'Bounded Leviathan: fiscal constraints and financial development in the Early Modern Hispanic World'

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Bounded Leviathan:
Fiscal constraints and financial development in the early modern Hispanic world

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Abstract:

North's and Weingast's focus on the importance of a ruler's credible commitment to protecting property rights has become the standard approach to states' role in economic growth and been supported e.g. by the "legal origins" literature (LaPorta et al., 1998, 2008) which argued that post-Glorious Revolution English institutions were particularly conducive to economic growth. But growth depends not only investor protection (legal capacity) but also the ability of the state to finance itself, "fiscal capacity". (Besley and Persson, 2009, 2010) show that the protection of private property rights and that of public property rights to taxation are linked and likely co-evolutionary. However, the precise relation between the two is anything but clear. This paper argues that North and Weingast's model's one-sided focus on state coercion threatening private property rights has obscured the relation between coercion used in revenue collection and the role of fiscal capacity. Our very simple model shows that the relationship between fiscal capacity and legal capacity is not linear, especially in the phase of nation state building. Before 1800 states faced one of two very different central challenges. 1) States that already exhibited high levels of coercion had to try to keep in check the ruler's potential for predation as North and Weingast argued. 2) States that used very low levels of coercion faced a coordination problem instead of a predation issue. The case of Spain provides empirical evidence for the existence of states were an *increase* in coercion would have improved fiscal capacity, but high levels of legal capacity paradoxically prevented the ruler from adopting this path. Finally, we use financial market developments to show the serious welfare implications that resulted from such a lack of coordination and integration.

JEL codes: E02; N13, N16, N23, N26, P48

One of the great merits of North's and Weingast's insight into the importance of a ruler's 'credible commitment' to protecting property rights is that it is both parsimonious and it lends itself beautifully to generalisations. These features explain its runaway success with economists, political scientists, and development advisors from the World Bank. In the last two decades the study of 'governance' has exhibited an unbroken tendency to return time and again to the basic New Institutional Economic (NIE) insight that in the long run (economist-speak for historically) what matters is that governments protect citizens' life and property, and that citizens have ways to protect their livelihood from governments (North and Weingast 1989).

By contrast much of the criticisms of the ideas that emanated out of 'Constitutions and Commitment' have been more narrowly based. Economic historians have put North and Weingast's data and interpretation of English fiscal and financial history to the test by exploring alternative explanations for the fall in English sovereign interest rates, by challenging the supposed link between public and private interest rates, by stressing the role of usury rates, and finally by wondering if sovereign interest rates reacted at all to institutional changes (Epstein 2000; Sussman and Yafeh 2006; Clark 1996; Temin and Voth 2005). This body of literature has – at least in the minds of many economic historians – seriously undermined the narrative of the Glorious Revolution as the origin of English fiscal, financial, and eventually economic growth. However it has done little to lessen the faith of economists, political scientists, and development specialists that predatory states are the single largest obstacle to long-term growth.

The economics literature bases this conviction mostly on indirect evidence derived from large cross-country data sets, which suggest that what has been termed 'English legal origins' led to better judicial protection of investors' rights, or, put more simply, to a legal regime that protected them against private theft and public predation (LaPorta *et al* 1998; La Porta *et al* 2008). English common law as used in Britain and her former colonies is contrasted with German, Scandinavian, or French civil law systems. Amongst the latter, the French tradition is usually singled out for particularly weak investor protection. Thus North and Weingast seemed vindicated in principle with regard to the growth implications of institutions in post-Glorious Revolution Britain, even if the historical account of its fiscal and financial development was found to be less convincing. However, a number of recent papers bring the economics debate back more closely to that amongst economic historians. They acknowledge that growth in fact depends on 'state capacity' more generally. This encompasses not only the narrowly defined protection of investors, but also the ability of the

state to finance itself, that is, fiscal capacity. Besley and Persson for example show that common law countries might have been better at investor protection – that is, legal capacity – but they were less efficient in creating a fiscal state than most civil law countries, notably those of German and Scandinavian origin (Besley and Persson 2009).

What this literature shows is that the protection of private property rights and that of public property rights to taxation are linked and most likely co-evolutionary (Besley and Persson 2009; Besley and Persson 2010). However the precise relation between the two is anything but clear. This chapter argues that at least part of the problem is that the original North and Weingast model contained a fundamental assumption that has been questioned too little. By arguing that the ability of rulers to commit credibly to protecting subjects' or citizens' property rights distinguished fast growing European countries from the laggards, the model laid the foundation of the belief that state predation was the most important political threat to economic growth in early modern Europe. This basic assumption in fact cannot be generalised, because the relationship between state fiscal capacity and legal capacity is not linear. This is especially true in the phase of European nation-state building. This chapter thus shifts attention away from the more narrowly defined historical accuracy (or otherwise) of the model within English fiscal and financial history. Instead it focuses on the much more general claim that underpins the original North and Weingast model, and a whole literature in its wake.

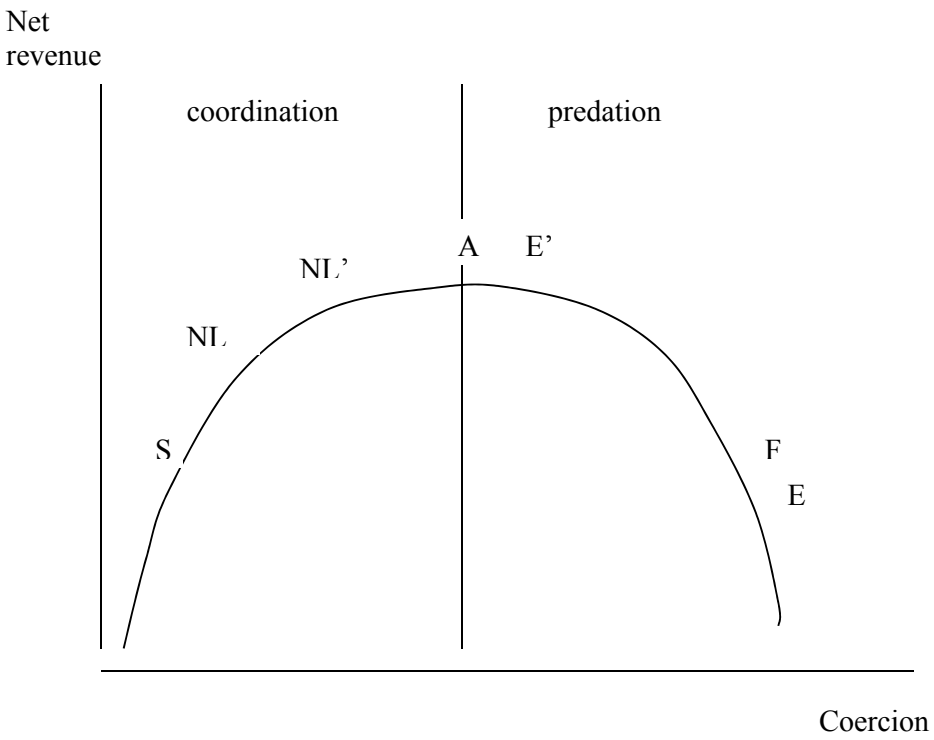
Section one develops a very simple model of the relation between revenue and the coercive effort of the state that explains *why* the assumption of the predatory state should not be generalised carelessly. Instead it posits that during the phase of European state building (at least to 1800) states faced one of two very different central challenges, depending on their *Verfasstheit* (the way states were constituted, rather than their constitution in the narrow Anglophone sense). On the one hand, states' main challenge could be to keep in check the ruler's potential for predation, just as North and Weingast posited. On the other hand, they were just as likely mainly to face a coordination problem, instead of a predation issue. Section two provides empirical evidence to illustrate and further develop this argument, namely that in some early modern European states, notably Spain, predation was never a central issue, but coordination and integration were. Section three elaborates further the consequences of the coordination problem, zooming in on financial markets as an example of the potentially serious welfare problems that resulted from failing to solve the coordination problem. Section four concludes.

I

Through all ages rulers had to use some degree of coercion in order to collect taxes. The most benevolent ruler, who does not appropriate any of the revenue for her own purposes, and who miraculously decides to provide exactly the amount of public goods her subjects wish for, will be able to reduce the need for enforcement through bargaining and persuasion by, in Levi's words, increasing 'quasi-voluntary compliance'. But she will not be able to do away with the need for enforcement altogether (Levi 1988). A purely voluntarist political organisation, or a pure form of anarchy, will always founder in the face of overwhelming incentives for individuals to free ride on the contributions of others. Indeed, as Olson has shown, an entirely voluntary agreement to defray the costs of public goods is impossible to establish (Olson 2000). The threat of punishment is thus the selective (negative) incentive needed to establish collective organisation. Coercion is a *conditio sine qua non* for state capacity.

However, this chapter argues that the relationship between revenues collected and the state's coercive effort is not linear, but shaped like an inverted U. The basic notion underlying this relationship, depicted in Figure 1, is simple. Initially, increased coercive effort, say more tax collectors and a more complex administration, will increase the opportunity-cost of tax evasion and avoidance for subjects. When an attempt to shirk taxes becomes likely to be discovered and prosecuted, the risk of not paying up will become too much for many subjects. However, more coercive effort at some point runs into decreasing returns, that is the marginal return in terms of net revenue of an additional tax collector (to stay within the example) will decrease once most of the territory is covert by a basic tax collecting structure. This relationship is represented in Figure 1 by the movement from the origin to point A, that is by the ascending part of the inverted U. Arguably this kind of slow movement towards improved state coercive capacity was what European state-building in the late medieval and early modern period was all about.

Figure 1: The relationship between revenue and states coercive effort



Beyond point A, however, investment in coercion in fact becomes counterproductive in terms of net revenue. The intuition here, too, is easy to see. Two effects are likely to appear. First, coercion is obviously costly, and since the marginal return to coercion in terms of additional revenue is decreasing, at some point the cost of the additional tax collector (to stay again with the simplistic example) exceeds the increase in revenue he will be able to collect. This is little more than a generalisation of Levi's model, in which a ruler's net-revenue is reduced because she is powerful, but has weak monitoring structures, and thus her agents pocket most of the revenue (Levi 1988). Even if agents do not cheat on the ruler, increased coercion will result in lower net revenue, because of decreasing returns to coercion. Second, once the coercive effort becomes overbearing, subjects are likely to engage in more sophisticated or coordinated ways of cheating on the tax man, and simply reduce cooperation with the ruler. As resistance, open or more clandestine, increases, collection will actually fall, and collection costs rise further. At its most extreme the legitimacy of the tax-raising ruler might be entirely lost, and revenue fall precipitously. Every early modern European ruler knew the cost of tax riots. They not only required a paid force to repress, but often wiped out the revenue of an entire town or region for a protracted period. This part of the relationship is depicted on the right hand side of Figure 1.

It is important to note that in this – admittedly very simplistic – rendition of the relationship between net revenue and the coercive investment of the ruler, the authors have abstracted from tax rates and design. While much thought has been given to them, the relationship described holds even if tax rates remained fixed, and the only change was to the level of coercion applied to collect them. It is thus different from the Laffer curve of the same shape. The latter posits that as tax *rates* increase, so initially does net revenue. However, as the tax burden on the economy rises, people increasingly choose not to invest, work, and engage in taxed transactions, and thus net revenue falls because of the negative welfare effects of high tax rates. (Thus the Laffer curve charts the revenue on the *y*-axis and tax rates on the *x*-axis.) If one assumes that coercive effort on the one hand, and tax rates and the arbitrariness of impositions on the other, are positively correlated, as would seem sensible, the effect described would be enhanced. However the most important point for the debate that follows is that, *ceteris paribus*, the relationship between coercive effort employed to raise taxes and net revenue is non-linear, regardless of tax rates.

Let us (imperfectly) transplant the idea of 'credible commitment' into this simple figure. North and Weingast's argument was that England before the Glorious Revolution was somewhere around point E. The Stuarts employed high levels of coercion not just in the form of tax farmers but, more importantly, through forced loans, monopolies, and similar measures which carried very high enforcement costs, and reduced compliance. Since the ruler's power to coerce, or in the preferred terminology of political economy, predate, was unconstrained, the ruler turned into the main threat to economic activity. Not surprisingly net revenue was modest.

After the Glorious Revolution, by contrast, Parliament could impose enough control over the crown's tax-raising and spending that tax compliance improved, more favourable loans could be obtained, and they could be serviced more regularly and more cheaply. In short, net revenue increased while the level of coercion necessary to collect taxes decreased, as the legitimacy of the fiscal system increased. England had moved closer to point E' in Figure 1, that is, more revenue with less coercion.[i] In the credible-commitment view of European economic history England had achieved a fiscally more sustainable and financially more beneficial position which fostered economic growth. More legal capacity apparently went hand in hand with more fiscal capacity.

By contrast its unconstrained competitors, most importantly absolutist France, but by extension also Spain and the remaining European absolutists, struggled along for the next century and a half somewhere around point F in Figure 1, in a place where high coercive

investment rendered mediocre fiscal returns. These were states that predated on subjects' property without being able to improve their fiscal performance, and in the process hamstrung their economies. The reason was that the states' coercive potential was not constrained by any constitutional guarantee, and both legal and fiscal capacities suffered.

A second look at Figure 1, however, reveals a serious issue. The story of the coercive power of the state that needed to be restrained by parliamentary representation makes sense as long as it is assumed that all early modern European states were placed somewhere to the right of point A in the graph. Here the combination of decreasing returns to coercion, increasing taxpayer resistance, and misappropriation of revenue by rulers' agents as states moved towards the right meant that less coercion (read predation) was associated with more revenue. Here a predatory ruler was indeed, in all likelihood, the main problem. The trouble is that much of the literature simply ignores the possibility that early modern states might have been located to the left of point A.

Economists, political scientists, and economic historians have assumed *ex ante* that all rulers are a threat to their subjects' or citizens' property because they need to maximise their disposable income (Brennan and Buchanan 1980; Brennan and Buchanan 1985). In Levi's words, all 'rulers are predatory in that they always try to … maximise their personal objectives, which, I argue, require them to maximise state revenue' (Levi 1988). Or as North and Weingast argue (citing McNeill and Tullock) 'if rulers did not maintain a comparative advantage in coercion, they soon failed to be rulers' (North and Weingast 1989). The basis of this claim relies on Tilly's analysis of European state competition, which argues that the exogenous variable that compelled European states to compete for revenue was the technological and strategic innovations of the military revolution (Tilly 1975; Tilly 1990). With that basic assumption in mind it would seem that there really is only the right hand side of this chapter's little graph. The difference is simply if a ruler is closer to E, s/he is an unconstrained predator, or to E', a constrained predator. Nothing else mattered, and it would seem justified to generalise the notion that 'credible commitment' is the central political economy issue facing early modern European economies.

Alas, as scholars also note, rulers did and do not maximise revenue, but rule. Their ultimate constraint domestically was to stay in power, and arguably their main objective internationally was to extend their power (Lane 1958).[ii] Revenue was a means to an end; coercion was but one means to collect revenue. However, Figure 1 suggests that whether more coercion was productive or counterproductive in terms of increasing revenue depended crucially on whether a ruler found herself to the left or the right of the point of optimal levels

of coercion at A. Revenue maximisation was not the only game in town, and Spanish fiscal and financial history can explain why.

II

Early modern Spain was nowhere near to points E (pre-Glorious Revolution England) or F (absolutist France, the spot NIE has reserved for European absolutists). Instead, it was somewhere around point S. It combined low coercion effort with reasonable revenue collection. In other words, it was in territory that simply does not exist in much of the conventional NIE theory. The implications of this hypothesis are potentially far reaching. If this assessment of the relation between coercion and revenues is correct in the case of Spain, the central assumption that underpins the generalisation of the model of 'constitutional commitment' is simply incorrect: not all rulers maximised revenue, and therefore the simple equation to test rule through the proxy of revenue has to be rethought.

This is a bold assertion, and it asks for at least three empirical tests to prove it. First, it should be possible to show that, in terms of its revenue-raising, Spain was broadly comparable to France, but less successful than (post-Glorious Revolution) England. Second, it should be apparent that Spain was not afflicted by what North and Weingast identified as the key characteristic of the unconstrained predatory ruler in early modern Europe: high sovereign interest rates. In the logic of the model a revenue-maximising ruler with absolute power would be expected to predate on subjects' property. The prime target was lenders' property, which could be expropriated by simply repudiating loans, by unilateral alterations of the terms of contract, or through currency manipulations. Thus, lenders naturally would require high *ex ante* interest rates. Third, coercion costs must be demonstrably low.

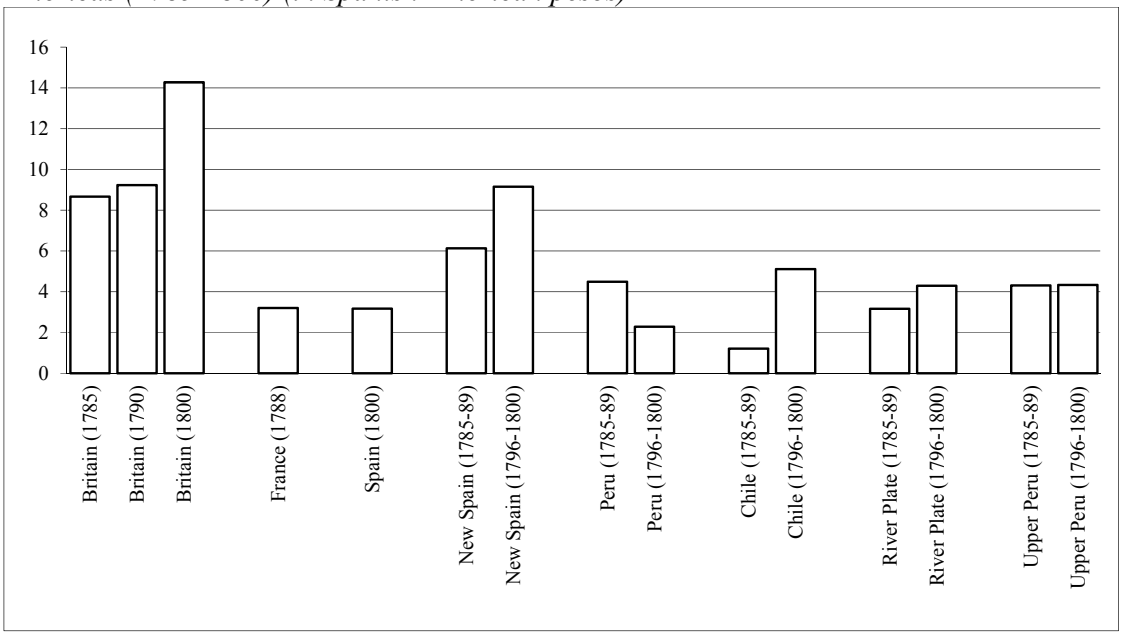
These three issues will be discussed in turn, using some data from the authors' recent research on Spain and her territories in the Americas. The data presented are certainly subject to limitation in terms of geographical and temporal reach. However, it should be remembered that the goal here is not to prove that the Spanish case represents an alternative *universal* model. Instead, it is intended to disprove the claim of universality that has been attached to the model of 'Constitutions and Commitment'.

Revenue per capita

How successful was Spain at raising revenue relative to its direct European competitors? Figure 2 offers some data on the per capita revenue collection of Britain, France, and Spain

for the late eighteenth century. The choice of period allows the inclusion of the Spanish territories in the Americas. Economists and historians have long worked on the assumption that the predatory nature of Spanish governance was more pronounced in the Spanish Indies than in the peninsula. Including newly available estimates for the Spanish Americas helps discussion of this notion. The data reflect the well-studied fact that the British state by the late eighteenth century was the most formidable fiscal apparatus in Europe (Braddick 1996; Brewer 1989; O'Brien 2010). Its fiscal capacity outdid that of pre-revolutionary France and peninsular Spain by a factor of two to three. This was the culmination of a history that had begun with the introduction of the fiscal reforms under Cromwell, and was pushed strongly by the excise reforms of the 1720s and 1730s, which successively increased the fiscal gap between Britain and her continental neighbours (Ashworth 2003).

Figure 2: Net Revenue per capita in European Countries and Spanish territories in the Americas (1785-1800) (in Spanish American pesos)



Source: for a complete list see Grafe and Irigoin (2012)

The figure also confirms the claim that Spanish and French revenue-raising capacities were similar in per capita terms. Spanish fiscal capacity would be somewhat superior if the crown's American subjects were included in the equation. Yet these figures are not aggregated here, since they were separate fiscal units, and aggregations would suggest a unity that did not exist. Disaggregation also biases the results against the hypothesis. In any case, in the Americas revenue per capita was higher than in the peninsula, though closer to the

peninsular Spanish or French range than to British figures. In other words, as the authors have argued elsewhere, the notion of massive extraction of revenue in the trans-Atlantic territories is not borne out by Spanish fiscal data (Grafe and Irigoin 2006; Irigoin and Grafe 2008; Grafe and Irigoin 2012). Per capita revenue in New Spain (today's Mexico) in particular was notably higher. Yet this was also by far the richest of Spain's territories. In sum, this suggests that with regard to revenue collection – the *y*-axis of Figure 1 – Spain should indeed be located closer to France than to England by the eighteenth century. On this most defenders of the NIE thesis would surely agree.

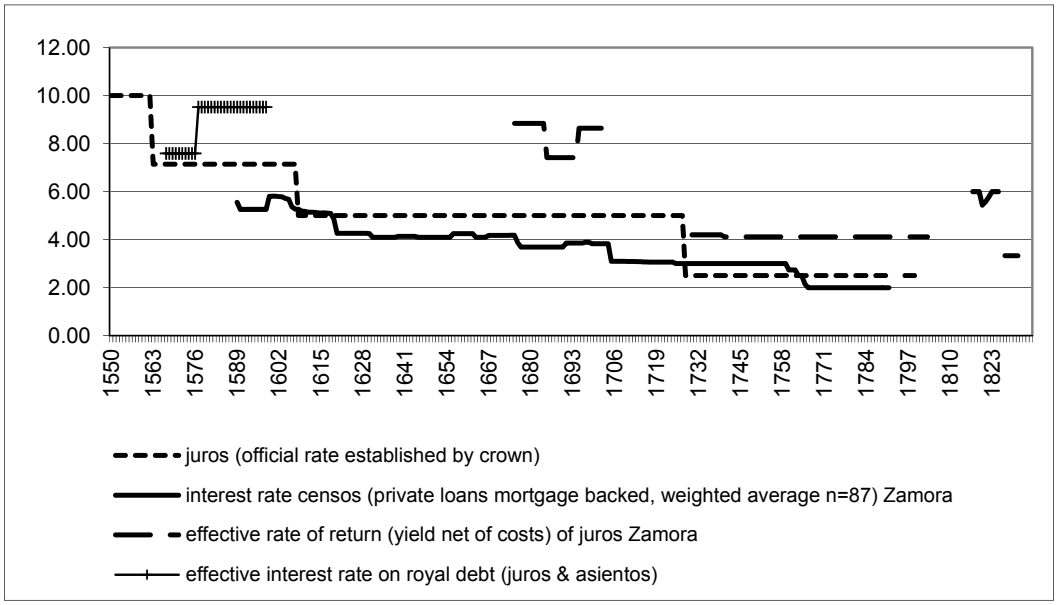
Interest rates

The more important question is however, if this similarity in per capita revenue reflects more general similarities, as implied by the supposed dichotomy between parliamentary and absolutist regimes in early modern Europe. Was eighteenth century Spain indeed in a situation comparable to that of France, that is, at a point where investors distrusted it, and the credit markets demanded much higher interest rates on French sovereign debt than on British sovereign debt? Within the NIE paradigm the answer should lie in the interest rates. Series of sovereign interest rates for Spain, especially in the eighteenth century, have been hard to construct. In part this is the result of Spain's rather perplexing fiscal behaviour in this period. Throughout the sixteenth and much of the seventeenth centuries Spain had famously contracted sovereign debt through both loans and annuities. Large loans (*asientos*) had been provided by the German banking houses in the sixteenth century, and in the seventeenth they were syndicated by Genoese investors (Ehrenberg 1896, Drelichman and Voth 2011a, Drelichman and Voth 2011b). Annuities were issued in the form of the *juros* throughout the sixteenth century, and until the 1670s. However, between the late seventeenth and the late eighteenth centuries, the Spanish central hacienda neither issued new *juros*, nor did it take up large loans nationally or internationally.

This led to two features of Spanish public finances that set them apart from their European neighbours throughout much of the eighteenth century. On the one hand, at a time when most European states struggled to service their debt, the share of Spanish expenditure spent on debt service was minimal. During the eighteenth century Britain and France spent between one third and half of their total expenditure on debt service, and the Netherlands spent between forty and seventy per cent. In peninsular Spain debt service consumed on average seven per cent over the century, and even in the financially very challenging 1780s, when new debt was issued in the form of the *vales reales*, it did not exceed twelve per cent.

Between 1782 and 1794 the debt of the Spanish central treasury increased five-fold. But even on the eve of the French war in 1793 Spanish per capita debt was barely five per cent of British per capita debt (Grafe 2012). In the American territories these numbers were even lower. Debt service rose from about two per cent of total expenditure on average in 1729-33 to seven per cent on average in 1796-1800 (Grafe and Irigoin 2012).[iii] On the other hand, the interest rate the Spanish central treasury would have had to pay for new debt is not known, since there was no regular issuance. The best proxy available is therefore the return that investors received on the old *juros*, on which interest continued to be paid, and which were traded in secondary markets. Anecdotal evidence on loans taken up in Europe and the Americas in the late eighteenth century adds to the picture.

Figure 3: Public and private interest rates in Spain (1550-1830)



Sources: for a complete list of sources see Grafe (2012)

Figure 3 displays the official rate of interest of *juros* established by the crown, which fell from ten per cent in the sixteenth century to 2.5 per cent in the eighteenth. During much of the later sixteenth and especially the seventeenth century the *juros* traded at substantial discounts on face value, and thus yields were considerably higher. The series of the effective rate on royal debt constructed by Drelichman and Voth and included in Figure 3 for the late sixteenth century reflects their estimate for the real cost of borrowing for the crown by combining annuities and large loans, which exceeded nine per cent. No comparable data is available for the first half of the seventeenth century.

For the later seventeenth and the eighteenth centuries a small series has been constructed on the basis of the *juros* owned by the Cathedral Chapter of Zamora. It reflects the return the Chapter realised on their *juros*, and is perhaps the closest possible estimate of yields.[iv] The difficult fiscal and therefore financial situation in the later seventeenth century is clearly visible. Returns were between 7.4 and 8.6 per cent. However, by the mid to later eighteenth century, these had dropped back to somewhere between 4.1 and 4.3 per cent on average. When Spain returned to international markets in the very late 1700s, it paid 3.5 to five per cent in the Amsterdam market, comparable to what Britain paid at the time (Riley 1980; Marichal 2007). As late as 1805 Spain took up a loan in Paris at 5.5 per cent (Hamnett 1969). By then, of course, all of Europe was scrambling for funds to continue the first intercontinental war of the modern age.

In short, during the eighteenth century the interest rate on Spanish sovereign debt was surprisingly close to British rates, and not at all facing the same problems that France confronted. During the eighteenth century Spain had retired some of the legacy debt issued under *juros*, and simply did not issue new debt. Yet it did not do so because it could not raise money in the face of high rates, but because it *chose* not to borrow. Thus investors had to chase for old annuities in the secondary markets, and were willing to lend effectively at a lower and lower rate. The crown did of course borrow short term from suppliers and merchants and its own tax officials, yet here too modest rates were the rule.

Importantly within the context of the North and Weingast argument, private interest rates in peninsular Spain were even lower than sovereign rates during this period. Private mortgage-backed loans, so-called *censos*, were agreed between local debtors (in this case mostly farmers) and the Zamora Cathedral Chapter at just over five per cent in the early seventeenth century, and closer to two per cent in the later eighteenth (Figure 3). There are good reasons to doubt that private and public interest rates were ever as closely integrated as North and Weingast implied (Clark 1996). The only theoretical argument in favour would be that very high sovereign rates might have crowded out private investors, just as usury rates (which never mattered in Spain) might have caused crowding-out in Britain (Temin and Voth 2005). Yet a ruler who was increasing overall long-term borrowing only very modestly, like the Spanish crown between the late seventeenth and the late eighteenth centuries, did obviously not crowd-out private investors. Increases did occur, mostly because investors, for technical reasons, adjusted to the new lower rates by toping up the principal, rather than receiving a lower interest payment (see note four). Yet, since they could choose repayment instead, this was also unlikely to crowd-out private demand. Private interest rates rose again

only in the first decade of the nineteenth century, but by then peninsular Spain was in the midst of a civil war caused by the Napoleonic invasion of 1808.

How different was the situation in Spanish America? Its fiscal system was run between the sixteenth and the eighteenth centuries through a network of almost 100 regional treasuries which enjoyed fairly great autonomy. Transfers between these treasuries were instrumental to the workings of the system. Elsewhere this has been described and analysed based on data for up to 72 treasuries (Grafe and Irigoin 2006; Irigoin and Grafe 2008). They financed the continued expansion of the Spanish state in the Americas, and with it the extension of the fiscal base territorially, and in terms of subject population. Yet there was no serious long-term debt in Spanish America. The crown initially offered *juros* in the Americas, but stopped doing so in 1639 at the behest of the Council of the Indies. While the early sales were very successful, a renewed offer of *juros* in the late seventeenth century was not taken up by the public (Andrien 1981). Given what is known from the yields in peninsular Spain, this was of course a moment of great discounts on face value, and the reluctance of Spanish American investors is hardly surprising. This was, however, the last attempt to issue *juros* in the Americas. Theoretically the crown's American subjects could still buy peninsular *juros,* but getting the coupon paid on a local tax in peninsular Spain was a costly enterprise for a Spanish American investor.

In the absence of a funded sovereign debt in the New World, public borrowing in the Spanish Americas revolved around the activities of the regional treasuries, which incidentally meant that the crown's American subjects could monitor both their investments and the local public borrower much more easily. Throughout the sixteenth to eighteenth centuries local non-religious and religious corporations gave loans and advances to their local treasuries. These could be part of civil or military purchasing, office holding or tax farming and revenue collection, or be part of the system of inter-treasury transfers. From at least the early seventeenth century there were also occasionally large loans, which were usually syndicated through important local institutions such as the merchant guilds (*consulados*) or the mining guild (*tribunal de mineria*), which for a fee pooled resources, offering additional security to small investors and lower transaction costs to the local treasury (Grafe and Irigoin 2012).

Early American examples of syndicated loans reflect the generally very high interest rates in the early seventeenth century. Quiroz argues that the Lima *consulado* paid up to seventeen per cent in 1627 to the investors (Quiroz 1994). Yet it is hard to generalise from this information, and unlike the peninsular economy, Lima was in the midst of a boom at the time. In all likelihood lucrative private business was crowding-out public borrowing, not the

other way around. Given the regional and local nature of public borrowing in the Americas, and the privatisation of large parts of the public finances, how much interest (explicit and implicit) the Spanish American treasuries paid for much of the period under consideration is simply unknown. In the late eighteenth century more large, syndicated loans appeared. Where information exists, the interest rate was becoming more standardised. The syndicating institutions charged the local treasury around five to six per cent, while paying investors four to five, and keeping one per cent as their fee. For example, in 1793 the *Consulado* of Buenos Aires syndicated a loan over 100,000 pesos for six per cent. The crown guaranteed debt service by earmarking a number of local taxes for this purpose. The *Consulado* raised the principal from local merchants, who participated with loans of different amounts, and with maturities between two and six years (Grieco 2005). Similar cases are documented for Mexico and Lima (Grafe and Irigoin 2012).

Even though there are substantial lacunae in the understanding of the financing of the Spanish state in Europe and the Americas, the available information suggests that for much of the period under consideration Spanish public finances were in better shape than once thought. Whereas thirty years ago historians simply referred to the repeated Spanish defaults of the sixteenth and seventeenth century, it is now quite clear that during the sixteenth century so-called defaults were essentially re-negotiations that turned loans into long-term bonds, and which reflected liquidity problems rather than insolvency (Rodríguez-Salgado 1988, Thompson 1994). More important, Drelichman and Voth (2011c) demonstrate that the defaults did not change lenders' expectations. In other words, they had been priced in all along. This explains why bankers and the public kept on investing in Spanish public debt. Rather than being strong-armed by a predatory ruler, there were profits to be made.

The picture that emerges fits poorly with the model of a lack of 'credible commitment'. Spain was not expropriating the assets of its lenders, even in its hours of need. However, Spain's fiscal history in the eighteenth century presents an even bigger challenge to the idea of the predatory state. After the dire straits of the early to mid-seventeenth century, Spain did what Margaret Levi thought was impossible: it stopped trying to increase revenue (and borrowing), and it did so even though sovereign interest rates suggest that its subjects were keen to invest more in public debt. As Grafe (2012) has demonstrated, strong urban control over the Spanish fiscal system explained investors' faith to a large extent. Spanish rulers maximised rule. If that meant forgoing revenue, that was a price they were willing to pay (Irigoin and Grafe 2008).

Investing in coercion: forced loans, currency manipulations and monopolies

That Spain behaved differently from the underlying assumption of the necessarily predatory ruler becomes even clearer when we turn to a third 'test', the states' investment in coercion. This is a very complicated issue on a comparative basis, but a few short examples support the case that Spain spent relatively little on repression, and was thus able to raise an amount of per capita revenue that was quite similar to the French case (at least in the eighteenth century), but with a much lower investment in coercion. Indeed it is that lack of coercion that explains the willingness of the crown's contractual partners to continue offering funds at low rates. Of course the possibilities of rulers to coerce their subjects into supporting them beyond the investors' will were manifold. Three often-cited examples follow: forced loans, depreciations, and the ubiquitous early modern monopolies.

The extent of confiscatory powers of the ruler is most obvious in outright expropriations of private property rights and repudiations of sovereign debts, which, as North and Weingast rightly pointed out, were not unusual in early modern Europe. The most common reference is to forced loans. Republican Florence relied on them in the fifteenth century, and so did the Netherlands into the seventeenth century (Martines 1988; Gelderblom and Jonker 2008) (see Pezzolo, this volume). In the Spanish context it is often claimed that the so-called *donativos* constituted forced loans, yet, notwithstanding their name, the level of coercion involved was at best modest. Grieco has shown beyond doubt that investors in *donativos* always expected a return (Grieco 2005; Grafe and Irigoin 2012). By the eighteenth century, for which more information is available, the *donativos* usually paid an interest rate that was attractive enough for investors to want to put their money into them. They were diligently serviced. Moreover there is evidence that the king's subjects occasionally refused to pay into 'forced' loans when they were not convinced that it was a good investment, and the ruler did absolutely nothing about it (Grafe and Irigoin 2012). Not much predation there then.

That is not to say Spanish rulers never performed expropriations. The possibly largest confiscations of wealth were the *temporalidades.* In 1767 Spain followed Portugal's example and expelled the Jesuits. The underlying and proximate causes for this expulsion were complex. The latter involved a large urban uprising in peninsular Spain in 1766, and conflicts with the Jesuits over their missions in territories that were contested between Portuguese Brazil and Spanish Río de la Plata. In other words, that the royal purse took over Jesuit property was the consequence, not the aim, of the expulsion. In the Americas especially, the amounts involved were large. Real property was sold off, and debtors to the Jesuits had to

either pay off their debt, or pay the local administrator of the *temporalidades* the same amount they had previously owed the Jesuits. Since the administration was local, well-to-do investors made large profits in the process by replacing the Order as financial intermediaries. Hence this incidental confiscation created large windfalls for both the local treasuries and investors, but it fits poorly the bill of fiscally driven expropriation.

Indeed towards the end of the eighteenth century it was a sign of the times that religious institutions found themselves under ideologically based pressure to give up some of their spectacular wealth. In the 1780, for the first time in more than a century, the Spanish central treasury issued new public debt, the *vales reales,* Spain's first sovereign bond. They offered a four per cent coupon on twenty years' maturity, and their denominations were initially so large that they were obviously aimed at investors with deep pockets (Tedde de Lorca 1984). The treasury earmarked revenues to pay them off, and throughout the 1780s they performed well. After losing face value in the first two years, they traded at par or above between 1783 and 1794. Hamilton was famously puzzled by the trust that the public evidently had in the crown's commitment to service them (Hamilton 1944). After 1794 however, emissions increased exponentially, and discounts returned as Spain was dragged into war with revolutionary France, although the treasury created a sinking fund based on local taxes.

A depreciated bond turned into a confiscatory act of the crown only after 1798, when the crown began the *desamortización* (disentailment) of religious institutions, which received *vales* in return for the forced sale of real property. In 1803 the Spanish crown's financial situation took a dramatic turn for the worse. Desperate to avoid war with Napoleon's France, Spain agreed to pay an enormous monthly contribution directly into the French coffers. In order to restore the market for *vales*, Spain continued the confiscation process to the Americas, and created a consolidation fund for the bonds. Here, too, the confiscation hit pious foundations which were forced by decree to contribute to the consolidation fund. Liens, loans, and mortgages that supported these pious works had to be redeemed, and the charities were forced to sell real property (Chowning 1989). However, once again the implementation of the decree was left to local *juntas* consisting of high local political and fiscal officials, the highest representatives of the Church in the region, and a delegate of the crown.

The commissions were charged with assessing the value of the loans, and, importantly, with negotiations with the debtor, who now owed the Consolidation Fund rather than the pious foundation. In the process, deals were cut, interest in arrears cancelled and principals reduced, and in Mexico, for example, the actual administration of the

'expropriation' consumed forty-four per cent of the total yield, which remained in the local economy (Hamnett, 1969). In short, the crown's most blatant attempt at confiscation produced a negotiated outcome that shared the spoils by reducing the outstanding private debt which was to be converted into public borrowing. Thus, even under the existential threat from Napoleon, the confiscatory power of the Spanish ruler went only so far as local authority would collaborate. In the end neither the histories of the *donativos*, the *temporalidades*, or the *vales reales* support the notion of confiscatory power being wielded by the Spanish crown.

Given European rulers' monopoly over currency emission, debasements were another well-established avenue for supposedly predatory rulers to change property rights unilaterally in their favour. The Tudor kings of England had engaged in this practice in the 1500s; John Law's Scottish 'cure' to France's debt problem after the War of the Spanish Succession was the most notorious instance of the strategy. Traditionally economic history would follow Hamilton (1943) and add Spain's seventeenth-century experience to the list. However, this is a little disingenuous. Spain famously resorted to debasements of its small coin, the *vellon*, between the 1610s and 1686 (García de Paso 2000). However, with a very short lived exception in 1642-43, Spain's large coin silver currency was not substantially debased over a period of almost three hundred years (Grafe 2012). The stabilisation of the copper coin in the 1680s was in part achieved through a minor debasement of peninsular silver-coins (the *provinciales*), though American coins (the *nacionales*) remained untouched. *Provinciales* and *nacionales* were also subject to two very minor debasements in the eighteenth century, but these were directed at returning the *peso* to within a band that remedied problems with bullion flows, in other words a technical monetary adjustment (Nogues-Marco 2010). In short, there were modest adjustments to the main metropolitan silver coin, and the story becomes more complex when it includes territories beyond Castile.

By comparison with its European peers the Spanish American peso was without a doubt the best store of value an investor could expect from any currency. No matter how uneasy North Americans grew over the credibility of the continental dollar as they saw the U.S. Congress print money, they never doubted the value of the coin to which the bearer of these first United States dollars was supposedly entitled in return, Spanish milled dollars, that is, Spanish American *pesos.* Economists comparing the trust investors had in different legal systems seem conveniently to forget that the Spanish American *peso* remained legal tender in the U.S. until 1856, and was the basis for the establishment of the U.S. dollar (Irigoin 2009). For most of the early modern period it was the only safe currency in Europe, Asia, and the

Americas. 'Irresponsible' Spanish rulers could have expropriated holders of *pesos* residing in Madrid or Lima, Philadelphia or Canton. They chose not to, and merchants and investors everywhere evidently thought that the crown's commitment to the *peso* was credible.

Finally a few words need to be said about rulers' ability to infringe on their subjects' property rights through the sale of monopolies, another of North and Weingast's key indicators for the predatory state. Again, somewhat careless economic historians are in part to blame for the confusing notion that monopolies were resorted to more intensely by Spain's early modern rulers than elsewhere in Europe. Two fields are often singled out: trade with the Americas and fiscal monopolies. In the case of the commercial monopolies this is ironic, since the Spanish Indies trade was in fact no monopoly, as opposed to the colonial trades of the republican minded Netherlands and England. In contrast to the monopolies controlled by the English and Dutch East India companies, the *Carrera de Indias* and the Manila *Galleon* were structured according to an earlier form of mercantile organisation, one first built around wool exports to the southern Netherlands (Phillips and Phillips 1997), and more akin to a chartered company, essentially a licensing system. Those who wanted to participate had to be members of a guild (the *Casa de Contratación* or the *Ciudad y Comercio de Manila*). Thus, barriers to entry existed. However, the ability of the *Casa de Contratación* to exclude others from the trade was always limited by the incentives for members to serve as (paid) proxies for outsiders. Notwithstanding minor attempts in the eighteenth century to emulate proper English monopoly trading companies, economically speaking only a very reduced part of Spanish American trade was ever a monopoly.[v]

Fiscal monopolies were an altogether different story. The *estancos* formed an increasing share of Spanish revenue. If there was one area where one should expect the ruler's coercive and repressive hand to be clearly visible, tax monopolies would be the place. Amongst these in the eighteenth century, the tobacco monopoly was the crown jewel. Indeed Spain derived in the eighteenth century about twice the share of its total revenue from the tobacco *estanco* that France collected from its own monopoly. As Kwass shows elsewhere in this volume, French enforcement of the tobacco monopoly was fierce.

Spain too tried its best to solve the problems that fragmented jurisdictions created in Castile, the Basque Provinces, the three Aragonese territories, and in Navarre. The story of the actual introduction of the monopoly is complex and beyond the scope of this chapter. Suffice to say that it only ever became a real monopoly in Castile, but in order to achieve this the royal treasury had accept that a) it would receive no revenue from the Basque Provinces, but had to subsidise the border enforcement of the Provinces; b) it would have to become the

subordinate tax farmer of the Navarrese Parliament while again subsidising local administration; and c) that Aragonese consumers would overwhelmingly buy smuggled tobacco (Grafe 2012). Indeed the prized tobacco monopoly might be one of the best examples of the choices early modern states had. France chose severe repression, and paid for it with a loss of legitimacy, high costs of coercion, and lower per capita net revenue (Kwass this volume). Spanish rulers negotiated away constitutional and other conflicts, and though smuggling was illegal, prosecutions were in no way comparable to French levels. The outcome was an uneven application of the monopoly, but also lower costs of coercion and, most important, higher net revenue.

The discussion offered here is hardly exhaustive. However the evidence strongly suggests that Spain was indeed combining an ability to collect per capita revenue that at least matched that of France with a regime of low coercive and predatory effort. This is consistent with the moderate interest rates presented above, a proven ability to borrow, and a treasury which on the whole paid its debts. It is also confirmed by a political regime that defended the early modern world's foremost currency, and managed to organise its most important fiscal monopoly in such a way that it became a real revenue spinner at a relatively low coercive cost. To return to Figure 1, Spain was on the left of point A. This means that the generalised assumption that underpins the North and Weingast framework, and practically all of the relevant NIE literature, that all rulers are predators because they must maximise revenue, is simply incorrect. To put it another way, Spanish fiscal capacity might have been lower than that of Britain, but it was certainly equal to that of France. However this was neither the consequence nor even the corollary of lower legal capacity resulting in higher levels of coercion. That represents an entry into political *terra incognita* in states such as early modern Spain, where predation was never the most important political economy issue. What then were the largest political economy challenges for growth in countries like ancien regime Spain?

III

Deep constitutional roots (again in the sense of its broader *Verfasstheit*) explain why, in states such as Spain, the ruler did not become a predator in the early modern period. These can be dealt with here only summarily, but are discussed in more detail in Grafe (2012) and Irigoin and Grafe (2008). In the Spains (tellingly, contemporaries used the plural), historic territories, and especially towns, retained most of the control over revenue and expenditure, meaning

that local representation was powerful. The crown's role was that of a mediator of regional and local authorities, not that of a mandating central force. Spanish kings had never had divine rights over which the *cortes* could have tried to gain supremacy (as the English Parliament did), or which could have been attacked by revolutionary citizens (as they did in France). The Spains lacked a repressive apparatus in the peninsula, and even more so in the Americas, where before the 1760s they did not even have a standing army to speak of, but relied almost entirely on local militias (Grafe and Irigoin 2012).

The state in the Hispanic world was never autonomous, or, as North and Weingast would have called it, 'vertically integrated' (North and Weingast 1989). Power remained largely shared and negotiated between local, regional, and supra-regional administrative units, rather than hierarchically ordered. Decentralisation delivered governance that was perceived as legitimate: Spanish kings kept their heads on their shoulders, and Spanish American independence was triggered by the fact that the French removed (imprisoned) the Spanish king after their invasion of the European metropolis, and imposed French rule. It started as a movement in the name of the Spanish king, not as a rebellion against the crown. Frankly none of the major events, trends, and structures of early modern Spanish history fit the pervasive notion, which still appears in the pages of economics journals, of an unconstrained Spanish ruler hell-bend on centralisation and revenue, and willing to ride roughshod over his subjects' and lenders' property rights.

This political regime thus generally did not threaten the economy with predation, and its costs were not primarily a distortion of incentives for investment. Instead the lack of vertical integration manifested itself in poorly coordinated and integrated markets. Devolved state autonomy resulted in lower fiscal capacity in spite of high levels of legal capacity. Local control and representation was good for legitimacy and legal capacity, but hampered the widening and therefore deepening of markets. English historians such as Ashworth have recently begun to investigate how the application of a *national* excise not only flushed more revenue into Parliament's coffers, but also served to standardise productive processes in such areas as brewing. Weights and measures had to be unified for the excise man to do his duty, and the actual production technology involving alcohol degree and equipment became more standardised too. Compare this to Spanish fiscality, which incidentally relied even more on indirect trade and consumption taxes than in England.[vi] Each town and district created its own tax structure, even if, notionally, certain consumption taxes such as the *alcabala*, or trade taxes like the *almojarifazgos*, should have been standardised. They were not, and their specific rates determined everything from the size of a wine barrel in town to the length of

silk cloths. Not only did local representation fail to encourage the standardisation that could lower transaction costs, and thus support larger and deeper markets, it made any harmonisation of weights and measures, production processes, or product types virtually impossible (Grafe 2012).

What was true for goods markets also held for financial markets, even if the mechanism in this sector was slightly different. The example is interesting, because it addresses a puzzle that emerges directly from the discussion of Spanish public finances offered above. Spanish, and even more so Spanish American, economic historians have always struggled to explain the contradiction that is so obvious in the data presented. On the one hand, interest rates in Spain and Spanish America seem to have been relatively low by international comparison, which would suggest that there was no shortage of capital, even though historians of colonial Spanish America have persistently claimed that 'money' was scarce. On the other hand, it is a well-known fact that financial institutions developed very late in the Spanish territories, and the entire banking sector, if it could be called that, was institutionally lagging behind all other western European countries. So what was the problem, if potential banking entrepreneurs had little predation to fear for from the ruler?

The common feature of credit markets in Spain and Spanish America was that they were largely localised. This is not surprising given that they responded to the needs and demands of a private *and* a public sector that were in turn very local. Before the creation of the *vales* in the 1780s there was no 'national' or even imperial debt. Even if the *juros* were raised in the name of the ruler, they were secured against local tax income, which served to pay the interest. Their payment most likely involved a private notarial contract between the local tax farmer of a specific urban consumption tax and the equally local holder of the *juro*. That these annuities were backed by local revenue streams was precisely what made them so trustworthy in investors' eyes. In Spanish America most of the public debt was extended at a local or regional level to the regional treasury offices as mentioned above. In short, demand was at most regional, and so was supply. This had benefits. Monitoring local borrowers, public and private, was easy, and enforcement costs were reduced. Information costs were low, and moral hazard issues limited in a market where everyone knew the reputation of other lenders and borrowers.

If there were no banks, who was lending? The sophisticated and well developed culture of notarised contracts in the Hispanic worlds made it relatively easy to set up private debt obligations under the protection of the law, and to enforce them in court (Burns 2010). However, it appears that by far the largest source of credit were religious institutions and

charities, followed by merchant guilds (*consulados*), which began to syndicate large loans for the public purse, and a few other institutions such as indigenous trust funds and Madrid's *cinco gremios*, which had evolved from five traders' guilds, but moved into insurance and banking in due course (Capella Martínez and Matilla Tascon 1957). Monasteries, convents, religious confraternities, schools, cathedral chapters, and pious foundations all lent at interest, and in entirely commercial ways. With a strong interest in guaranteeing a regular income stream and the collateral and funds to offer a large loan volume, they were ideally placed to offer everything from small loans to peasants to substantial amounts to merchants, officials, local treasuries, and noble estates. At the same time they also took loans offering individuals safe investment opportunities. The most commonly employed debt instrument was the *censo*, a collateralised loan, whereby there was little limitation as to what sort of asset could be used as collateral.

Hispanic financial markets are poorly studied, if only because it has simply not occurred to financial historians to study the very extensive loan books of religious institutions, and most religious historians are uninterested in banking practices, although there are a few notable exceptions (Lavrín 1966; Chowning 1989; von Wobeser 2010; Quiroz 1993; Greenow 1983). This credit sector apparently provided efficient access to capital in rural and urban markets at least from the sixteenth to the eighteenth centuries. As Figure 3 shows, in rural Extremadura (peninsular Spain) the average rate of interest fell to just over two per cent in the eighteenth century. In Spanish America most of the evidence suggests a nominal interest rate of five per cent on *censos* even in the eighteenth century. Too little is known, but given the well-known higher inflation rates in Spanish America, the real interest rate might have been closer to peninsular levels than it appears. In any case, it is clear that the volumes involved in these credit transactions were simply staggering.

Still, at present it is almost impossible to asses if credit rationing occurred. As much as monasteries and other religious institutions served as a functioning, reliable, and cheap local lender, they were multi-functional institutions. Their core business was religion, and their banking activities were a means to the end of financing their religious activities and maintaining their cadres. There was little room for learning and institutional innovation. Monks were not chosen for their financial aptitude, though arguably congregations that managed their businesses well were able to attract more donations and novices. Indeed for a Peruvian merchant of the seventeenth century the best way to guarantee that he would have regular access to credit was to send his daughter, accompanied by a nice dowry, to one of the richer convents in his town (Burns 1999; Gibbs 1989). Yet competition between religious

institutions was always muted, and there were few economies of scale. Convents that grew very large tended simply to open a sister convent nearby, limiting both spatial and vertical integration.

The local embeddedness of this credit sector allowed it to be close to the customer, and lowered monitoring costs. That the lender stood between the borrower and God probably further lowered the risk of shirking. Religious institutions had sufficient funds to ride out debt defaults caused by a bad harvest or a smaller commercial downturn, and to allow their customers to get over a bad moment. Yet, like all small local banks, they were susceptible to larger shocks to the local economy. Their lack of spatial integration could become a serious liability, and would potentially depress lending pro-cyclically if the local economy was hit by a serious crisis. Also, as multi-purpose institutions their ability to lend was subject to factors that did not respond in any way to the credit market. An expensive new chapel could well mean no agrarian credit in a rural monastery's district for a couple of years.

Worse, when their core activity, religion, came under attack in the later eighteenth century, the credit sector became collateral damage. The expulsion of the Jesuits seriously limited credit in the 1760s, but it is likely that other institutions took over their activities. However, disentailment in Spain and the consolidation of the *vales* in Spanish America effectively shut down large parts of the credit market. The ideological changes of the time, which demanded the state would take property away from the *mortmain*, ironically created severe interruptions in lending, mainly because the 'dead hand' had been very much alive and active in banking. Religious institutions had to call in existing loans and stop lending. Estimates for the investment of capital from ecclesiastical sources range from forty-four to fifty-nine million *pesos* in Mexico alone (Hamnett 1969). Even though, in the end, much of this was renegotiated, and the consolidation was called off before it affected smaller borrowers, the dislocation of credit markets was severe, and new lending much reduced.

The peculiar locally based credit market in the Hispanic world evidently served the economy reasonably well for much of the sixteenth to eighteenth centuries. Financial historians trained to search for something called a bank simply missed the fact that in the Hispanic world religious institutions accounted for much of the banking business. Nor was that unusual: Islamic *waqf* probably fulfilled a similar function. However, the latter were far more limited in terms of the design of financial contracts (Kuran 2010) than Spanish religious institutions, which faced no formal restrictions at all. In short, in the Hispanic world capital was clearly available, interest rates moderate, and so far there is little evidence that credit rationing was a major issue. That is not to say that everywhere and at all times would-be

investors had easy access to loans. The local nature of the market meant that abundance in one town might well combine with scarcity in another. However, the insufficient institutional development of a specialised banking sector had little to do with a predatory state, and a lot with the persistently small scope and scale of credit markets in which a rich convent might be better at offering credit than a specialised individual merchant banker.

As Grafe has argued capital was never a serious bottleneck in the Hispanic World (Grafe 2012). Instead, it was the abundant factor of production and chasing investment opportunities thereby driving down interest rates to such an extent that efficiency gains in financial markets became relatively unimportant. To put it another way: where non-specialist bankers such as the merchant guilds or monasteries mediated between lenders and borrowers for a commission of one percent the scope for the development of specialist banking was limited. There is no evidence that the few banking institutions that did develop, such as the *Cinco Gremios de Madrid* were held back in any way by legal restrictions or a state that was interfering with business, but they remained marginal to a market in which religious institutions were successful incumbents.

The reality was that there was little demand for more sophisticated banking services. Ironically, a combination of strong contractual law available absolutely everywhere in the Hispanic world through the apprenticed notary, and the fact that the search for stable income streams of religious institutions created simple but well-functioning local credit markets, seriously delayed the development of specialised banking activities. Strong legal capacity thus inhibited rather than fostered financial market development as long as an oversupply of capital kept interest rates low anyway. Maybe the creation of a unified 'national' debt instrument like the *vales,* strongly backed by the state, might have created a demand for more specialised banks. But monasteries might still have been too good at what they were doing and they had invested in *vales* even before they were forced to. Though specialist research is missing it seems likely that what broke the financial back of the Hispanic economies were its would-be enlightened reformers, who failed to foresee the secondary effects of their attacks on religious institutions. When the ideological shift of the late eighteenth and early nineteenth century undermined their main trade, religion, the Christian moneylenders and their customers were in trouble

IV

The elegance and simplicity of North's and Weingast's model of 'credible commitment' has turned it into one of the theoretical pillars underpinning modern political economy, even though economic historians have steadily chipped away at their narrative of England's political, fiscal, financial, and growth trajectories. Rather than focusing on that story itself, this chapter has challenged the claim to universality which underpins it. It has offered a number of theoretical considerations to explain why the common assumption that rulers need to maximise revenue, and therefore will predate unless a constitution stops them from doing so, does not hold true. During the early modern period some states might have had the degree of vertical integration (hierarchy and centralisation) that afforded a ruler confiscatory powers. However, some, maybe many states followed a different constitutional path.

The empirical discussion confirms that, in the terms of Figure 1, Spain was throughout the early modern period on the left half of the graph, where states combined reasonable revenue collection capacity with low degrees of investment in coercion. The Netherlands in the sixteenth century was in a similar position. However, as Dutch historians have pointed out, under the pressure of the Eighty Years War power in the Netherlands became more hierarchically ordered, the fiscal system moved from being town-based to being mostly administered at the provincial level, and even some national taxes made an appearance (a move to NL') (Fritschy 2009). In other words, the Netherlands solved at least some of the fundamental coordination problems that rulers faced on the left hand side of the graph.

Spain, by contrast, on the whole did not solve these problems. The crude sketch of financial market development above starts to chart some of the consequences of this failure. Local control over fiscality and markets was good for representation and the legitimacy of governance. It was compatible with, and relied on, very high levels of legal capacity, but by its very nature it limited fiscal capacity. It is not clear, however, that these fiscal limits were the most important problem. The main unintended consequence of this system was that it hamstrung the widening and deepening of financial and goods markets, and affected growth negatively. In trying to explain economic development in the Hispanic World (and probably in quite a number of other early modern states and empires) the predatory ruler is a red herring. The problems were of an altogether different nature.

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[i] In the longer term English tax rates of course rose very fast. However, for the purpose of North's and Weingast original argument this was in fact not necessary. They assumed that the positive effects of a more reliable and equitable tax system on growth would allow revenue to grow even if the rates had not increased. Thus the dynamic part of their model came out of lower financing costs and higher rates of economic growth not higher tax rates.
[ii] Interestingly Levi thought that this only applied to states that were run by a larger group of "top management" (military and police) but not to monarchies. For a contrasting view see La Manna, M. & Stomp, G. 1994. 'Leviathan; revenue maximiser or glory seeker?' *Constitutional Political Economy,* 5**,** 159-172.
[iii] Andrien reports that at least in Lima debt was higher in the seventeenth century. However, it is likely that debt was concentrated in the large treasury districts and rather lower on average. Andrien,

K. 1981. 'The sale of juros and the politics of reform in the viceroyalty of Peru', 1608-1695. *Journal of Latin American Studies,* 13**,** 1-19.

[iv] *Juros* were redeemable and thus the crown was able to reduce the interest rate as long as investors would be willing to hold the new annuities. Since in the case of *juros* the return (*réditos*) was generally held constant (an effective way of circumventing usury laws) technically a lowering of the interest rate was achieved through an increase (*crecimiento*) of the principal. In other words, rather than have the principal repaid, the investor agreed to top it up in order to guarantee the same future income stream. However the real return on the *juro* was also altered since the crown began to levy taxes and surcharges on some of the older *juros* in the seventeenth century effectively reducing returns. In short, the only way to get at the yields on *juros* is via the private account books of the annuity holder which register up-to-date principal and the real return they received after all deductions.

[v] The exceptions were the Guipuzcoana de Caracas (created 1728) in the cocoa trade, the Compañia de La Habana (created 1740), which controlled part of the tobacco and sugar trade and the Compañia de Barcelona (1755) which tried to monopolise Catalan trade. Their success was limited and they remained very controversial and contested. See Grafe, R. 2012. *Distant Tyranny. Markets, Power and Backwardness in Spain 1650-1800,* Princeton, Princeton University Press.

[vi] Fiscal historians have long claimed that part of the English fiscal revolution was a strong reliance on indirect taxation rather than direct taxes such as land taxes. Compared to France that is true. Compared to Spain (and of course the Netherlands) England was a latecomer to indirect taxation and only matched Spanish levels in the eighteenth century.