

LENDING TO THE BORROWER FROM HELL: DEBT AND DEFAULT IN THE AGE OF PHILIP II, 1556-1598*

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Abstract:

Philip II of Spain accumulated debts of over 50% of GDP. He also failed to honor them four times. We ask what allowed the sovereign to borrow much while defaulting often. Earlier work emphasized either banker irrationality or the importance of sanctions, in line with Bulow and Rogoff (1989). Using a unique dataset on 438 lending contracts derived from the archives, we show that neither interpretation is supported by the evidence. What sustained lending was the ability of bankers to cut off Philip II's access to smoothing services. Lenders contracted with the king in overlapping syndicates, effectively creating a network of bankers. We analyze the incentive structure that supported the cohesion of this bankers' coalition, and examine how it survived across the biggest defaults in Philip's reign. In particular, we argue that the effectiveness of lending moratoria was sustained through a 'cheat-the-cheater' mechanism, in the spirit of Kletzer and Wright (2000). Since the king needed to smooth his expenditure in the face of major revenue and spending shocks, the ability of bankers to cut him off from funding was sufficient to sustain cross-border lending.

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I. Introduction

What sustains international borrowing by sovereigns? Bulow and Rogoff (1989) argue that, in the absence of borrower commitment, punishment mechanisms outside the lending transaction itself are necessary to make international lending to governments sustainable. Other authors have emphasized the importance of reputation and the need for intertemporal smoothing.¹ A recent literature focuses on the importance of co-ordination and market power between lenders (Kletzer and Wright 2000; Wright 2002; Kovrijnykh and Szentes 2007). In this paper, we examine one of the most famous historical cases at the dawn of sovereign borrowing in an attempt to decide which mechanism was responsible for sustained lending.

Philip II ruled from 1556 to 1598. During his reign, the Spanish Empire was at the height of its power. Spain fought numerous wars against France, the Dutch rebels, the English, and the Ottomans. It conquered the Philippines and acquired Portugal and its overseas possessions. While earlier princes had borrowed abroad, Philip II was the first to accumulate foreign debts similar to those of modern states, borrowing approximately 60% of national product. He also became the first serial defaulter in history, declaring payment stops no less than four times during his reign. Eventually, Spain went on to become the record-holder for repeated defaults, reneging no fewer than 13 times on its obligations.² We ask how the king could accumulate massive debts while defaulting so often.

Two explanations for lending to Philip II stand out in the historical literature – lender irrationality and the ability of bankers to punish the king. Braudel (1966) famously argued that the king skillfully played off one group of bankers against the other, defaulting on each in turn while making promises he could not keep.³ To this day, journalists use the bankruptcies of Castile under Philip as potent symbols of banker irrationality.⁴ In contrast, Conklin (1998) concluded that the Genoese bankers had an effective punishment technology. Philip's war machine relied on massive transfers of funds from Castile to the front in Flanders. When Philip defaulted in 1575, the bankers

¹ Eaton and Fernandez (1995); Eaton and Gersovitz (1981).

² Braudel (1966), Reinhart, Rogoff and Savastano (2003).

³ In a similar spirit, Reinhart and Rogoff (2008) argue that swings in lender sentiment have often been responsible for boom-and-bust cycles in international lending.

⁴ The Economist, September 23-29, 2006.

stopped all transfers. The sharp setbacks to Spain's military position that followed forced the king to settle.

We use a new and comprehensive dataset collected from archival sources to show that neither swings in lender sentiment nor punishments (other than a lending stop) were crucial for sustaining lending. Instead, incumbent bankers effectively formed a coalition with substantial market power. Market power derived from a unique form of syndicated lending. Genoese lenders to the Spanish Crown carefully structured a web of multilateral obligations, including joint loans, the cross-posting of collateral, and delegated collection of principal and interest. Connections transcended the lending business, and involved help in court cases, intermarriage, and political cooperation in Genoa itself. This tightly-knit community of bankers thus formed a *de facto* coalition that acted as one at the time when it mattered most – the defaults.

When the coalition imposed a lending moratorium, during a period when the king did not pay, the Crown was unable to borrow. No network members broke rank; no pre-existing lender from outside the network lent; and no banker entered into a new lending relationship with the king. The reason is that any bankers who 'cheated' by lending during the moratorium would face severe penalties. These took different forms for network members on the one hand, and for outsiders on the other. Network members could hurt each other financially in numerous ways – by seizing cross-posted collateral or failing to make payments due, for example. Social sanctions were also available. In addition, both network members and outsiders faced what Kletzer and Wright (2000) called 'cheat-the-cheater' incentives, which punish the non-cooperative lender more indirectly. Because of the massive cost of wars, the king's borrowing needs were very large. He would therefore have to settle with the Genoese coalition eventually. The king had every incentive to default on smaller lenders who offered funds during a payment stop. Based on their size and previous relationship, network lenders could always offer a better deal to the king.

Faced with a total stop to lending, volatile revenues and urgent spending needs, the king came to an agreement with his creditors quickly. We conclude that the need for intertemporal smoothing, combined with lenders' market power, was sufficient to sustain lending. In this sense, our findings suggest that in an environment without commitment,

such as the one faced by lenders in 16th century Spain, reputation-based models of sovereign borrowing can explain much of the behavior we observe.⁵ Similar to the Maghribi traders' coalition analyzed by Greif (1993), the cohesion of the Genoese network was sufficient to solve major agency problems. Despite the frequent fiscal crises of 16th century Castile, and the Spanish king's sweeping powers, private contractual arrangements underpinned borrowing that was comparable in magnitude, relative to GDP, to that of many OECD countries today.

We first document how volatile revenues and expenditures created a strong need for intertemporal smoothing. We show the extent to which short-term borrowing from bankers helped to mitigate the volatility of revenues. We then turn to the existing literature on what sustained lending to Philip. Using a new dataset of loan contracts from the Archive of Simancas, we reconstruct the lending relationships underpinning the short-term loan market. Contrary to the predictions of the bait-and-switch interpretation (Braudel 1966), we find little evidence of high banker turnover. Our data reveal that the composition of lenders was remarkably constant over time – including across the default episodes. Next, we show that the sanctions invoked by Conklin (1998) never effectively punished the king. Even when in default, Philip II had access to essentially unlimited transfer services by bankers, and was only constrained by the availability of funds.

The archival documents also show that over two thirds of the funds received by Philip II were provided by bankers who participated in overlapping partnerships – often extending loans jointly with other bankers, who in turn may have already made multiple loans with other partners in the past. We use this evidence to analyze the debt renegotiations after the defaults of 1575 and 1596. Faced with a borrower with an urgent need for cash, individual lenders tried to cut side-deals. In the end, these attempts came to naught, as the king rescheduled his debts in a general agreement with his bankers (the *medio general*). We analyze how the incentive structure that emerged from co-lending prevented the coalition of bankers from dissolving, and why no bankers from outside the network entered during the defaults. Using evidence from the correspondence of German bankers who considered lending during the Genoese moratorium, we argue that this mechanism was an effective deterrent.

⁵ Kletzer and Wright (2000), Wright (2002), Kovrijnykh and Szentes (2007).

We proceed as follows. Section II summarizes the historical background and fiscal context of Philip II's debts. Section III describes our data and its limitations. Section IV shows why neither banker turnover nor an alleged 'transfer stop' are appropriate interpretations of what sustained lending. We then analyze the structure of the market for lending to the Spanish Crown, illustrate the operation of the coalition of bankers, and show how it satisfied the conditions for incentive compatibility outlined by the modern literature. Section V concludes.

II. Historical background

War in early modern Europe was costly. No other item of state spending absorbed nearly as much money, and few princes spent more on armies and fleets than Philip II. He was at war every single year of his reign.⁶ Military expenditure accounted for over 60% of the Spanish Crown's spending in the second half of the 16th century.⁷ Success required the resources to maintain large armed forces for extended periods, often in distant theatres of war. Military expenditure was not just high; once a conflict attained a high level of intensity, it also needed to be continuous if rulers were to prevail. Therefore, given the belligerent nature of international politics in early modern Europe, states needed the ability to ramp up spending quickly, and to sustain it for long periods.

Early modern fiscal systems were not well-suited to this task. The bulk of the Crown's income came from sales taxes and contributions collected through the Church. The collection of these taxes was either farmed out to private collectors or delegated to cities in exchange for fixed yearly payments. Income was largely stable. One of the fastest-growing and most substantial sources of income for the Crown was, however, highly variable – revenues from the Indies. The main source of these was a 20% tax on all silver imports from the New World. After the discovery of the rich silver mines of Potosi in the mid-1540s, these surged in volume, reaching peaks in excess of 40% of Crown income in several years in the 1580s and 1590s. On average, during Philip's reign, one ducat out of every five in revenue came from the Indies.

⁶ Parker (1998, p. 2). During Philip II's 42-year long reign, Castile was at peace during a total of six months.

⁷ Drelichman and Voth (2007).



Figure 1: Military revenue and Indies revenue

Silver shipments varied considerably from year to year, as a result of conditions at the mines in Peru and the vagaries of Caribbean weather. The dashed line in Figure 1 shows the evolution of silver revenue. Large-scale borrowing helped to sustain expenditures, which could also vary markedly from year to year. Borrowing took two forms – long-term debt in the form of perpetual bonds (*juros*), and short-term loan contracts provided by bankers (*asientos*). Many *asientos* were eventually converted or refinanced through *juros*. While outstanding debt increased by 20.7 million constant 1565 ducats in the period between 1566 and 1600, the king entered into short-term contracts for 83.2 million ducats.⁸ In an average year, he contracted short-term loans for 2.5 million ducats, carried total outstanding debts of 34.9 million, and had revenues of 6.6 million. Figure 2 provides an overview of the king’s fiscal position. Both revenues and debts were growing strongly during the second half of the sixteenth century.

⁸ The ducat was a unit of account whose value in terms of silver did not change during the sixteenth century. The enormous output of the American silver mines, however, meant that silver itself was losing value. The Castilian price index rose by 53% between 1566 and 1600. Unless otherwise specified, figures in this paper are reported in constant 1566 ducats, deflated using the price index for Old Castile in Drelichman (2005).

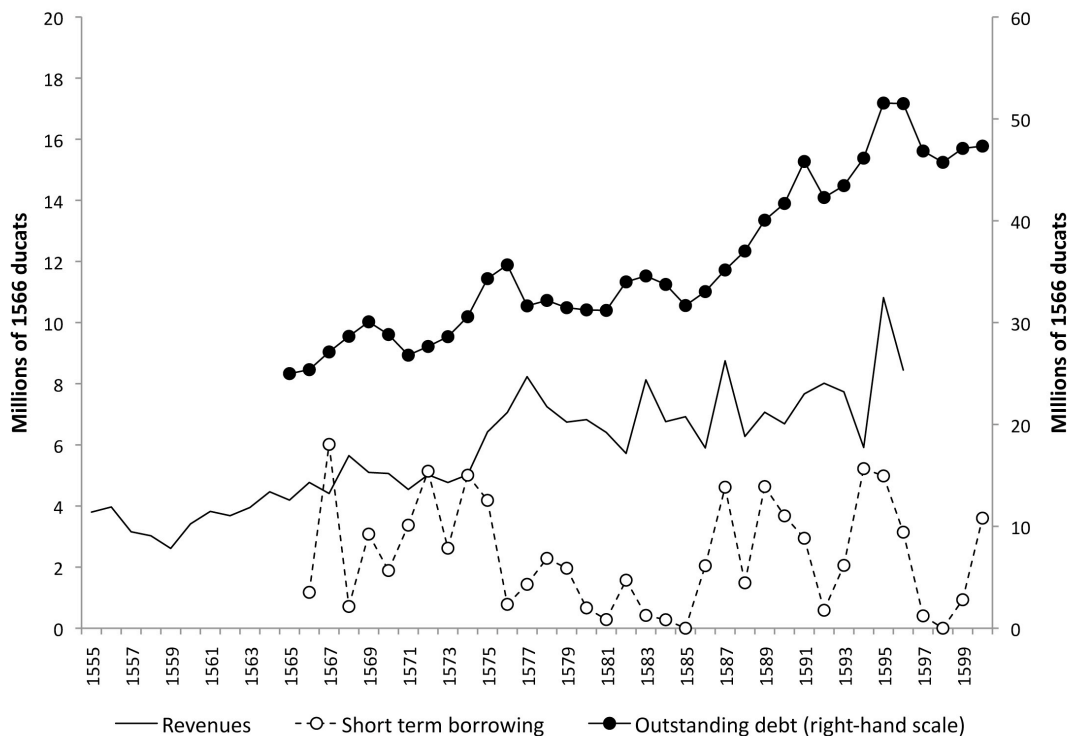


Figure 2: Castile's fiscal position, 1555-1600.⁹

Asientos were issued against the general credit of the king, not a specific tax stream.¹⁰ In some cases, they formalized loan agreements struck by field commanders with bankers, which would then be sent back to Madrid. In general, they were used to fill in a funding gap at a critical point in time, such as during a spike in military expenditure. Long-term bonds – *juros* – accounted for a large share of Crown debt at any one point in time. They were secured by regular taxes and other recurring forms of revenue, authorized by the Cortes.¹¹ *Juros* were only serviced as long as the tax stream backing them generated sufficient funds. Information about the health of a tax stream was hence of the utmost importance. From 1560 on, the Genoese specialized in acquiring information about the health of the fiscal streams backing *juros*.¹²

⁹ Figures are from Drelichman and Voth (2007). Revenue data are available from 1555-96; all other series from 1566-1600. All the summary figures we give refer to the 1566-1596 period.

¹⁰ There are exceptions to this, which we discuss below.

¹¹ *Juros* could only be issued against 'ordinary' (as opposed to 'extraordinary') revenues. The classification of revenues was largely a matter of political bargaining between the king and the Cortes. Highly unstable revenues, such as remittances from the Indies, could not become 'ordinary' revenues and hence could not be securitized. See Toboso Sánchez (1987).

¹² 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

While lenders like the Genoese principally lent short-term, they also helped to place *juros*. Long-term bonds were often used as collateral for the new *asientos*. In most of these contracts, the king had the option not to repay the *asiento* in cash, in which case the banker could sell the *juros*. Because of the logistical difficulty of placing long-term debt directly, the king exercised this option quite frequently, making the Genoese the main intermediaries in the bond market. Between 1560 and 1565, the Crown placed some 6 million ducats' worth of *juros*, of which 3.6 million were handled by the Genoese.¹³ Between 1566 and 1575, 31 million current ducats lent through *asientos* were collateralized with *juros* – 86% of the total volume lent. Over the same period, estimates of the increase in outstanding *juros* range between 11 and 17.5 million ducats.¹⁴

The first and second defaults, shortly after Philip II's accession to the throne in 1556, affected *asientos* contracted with the German Fugger and Welser banking families. Two rounds of negotiations brokered by Genoese bankers resulted in the settlement of 1560, involving the transfer of Crown monopolies and revenues.¹⁵ The Genoese bankers also introduced a number of contractual innovations, which we discuss below. The archival series of short term borrowing on which our analysis relies starts in 1566, when the new system was already in full operation.

The third bankruptcy took place in 1575. It involved a suspension of interest payments, repayments of principal, and service of long-term bonds held by the bankers as collateral. It affected 12.3 million ducats of outstanding debt, or 1.9 times annual revenue. The bankruptcy occurred at a time of particular strain on royal finances. Expenses to defuse the Ottoman threat in the Mediterranean continued to run high, and the Dutch Revolt was flaring up in earnest. The king, meanwhile, used the default to negotiate a large tax increase with the Cortes, the representative assembly of the Castilian cities.

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 (Carlos Morales 2008, p. 151).

¹³ Carlos Morales (2008, pp. 95-96).

¹⁴ The 11 million ducat estimate is from Artola (1982, pp. 88-89). The 17.5 million ducat estimate was calculated by the king's treasurer, although it almost certainly include collateral *juros* not yet sold on the open market (Carlos Morales 2008, pp. 142-3).

¹⁵ Lovett (1980), Alvarez Nogal (2003).

The Genoese bankers formed a consortium representing around 70 percent of outstanding debt. While both sides engaged in bilateral negotiations, looking for exemptions from the payment stop and special deals, no such bargains were struck. All lending, both by Genoese bankers and by those of other nationalities, stopped. The third bankruptcy concluded with a *medio general*, a general accord with the bankers, in 1577. The agreement provided for write-offs of between 30 and 58 percent depending on the characteristics of each loan. On average, the king agreed to pay back 62 percent of his scheduled obligations. Repayment took the form of new long term bonds, the issuance of which was made possible by the new taxes voted by the Cortes. In exchange for recognizing his debts, Philip obtained a new loan for 4.2 million current ducats from the bankers on whom he had defaulted.¹⁶

The fourth bankruptcy in 1596 involved a rescheduling of 5.4 million ducats, equivalent to 62% of annual revenue. Once again, the trigger for the suspension of payments was a combination of negative fiscal news with battlefield difficulties. In 1594 the silver fleets did not sail, and the remittances of 1595, while larger than usual, failed to make up for the shortfall. On the military front, the outbreak of the Elizabethan war necessitated high expenses to confront a potential invasion by British forces.

Compared to 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 in swift order – by late 1597 a new *medio general* was in place and lending had restarted. The haircut amounted to 20% of outstanding debt, an amount worth less than one fourth of the 1577 write-off.

The king's defaults are best characterized as excusable, in the sense of Grossman and Van Huyck (1988). They occur when tax receipts and other forms of revenue are unusually low, and are settled once the negative shocks are reversed. In Figure 3, we plot total income relative to trend for the period as a whole. In each case revenues had been well below the trend for several years. After the payment stops of 1560 and 1575 royal income surged, facilitating the negotiation of a settlement.

¹⁶ In keeping with medieval legal conventions, the king recognized the full face value of his debts. Our calculation of the haircuts takes into account the present value of the financial instruments offered as payment when compared to the original promises.

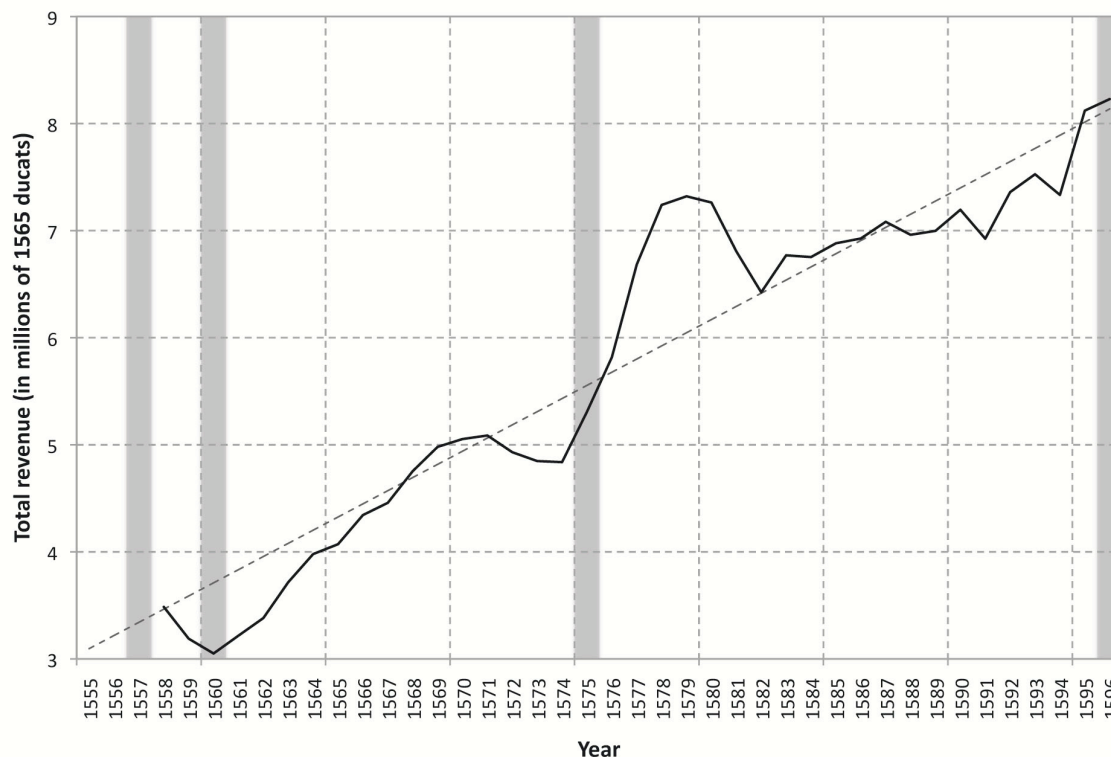


Figure 3: Crown revenue, 1555-1596, trend and 5-year moving average (shaded years=defaults).

The environment in which lending to the King of Spain occurred was ‘anarchic’ (Kletzer and Wright 2000). The king could not credibly commit to repay his lenders. Contracts were constantly violated – over 20% of the loan documents contain detailed references to earlier contracts which were not completely fulfilled. Bankers could not commit effectively either. In some cases, foreign bankers failed to return deposits made by the Spanish Crown, normally because of solvency problems.¹⁷ At each stage, Philip II and his bankers renegotiated the terms under which he could borrow – they engaged in the kind of constant recontracting we should expect in an environment without effective third-party enforcement (Bulow and Rogoff 1989).

¹⁷ See, for example, Archivo General de Simancas, 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 he held on behalf of the king.

III. Data

We collected a new, comprehensive set of short-term loan contracts (*asientos*) between Philip II and his bankers.¹⁸ The series, preserved in the Archive of Simancas, starts in 1566, ten years after Philip's accession. In order to capture the aftermath of the 1596 default, we use all the contracts until 1600, two years after Philip's death. While earlier authors collected data on the volume of loans, there has until now not been a systematic investigation of the nature of lending through an in-depth analysis of the identity of lenders, of the services performed, and of contractual arrangements.¹⁹

Financial transactions between the bankers and the king involved transfers, loans, or exchange operations (usually a combinations of these). Each contract is between 4 and more than 20 pages in length. In addition to the amounts lent and the repayment schedule, the contractual clauses might stipulate the places of delivery and repayment, the fiscal streams from which the amounts were to be repaid, the exchange rates to be used, export privileges for specie, transfer and exchange fees, the terms for collateral *juros*, additional benefits granted to the bankers (such as lifetime pensions), and a full repayment schedule. Many of the clauses make the time of repayment (and sometimes, the interest due) contingent on events that affected the king's fiscal position, such as the arrival of the silver fleet or the collection of specific tax revenues.

Heavy borrowing by the Habsburgs began as early as 1519, when Jakob Fugger the Rich financed Charles V's successful bid for the Holy Roman Crown. Charles' loans were small by the standards his son Philip II would soon set.²⁰ Regular borrowing in Philip's reign starts after the resolution of the second bankruptcy. After 1566, when our database starts, the king concluded an average of 12.5 *asientos* per year, with a minimum of zero and a maximum of 38. Their duration varied between a few months and several years. The greatest length between intended disbursement and repayment in our sample is

¹⁸ Archivo General de Simancas (henceforth AGS), Contadurías Generales, Legajos 86-93. Our series is missing 9 contracts because of physical deterioration in the archival documents. The dates of the missing observations are evenly spread between 1578 and 1598.

¹⁹ The standard series in use is by Ulloa (1977). It suffers from double counting the *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 taken elsewhere and fully specify all terms and conditions.

²⁰ The standard source on Charles V's borrowing is Carande (1987).

134 months. On the other hand, several contracts are transfers repaid within days of delivery. Excluding the loan negotiated as part of the general settlement of 1577, the largest contract was for 2.08 million ducats. It was concluded in 1589 and was equivalent to 30% of the year's fiscal revenue. The smallest contract was for a mere 1,663 ducats.

Table 1: Descriptive statistics

	Mean	St. Dev.	Min	Max	N
Principal	190,080	275,853	1,663 ^a	2,386,755 ^b	438
FX	0.418	0.494	0	1	438
Duration	22.605	20.286	0	134	438
Stated r	0.099	0.039	0	0.16	318
Collateral	0.320	0.467	0	1	438

Principal is stated in constant 1565 ducats. FX is a dummy variable for the presence of a foreign exchange transaction. Duration is stated in months. r is the nominal rate stated in the contract. Collateral is a dummy variable for the presence of collateral.^a The minimum value for principal is calculated excluding 9 contracts that only restructuring old loans; because they do not result in fresh cash for the king, they are deemed to have a principal of zero.^b 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.

Foreign exchange transactions (almost always involving the transfer of funds abroad) featured in 42% of all contracts. The interest rate stated in the loan document averaged 9.9%. It could be as low as 0% (usually in special cases, as when the funds were used for the construction of ecclesiastical buildings) and as high as 16%. In many cases, the King would offer collateral as well, pledging *juros* that could be sold to other investors in case he failed to pay on time and in full.

Philip borrowed from several banking families. No fewer than nine members of the Lomelín family entered into loan contracts with the Spanish sovereign. The Spinola contributed twelve lenders, the Gentile ten, the Lomelín nine, the Centurión family six, and the Fugger five.²¹ Several members of the same banking family often lent through a single contract. For example, on the 13th of March 1572, we find Gerónimo and Esteban Grillo lending 100,000 *ecús* to the king, and making them available in Sicily.²² The

²¹ We use the Spanish spelling of the banking families' names throughout, as they appear in the archival documents.

²² AGS, Contadurías Generales, Legajo 85. "Gerónimo Grillo y Esteban Grillo. Traslado del asiento con ellos tomado a 13 de marzo de 1572."

brothers Augustín, Tadeo and Pablo Gentil entered into several joint contracts between 1567 and 1569.²³ Lending in small-scale syndicates was common in our dataset. Out of a total of 438 transactions, 141 had multiple lenders. These account for 30 percent of total lending volume.

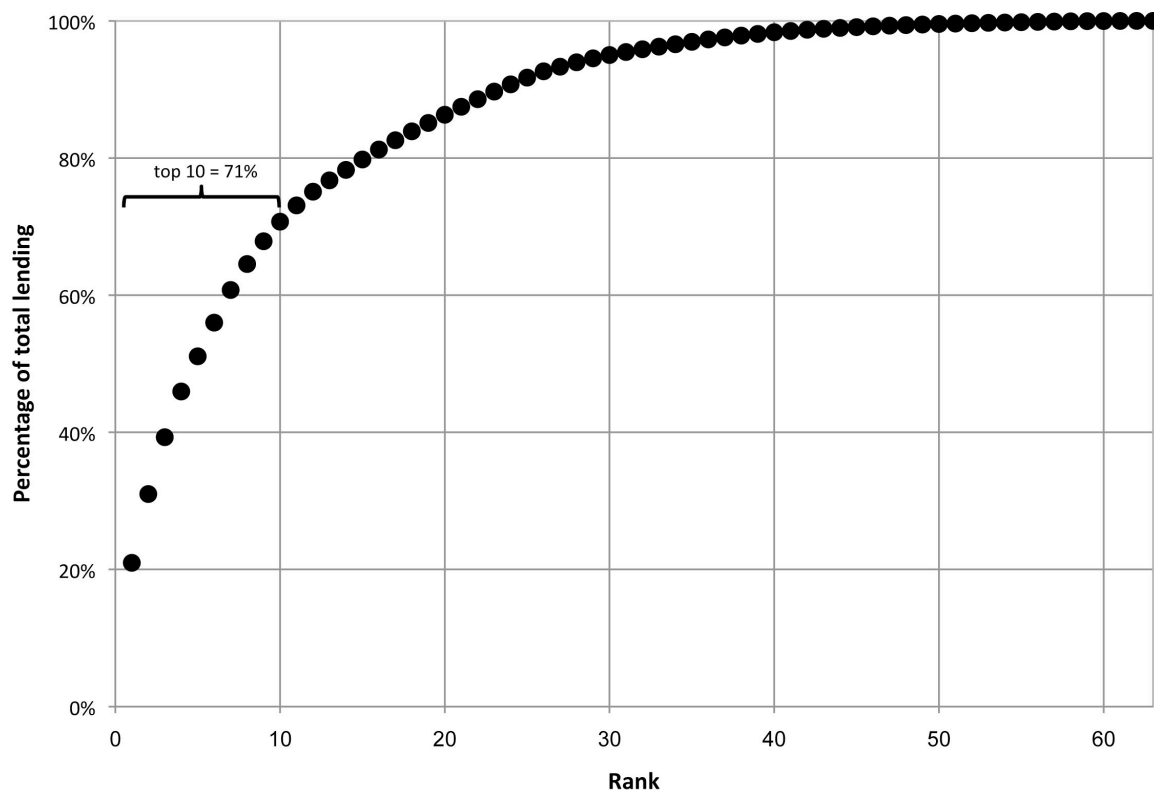


Figure 4: Cumulative lending to Philip II, by rank of lending family, 1566-1600.

Lending was heavily concentrated. While 130 individuals from 63 families lent to Philip II at some point, a handful of them provided the bulk of resources. The Spinola, Grimaldo and Fugger families alone accounted for almost 40% of the value of loan contracts. The top 10 banking families were responsible for over 70 percent of all loans; the top 20 banking families, for 86 percent. The bottom 48 lenders combined provided less credit than the biggest bankers to Philip II, the Spinola family. Figure 4 plots the cumulative percentage of the total amount lent against the rank of the banking family. The distribution is highly unequal (Gini coefficient of 0.73).

These lending relationships were significant not only in terms of total volume provided. They also proved enduring, with lending continued by one generation after

²³ AGS, Contadurías Generales, Legajos 84 and 85.

another. The Fuggers started lending to Charles V early in the century and continued all the way to 1596 without ever stopping for more than 9 consecutive years. Jakob Fugger lent to Charles V in 1519; his nephew, Anton Fugger lent again in the 1550s; in the 1590, we find his great-grandson, Marcos Fugger, doing the same. The Grimaldo lent 27 times between 1566-1589. The record holders in terms of frequency were the Spinola, whose members participated in a total of 98 loan contracts over the period 1566-1599.

One useful feature of short-term *asientos* was the ability to use them to transfer funds to far-flung corners of the empire. This, however, was not a dominant characteristic in the contracts before 1575. Table 2 summarizes the place for delivery of funds by the bankers before and after the 1575 default. Sixty-two percent of the amount borrowed was delivered outside Castile. Flanders was the most important foreign destination for funds as a result of the costly war there against the Dutch rebels. Italy was a distant second, partly because the king was able to rely on local revenues to fund his Mediterranean fleets.²⁴

Table 2: Place of Delivery of *asientos*

Location	Delivery	
	In 1566 ducats	In percent
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%

While the borrowed funds were made available in different locations throughout the empire, repayment took place overwhelmingly in Castile. We find that 95% of loan repayments were met from Castilian sources – either domestic tax streams or silver remittances from the Indies. This is strongly consistent with the idea that the Spanish empire, for all its extension and might, was financed by a Castilian economy that was among the strongest in Europe at the dawn of the early modern age (Alvarez Nogal and Prados de la Escosura 2007).

²⁴ Parker (1998, p. 135).

IV. Analysis

In this section, we discuss what sustained the sovereign borrowing of Philip II. We first analyze who lent. If groups of irrational bankers were disappointed sequentially, then default episodes should be followed by massive turnover in the group of lenders. New entrants should replace existing bankers. We show that turnover was minimal. Next, we turn to the transfer stop hypothesis presented by Conklin (1998), and demonstrate that a cessation of transfers never occurred – it is a punishment that wasn't. While the Genoese did not transfer funds for the Castilian crown, they failed to effectively punish the king. Other financiers stepped in and offered sufficient transfer services instead.

Our interpretation emphasizes co-ordination amongst bankers and the incentive structure driven by the king's borrowing needs. We demonstrate the extent to which Genoese lenders were intimately connected through the contractual form of lending, forming a bankers' coalition. When this coalition imposed a borrowing stop on the king, no outsiders lent either. This is because king would have defaulted on any banker who broke the moratorium, as in the setup of Kletzer and Wright (2000). Contemporary correspondence shows that bankers were gravely concerned about this possibility, and hence did not break the moratorium.

Banker Turnover

Braudel (1966) argued that Philip II managed to borrow massively, default often, and pay back little because he repeatedly fooled his bankers. First, it was the turn of German financiers to be ruined, having lent based on the reputation of Philip's father, Emperor Charles V, with whom they shared a personal relationship. Then came the Genoese, who bankrolled Philip's early years. After the 1575 default, Braudel argued, new money was provided by Spaniards. When these were ruined by Philip's fourth and last default in 1596, he could only turn to the Portuguese.

The traditional story of sequential default and financial ruin requires a fair deal of banker irrationality. Modern-day journalistic references to Philip's defaults often make this point, referring to bank lending as a "a sober business punctuated by odd moments of lunacy. Genoese lenders' indulgence 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.”²⁵

As a first step, we examine the idea that successive waves of lemming-like lenders, first from Germany, then from Genoa, and finally from Portugal and Spain entered the borrowing game. We determine the nationality of the bankers in the complete set of 438 loan transactions in our database. The Genoese provided 66.9% of the loans before the 1575 bankruptcy, and 63.5% after it. Contrary to the argument made by Braudel, the data show that the composition of financiers was remarkably stable during the second half of the sixteenth century. Spaniards did not enter in the last period, contrary to earlier claims in the literature. They were lending for most of the second half of the sixteenth century, and their share actually declined after 1575, from 28.8 to 25.6 percent. The German bankers, who were allegedly burned by the first bankruptcy, were also a continuous source of funding. Their share more than doubled after the bankruptcy of the 1570s, from 4.3 to 10.9 percent. There is little evidence to support Braudel’s interpretation of lending as a repeated fooling of bankers of different national origins.

Next, we examine how much lending after the third bankruptcy came from bankers who had lent before. Figure 5 shows the composition of lending before and after the default of 1575. In the immediate aftermath of the settlement, all lending came from bankers who had given loans to the Spanish king beforehand. In the six years after 1576, fully 96 percent of funds were made available by lenders who had lent before the bankruptcy. As late as 1586, almost 9 out of 10 ducats borrowed by the king came from the same group of bankers who had financed his previous ventures. As time went by, the same banking families provided a high but eventually declining share of total funding. In 1596, over 60 percent of funds borrowed in the short-term loan market still came from the same families that had been active before 1576.

²⁵ The Economist, September 23-29, 2006.

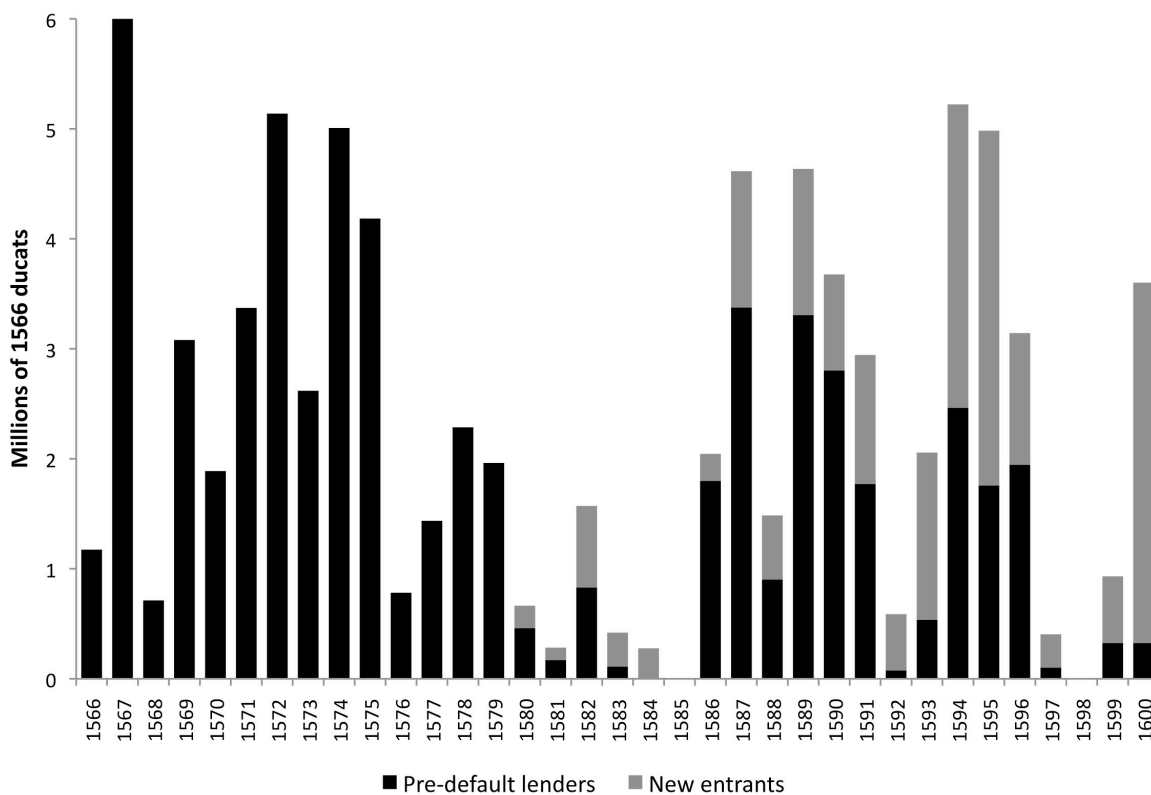


Figure 5: Value of lending by bankers with a pre-default relationship, and of new entrants, 1566-1600

Not all of the funds provided after the bankruptcy came from earlier creditors. A key question is if the frequency of repeat business after the bankruptcy was unusually low. By defining repeat lenders as having offered funds during one of the last fifty transactions, we obtain a time-varying measure of banker turnover. Since there are 438 transactions during our sample, this is equivalent to examining a moving window containing a little more than the last 10% of loans. The volume of fresh lending by bankers without a prior relationship was small throughout (Table A1 in the Appendix). During the period as a whole, an average of 85.4 percent of borrowing came from bankers who had lent during one of the last 50 loan transactions. In the seven years before the 1575 suspension, 91 percent of lending was repeat business beforehand; in the seven years following it, it was 89 percent.

Repeat lending continued across the bankruptcy, and much of Philip's borrowed money came from bankers who had lent to him before 1575. Bankers with earlier connections made large contributions to total volume. It is nonetheless possible that other financiers, whose expectations were disappointed by the bankruptcy and its resolution,

decided to stop their lending activities. To examine this possibility, we reverse our earlier procedure, and look at exits from the pool of active bankers. To do so, we classify loans based on whether the banker will (ever) lend after the current contract. Figure 6 gives the results.

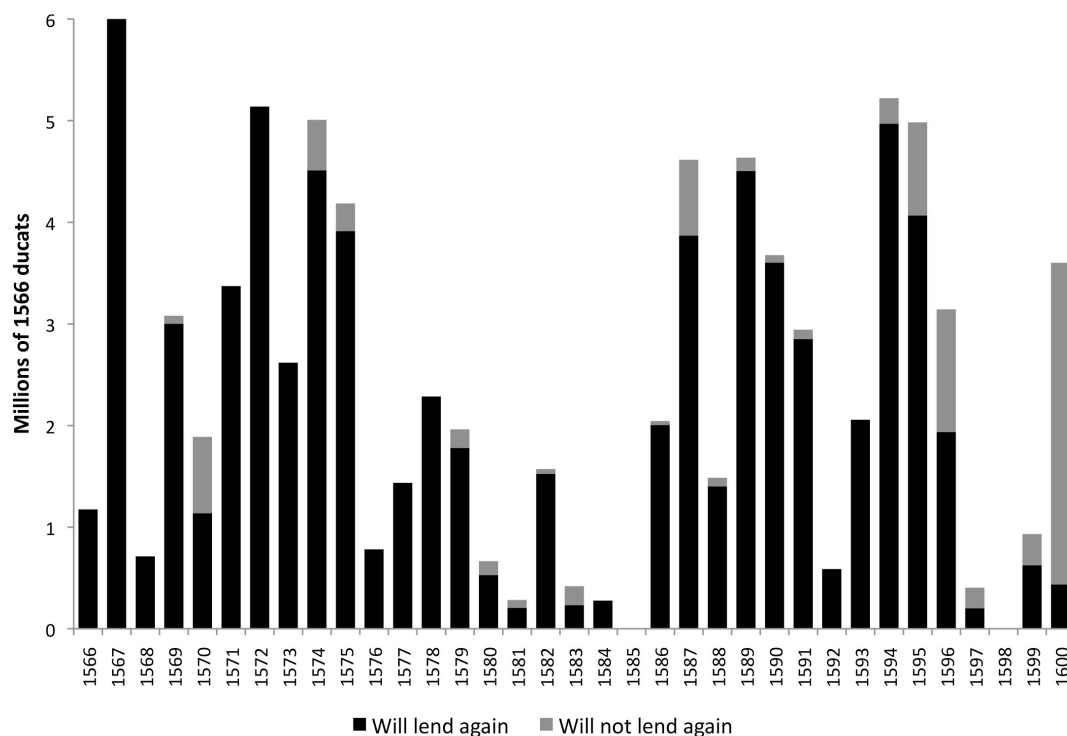


Figure 6: Volume lent, by future interactions with the king.

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 percent. Crucially, the period before the bankruptcy of 1575 does not show a spike in bankers who exit our sample subsequently. Bankers who lent before the bankruptcy had a 3.8% chance of dropping out of the business, versus 4.4% afterwards. Since 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 last few years.

The 1575 bankruptcy was the biggest default in Philip II’s reign. Nonetheless, lenders who had established a business relationship with Philip before 1575 were not likely to terminate it afterwards. Repeated lending by the same banking family made up a

steady proportion of total funding. Turnover amongst the group of lenders maintaining a lending relationship was constant throughout our sample. Few bankers exited the business, and their proportion did not rise after the events of 1575. These results suggest that, by and large, the same financiers lent to Philip before and after the 1575 bankruptcy. The folly of bankers, lured into lending by the king, only to be ruined by default after default, cannot account for the behavior we document.

After the 1577 *medio general*, there was little lending. Is there reason to think that access to credit suffered after the default? We argue that this is unlikely, for two reasons. First, Philip received a fresh loan worth 4.2 million ducats over three years, provided by the most influential lenders prior to the default - the Grimaldo, Lomelín, de la Torre, Centurión, Spinola, Grillo, Cattaneo, Lercaro and Gentil families. This is similar to the peak volume of pre-default lending. Second, both ordinary tax revenues and silver remittances were unusually strong in the years 1576-1581. Figure 3 (in section II above) shows the evolution of total revenues relative to trend. The fiscal and military crisis allowed the king to negotiate a large tax increase with the Cortes. Part of the increase was front-loaded, leading to a temporary spike in tax collection. Sales tax revenue grew from 1.1 in 1575 to 3.2 million ducats in 1576 and 1577, before settling down at a new annual rate of 2.4 million – more than twice its pre-default level.²⁶ This was reinforced by a windfall of silver revenue. In 1577 the king's fifth from silver imports reached almost 2 million ducats. The average in 1570-75 had been a mere 0.7 million.

Overall, lending declined by 2.1 million ducats per year for the eight-year period following 1576 when compared with the preceding 8 years. Over the same comparison time frame, revenue was up by 1.8 million. In addition, the intensity of warfare in the Low Countries declined following the Pacification of Ghent. It is therefore unlikely that the Crown was shut out of credit markets after the *medio general*. The observed decline in borrowing was in all likelihood the result of unusually strong tax revenues driven by windfalls from silver and the rise in taxes negotiated with the Cortes.

²⁶ All the fiscal data are from Drelichman and Voth (2007).

Stopping Transfers

Conklin (1998) concludes that sanctions sustained lending to Philip II. This is in line with the arguments in Bulow and Rogoff (1989). According to the argument, the Genoese punished the Spanish king by refusing to transfer funds to his armies in the Netherlands. Military disaster ensued, the king settled with his bankers, and the penalty was revoked. There is one crucial shortcoming in this tale – the penalty was never effective.

Success against the Dutch rebels was critical for Philip II's "grand strategy" (Parker 1998). Under the Duke of Alba, Spanish forces mounted a major offensive to subdue the rebels in 1570-73.²⁷ Expenditure for the war ran at close to 2 million ducats per year, at a time when total revenue was no more than 5 million. According to Conklin, Philip had few, if any, options to transfer funds to Flanders besides resorting to the Genoese. Physically shipping silver was too dangerous. Sending coins through hostile France was impossible; transfer by boat through the channel could be hazardous, as evidenced by earlier gold transfers that had been seized by English privateers,²⁸ and the Spanish road from Italy to the Netherlands was considered too dangerous and expensive.

Since transfer operations are separate from credit operations, the Genoese could have continued to transfer funds even though their loans were in default. By refusing to do so, according to Conklin, they imposed a severe penalty: "It is abundantly clear, however, that freezes on lending and on transfers were forcefully imposed from 1575 to 1578... with the consequence that the Crown's capacity to make war beyond its borders was seriously impaired until it reached an agreement with its lenders." (Conklin 1998, p. 492) The crucial problem with the penalty argument is that transfers continued at a healthy pace during the suspension of payments. There is no evidence that the Genoese 'transfer embargo' had any effect on the availability of funds in the Flanders theatre of war. Table 3 shows a time series of transfers to Flanders between 1566 and 1577.²⁹

²⁷ Parker (1998, pp. 143-4) argues that in 1572 the Spaniards came "within a hair's breadth" of ending the revolt. Failure to subdue the rebels was, in his view, caused by political mistakes rather than by lack of funds.

²⁸ Lovett (1982, p. 15).

²⁹ 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 Conklin's penalty. 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).

Table 3: Amounts transferred to Flanders, in current ducats.

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

(d) indicates amounts transferred after the suspension of payments and 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.

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

The decree suspending payments was issued on September 1, 1575. Following this, the Genoese stopped all lending and transfers. The Genoese moratorium started immediately after the bankruptcy. However, following the sack of Antwerp in November 1576, most Genoese families fled Flanders. They did not return until 1582, when the Spanish gained control once more. Hence they could hardly have used the resumption of transfers as a bargaining chip (Goris 1925, pp. 394-8).

Other bankers did not lend, but they did transfer funds if they received silver up front. In total, German and Spanish bankers transferred 2.08 million current ducats on behalf of Philip II during the two years of the suspension. Fully half of this amount was transferred by the Fugger family and its correspondents, with the remainder entrusted to an emerging group of Spanish merchants.³⁰ If one adds the 400,000 ducats the Crown transported itself to Flanders, this yields an average of 1.24 million ducats per year. In the three years previous, remittances ran at 1.34 million per annum; if the four previous years are considered, the yearly average was 1.11 million. Viewed from this angle, the

³⁰ Ulloa (1977, pp. 795-6).

suspension of payments had virtually no effect on the Crown's ability to transfer funds to its troops. Transfers in 1576-7 were only low when compared to the peak remittances of 1574 and 1575, and then they were still at two thirds of the peak level.

To the extent that remittances were somewhat lower in 1576-7, the inability to transfer was not to blame. In the two years before the bankruptcy, the king had received loans and silver revenue to the tune of 13 million ducats. In the two years after, he only had access to 3.3. Ordinary revenues rose by approximately 2.5 million ducats. Free cash flow was therefore down by more than half, more than enough of a fall to explain the decline in transfers. The correspondence of government officials demonstrates that a shortage of available funds, and not a lack of transfer facilities, was the main constraint. In September 1576, a Royal official by the name of Gaztelu writes to one Juan de Zuñiga: "Experience shows each day that it is impossible to continue without loans and we risk losing everything. With the money that has been sent abroad there is none left to be found in Spain..."³¹ While noting the risks and costs of shipping funds, Gaztelu gets at the heart of the matter – that there were no funds left to transfer. As the liquidity crunch eased, spending and transfers revived. In 1577, when silver revenue reached a record 2.2 million ducats, payments to Flanders increased rapidly even before the *medio general* settled old claims by the creditors. While lending stopped altogether, transfer services were readily available at little or no extra cost as long as the king was willing to supply ready cash. The Genoese transfer embargo had little bite. We conclude that in order to explain why lending to Philip II was sustainable, we need to turn elsewhere.

Philip exempted one banking family from the bankruptcy decree – the Fuggers. They were essential for the continued transfers after 1575. With regard to the Fuggers, the Conklin argument is correct. The threat of transfer services being withdrawn was sufficient to avoid the king stopping payments. After the departure of the Genoese from the Low Countries in 1576, only the German family maintained a substantial network of correspondents there. Yet not even the Fuggers continued lending after 1575, despite being exempt from the payment stop. The king's transfer needs could be met by a single

³¹ "La experiencia va mostrando cada día que no se puede ir adelante sin cambios so pena que se perderá todo, porque con el dinero que se ha sacado ya no se halla ninguno en España y es mucha la costa y grande el peligro y mayor la dilación que hay en llevarlo de contado a Flandes y a Italia." Quoted in Carlos Morales (2008, p. 174).

banking family, but his borrowing needs could not. We next describe how this simple fact helped to sustain lending to an absolutist monarch such as Philip II.

The Genoese Coalition

We now describe the nature of lending relationships amongst the single most powerful group of bankers to Philip II - the Genoese. They provided funds through syndicated lending in overlapping groups. This created a de facto network or alliance of financiers, which would act as one and effectively formed a ‘lenders coalition’. Contemporaries referred to them as such – an indistinguishable group of lenders from Genoa, subject to the same treatment by the king, and acting largely in concert.³² Much lending took place in simple bilateral contracts between the king and an individual banker. In numerous cases, however, lenders joined forces to provide funds. Approximately one third of all transactions involved more than one banker. To take the dynastic nature of lending relationships into account, we focus on contracts that involved more than a single banking family. Some of these had ties through intermarriage, like the Grimaldo and Lomelín families, while others were only connected through business partnerships.³³ To err on the side of caution, we count two banking families as connected only if we observe them lending jointly to the king.³⁴

Some of the co-lending relationships involve multiple loans by a stable group of bankers. For example, Lucián Centurión and Agustín Spinola lent together no less than 7 times in 1566-7. In other cases, the co-lending only occurred once. By tracing the connections between families through joint lending, we can examine the direct and indirect links that financiers established. 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. They had no less than 16 other banking families as

³² Cf. the Fugger correspondence summarized in Karnehm (2003).

³³ The text of the *medio general*, for example, 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*.

³⁴ Whether the Genoese and the high degree of collaboration between them made them act like a cartel has been debated in the historical literature (Alvarez Nogal 2003). We do not take a view on their pricing behavior, and simply refer to them as a network because of their co-lending and behavior during the defaults.

partners in at least one of their transactions. In the language of network analysis, their ‘centrality’ is very high. The next most central family, the Doria, only lent together with seven other dynasties. The Doria and the Spinola networks were linked, both directly, through loans provided by the two families, and by both families co-lending with the Grimaldo, the Lercaro, the Marín and the Maluenda. All in all, the list of names on the *asiento* contracts with the Spanish crown reads like a Who-Is-Who-In-Genoa – the Spinola and Doria had played a leading role in Genoese politics since the 1270s.³⁵ Figure 7 provides an overview of the network’s structure.

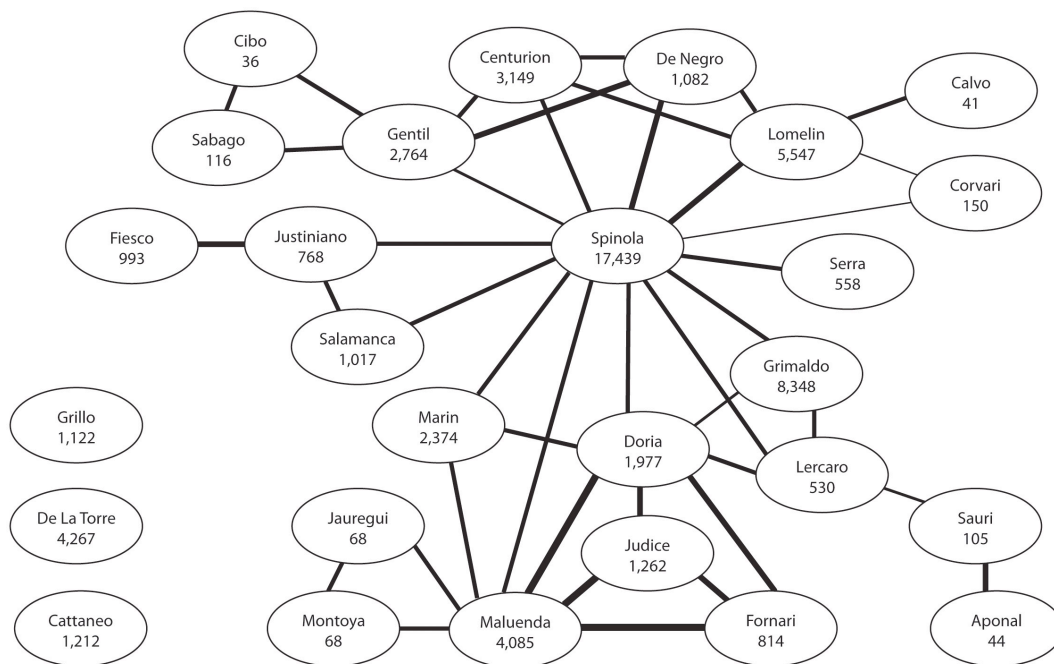


Figure 7: The Genoese network³⁶

Co-lending was not the only way in which the network operated. In many cases, collateral posted by the King was passed from one banker to the next one, without ever

³⁵ Andrea Doria became a famous admiral in the service of Charles V, and helped reinstitute an aristocratic constitution in the first half of the sixteenth century. Battista Spinola served as Doge in the 1530s.

³⁶ The numbers below family names indicate total lending in thousands of 1566 ducats. The thickness of connecting lines indicates the average size of joint loans on a log scale. The Grimaldo, Lomelin, De La Torre, Centurión, Spinola, Grillo, Cattaneo, Lercaro and Gentil families are all linked in the four contracts stipulated in the *medio general*; those links are not drawn for expositional clarity – hence the three unconnected families on the left hand side. The links established in those contracts are the strongest in terms of capital involved. In figure A1 in the appendix we present the structure of the network if only the transactions prior to 1575 are taken into account, and illustrate the links between the bankers that participated in the *medio general*.

returning to the Royal Treasury. This practice made it arguably much more difficult for the King to default selectively on an individual member of the Genoese coalition.³⁷ Cross-posted collateral could then easily have been seized by lenders left out of any deal. Collection of outstanding debts for on behalf of other bankers was also common. In several *asientos*, the king borrowed from one banker and agreed to repay the loan in part or in full to a different person. These agency relationships would have hindered side deals, particularly if bankers had open positions with each other.

For example, on January 25, 1567, Julián Spinola agrees to deliver 36,800 ecús in different Italian ports to be used in resupplying the king's galleys. The king promises to repay Bautista Spinola in Madrid at a later date. As collateral, Philip's Genoese ambassador deposits 20,000 ecús in Baltasar Lomelín's bank in Genoa. The contract specifies that should the king fail to honor his obligations, Julián Spinola is entitled to receive the money deposited with Lomelín. This type of arrangement would have made it very hard 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 of all banking families – 17 million ducats. Yet in this contract alone, had the Lomelín been cut out of any arrangement, a deposit equivalent to fully half of loan principal could have been seized. Such losses would have made it very costly for the Spinola to capture the surplus that the king's great need for funds after a bankruptcy generated.

Nor were all arrangements of this type meant to keep the powerful Spinola in check. In 1569, Philip borrows 213,000 ducats from Agustín, Pablo and Tadeo Gentil. The contract provides for repayment through Lorenzo Spinola, who owed this amount to the king. In this case, had the Spinola been excluded from a special deal between the Gentile and the king, the Gentile would have had to sustain major losses. Similarly, on March 5 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. Adán de Vivaldo, a Spanish banker, does not co-lend with the Genoese in any of our contracts. This reinforces the nature of our definition of the "network" as a lower bound on the true extent of multilateral relationships amongst bankers. Some of these relationships that

³⁷ See, for example, AGS, Legajo 85. Here several loans made by Lorenzo Spinola are collateralized with bonds held by Nicolao de Grimaldo.

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, in 1588, as part of a lending contract between the king and Baltasar Lomelín, 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).

Cooperation among bankers extended beyond the act of lending itself. In 1567, for example, Tomás de Marín accepted a 300,000 deposit from the king in Milan, but failed to produce the funds when asked to. The king petitioned a court to declare Marín bankrupt. Early in the proceedings, however, Nicolao de Grimaldo stepped in, agreeing to provide a 300,000 ducat loan to the king in exchange for dropping the lawsuit against Marín. The deposit at Marín's bank was converted to a perpetual rent in favor of the king with 8% interest.³⁸ In another example, in 1587 the king entered into an *asiento* for one million ducats with Agustín Spinola. As part of the conditions of the loan, the king agreed to drop a number of lawsuits over tax farms against three other bankers, Lucían Centurión, Antonio Alvarez de Alcócer, and Manuel Caldera.³⁹ Bankers also used their network clout to force the king to honor his commitments. For example, a 30,000 ducat loan by Francisco Spinola in 1588 included a clause that required the king to settle an old debt with Lorenzo Lomelín.⁴⁰

Table 4: Network lending

	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

Note: * volume lent is in millions of 1566 ducats.

³⁸ AGS, Legajo 84. "Tomás de Marín. Asiento tomado con Pirro Boqui en su nombre." We never observe Grimaldo and Marín lending together to the king. They both nonetheless belonged to the network, as they did extend loans jointly with other bankers.

³⁹ AGS, Legajo 88. "Agustín Spinola, hijo de Francisco difunto. Asiento tomado con él sobre un millón de ducados que provee en Italia."

⁴⁰ AGS, Legajo 88. "Lo que por mi mandado se asienta y concierta con Francisco Spinola genovés sobre 30,000 escudos."

We define all transactions by bankers who co-lend, either through joint loans or through sharing business partners, network lending. Because this classification relies only on observable transactions through syndicated lending to the Crown, it constitutes a lower bound of the actual business and family relationships between bankers.⁴¹ Even under this restrictive definition, bankers in the network accounted for a disproportionate share of transactions and lending volume. While there are only 27 families (out of a total of 63) in the largest network we identified, they accounted for 72 percent of principal extended to the king, and almost the same proportion of all transactions (Table 4).

Over time, the size of the network is remarkably stable. Its total share of lending declined slightly (Figure 8). Before the bankruptcy of 1575, network members accounted for 80 percent of lending; after it, for 67 percent. There are two years when the king borrowed or transferred funds without any support of network members. In 1576 no banker was lending to the king, and the entire amount transacted consisted of pure transfers by non-network members. In 1582, the king borrowed almost exclusively from the Fuggers, the most prominent family outside the network. The largest loan they provided was for 1.3 million in 1594, a year in which the silver fleets did not sail.

⁴¹ To further illustrate how our definition understates the true extent of the network, we return to an example given above. We reported that, as part of an *asiento* with Francisco Spinola, the king agreed to drop lawsuits against Lucían Centurión, Antonio Alvarez de Alcocer and Manuel Caldera. These four bankers were clearly connected. Yet, because Alcocer and Caldera never lent to the king in conjunction with other bankers, we do not consider them to be network members.

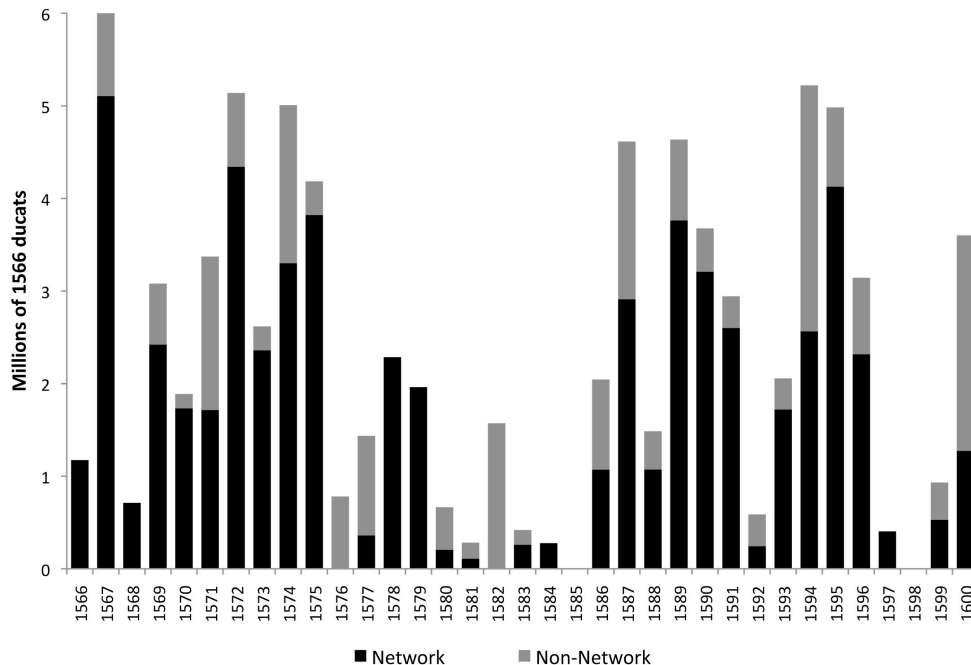


Figure 8: Lending by network members, 1566-1600

Discussion

We argue that the market power of existing bankers was key for sustaining lending to the king of Spain. The Genoese coordinated their actions closely. Because of his financing needs, Philip II could ultimately not do without the lending capacity of their network. Therefore, he eventually had to settle with the bankers that imposed a moratorium on him.⁴² Cutting him off from further loans was thus sufficient to enforce contracts. We show the importance of lender market power in such a setting, along the lines of Kovrijnykh and Szentes (2007) and Wright (2002), and explain how this market power arose. In particular, we examine why there was no entry from new lenders, and no disintegration of the dominant Genoese network. Our preferred interpretation highlights the importance of ‘cheat the cheater’ enforcement (Kletzer and Wright 2000).

Before we analyze the workings of these mechanisms in more detail, we first need to explain why the king had no access to smoothing mechanisms other than short-term borrowing. Two alternatives suggest themselves – depositing funds with a banker, and long-term borrowing. Neither was available to Philip. As discussed earlier, foreign

⁴² Recent examples of historical network analysis include Jobst and Flandreau (2005) and Carlos, Neal and Wandschneider (2007).

bankers could and did default on deposits the king had made with them. Enforcement across borders was slow and cumbersome. We know of the case in question because it was resolved by another Genoese banker settling his claims as part of his loan agreement two years after the first banker's default. In such an environment, depositing funds with a banker was not a viable alternative to the income-smoothing obtained from borrowing.⁴³

The second alternative, issuance of *juros*, was also not feasible. The amount of *juros* the Crown could sell was legally limited by the volume of regular, authorized tax revenues. Increasing the limit required long and complex negotiations with the Cortes. Silver revenue, for example, could not be used to fund *juros*. In addition, after 1560 the vast majority of long-dated bonds was issued through the Genoese. Castillo Pintado (1963, p. 49) argues that the bankers enjoyed a complete monopoly over transactions involving *juros*, thus controlling the king's access to long term debt.

The crucial test of any coalition occurs in times of crisis. Genoese lenders experienced two during the sample period for which we have data – the defaults of 1575 and 1596.⁴⁴ In both 1575 and 1596, the king's need for cash was strong. Following the suspension of payments in 1575, the Crown was desperate for funds. After the sack of Antwerp, the military situation in the Low Countries had deteriorated markedly. The Pacification of Ghent created a united front of Dutch provinces, while most Spanish troops refused to obey orders. It would take eight years and a large offensive just to recover the ground lost. Victory against the rebels, which had seemed within the Duke of Alba's grasp, began to look unlikely. Similarly, the threat of English invasion in 1596 forced heavy spending on rebuilding the fleet lost during the disastrous Armada expedition. During these episodes, numerous discussions took place between king and individual bankers from the network, exploring the possibility of a side-deal. None was concluded. No new lender entered to exploit the business opportunity represented by the default, either. We argue that a combination of social enforcement mechanisms (amongst the Genoese) and incentives (for the Genoese and all other potential lenders) were responsible for this outcome.

⁴³ In this sense, the alternative considered by Bulow and Rogoff (1989) did not exist.

⁴⁴ The earlier defaults involved loans by the Fuggers and Welsers to Charles V. The settlements involved large transfers of physical assets, including mines, land, and tax farms, which are difficult to value. Furthermore, our series of *asientos* extends only as far back as 1566.

We first examine the stability of the Genoese coalition. During the debt renegotiations in 1576-7 and 1596-7, the representatives of the king repeatedly tried to cut side-deals with individual bankers. They mostly targeted the Spinola family, the monarchy's largest lender and the central actor in the network, as well as a few other large bankers. These attempts to split the coalition and combine fresh borrowing with preferential treatment on old debts did not succeed. The bankers clearly showed interest in the possibility of profiting from a side deal. In 1576 Lorenzo Spinola and Nicolao de Grimaldo engaged in protracted negotiations, but failed to come to an agreement with the Crown (Carlos Morales 2008, p. 170; Lovett 1982, pp. 12-13). Eventually Nicolao de Grimaldo took part in the *medio general*. While Lorenzo 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 by the general settlement. 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 of negotiating on behalf of other network members while exploring a unilateral resumption under more favorable conditions for himself. At the same time, the Crown also tempted a small syndicate with special treatment in order to split them from the larger network. In the end, all bankers again settled on identical terms, through a general agreement with the king (Sanz Ayán 2004, pp. 34-36). While we do not know what was exactly on the minds of the Genoese banking families as they decided to maintain the moratorium, it seems likely that the tight network of mutual commercial and other relationships kept opportunistic behavior in check.

By analyzing the behavior and writings of bankers outside the coalition, we can gain further insight into the motivations of both Genoese and other bankers to refuse side-deals. The potential for bankers from outside the network lending to the king certainly existed. Throughout the second half of the sixteenth century, Philip borrowed from 36 families that did not belong to the Genoese network. They constituted a 'competitive fringe'. The most important bankers of them were the Fuggers. They were responsible for about half the volume of transfers to Flanders during the 1575 suspension. They were also the most likely candidates to break the lending stop if the price was right. In order to guarantee the flow of funds, the Crown continued to service the Fugger debt, specifically

excluding them from the bankruptcy decree. The Royal advisor Dávalos de Sotomayor, lamenting the Crown's dire fiscal needs in 1576 said as much in a note to the king:

‘Your majesty has the inexcusable obligation [...] of paying back the Fuggers, who are not affected by the decree, somewhat less than two [million ducats]’⁴⁵

This illustrates the separation of the transfer and lending operations. By according differential treatment to the Fuggers, the Crown only ensured that they would not seize any cash meant to be transferred to Flanders.⁴⁶

The Fuggers tried to benefit from the crisis in the Netherlands and the Crown's need for funds. Aware of the deteriorating military situation in Flanders, Tomás Miller, the Fugger agent in Spain, floated the idea of providing money for the troops.⁴⁷ In the end, despite the enticing suggestion to provide funds for Philip's regiments in the Low Countries, there was to be no new loan by the Fuggers until 1580. What stopped the Fuggers from striking a bargain was fear of being defaulted upon immediately should they lend during the moratorium. The Fugger family back in Germany took a dim view of the prospects of any new loan, as proposed by Miller. Hans Fugger wrote to his brother Marx Fugger complaining about the services they were already required to render to the king at the moment.⁴⁸ He then emphasizes that Miller has to be stopped, lest they will be cheated and end up being included in the bankruptcy decree.⁴⁹ If he is not (and a new loan goes forward), “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

⁴⁵ Cited in Lovett (1982, p. 13).

⁴⁶ There is one possible exception to this – 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; and the rest to be paid out of the tax increase in the coming year. We have no evidence that the Fuggers actually lent any money at all.

⁴⁷ Lovett (1982, p. 13).

⁴⁸ “Du siehst, daß sich von Tag zu Tag die Servitios, so wir dem König (von Spanien) thun müeßen, hauffen” (Karnehm 2003, p. 408-9).

⁴⁹ “...wirds ain grosse Notturfft erfordern, dem T(homas) Miller ain Bys einzulegen, wir khummen sonst burlando ins Decret.” ‘Burlare’, according to Karnehm (2003), here means fraudulently.

into the decree⁵⁰, and ... mistreat us like the Genoese, whose fate we have before our own eyes.”⁵¹ [italics added].

What was on the mind of Hans Fugger is clear enough – if they offered fresh loans, the Fuggers might end up like the Genoese. He feared that the king would default on them, too, if they lent substantial funds. Thus, the Augsburg banking family decided to keep in lockstep with the behavior of the network. The Fuggers concerns are best described by what Kletzer and Wright (2000) call a ‘cheat the cheater’ mechanism. Since they would not be able to satisfy every one of the king’s demands, the Fuggers saw it as a virtual certainty that they would be cheated and defaulted upon. The reason why they could not satisfy every possible demand by Philip is also clear – his smoothing needs were simply too large. Eventually, the Castilian king would have to settle with the Genoese, and the Fuggers would lose everything. There is every reason to believe that the same logic that kept the Fuggers from lending was also a major constraint on the behavior of the Genoese banking families who might have been tempted by the king’s offers.

V. Conclusions

Philip II of Spain accumulated towering debts during his long reign. He also defaulted four times on his creditors, without losing access to funds permanently. In this paper, we examine what made lending to him sustainable. As Bulow and Rogoff (1989) note, in the absence of potential entrants, lending can occur even if no penalties are available. Philip II had access to more than one lender, and borrowed heavily. We document a unique way in which his 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’. Because of effective coordination between lenders, the coalition had substantial market power vis-à-vis the king; effectively, Philip II only had access to less than two lenders. This implies that reputational mechanisms along the

⁵⁰ i.e. apply the Royal Decree that imposed the payment moratorium on the lenders.

⁵¹ “...die Sp(ani)er (werden sich) unser zu ewigen Zeittten ... bedienen wellen, uns aussaugen, und nött(igen), wan wir dann nit jederzeit thun werden, was Sie wellen, 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, September 5th, 1576, cit. in Karnehm (2003, pp. 408-9).

lines of Eaton and Gersovitz (1981) and Kletzer and Wright (2000) are the appropriate lens through which to view the debts of Philip II. We also find support for theories of sovereign lending that view lender coordination and market power as crucial (Wright 2002; Kovrijnykh and Szentes 2007).

The crucial test for our hypothesis is the default of 1575. In contrast to the argument in Conklin (1998), we find little evidence that lenders could punish Philip II. The transfer stop identified by Conklin never materialized. The Fuggers and other bankers continued to offer transfer services as long as they were paid up-front. There was also no mass exodus of lenders following the defaults. Contrary to the argument in Braudel (1966), banker turnover was minimal. No new lenders emerged during the moratorium imposed by the Genoese coalition.

Neither new nor existing lenders undermined the moratorium's effectiveness. The reason is that neither was likely to make money. The king's borrowing needs were so high that he would eventually settle with the coalition. Conditional on this ultimate outcome being viewed as inevitable, any one banker offering funds had no incentive to lend. As the case of the Fuggers demonstrated, bankers who may have broken the lending freeze worried about being cheated by the king immediately, in line with predictions by Kletzer and Wright (2000).

Lending occurred under conditions of anarchy, with neither side being able to make commitments. What underpinned the durability of lending relationships was the fact that Philip's defaults were excusable. An unfortunate confluence of military necessities, combined with weak tax and silver revenues, made reschedulings necessary. We interpret the repeated defaults and resumptions of lending as largely anticipated events, in the spirit of Grossman and van Huyck (1988). Once the situation improved, bankers and king agreed on a substantial haircut that allowed the Crown to escape debt overhang.⁵² The reason why the established lenders in the Genoese coalition agreed to debt reductions and a resumption of lending more than once is probably best explained by the market power that derived from the group's cohesion. This ensured that even after earlier debts had been reduced, future profits would be ample. Far from a sign of banker irrationality and the importance of lender sentiment, the boom-and-bust cycles of the

⁵² This is in line with the predictions of Kovrijnykh and Szentes (2007).

Spanish monarchy in the 16th century should be interpreted as a sign of the efficiency and flexibility of private order institutional arrangements.

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Appendix

Table A1: Value of repeat lending, in millions of constant ducats

Year	Repeat lenders	Sporadic lenders	% Repeat Lending
1569	2.642	0.275	90.6%
1570	1.851	0.036	98.1%
1571	2.386	0.986	70.8%
1572	4.374	0.764	85.1%
1573	2.618	0.000	100.0%
1574	5.007	0.000	100.0%
1575	3.928	0.256	93.9%
1576	0.781	0.000	100.0%
1577	1.436	0.000	100.0%
1578	2.286	0.000	100.0%
1579	1.962	0.000	100.0%
1580	0.459	0.205	69.2%
1581	0.152	0.130	53.9%
1582	0.954	0.617	60.7%
1583	0.238	0.181	56.8%
1584	0.000	0.277	0.0%
1585	0.000	0.000	-
1586	1.644	0.401	80.4%
1587	4.348	0.266	94.2%
1588	1.276	0.209	85.9%
1589	4.406	0.229	95.1%
1590	3.584	0.092	97.5%
1591	2.567	0.376	87.2%
1592	0.587	0.000	100.0%
1593	1.870	0.186	90.9%
1594	3.418	1.804	65.5%
1595	4.023	0.960	80.7%
1596	2.728	0.414	86.8%
1597	0.303	0.101	75.0%
1598	0.000	0.000	-
1599	0.529	0.402	56.8%
1600	1.764	1.837	49.0%
Total	64.121	11.004	85.4%

Source: Archivo General de Simancas, Contadurías Generales, Legajos 86-93

Figure A1: Structure of the network taking into account transactions prior to 1575 only