

LENDING TO THE BORROWER FROM HELL: DEBT AND DEFAULT IN THE AGE OF PHILIP II*

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What sustained borrowing without third-party enforcement in the early days of sovereign lending? Philip II of Spain accumulated towering debts while stopping all payments to his lenders four times. How could the sovereign borrow much and default often? We argue that bankers' ability to cut off Philip II's access to smoothing services was key. A form of syndicated lending created cohesion among his Genoese bankers. As a result, lending moratoria were sustained through a 'cheat-the-cheater' mechanism. Our article thus lends empirical support to a recent literature that emphasises the role of bankers' incentives for continued sovereign borrowing.

What sustains sovereign borrowing? An important school of thought argues that punishment mechanisms outside the lending transaction itself are necessary to make governments pay (Bulow and Rogoff, 1989*a*; Fernandez and Rosenthal, 1990). Other authors have emphasised the role of reputation and gains from intertemporal smoothing (Eaton and Gersovitz, 1981; Eaton and Fernandez, 1995). A recent literature focuses on co-ordination and enforcement of moratoria amongst lenders (Kletzer and Wright, 2000; Wright, 2002; Kovrijnykh and Szentes, 2007).¹ Finally, some authors have argued that lender 'sentiment' determines funding availability for sovereigns, especially those with a poor repayment record (Reinhart and Rogoff, 2009). In the empirical literature, there is no consensus on what has sustained sovereign borrowing over the centuries.

This article attempts to shed new light on what made sovereign lending possible in practice. To do so, we examine one of the most famous historical episodes, the debts of Philip II, King of Spain from 1556 to 1598. At war for most of his reign, the king accumulated towering debts equivalent to 60% of GDP. He also suspended payments to his lenders four times. We show that Philip II's borrowing can be explained without punishments or banker irrationality. Instead, we document the importance of lenders' incentive structures and banker collusion, using hand-collected evidence from the archives. Our article is the first to provide empirical support for models of sovereign

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¹ A third school of thought argues that reputation matters for interactions outside the credit market itself; see Cole and Kehoe (1995).

lending that rely only on the borrower's need for intertemporal smoothing and lateral enforcement amongst creditors.

We compile a new, comprehensive dataset based on 438 lending contracts signed between the king and his bankers between 1566 and 1600. A close analysis of the loan documents, combined with bankers' correspondence and the eventual settlement of the 1575 bankruptcy, shows that bankers imposed effective lending moratoria. Additional sanctions were ineffective. Genoese bankers provided two-thirds of short-term loans in overlapping partnerships, effectively forming a network or 'coalition'. This lending structure created a web of multilateral obligations. As a result, lending moratoria stopped the king's access to credit: no network members broke rank; no pre-existing lender from outside the network lent; no new bankers provided funds. The reason, we argue, is that bankers who 'cheated' by lending during the moratorium would have faced severe penalties. Network members could hurt each other financially by seizing cross-posted collateral or failing to make payments due. Outsiders also did not enter since they feared being defaulted upon by the king.

The king's repeated bankruptcies were not signs of insolvency, as has been argued in the literature (Lovett, 1982; Thompson, 1994). In a related paper, we demonstrate that future primary surpluses were sufficient to repay Philip II's debts (Drelichman and Voth, 2010). In addition, lending was profitable (Drelichman and Voth, 2011). Nonetheless, we refer to the payment stops as 'defaults' or 'bankruptcies', following standard practice for international loan covenants.²

Our article relates to the sizeable literature on the theory and practice of sovereign borrowing. Eaton and Gersovitz (1981) argue that consumption smoothing is a key motivation for sovereign repayment. Because incomes fluctuate, intertemporal trade is valuable. If a borrower defaults, lenders punish him by cutting off funding permanently. In equilibrium, these punishments should not be observed. In contrast, Bulow and Rogoff (1989a) argue that in the presence of two or more potential lenders, lending cannot be sustained without third-party enforcement. This is so because an alternative lender to the one who has been defaulted upon can still obtain a surplus, either by offering fresh funds or by accepting a deposit. Reputation and the desire to smooth consumption alone cannot underpin cross-border credit. Instead, punishment *in addition to a moratorium by the existing lender* is necessary to make sovereign borrowing feasible.

An alternative, recent approach has emphasised that the structure of incentives for new lenders may be crucial for sustaining sovereign borrowing. Kletzer and Wright (2000) build a formal model where the environment is 'anarchic' – neither lenders nor borrowers can commit. Lenders can only punish a borrower by cutting him off, but have no additional sanctioning mechanism. Nonetheless, borrowing can be sustained because of the incentives facing alternative lenders. New creditors do not enter since the sovereign borrower has an incentive to default on them too, should they extend credit. Their model is similar to that in Wright (2002) where existing creditors have market power. Kovrijnykh and Szentes (2007) focus on debt crisis resolutions, and emphasise lenders' market power to explain how countries can escape debt overhang.

Testing these theories is not without difficulty. The fact that punishments should not be observed in equilibrium can be avoided in models with imperfect information

² In a technical sense, missing a single debt repayment constitutes a default.

(Atkeson, 1991). Nonetheless, the evidence on punishments via trade sanctions and the like is, at best, mixed. Few governments interfered with the trade of debtors in the past (Eichengreen and Portes, 1989). Sachs (1989) makes a similar argument for recent Latin American defaults. In contrast, Mitchener and Weidenmier (2010) show that armed intervention by the US in Latin America influenced nineteenth-century bond markets. In addition, for the last 50 years, Rose (2005) concludes that trade between creditor and borrower countries declined during debt renegotiations. Tomz (2007) argues that direct sanctions are rare. Future access to credit – and not fear of military intervention or trade sanctions – was the main concern of countries servicing their debts in the 1930s. Tomz also finds that investor handbooks focused on a borrower's repayment history, not trade sanctions. Flandreau and Flores (2009) examine the role of market power amongst intermediaries in sustaining sovereign debt. In a similar spirit, Esteves (2007) looks at the role of bondholder associations.³

Thus, while both the reputation and the sanctions views have some empirical support, doubts remain. Recent models of contracting under anarchy, where enforcement and punishment occurs as a result of lateral incentives amongst lenders, are even harder to test. If the search for a single theoretical model that fits all facts is in vain, we should study what made sovereign lending feasible during key episodes. Uniquely, our data allow us to observe incentives directly. The case of Philip II offers empirical support for reputation-based models where 'cheat-the-cheater' incentives play a major role.

Earlier work on Philip II's borrowing emphasises the Crown's hopeless financial position.⁴ Braudel (1966) famously argued that the king's payment stops resulted in major losses for his lenders. To this day, journalists use Castile's bankruptcies to illustrate banker irrationality.⁵ Reinhart and Rogoff (2009) argue that lending to serial defaulters may not be fully rational.⁶ In contrast, Conklin (1998) concluded that sanctions sustained lending to Philip. When he stopped payments in 1575, his bankers stopped all transfers, and the Army of Flanders mutinied. This caused a sharp setback for Spain, according to Conklin, and forced the king to settle. Our data speak against the existing interpretations of Philip's bankruptcies. Sanctions were not effective, and bankers were not irrational in lending to the king.

The article proceeds as follows. Section 1 summarises the historical background, and Section 2 describes our data and its limitations. Section 3 shows why neither banker turnover nor a 'transfer stop' explain lending to the Spanish monarch. We then analyse the structure of the market for lending to the Spanish Crown, illustrate the operation of the bankers' coalition, and show how it satisfied the conditions for incentive compatibility outlined by the modern literature. Section 4 concludes.

1. Historical Background

Early modern states spent more on armies and navies than on any other activity. Philip II was at war every single year of his reign.⁷ Fully 60% of the Crown's expenditures went

³ Mauro and Yafeh (2003) make a related argument.

⁴ See, among others, Thompson (1994), Lovett (1982), Ulloa (1977), Artola (1982).

⁵ *The Economist*, 23–29 September 2006.

⁶ Benabou (2009) offers a model of (individually) rational reality denial.

⁷ Parker (1998), p. 2. During Philip II's reign of 42 years, Castile was at peace for a total of six months.

to the military.⁸ Battlefield success required large forces, often in distant theatres of war. To succeed, states needed to ramp up spending quickly, and to sustain it for long periods.

Early modern fiscal systems were not well suited to these tasks. Little additional revenue could be raised in times of need. Sales taxes constituted the largest source of Crown income. Collection was either farmed out to private collectors or delegated to cities in exchange for annual payments. In addition, the Crown taxed silver imports from the New World. This revenue was volatile. In some years, it accounted for 40% of Crown revenue; in others, almost no silver arrived.⁹

Faced with variable expenditure and volatile revenues, the king needed to be able to borrow, and on a large scale. Borrowing took two forms: perpetual bonds and lifetime annuities, both known as *juros*, as well as short-term loans (*asientos*). Between 1566 and 1600, outstanding debt grew by 20.7 million (constant 1566) ducats. Over the same period, the king entered into short-term contracts for 83.2 million ducats.¹⁰ In an average year, he contracted *asientos* for 2.5 million ducats, carried total debts of 34.9 million, and had revenues of 6.6 million. Overall, revenues and debts both grew in parallel during the second half of the sixteenth century. Figure 1 provides an overview of the king's fiscal position.¹¹

Asientos were issued against the general credit of the king, not against a specific tax stream. They typically filled an urgent funding need. In some cases, *asientos* formalised loan agreements struck by field commanders. Long-term bonds (*juros*) accounted for a large share of Crown debt throughout. They were secured by regular taxes, and authorised by the Cortes (the representative assembly of the Castilian cities).¹² If a tax stream was insufficient, *juro* holders suffered.

Bankers like the Genoese principally lent short-term; they also placed *juros* for the Crown. Long-term bonds were often used as collateral for *asientos*. Typically, the king had the option not to repay the *asiento* in cash. The banker could then sell the *juros*. The king exercised this option frequently, making the Genoese key intermediaries in the bond market. Between 1560 and 1565, the Crown placed some 6 million ducats' worth of *juros*. Of these, the Genoese handled 3.6 million.¹³ They also specialised in acquiring information about the health of the fiscal streams backing *juros*.¹⁴ Between 1566 and 1575, 31 million (current) ducats lent through

⁸ Drelichman and Voth (2010).

⁹ For a detailed analysis of fiscal revenue during Philip II's reign, see Drelichman and Voth (2010).

¹⁰ Castilian prices rose by 53% between 1566 and 1600. Unless otherwise specified, figures in this article are reported in constant 1566 ducats, deflated using the price index for Old Castile in Drelichman (2005).

¹¹ Figures are from Drelichman and Voth (2010). Revenue data are available from 1555–96; all other series are from 1566 to 1600. All the summary figures refer to the 1566–96 period.

¹² *Juros* could be issued only against 'ordinary' (as opposed to 'extraordinary') revenues. The classification was largely a matter of political bargaining between the king and the Cortes. Highly unstable revenues, such as remittances from the Indies, were not considered 'ordinary' and hence could not be securitised; see Toboso Sánchez (1987).

¹³ De Carlos Morales (2008), pp. 95–96.

¹⁴ The superiority of the bankers in assessing the fiscal health of the Crown was widely acknowledged by Royal officials. Juan de Ovando, who was in charge of the initial stages of the 1575 restructuring, described the Royal treasury officials' 'lack of order in books and papers, their bad diligence and low reliability'. In the end, the king had to appoint Juan Fernández de Espinosa, a banker himself, to oversee the general settlement (De Carlos Morales, 2008, p. 151).

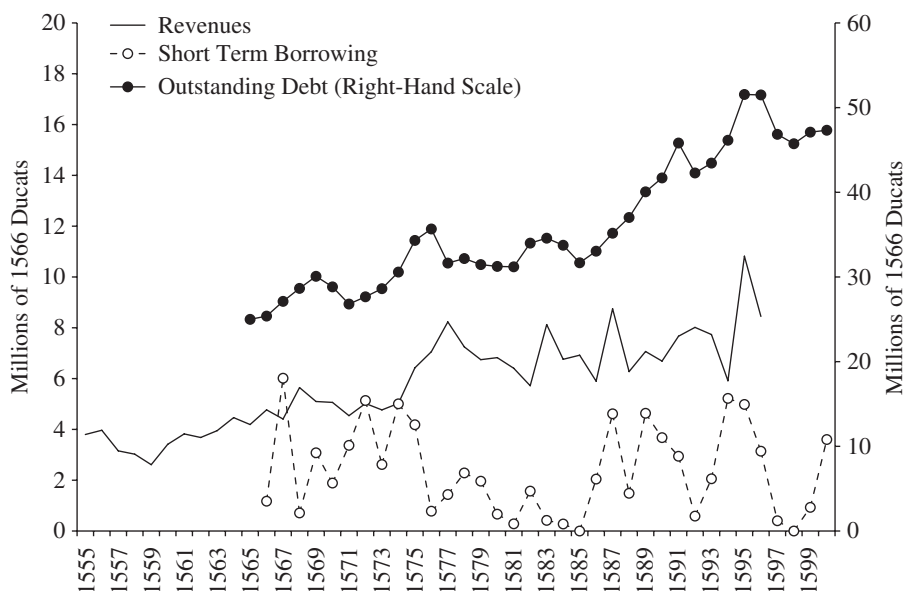


Fig. 1. *Castile's Fiscal Position, 1555–1600*

asientos were collateralised with *juros* – 86% of the total volume lent. Over the same period, the value of outstanding *juros* increased by 11–17.5 million ducats.¹⁵

The first and second payment stops, shortly after Philip II's accession to the throne in 1556, affected *asientos* held by the German Fugger and Welser banking families. Two rounds of negotiations brokered by Genoese bankers resulted in the settlement of 1560, which involved the transfer of Crown monopolies and revenues.¹⁶ Our archival series of *asientos* starts in 1566.

The third bankruptcy took place in 1575. It affected 12.3 million ducats of outstanding debt, or 1.9 times annual revenue. Interest payments, repayments of principal and service of long-term bonds held as collateral for *asientos* were suspended. The bankruptcy occurred at a time of particular strain on royal finances: Spain was fighting in the Mediterranean and in Flanders.

The Genoese bankers formed a consortium representing about 70% of outstanding debt. In addition, individual bankers and the king engaged in bilateral negotiations, looking for exemptions from the payment stop in exchange for new loans. No such bargains were struck. All lending, both by the Genoese and other bankers, stopped. Eventually, a general settlement was agreed in 1577. Bankers had to write down the value of their debts between 30 and 58%. On average, the king

¹⁵ The estimate of 11 million ducats is from Artola (1982), pp. 88–89. The higher figure was calculated by the king's treasurer, although it almost certainly included collateral *juros* not yet sold on the open market (De Carlos Morales, 2008, pp. 142–3).

¹⁶ Lovett (1980); Alvarez Nogal (2003).

agreed to pay back 62%. Repayment was in the form of long-term bonds, backed by new taxes. The bankers also provided a new loan for 4.2 million ducats.¹⁷

In 1596, the Crown stopped payments for a fourth time. The eventual rescheduling affected loans for 5.4 million ducats, equivalent to 62% of annual revenue. A combination of negative fiscal news and battlefield setbacks was to blame: in 1594 the silver fleets did not sail, and the remittances of 1595 failed to make up for the shortfall. At the same time, the Elizabethan War raised the spectre of British invasion. This led to particularly high expenditures.

Compared with the third bankruptcy, the fourth was mild. The earlier one had involved *asientos* worth more than twice as much (at constant prices), at a time when royal income was significantly smaller. Philip's last default was also settled swiftly. In 1597, a new *medio general* was agreed, and lending resumed. Bankers lost an average of 20% of outstanding claims.

The king's defaults are best characterised as 'excusable' in the sense of Grossman and Van Huyck (1988). They occurred when tax receipts and other forms of revenue were unusually low. The king settled once the shocks had passed. In Figure 2, we plot total income relative to trend for the reign of Philip II. Defaults are highlighted in grey. At the time of each default, revenues had been well below the trend for several years. Royal income surged after the payment stops of 1560 and 1575, facilitating the renegotiations.

Lending to the King of Spain occurred in an 'anarchic' environment, in the sense of Kletzer and Wright (2000). The monarch could not credibly commit to repay his lenders. Contracts were frequently violated: more than 20% of the loan documents contain detailed references to earlier contracts that were not completely fulfilled. Although the king never rescheduled *juros*, payments could be less than promised if they were secured against a poor tax stream.¹⁸ Optimal Ramsey taxation suggests that the king should have defaulted on both *asientos* and *juros* if the cost of doing so was similar.¹⁹ There is no good estimate of the losses sustained by *juro* holders as a result of excess issuance relative to the yield of various tax streams. Anecdotal evidence points to average trading discounts of about 7% at the end of the sixteenth century (Toboso Sánchez, 1987). Some discounts were greater.²⁰ Bankers could not commit effectively, either. In some cases, foreign bankers failed to return deposits by the Crown.

There was a wide range of possible outcomes between full compliance and outright repudiation. King and bankers engaged in frequent recontracting, as is to be expected without third-party enforcement (Bulow and Rogoff, 1989*a*). In this sense, Philip's 'defaults' were similar to the renegotiations that occurred at every stage of interactions between borrower and individual lenders. The principal difference is that haircuts were larger and that all bankers were affected simultaneously.

¹⁷ In keeping with legal conventions, the king recognised the full face value of his debts. Our calculation of the haircuts takes into account the present value of the settlement payments when compared to the original promises. For a full discussion, see the online Appendix to Drelichman and Voth (2010).

¹⁸ At various junctures, the king and his advisors considered forced conversions but ultimately decided against; see Braudel (1966).

¹⁹ We thank Daron Acemoglu for this point.

²⁰ One example is the case of *juros* guaranteed by the taxes on silk in the area of Granada. A rebellion of the *morisco* population in 1568–71 destroyed much of the stock of mulberry trees, which caused the silk industry to collapse. The *juros* supported by this revenue stream were soon trading at 40–50% below par.

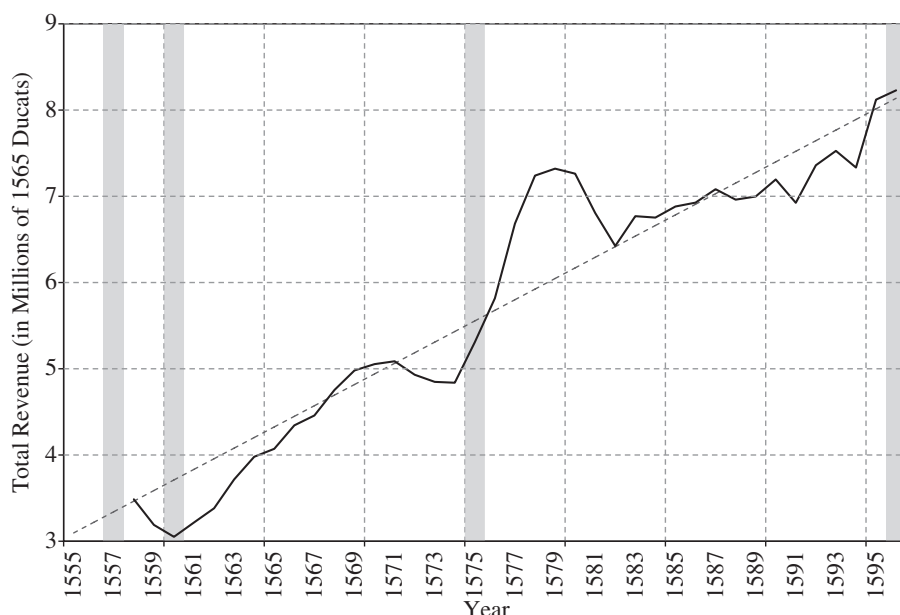


Fig. 2. Crown Revenue for 1555–96, Trend and Five-year Moving Average (Shaded Years = Defaults)

The king had access to few smoothing mechanisms: short-term borrowing; depositing funds with bankers; and long-term borrowing. Given urgent, volatile spending needs, only the first of these mechanisms was practical. Foreign bankers could and did default on the king's deposits. Enforcement across borders was slow and complicated.²¹ In such an environment, depositing funds with a banker was not an alternative to borrowing.²² *Juros* could not be sold quickly enough to smooth out revenue variability and sustain spending. In addition, new *juro* issues required the authorisation of the Cortes (Spanish legislature). This involved a drawn-out process. The same Genoese bankers who dominated the *asiento* business also enjoyed a near-monopoly over *juro* issuance (Castillo Pintado, 1963, p. 49). Thus, they controlled the king's access to long-term debt, his only alternative smoothing mechanism. As a result, Philip could effectively ramp up spending ahead of revenue only through short-term borrowing.

2. Data

We collect a new, comprehensive set of short-term loan contracts (*asientos*) between Philip II and his bankers.²³ The series, preserved in the Archive of Simancas, starts in

²¹ See, for example, Archivo General de Simancas (henceforth AGS), Contadurías Generales, Legajo 84. 'Tomás de Marín. Asiento tomado con Pirro Boqui en su nombre'. The document describes how a Genoese banker failed to return a deposit of 300,000 ducats that he held on behalf of the king. We learn of this because the issue is settled through the intervention of a third banker, who agrees to lend an equivalent sum at a preferential rate in exchange for the king dropping the proceedings against the banker who defaulted.

²² In this sense, the alternative considered by Bulow and Rogoff (1989a) was not available to the King of Spain.

²³ AGS, Contadurías Generales, Legajos 86–93. Our series is missing nine contracts because of physical deterioration in the archival documents. The dates of the missing observations are evenly spread between 1578 and 1598.

Table 1
*Descriptive Statistics**

	Mean	SD	Min.	Max.	N
Principal	190,080	275,853	1,663†	2,386,755‡	438
FX	0.418	0.494	0	1	438
Duration	22.605	20.286	0	134	438
Stated <i>r</i>	0.099	0.039	0	0.16	318
Collateral	0.320	0.467	0	1	438

Notes. *Principal is given in constant 1565 ducats. FX is a dummy variable for the presence of a foreign exchange transaction. Duration is given in months, and *r* is the nominal rate stated in the contract. Collateral is a dummy variable for the presence of collateral.

†The minimum value for principal is calculated excluding nine contracts that merely restructured old loans; because they did not result in fresh cash for the king, they are deemed to have a principal of zero.

‡The maximum loan corresponds to a portion of the general settlement of 1577, which was apportioned between four banking syndicates. The largest contract excluding the settlement was for 2.08 million ducats.

1566. We use the complete set of contracts until 1600, two years after Philip's death (Table 1). While earlier authors used information on lending volume, the actual loans contain a wealth of additional information that has never been exploited: the identity of lenders; services performed; and other contractual arrangements.²⁴ In Section 3, we focus on this detailed micro-data from the contracts.

Financial transactions between the bankers and the king involved transfers, loans, or exchange operations – usually in combination. Transfers allowed funds to be disbursed in distant locations. Exchange operations normally specify the currencies involved, the exchange rate to be used, and permits for exporting specie. The contracts are generally between 4 and 20 pages in length. Other details include the place of delivery and repayment, the tax stream for repayment, as well as transfer and exchange fees. Occasionally, the king posts collateral in exchange for a loan. Other benefits included lifetime pensions or noble titles. Often, the time of repayment depends on the king's fiscal position (e.g. as a function of the silver fleet's annual arrival).

Regular borrowing in Philip's reign started after the resolution of his second bankruptcy. After 1566, the king concluded an average of 12.5 *asientos* per year – sometimes none and in other years as many as 38. Their duration varied between a few months and several years (with a maximum of 134 months). The largest contract was for 2.1 million ducats (equivalent to 30% of fiscal revenue at the time).²⁵ The smallest contract was for a mere 1,663 ducats.

Foreign exchange transactions appear in 42% of all contracts. The interest rate stated in the loan documents averages 9.9%. It can be as low as 0% in special cases involving the construction of ecclesiastical buildings, and as high as 16%. In one-third of all cases, the king posts collateral (typically *juros*).

²⁴ The standard series in use is by Ulloa (1977). It suffers from the double counting of *asientos* contracted by field commanders in Flanders, which left most details to be negotiated later in consolidated contracts between the king and the bankers' representatives in Madrid (Lapeyre, 1953, p. 48). Our database includes only the final agreements, which superseded those made elsewhere and fully specified all terms and conditions.

²⁵ We exclude the 5 million ducat loan that accompanied the general settlement of 1577.

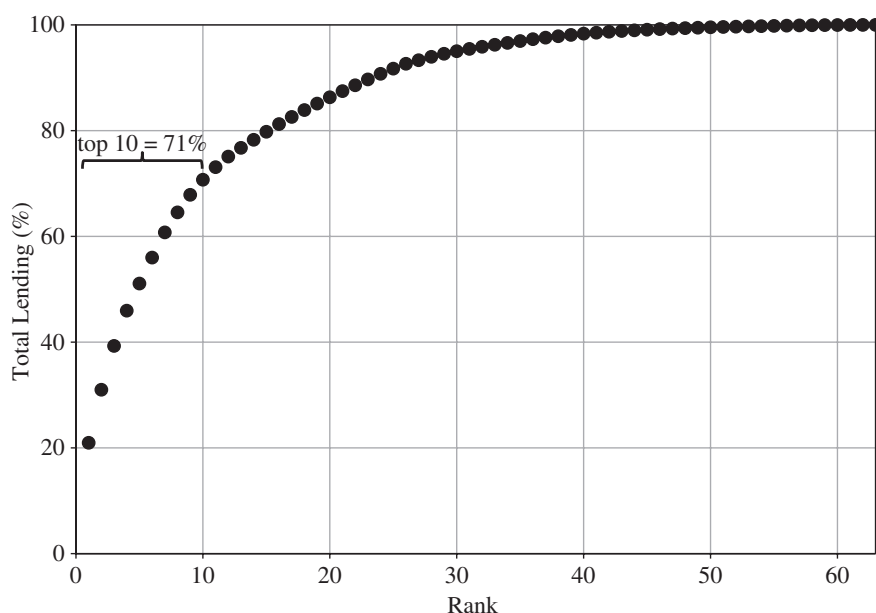


Fig. 3. *Cumulative Lending to Philip II by Rank of Lending Family, 1566–1600*

Philip borrowed from several banking families. No fewer than nine members of the Lomelín family lent to him. The Spinola family contributed 12 lenders, the Gentil 10, the Centurión 6, and the Fugger 5.²⁶ Often, several members of the same banking family lend through a single contract. For example, on 13 March 1572 we find Gerónimo and Esteban Grillo providing a loan of 100,000 ecús to the king.²⁷ The brothers Augustín, Tadeo and Pablo Gentil join forces in several contracts between 1567 and 1569.²⁸ Lending in small syndicates was common. Of 438 total transactions, 141 had multiple lenders. They account for 30% of all money lent.

Lending was heavily concentrated. While 130 individuals from 63 families lent to Philip II, a few account for the bulk of funds. The top 10 banking families were responsible for more than 70% of all money lent. The Spinola, Grimaldo and Fugger families extended 40% of all loans. In contrast, the bottom 48 lenders combined provided less credit than the Spinola family alone. Figure 3 plots the cumulative percentage of the total amount lent to the Crown against the rank of the banking family. The Gini coefficient of 0.73 indicates a highly unequal distribution.

Lending relationships proved to be enduring. The Fugger started lending to Charles V early in the century and continued until 1596. Jakob Fugger lent in 1519. His nephew, Anton Fugger, does the same in the 1550s, and in 1590 we find Jakob's great-grandson, Marcos Fugger, also providing credit to the king.²⁹ The Grimaldo family lent

²⁶ For bankers residing in Spain, we use the Spanish spelling of the banking families' names throughout. For those residing abroad, such as the Fugger, we keep the original language spelling.

²⁷ AGS, Contadurías Generales, Legajo 85. 'Gerónimo Grillo y Esteban Grillo. Traslado del asiento con ellos tomado a 13 de marzo de 1572'.

²⁸ AGS, Contadurías Generales, Legajos 84 and 85.

²⁹ The Fugger never stopped lending for more than nine consecutive years.

27 times between 1566 and 1589. The record holders in terms of frequency were the Spinola, whose members participated in a total of 98 loan contracts over the period 1566–99.

Table 2 summarises the place for delivery of funds by bankers before and after the 1575 default. Fully 62% of the amount borrowed was delivered outside Castile. Flanders was the most important foreign destination for funds. Italy was a distant second: the Mediterranean fleets were partly funded by local revenue.³⁰ Repayment typically took place in Castile. The Spanish Empire, for all its size and might, was mainly financed by the Castilian economy – the strongest in Europe at the time (Alvarez Nogal and Prados de la Escosura, 2007).

Table 2
Place of Delivery of Asientos

Location	Delivery in	
	1566 ducats	(%)
Castile	31,407,408	37.8
Flanders	30,383,774	36.5
Italy	16,588,412	19.9
Elsewhere	4,808,984	5.8
Total	83,188,578	100

3. Analysis

In this Section, we contrast the predictions of sovereign debt theory with the evidence we have assembled. Table 3 gives an overview of key approaches guiding our analysis. Two interpretations are not well-supported by the evidence – sanctions and sentiment-based models. In contrast, reputation, combined with lateral enforcement amongst lenders, can explain an important part of the behaviour we observe.

3.1. *Banker Turnover*

Braudel (1966) argued that Philip II managed to borrow massively, stop payments often and pay back little because of frequent banker turnover: ‘... every time the state declared itself bankrupt, bringing contracts to a violent end, there were always some actors who lost, fell through a trap-door, or tiptoed away towards the wings’.³¹ Sequential default and financial ruin of this kind requires banker irrationality. Journalistic references to Philip’s defaults often make this point, referring to bank lending as ‘a sober business punctuated by odd moments of lunacy. Genoese lenders’ indulgence

³⁰ Parker (1998), p. 135.

³¹ Braudel (1966), p. 362–3. He also argued that ‘the Fuggers and their acolytes, ... were to withdraw (apart from brief reappearances in 1575 and 1595) from the dangerous business of the asientos’, and that ‘the decree of 1st September, 1575, then, was a blow struck at the entire fortunes of the Genoese. [...] To the Genoese this brought massive losses’ (p. 351–2 and 355).

Table 3
Key Predictions of Debt Models

	Explanation			
	Reputation	Sentiment	Sanctions	Cheat-the-cheater
Example	Eaton and Gersovitz, 1981	Braudel, 1966; Reinhart and Rogoff, 2009;	Bulow and Rogoff, 1989 ^{a,b}	Kletzer and Wright, 2000
Punishment	Lending withheld	None	Sanctions <i>outside lending relationship</i>	Lending withheld
Duration	Permanent		Temporary	Temporary, reversed quickly
Defaults observed in equilibrium?	No		No	Yes
Commitment		None	Borrowers cannot commit, lenders can	None
Banker turnover	Low	High	Low	Low

of Philip II of Spain's expensive taste for warfare caused not only the first sovereign bankruptcy in 1557, but the second, third and fourth as well'.³²

Did successive waves of lemming-like lenders – first from Germany, then from Italy, and finally from Portugal and Spain – enter the borrowing game? We examine the nationality of bankers in our database. The 438 loan transactions demonstrate that the composition of financiers remained stable throughout. After 1575, the share of Spaniards declined from 28.8 to 25.6%. The German bankers, who were allegedly burned by the first bankruptcy, acted as a continuous source of funding. Their share more than doubled – from 4.3 to 10.9% – after the third bankruptcy. The Genoese provided 67% of the loans before the 1575 bankruptcy and 64% after it. Thus, there is little to suggest that the king's access to finances depended on the repeated fooling of bankers from different countries.

Was the frequency of repeat business unusually low after the bankruptcy? We define repeat lenders as those who offered funds during one of the preceding 50 transactions. This gives us a time-varying measure of banker turnover. The volume of lending by bankers without a prior relationship was small throughout. During the period as a whole, an average of 85.4% of borrowing came from bankers who had lent recently. In the seven years before the 1575 suspension, 91% of lending was repeat business; for the seven years thereafter, this figure was 89%.³³ Repeat lending continued after 1575, and much of Philip's borrowed money came from bankers who had lent to him earlier.

Other financiers, whose expectations were disappointed by the bankruptcy and its resolution, may have decided to cease lending. To examine this possibility, we look at *exits* from the pool of active bankers. Figure 4 shows the evolution of funds provided by bankers that will not lend again.

Few lenders terminated their lending relationship with Philip II. Conditional on having lent in a single transaction, the chance that the same banker will enter into another contract is 88%. Crucially, the period before the bankruptcy of 1575 does not

³² *The Economist*, 23–29 September 2006.

³³ See the online Technical Appendix for a complete yearly chart of repeat lending (Table A1).

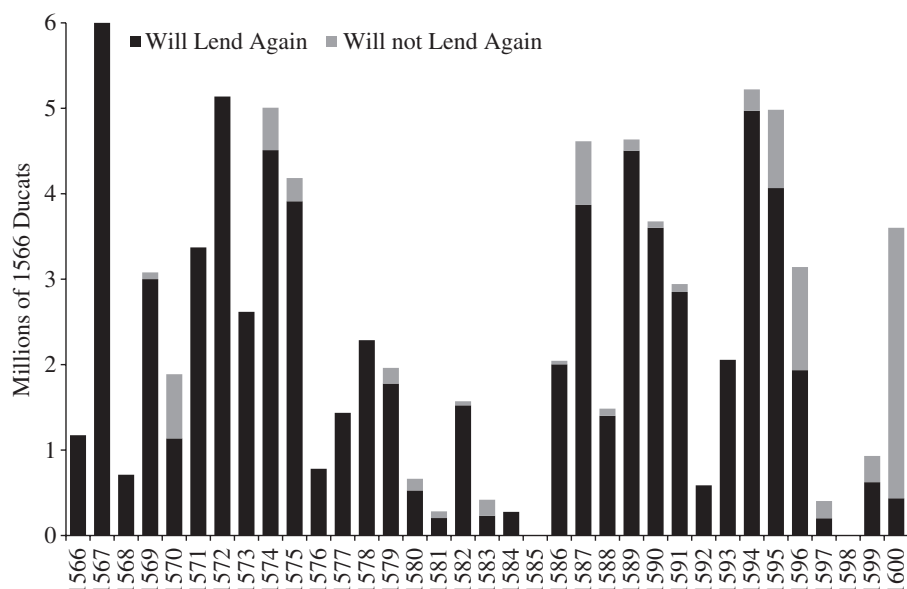


Fig. 4. *Annual Volume Lent in Terms of Future Interactions with the King*

show a spike in bankers who subsequently exit our sample. Bankers who lent before the bankruptcy had a 3.8% likelihood of dropping out of the business, compared with 4.4% afterwards.³⁴ The folly of bankers – lured into lending by the king, only to be ruined by repeated defaults – cannot account for the behaviour we document.

After the 1577 *medio general*, there was little lending. Did access to credit suffer after the default? This is unlikely, for two reasons. First, Philip received a fresh loan (worth 4.2 million ducats over three years) from the most influential lenders prior to the default: the Grimaldo, Lomelín, de la Torre, Centurión, Spinola, Grillo, Cattaneo, Lercaro and Gentil families. This is comparable to the peak volume of pre-default lending. Second, both ordinary tax revenues and silver remittances were unusually strong in the years 1576–81. Figure 2 (in Section 1) shows the evolution of total revenues relative to trend. The year 1575 saw a large tax increase. Sales-tax revenue grew from 1.1 million ducats in 1575 to 3.2 million in 1576 and 1577 before settling down to an annual rate of 2.4 million, more than twice its pre-default level.³⁵ Silver revenue also surged, amounting to almost 2 million ducats in 1577 (compared with an average of 0.7 million between 1570 and 1575). Overall, lending during the eight years after 1576 declined by 2.1 million ducats p.a. compared to the period before. Annual revenue was up by 1.8 million ducats. In addition, warfare in the Low Countries declined following the Pacification of Ghent. Lower borrowing does not imply that the Crown was shut out of credit markets. Rather, the elimination of the deficit through a combination of revenue windfalls and lower expenditure made further borrowing unnecessary.

³⁴ Because our dataset ends in 1600, those lending for the first time later in our sample period have less of a chance to enter into repeat business. This explains the gradual increase of the proportion in the 'never again' category over the final few years. In the online Technical Appendix, we also look at exits of lenders who had a pre-1575 relationship. There was no discontinuity after the payment stop.

³⁵ All the fiscal data are from Drelichman and Voth (2010).

The results presented so far suggest that banker irrationality is not a probable explanation for continued lending to Philip II. The same banking families, from the same countries, supplied funds to the monarch throughout his reign. They did so regardless of the defaults: the rate of banker turnover does not change after the payment stops. This makes it unlikely that lender sentiment, as suggested by Braudel, was responsible for the king's continued access to funds.

3.2. *Stopping Transfers*

Conklin (1998) argued that sovereign lending to Philip II was sustainable because Genoese bankers had a powerful sanctioning mechanism – stopping transfers to Flanders. After the 1575 bankruptcy, they used this penalty. According to Conklin, the Genoese refusal to transfer cut-off funding for the Army of Flanders. This caused the 1576 mutiny. It culminated in the sack of Antwerp and undermined Spain's position in Flanders. Having learned his lesson, the king quickly settled with his bankers. In Conklin's view, the case of Philip II's debts thus gives powerful support to the sanctions view in the sovereign debt literature (Bulow and Rogoff, 1989*b*).

We show that the Genoese failed to impose sanctions on the monarch. The transfer stop was ineffective and the 1576 mutiny was not caused by a cash shortage. Mutinies were common in Flanders – Spanish troops there rebelled 32 times during the reign of Philip II (Parker, 1973). Transfers continued apace after the payment stop; the king sent more than enough money to Flanders to pay off the rebellious soldiers. A shortage of funds cannot have been responsible for the mutiny. Instead, a crisis of political authority was crucial for turning an everyday 'soldiers' strike' into a major setback. We reconstruct total transfers from the *asientos* in our database. Table 4 shows volumes transferred to Flanders between 1566 and 1577, as derived from the archival record:³⁶

Table 4
Amounts Transferred to Flanders (Ducats)

Year	Transfers	Year	Transfer
1566	390,111	1572	434,248
1567	1,830,243	1573	925,937
1568	92,040	1574	1,479,735
1569	180,394	1575	1,610,422
1570	130,384	1576	889,988†
1571	0	1577	1,192,933*

Notes. *The 1577 value is the amount transferred before the *medio general*.

†In addition to this amount, Conklin (1998, note 11) reports that the Crown physically transported slightly under 400,000 ducats to Flanders in 1576.

Sources. Archivo General de Simancas, Contadurías Generales, Legajos 86–93; Vázquez de Prada (1960, pp. 330–3).

³⁶ Our coding of the *asientos* in the archive of Simancas allows us to separate transfers to Flanders from those to other destinations, which were not part of the penalty suggested by Conklin. The transfers during the bankruptcy years are also discussed in Lapeyre (1953), p. 22, Vázquez de Prada (1960), pp. 330–3, and Ulloa (1977), pp. 795–6.

After the decree suspending payments from September 1575, the Genoese stopped all lending and transfers. Other bankers did not lend, but they moved funds. In total, German and Spanish bankers transferred 2.1 million ducats during the two years of the suspension.³⁷ Combined with the 400,000 ducats transported directly to Flanders, an average of 1.25 million ducats per year were available. In the four years prior to the decree, average remittances ran at 1.1 million p.a. Thus, after 1575, the Crown had access to nearly the same amount of money in Flanders as before. Only the peak remittances of 1574–5 were higher than transfers in 1576 and 1577.

How much would have been necessary to pay off the mutineers? Total pay owed amounted to 123,000 ecús in August 1576. Philip II transferred 400,000 ecús to Flanders between May and August, 300,000 of which were earmarked for the mutineers (Gachard, 1861). The total sent exceeded the demands of the mutineers by a factor of two *before the sack of Antwerp*. Philip II never lacked the funds to put an end to the mutiny, nor the means to transfer them. What was missing were loyal officials willing to carry out Philip's orders. The untimely death of the Governor General, Don Luis de Requesens, in March 1576 created a power vacuum. Elements of the Dutch nobility seized control of the Council of State in a coup, trying to reduce Spanish influence. In the online Technical Appendix (Appendix B), we use a close reading of Philip II's correspondence to show that the crisis of authority following the Governor General's death was crucial for turning an everyday mutiny into an important setback for Spain.

The decision by the Genoese to stop transfers was not only ineffective. It also made no difference to the mutiny, considered by Conklin as the crucial punishment. Philip II's position in 1576 was clearly not comfortable. Yet, Bulow–Rogoff sanctions require a punishment *beyond halting normal lending*. Whatever the Genoese did beyond suspending lending clearly did not work. To explain why lending to Philip II was sustainable, we must look for explanations other than sanctions.

Philip exempted one banking family from the bankruptcy decree – the Fugger. They were essential for transfers after 1575. Yet not even the Fugger lent after 1575. We next describe how this simple fact can help us to shed light on what sustained lending to a sovereign monarch such as Philip II.

3.3. *Reputation and the Genoese Coalition*

To keep the king from defaulting, incentives other than direct penalties must have been at work. Lending structure was important for aligning incentives. The Genoese provided funds in overlapping groups. Approximately one-third of all transactions involved more than a single banking family.³⁸ This created a *de facto* network or alliance of financiers that would act as one – a lenders' coalition. Contemporaries referred to the Genoese as a closely-knit group, subject to the same treatment by the king, and acting largely in concert.³⁹

³⁷ Ulloa (1977), pp. 795–6.

³⁸ Whether the Genoese with their high degree of collaboration constituted a cartel has been debated in the historical literature (Alvarez Nogal, 2003). We do not take a view on their pricing behaviour. We refer to them as a network simply because of their co-lending and their behaviour during the defaults.

³⁹ Compare the Fugger correspondence summarised in Karnehm (2003) and the several pieces of official correspondence in De Carlos Morales (2008).

Some of the co-lending relationships involved multiple loans by stable groups of bankers. For example, Lucián Centurión and Agustín Spinola lent together no fewer than seven times during 1566–7. In other cases, the co-lending occurred only once. Most of the network members were engaged in repeated interactions with each other. The Grimaldo and Spinola families often co-lent, as did the Judice and Doria and the Centurión and De Negro. One family stands out as the ‘spider in the web’: the Spinola. Their transactions involved 16 other banking families as partners. The next most influential, the Doria, lent together with seven other dynasties. The Doria and the Spinola networks were linked through loans they provided together as well as by both families co-lending with the Grimaldo, the Lercaro, the Marín and the Maluenda. Many of these families also played a leading role in Genoese politics since the 1270s. Figure 5 provides an overview of the network’s structure.⁴⁰

The numbers below family names show total lending in thousands of 1566 ducats. Thicker lines indicate higher average lending (scaled by the log of lending volume). The Grimaldo, Lomelín, De La Torre, Centurión, Spinola, Grillo, Cattaneo, Lercaro and Gentil families are all linked in the four contracts stipulated in the *medio general*, but for clarity of exposition those links are not shown here.

We define all transactions by bankers who co-lend – either through joint loans or through sharing business partners – as network lending. This must constitute a lower bound on the actual business and family relationships between bankers.⁴¹ Even under

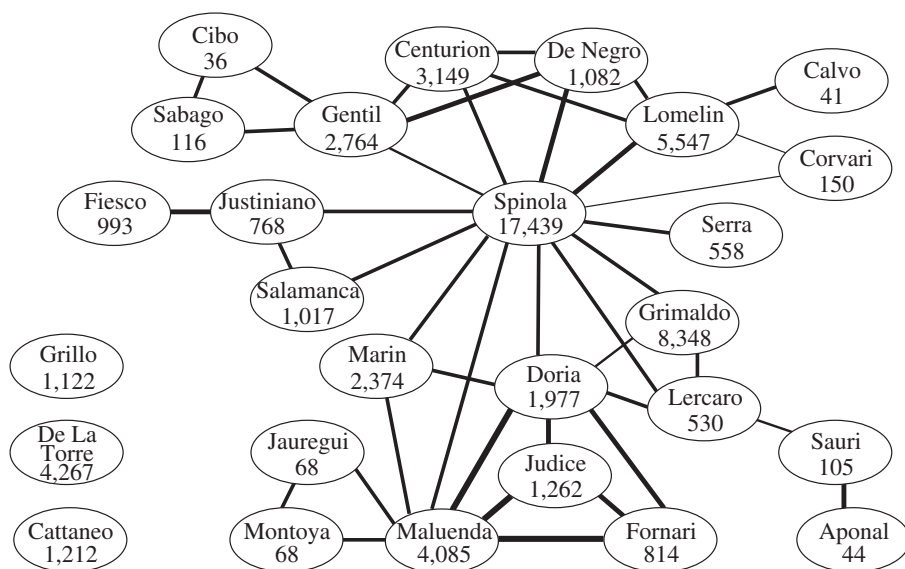


Fig. 5. *The Genoese Network*

⁴⁰ The online Technical Appendix shows the structure of the network when only the transactions prior to 1575 are taken into account (Fig. A2), illustrating the links between bankers that participated in the *medio general*.

⁴¹ To further illustrate how our definition understates the true extent of the network, we return to an example given previously. As part of an *asiento* with Francisco Spinola, the king agreed to drop lawsuits against Lucián Centurión, Antonio Álvarez de Alcócer and Manuel Caldera. These four bankers were clearly connected but we do not consider Alcócer and Caldera to be network members because they never lent to the king in conjunction with other bankers.

this restrictive definition, bankers in the network accounted for a large share of transactions and lending volume. There are only 27 families (out of 63 total) in the largest network we identify, but they account for 72% of principal and for almost the same proportion of all transactions (see Table 5).

Over time, the size of the network was broadly stable. Before the bankruptcy of 1575, network members accounted for 80% of lending; after it, for 67%. There were two years when the king borrowed or transferred funds without any support from network members. In 1576, no banker was lending to the king and the entire amount transacted consisted of transfers by non-network members. In 1582, the king borrowed almost exclusively from the Fugger, the most prominent family outside the network.⁴²

Co-lending was not the only way in which the network operated. In many cases, collateral was passed from one banker to the next.⁴³ This practice made it much more difficult for the king to default on members of the Genoese coalition selectively. Cross-posted collateral could be seized by lenders left out of a deal. Thus, the use of *juros* as collateral enhanced network cohesion. Collecting debts on behalf of other bankers was also common. Often, the king borrowed from one banker and agreed to repay another banker's loan as part of the new deal. In addition, the king also promises repayment through other bankers. All these agency relationships hindered side deals.

For example, the king borrows 80,000 ducats from Lucian Centurion and Agustin Spinola in 1569.⁴⁴ Half of the repayment comes in the form of tax revenue; the other half from a group of six Genoese bankers.⁴⁵ This type of arrangement made it difficult for the king to default and then enter into a special deal with the Spinola family. They were substantial backers of Philip, lending the largest quantity (17 million ducats) of all banking families. Yet in these two contracts alone, had the Spinola cut the other bankers out of any arrangement, funds equal to half the principal could have been seized.

Table 5
Network Lending (Millions of 1566 Ducats)

	Number of		Volume lent
	Families	Transactions	
Network	27	308	59.9
Non-network	36	130	23.2
Total	63	438	83.1
Network (%)	43	70	72
Non-network (%)	57	30	28

Source. Archivo General de Simancas, Contadurías Generales, Legajos 86–93.

⁴² The largest loan by the Fugger was for 1.3 million ducats in 1594, a year in which the silver fleets did not sail.

⁴³ See e.g. AGS, Contadurías Generales, Legajo 85, where several loans made by Lorenzo Spinola are collateralised with bonds held by Nicolao de Grimaldo.

⁴⁴ AGS, Contadurías Generales, Legajo 85. 'Lucián Centurión y Agustín Spinola. Traslado del asiento con ellos tomado a 2 de mayo de 1569'.

⁴⁵ These were Nicolás and Visconte Cattaneo, Alberto Pinelo, Miguel de Mena, Constantin Gentil, Benito Sabago and Juan Antonio de Negro. Many of them also lend in syndicated loans with the Spinola and Centurion families.

Similarly, on 5 March 1595 the king agrees to borrow 330,000 ducats from Francisco and Pedro de Maluenda. Repayment is via Adán de Vivaldo, from whom the king also borrows. Vivaldo, a Spanish banker, does not co-lend with the Genoese in any of our contracts. This illustrates that multilateral relationships among bankers transcended mere co-lending. Some of the relationships that emerge from our sources link members of the network that do not co-lend. The Lomelín and Grimaldo families do not join the same syndicates. Nonetheless, as part of a lending contract between the king and Baltasar Lomelín, in 1588 both Esteban Lomelín and Doña Sasandra de Grimaldo are allowed to change the tax stream against which their long-dated debt is secured (a transaction that increases the value of the debt they hold).

Co-operation among bankers also extended beyond lending. In 1567, for example, Tomás de Marín accepted a deposit of 300,000 ducats from the king in Milan but then failed to repay. Nicolao de Grimaldo stepped in, agreeing to lend the king the same amount if the case against Marín was dropped. The deposit at Marín's bank was converted into a perpetual rent in favour of the king at 8% interest.⁴⁶ As another example, in 1587 the king entered into an *asiento* for a million ducats with Agustín Spinola. In return, the king agreed to drop a number of lawsuits against three other bankers, Lucían Centurión, Antonio Alvarez de Alcócer and Manuel Caldera.⁴⁷ Bankers also used their network clout to force the king to honour his commitments. For example, a 30,000 ecú loan by Francisco Spinola in 1588 included a clause that required the king to settle an old debt with Lorenzo Lomelín.⁴⁸

We argue that network membership and syndicated lending were crucial in sustaining sovereign borrowing. For this argument to stick, there should be no other reasons for co-lending. However, larger loans could require the resources of more than one banking family. Pooling would then reflect capacity constraints. The data do not support such an interpretation. Single family loans are actually slightly larger (by 1%) than multi-family loans. Loan duration was very similar, too – 26.4 months for single family loans versus 25.5 months for the rest. Transfers, another possible reason for co-lending, are also more common in the single family loans than in the multi-family ones. All other observables, including interest rates, the use of collateral and contingency clauses show no major differences. We conclude that loan requirements or simple 'capacity constraints' on the part of lenders cannot be the reason for co-lending.

While our quantitative analysis focuses on syndicated lending, direct financial links are only a subset of the web of relationships amongst banking families. Ties through marriage can be particularly powerful.⁴⁹ We use the partial genealogies for seven

⁴⁶ AGS, Contadurías Generales, Legajo 84. 'Tomás de Marín. Asiento tomado con Pirro Boqui en su nombre'. We never observe Grimaldo and Marín lending together to the king. Nonetheless, they both belonged to the network because they did extend loans jointly with other bankers.

⁴⁷ AGS, Contadurías Generales, Legajo 88. 'Agustín Spinola, hijo de Francisco difunto. Asiento tomado con él sobre un millón de ducados que provee en Italia'.

⁴⁸ AGS, Contadurías Generales, Legajo 88. 'Lo que por mi mandado se asienta y concierta con Francisco Spinola genovés sobre 30,000 escudos'.

⁴⁹ For example, the text of the *medio general* specifies that Esteban Lomelín is Nicolao de Grimaldo's son-in-law. AGS, Consejo y Juntas de Hacienda, Libro 42. Similar family relationships are occasionally mentioned in the text of the *asientos*.

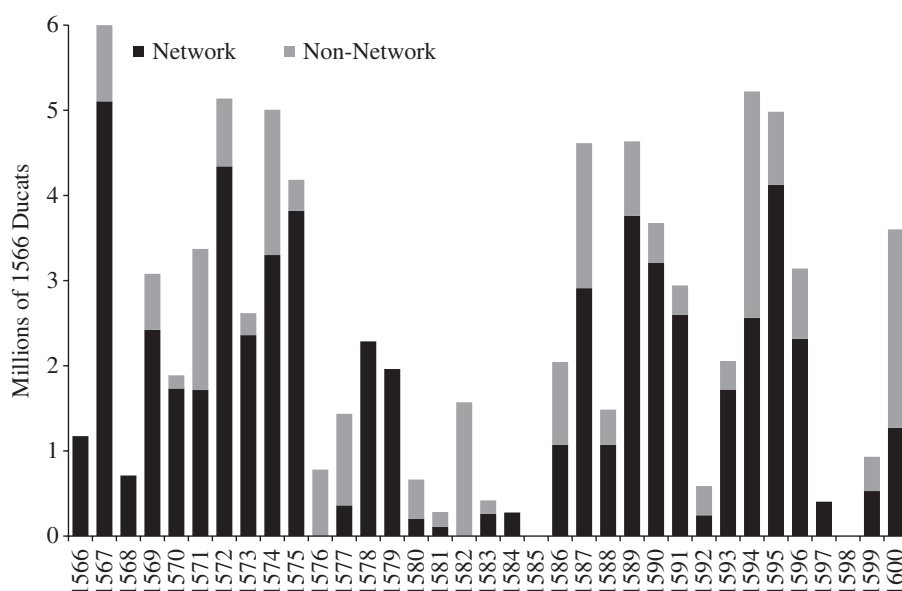


Fig. 6. *Lending by Network Members, 1566–1600*

Genoese banking families documented in the Doria Archive of Genoa to explore these ties (Saginati, 2004). Six network families intermarried while also co-lending; they account for 47% of all network lending. There are also five other families that intermarry with other network members, although they do not co-lend with the families they marry into. They contributed 9.5% of total network lending.⁵⁰ Co-lending was only one dimension of important other connections.⁵¹ Since our genealogical data are limited, these results constitute a lower bound on the ties that transcend joint lending.

3.4. *Cheat-the-Cheater Enforcement*

Two factors interacted to make lending to Philip II sustainable: the stability of the bankers' network and the presence of a dominant lender. The Genoese co-ordinated their actions closely. Because of his financing needs, Philip II could not do without the Genoese coalition. Therefore, he eventually had to settle with the bankers when they imposed a moratorium on him.⁵² This also made it unappealing for outsiders to start lending. This illustrates the importance of market structure, along the lines of Kovrijnykh and Szentes (2007) and Wright (2002). Genoese market power derived from

⁵⁰ Three families both intermarried with network members with whom they co-lent and with other network members that did not feature on the same loan documents.

⁵¹ In the online Appendix, we augment Figure 6 by including intermarriages. Figure A3 graphically illustrates the extent to which members of the coalition were interconnected, be it by co-lending or by intermarriage.

⁵² Recent examples of historical network analysis include Jobst and Flandreau (2005) and Carlos *et al.* (2007).

control over the only means that allowed intertemporal 'barter'. Crucially, there was no entry of new lenders and no disintegration of the dominant Genoese network. Our preferred interpretation emphasises 'cheat-the-cheater' enforcement (Kletzer and Wright, 2000).

The crucial test of any coalition occurs in times of crisis. Genoese lenders experienced two: the defaults of 1575 and 1596.⁵³ In both, the king needed cash urgently. The sack of Antwerp had weakened Spain's position in the Low Countries. It took eight years and a large offensive just to recover lost ground; victory began to look unlikely. Similarly, the threat of an English invasion in 1596 forced heavy spending to rebuild the fleet lost during the Armada. During these episodes, both the Crown and individual bankers from the network explored the possibility of a side deal. None was concluded, nor did any new lender enter. A combination of social enforcement mechanisms (among the Genoese) and incentives (for the Genoese and all other potential lenders) were responsible for this outcome.

During the debt renegotiations of 1576–7 and 1596–7, the king's representatives attempted to undermine the coalition's cohesion. They focused on the Spinola family as well as selected large bankers. Despite offering preferential treatment of old debts in exchange for fresh loans, no deal was concluded. In 1576, Lorenzo Spinola and Nicolao de Grimaldo engaged in protracted negotiations but failed to come to an agreement with the Crown (Lovett, 1982, pp. 12–3; De Carlos Morales, 2008, p. 170). Eventually Nicolao de Grimaldo took part in the *medio general*. Although Lorenzo Spinola did not participate in the negotiations of the general settlement, his brother Agustín (a member of the family partnership) did. Overall, 93% of the loans in default were rescheduled. The remaining ones were contracts with small bankers that did not take part in the negotiations but were offered the same terms at a later date. In 1596, Ambrosio Spinola played a double game. He negotiated on behalf of other network members while discussing a special deal for himself. At the same time, the Crown also offered favoured treatment to a small syndicate. In the end, all bankers again settled on identical terms through a general agreement (Sanz Ayán, 2004, pp. 34–6). We do not know exactly what was on the minds of the Genoese banking families as they decided to maintain the moratorium but it seems likely that the tight network of mutual commercial and other relationships kept individual opportunistic behaviour in check.

By analysing the behaviour and writings of bankers outside the coalition, we can gain further insight into the motivations of both Genoese and others. Throughout the second half of the sixteenth century, Philip borrowed from 36 families that did not belong to the Genoese network – a 'competitive fringe'. The most important bankers outside the network were the Fugger, who were responsible for about half the volume of transfers to Flanders during the 1575 suspension. To be able to transfer, the Crown continued to service its debt with the Fuggers. The Royal advisor Dávalos de Sotomayor said as much: 'Your majesty has the inexcusable obligation ... of paying back the Fugger,

⁵³ The earlier defaults involved loans by the Fugger and Welser to Charles V. The settlements involved large transfers of physical assets – including mines, land and tax farms – that are difficult to value. Furthermore, our series of *asientos* extends back only to 1566.

who are not affected by the decree, somewhat less than two [million ducats]'.⁵⁴ Transfer and lending operations were kept separate.⁵⁵

The Fugger tried to benefit from the crisis in the Netherlands and the Crown's need for funds. The Fugger agent in Spain, Tomás Miller, suggested a loan to pay Spanish troops in the Low Countries.⁵⁶ In the end, there was no new lending by the Fugger until 1580. What stopped them was the fear of being defaulted upon if they lent during the moratorium. The Fugger family in Germany took a dim view of the new loan proposed by Miller. Hans Fugger wrote to his brother Marx, emphasising that Miller must be stopped. Otherwise, the Fugger would be cheated and end up being included in the payment stop.⁵⁷ If a new loan goes forward, he fears that

the Spaniards will forever take advantage of us, they will suck us dry and exploit our position, and *if we don't* do everything they say, they will throw us into the decree,⁵⁸ and ... mistreat us like the Genoese, whose fate we have before our own eyes.⁵⁹

What was on the mind of Hans Fugger is clear enough: after receiving fresh funds, the king would default on them, too. Thus, the Augsburg banking family decided to follow the network's behaviour in lockstep. The Fugger's concern illustrates what Kletzer and Wright (2000) call a 'cheat-the-cheater' mechanism. Because they would not be able to satisfy all of the king's demands, the Fugger saw it as a virtual certainty that they would be cheated and defaulted upon. The reason they could not satisfy every possible demand by Philip is also clear: his smoothing needs were simply too large. Eventually the king would have to settle with the Genoese. Then, the Fugger would lose everything. There is every reason to believe that the same logic that kept the Fugger from lending was also constraining the behaviour of the Genoese bankers. Thus, the power of the 'cheat-the-cheater' mechanism reflected the Genoese coalition's market power, deterring insider defections as well as outsiders. As in Wright (2002), syndicated lending is a key factor sustaining the market power of the dominant banker coalition.

4. Conclusions

We examine lending under 'anarchy' in a prototypical environment – the case of Philip II of Spain. He accumulated towering debts, and stopped all payments to his bankers

⁵⁴ Cited in Lovett (1982), p. 13.

⁵⁵ There is one possible exception: the transfer of 100,000 ducats to Flanders in 1576. The initial request by Garnica, one of the King's officials, was for 50,000 ducats to be advanced by the Crown with the rest to be paid from the next year's tax increase. But we have no evidence that the Fugger actually lent any money on this occasion.

⁵⁶ Lovett (1982), p. 13.

⁵⁷ 'Du siehst, daß sich von Tag zu Tag die Servitios, so wir dem Künig [von Spanien] thun müeßen hauffen' Karnehm (2003), p. 408–9. ...wirds ain grosse Notturfft erfordern, dem T[homas] Miller ain Bys einzulegen, wir khummen sonst burlando ins Decret'. According to Karnehm (2003), 'burlare' here means 'fraudulently'; an alternative translation is 'mockingly'.

⁵⁸ That is, apply the Royal Decree that imposed the payment moratorium on the lenders.

⁵⁹ 'die Sp[ani]er [werden sich] unser zu ewigen Zeitten ... bedienen wollen, uns aussaugen, und nött[igen], wan wir dann nit jederzeit thun werden, was Sie wollen, so wirdt man uns das Decret fürwerffen, und sagen, man wöll uns darein schließen und tractieren wie die Genueser, wie dan schon vor Augen'. Letter from Hans Fugger to Marx Fugger, 5 September 1576, cited in Karnehm (2003), pp. 408–9; emphasis added.

four times. Using a new dataset collected from the General Archive of Simancas, we document a unique way in which his Genoese bankers overcame enforcement and collective action problems – lending in overlapping syndicates. By structuring incentives through a private-order institution (Greif, 2006), the largest and most important bankers acted as if they were a single financial entity, a lenders' coalition. Effective co-ordination between lenders gave the coalition substantial market power *vis-à-vis* the king; in effect, Philip II had access to only a few lenders who acted in unison. Ultimately, we argue that 'cheat-the-cheater' incentives (Kletzer and Wright, 2000) ensured that a simple lending moratorium by the Genoese was sufficient to force a powerful monarch like Philip II to pay his debts.

The crucial test for our hypothesis is the default of 1575. Lenders had few ways to sanction Philip II by means other than a stop to lending. They attempted to impose a transfer stop that would have cut off funding for the troops in Flanders. We document that this penalty was ineffective. Crucially, Spain's major setback in the Netherlands in 1576 was not driven by a funding crisis, but by the volatile politics of the time. The Fugger and other bankers continued to transfer funds for the Spanish sovereign and enough money was made available in the Netherlands to pay off the mutineers. Therefore, the case of Philip II cannot be claimed as an example of Bulow–Rogoff style sanctions.⁶⁰

Banker irrationality or 'sentiment' also played no role in lending to the Spanish monarch. Contrary to the argument in Braudel (1966), banker turnover was minimal. There was no mass exodus of lenders following the defaults. This suggests that expectations were not massively affected by the temporary payment stops and general settlements with bankers.

When the payment stop of 1575 came, neither new nor existing lenders undermined the Genoese lenders' moratorium. The reason is that doing so was unlikely to make money. The king's borrowing needs were so high that he would eventually have to settle with the Genoese coalition. Because the Genoese acted in unison, any lender who had offered funds to Philip II during the moratorium would most likely be cheated, in line with the predictions of Kletzer and Wright (2000).

Lending occurred under conditions of anarchy, with neither side being able to make commitments. Why established lenders in the Genoese coalition repeatedly agreed to debt reductions and a resumption of lending is also probably best explained by the market power derived from the group's cohesion (Kovrijnykh and Szentes, 2007). This ensured that, even after earlier debts had been reduced, future profits would be ample. Far from indicating banker irrationality and the importance of lender sentiment, the boom-and-bust cycles of the sixteenth-century Spanish monarchy reflect the efficiency and flexibility of private-order institutional arrangements.

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⁶⁰ This is the case made by Conklin (1998).

Additional Supporting information may be found in the online version of this article:

Appendix A. Supplementary network analysis.

Appendix B. Spanish mutinies and the sack of Antwerp.

Please note: The RES and Wiley-Blackwell are not responsible for the content or functionality of any supporting materials supplied by the authors. Any queries (other than missing material) should be directed to the authors of the article.

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