

Institutions and Economic Growth in the Periphery: The Efficiency of the Portuguese Machinery of Justice, 1870-1910¹

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The comparative economic performance of nations over the long run has been a major field of interest for some time now, both in Economic History and in Growth Economics. Thanks to the recent availability of macro-economic data for many countries, its analysis has become possible using endogenous models which take into account the usual variables in the Solow formulation, plus control variables such as human capital, technology or social capability. While also recognizing the importance of institutional factors, economic historians on the whole have appeared reluctant, however, to incorporate them formally into their equations. This is particularly evident in the now abundant historical literature on the economics of growth and convergence during the so-called “first era of globalization” which has burgeoned since the 1990s (Bordo, Taylor, and Williamson, 2003; Pamuk and Williamson, 2000; O’Rourke and Williamson, 1999 and 1997; Baumol, 1986).² The classic work by O’Rourke and Williamson (1999), which quantifies in detail the causes of catch-up and convergence within the late nineteenth century Atlantic economy, dismisses institutional influences on the grounds that open economy forces provide adequate explanation for the differential behaviour of these economies. The assumption is that during the nineteenth century “the State took a broadly liberal policy stance” (p.14) and institutional

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² For interesting exceptions, see the papers by Foreman-Peck (1995), Foreman-Peck and Lains (2000) and Allen (2003).

divergence among nations can therefore be treated as secondary for the problem under consideration.

[table 1 about here]

The available evidence on the European countries that composed the 19th century Atlantic economy does not support this notion of homogeneity. Table 1 gathers quantitative data on various aspects of institutional development for sixteen of the countries included in the O'Rourke and Williamson (1999) sample.³ Column 1 presents an indicator of the degree of "openness" of their public decision-making arrangements constructed by the University of Maryland's Polity-IV project.⁴ Column 2 shows the extent of popular involvement in their political systems through elections, as measured by the diffusion of the franchise.⁵ Column 3 displays an index of "contract-intensive money" (CIM) devised by Clague et al (1999), which proxies the public's trust in the institutions that protect property rights and enforce contracts.⁶ In all of them, we find a considerable dispersion around the mean which suggests that the diversity of institutional endowments may have been considerable. This in turn would mean a larger role for institutions to play in the analysis of long term patterns of economic growth than has been thought likely to date.

Several difficulties arise, however, when we try to pursue these connections. One is that preliminary tests show that none of the variables in table 1 in fact helps to improve the

³ To avoid problems of endogeneity, we relate these data to 1870, the start of the observed process of growth and convergence.

⁴ On a scale from -10 to +10, Polity measures to what degree the political system suppresses or fosters the competitive political participation of the citizenry in the choice of leaders and policies, and ensures the protection of civil liberties. See Marshall and Jaggers (2002).

⁵ Data for the franchise as a percentage of the adult population is obtained from Rose (2000), except in the case of Greece, which was kindly provided by Professor Anne Couderc.

⁶ "Contract-intensive money" is defined as the ratio of non-currency money to total money supply, i.e. $CIM = (M2 - C) / M2$. The closer its value is to 1, the greater the trust that the public will have in the institutions. It is estimated using data from Mitchell (1996).

results of the convergence equations estimated by O'Rourke and Williamson.⁷ Other, more appropriate ones must therefore be found. This raises a second problem which is the difficulty of constructing adequate metrics to proxy, retrospectively, the various forms of institutional input which might be taken into consideration. As has been quite correctly observed, "institutions have to a large extent been left out of the analysis [of economic development] for the reason that they are difficult to assess within a strictly defined theoretical framework and equally difficult to measure in quantitative terms" (Gunnarsson, 1991: 43). A further twist is that what differentiated nations, in late nineteenth century Western Europe, was how well these institutions worked, not so much how they were structured, a point also made concerning the present day by New Institutional economists (Rodrick et al., 2004). Though formal distinctions between these states undoubtedly existed, they were hardly crucial. This is hardly surprising bearing in mind that their respective institutional architecture and philosophy were shaped by a common Liberal parliamentary blueprint (Finer, 1997). This makes it necessary therefore to focus here especially on the more elusive aspects of institutional quality, rather than on the more measurable ones of form.

The aim of this chapter is to propose an indicator of institutional efficiency which does not suffer from the shortcomings noted above and can be useful to economic historians of institutions in general. For this, it must be objective, quantifiable and allow comparisons over time and space. We shall try and achieve this by assessing the effectiveness of the judicial system in protecting property rights and enforcing contracts, a key issue in the debate concerning the contribution of institutions to economic growth. This will be carried out in the historical context of Portugal, a small, peripheral and backward economy during the "first era of globalization" (1870-1913). The second

⁷ See Reis (2005). In the case of CIM, the results of the estimation are suggestive but difficulties arise from the problem of endogeneity posed in this context by "contract-intensive money". For a further discussion of this issue, see Prados and Sanz (...)

section of this paper, following upon the present introduction, describes the model which is to be used and justifies the variable - the price of mortgage credit – chosen as a proxy for the “quality” of Portuguese justice in the late nineteenth century. It is guided in this by North (1990)’s suggestion that “the level of interest rates in capital markets is perhaps the most evident quantitative dimension of the efficiency of the institutional framework” (p.69). The third section presents the data collected in order to test the relationship under analysis and describes the applicable legal framework. The fourth section presents and discusses the results of the estimation. The last section concludes that the proposed approach can provide a credible yardstick for measuring the effectiveness of the Portuguese courts of law and, by extension, of other systems of justice too. Having found that economic agents had a low regard for the ability of the judicial system to provide the legal enforcement of contracts, it further notes that this perception did not seem to have improved over time. Finally, it suggests where Portugal may have stood in a rough international ranking of how various of countries scored in terms of the quality of their systems of justice.

II

An adequate protection of property and contractual rights has long been recognized as an essential part of the contribution of institutions to economic performance (Glaeser et al., 2004; Mauro, 1995). As Adam Smith (1776) commented, “commerce and manufactures... can seldom flourish in any state in which there is not a certain degree of confidence in the justice of government”. Its absence has a negative effect on investment in fixed and human capital, and in research and technological innovation, all of which are crucial for growth and development (Nelson and Sampat, 2001). It will

deter savers from acquiring stores of wealth and thereby discourage economic agents from pursuing profitable activities and seeking better results from their efforts. Above all, it will hold back the spread of the division of labour and specialization, based on complex contractualization and impersonal relationships, which is critical to all modern economic growth (North, 1990).

A satisfactory degree of judicial protection for property depends on two conditions. It requires, on the one hand, a clear and sufficient body of rules and, on the other, a third-party agency which applies them fairly, expeditiously and at a low cost. In order that the operation of the courts be facilitated, it is also necessary that arrangements should exist whereby contracts can be easily documented, certified and registered and, in the case of property rights, that economic agents can identify them and their holders easily and unequivocally. In both these functions, expectations are important. Measures protective of property and contractual rights must therefore not only be “good”. They must also be stable over time and predictable, so that economic agents can project past experience in a consistent fashion and thus maximize the beneficial effect of the system of justice.

This paper is only concerned with the quality of the courts and assumes that the rules they apply are equitable and adequate to their purpose. To part 3

Assessing the quality of a country’s machinery of justice is not an easy matter. Judicial proceedings are often complex. The conflictual situations and the decisions produced by courts are far from homogeneous, and it is difficult to standardize them for the sake of quantification. Many of the indices used by the practitioners of the New Institutional Economics to quantify judicial efficiency are “subjective”. They are based on surveys and polls which ask questions like “how badly do economic agents think the judicial system functions?” and are therefore unsuitable for historical situations. Moreover, typically, they convert qualitative assessments into numbers with the use of arbitrary

scales. This poses formidable problems of additivity, interpretation and comparison over time and space.⁸ Another, this time “objective” approach has been used with some success in cases where litigation covers easily defined, repeat events such as eviction orders or cheque collection, and makes it possible to gauge efficiency simply by means of devices like counting the time it takes to reach or enforce a verdict. This sort of method has been used in several recent studies but not, to my knowledge, in historical contexts in which, in all likelihood, it would be an excessively arduous task to carry out.⁹

An alternative, indirect solution is to estimate judicial output by measuring its impact on the decisions of the economic agents who are active in the markets affected by judicial rulings. A price for a given good or service that was significantly different from what might be expected would indicate a failure in the protection of contractual rights, for example. Our objective here is to apply this reasoning to a field in which abundant and reliable information is available and a certain amount of theoretical reflection has already been undertaken and can help us formulate a suitable model.

We have chosen for this exercise the market for micro-credit in a rural setting. This was a common situation throughout nineteenth century Europe, often bringing together a large number of borrowers and lenders, in operations which were typically small and mostly local. In such atomistic markets, where large financial institutions or dominant informal lenders or borrowers were absent, it seems fair to assume that “the playing field was level” for all involved. Neither borrowers nor lenders would have expected to obtain loan prices that deviated from what might be called a “normal” or competitive

⁸ For studies which illustrate the difficulties of assessing the quality of government in a sample of countries in this fashion, see La Porta et al (1999), Kauffman et al (2002) and Cabral and Pinheiro (1999). For the same problem regarding the phenomenon of “corruption”, see Mauro (1995).

⁹ For an illustration of the enormous effort required to produce an “objective” indicator, see Djankov et al (2003), which employs thirty eight variables to assess comparatively how well, during the 1990s, the courts of 115 countries functioned.

value.¹⁰ Contract enforcement in the first instance relied to a considerable extent on informal mechanisms associated with reputation and credibility (Guinnane, 1994 and 2001). When this failed to resolve situations of non-compliance, however, formal sanctions became necessary since a credit market, where unsanctioned default became easy and habitual, would soon be starved of capital and have to face rocketing interest rates. Hence the vital importance of courts of law that were able to adjudicate such conflicts rapidly and equitably. In cases where Justice was administered slowly, unfairly and with favouritism, the credit market was bound to function poorly, and the expression of this fact should be easy to discern in the behaviour of the price at which credit was allocated.

In these poorly protected markets, lenders have two ways of protecting the capital they tie up in loans. One is by requiring safe collateral, which can be easily executed in the event of a failure by the debtor to meet interest and repayment obligations. The other is to prescind from a real guarantee (which the borrower might be too poor to have, for example) and obtain information instead, at a cost, about the personal attributes of the potential debtor, which might be relevant to the probability of his defaulting. Reputation for honesty, being a hard and productive worker, having a co-guarantor and so on should enable the lender to form a reasonable expectation concerning the borrower's commitment. This would form the basis for the decision to enter into a "personal (unsecured) loan" and if so, at what price.

In the present study, we deal only with the first of these alternatives. Mortgage credit between private parties offers an excellent opportunity for an analysis of how well Justice protects the rights of lenders. Firstly, it is only through the courts of law, which

¹⁰ This was not true of all of late nineteenth century Europe. It prevailed over considerable parts of the territory, however, even in countries where monopolistic corporations supplied long term mortgage credit to large scale farmers and landowners, (like France, Spain and Portugal) or where not-for-profit credit institutions serviced small producers (like Germany, Italy and Scandinavia).

keep records, that creditors can foreclose on defaulting debtors and recover their principle. In the second place, to be effective, it requires a legally binding record between the parties, drawn up in accordance with a standard formula, and placed in safe-keeping. This means that a considerable amount of reliable, homogeneous information concerning both the contracts and those taking part in them is generated and remains still easily accessible for research .

In the model we outline below, the dependent variable is the market interest rate charged on this sort of loan, usually backed by secure assets, mostly land or buildings. Its main determinants are the cost of risk-free credit, an exogenous variable which is essentially stable over time; and a risk premium, the size and variance of which is governed by several factors. The most important one is the institutional setting, in particular the judicial system and its ability to protect and enforce contracts and property rights adequately. If this functions efficiently, the risk on these loans will be low and the rate charged should be close to the risk-free level. If this protection is perceived as inadequate by market operators, then the risk premium will be significantly different from zero and the average rate of interest should rise accordingly. In this event, having to recognize the low probability of recovering the loan, in the absence of an efficient independent third-party sanction, forces the lender to consider the personal attributes of the borrower when setting the conditions for the loan.

An adequate protection of the courts is a necessary but may not be a sufficient condition for mortgage credit to enjoy a low-risk status, however. Historically, the guarantee might be worth less than the principal, at times.¹¹ This left the creditor potentially at a disadvantage, in the event of non-compliance, and, as a result, under the necessity of charging a greater risk premium. One would expect that the smaller the ratio between

¹¹ Although not a majority, cases like this are not infrequent in the data base we are employing here,

these two values, the greater this premium would have to be. Interestingly, although not a majority of the contracts studied here, many borrowers amongst those studied sought larger loans than their fixed assets could justify. This means that the relationship between the quality of justice and the price of direct is more complex than one might imagine at first sight..

Table 2 shows how the loan characteristics discussed above can be assembled into four categories in accordance with the two dichotomous criteria which are fundamental to the working of the mortgage credit market. The first separates operations into those in which the value of the guarantee is large enough to fulfil the contract in the case of default; and those in which it is not. The data employed in applying this standard are readily observable and available. The second criterion distinguishes whether loans were made within a framework of effective third-party enforcement of contracts by an independent system of justice; or not. This is the variable which we cannot perceive directly and which we are seeking to infer. To do so, we propose to submit the characteristics of the loan information at our disposal to three unrelated statistical tests, which will tell us which of the two institutional alternatives – “good” or “bad” courts of law - best fits the evidence we have put together. To define these tests, we must analyse what are the implications, for the profile of this loan market, of belonging to each one of the panels in table 2.

[table 2 about here]

We begin by considering what would happen if the courts of law were capable of giving satisfactory protection to the suppliers of financial services and, at the same time, borrowers provided adequate collateral on the loans made (panel 1).To begin with, the

interest rate level (r) typically would be low and fairly close to its risk-free level, in accordance with the security enjoyed by lenders vis-à-vis their debtors. The personal risk represented by individual borrowers being irrelevant to the determination of the price of the loan, the variance of r would also be low. Consequently, none of the personal attributes of borrowers noted above (vector \mathbf{A}) would bear a statistically significant relationship to r , as they would not be important for the recovery of the principal, should a default occur. Finally, the interest rate (r) and the guarantee/debt ratio (g) would be uncorrelated owing to the fact that above a “safe” threshold for g , the risk of the transaction would not be affected by any alteration in its size. The lender would always recover his outlay, whatever the magnitude of this ratio¹².

A second scenario (panel 2) would occur if the ratio g was less than the level that the market considered adequate. Though the judicial system was efficient in enforcing contracts and executing the collateral, in the event of a default the lender could not recoup fully his loss. This would require an interest rate (r) somewhat above that of a perfectly secure loan to compensate for the greater risk. For this reason also, one would expect that r would show a negative correlation with g . In taking on this risk, however, the lender would also have to take into consideration the personal attributes (\mathbf{A}) of the borrower, since they would affect his capacity to meet the difference between the value of the loan and that of the security. The interest rate charged ought therefore to correlate with these attributes, and this would imply a higher degree of variance for r than found in panel 1.

A third possibility (panel 3) would be characterized by a high degree of incapacity of the machinery of justice to protect creditors’ contractual rights and mortgage guarantees would be too low to ensure full repayment on default. In any case, lenders would have a

¹² The situation depicted in panel 1 is not an “ideal” one. As we shall see below, in several countries in late 19th century Europe, though not in Portugal, mortgage credit actually seems to have conformed quite closely to these three conditions.

low expectation of receiving any of the collateral in the event of non-payment in a reasonable delay. This would entail a high risk premium. The high interest rate would be consequently high and would not bear any relation to the value of the collateral. Instead, it would be determined by the personal attributes (**A**) of the borrower, on which the chances of recovery of the principle would be based. In this case, **r** would also have a high degree of variance.

Panel 4 shows what would happen if the courts failed to play their role properly as protectors of property and contractual rights, but this time the mortgage guarantee would exceed the value of the principal. The result would be both a level and a variance in the interest rate (**r**) significantly higher than one would expect to meet in a risk-free environment. The ratio **g** would have no influence on the level of **r**, though not for the same reason as in panel 1. Rather it would be because no matter how great the value of the collateral, its practical importance for the lender was always bound to be very small. In contrast, **r** would bear a significant relationship to the personal attributes of debtors (**A**) because these constituted the only sign that lenders could rely on when gauging their chances of repayment by borrowers.¹³

This section's central claim then is that three simple quantitative tests arise from the schematic description in table 2 and provide us with the means to infer the "goodness" of the judicial framework within which a certain mortgage credit market might function. Before applying them to our data, however, it is necessary to consider the information we shall be using and summarize the legal context of late nineteenth century rural Portugal, which has been chosen as the proving ground for our hypothesis.

¹³ It has to be assumed that lenders might not be regarded uniformly by the law courts. Given the imperfections of the judicial system, some might be better at getting protection than others. For this reason, in section III we include in vector **A** of the estimation a variable that reflects possible differences of treatment of litigants by the courts, namely whether or not they were literate.

III

Although the remarkable nineteenth century expansion of financial services in Europe has been often thought of as an urban phenomenon, there was a rural dimension to it which had a considerable significance too. Loans to farmers, landowners or simply to residents in the countryside, often financed from rural origins too, grew enormously in all countries during this period, and served to satisfy consumption needs, to adjust to life-cycle problems or to permit investment in agricultural capacity and technology (Postel-Vinay, 1988; Guinane, 2001; Martinez Soto, 2001; Lindgren, 2002). Despite the rapid proliferation of institutional means, such as land banks, rural savings banks and rural credit cooperatives, much of this flow continued to occur through informal channels, and involved only individuals and mostly fairly simple contracts. Even in a “financially sophisticated” country such as Sweden at the end of the century, informal credit was still about as important, in the provinces, as that undertaken by the corporate sector (Lindgren, 2002). Across the continent, mortgage loans, whether in the formal or the informal market, played an important part, but it is impossible to be precise, for example, about the share of total resources which they absorbed. Around 1900, in Spain, they accounted for 80 percent of all formal rural credit (Carmona and Simpson, 2003: 165), while in Italy mortgages outstanding were about equal to the total liabilities of all corporate financial institutions¹⁴. However, in the absence of data regarding “personal credit”, i.e. loans with no more backing than the borrower’s signature, we cannot gauge what part it was of all rural credit in all of these countries

Portugal does not seem to have diverged from this. Data on both mortgage and personal rural credit are scarce, unreliable and far from comprehensive. We lack information on

¹⁴ Data on mortgages for Italy are from the *Annuario Statistico* of 1900. The total of corporate financial liabilities is from Reis (2005).

the extent of “personal”, unsecured credit, although impressionistic accounts suggest that, in the countryside, it was both considerable and much more expensive than mortgage credit. Indeed, the cry of “usury” was a frequent one in connection with this form of finance (Ulrich, 1908; Esteves, 2002). What little we know, however, regards mortgage credit. Only one national compilation is available, for the 1852-1862 period. It shows that a total of about 35,000 contos was contracted during this decade in this way,¹⁵ which suggests a national stock of the same order of magnitude by the early 1860s. This can be compared to a total value of landed property at the time of around 400,000 contos (Vaz, 1863).

During the following decades, it seems likely that this portfolio grew considerably, in absolute terms and relative to the value of land. One indication is the creation in 1864 of the Companhia Geral de Crédito Português, to carry out long term operations (up to 60 years of duration) on the security of large estates (Marques, 1989). Altogether, 40,000 contos were loaned by this land bank between 1865 and 1909 and this was only a fraction of all mortgages in rural Portugal, since small and medium property was entirely by-passed by this institution. A second piece of evidence comes from the survey conducted on 54 of the country’s counties, in 1884, showing that between them their notaries had altogether 40,000 contos worth of hypothecary loans outstanding on their books (Rodrigues, 1929). A third comes from a handful of local studies which have revealed active informal markets in this type of finance in the northern, central and southern rural parts of the country (Fonseca, 1977 and 1966; Vaquinhas, 1982; Vaquinhas and Taveira, 1984); Bretell, 1991; Silva, 1994). The picture they suggest is of a high dispersion in loan size, average annual interest rates of about 8 percent, but ranging from 5 to 25 percent, and a length of commitment going from several months to

¹⁵ The real (plural reis) was the official monetary unit. To simplify, the conto (= 1,000,000 reis) was also used as a unit of account. At this time, one conto was equivalent to £222 sterling approximately.

10 years, with a mean of around five years. Borrowers and lenders tended to be local, although some of the capital employed was drawn from further away.

Loans backed by material guarantees are known to have been practiced in Portugal centuries before the period we are considering.¹⁶ Their legal framework appears, however, to have been rather imperfect and to have made their use difficult and costly prior to its modernization in the 1860s. The compilation of the country's first Civil Code, in 1867, and the approval, in 1863, of a law establishing a national land registry eliminated many of these problems and, in theory at least, created conditions favourable to an expansion of mortgage credit and to its becoming cheaper and easier to use.

The advantages conferred by this new legal package were several.¹⁷ In the first place, the new code clearly defined the hierarchy of precedence of all debt obligations and placed mortgages high on this scale, well above most so-called "ordinary credits", thus making them secure. It made the mortgage lien specific to a given asset and did away therefore with the figure of the "general mortgage", which used to fall on all of the debtor's real estate, consequently making it hard to distinguish between the rights of individual creditors. The lender was now able to know exactly which material security was assigned to his particular credit, He was thus assured that until the resolution of the contract, his collateral would not serve to meet any other obligation. Creditors' rights were attached to the mortgaged object and no longer to the person of the debtor. This meant that in case of a default, all they had to do was seize the guarantee, whoever owned it, an easier task than pursuing judicially the debtor, who might no longer own this asset or be difficult to locate. Finally, in 1867, the civil code abolished the law of 1757 that had fixed the interest rate at 5 percent, symbolically renamed "usury" as an

¹⁶ A useful data base on pre-1800 Portuguese legislation is <http://www.iuslusitaniae.fcsh.unl.pt/>.

¹⁷ This section is based on Vaz (1863), Sousa (1866) and the Civil Code itself. For a recent perspective, see Hespanha (2004).

“onerous loan” and permitted the contracting parties to set the price of money freely.¹⁸

False contractual stipulations that inflated the principle of the loan in order to make it possible to charge a higher price than was allowed were no longer necessary, and this made the whole process much less prone to abuses and irregularities.

To make these general dispositions more effective, a national land registry was set up, with offices throughout the country, in which all properties, their attributes and value, their proprietors and the legal onuses incumbent upon them had to be formally inscribed. The inscription of these legal burdens was to be done in their proper chronological sequence, so that precedence of obligations might be easily established, and enforced, if necessary. Identification of the owners prevented others without authority from attempting to mortgage a property to which they had no legal title. Full publicity was given to the register’s contents. To ensure further transparency, any single property could only be entered in the office of the area in which it was located. A specialised body of functionaries was put in charge of these arrangements and made liable to severe penalties, in the event of any infringement of the rules.

The data used to test our model come from the records of mortgage credit transactions carried out between the 1870s and the 1910s and kept by the public notaries of the localities where they took place. They are currently held in the notarial collection of the Portuguese national archive (Arquivo Nacional da Torre do Tombo). Being legal records of contracts which were entered into freely and made before sworn public officials, they must be presumed to be reasonably reliable, particularly as they could serve later as proof in judicial litigation. They cover the vast majority of occurrences of this sort because, with the exception of cases of small amounts, all mortgage deals had to be the object of a notarized contract.

¹⁸ See Hespanha(2004). In this, Portugal followed most of Europe, where usury laws were abolished during the 1850s and 1860s. The exception was France, which kept the 5 percent ceiling until 1918! See Postel-Vinay (1998).

Each entry in the notary's ledger corresponds to a single debt. In most cases, it represents a new loan but in a few it was a "confession of a debt" which had been contracted at an earlier date, without formality, and was therefore being restated, with proper legal solemnity, in order to secure the interests of those involved.¹⁹ Each entry usually contains the name, occupation and residence of the contracting parties. It also provides evidence of their civil status and capacity to sign. Besides this, it includes the interest rate charged, the amount of the debt, the declared value of the collateral, the number of items of which the latter consisted and their location. The duration of the loan is mentioned too but rarely with the precision that would render this information useful.²⁰

Three benchmarks, for the periods 1874-6, 1894-6 and 1910-3, have been constructed with these data. They cover six counties in the district of Lisbon, namely Torres Vedras, Sintra, Arruda dos Vinhos, Alenquer, Mafra and Vila Franca de Xira, all of them located between 30 and 55 kilometres from the capital. At the time, the economic base of these administrative units was mainly agricultural, with a considerable productive diversification into wine, cereals, olive oil, fruit and animal husbandry, and a strong orientation towards the market. They were essentially areas of dispersed small holdings and fairly densely populated. They were quite well connected, by road or railroad, to the small market towns of the region, and ultimately to Lisbon, but in none of these municipalities was there either a branch of a national bank or any local credit institution. Some Lisbon banks had "agencies" there, indicating connections with a broader financial world, but these did not carry out credit operations, least of all with the

¹⁹ This was a common practice in eighteenth century France. See Hoffman et al. (2000: ch.3).

²⁰ Not infrequently this stipulation was "at the will of the lender", other times "for the rest of the life of the borrower", and more often still "for a year and beyond".

farming community, which was considered too risky and suitable only for mortgage loans, which these institutions did not generally handle (Morais, 1889).

Not all entries are complete. The main lacuna occurs is the value of the collateral. In the cases of collateral consisting of landholdings already entered in the land registry office, notaries did not need to mention this value and it has proved impossible to recover the information from the land registry itself. Thus, although the data base contains some 800 observations, we can only count on about 350 for the tests requiring full information, a satisfactory sample nevertheless.

The profile which emerges tallies with the characteristics detected in earlier studies of similar regions in Portugal (Vaquinhas and Fonseca, 1983; and Fonseca, 1977). On average, loans were not large – between 200,000 and 300,000 reis²¹. The overwhelming majority of participants were local, borrowers and lenders often residing in the same parish, and transactions were entirely between individuals. Although borrowers were more numerous than lenders, there would seem to have been no dominant players on either side of the contractual relationship, to distort competitive conditions. It thus seems likely that the interest charged reflected the risk-free rate plus a risk premium arising from the circumstances of the transaction, including the lack of protection given by the law and the institutions. Having thus established that the conditions called for by the model formulated above appear to be satisfied, we can now turn to the discussion of the results of our three tests.

IV

In comparative terms, Portugal's macroeconomic performance during the years from 1850 to 1913 left much to be desired. In the 1850s, it had embarked on a process of

²¹ The equivalent to between £44 and £66 sterling. In every county studied, there were a few large loans above one conto, that is £222.

sustained growth which was common throughout the Atlantic economy. Having started from one of the most backward positions in this group, by 1913, it was not only still at the bottom of the ranking in this group, but its per capita GDP had fallen from 60 per cent of the average per capita GDP of the most advanced economies to 35 per cent (Amaral, 2002). Contemporary public opinion was pessimistic about this economic inadequacy. It was not insensitive either to the institutional roots of these problems, be they in the political system, in the mechanism of public administration, in the machinery of justice or in the provision of education (Ramos, 1994).

But were Portuguese institutions responsible to any extent for this weak economic performance? Were they worse than those of other countries at the time? Could they have delivered a better input in terms of the process of economic growth? In this section we attempt some preliminary answers to these questions, with the help of the results of the three tests outlined above in section II and applied to the data on mortgage contracts assembled for the period between 1873 and 1913. Our aim, first of all, is to determine whether the judicial system functioned poorly in Portugal compared to what might have been reasonably expected. Secondly, we try to place these findings in a broader international context, by comparing this performance with what was practiced elsewhere and therefore should have been practicable anywhere, including Portugal.

The first test focuses on the mean and dispersion of the interest rate charged on mortgage loans. As we saw, one would expect that “bad courts of law” would normally be associated with a high mean and a high variance in this variable. In one instance (panel 2, table 2), however, these characteristics could concur with “good courts”, if they coincided with loans in which the ratio g of the collateral to the loan value was low. The evidence marshalled in table 3 covers eleven different situations in **five** counties at different points in time and shows that these interest rates lie in a narrow

range, from just over 7 to just over 9 percent. In the case of the 800 contracts for which we have comprehensive information, the mean is 8,0 per cent, which is very similar to the results for the city of Coimbra, for which we do not have any details.

[table 3 about here]

Was this too high a price for low-risk credits such as mortgage loans backed by solid real estate guarantee? Did it include an excessive implicit risk premium? Three standards may be invoked for comparison. One is provided by the Bank of Portugal, which discounted 90-day commercial paper in Lisbon normally at a rate of 5 per cent. Although this was first class paper, with two very good signatures, it was not free from default, and the Bank had occasionally to litigate to secure its interests.²² Nevertheless, it was probably one of the safest financial applications available. A second yardstick is the implicit return on government domestic bonds. This was certainly a less secure and a more volatile asset, though guaranteed by the state, and fluctuated between 4,1 and 6,4 per cent (Esteves, 2002). Lastly, the Crédito Predial land bank issued bonds to finance its mortgage loans at 6 percent until 1880 and after that at 4 to 5 percent. They were backed by a stock of real estate worth at least twice the company's outstanding loans, as well as by the subscribed shareholder capital, and their market quotation deviated very little from par throughout the period (Marques, 1989). None of these safe alternatives could be said to have been evidently less risky than contractualized mortgages on land and buildings. Significantly, however, their yield was two or three percentage points

²² This discount rate was raised now and then but this was out of consideration for money market conditions rather than the riskiness of the paper taken.

lower than the interest rates shown in table 3, a differential which is hard to reconcile with a high standard of judicial efficiency.²³

As for the dispersion of the price of mortgage loans, the standard deviation and coefficient of variation data in table 3, at first sight, suggest that these rates were generally quite “bunched up” around the mean and therefore that their variance was low. On the other hand, the data for maximum and minimum values, with the highest ones being at least double the lowest, point to the existence, nevertheless, of very distant outliers in all counties. This is a sign that, to the lender, the mortgage guarantee and the institutions that enforced did not countervail the hazard represented by “marginal” borrowers. This is a strong hint therefore of a lack of conviction on the part of the market that the judicial system was capable of playing its role in protecting contracts.

International comparisons are not easy to come by in a field such as this, which has hardly been explored in the perspective adopted here. Nevertheless, it is possible to gather evidence for a cursory assessment that supports the view that substantial discrepancies in mortgage rates existed between some countries in Europe and are not ascribable solely to differences between the interest rates generally prevailing in each one of them. In the last decades of the nineteenth century, Sweden and the Netherlands emerge at the opposite extreme from Portugal, with an average interest on mortgages of 5.5 percent, for the former, and 4.5 to 5.0 percent for the latter. These were countries where the nearly risk-free discount rate of the central bank was between 4.2 and 5.0 percent, in the case Sweden, and between 3.0 and 3.5 percent, in that of the Netherlands, a considerably smaller risk differential than we find in for the same years in Portugal.²⁴

²³ The case, in 1890, of a large Alentejo landowner who lent on mortgage at between 6 and 9 per cent but placed money, on deposit, at the bank, at 5 percent, corroborates the existence and scale of the risk premium on these mortgage loans (Fonseca, 1992).

²⁴ Central bank discount rates are from Homer and Sylla (1996). Mortgage rates for Sweden are from Perlinge (2005), Hellgren (2003) and Hoppe and Langton (1994), and for the Netherlands from the Dutch

Spain's experience might be expected to be like that of Portugal. Not only did we find they similar in cultural, social and political backgrounds, but also in that country too contemporary expert opinion considered mortgages a risky business, in which the recovery of the principal was often problematic (Carmona and Simpson, 2003). In fact, a significant risk premium is evident in Spain too. A study of the Mediterranean region of Murcia, based on a substantial sample, shows a mean interest rate of approximately 9 percent in 1900-5 (Martinez Soto, 2001). Another, equally robust one for Navarra, for an earlier period – 1858-82 – comes up with a mean of 9,4 (Sabio Alcuten, 1996). Throughout this entire period, the discount rate of the Bank of Spain oscillated between 4,5 and 5,0 percent.²⁵

The conclusion to draw from here is that the Portuguese financial risk differential was high both by internal standards and by contrast with some of the other nations of the Atlantic economy, although not with all. Having thus established that this validates the situation depicted in panels 2, 3 and 4 of table 2, we now turn to our second test. This focuses on the relationship between the rate of interest of these loans, on the one hand, and the ratio of guarantee-to-principal (**g**), on the other. As with the preceding criterion, in the case of an “inefficient” judicial system, one would not expect any correlation between these two variables. With “good courts”, however, a low value of **g** ought to be negatively correlated with interest, since lenders would anticipate a speedy recovery of part of their loans through the machinery of justice, and could therefore charge a lower risk premium than if this had not been the case. A high value of **g**, on the other hand,

Statistical Yearbook. The nature of the available data on mortgage interest rates does not allow any comment on their measures of dispersion.

²⁵ In fact, even though based on a small sample of countries, a geographic pattern of “judicial efficiency” seems to emerge from this exercise in comparison and is suggestive because it matches other possibly relevant spatial distributions. Sweden and the Netherlands apparently had not only better Justice but were also substantially richer than their Iberian counterparts. Moreover, their institutions were considered highly. On the other hand, Portugal and Spain were beset with reputations for political instability, clientelism, corruption and low human capital endowment, and their level of GDP per capita was one half or less of the Swedish or Dutch ones.

would be accompanied by the absence of any significant relationship between them. We have set two thresholds for the guarantee-to principal ratio, namely a value of 2,0, corresponding to the requirement made by the Crédito Predial for its operations, and another of 1,5, on the assumption that local, informal lenders had comparatively better knowledge and consequently needed to protect themselves less from this point of view than a Lisbon bank would.

A glance at table 4 shows that in three of the four situations considered ($g > 1,5$, $g < 1,5$ and $g > 2,0$) there was no correlation with interest, and in the fourth case, of $g < 2,0$, there was a significant correlation, but the sign was positive and therefore wrong. This invalidates all the contractual situations represented by panel 2, table 2. Altogether, the message given by this test is that the claim of the courts being “bad” (panels 3 and 4) is supported by it, but the opposite option is not completely excluded either (“good” courts). The lack of correlation between r and g is also a condition of panel 1, representing “good courts”, providing there is a high g ratio. Panel 2 is definitely excluded by this trial, but not panel 1 and therefore “good2 courts are not yet ruled out by this exercise.

The contracts we are studying here raise serious problems of informational asymmetry. Lenders knew less than borrowers about the latter’s personal attributes when it came to the likelihood of the loan repayment and its service being met. Mortgages were a device to attenuate the consequences of this state of affairs and reduce the need for more costly information. But here too there was a problem, namely that creditors were also less familiar with the nature and worth of the collateral than the persons who pledged it. In a context in which the institutional enforcement of mortgage contracts was considered unproblematic, this relative ignorance would hardly have mattered. On the other hand, in situations in which this protection was viewed as insufficient, knowledge of this kind

became of crucial importance in setting the conditions of the loan in such a way as to safeguard the interests of the creditor (Guinnane, 2001).

Two types of borrowers' features are pertinent for this argument. One is their reputation for honesty and commitment to contractual obligations. The other is their material capacity to meet these obligations. It is extremely difficult to gather satisfactory historical evidence regarding the former. On the latter, the contracts at our disposition contain some items which can be used to proxy this characteristic. Table 5 below includes a number of independent variables, in a multiple OLSQ regression, designed to account for the rate of interest charged in several hundred mortgage contracts drawn up between the 1870s and the 1910s. The amount borrowed (**loan**) is one of them and is represented by its value in contos. A negative sign has been suggested as correct for its coefficient on the grounds that search costs for loans contained an important fixed element (Guinnane, 2001). Instead, our view here is that larger loans were taken for investment purposes by well-healed borrowers with a good capacity to repay, while smaller ones tended to be more for survival and taken by economically weak agents (Svensson, 2001; Hoppe and Langton, 1994; Martinez Soto, 2001). **Loan** is therefore treated here as an indicator of the economic capacity that we are trying to detect and its sign ought to be negative.

Two other personal attributes contribute to the same purpose. One is the debtor's civil status (**civ**) – single, married or widower – the assumption being that in a peasant society a married producer was likely to have a larger family labour force at his disposal and therefore be more robust economically (the dummy is =1 for married debtors, and =0 for any of the two others). The sign for this coefficient ought to be negative. The other is human capital, which we proxy with an indicator of literacy (**lit**) (=1 for ability to sign one's name, = 0 for signing with a cross), a qualification which was relatively

scarce in rural Portugal and which, in nineteenth century Sweden, has been strongly associated with financial capacity among peasants (Nilsson et al, 1999) .²⁶ Again an inverse relation with the interest rate is expected and therefore a negative coefficient.

Age would have been interesting to consider here too, although the sign of its coefficient is not unambiguous. It might have proxied physical vigour and therefore productive capacity, but a longer life might also have favoured a more easily observed reputation, as well as the likelihood of a greater accumulation of material wealth and therefore a greater security in loan transactions. Unfortunately, data for this is only available for a small number of cases and is restricted to one county – Sintra, in the 1870s – and the results are non-significant anyway.

The interest rate might also have been affected by two aspects of the contract itself. These are worth taking into account too insofar as they may impinge on transaction costs specifically associated with the use of mortgages. One was the presence in the transaction of co-signatories (**co-sign**), who gave additional protection to the lender's position in that they pledged their assets and their reputations to meeting the borrower's obligation. Other things being equal, the consequence would have been to depress the interest rate, but not if the borrower's collateral were adequate and the independent third-party enforcement agency were effective. In this event, default would entail no loss and this variable should be non-significant.

A second feature has to do with whether the land and buildings mortgaged had been entered after 1863 into the new land registry (**reg**), or not. Much property in the countryside was never registered, owing to the cost, the bureaucratic difficulty and the distance from the appropriate land office. In the eyes of a lender, it would have been perceived as a less reliable guarantee, given the various forms of malfeasance that this

²⁶ In the late nineteenth century, the Portuguese literacy rate was 25 percent. The borrowers in our data base did about 15 percent better than this. The lenders were about 70 percent literate.

could give rise to, and would have implied credit being more expensive. In the case of registered collateral, however, a mortgage contract would have attracted a lower rate of interest and hence a negative coefficient for this variable. A wrong (positive) sign or a non-significant coefficient would indicate that, in addition to the inefficiency of the courts, the complementary role of registering land may also have been discouraging a high degree of trust in the institutional set-up in general.

[table 5 about here]

The results of the regression analysis are satisfactory, particularly bearing in mind that the data was gathered by small-town notaries, who were not only often insufficiently qualified (Silva, 1911), but may have worked according to not very consistent standards of exactitude. All coefficients but one (**civ**) have the expected sign and pass the test of significance at the 10 percent level. The regression as a whole satisfies the same criterion (F-test). The R² is low, which is as one might expect given this is a panel data exercise. Altogether, the implication is that interest rates were influenced by the personal attributes of the borrowers, who were made to pay a risk premium which depended on how much of a risk they were judged to be by their creditors. This only happened because lenders did not give much credence to the role of collateral in the mortgages they contracted, a consequence in turn of their presumable lack of trust in the judicial system that was supposed to protect their business. In terms of the model in table 2, this points to placing the elements of our sample in panels, 2, 3 or 4 but outside panel 1.

The unsatisfactory performance of the civil status variable (**civ**) may be due to a misspecification of the variable. A married farmer and a widowed farmer may not have

differed much after all as to their chances of having the same number of working relatives in the family. The age/physical vigour of the head of the family may have been more important for the productive capacity of the family, while, on the other hand, a young married farmer with young children would have been in a worse situation than a widower living with adult sons and daughters.

Apart from this problem, table 5 shows that the interest charged on mortgage loans, in this apparently competitive situation, was determined both by personal and contractual attributes. Regarding the latter, it should be noted that having a co-signatory helped to lower the price of mortgage credit, as if the collateral by itself were not a sufficient security. A second interesting finding is that registered property was trusted more than the unregistered real estate, an indication that the laws passed to make mortgages more effective, when properly applied, fulfilled their purpose. What is curious in this case is that despite this, the majority of assets given as security were not registered. In other words, the institutional framework of the credit market was lacking, not only because the enforcement mechanism was inadequate, but also because, for some reason, its complementary administrative mechanism failed to support and consolidate its actions.

Table 6 gathers all the test results obtained above from our sample of mortgage contracts undertaken in five different localities, at four points in time, and organizes them into the appropriate panels that compose table 2. It is clear that the data only completely fit the requirements of panels 3 and 4. This must reflect unequivocally a view, widely held in the mortgage market of the late nineteenth century, that the existing machinery of justice performed poorly in protecting property rights and the fulfilment of contracts. Whether the security given was sufficient or not, in setting loan conditions, economic agents did not conduct their business as if they expected full and prompt recovery of the principle in the event of a default. Instead, they found it

necessary to consider, as pertinent, facts that should not have mattered in a mortgage operation, namely the personal attributes of borrowers. Apparently, institutions did matter here and their impact was negative.

[table 6 about here]

V

There is a widely held belief that the institutional systems of the developed nations of the late nineteenth century Atlantic economy were basically similar. In particular from the point of view of their impact on long term economic growth, it is thought that these countries were moulded by the same blue print and whatever discrepancies existed were hardly sufficient to explain differences in economic performance. The present study contends, on the contrary, that these countries were institutionally more diverse than has been supposed and that, in some respects, this may have contributed to the divergence in growth observed and debated by so many contemporary economic historians. In order to clarify these issues, it proposes focusing on the efficiency of the machinery of justice. This is of special interest not only because its design displayed a notable appearance of uniformity among polities, but also because the New Institutional Economics has held the judicial system as a key institutional factor for growth.

In view of the parsimony of information in this barely nascent field of historical research, the topic has to be explored by indirect means. Its limits were drawn around the behaviour of economic agents in small scale mortgage credit markets and our detailed observations were circumscribed to four counties in rural Portugal between the 1870s and the 1910s. The aim was to study the risk premium attaching to such

operations, in the knowledge that it would be slight in situations where judicial institutions were good at enforcing contracts and protecting property rights; but would rise significantly above the level of risk-free credit, in cases where they were not. Using the data from several hundred mortgage contracts, it was possible to devise three quantitative tests that would allow us to determine whether lenders found this protection to be satisfactory. The conclusions we obtained from this narrow area of analysis are in line with the current institutional literature, and may plausibly be extended to the machinery of justice in Portugal as a whole. The method seems sufficiently robust that it can be used for comparative, international purposes too.

All three tests show that the loan policy of lenders was contradictory with a high level of trust in the efficiency of the courts. Interest rates were excessively high, and there was too much dispersion from the mean, suggesting that they were set in the expectation that the collateral would not give adequate security in the event of default. This is true whether we consider Portugal in itself, or look at it in a Swedish or Dutch mirror. It is not the case, however, if the comparison is with Spain, which suggests that a North-South divide may have been present in Europe in terms of institutional quality.

The second and the third tests confirm this perception. In cases in which collateral was insufficient, this did not seem to have made much of an impression on how creditors negotiated their loans. They behaved in the same way as when the security pledged was more than adequate to cover the risk of the operation. This allows us to infer that they expected relatively little from the third-party contract enforcement powers of the courts. The same conclusion can be reached from the fact that creditors showed themselves to be sensitive to the personal attributes of borrowers as indicators of the likelihood of a successful settlement of the loan. Thus, the interest rate was lower for borrowers whose attributes enhanced their capacity to repay, and higher for those who seemed less

promising from this point of view, something which should not have happened under an institutional regime which offered a reasonable expectation of property right protection. This research has still a long way to go, namely by extending its scope to other countries along the lines developed here. In the meantime, two final questions should be posed. The first is whether any evolution occurred in terms of institutional quality during the four decades which we have scrutinized? Unfortunately, not enough data on the localities under observation is available yet to allow us to make a clear case one way or another, as can be seen from table 3. There are signs of a slight downward trend in mortgage rates, in a context of stable risk-free credit rates, but a conclusion can be safely drawn only with more data.

The second question is how the mortgage credit market could be so active when its advantages were so seriously undermined by the poor operation of the courts of law? Two reasons commend themselves to our attention. One is that these courts may have functioned imperfectly, but they were not inexistent, and some remedy presumably could be obtained from them against prevaricators. The high interest rates we have detected reflected the higher costs associated with default because of the adverse institutional environment but hardly a Hobbesian state of affairs. On the other hand, lenders apparently welcomed borrowers who owned adequate collateral and were prepared to charge them than they got for extending “personal” credit, which was protected by nothing other than the reputation of the debtor. Even though mortgage contracts were probably more costly to both parties and certainly more complicated bureaucratically, they may have seemed like a useful selection mechanism for lenders. For borrowers, they offered a chance of a lower interest rate. In this world of small peasants, many of those who needed finance owned nothing that could be reasonably pledged to

secure a loan. For them, there was nothing left but to pay a “usurious” interest rate, the only one that in their case the market could bear.

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