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## **Italian Monti: the origins of bonds and government debt.**

Provisional paper

### **Introduction**

*1262, die xii Marcii*

*Capta fuit pars in Maiori Consilio et revocata fuerunt Consilia olim facta de ligatione pecunie Comunis et redditum Comunis tam de reddendo imprestita quam de aliis quocumque modo facta sint. Et fuit ordinatum quod Dominus Dux et Consiliarii habere debeant libras MMM quolibet mense ad expendendum sicut habebant, actenus et de residuis totius entrate Comunis que est et erit, debeant reddi quinque pro centenario de proficuo omnibus illis qui fecerunt hinc retro imprestitum et debeant solvi ad sanctum Michaellem proximum et deinde in antea de sex in sex mensibus salvo quod illi qui non fecerunt imprestita hic retro facta et non fecerint de cetero non possint de istis quinque que ordinate sunt reddi, aliquid accipere vel habere et totum illud quod superabit a dictis quinque pro centenario debeat expendi in facto guerre de Romania et Janue et occasione ipsius guerre et pro hiis que facienda fuerint pro guerra illa et id quod superabit a guerra et ab hiis sit obligatum imprestitis reddendum de capite, que imprestita solvantur ad medium annum. Et hoc ponatur in Capitolari Consiliarum et XL, quod non possint hoc revocare nec ponere ad aliquod Consilium de revocare hoc.<sup>1</sup>*

The decree permits the government to spend as much as 3,000 lire (*ad grossos*) a month, the rest has first of all to be used for paying 5 per cent interest to those who have hitherto made loans. The interest has to be paid twice a year, and after that, if further money will be available, it will be used for the current war and the ones to come. The rest of the money – if any – will be used to pay off the loans. No one will be allowed to revoke this statute.

Through this *Ligatio pecunie* the Venetian government formally enacted an earlier practice concerning its indebtedness. The statute of 1262 granted lenders an annual interest of 5 percent on their capital; it obliged tax revenues to paying regularly interest; it gathered into one series all the previous; and it eventually made loans almost irredeemable. The document can be considered both as the proof of a long custom now formally ratified, and as start of true consolidated debt. The *Ligatio pecunie*, thus, represents an important turning point in financial history.

### **Deficit financing before the Monti**

How did urban governments get the money needed to cope with extraordinary expenses? Since increasing or raising new taxes requested time and, above all, people did not easily accept it, the easiest way was to borrow from the wealthiest citizens. The early reports about this go as back as the twelfth century, when some communes gave goods or revenues as guarantees to people who had lent money. Thus, for example, in 1164 the Venetian government granted for eleven years income from the Rialto market to a dozen rich people who had lent 1150 silver marks<sup>2</sup>. In 1152 Genoa applied, instead, to foreign lenders who, in exchange for 50 lire, were given the proceed of the custom at Rivarolo for two years (at about 40 per cent of annual interest)<sup>3</sup>. Governments, however, regarded indebtedness as a

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<sup>1</sup> ASV, Maggior Consiglio, Fractus, 17v; Cessi 1925, doc. 1.

<sup>2</sup> Luzzatto 1929, 3.

<sup>3</sup> Sieveking 1905, 48.

temporary resort, which allowed them to face urgent needs but had to be eliminated as soon as possible. Governments called for mostly short-term loans at high interest rates, which were very seldom made publicly in order to escape the censure against usury. Increasing costs, due above all to war, compelled more and more frequent resort to indebtedness, until it became a common practice in the financial policy of some cities of central-northern Italy.

### **Funding the debt**

Along with voluntary loans, some communes began to raise forced loans from well-to-do inhabitants. As far as we know, the first Italian government was the Venetian one, which in 1171, in order to prepare a fleet against the Byzantine emperor, to do so decreed a loan from every citizen in relation to his patrimony, with an interest of 5 percent until the money was paid back (*donec pecunia imprestata restituatur*)<sup>4</sup>. From the last quarter of the thirteenth century the demand for loans on Venetian citizens grew: they had to deposit a part of their assessed wealth into state coffers; the sums were registered on public books; tax revenues were devoted to paying interest. By 1274 Genoa adopted a similar measure, when some loans were unified and managed by a single state agency. The republics of Venice and Genoa were thus the first to transform their floating debt into a consolidated debt; later, some Tuscan communes will follow them. The main features of such a system were: extraordinary financing through irredeemable forced loans; very moderate interest rates; credits that were heritable, negotiable, and could be used as means of payment; an amount unified and managed by a specific authority; and tax revenues obliged to paying interests.

This model presents some variables. The concept of an irredeemable loan clearly emerged only toward the end of the fourteenth century, when urban governments met difficulties in repaying borrowed capital. The negotiability of the bonds was not always allowed, at least in some cities; the early debt was managed by various offices, as it was typical at the time. One can say, however, that the decades between the thirteenth and the fourteenth centuries witnessed a new way of creating debt: a way which allowed the collection of huge sums which they supported the constitution of powerful territorial states. In the following pages we shall see the ways taken by some governments and the economic and financial implications of long-term debt.

### **A tale of three debts**

As we just saw, Venice anticipated some forms of long term indebtedness which later spread in major urban centers of central-northern Italy. Until the 1370s the size of debt grew in times of war, but declined in times of peace, as soon as loans were retired by the *Camera degli imprestiti* (Loans office), the agency dealing with forced loans. The third war against Genoa (1378-81) provoked the first severe financial crisis of the state. The payment of interest, until then regular, was suspended, the requests for compulsory loans increased, and bond prices on the open market collapsed. The heavy fiscal pressure affected particularly the lower-rank citizens. Because loans were requested only from Venetians whose patrimonies were assessed by the fisc, those who were not registered in the tax books (the so-called *estimo*) avoided the obligation of lending and, at the same time, were able to purchase on the open market very depreciated bonds. Accordingly, the situation proved very favourable to speculators, who could buy bonds at very low prices, and thus enjoy an effective interest rate that was rather high. The crisis of the late fourteenth century opened a long period of decline of the Venetian Monte: the almost endless wars both in Italy and against the Turks gave no rest to state finance, and the interest on government credits dropped; payments, furthermore, to bondholders were more and more sporadic. By 1463 the government decreed a direct tax (the *decima*) on semi-ordinary base. The crisis of forced loans

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<sup>4</sup> Luzzatto 1963, 11

had led to direct taxation as a means to meet the growing needs. A mixed system thus stood out, made of both forced loans bearing interest and direct taxes.

During the war against Ferrara, the government tried to raise the fortunes of its debt by issuing a new series of bonds in 1482. The new emission, known as Monte Nuovo, initially had good luck and the value of these credits on the secondary market remained quite high, while the bonds of the Monte Vecchio were almost worthless. However, because of the continuous military engagements of the Republic, also these bonds suffered a collapse. At this point, the government began selling credits at less than par value, so as to offer a real interest rate higher than the usual one. Bonds were offered at very attractive prices (from 90 percent as low as 48 percent of par), so many Venetians rushed to buy them. New series were issued in 1509 (*Monte Nuovissimo*) and 1526 (*Monte del Sussidio*), but the forced loan mechanism no longer proved suitable for raising money efficiently. The market value of new government credits soon dropped and the continuous request of loans to Venetians caused severe tension in the city. Financial authorities complained that the money collected through the Monti was scarcer and scarcer.

The open capital market was the response to the evident crisis of the Monti. In the 1520s the Venetian Mint issued loans to be underwritten voluntarily: at first the interest rate was rather attractive and the term for paying back capital quite short. In the 1530s the new system took place: the Mint issued voluntary loans which had success. The new loans – called *Depositum in Zecca* – had many advantages: unlike the Monti credits, the Zecca bonds were tax-free and offered a higher return. By 1538, along with irredeemable bonds, the government sold also life annuities, which were particularly appreciated by investors. Their high interest rate (14 percent) attracted many lenders, but during the second half of the sixteenth century resort to such a kind of loans was sporadic. In the next century life annuities were issued frequently; beyond Venice, they also attracted Genoese investors, who were looking for safe funds after the Spanish adventures. Venice and Rome showed themselves as protected harbours for the Genoese money. The *Depositum*, both redeemable and lifetime, represented the pillar of the Venetian public debt. After the storm of the Italian Wars (1494-1530), the management of the debt proved very careful and promoted a diffuse feeling of soundness among investors. Venetian finances were so much healthy that, between 1579 and the early seventeenth century, the whole state debt (*Monti* and *Depositum in Zecca*) was put at zero. The government gave back borrowed money and, at least until the war of Gradisca (1615-17) did not call for further loans. The amortization of debt gave a further proof of soundness of the Republic of St Mark as debtor.

Florentine debt had similar components, but a different outcome. After the consolidation in the 1340s, the volume of loans to the *Monte Comune* grew in order to support the political expansion of the city on the Arno. There is some evidence to show that the cost of indebtedness was higher in Florence than in Venice. The interest paid before the reform of 1345 was around 10 percent and, although the reform set interest at 5 percent, the government often exceeded this ceiling. Both to attract investors and to avoid censure against usury, on some occasions (1358, 1362, 1369) the Florentine government granted a nominal credit on the Monte books corresponding to three times or twice the amount had been effectively paid<sup>5</sup>. The effective interest rate thus proved to be 10 or 15 percent. These devices, to benefit of wealthy citizens, were among the causes of the popular anger which broke out in 1378 during the revolt of the Ciompi (wool carders). Rebels accused lenders of getting an excessive return from the Monte and tried to cut down, at least partially, the burden of debt, starting from the most onerous loans. The riot lasted a few weeks, and soon the oligarchs resumed power.

During the first quarter of the fifteenth century the volume of debt grew dramatically. While during the 1390s Florentines were required to provide in loans 271,307 ducats a year, in the years between 1424 and 1432 the annual average was 549,637 ducats<sup>6</sup>. The forced loans (*prestanze*) represented the fastest and most effective way to find cash to be used for war. Some data on Venetian finance in 1426-27 show that this system provided capitals equal to half the state income; at Florence, during the first thirty years of the fifteenth century the average proceeds of the *prestanze* corresponded

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<sup>5</sup> Barbadoro 1929

<sup>6</sup> Molho 1971, 63.

to the annual income.<sup>7</sup> No doubt the financial capacity of Florence was remarkable; in the 1420s and 1430s the financial pressure on citizens attained probably the highest levels in Florentine financial history. As in Venice, however, the growth of debt caused serious difficulties for paying the interest to the creditors, making bondholder less rich.

One of the responses to the financial crisis of the early fifteenth century was the institution of the *Monte delle doti* (Dowries fund). The *Monte delle doti* had been founded both to meet the financial needs of the government and to offer Florentines a chance to place in a suitable fund money that would be then useful to their daughters at the age of marriage. Florentines deposited in the Monte an amount which, at the time of marriage, would be paid back together with interest. When this Monte was founded in 1425, it did not have great success: the financial situation of the Commune was very serious and potential investors were worried about the safety of their funds. After some reforms, however, the Dowries Monte was able to attract many citizens. The interest rate promised at the moment of the refund of the capital was about 17 percent; furthermore, since deposits were partly underwritten with *Monte Comune* bonds, the Dowries Monte allowed the decrease of the government debt. However, the financial difficulties of the *Monte Comune* also pulled down the Dowries Monte, so that by the end of the fifteenth century the deposits for dowries notably decreased. The Monte of the dowries represents an interesting financial institution, since it provided a tool of social security to Florentines.

Unlike Venice, at Florence the crisis of the system of the forced loans did not bring about a clear move towards the open capital market. In the sixteenth century the Florentines continued to pay *prestanze*, even if to a lesser extent than in the past<sup>8</sup>. Furthermore, from the middle of the fifteenth century the Medici government had been relying more and more on short-term loans. This system allowed the Medici to strengthen their patronage network but, at the same time, made the cost of indebtedness more onerous. During the war against Siena (1555) the grandduke Cosimo I exploited to a great extent short-term loans provided by foreign bankers. During the sixteenth century, therefore, the mechanism of deficit financing of the Florentine state still seems a heavy inheritance of the past. Between the end of the sixteenth and the beginning of the seventeenth century, however, too the Tuscan government turned to the open market for bonds, by raising loans above all through the *Monte di Pietà* and the issuance of life annuities; these became the pillars of the grand-ducal financial system in the baroque age.

In the second half of the thirteenth century, as we saw, Genoa soon followed Venice in the consolidation of the debt. It was, however, only in the middle of the sixteenth century that the authorities officially admitted not to being able to redeem the principal. It was, anyway, a formal admission, since Genoese were long used to considering their loans to the government as irredeemable. Until the early fifteenth century, each loan (*compera*) series had a life of its own; every reform which unified the previous loans was soon followed by further issues. The interest rate paid by the government was quite high, floating between 8 and 10 percent. In 1407, the government decided to gather all the loans in a single fund to be managed by the *Casa di S. Giorgio*. The *Casa* became a powerful financial institution of the city; it was a broad consortium of lenders of the Commune and acquired ever greater control over revenues of the state, being compelled to use them both as guarantees for the loans and for the payment of interest. The *Casa* was even able to obtain jurisdiction over some colonies of the Republic, as for instance the island of Corsica. The power of the *Casa di S. Giorgio* impressed contemporaries so much that Machiavelli, in a famous page, described the financial institution as a true semi-independent state within the republic. Actually, the role played by the *Casa* in Genoese economic life can be considered crucial: most tax revenues were directly managed by the *Casa* and in case of urgent needs it was able to provide the government with huge loans. But it would be wrong to see S. Giorgio as an extraneous body to the political system of Genoa: on the contrary, the House was can be regarded as the pillar of the system, assuring a wide redistribution of financial resources among the citizens.

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<sup>7</sup> Mueller 1997, 465; Molho 1971, 61-62.

<sup>8</sup> ASF, Carte strozziane, I ser., XI, c. 39v.

Starting from the fourteenth century the Genoese government, unlike the Venetian and Florentine ones, had given the management of some taxes directly to groups of lenders. So the reform of the *Casa di S. Giorgio* lies in a direct line with previous experience. However, with respect to the past, the union of all the loans in San Giorgio in the early fifteenth century was, both for the huge size of the capital and the managerial efficiency, a fundamental step in the Genoese history. The activity of the *Casa* grew along with the expansion of the state indebtedness and, accordingly, the range of citizens tied to the institution widened. The role of the *Casa* continued up to the end of the Republic (1797), when the French army ended the existence of both a small state and a big financial institution.

After having briefly seen the story of the debts of Venice, Florence and Genoa, let us try to highlight both the analogies and the differences concerning these three cities.

With regards to institutional aspects, Venice and Florence differed sharply from Genoa: while in the former two towns the administration of the debt was under control of a government agency (the *Camera degli imprestiti* in Venice, and the *Monte* in Florence), in the latter the debt was managed by a semi-private consortium, representing the interests of the creditors of the state and playing a role of intermediation between the citizens and the government. The *Casa* placed the shares (*luoghi*) upon request of the Commune and took care of managing the tax revenues assigned to the lenders for the payment of interests. While both in Venice and in Florence the tool for the distribution of the loans was the *estimo* -or property register-, at Genoa the wealth registers had minor importance. Furthermore, the obligatory character of the loans seems to prevail more in Venice and Florence than in Genoa.

It seems that consolidation of the debt did not provoke particular protest among the citizens; consolidation was probably decreed to reassure creditors about the solvency, in the long term, of the Commune. Yet the recourse to consolidation represented a crucial turn, since the costs of the indebtedness decreased and an important bond market emerged. Unfortunately we do not have much data on the rates paid by the governments before consolidation, but the advantages for the treasuries seem to have been significant. The Florentine government, for instance, in the first half of the fourteenth century had been paying interest rates between 8 and 15 percent, while after the reform of the 1340s the cost of loans, except on particular occasions of heavy crisis, was set at 5 percent. Likewise, the interest on the Genoese loans, although higher than the Florentine and Venetian ones, fell after the reform of 1407.

In the long run the results of the Monti system turned out differently. While the *prestanze* characterized the state borrowing of Florence up to the middle of the fifteenth century, later the Medici government chose the way of the floating debt. The Medicean system relied on a wide patronage network, which had to be maintained by granting favours. The return to short-term loans allowed a relatively narrow group of people to receive considerable income from the activity of lending to the government. The lenders took responsibility for raising the money necessary at a given interest (about 8 percent) and gave the Commune at a higher rate (12 percent). This mechanism proved on the one hand onerous for the government finance, but on the other hand it strengthened the assets of the group tied to the Medicean power. The outcome of the Venetian financial crisis in the fifteenth century was very different: the failure of the new series of *Monti* led towards the solution of the open market. The deficit financing mechanism, until the fifteenth century based on the *Monti*, by the middle of the seventeenth century showed a wide variety, made up of voluntary loans, life annuities, lotteries, and, to a less extent, forced loans. The cost of money for the Venetian government decreased between the sixteenth and the seventeenth centuries, following a general trend, and it proved lower with respect to costs paid by several European governments. Furthermore, debt was not regarded as a mere tool of enrichment for the ruling class. Unlike Florence, the role of the funded debt was never neglected, but the government lowered, as soon as possible, the return on the bonds, thus supporting public finance to detriment of the private interests. Private interests which, instead, in Genoa seem to prevail over those of the republic. The market prices of S. Giorgio credits show a different trend from the those of the Venetian and Florentine *Monti*: from the middle of the fifteenth century the Genoese values very seldom fell below 40 of par. This high evaluation of the Genoese bonds deserves some consideration. First of all it is

worth noting that the bonds of the Venetian and Florentine *Monti* witnessed a secular depreciation, due to both the decrease of the interest rate and the irregular payments to bondholders. The Venetian government, for instance, paid the interests on the Monte Vecchio for 1494 as late as 1556<sup>9</sup>; likewise, the Florentine creditors of the *Monte Comune* complained of huge delays in payments. S. Giorgio, instead, regularly poured out the money due to creditors. The changes in market values depended more on the uncertainty of the political climate than on the financial difficulties of the Commune. The first and foremost concern of the authorities of S. Giorgio was actually the satisfaction of the holders of the shares, and such a purpose could be achieved thanks to almost complete control of the tax revenues of the state. The return of the shares can be considered as a dividend, since it was mostly made of the distribution of the tax proceeds. In case the tax yield had been too low, the governors of S. Giorgio would arrange to integrate the return assigned to the holders. The confidence the lenders felt towards the House was therefore justified. From the late sixteenth century the situation even improved, for the market prices of the shares never fell below par.

However, the success of the Genoese debt, had an obvious negative implication for state finance. The assignment of the fiscal income had completely tied the hands of the republican government; the *Casa* of S. Giorgio was an institution whose sacredness and intangibility could not be challenged. Genoese savers knew that Genoa's rulers could not threaten the system based on the *Casa*, they would otherwise have risked a revolt. It was not by chance that the only proposal to close S. Giorgio came up during an attempt to reforming the power system in Genoa in 1575. If on the one hand early-modern Genoa represented a true paradise for savers, on the other hand the republic of S. Marco carried out a policy that, starting from the crisis of the later fifteenth century and early sixteenth century, eventually affected the interests of lenders adversely. The decrease of the interest rate and the taxation on bonds reduced the return of the Monte Vecchio bonds. But the most important element which marks the difference from Genoa lies in the amortization of the state debt carried out by the Venetian government: the ruling group chose to favour the interests of the state to the detriment of private interests. Florence, in turn, unlike Genoa did not abdicate in favour of the creditors, but chose means of financing deficit more expensive than others. One can argue that path dependence heavily influenced the Florentine financial system in the early modern age, while Venice was able to create forms of indebtedness that were new and very probably more effective.

## The market

The most important quantitative data which concern the market for government credits are prices and interest rates. First of all let us look at the returns, trying to distinguish, if possible, the nominal from the real returns. It is worth pointing out that, paradoxically, until the early sixteenth century, in the Italian cities a primary bond market did not exist. The compulsory character of the loans did not allow citizens any choice. There was, however, a lively secondary market, on whose structures unfortunately we do not have much information. We know that specialists acted as brokers: in Genoa, for instance, these intermediaries had desks to manage the purchase and sale of shares and fixed the prices as well. Government credits could be sold, used as collateral, or given as dowry. Since government bonds were not bearer bonds, every operation had to be registered at the state agency which managed the debt: a written or verbal order allowed the officer to transfer a sum from one holder to another. The objects of trade were not only the principal but also the interest claims, the arrears the government owed its creditors.

Before analysing some aspects of the bond market, it is useful to try to look, albeit roughly, at the profile of the shareholders. As has been said, all the citizens registered in the tax lists were forced to buy bonds. That means that, at least initially, only some inhabitants were called on to give money as loans. Those people had to have a minimum assessed property value (at Venice 50 lire from 1280 to 1325, 100 lire from 1325 to 1339, 300 lire from 1339 to 1446, 200 lire later on); thus, in 1379, 12

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<sup>9</sup> ASV, Mensa patriarcale, b. 64, reg. I, 13r; Luzzatto 1963, 258; Mueller 1997.

percent of Venetian families had to lend to the government<sup>10</sup>. No doubt the required wealth level was low: one can argue that a property of 3000 ducats could yield a minimum annual income of 150 ducats (c. 600 lire). This amount corresponded to the annual wage of three building assistants; therefore, it is plausible to suppose that a great deal of people were excluded from the system. In 1427 the Florentine families with analogous duties accounted for 14 percent of the urban population<sup>11</sup>. Forced loans, therefore, were business of a small part of the population; the credits, however, through the negotiation were dispersed, as we will see, in a much wider social range.

It seems that the first credits issued by the Communes were not negotiable, but the possibility of trading them was recognized as soon as debts were consolidated. Venice anticipated Florence, where the negotiability of the bonds was allowed only from 1344<sup>12</sup>. One of the major effects of the funded debt was the emergence of a complex capital market connected to the state loans. The lack of bearer bonds does not seem to have particularly constrained the trade of credits. The cost of the operation was quite low: besides the costs for the eventual broker and the scribe, in some cases a tax was paid. In the early fifteenth century, the transaction cost in Venice did not exceed 0.5 percent<sup>13</sup>. In 1434 the Venetian senate decreed a tax of 2 percent on each operation of buying and selling of state credits, just to limit speculative manoeuvres. The Genoese government took one lira for each share negotiated<sup>14</sup>. Unfortunately we do not have much data on the market, however some hints lead us to think that government credits were object of a lively trade. By 1365, almost one thousand inhabitants of the two Florentine districts of S. Giovanni and S. Maria Novella either held or had traded at least 100 nominal florins of the Monte<sup>15</sup>. This was a good number of people, considering that the whole Florentine population did not exceed 30,000 inhabitants. In Genoa the S. Giorgio share market looks less important. In the second half of fifteenth century the amount of titles negotiated in a year corresponded to 4 or 5 percent of the principal held by S. Giorgio<sup>16</sup>. It has been estimated that by 1434 the turnover of Venetian credits corresponded to 100,000 ducats at market value or 300,000 ducats at par value<sup>17</sup>. The percentage with respect to the whole debt was around 3 percent. We can therefore argue that every year as high as 5 percent of Italian credits was traded.

To loan to the Commune was regarded as a duty, part of belonging to the urban community. Loans were connected, to a certain extent, with the concept of charity and gifts to the *res publica*. Some governments, as in Florence, at first forbade foreigners to hold state bonds, while it seems that in Venice since the thirteenth century foreigners were allowed to buy government credits. Some devices, nevertheless, were adopted in order to bypass such prohibitions: the easiest manner was granting citizenship to those were willing to buy government bonds. From the government standpoint, it was advantageous to support foreign demand: it elevated market values, so that those who had been compelled to sell credits obtained at par suffered less heavy losses. If it is likely that during the fourteenth century the role of foreign investors was not consistent, in the next century their presence was more visible. We know, for example, that in Genoa foreign merchants held credits of S. Giorgio that were used as guarantees for their business. Likewise, many foreigners purchased bonds on the Venetian market, counting on regular payment of interests. The foreign presence among bondholders, at any rate, looks like a phenomenon quite limited; it is not comparable with other situations beyond the Alps.

The number of state creditors was huge. By 1380 the bondholders of the *Monte Comune* of Florence were about 5,000<sup>18</sup>; that means that one Florentine in every six proved to be creditor of the government. Data of the famous *catasto* of 1427 show that 22 percent of Florentine households had

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<sup>10</sup> Mueller 1997, 496.

<sup>11</sup> Mueller 1997, 491.

<sup>12</sup> Barbadoro 1929, 642-43.

<sup>13</sup> Data elaborated from Mueller 1996, 82.

<sup>14</sup> Mueller 1997, 464; Heers 1961, 155

<sup>15</sup> Barducci 1979, 180.

<sup>16</sup> Heers 1961, 624.

<sup>17</sup> Mueller 1997, 464.

<sup>18</sup> Brucker 1981, 61.

Monte shares<sup>19</sup>. This ratio did not significantly change in the early sixteenth century, when bondholders (included those of the Dowries Fund) were more than 8,500 out of 50,000 inhabitants<sup>20</sup>. Genoa presents a similar situation. The accounts on the books of the House of S. Giorgio were more than 11,000 in 1460 and almost 10,000 in 1502<sup>21</sup>. Considering that by 1500 Genoa had 70,000 people, we can estimate that one citizen in every seven enjoyed returns from the government debt. If it is quite easy to detect which people were compelled to lend, the trade in the secondary market changes the profile of state creditors. By 1427, the number of Florentine households obliged to lend was inferior to those holding Monte credits. The distribution of credits, furthermore, shows a marked concentration among the wealthiest families: nearly 60 percent of bonds was held by only 2 percent of Florentines. Throughout the sixteenth and seventeenth centuries it seems that most of bonds were in the hands of guilds, ecclesiastical institutions, and charitable institutions, that looked to the state debt to assure a sound, even if relatively low, return.

The values of government credits were affected first of all by political factors: peace and war determined the fluctuation of prices. Rumours of a possible war were enough for the market to register an immediate reaction, with a consequent loss of value of the credits. Of course the ups and downs of market values eased speculative operations, whose protagonists included rich people and also investment companies. During periods of major pressure, some of those who were forced to lend sold their credits in order to get cash to pay the new loans. It goes without saying that this mechanism concerned in particular the citizens did not have a great availability of cash. Obviously state demand and the increase in the offer of credits on the open market made values decrease, so that speculators could rake in credits at low prices, hoping to take advantage of a later rise. But there were other reasons to sell or buy government credits: on the one hand the necessity to obtain cash for one's own business, and on the other hand the desire to acquire capital to assure a safe income. It is thus no surprise that many citizens, in their last wills, urged their descendants to place money in funds of the government debt. The Genoese *compere* offered citizens an excellent opportunity to constitute an insurance fund. The S. Giorgio bondholders could exploit the mechanism called *moltiplico*, which allowed principal to increase through the incorporation of compound interest. So, many funds were assigned for long time to finance charitable institutions, to support families, to slacken the tax pressure on popular consumption and even to decrease the debt of the republic of Genoa.

It is now interesting to analyse the yield of government bonds. First it is necessary to distinguish the nominal yield from the real one. If in the early phase of the history of the debts the governments endeavoured to assure the payment of the promised interest, later on rates fell because unilateral reductions, taxation, and delays in payments of interest. In case of purchases on the secondary market, furthermore, the yield depended on the trend of values. When a government fixed the return of the forced loans it generally did not consider the prevailing interest rate on the market, but it did take into account the question of usury. During the later Middle Ages, a lively debate occupied many people about the legitimacy of interest on government loans. The problem, in particular, concerned the speculation on the open market, not so much the interest rate on forced loans. The state authorities, at any rate, maintained nominal rates, except for exceptional cases, beneath a ceiling commonly accepted. Venice and Florence offered prevailing interest rates of 5 percent, while the Genoese creditors could count, until the middle of the fifteenth century, on more points. An accepted interest rate ranged from 5 to 15 percent, as in Florence in the second half of 14 century<sup>22</sup>.

What was the meaning of a return of 5 percent in the Renaissance? The attractiveness of a given yield obviously depended on the economic context and on the expectations of investors. The private credit market showed higher interest rates than the ones provided by the government credits: in the first half of the century fourteenth the Florentine bank of Cambini lent to private individuals at from 8 to 14 percent, while it obtained 14 or 15 percent from voluntary loans to the government. By the middle of

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<sup>19</sup> Herlihy – Klapisch 1978, 340.

<sup>20</sup> Guidi 1992, 905-6.

<sup>21</sup> Heers 1961,

<sup>22</sup> Saporì 1955, 239-40.

the century, Piero Guicciardini's debtors paid between 11 and 16 percent. In the fifteenth century, long term deposits in Florentine companies yielded between 7 and 10 percent<sup>23</sup>, when the credits of the *Monte Comune* gave a return of about 3 percent. The considerable profits of the Cambini bank from the credit activity in the fifteenth century attained in some cases over 60 percent<sup>24</sup>. As far as we know, in risk-free loans in fifteenth-century Genoa (guaranteed by real property) yielded 10 percent<sup>25</sup>. Government credits, therefore, were not particularly remunerative if we consider the alternatives as offered by long-term private credits. As for commercial returns, the comparison with state loans turns out to be quite arduous, since the yields much depend on the general situation. It has been estimated that trade with the Near East during the fifteenth century returned up to 35-50 percent of the investment<sup>26</sup>. It is likely, however, that a merchant, as the Venetian Andrea Barbarigo stated, could expect an easy return of over 12 percent<sup>27</sup>. The great competitor of the state financial income, therefore, seems to be land, generally yielding no more than 5 percent. However, those who had bought bonds on the secondary market below par could enjoy quite good yields. Had the government regularly paid the interest promised, the yield exceeded 7 percent and could reach as high as 10 percent. In this case state debt was an attractive investment, but speculation does not seem to have dominated the market. No doubt there were specialists in the sector, but most negotiations involved common people, as vendors, and charitable and religious institutions, as buyers. The great Genoese bankers, for instance, do not seem to focus their concern on the S. Giorgio bonds, being more engaged in the broader international market. The great spur for buying government bonds is rather the search for a safe income, comparable to the one provided by land.

An interesting aspect of the bond market concerns the negotiability of interest (*paghe* at Genoa and Florence, *prò* at Venice). When governments showed themselves unable to pay interests regularly, a market rose, which had as its object overdue interest to be paid in the future. This sector represented the most speculative market, where operators tried to evaluate the future trend of prices and where discounted payments prevailed. If this type of market seems quite limited in Florence, in Genoa it played an important role. Since the amount of the overdue interest was registered on the books of the *Casa di S. Giorgio*, soon these credits became money to be used in the usual transactions. Upon written order or verbally, the operations in lire *di paghe* ("of pays") were made through giro from one account to another. It has been estimated that about 10,000 giro operations were made annually in the second half of the fifteenth century<sup>28</sup>. No doubt it was a huge amount of activity, considering that similar transactions in Venice, which concerned interests on the *Depositi in Zecca* between 1647 and 1671, averaged 200 a year<sup>29</sup>.

Public debt is considered as a powerful tool of wealth redistribution, since the resources for payment of interest came from taxation. A greater burden of interest brought about a heavier taxation: therefore, the debt was at the centre of a money flow from the taxpayers to the creditors of the government. Accordingly, the choice of the resources to be devoted to payment of interest was not neutral. Most of money to pay interest came from taxes on trade and on consumption: in 1382 taxes on trade and business provided 58 percent and taxes on consumption 32 percent of the resources for paying interest on the Genoese *compere*; toward the end of the fifteenth century, in Venice the *prò* were paid for almost half by taxes on consumption<sup>30</sup>. Likewise, Florentines clearly felt that lower ranks paid creditors through the taxes on consumption. However, this model presents some shading. Venice, for instance, during the early phase of her indebtedness was able to unload the burden on foreign consumers through the imposition of duties on the exports and, subsequently, on taxpayers, of her possession in Italy. In Genova, instead, probably the situation worsened during the fifteenth and sixteenth centuries,

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<sup>23</sup> Dini 2002

<sup>24</sup> Tognetti 1999, 149.

<sup>25</sup> Heers 1961, 259.

<sup>26</sup> Ashtor 1975, 268 ff.

<sup>27</sup> Lane 1982, 140.

<sup>28</sup> Heers 1961, 164-66.

<sup>29</sup> ASV, Provveditori in Zecca, 1685-89, 1691-92.

<sup>30</sup> Day 1963, xxv; Pezzolo 2003.

when the fiscal pressure on consumption considerably increased just to pay the debt at the House of S. Giorgio.

## Conclusions

It would be wrong, however, to regard public debt as a tool of pure pressure on lower groups. The function of government debt is manifold. First, the capacity of getting into debt at relatively moderate cost allowed some cities to build a territorial state and to control a wider economic area. This process brought about a reduction of protection costs for domestic markets and a flow of economic and financial resources towards the capital city. Secondly, the debt took on also a political function. To be creditors of the government meant to share the destinies of the regime and, consequently, to support it. In Florence, the Medicean regime was able to tie around itself an oligarchy which partly enjoyed advantages from the management of the government debt. Therefore, the debt turns out to be a stability element. Thirdly, also the social structure is supported by the state debt: the considerable income that charitable and social institutions drew from the bonds and that they redistributed throughout the poor classes allowed the maintenance of a paternalistic policy, which was one of the pillars of the urban political and social system. Fourthly, the means devised by the governments of financing deficit offered new forms of social security and of investment (dowries, life annuities, lotteries) which are at the roots of the contemporary system.

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