and as we shall see they will in turn reveal other facets that confirm our assertion.

The notaries' clients

The hallmark of a market is that it involves exchange and ideally, this mechanism matches those with high demand for something with those who are willing to supply it. Thus one might expect capital to flow between people who are different. It should also allow those who are either excluded from enterprise or do not want to participate directly in economic activity to make loans. A good market should breakdown boundaries to exchange. By contrast, if loans flow within some social network where membership conditions behavior both within credit relations and beyond them, we might expect boundaries to arise. By boundaries we mean that exchange occurs within groups, because trust is bounded, and limited to members of a given specific group—an ethnic, language, or professional community, for instance. In these cases, trust is restricted to individuals who share common characteristics either because some historical event has destroyed inter group trust, or because it is difficult to acquire information about people who are socially or physically distant. Such boundaries, it is worth noting, are necessary but not sufficient conditions for credit to flow through non-market mechanisms, for there are also within market transactions costs that might make loans to neighbors efficient. A look at the notaries' clients and the characteristics of borrower-lenders pairs suggests that they did not reflect the workings of a collection of such communities—an archipelago of credit clans or clubs. But first we must return to what our data can tell us.

As noted earlier, relying on the Contrôle des Actes involved some serious sacrifices in terms of details about loans and borrowers and lenders. This is particularly true in 1740 because the fiscal officials rarely bothered to note down more than the names of the two parties, the type of contract, the capital sum and the name of the notary. From the names, we can infer the sex of the borrowers and lenders with reasonable accuracy (in particular because widows and married women are noted as such). But occupation and residence were less frequently noted in 1740 than in any other cross section. Our conclusions in this matter will remain tentative here, and we will firm them up in later chapters when we look at more plentiful data from later years

Another item that most often escaped the attentions of notaries and receivers involves the purpose of the loans. For obligations, the general phrase notaries used is "emprunté pour employer à ses affaires." This translates 'borrowed for his or her purposes.' There are exceptions most notably when the loan is designed to improve the value of the collateral (for

instance if the mortgages is on a piece of land where the borrower intends to build a house). There are other cases when we can infer the purpose of the loan because its value is close to that of some capital equipment (as we shall see in Troyes, handloom weavers tend to borrow sums that are close to the value of a loom). There are, however, two distinct reasons for the lack of such specificity. First the lender had no control on the use of the loan. As long as no clause of the service of the loan was violated, the borrower could decide to spend the entirety of his debt in taverns or invest it and the lender could do little about it. Second, the absence of any separation between the accounts of a household and that of the business that sustains it makes any attribution of purpose difficult. Consider the case where an individual mortgages a plot of land to plant vines on it. One might imagine that had he not gotten the loan he would not have planted the vines: the loan is for investment. One might however imagine that had he not gotten the loan he would have planted the vines anyway and given a smaller dowry to his child, or simply reduced his consumption for a few years. Is the loan then to sustain consumption, to marry his child, or to plant vines? Should the lender care? Then and now, the answer is simply no.

From Table 1 we already know that a substantial proportion of households were involved in credit markets. Very little of the lending was confined to dealings between family members. Of the 31,255 loans in 1740 for which we have data, only 44 feature family links. This number is obviously too low, but as we shall see later, family loans are always negligible. Individuals turned to a notary for a variety of family affairs (marriages, bequests, apprenticeships) bur rarely for credit contracts.

Table 2 displays what we know about the sex of the lenders and borrowers.[14] The numbers of loans are large enough that we can both evaluate the gender patterns for different kinds of markets and for France as a whole. Two facts are clear. Most loans (80 percent or more) involved credit from men to men. This staggering figure reflects a combination of different factors. In some parts of France (and after the Revolution throughout the country) married women had the right to maintain their property separate from their husbands'. In 1740, however, it was extremely common for a husband to have discretion over his wife's assets. Thus, when a husband acted as a lender, he had no need for his wife to appear in the contract if he was using household resources. Yet a wife whose dowries were folded into the household assets retained a senior claim if the assets of the household came to be seized by creditors. Thus when a husband appeared as borrower, lenders thus frequently insisted the wife co-sign loan contracts—the contracts themselves are explicit about these matters. It seems that Contrôle officers did not bother with such niceties because they had no effect on the tax they would collect. (If a third party acted as a surety, however, an additional tax was due). Thus we have coded all these contracts as men. "Men," in effect, stands for men acting as heads of households.

[14] The number of loans is smaller than the sample that we have used to create the estimates for table 1 because for a number of markets where the rest of the social information was missing we did not collect sex. The omission concerns a small number of markets and only 4.7% of the loans in the sample.

The women category is actually broader because it includes women acting as head of household (widows and unmarried women) and women acting on their own even if they were married. Women to women loans were rare in 1740 accounting for 1 in a hundred or less of all the loans. But about 14 percent of loans involved flows from men to women. Even in the most rural areas women were involved in 11 percent of the loans and, as we move up the city size distribution, the proportion rises to 19 percent in cities with at least 10,000 inhabitants, 22 percent in Lyon and 32 percent in Paris. For a society as male dominated as mid-eighteenth century France, these numbers are not consistent with women confined to a cloister of credit.

Our information on social characteristics is extremely detailed. When mentioned occupation or social status is given with a luxury of precision. We can distinguish roofers who use straw from those who use slate, wine growers from ploughmen, lace makers and weavers by the kind of thread they use. Royal officials always offer a plethora of noble titles and job description (e.g. écuyer, secrétaire du roi, notaire au châtelet; or comte, baron, maréchal de camp). For our purpose here, all this detail is superfluous and must be somehow aggregated. In the end, we reduce all occupations to 10 categories: agriculture, clergy, communication and transport, construction, manufactures and crafts, noble, public Administration, services, trade and commerce, and unknown. Public official of any administration end in public administration, Noble refers to all individuals who give a title and not other detail. Thus the baron who is a maréchal de camp is classified as a military officer and subsequently in public administration. Women are classified with an occupation if they report one for themselves or their husband or father.

The 1740 data are limited because occupations were rarely reported. As Table 3 shows, in the smallest markets, for instance, we only have data for a 1000 occupations for borrowers and lenders and only 420 contracts where we have occupations for both sides of the transaction. Aggregating them into a national total would be meaningless. Instead we report a simple set of measures that captures what is happening in different types of markets. The first of these measures is the proportion of loans where borrower and lender share the same occupation. If we produce a matrix of occupation pairs, then these loans are on the diagonal of the matrix. This number is largest at both ends of the distribution of settlement size. At one end, in the most rural areas, loans between people of the same occupation are concentrated in agriculture (which is no surprise since it was by far the dominant activity). In Paris, the high number of on-the-diagonal loans comes from services and trade, the two largest activities in the data but even then only 30 percent of loans come from people in the same aggregated occupational category. Had we used a finer grid that distinguished judges from military officers and butchers from bakers the share occupation proportion of loans would have been much smaller. Clearly, then most loans occur between people who are from different occupations. Of course, one might want to correct for the fact that occupations are not equally represented as lenders and borrowers because that would put limits on lending within occupational groups. One way to do that would be to take the smaller of the number of borrowers and lenders in each occupational group. We can then use those

numbers to estimate an upper bound for the number of loans that would be possible if all lending were confined to occupational groups. For instance, in the least urban there are 356 borrowers from agriculture and 126 lenders, so that there could be no more than 126 loans within the agricultural occupational group. If we repeat the procedure for all other occupations, it turns out that the maximal number of loans possible within occupational groups always is always at least 65 percent of the total number of loans made. Meanwhile, the actual number of loans within the occupational group never exceeded32 percent of this total. By this standard notaries were drawing up far more loans between people who are different than each other than loans between people who were alike.

One reason is that the occupational patterns of lenders are different from those of borrowers and both change as we move across the city size distribution. In rural areas, agriculture is the dominant economic activity and the dominant occupation of borrowers: nearly three times as many debtors come from agriculture than from trade, the next most important activity to seek loans. Agriculture still dominates in the bureaus where the seat is a town with 5 to 10,000 inhabitants, but its importance has fallen and it continues to fall all the way to Paris where we see a few farmers from the environs. In cities, the nobility dominates as borrowers but not as lenders. In the largest cities, it is trade and services that account for the bulk of the lenders, while public officials and nobles are the most important borrowers.

None of this evidence is consistent with notarial transactions being driven by some non-market social relationships. In fact they are just what we would expect if credit was being moved around in a market whose equilibrating mechanisms involve the quality of the borrower. Indeed simple risk consideration would make lenders prefer to lend to borrowers that are not like them, because the borrowers are then less likely to default at a bad time for the lender. Similarly, one might also guess that demand for credit is correlated within occupation: if one weaver wants to expand production, then other weavers are likely to want to do so as well. Social identities were critical, however, in establishing credit worthiness. Contrary to what one might expect individuals did not establish precise identities because their credit relationships were endogamous (restricted to kin or among individuals in the same very broad class of occupations). They did so to secure an exogamous credit relationship, with people who were more likely to be different from themselves.

Traveling Frenchmen:

For a moment, however, let us set aside the problem of mobile borrowers and lenders and return to a different facet of the economic geography of mortgage lending: the urban hierarchy. In building the estimates for Table 1, we broke France down into five settlement size and in the process we produced estimates of credit per person for each of these categories. As noted at the very outset of this chapter the procedure reveals a dramatic urban hierarchy with ever decreasing participation (number of loans per capita) and increasing volume of transactions (value of loans per capita). Here two questions naturally arise: First, what might credit look like in France if it

had had the urban structure of one of its neighbors: England and Wales, Low Countries (Belgium and the Netherland), Germany, Italy, and Iberia? Second, how large are these markets likely to have been in the same countries if their inhabitants had the same propensity to borrow or lend as in France?

The data assembled by Jan de Vries allows us to recreate the city size distribution above 10,000 for each of these countries; we then distribute the rest of the population (between bureaus with a chef lieu above 10,000 inhabitants and below that threshold) in the same proportion as in France. Those data appear in the top panel of Table 4. We should note that for the cities above 10,000 our totals are larger than those of de Vries because to build bureaus we have added in their hypothetical rural neighbors. From there we computed (but do not report) population shares by city size for each country. In the next panel we compute how many loans would have been signed in different location if the share of the population of France living in given city size had been similar to that of the other countries.

The most striking finding is that participation rates are nearly insensitive to urban structure: each simulation suggests that the number of loans per capita was higher than 17 per thousand and lower than 18 per thousand. The reason is simple: nearly everywhere 80 percent of the population lived around market towns of population less than 10,000, where participation was high. The relatively lower participation of the more urbanized parts of the population has a small effect on the total participation rate. Nevertheless it is clear that the lowest participation rates are found in the most urbanized parts of Europe. Because landownership in cities was quite concentrated (the share of urban dwellers who were renters was increasing with city size), this low participation rate in the financial capital is not surprising: most of the population had no collateral.

On the other hand, in cities like London or Paris, residents with collateral had lots of it. As a result, the very large cities have a big effect on the total volume of credit (and by extension on stocks of outstanding debt). The most dramatic case involves assigning France the Anglo-Welsh urban structure. Because London was nearly 12 percent of the population of England and Wales, it would require counterfactual Paris of 2.7 million inhabitants rather than the actual 1740 figure of 575,000. The figure of 2.7 million may seem very high but, Paris would grow to that size by 1900 when our samples end. Given that we have fixed per capita credit, this large Parisian population mechanically produces a volume of credit nearly five times larger than actually occurred in the city. Since Paris in 1740 amounted to 27 percent of all credit it follows that there is twice as much credit per person in English France than we actually saw. This is yet another marker of London's dramatic importance, as Tony Wrigley told us some decades ago.

Taking London as the capital of only England and Wales is an extreme assumption, for the English monarch also ruled Scotland (and since the 1707 act of union it was part of the kingdom) and Ireland. If we make the British Isles London's hinterland, then its share in population falls by almost half, which reduces the counterfactual Paris from 2.7 million (if it had

had 12 percent of the French population) to 1.5 million, which still much larger than the 575,000 Paris achieved in 1740. The total value of credit for France in each case is driven by how large we make Paris. Our totals (which correspond to the city that existed) produce a French credit level of 6.5 livres per person. The huge Paris implied by the urban structure of England and Wales leads to 12.6 livres of lending per person, while that of the British Isles give 9.3 livres per person. Of course the Low Countries, Germany, or Iberia did not have a city above 300,000 inhabitants, so they do not get any big kick to volumes from a large capital. Italy did have a very large city in Naples but it was smaller than Paris so it is the very dense middling urban structure that produces a credit total that is 7 percent higher when France has the Italian urban structure than when it has its own (172 million livres rather than 160). The same is true when we give France the urban structure of the Low Countries. Iberia and Germany's urban structure are thin enough that our counterfactual France would have credit totals that are 20 to 28 percent lower than what we found in reality. The stock of outstanding debt figures produce a similar ranking, but the correlation between city size and contracted maturity pushes down the German and Iberian counterfactual because these distributions are the least urban, and it pushes both the Anglo-Welsh and Britto-Irish counterfactuals up.

One can also imagine what credit totals would have been like if lending in the mortgage market were the same conditional on city size everywhere on the continent. This produces (see the bottom of Table 4) a mortgage market in the British isles at 975 million livres, or some 40 million pounds (there being 25 livres to the pound) just about the size of the public debt. The Italian market is roughly the same size, or about two thirds of the French totals. Germany, Iberia and the Low Countries have smaller total because of smaller population and or low urbanization. The clear implication is that we cannot neglect the urban structure, and its interactions with the evolution of the mortgage market. What is more, between 1740 and 1899 the urban structure of France (and of other European countries) evolved dramatically. In France the share of the population living in cantons with a chef-lieu smaller than 5000 inhabitants fell from nearly 80 to 65 percent, while the share of the population that lived in cities with population larger than 60,000 rose from 4 to 10.4 percent. Urbanization, as we shall see, had profound effects on both participation in the mortgage market and on the sums of money that traded hands.

The Road Ahead

The preceding section and much of chapter consider each of our markets as isolates. The urban hierarchy plays a very limited role since it is only used to measure different propensities to borrow. As such it resembles part of the urban history literature (Beaur, Lepetit for France, de Vries) that seeks to explain the interaction between the population of a locality and the activities that arise there. The logic is partly Smithian: if specialization is limited by the size of the market, larger cities will have more specialized activities and they may thus attract consumers with more discriminating tastes. But the logic is also partly Ricardian, in two senses. First, a large city implies large locational rents with the consequent reorganization of the real-estate and financial sectors. Second the higher costs from the rents imply that the comparative advantage of

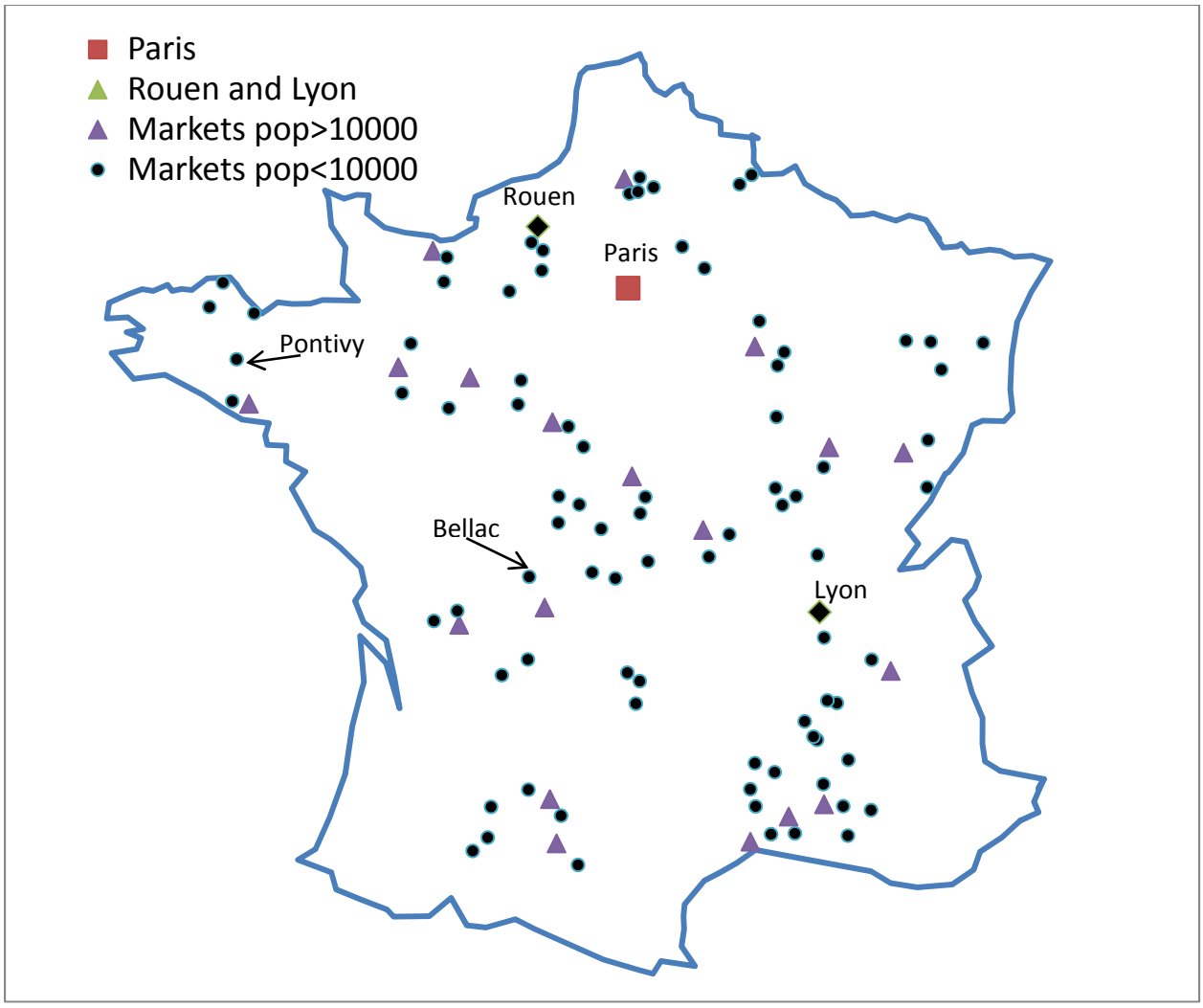
large cities will be different from smaller ones. The new urban economics has combined these different effects and added to them the notion that many economic processes benefit from local externalities: the more an industry is concentrated in one location, the lower its costs. Armed with the ideas scholars have investigated how the urban system evolves. In the end, however, the urban system remains a structure of islands: conceptually an activity occurs in a given location, some have more and some have less but their interconnections are limited.

When we come to credit markets one can use all of the same notions to think about the supply and demand for credit across localities. One might well guess that asymmetric information is worse, at least initially, in larger cities than in smaller one. One might also suppose that the size of the potential market might facilitate the rise of intermediaries specialized in overcoming the challenges of asymmetric information. Further the demand for credit should be stronger in larger cities because real estate prices should be higher and because big cities will harbor the more capital intensive activities. One might suppose that mortgages signed in a given location involve only lenders and borrowers who reside in that location. In fact, there are sound economic grounds to favor hypothesize that these markets would be isolated one from another. Most models in the economics of information assume that information circuits are somehow closed; otherwise lenders in one locality face adverse selection when extending loans to borrowers from the outside. This suggests that each borrower and lender selects (or is selected by) a market and must interact with counterparties there (notaries, lenders, borrowers). The simplest version of this would be that each market is restricted to those individuals who dwell in the given canton. There is also a more extreme version of this island credit where individuals only interact with neighbors—those people who live in their municipality.

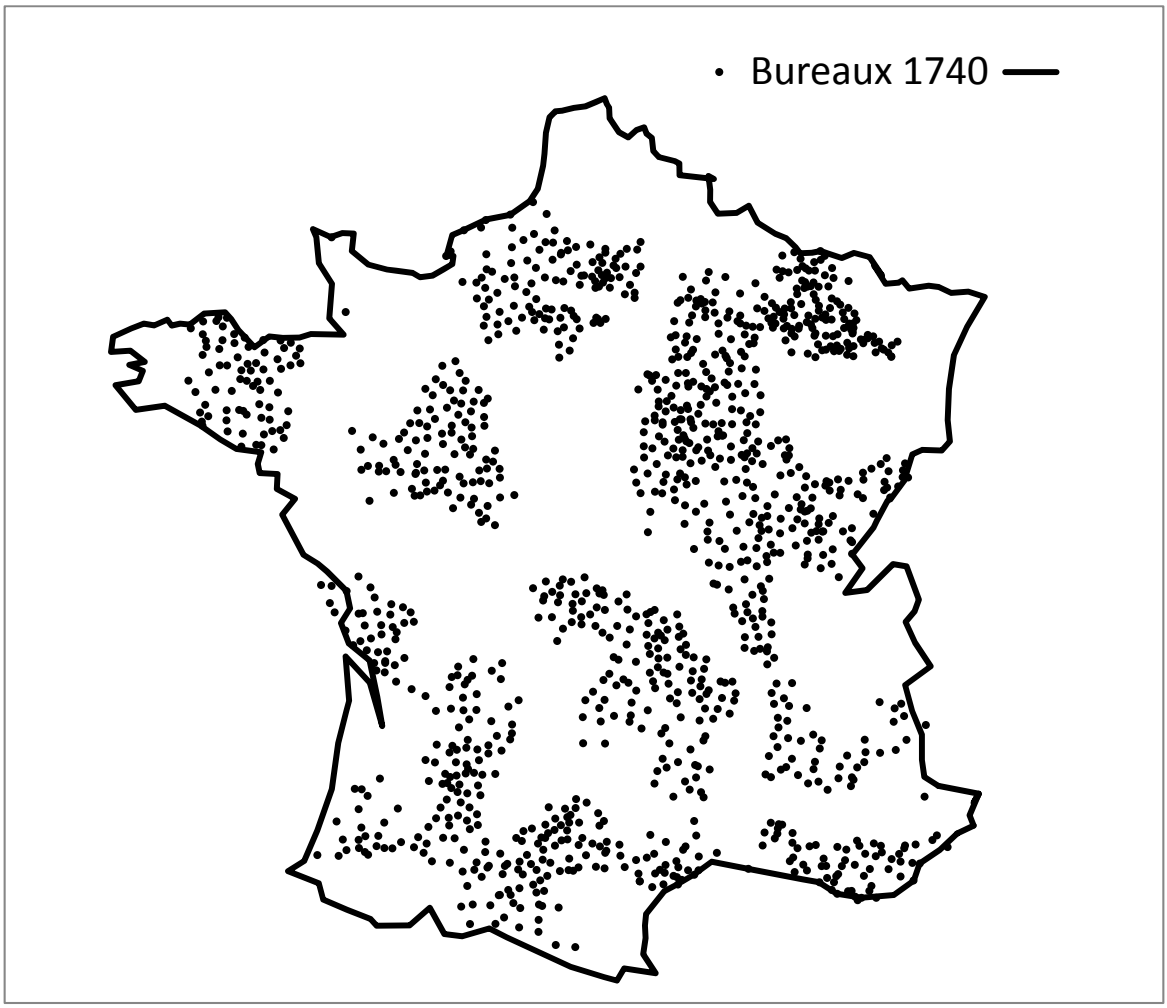
The credit data give little credence to the existence of sharp geographical boundaries. Only 55 percent of the contracts in the 1740 sample that provide residence have the borrower and lender coming from the same municipality, and 30 percent come from different cantons (see Table 5). What is more, these numbers vary systematically with the urban structure. In small bureaus (chef lieu less than 2500) less than half the contracts involve people who live in the same village, and a full third have borrowers and lenders from different cantons. Of course, in these rural areas going beyond the arrondissement was rather exceptional. The share of the contracts where borrowers and lenders come from the same municipality does rise as the bureau become more urban and reach 78 percent in Paris, but the share from the same *departement* is actually smaller in the big markets than in the less populous ones.

The implication is clear. As early as 1740, these different notarial credit locations did not function as closed units: borrower and lenders could and did 'move' from one to another. The information about residences, thus poses some serious challenges. Why would a lender from one canton accept a borrower from another canton? Why did that lender not infer that the borrower had been denied at home? What kept these credit migrants from becoming the bad apples of the system? How, in short, did these borrowers and lenders—particularly those who lived far

apart—end up finding one another and ensuring that they had made a good match? These are questions organize the core of our book. W we will begin to answer them in the next chapter.



(Source MapChapter 1-Xlxs)



Note: The table displays all the bureaus that we could geo-locate based on inventories from departmental archives. Most large blank areas reflect the fact that the local archives have not made their inventories available online, In the extreme North, in the East and in the Vaucluse, however there were no bureaus before the Revolution.

(Source MapChapter 1-Xlxs)

Table 1: Notarized loans in France (1740)

	Paris	Chef Lieux pop>60K	60k>Chef Lieux>10K	10K>Chef Lieux> 5K	5K>Chef Lieux pop	Total
			France			
Number of cities	1	5	59	134	2,498	2,697
Population*1000	576	421	1,920	2,205	19,480	24,602
			Sample			
Number of cities	1	2	16	16	63	98
Population*1000	576	198	571	263	491	2,098
Weight	1.00	2.13	3.36	8.39	39.66	11.72
			Sample			
Acts	6,155	2,650	9,136	4,410	8,905	31,255
Value of Loans	44,069,660	4,110,718	6,479,172	1,461,000	1,858,914	57,979,464
Stock of loans	68,228	15,095	48,618	18,175	28,091	178,206
Stock of Debt	522,032,838	34,464,200	71,457,850	10,968,972	12,256,755	651,180,615
maturity	11.08	5.70	5.32	4.12	3.15	5.70
Maturity weighted by value	11.85	8.38	11.03	7.51	6.59	11.23
			France			
Acts	6,155	5,639	30,730	37,004	353,116	432,644
Value of Loans	44,069,660	8,747,768	21,794,460	12,259,004	73,716,386	160,587,277
Stock of loans	68,228	32,122	163,539	152,501	1,113,948	1,530,338
Stock of Debt	522,032,838	73,341,151	240,367,931	92,038,805	486,049,182	1,413,829,907
maturity	11.08	5.70	5.32	4.12	3.15	3.54
Maturity weighted by value	11.85	8.38	11.03	7.51	6.59	8.80

Source: totals.xlsx

Table 2 : the Sex distribution of borrowers and lenders in 1740

	Bureau pop< 5K			Bureau 5k<pop< 10K	
	Women	Men		Women	Men
Women	0.9 percent	3.7 percent		0.9 percent	4.2 percent
Men	6.5 percent	86.8 percent		6.9 percent	85.3 percent
	N	10937		N	5014
	Bureau 10k<pop< 60K			Bureau 60k<pop	
Women	2.4 percent	6.9 percent		2.0 percent	6.2 percent
Men	10.7 percent	77.3 percent		14.0 percent	77.3 percent
	N	11487		N	1139
	Paris				
Women	5.3 percent	12.7 percent			
Men	14.3 percent	66.7 percent			
	N	1067			
	Sample			Sample Weighted	by population
Women	1.7 percent	5.4 percent		1.0 percent	4.1 percent
Men	9.2 percent	81.4 percent		7.0 percent	85.6 percent
	N	29806			

Note: couples are counted as men, because the number of bureaus where this information is noted down accurately is small.

Source: MapChapter 1-Xlxs—from Rawandscocial accessDB)

Table 3: Some evidence on occupations in 1740.

	Total	B-Occ	L-Occ	Both	Occupation Same	Max possible same occupation		Ag-B	Ag-L	Noble-B	Nobles L
1-<5k	16896	797	1139	420	131	285		356	126	71	133
2-5-10k	7070	1082	861	635	180	440		351	116	92	73
3-10-60K	16038	2421	2208	978	270	686		659	95	444	247
4-60K+	2278	160	150	101	19	74		5	0	26	17
5-Paris	1231	1063	1179	1021	311	810		45	16	202	69
		percent of all loans			percent of loans with both occupations		Same occ as share of max				
1-<5k		4.7	6.7	2.5	31.2	65 percent	45	44.7	11.1	8.9	11.7
2-5-10k		15.3	12.2	9.0	28.3	69	40	32.4	13.5	8.5	8.5
3-10-60K		15.1	13.8	6.1	27.6	70	39	27.2	4.3	18.3	11.2
4-60K+		7.0	6.6	4.4	18.8	73	25	3.1	0.0	16.3	11.3
5-Paris		86.4	95.8	82.9	30.5	79	38	4.2	1.4	19.0	5.9

(Source MapChapter 1-Xlxs—from Rawandscocial accessDB

Table 4 Notaries and the Urban System in 1740.

	France	England and Wales	Benelux	Germany	Italy	Iberia
Populations		"cantonal population in 1000s"				
Cities>300K	576	675	0	0	305	0
more than 60K	421	0	338	195	801	462
60k to 10K	1920	515	791	1327	1474	851
10K to 5K	2205	511	318	1561	1313	985
Less than 5K	19480	4399	2653	13918	11409	8705
Total	24602	6100	4100	17001	15301	11003
			Number of Loans			
		Values if we give France the candidate country's urban structure (pop in all cases 24.6 million)				
Cities>300K	6,155	29,088	0	0	5,240	0
more than 60K	5,639	0	27,225	3,782	17,270	13,840
60k to 10K	30,730	33,260	75,912	30,721	37,918	30,452
10K to 5K	37,004	34,592	32,066	37,919	35,428	36,980
Less than 5K	353,116	321,571	288,526	365,090	332,504	352,813
			Value of Loans			
		Values if we give France the candidate country's urban structure (pop in all cases 24.6 million)				
Cities>300K	44,069,660	208,269,779	0	0	37,519,818	0
more than 60K	8,747,768	0	42,231,801	5,866,809	26,789,978	21,468,548
60k to 10K	21,794,460	23,589,172	53,838,613	21,788,408	26,892,162	21,597,178
10K to 5K	12,259,004	11,460,047	10,623,133	12,562,264	11,736,969	12,251,326
Less than 5K	73,716,386	67,130,906	60,232,550	76,216,038	69,413,463	73,653,103
			Totals			
		Values if we give France the candidate country's urban structure (pop in all cases 24.6 million)				
Loans	353,116	321,571	288,526	365,090	332,504	352,813
Value of Loans	73,716,386	67,130,906	60,232,550	76,216,038	69,413,463	73,653,103
Stock of Loans (millions)	1,413	3,255,	1,424	886	1,511	995
			Values per 1000 inhabitants			
Loans	17.59	17.01	17.22	17.78	17.41	17.64
Value of Loans	6,527	12,619	6,785	4,733	7,006	5,242
Stock of Loans	57,469	132,346	57,913	36,027	61,436	40,477
			Totals			
		Value if we give each country the French propensity for credit given town size				
Loans	432,644	103,777	70,621	302,346	266,419	194,138
Value of Loans	160,587,277	76,981,480	27,821,016	80,462,187	107,194,779	57,680,067
Stock of Loans (millions)	1,413	807	237	612	940	445

Table 5: Some data on shared residence in 1740

Data for 1740	Numbers of contracts	Share of notarized credit acts
With Borrower Residence	14,672	49
With Lender Residence	16,436	55
With Both	12900	43
	Numbers of contracts	Share of acts with identified residence
Same Municipality	7,103	55
Same Canton	9,022	69
Same Arrondissement	10,901	84
Same Department	11,930	92

		Share Borrower and lender from Same unit			
Population of Chef-Lieu	With both addresses	Municipality	Canton	Arrondissement	Departement
less than 2,500	1327	0.45	0.66	0.78	0.94
2,500 to5,000	3272	0.46	0.67	0.84	0.95
5000 to 20,000	5346	0.55	0.70	0.87	0.93
20000to 100,000	1627	0.65	0.73	0.86	0.94
Lyon	109	0.76	0.76	0.88	0.90
Paris	1219	0.78	0.78	0.79	0.79

(Source MapChapter 1-Xlxs—from RawandGeo accessDB