Alvarez-Nogal,C., Chamley, C. (2021). Asientos as sinews of war in the composite superpower of the 16th century. *European Review of Economic History*, 25 (4), pp.703–722

DOI: 10.1093/ereh/heaa029

Asientos as sinews of war in the composite superpower of the 16th century

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The full analysis of the text of a contract, *asiento*, between Philip II of Spain and a Genoese merchant–banker details how in this pre-modern composite state, merchant–bankers acted as agents of the Crown who gathered many scattered sources of income to the Crown and transformed them into large and regular cash flows, *mesadas*, for the army. Because of the uncertain availability of these sources, the contract provided flexibility to both parties and legal assistance to the banker who reported to accountants for audit and, if necessary, the charge of an interest at about 1 percent per month.

1. Introduction

"Most states in the early modern period were composite states, including more than one country under the sovereignty of one ruler. These composite states or monarchies could consist of completely separate countries, divided by sea or by other states, such as the dominions of the Habsburg monarchy in Spain, Italy and the Netherlands" (Koenigsberger 1978).[1] Composite states were the prizes in the "game of thrones" that the Habsburg so skillfully played (Elliott 1992). Flanders, perhaps the most prosperous region of Europe at the time, had welcomed the new king, Philip II, as a protector against the ambitions of the King of France. His territories, together with the overseas empire that was conquered in the recently discovered New World and the Philippines, made Spain the superpower of its time. Philip II's annual revenues were about seven times higher than those of Elizabeth I in England (Thompson 1992, p. 10).

Keeping such a state together was another task when Europe was divided by the Reformation and military costs were multiplied by new technologies, *e.g.*, large armies of mercenaries, guns, and the response of the *trace italienne* (Parker 1988, Thompson 1976). Public finance systems were no less fragmented than states. They were still rooted in local customs, sometimes for reasons of efficiency, and no central administration had been developed to collect and transfer large and small amounts of funds. In this context, international merchant–bankers were more indispensible to sovereigns than the Rothchilds and Bleichröders of the 19th century. In that time, the activities of credit and trade were tied together, and merchant–bankers were also involved in trade. For simplicity, we will call them "bankers."

[1] "This article was originally given as a talk at a one-day conference organized for the Royal Historical Society on 21 September 1971 by Conrad Russell on the theme of 'Multiple Kingdoms and Monarchies'" (Elliott 1992). See also Grafe (2012, 2013, 2015).

Philip II found himself in a situation not unlike that of the Pope who received tax revenues from all over Western Europe. Jacob Fugger (1459–1525) had done a very good business selling indulgences. From a banker's point of view, there is no difference between selling an office or a rent to be collected in this world or the other. "The collection of the tithes [tax on ecclesiastical income] and their transfer to Rome were traditionally delegated to the most influential merchant–bankers, the only ones originally able to reach, thanks to their close-knit and well-organized networks, the most remote markets of Europe" (Guidi Bruscoli 2007, p. 110, 161). A parallel can be drawn between the Italian merchant–bankers as financial agents of the pope and the Genoese merchant–bankers working with Philip II.

Philip's father, Carlos V, had relied mainly on the Fugger and other German bankers (Ehrenberg 1896) because his activities centered on the Holy Roman Empire. He had borrowed from Jacob Fugger two thirds of the spending to be elected Emperor (Häberlein 2012, p. 64). Philip II inherited the western part of his father's empire, roughly Spain, the Netherlands, southern Italy, and territories along the former Lotharingian line. The Genoese bankers were closer than the Fugger to the center of gravity of trade and finance between these territories. Building on their long practice of public finance management in the Republic of Genoa and its Mediterranean colonies (Felloni 1971, 2010), they took a leading position in the management of the public finances of Philip II.

The services of the Genoese bankers were formalized in contracts, the famous *asientos*, which covered a period of about 2 to 3 years.[2] These contracts provided the Crown with cash transfers, currency exchange, credit, options to refinance debts into long-term annuities, and various other financial services. Large contracts feature all of these services. Although previous authors have pointed out that these contracts were more than loans, the main focus of published studies, sometimes the only one, has been on the loans that were referred to as "sovereign loans," a misleading term in this case. The stock of these loans never exceeded 10 percent of the total public debt of the Spanish monarchy, and it was sometimes much lower than that. In the last decade of Philip II's reign, when the revenues and the military expenditures were at their highest, the loan component of asientos can be viewed as cash advances in the process of collecting funds from disparate and uncertain sources to make large deliveries to the military.

Many studies on asientos have been published, mainly because Philip II facilitated access to them in the archives he set up in the castle of Simancas. However, they produce only overall tables, sometimes with specific details, and focus on the debt aspect. The analysis of these services through the in-depth study of the text of an asiento signed in Madrid has never been made.[3] This article will show that reporting numbers with the amounts and the timings of the payments, as others have done, is not sufficient to highlight the role of the Genoese in the public finances of the super-power in the pre-modern age.

2 When the Crown needed to make an urgent transfer with a short-term loan, it used a letter of credit. Many of them are preserved in the General Archives of Simancas.

3 See Lonchay 1907; Carande 1943 (for the first half of the 16th century); Castillo Pintado 1963; Ruiz Martín 1965; Ruiz Martín 1968; Ulloa 1977; Neri 1989, pp. 61–64; Canosa 1998; Carlos Morales 2008, p. 30; Drelichman and Voth 2014. Some of them provided important general tables in addition to specific details. Most of them focused on the short- and medium-term loans to the Crown, and, with the exception of Lonchay who worked on the contracts that were signed in Brussels, none of these authors have provided a complete analysis of the text of a contract. Lapeyre (1953) studied in depth the asientos of Simon Ruiz in his archives. Simon Ruiz was a merchant from Medina del Campo who could not undertake the great operations of the Genoese.

The bankers raised funds from various sources, in particular at the Besançon fairs and disbursed a steady flow of funds to paymasters of the army. For reimbursements, they received orders of repayments, "consignaciones", on numerous sources of royal revenue, some of them very small. They were not tax collectors but in the absence of an administration for the centralization of revenues and payments, their agents had to go to the local sources that were dispersed throughout the realm.

The aim of this article is to shift the point of view on asientos: these contracts formalized the function of the merchant–bankers as Philip II's financial and fiscal agents. To do this, instead of aggregating a large number of contracts through the filter of a "coding" that could be biased by prejudices, we carefully read a contract signed with Tómas Fiesco (TF)[4] on April 3, 1591, for 340,000 ducats and let the text speak for itself. This contract is representative of other contracts of the same size or larger at about the same time,[5] and we draw a parallel with the texts of three of them.

The contract was intended to meet an essential need of the army of Flanders, namely regular income. Fiesco undertook to deliver *mesadas*, equal monthly disbursements, for about a year.[6] In a contract of 24 pages, the details about these deliveries are dispatched in less than two pages. Most of the rest deals with means of repayment and the imperfect information about them. The contract casts a net over the many sources of revenue, ordinary taxes and extraordinary incomes (alcabalas and millones were the most important of them), contributions to the crusade, sales of offices and lands, and silver from the Americas. These contributions are scattered through the realm, especially the small ones, which can be as low as 50 ducats, 1/6,000 of the contract.[7] There is no flow of revenues from the periphery to the center that would pay the banker. It is the task of the banker to gather the scattered revenues. As Guidi Bruscoli pointed out, he is the market expert. He has the network and expertise to be informed where particular revenues are free from liens, or where to sell juros (long-term annuities). The contract recognizes the kind of "shell game" that the banker will engage in: if one source of revenues described in the contract proves to be unavailable or uncertain, the banker may seek another. In doing so he may be assisted by lawyers or other officials. A great deal of attention is paid to the banker's legal guarantees. The expression "of his own choice" for the source of revenue is used several times.

The contract is implementable because all the banker's transactions must be reported to the accountants of the *Contaduría Mayor de Cuentas*. Many of these accountants' verifications have been archived and attached to the asientos. Surprisingly, these important documents

[4] Tomás Fiesco was a merchant-banker with a long experience. At the end of his life, he was appointed as "Factor General" of the Crown. This office had been created in 1556 (Ulloa 1977, p. 137; Hernández Esteve 2010, p. 87), to centralize all negotiations with the bankers at better terms. The project failed, but it was renewed on February 26, 1592, with the appointment of Tomás Fiesco who proposed to take care of all the Crown's needs for a year and thus bypass new asientos. The project failed again (Lapeyre 1953, p. 77; Doria 1978; Dubet 1998, 2000, p. 124; Carlos Morales 2008, p. 258).

[5] In the same year, 25 asientos were signed in Madrid, for a total of about 5.7 million ducats, and only three asientos were written for more money than the Fiesco contract (Appendix A).

[6] According to Lapeyre (Lapeyre, 1953, footnote 32), the system of *mesadas* started in 1589 with the asiento of Agostino Spinola that we use here as an additional example (Table 2 and Section 5). However, *mesadas* are already found in the asientos with Lorenzo Spinola, in 1572 and 1574, to guarantee financial stability for the construction of the Escorial.

[7] At the time, the weekly income of an unskilled worker was a little more than one ducat. A soldier of the Great Armada received 4 ducats per month and a sailor, 3 ducats. The Fiesco contract refers to a daily wage of 1.25 ducats when legal help is required.

have been neglected in previous studies, an omission that may have led to serious errors in the interpretation of asientos. The reports were also essential for the calculation of the interest. In the context of *ex ante* uncertainty about the date of payment, an *ex post* account often tracked the credit balance on which the interest rate was paid, in most cases 1 percent per month, often prorated to the exact day of payment, as we verified in our previous study on the Maluenda asiento (Álvarez-Nogal and Chamley 2018). The quantity of these documents varies from contract to contract. For the Fiesco contract, the attachments only contain information on the office sales (see below), but the accuracy of the report matches that of the Maluenda contract. It can be assumed that the other reports that did not reach the archives showed the same professional care.

In this article, we first present, in section 1, a synthetic picture of the Fiesco contract. Payments by the bankers were made in escudos for the army of Flanders and the Crown repaid in the currency of Castile, the ducat. For the sake of clarity and to meet accounting requirements, the contract converts immediately all payments by the banker into the currency of Castile, at a constant exchange rate that is analyzed later in the article, in section 4. After this conversion, the contract is written so clearly that by simply following the text, we can analyze the services provided by the banker, one by one. In section 2, we focus on a particular tranche of repayments from many scattered sources. Attachments to the contracts document the implementation of these repayments in minute details. In Section 3, the interest rate on the credit part of the contract (about 70 percent of the total amount) is computed in the currency of the contract, the ducat. This computation is easy because the payments by the banker and the Crown are expressed in *mesadas* of the same currency. We find a rate of about 1 percent per month, which is in line with other contrats at the time. Section 4 is devoted to other issues, first, an option that is contingent on the arrival of silver from the Americas to reduce the size of the contract, second, the exchange rate, and finally an option for the banker to be reimbursed by the sales of juros. Such an option fits with the banker's function of merging disparate revenues. It was the subject of a previous study for another contract (Álvarez-Nogal and Chamley 2018). In the concluding section, we draw some consequences for the study and the interpretation of the asientos in the finances of Philip II.

2. The overall structure of the contract

The cash disbursements by the banker amounted to 300,000 Italian escudos, the standard currency for professional soldiers, 200,000 of them in Flanders (Antwerp, Dunkirk, Lille, or Namur), and the rest either in the same cities of Flanders or in Burgundy (Besançon, Gray), or Savoy (Chambery, Montluel). All these places were on or near the "Spanish road" that was taken by the troops from Italy to Flanders.[8]

The banker was to be repaid in the currency that circulated in Castile, the real. Each real was the equivalent of 34 maravedis (mrs), the unit that was used for the Castilian currency in the contracts. Another unit of account was the ducat at 375 maravedis. To simplify, we will use the ducat. The system of asientos was anchored on the *ex post* verifications by royal accoun-

[8] The "Spanish road" ran from Milan to Flanders—the crossing of the Alps changed over time— through territories that either belonged to the empire of Philip II (Milan, part of Burgundy inherited from Carlos V) or to allies (Savoy). Antwerp, Dunkirk, Lille, and Namur were in Flanders, while Besançon and Gray in Burgundy were important trading centers. Chambery and Montluel belonged to the duchy of Savoy. Montluel was not directly on the Spanish road but it provided a convenient location on the border of Savoy, 12 miles from Lyon and its important fairs (Parker 1972).

tants. Dealing with exchange rates at different dates and places is just not the job of an accountant. He has to check whether each Crown debt has been paid, using his unit of account. Since the banker received a large number of small payments in ducats, and the exchange markets were fragmented, it would have been impossible to write a monitorable contract contingent on an exchange rate. Therefore, the disbursements in escudos are converted at the beginning of the contract into ducats at a fixed rate, 300,000 escudos into 340,000 ducats. The procedure will be explained in Section 4.2. The banker had to assume the exchange risk. Compared to the market rate, the contract's rate overvalued the disbursements in escudos, and therefore the Crown's debt, by a margin that fluctuated between 4 and 9 percent.

The places of the disbursements were left to the discretion of the banker but their schedule was strict: nine *mesadas*, of about 30,000 ducats each, from May 91 to January 92, followed an initial transfer of about 70,000 ducats in April. The contract summary in table 1 provides a map for the rest of the article. All the numbers in the table are exactly the same as those in the contract. They were used by the royal accountants in charge of monitoring the contract and, using an anachronism, we could take this table as a "spreadsheet" for the *Contaduría Mayor de Cuentas*.

There are two main parts. The first two lines establish a cash transfer with no credit and no interest, in two installments. That initial transfer, about 30 percent of the contract, was probably designed to meet some urgent need and to give the banker time to organize the fundraising for the other disbursements. In April 1591, TF is expected to pay 69,700 ducats and the Crown is expected to pay 75,000 ducats.

TF's main tasks began after the transfers, in June 1591. They concern eight *mesadas* of equal amounts to be disbursed until to January 1592, for a total of about 240,000 ducats. The Crown's liabilities will last until November 1592. All the payments, both from the banker and from the King are recorded in units of a *mesada* of 30,033 ducats. This method made it easier for the royal accountants to keep track of the implementation of the contract. It also facilitates the summary presentation of table 1.

The disbursements by TF are recorded in Column 2, and payments by the Crown in Column 3, both in units of *mesadas* (30,033 ducats). While the dates of the disbursements are fixed, most payments by Crown have only a deadline. For example, the *mesada* of June 1591 must be repaid by the end of the year 1591. The archives contain a complete documentation on the monitoring of that particular repayment, most of which was made before the deadline (Section 2.2).

Column 4 shows the balance due (always in units of *mesada*) assuming repayment at the contractual deadline. Column 5 provides a brief summary of the sources of revenue that could be tapped for the repayment. These descriptions will be central in this article. The 3 months between February and April 1592 are grouped together in a single line because no payment is expected during this period. The same applies to the 4 months between June and September 1592.

For the disbursements and payments in the last 3 months of 1591, the cells are divided in two. The right–hand side of the cell shows an option that could be exercised by the Crown, contingent on the arrival of the annual fleet that brought the silver from the Americas (Section 4.1). This option turned out to be irrelevant. The fleet did not arrive. The interest is paid in a lump-sum payment, in the last row (Section 3).

The penultimate column refers to the page numbers of the contract, which is available on line (original, transcription, and translation) at "chamley.net." The letters refer to marks that have been added to the posted text of the contract. The last column refers to the section of this article where the item is analyzed.

Table 1. *Disbursements by TF and payments by the Crown in units of mesada*

	1	2	3	4	5	6	7
	Date	By Fiesco	By the Crown	Debt balance	Method of repayment	Contract page	Section
1	4/91	2.32 (69,700)	2.5 (75,000)	0	Cash transfer.	3 (a)	2.1
2	5/91	1 (30,033)	0.82 (24,733)	0	Millones of choice; if not, alcabalas or any farmed income of choice, assistance from judges (550 mrs per diem), seniority claims, nor later than 5/91.	3–4 (b)	
3	6/91	1		1			
4	7/91	1		2			
5	8/91	1		3			
6	9/91	1		4			
7	10/91	1 (0)		4			
8	11/91	1 (0)	3		—If fleet arrives, Crown either pays 3 units within 30 days.	6 (d)	4.1
9					Or no payment/disbursement of the 3 units.	7	
10					- If the fleet does not arrive, the Crown pays from other sources (millones, alcabalas, etc . . .) with monthly interest rate of 1%. Repayments stated—verbatim—as on page 4 (b).		
11	1			4	Millones.	10	
12	12/91	1 (0)	1	3	Sales of lands, offices, jurisdictions (local judicial power)	4 (c)	2.2
13	1/92	1		3			
14	2–4/92			9	Total balance for 3 months, each with 3 units.		
15	5/92		1	3	Millones; if not, alcabalas/alcabalas or other revenues. Verbatim as for the 5/91 payment (page 4 (b)).	11	
16	6–9/92			8	4 Months with balance of 2 units.		
17	10/92		1	2	Crusade, *Subsidio*, and *Escusado*. Payment orders could be sold by TF.	11	
18	11/92		1	1	Same as previous.	11	
19	Total		8 (240,264)	47			
20	Interest		11,936		Same as for the 12/91 payment (Section 2.2); grouped with that payment by the accountants.	12–13	3

3. The collection of dispersed revenues

A central argument in this article is that large asientos provided the contractual means to merge many sources of revenues in Castile, some of them very small and all of them in the local currency, into steady streams of disbursements outside Castile in a foreign currency. The next two subsections examine this process for the first two payments by the Crown, in May and December 1591, respectively.

3.1. The final payment on the transfer (May 1591)

We saw that the Crown had to pay 24,733 ducats by the end of May 91 for the second tranche of the transfer (line 2 in table 1). Since this transaction did not involve credit or interest, it had to meet the deadline. On page 3 of the contract:

> "24,733 ducats from the service of the 8 millones conceded to me by my kingdoms in the payment at the end of May of the current year in the parties that he wants to request, and if he does not receive it from this service, he shall be paid in alcabalas or any farmed income administrated in my kingdoms and without lien, for the said day at the end of May, from the parties that he may request."

The millones had been voted by the Cortes in 1590 after the disaster of the Great Armada, as an extraordinary tax for 6 years with a total of 8 million ducats. In the previous clause, the Crown acknowledges that it is not sure that payments can be made from this source of revenue. It therefore provides for access to other sources. It is also unclear which of these other sources can be tapped, free from any liens or other encumbrances. The alcabalas were the most stable source. The administration and collection of these sale taxes was devolved to the cities that were obliged by an agreement in the Cortes to deliver a fixed amount per year, the *encabezamiento*. The *encabezamiento* of a particular city was subjected as a first claim to the service of juros. These were long-term annuities that were specifically written on that city. (The same office often collected the alcabalas and paid the coupons of the juros.) Since tax enforcement officials often held juros, they had a vested interest in the efficient tax collection of the *alcalabas*, and juros were the safest government bonds (Álvarez-Nogal and Chamley 2014). However, because of the decentralization of the system, some alcabalas could be fully committed to juros, while others had some surplus after the service obligation. The accounting office would eventually have information on the surpluses available in the different cities. The text of the contract makes it clear that the available alcabalas were not known at the time of the contract was signed, and that multiple guarantees had to be given to the banker.

And if sufficient funds could not be found in the alcabalas? In that case, the banker could turn to "any farmed income administered in my kingdoms and without a lien for the said day at the end of May from the parties that he [TF] may request." Here we again emphasize the decentralization of the tax system. Tómas Fiesco had a long-standing relation with the Crown and had accumulated considerable knowledge of the Castilian fiscal system. Without this knowledge, he would not have signed a contract allowing him to claim income "from the parties that he would demand."

For Tómas Fiesco, identifying sources of income was not enough. If necessary, he could call for legal assistance:

> "... he [TF] will have judges if he requires assistance, at the rate of 500 maravedis of wages for travel expenses to his satisfaction."

This may still not be sufficient: the following paragraph opens another direction for the reimbursements:

> “if the said payment orders [*libranzas*] do not suffice from the parties to whom they are issued and if they remain uncertain or cannot be collected for whatever reason, then the shortfall and the part that remains uncertain must be assigned [*librar*] to the said service or to any of the other farmed revenues which there may be for the said period or as soon as possible thereafter from any party that he may request. He must be given the necessary *libranzas* (payment orders) and *recaudos*.”[9]

In the search for free sources of revenues, once a source has been found it should be protected from other creditors, as in the next paragraph:

> “These claims must have priority over other claims issued or subsequently modified and the payments must be denominated in gold or silver without any other form of customary monetary or tax anticipation, without any delay.”

3.2. Repayment of the first mesada and interest (no later than 12/1591): sale of offices

The previous payment had a tight deadline, at the end of May 1591, because it was part of an interest-free transfer agreement. Other Crown payments were due much later. For the first of these, the contract set the deadline at the end of the year 1591. In table 1, this payment of 30,033 ducats is therefore included on line 12, for 12/91, column 5. In the same month of December 1591, another payment of 11,936 ducats is due for the interest paid to TF (line 20). This payment is specified later in the contract, but its clauses repeat, word for word, those of the first repayment. In the attachment to the contract, the accountants have combined the two payments as a single debt of 41,967 ducats. Let us look at the contract first, and then at its implementation.

The contract.
On page 4 (item (c)),

> “30,033 ducats from what is due to me without lien for the whole of this year of 1591 from the first day of this month of April until the end of the said year in sales of free (uncultivated) lands and offices, jurisdictions, knight taxes, tax exemptions for villages and small towns, posts in military orders and any other items of extraordinary income which in any way may be due to me now or in the future. These items must be selected by TF or his agent for liquidation.”

As with regard to the May payment, legal protection is provided in the following paragraph (page 5):

> “And for the collection, TF will be provided without further ado the required cedulas and instruments for collection at his convenience, so that he or his agent may collect what is due in the manner that I [the King] may do so on the dates required the terms of these debts. [...] For collection, TF will have executors who will have full jurisdiction (*vara alta de justi*cia), days and wages necessary to pay the costs of collection of any payments from the payers.”

[9] A *libranza* is a payment order that the royal officials produce to pay a debt. The claimant must present the libranza to the fiscal office to be paid. A *recaudo* orders the tax office payer to make the payment. This is a proof that the payment is approved by the Crown, another evidence of careful verifications.

With the expression "in the manner that I may do so", the King explicitly uses the banker as an agent for the collection of royal revenues. Despite the assistance of executors, TF may not get the payments and more guarantees are included in the following paragraph.

> "It is stated that if any of the said obligations were uncertain and TF could not recover them, others will be given to him, but he must return the uncertain obligations that he could not recover to the Royal Finance. He will receive payment orders for other revenues, free of lien, that he requests and chooses, for a full collection in this said year, as mentioned, or as soon as possible. If some of the people and municipalities that owed money went to court and TF or his agent, in order to be paid, had to post a bail [collateral] according to the law of Toledo, it is my will that no one will ask him for it, he will have no obligation to give it and there is not recourse to anyone, except to my Council of Finance."

These clauses provide a template and are repeated *verbatim* for other Crown payments. They confirm the uncertainty about the availability of particular revenues for the Crown when the contract was written. It was signed without the knowledge of all the repayments' details. These clauses could not have been written without the professional experience of the banker in a long-standing position as a fiscal agent for the Crown. Legal assistance and a license for further searches is provided by the contract if an initial attempt proves unsuccessful, as well as seniority rights once he has found "a good shell."

The banker's guarantees for the first repayment (May 1591) and the second (by December 1591 at the latest) are very similar but the ranges of revenues are different. The first is made from millones or alcabalas. The second is made from the sale of offices.

The implementation: the sale of offices.

The complete accounts of the collection of revenues for this repayment have been attached to the contract in the Simancas archives. All the funds came from the sales of offices or vacant lands. The total of 41,970 ducats is made from 87 individual payments, most of them small or very small. The attachment shows, for each individual payment, the month, the amount, the object of the purchase, the name of the buyer, and the location. The complete list is provided in Appendix B (online). We summarize these payments according to three distributions, by size, location, and time.

In figure 1, the amounts are expressed in ducats on the horizontal axis. For each bracket of 50 ducats, the number of payments is shown on the vertical axis. The distribution of amounts is heavily skewed towards small values. The average of the payments is equal to 482 ducats, and the median is 150 ducats. There are 53 payments of only 50 ducats, the annual income of an unskilled worker, each for an installment towards the purchase of a notary's office.

In figure 2, the locations of the sources of income are placed on a map. They were scattered throughout the kingdom.

Figure 3 shows the cumulative distribution of the payments according to their date as a fraction of the total amount due. Recall that the banker could collect "from the first day of this month of April until the end of the said year." Tómas Fiesco had an incentive to collect as quickly as possible and he immediately started to sell offices. By the end of August, half of the total had already been collected. Given the distribution over time, the actual duration of the credit was only between 3.5 and 4 months, much less than the 6-month contract period between June and December 1591.

For that first tranche of December 1591, 11 payments had to be transferred to 9 other sources (Appendix C, on line). One of the initial payments was for a single ducat and another for 5 ducats! Nevertheless, the total of 11 payments that had to be replaced by other sources,

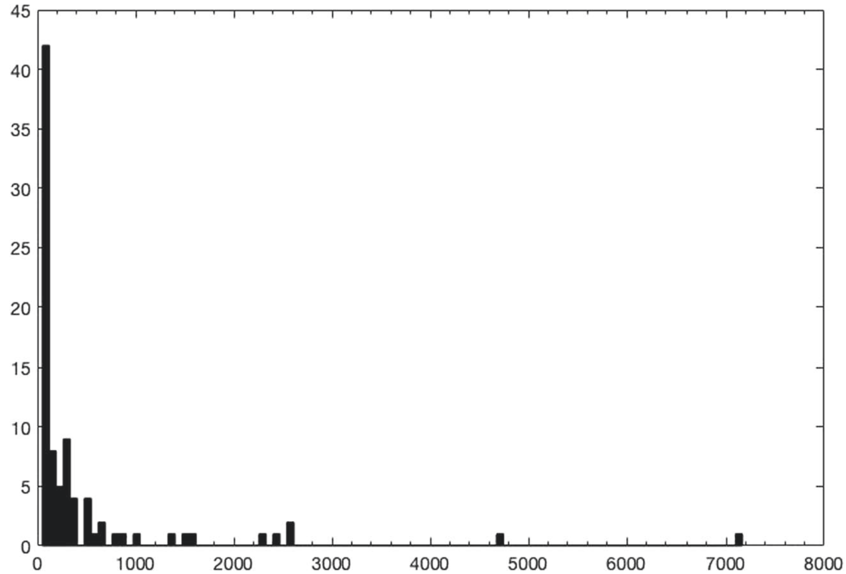


Figure 1. Distribution of payments for the first tranche (by 12/91 at the latest)

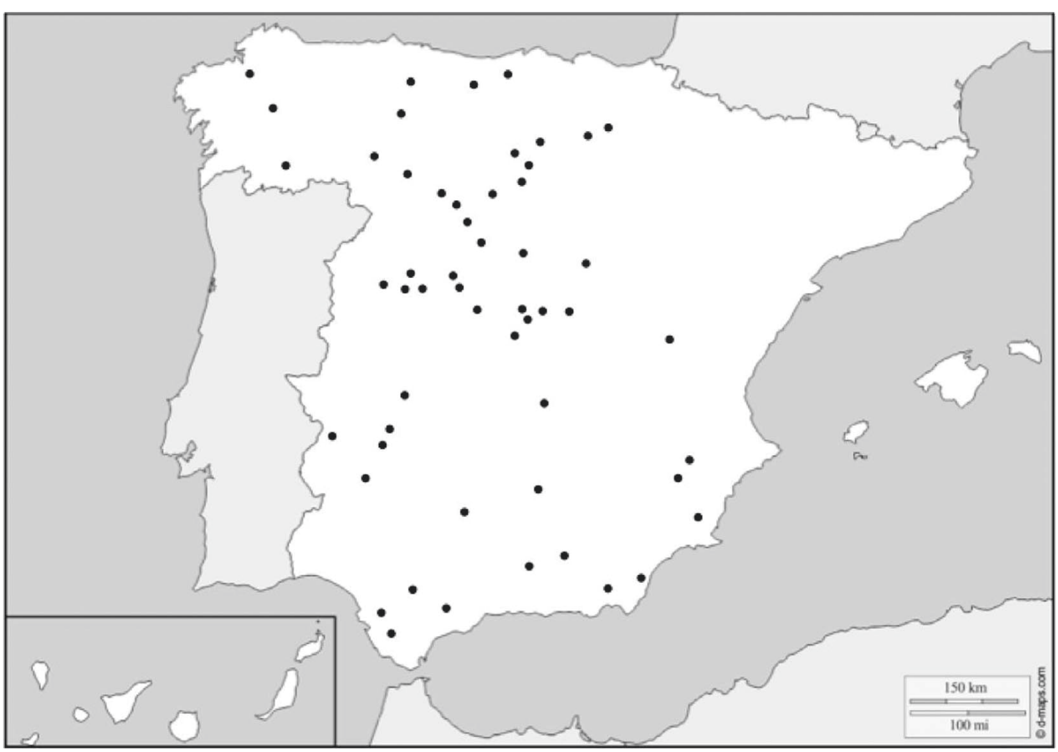


Figure 2. Geographical distribution of payments for the first tranche

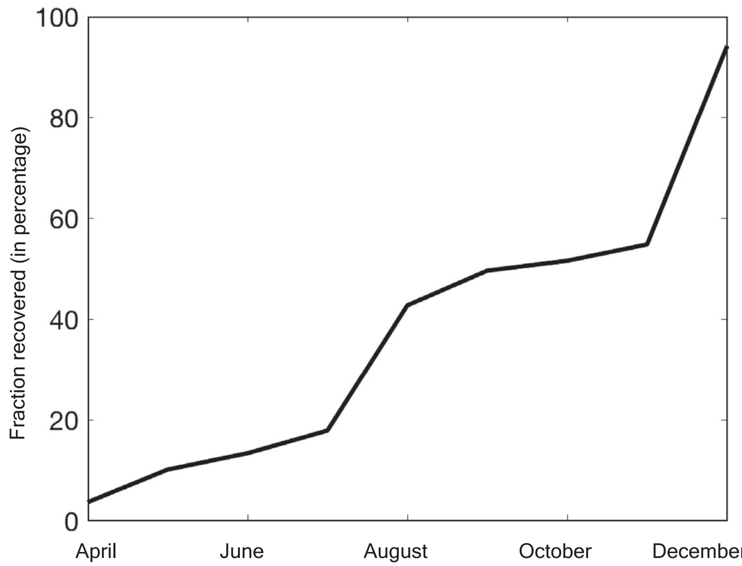


Figure 3. Time profile of the payments for the first tranche

2,753 ducats, was small with respect to the whole tranche of 41,969 ducats. Everything was eventually paid, 98.5 percent of which was paid on time, at the end of December 1591.

4. The rate of interest on the credit

The Crown explicitly recognized, as in many contracts, that the banker did not lend his own funds and that he provided financial intermediation in the credit market.[10]

> "And because the said TF in order to make the payments that he must make of the said 300,000 escudos in accordance with this *asiento* for which he receives consignations with such a long term and must make many arrangements and obtain credit for a long time and a large quantity of maravedis, I hold it for good that he receives as reward and gratification for the many interests that he must bear and undergo, for this reason and for the cost of recovering the said consignations, 11,936 ducats" (p. 12).

We have seen in Section 2.2 how the lump-sum payment of 11,936 ducats was made before the end of 1591, although the final debt was not repaid until November 1592 (table 1). The payments by the Crown in May and November of 1592 were timed to concur with the collection of the millones.· The implicit monthly rate of interest can be computed by tracking the credit balance. Accounting is greatly facilitated by the use of the *mesada* of 30,033 ducats as a unit of transfer both for the banker and the Crown, as shown in table 1. Following the usual practice in asientos at the time, interest is not compounded. It is therefore sufficient to add the balances, measured in *mesadas*, in Column 4 of table 1. We make the convention that the balance at the beginning of the month includes the disbursement that is due by the end

[10] This intermediation is a critical element for the understanding of the crisis of 1575–77. By suspending the payments to the bankers, the Crown in effect suspended payments on its own subjects and thus pressured the *Cortes* to accept a doubling of taxation (Álvarez-Nogal and Chamley 2014).

of the month, as in the Maluenda contract (Álvarez-Nogal and Chamley 2018). The method generates an upper limit on the *ex ante* debt balance.

We can set aside the transfers in April and May 1591 and also the three *mesadas* for the last quarter of 1591 (lines 8–10) because they are treated separately in the contract, as we will see later. The balance is therefore the same in October and November as in September (4 units), and it is reduced by one unit in December because of the December payment. The calculation yields a total of 47 units of months. If disbursements and Crown payments are credited at the date each month, this number is reduced to 42.

With a total balance of 47 units, the monthly rate of return is equal to $11{,}936/(47 \times 30{,}033) = 0.85\%$. If we take a balance of 42 units, the rate is 0.95%. In addition, if we take into account the early payments on the first tranche, which were specifically authorized in the contract (Section 2.2), and were therefore anticipated, the rate of the contract is about 1 percent per month, which is the same rate as in other contracts at the time (Álvarez-Nogal and Chamley 2018).

This calculation does not take into account the option to sell juros, up to a maximum amount of 100,000 ducats, and the option on the *mesadas* for the last 3 months of 1591. That option, which is described below, does not change the rate of return on the contract.

5. Other services

5.1. An option for the Crown to reduce the size of the contract

The *mesadas* for the last 3 months of 1592 are part of an option for the Crown that is described in pages 7–9 (lines 7–12 of table 1) and that presents the following choices:

(i). If the fleet carrying the silver from the Americas arrives before the end of October, then

(a) either the Crown pays the three *mesadas* (90,100 ducats) within 30 days of the arrival of the ships (and payments by the Crown are made out of fleet monies),

> "90,100 ducats with first claim on the first gold, silver or reales that will arrive for me from any part of the Indies or their islands to any part or port from my kingdoms and Portugal in the current year of 91. These have to be paid soon [luego] after the arrival of the ships. A cedula will be given on my behalf so that the president of the official judges of the Casa de la Contratación in Seville or any other responsible person will pay to the satisfaction of TF from the money that will come to me,"

(b) or, continuing without interruption,

> "on the express condition that if 30 days after the arrival what is expected from the Indies of this current year is not collected by TF, because one has decided not to pay him, he is not obliged to make the last payments from the end of October to the rest of this current year of 591."

(ii) Finally, immediately following the previous sentence,

> "If at the end of October of the current year, TF, because the fleet has not arrived, wants the 90,100 ducats to be paid on the Crusade, the Subsidio and the Excusado or on the ordinary

> and extraordinary service of my kingdoms that are paid to me, or on any debts owed to me, he may request that the 90,100 ducats be paid of all these revenues, the payment orders must be remitted to him with, in addition, interest of one percent per month, counted from the said day at the end of October of the current year until the days on which the payment orders are made."

How should this option be interpreted? Compared to the other parts of the contract, the first source of revenues to pay for the last three *mesadas* of the year is the silver of the fleet. If the fleet arrives, there is no mention of other payments for these *mesadas* in a contract that carefully details the repayments of the banker's other disbursements. The means for payments of the three *mesadas* are specified if the fleet does *not* arrive, in clause (ii). In this case, the contract states explicitly that a special account must be opened to keep track of the balance due on these three *mesadas* and that interest of 1 percent per month must be charged on the current balance; in addition, the contract provides the same guarantees as before if the banker has to transfer the repayments between sources of revenues.

The arrival of the fleet is scheduled before the last three *mesadas*. If the Crown does not pay from the fleet, the banker does not pay the *mesadas*. There is just a *pari passu* reduction in the payments from the Crown and the banker. What the Crown cannot do is to keep the silver from the fleet and pay for the three *mesadas* by other means, as if the fleet had not arrived, which is the case (ii) in the contract.

Four years later, a clause identical to (ii) was included in a Maluenda contract for a large payment from the fleet, without an option. On the basis of the archival documents of the *ex post* monitoring of the contract, we showed that the payments were spread over a few weeks. The documentation shows the flawless work of the accountants who calculated interest on the balance due, at the same rate of 1 percent per month, prorated to the exact days of the payments by the Crown (Álvarez-Nogal and Chamley 2018).[11]

In fact, we know the turn of events: the fleet of 1591 did not arrive on time and only a fraction of money arrived in other ships, months later, in Seville.[12] In the summer of 1591, it had been learned that Drake was waiting in the Azores. As a precaution, the silver was stored in La Havana and returned to Spain by four galleons in January 1592.

5.2. Foreign exchange transactions

On page 2 of the contract, the total of the disbursements, 300,000 escudo, is converted into maravedis, at the fixed rate of 425 mrs per escudo, for a total of 127,500,000 mrs, which is

[11] Drelichman and Voth (2014) give a very different account of the Fiesco contract. Table 1 follows the text of the contract, paragraph by paragraph, as the reader can verify by comparing with the transcription and the translation of the contract that are posted on line. Their table on the Crown's and the banker's payments should correspond to table 1, but there is no relation between the two (except, surprisingly, for two payments of 30,033 ducats). A central argument in their analysis of the contract is the "contingent debt and excusable default". The Fiesco asiento, which is the only verifiable evidence they present for such a clause, does not have a default clause. The so-called "King's discretion", with an exhorbitant interest rate, does not exist in the contract. Interested researchers can check all our evidence, which we make available, as it is standard in biology or physics. See the complete contract on line.

[12] The fleet had already lost 16 ships on the outbound due to bad weather at the entrance of Veracruz. On the return, another storm—it was hurricane season—knocked out half of its 78 ships. The commander of the fleet, Antonio Navarro de Prado, was investigated and denounced by the merchants who had lost their ships (Lorenzo Sanz 1979, p. 270–271; Pérez-Mallaína 1996, p. 85).

Table 2. *Exchange rate between Medina del Campo and Antwerp*[14]

The Medina-Antwerp rate could be higher than the Antwerp-Medina rate, depending on the need for liquidity.

Date	Ducat (*gruesos*)	Mean	Market rate	Agustin Spinola[15] 1589	Ambrosio Spinola 1590	Tomás Fiesco 1591
Feb-89	102	102	419.12	408		
Jun-89	104–105	104.5	409.09	408		
Oct-89	105–106	105.5	405.21	408		
Feb-90	102.6–103	102.8	415.86	408	430	
Jun-90	102–102.5	102.25	418.09	408	430	
Oct-90	102.5–103	102.75	416.06		430	
Feb-91	104.5–106	105	407		430	425
Jun-91	105–105.5	105.25	407		430	425
Oct-91	105–105.5	105	407			425
Feb-92	100–101	100	427			425
Jun-92	109.5–115	115	372			425
Oct-92	110–111	110	389			425

Source: Lapeyre (1955, Tables XV and XVI, p. 499-500), and AGS, CCGG, 90.

equivalent to 340,000 ducats as 375 mrs are always equal one ducat in Castile. Italian escudos paid in Flanders were real/specie money, but Castilian maravedis and ducats (the currency of the asiento) were units of accounts. The first had variable values, the seconds had always the same value with the specie money circulating in Castile: the real. Gruesos were the unit of account of the escudo in Flanders. The exchange rate between the ducat and the escudo fluctuated in the market, not because of currency manipulations—there were none since both currencies were based on precious metals—but because of variations in liquidity requirements in different places and at different times.

A list of exchange rates between Medina del Campo and Antwerp that is provided by Lapeyre (1955) allows us to compare the fixed rate between maravedís/ducats and escudos with the market rate. The Medina del Campo fairs were the only market in Castile in which exchanges with foreign markets were authorized. Any merchant or banker making a transfer in or out Castile had to make the transaction in Medina del Campo, or at the exchange rates that were established in the fairs (Espejo and Paz 1908, Ruiz Martín 1987).

Contractual payments in Flanders were in escudos of 57 patards, equivalent to 114 gruesos (Lonchay 1907, p. 1012). Table 2 shows data from Lapeyre (1955) on the exchange rate between the half-yearly fairs in Medina del Campo and Antwerp, which is one of the places of disbursement specified in the contract,[13] and also the rates that were relevant for two other contracts (which will be briefly discussed in the next section). In the Spring of 1591, for example, one Castilian ducat (375 mrs) is worth 105 gruesos. The escudo (114 gruesos) is therefore worth $(114/105) \times 375 = 407$ mrs. The contract that puts the escudo at 425 mrs effectively charges a commission of 4.4 percent, less than what most banks would charge today.

[13] At the time, many financial contracts were contingent on the dates of commercial fairs, which acted as clocks for the contracts (Álvarez-Nogal and Chamley 2016).

The rate did fluctuate above and below its value at the signature of the contract. For example, in October 1592 when the Crown made one of its last payments, the ducat had appreciated by 4.5 percent compared to a year before and the banker made a nice profit on that repayment. An exact measurement of the profit on the exchange is not the subject of this article, however. What matters here is the rate *ex ante* at the signature of the contract. The measurement of the rate *ex post* would require information on all the exchange transactions of the banker. In fact, many bankers did not repatriate funds from Castile using bills of exchange issued in Medina del Campo. They often exported coins and bars of silver to be sold in Italy and transfer their value to Flanders in order to pay their debts there. Moreover, any transaction should not be separated from the entire portfolio of the banker's contracts between fairs since any contract could be used as part of the portfolio's hedging strategy.

The negotiation of exchange rates in the contract was another potential source of profit for the banker, but that profit was not guaranteed as we can see from the Agustín Spínola's asiento in 1589 (table 2). We have mentioned that in order to be monitored by accountants, the contract had to be written with a fixed exchange rate. Furthermore, a fixed rate avoided problems with financial planning, dealing with bills of exchange and negotiations with merchants in the Medina del Campo fairs when the army was waiting for its pay.

5.3. An option for the banker to refinance into funded long-term debt

The credit component of the asientos filled the short-term gaps between government spending and revenue, but since their interest rate was about twice the rate of the long-term juros, any accumulation of debt by asientos was refinanced by juros. The dominant part of the public debt (more than 90%) was in these long-term annuities (perpetuals or life annuities) that were redeemable and tradable. The best experts to sell juros were of course the bankers. They had been active in the juros market since the 1560s (like the Pope's bankers with indulgences and annuities). Prior to 1575, bankers held juros as collateral, *juros de resguardo* (Ruiz Martín, 1965, p. xxxi; Braudel, 1983, p. 523) that they could sell instead of being repaid in cash. However, if the Crown paid cash, the banker had to return the juros or other juros of the same type. The banker had the option to get cash by selling the juros and the Crown had the option to buy back the option. Since juros were rarely identical, there could be a lot of confusion, which the bankers of course exploited. These *juros de resguardo* became an important issue during the crisis of 1575–1577, which will be examined elsewhere.

After 1577, the *juros de resguardo* were abolished, or rather, they were inserted in the asientos within a strict framework: many contracts included an option, up to a certain amount, whereby the banker could obtain cash by selling juros, to be chosen from a menu that was fixed in the contract, but the Crown could not buy back the option. The asientos were therefore a financial vehicle for easily refinancing short-term debt with long-term debt at a lower interest rate. We have provided a detailed analysis of this process for an asiento with the Maluenda brothers in 1595, which very much resembles the Fiesco contract—*mesadas* for 1 year with all payments in ducats—(Álvarez-Nogal and Chamley 2018). The Maluendas received an option to sell juros, mainly life annuities on two heads, for 62 percent of the non-transfer part of the contract. They began exercising the option immediately after the signing and with such diligence that for most of the term of the contract, cumulated sales exceeded cumulated disbursements, net of the cash payments by the Crown. In total, they sold 69 annuities at an average value of approximately 2,500 ducats. The juros were funded by local revenues and they required a similar expertise by the seller. But it was easier for a banker to sell juros than to collect installments of 50 ducats for notary's office in some small village. For the sale of juros, the banker did not need all the legal assistance that we have seen before.

The Fiesco contract included, on page 14, an option, up to a maximum of 100,000 ducats (approximatively 40 percent of the contract net of the transfer), for the sales of juros and alcabalas.[16] The juros were to be single life annuities (for a total not exceeding 50,000 ducats) or perpetual annuities. The rates were the same as in the Maluenda contract, 14.25 and 7.14 percent, respectively. We have dealt extensively with this topic before and its technicalities are not the subject of the present article. This option fits well with the banker's role in collecting small and scattered revenues.

6. Other asientos

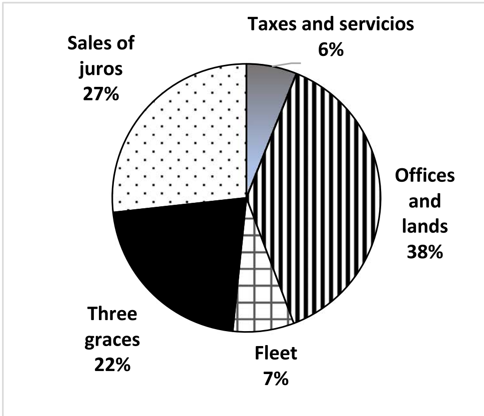
The main feature of the Fiesco contract is to transform dispersed revenues, which cannot be precisely identified at the time of signing, into regular flows of *mesadas* for the military. These characteristics are typical of the asientos of last decade of Philip II. We have already mentioned the Maluenda contract. We provide an additional comparison with three asientos that delivered very large *mesadas* for about a year to the army of Flanders. For the first two, the exchange rates are in table 2. Figure 4 shows their distribution of the types of income for repayment. It should be stressed that these figures do not take into account the flexibility of the contracts. For example, in the asiento of Ambrosio Spínola, if the payment from the fleet is not made 20 days after its arrival, a special account is opened with a 1 percent monthly interest (as in the Maluenda and the Fiesco contract). In the contract with Agustín Spinola, a payment of 100,000 ducats from the fleet can be replaced by income from the Crusade, Subsidio or Escusado if the fleet is delayed. Another clause provides an option for selling juros at the rate of 6 or 7 percent, up to 45,333 ducats, instead of waiting for the arrival of the fleet.

In the third asiento, Agustín Spinola and Nicolao de Negro (July 26, 1595), ASNN, undertake to deliver to "don Jeronimo Balter Zapata, paymaster of the army in the provinces of Flanders or to a person designated by the Carinal Archiduque Alberto" one million escudos in 12 *mesadas* of 75,000 ducats each between 9/1/95 and 8/1/96, and a final one of 25,000 ducats in September 96. As in the Fiesco asiento, the contract first calculates the total debt of the Crown in ducats at the exchange rate of 408 mrs per escudo. The repayment installments are summarized in table 3.

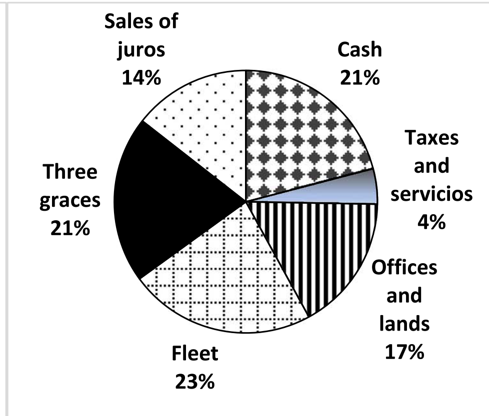
7. Conclusion

Our method of investigation does not fit the current trend of interpreting large sets of historical data through "codes." What does this careful reading of the text of the Fiesco contract (and the comparisons with other large contracts) highlight? Tómas Fiesco is not a foreign banker making a sovereign loan in the usual sense of the word. Rather, he is responsible for conducting financial and fiscal transactions on behalf of the King "in the manner that I may do so." This role is indispensible in the context of pre-modern times, when states

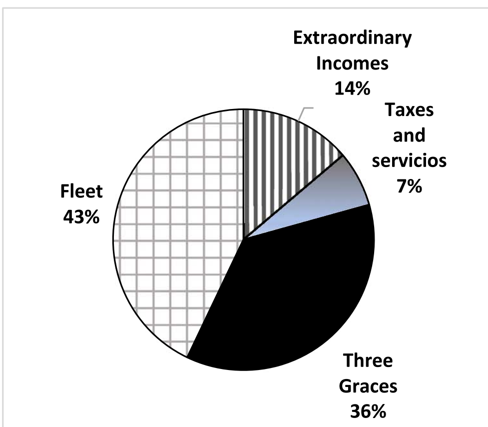
[16] The purchase of an alcabala—there were many of them—gave the perpetual right to collect that particular tax. (It was like buying a juro funded on the total amount of that alcabala). With a price of 30,000 per thousand, the implicit rate of return was only 3.3 percent, but this right meant much more that a monetary income: *nouveaux riches* could acquire these rights, or grant justice (in the "jurisdictions"), to control all local aspects of life and become local lords.



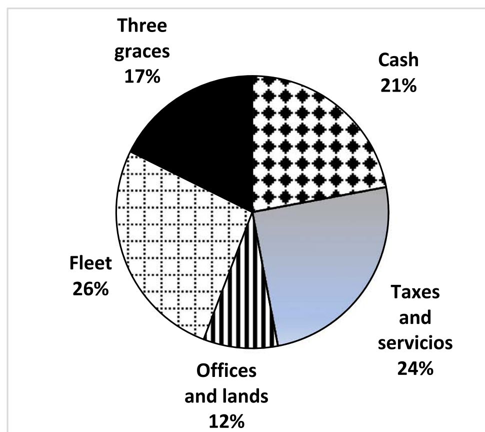
Agustín Spínola
13 mesadas (4/89-4/90)



Ambrosio Spínola
13 mesadas (3/90-3/91)



Agustín Spínola and Nicolao de Negro
14 mesadas (9/95-10/96)



Tomás Fiesco
10 mesadas (4/91-1/92)

Figure 4. Sources of revenues for the repayments of asientos

had not developed an administration capable of managing the fragmented territories and local customs inherited from medieval times. In some respect, an asiento is much closer to a farming contract than to a modern sovereign loan. Farming contracts were not limited to the collection of revenues. The Pope's bankers were in charge of alum mines and importation of grain (Guidi Bruscoli 2007, chapter 8). In *Ancien Régime* France, tax farmers advanced funds to the Crown. The loan component of the asiento appears here as an advance of funds in the process of the transformation of scattered sources of income into regular streams of disbursements. Credit is a relatively modest part of the Fiesco asiento. In the event of the arrival of the fleet, this credit component corresponds to an average duration of about 3 months for the entire amount of the contract (an interest of about 12,000 ducats for 340,000 ducats, which is equivalent to a 3 month loan at 1 percent per month).

Table 3. *A summary of the ASNN asiento of July 26, 1595*

75,000 ducats	Any consignacion that is not mortgaged (*desembargadas*) in 1595, or in the millones, servicios ordinarios and extraordinarios, alcabalas, tercias, and any farmed revenue, sales of vacant lands and offices, or any other ordinary or extrordinary debt owed to the Crown, at the choice of ASNN.
75,000	Debt of Sevile, arbitrios, and if not available, non-mortgaged revenues from the three graces, or any ordinary or extraordinary consignaciones, etc..
75,000	Debt of the cardinal of Toledo, if unpaid at the end of 95, then a menu of sources similar to the ones before
466,667	Not later than 20 days after the arrival of the fleet. If not, same as above.
396,333	In 1596 and 1597, three graces, farmed revenues and other payment orders on ordinary and extraordinary revenues.

The text shows, paragraph after paragraph, the difficulties the banker may encounter in collecting what is due, either because previous obligations to the Crown have been mortgaged by other debts in the decentralized system, or because he may encounter some local resistance. This function of the merchant–banker has two implications. First, the uncertainty about sources of revenues, which is a dominant feature of the text, implies that often no firm date can be established by the contract for the payments to the banker, and the contract addresses this issue with an explicit provision (which is found in other contracts): accountants, who are responsible for monitoring all contracts, calculate an exact balance, day by day, of what is owed to the banker and apply a fixed interest rate, around 1 percent per month. Second, the integration of the merchant–bankers into the Castilian public finance system shows that Philip II's suspensions of payments could not be compared to modern sovereign debt failures. As we have already shown (Álvarez-Nogal and Chamley 2016), during the suspension between 1575 and 1577, Philip II was careful to protect the Genoese bankers who were critically important in his system of public finance.

Acknowledgements

We would like to thank the referees and the editor. Chamley gratefully acknowledges funding from Fundación Banco Santander in a Cátedra de Excelencia UC3M-Santander. Financial support was received from the Ministry of Economy and Competitiveness (Spain) Project HAR2015-68672-P (MINECO/FEDER).

Supplementary material

Supplementary material is available at *European Review of Economic History* online.

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