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Constrained opportunities: women's involvement in the capital markets of late medieval Brabant

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ABSTRACT

The abilities of women to participate in capital markets are widely considered a crucial aspect of their economic opportunities. Yet, female involvement in (private) capital markets has received scarce attention in studies of medieval finance. This article explores the position of women in late medieval capital markets through a study of the Low Countries. By comparing two cities with opposite economic trajectories during the fifteenth century (Antwerp and Leuven), it interrogates how different economic conditions affected gender inequality in capital markets, and how women's involvement was influenced by marital status. Quantitative analysis of the registers of aldermen – which contain economic contracts of all sorts – shows that, regardless of the city's economic conditions, women's share in the capital market was relatively modest and comparable to other European regions. However, the characteristics of women's participation in Antwerp's booming commercial economy differed from conventional patterns described by historiography. The article shows that as investors Antwerp women held a comparable position to men and highlights the importance of never-married women as creditors. It concludes that differing economic structures and conditions in adjacent cities affected women's position in capital

markets, with important implications for interregional comparisons of women's economic opportunities across (medieval) Europe.

Keywords

Gender inequality; capital markets; medieval women; Late Middle Ages; Low Countries; Brabant.

Despite the widely recognized importance of capital and control of finances to women's economic opportunities and economic development in general, little is known about women's participation in medieval capital markets. This article examines the position of women in late medieval capital markets, the factors that determined their involvement and the impact of urban economic conditions on that position. The capital markets under investigation – Antwerp and Leuven – are those of two adjacent cities in the Low Countries whose economic organizations and trajectories were quite different. The aim is to understand how female participation in capital markets differed from male participation in terms of their market shares, invested capital and trade partners, and how this was influenced by women's marital status and the differing economic situations of these two cities. Through its study of gender differences in capital market participation, this article contributes much-needed empirical data to two major historiographical discussions regarding female agency: firstly, the long-standing debate on the changing economic participation of women in preindustrial Europe, and, secondly, the recent debate on the relationship between women's economic empowerment and economic development. Indeed, the late medieval Low Countries constitute a region of central importance for these two debates, given that some historians have identified it as one of the premier regions associated with the European marriage pattern, a demographic configuration that has been linked to the improvement of women's opportunities for economic participation.

This article asserts that women's share in capital markets was smaller than some recent positive assessments of women's economic position in the Low Countries have argued. In the cities studied, women's market share was comparable to other European regions, calling into question the recently proposed connection between women's economic participation and the strong economic growth of the region. Moreover, women rarely entered the market as debtors, which indicates that women either lacked the incentives or the creditworthiness to encumber

long-term debts. As investors, women held a better position, but their opportunities differed significantly between the cities: in a booming commercial economy, women who entered the market followed the same patterns as male parties, whereas gender differences were more pronounced in a declining economy. Thus, this article underlines how specific local conditions governed women's access to capital markets, and urges that future research takes this into consideration when making cross-regional comparisons of women's economic position. Finally, it shows that, in a mercantile city experiencing dynamic economic growth, women were better able to access the same market sectors and in similar ways in comparison to men, and suggests that never-married women were significant as investors.

Women and credit in the late medieval economy

Focusing on female participation in the capital markets of the Low Countries offers an original approach to the longstanding historiographical debate on late-medieval women's economic opportunities. As well as disagreeing about the extent of these opportunities, historians dispute whether they changed over time and to what degree. According to some, women's economic opportunities diminished during the fourteenth and fifteenth centuries as a result of changing production conditions,¹ growing control by male-dominated guilds,² and an increased emphasis in families on patrilineal preservation of property.³ Yet other studies have associated the late Middle Ages with increasing female economic participation, especially in north-western Europe.⁴ More recently, Tine De Moor and Jan Luiten van Zanden have argued that the demographic decline caused by the Black Death, which gave rise to the European marriage pattern, significantly empowered women in late-medieval society, especially those in the lower and middle groups, to the broader benefit of the economy. This marriage pattern, first described by John Hajnal, was

characterized by an older age at marriage for both partners, a high number of singles, and the predominance of nuclear households.⁵ De Moor and Van Zanden suggested that the pattern occurred in its strongest form in the North Sea region where it is alleged to have stimulated economic growth, thereby contributing to the so-called ‘little divergence’ – in the economic development of north-western Europe compared to southern Europe – which preceded the Industrial Revolution.⁶ Nevertheless, the paradigm of the European marriage pattern and its beneficial effects on both women’s empowerment and the economy, remain the subject of intense debate among economic historians.⁷

Most attention in these debates has been paid to female labour opportunities, therefore minimizing other economic activities. As such, there has been little research into female participation in capital markets across medieval Europe, although there are some exceptions for the pre-Black Death Mediterranean world and for rural communities in England.⁸ Moreover, very few studies offer quantitative data comparing women’s involvement in the capital market as a whole, often due to source limitations.⁹ Most studies of women and preindustrial finance have looked at the seventeenth and eighteenth centuries, a period with better documentation, showing how participation in financial markets could potentially empower women.¹⁰ Being able to borrow money was essential to women’s entrepreneurial activities as it allowed them to invest in assets and build up profitable investments, set up a business, and improve their resilience to deal with temporary cash-flow problems.¹¹ Elise Dermineur and Judith Spicksley have shown that female investors found their way to financial markets in order to invest their wages or savings, thereby securing a regular income and enhancing their financial position. Their investments also benefited their status, as their social esteem increased. Moreover, the income from extending credit on a regular basis might have given never-married women the ability to postpone marriage for a longer period.¹²

Thus, it is unsurprising that recent studies of the European marriage pattern have suggested that women's involvement in financial markets was a feature of their relatively strong economic participation in the North Sea region.¹³ However, the only two studies of the Low Countries that have explored this issue in depth disagree. In her study of Ghent, Shennan Hutton argued that women played an important role in capital and credit markets in the mid-fourteenth-century, with their activities resembling those of men to a large extent – but that women lost access to these economic opportunities during the fifteenth century, when the proportion of female participants declined and the market was increasingly limited to widows.¹⁴ Hutton's assessment contrasts with the findings of Van Zanden, Jaco Zuijderduijn and De Moor, who found that women's position in the capital market of Edam (in the county of Holland) from 1460 to 1565 was comparable to the position of men: in terms of both the amounts they invested and their financial strategies.¹⁵

The lack of studies on women and credit in late-medieval Europe makes it difficult to reconcile these differing assessments of women's access to financial markets in the Low Countries. The research presented here addresses this historiographical gap by comparing women's participation in two capital markets that had differing economic structures and economic climates in order to tease out gendered behavior and market access – an approach that has rarely been used in the field. The analysis is structured as follows. The first two sections introduce the two cities and then the sources. This is followed by a general analysis of the capital markets, demonstrating the different economic conditions in Leuven and Antwerp. The article then considers women's share in the capital markets of Leuven and Antwerp, comparing the results to other studies of late-medieval Europe. This is followed by a survey of the characteristics of male and female market participation: in terms of transaction partners, invested amounts, and interest rates. Finally, the article delves more deeply into the profiles of female

participants in these capital markets in order to consider the effects of marital status on economic opportunities.

Contrasting economies: Antwerp and Leuven in the fifteenth century

At the end of the fifteenth century the economies of Antwerp and Leuven (two of the four capital cities of the Duchy of Brabant – see Figure 1) were significantly different although their juridical and political conditions were similar, a situation which keeps circumstantial variables stable enough to allow comparison. Unfortunately, there are no surviving tax lists to assess household structures or measure economic inequality for Leuven or Antwerp in the fifteenth century.¹⁶ General studies of the economy of both cities enable a sketch of the contours of their economic structures.¹⁷ Leuven, located in the south of the duchy, was a highly industrialized city. At the beginning of the fourteenth century, during the heyday of Brabantine textile exports, Leuven was the leading textile centre in the region. The city's economic fate changed with the general decline of the Low Countries' textile industry during the fourteenth and fifteenth centuries, as this significantly hit Leuven's main economic sector. Despite the partial conversion to luxury industries and the founding of the university in 1425, the fifteenth century brought little solace for Leuven. Continued decay of the textile industry combined with a severe agrarian depression in the rural hinterland, led to demographic decline and a doubling of the number of poor households in the city between 1437 and 1480. At the end of the fifteenth century, war in the rural region around Leuven intensified the crisis. The population shrank, as many had died because of war or hunger, and many others left the city. By 1492, the household census indicates that the number of inhabitants had fallen to approximately 15,000 people (compared to 22,200 persons around the middle of the century).¹⁸ The city declined to secondary importance in the duchy.

[INSERT FIGURE 1 HERE]

Antwerp followed a very different trajectory. With its strategic location in the North next to the river Scheldt and its popular annual fairs, the city was strongly oriented towards trade and commerce. Even before Antwerp's breakthrough as a centre for international trade at the end of the fifteenth century and its subsequent 'golden age' in the sixteenth century, it was an important European port. During the fifteenth century its trade network and commercial activities expanded. The town functioned as a gateway city for the Low Countries and a vital link in the trade network between the Rhineland and England.¹⁹ Whereas, like Leuven, it initially faced a declining textile industry and agrarian difficulties in the fifteenth century, the commercial orientation of the city's economy made Antwerp much more resilient. The commercial expansion of the city, supported by the Brabantine fairs, was already tangible in the fifteenth century. This stimulated luxury and finishing industries, local crafts and financial development, accompanied by strong demographic growth as people migrated to the city to seek economic opportunities. Antwerp's population increased steadily to roughly 37,500 inhabitants by 1490.²⁰ At the end of the Middle Ages, Antwerp entered its first phase of economic and demographic growth, well on its way to becoming the commercial metropolis of northwestern Europe in the sixteenth century.

For the Middle Ages, there are no studies of women's economic status in Antwerp or Leuven.²¹ Thus, existing information about women's status in these cities derives from normative sources on their legal position.²² As in most other cities in the Low Countries, daughters and sons had equal inheritance rights. In the provisions for widows and widowers, equality was also the rule, as both had the same rights to the marital estate.²³ During marriage, a limited community property regime prevailed. Each of the spouses remained the full owner of his or her personal

property, consisting of immovable goods obtained through gifts, testaments, or inheritance. All other property – movable goods and real estate acquired during the marriage – was held in community. However, during her marriage, a woman was not allowed to manage her property [autonomously](#): she could only perform legal acts with the permission of her husband or under his guardianship. The exception was the status of tradeswoman (*femme sole*), who could independently make contracts for her own business. Her husband could manage the marital estate freely, except for his wife's personal property, which he could not manage or alienate without her permission. In considering these normative provisions, one should be careful of taking them at face value: earlier studies of women in the fourteenth-century Low Countries have shown that these laws were not always followed, and that married women were in some circumstances able to manage their own property without a guardian.²⁴ The only important difference between the two cities concerns the guardianship of unmarried women, which existed formally in Antwerp but not in Leuven. However, previous research has shown that there was not much difference in actual practice.²⁵ In fifteenth-century contracts for Antwerp, the mentioning of a guardian seems to be merely *pro forma*, with a simple *cum tutor* (with guardian) after the first mention of the woman's name, after which there was no further mention of a guardian in the contract.²⁶

Aldermen's registers as sources for capital markets

The annual registers of the aldermen of Antwerp and Leuven, well-preserved from the fifteenth century onwards, provide an ideal basis for analysing the capital markets of these cities.²⁷ They contain legal texts produced by voluntary jurisdiction: upon payment of a small fee, the inhabitants of the city and surrounding areas could go to the board of aldermen to register private contracts of all sorts, thereby ratifying and giving legal force to these agreements. Since, for every conveyance of rights to real estate within the city walls (including annuities and

mortgages), registration was compulsory, the registers allow complete reconstruction of the urban real estate and annuity markets. The parties did not have to register other private transactions and contracts (such as credit transactions not based on real estate, gifts, trade deals, and conveyances of non-urban property). Yet, because registration provided legal security, they often decided to register their agreements anyway.

In spite of their broad scope, the registers of the aldermen do not cover all economic acts in the cities. The most important kind of financial transaction that was excluded were those that were not formally registered. Although their operation is almost totally invisible, it is likely that many contracts were concluded orally before witnesses, or simply recorded in an unregistered contract. In particular, medieval people often did not formally register small non-collateralized loans (in other words, the ‘I owe you’ or IOU) or sales of inexpensive goods, making it impossible to assess the extent of these markets in Antwerp and Leuven.²⁸ This is an important limitation, as previous research on early modern England and France has shown that it was precisely at the informal level that women played an important role in credit networks by securing small loans and extending credit to family members.²⁹ Because a large share of IOUs remained informal, this type of financial instrument is not suitable for a systematic analysis. Therefore, this study focusses solely on the capital market by investigating annuities: collateralized long-term loans secured on real estate for which registration was obligatory.

Given that they were located in one of the core principalities of the Low Countries, a region of intense commercialisation in late-medieval Europe, Antwerp and Leuven belonged to a capital intensive society with well-functioning markets.³⁰ Although there was a public capital market, this study focuses only on the private markets for capital.³¹ This private market consisted of two types of annuities: life and hereditary annuities. The annuity (*rente* in Middle Dutch), was a financial instrument for long-term mortgaged debt. The annuity yielded yearly payments or

redemption of the total sum. In exchange for the annuity, the creditor (the annuity holder or buyer) gave the debtor (the annuity seller) a certain sum of money. These annuities were redeemable, but only at the debtor's request, and could be resold by the creditor. The first type, the life annuity, was paid to the creditor for his or her lifetime (they could also be sold to groups). Hereditary annuities were paid perpetually and could be inherited, or until the annuity was redeemed. These annuities generally needed to be secured by real property. Indeed, any immovable goods could be used as collateral: parcels of land, houses, but also other types of regular income, such as annuities or excises. The interest rate on both types of annuities was typically written down in the contract. In the Low Countries, it was usually between 10% and 11% for life annuities, and for hereditary annuities between 5.55% and 6.25%. Annuities offered both debtors and creditors clear advantages over non-collateralized loans. For the debtor, this financial instrument enabled acquisition of capital, to finance a new investment or commercial enterprise, or deal with a difficult financial situation, for a relatively low interest rate without the necessity of selling property. When real estate prices were on the rise, selling an annuity was a popular way to capitalize on the increased value of the property. Moreover, one could redeem an annuity whenever necessary. For the creditor, a life or hereditary annuity was an attractive investment opportunity that guaranteed a regular, yearly income. If the annuity holder needed funds himself, he could resell the annuity to a third party.³²

These advantages explain why annuities became the most important financial instrument in the late middle ages in north-western Europe.³³ Moreover, research has shown that borrowing money through an annuity was rarely a sign of economic distress or poverty on the borrower's part. In the first place, the debtor had to have collateral to be able to sell an annuity. Research on the early modern Low Countries has shown that people generally used annuities to finance other investments: buying real estate, rebuilding houses, establishing commercial enterprises, or

making large purchases for a craft workshop. People from the middle groups were thus the main participants in annuity markets; craftsmen were the most frequent participants, but merchants generally invested the largest capital sums.³⁴ For these reasons, annuities were a typical debt instrument used by the propertied middle groups in pre-industrial cities.

The research presented here investigates the annuity market in Antwerp and Leuven in the year 1490. This year is ideal for a case study because the contrast between the economies of Antwerp and Leuven was most striking in the last decade of the fifteenth century. For Antwerp, an existing database enabled analysis of the aldermen's registers for the year 1490 in entirety, yielding a total of 343 contracts dealing with annuities.³⁵ For Leuven, the aldermen's registers had not yet been studied, which means that the Leuven database had to be composed specifically for this project. As the study of aldermen's registers is very time-consuming, time restrictions prevented a complete analysis of all Leuven contracts registered in the year 1490. Instead, this study used the largest of the three registers produced by the aldermen in that year, which contains 39.7% of all contracts from 1490. Leuven's aldermen's bench operated three registration rooms, which yearly produced a separate register of contracts.³⁶ As there were no chronological or thematic differences between the contracts registered in each room, the method of using one register enables a random and unbiased sample of all contracts registered in a year. For the year 1490, the studied register contained 168 annuity transactions, bringing the extrapolated yearly total to 423 annuities.

These contracts deal with annuities mortgaged on properties both inside and outside the city walls given that the aldermen also registered contracts for people and properties in the surrounding countryside and nearby villages – and occasionally, the smaller towns of the region. The aldermen's bench for Leuven had more control over its surrounding countryside, which explains why they registered more 'rural' contracts than the Antwerp bench. In the broader region

of Antwerp, the aldermen's benches for surrounding villages seem to have registered more contracts.³⁷ This article investigates annuities relating to both urban and rural property (in the hinterlands of the city) that were registered in the cities of Leuven and Antwerp (given that rural and urban capital markets were strongly intertwined). City residents invested heavily in properties outside the town walls and bought and sold annuities mortgaged on 'non-urban' collateral.³⁸

Growth and decline in the aldermen's registers

Historians have found a strong correlation between the development of the capital market and the general economic state of a city. In periods when the economy was booming, the rising intensity of economic activities increased the demand for capital. On the supply side, people had more capital at their disposal, real estate prices rose, and annuities became attractive investments. Profiting from increased values, real estate owners sold annuities on their property to free up money for other investments. For these reasons, periods of economic growth produced more annuity transactions. In periods of economic recession the creation of new annuities slowed down, while the reselling or redeeming of existing annuities became more popular.³⁹ Not surprisingly, differing economic conditions had significant effects on the capital markets in Antwerp and Leuven around 1490.⁴⁰ While fully understanding these differences requires a study in its own right, the main characteristics deserve some attention here.⁴¹

Before turning to the analysis, some methodological considerations are in order. Because a conjunctural analysis requires a clearly delimited territory in which all transactions can be analysed, the conjunctural assessment in this section is limited to the capital market *intra muros* - defined as the market dealing with collateral within the city walls.⁴² Moreover, life annuities have not been included in the conjunctural analysis for two reasons. First, most life annuities in

Leuven were not mortgaged on a specific piece of property, making it impossible to distinguish transactions involving urban property from those pertaining to rural property. Second, comparable studies of capital markets in the Low Countries (most importantly Hugo Soly's pioneering study of Antwerp in the sixteenth century) have often equally excluded life annuities.⁴³

Antwerp and Leuven exhibit two dramatically different economic situations, as Table 1 (which provides an overview of contracts dealing with hereditary annuities mortgaged on urban properties) shows. In Antwerp, all measures point to a booming economy with high demand for capital. Most hereditary annuity contracts consisted of new annuities and, with a median of 16 lb. Brabant goat, creditors were investing a considerable amount in the capital market. The number of new hereditary annuities registered easily rivalled those from Antwerp's golden age in 1545, as found by Soly.⁴⁴ Clearly, the city was experiencing marked economic expansion at the end of the fifteenth century, and many inhabitants had excess cash which they tried to invest. Long-term investments such as hereditary annuities (but also real estate) were their preferred choices.

[INSERT TABLE 1 HERE]

Unsurprisingly, the capital market of Leuven presents a less rosy picture. With a mere quarter of Antwerp's numbers, both the number of new annuities sold per inhabitant and their median invested value signal a precarious situation. Half of the annuity contracts in the city consisted of transfers of existing annuities. All this indicates the absence of people with capital or the incentive to invest. The overall picture emerging from Leuven in 1490 is thus in complete accord with historians' assessment: that because of long-lasting economic difficulties and war in

the surrounding countryside, the final decades of the fifteenth century were hard for the city's residents. Few people were able or willing to borrow money or make long-term investments.

These difficult market conditions must be taken into account when explaining the remarkably large body of life annuities without specified collateral in Leuven: of the 136 contracted life annuities in 1490, 118 were not mortgaged on a specific piece of real estate.⁴⁵ Although the life annuity without specified collateral was an uncommon practice in the Low Countries, it was allowed in most law codes.⁴⁶ Instead of mortgaging life annuities on a well-described real property, annuity sellers in the region around Leuven used two other methods to provide security for creditors. The first entailed a promise written into the contract to redeem the annuity within a certain time period or assign a specific immovable property to it after this period had passed.⁴⁷ A second form of security was usually combined with the first: 54% of the life annuities were sold by groups of three or more persons, with some groups including up to ten people. Usually, the first person – or the first two persons – were the actual debtors, and the others were guarantors. Very often these co-signatories had some connection to each other, as they tended to live in the same village or to be related. Unfortunately, most annuity contracts do not explicitly single out the actual debtors from the guarantors, which is why this article will refer to them as 'groups' in the analysis. However, previous studies have shown that the debtors are mentioned in order of importance in the annuity sales contract, with the first person mentioned being the main debtor with the largest share of the loan.⁴⁸ As I have argued elsewhere, this practice of co-signatories is probably connected to the economic difficulties faced by Leuven's inhabitants.⁴⁹ The large number of unassigned life annuities secured by personal guarantors appears to have been a reaction to personal distrust in the market, or might have provided (temporary) alternative collateral to real estate, either because the value of real estate in this

distressed city was too low to cover the debt, or because many people did not have significant access to real estate in the fifteenth century.

A quantitative perspective on women's participation in capital markets

Differences in economic structures and conditions between Leuven and Antwerp in 1490 raise the question of how they affected gender inequality in capital markets. In his overview of medieval women and credit in Europe, William Chester Jordan argued that women were less active than men in financial markets (both collateralized and non-collateralized loans), estimating their market share at 10% to 15%. Female moneylenders were particularly active in short-term credit markets where they loaned out smaller sums – loans that were approximately one-half to one-third those of male moneylenders. Moreover, women often operated in networks of ‘female solidarity’, extending credit to (familiar) women who required money to meet household needs. Women making larger long-term investments such as annuities were often widows and generally refrained from taking risks, instead preferring safe investments such as real estate and life annuities sold by cities and religious institutions.⁵⁰ The studies undertaken by Hutton (on Ghent) and Van Zanden *et al.* (on Edam) have contradicted some of Jordan's conclusions with regard to the Low Countries and also provide important points of comparison here.⁵¹

A breakdown of all parties in the capital markets of Antwerp and Leuven (Table 2), mirrors Jordan's claim that women comprised a much smaller part of the market than men. As creditors, women's share was modest but not insignificant, representing 13% and 15% of the annuity buyers in Leuven and Antwerp respectively. Female debtors entered the market in much smaller numbers, amounting to merely 1% of the debtors in Leuven, and 4% of the Antwerp debtors. Overall, men acting on their own comprised the majority of market participants, with two exceptions: life annuity buyers (in both cities), and life annuity debtors in Leuven. Firstly,

life annuities in both cities were regularly bought by married couples and groups (often family members and parents with their children). This is a common pattern in capital markets, as life annuities were often used as an investment by couples or families to secure a stable income for the longest living spouse or the children.⁵² Secondly, the fact that annuity sellers in Leuven frequently acted in debtor-guarantor groups explains the large share of ‘groups’ among debtors in Leuven. However, the practice of using co-signatories for life annuities does not mask a higher female participation among annuity sellers in Leuven, as only one contract figured a female prime debtor.⁵³

[INSERT TABLE 2 HERE]

In terms of market share, women in Antwerp were slightly more active than their counterparts in Leuven. Both as debtors and creditors, the percentage of women among market participants was two to three points higher in Antwerp. Given the much better economic climate in Antwerp and the link between economic prosperity and female agency,⁵⁴ one might have expected a (much) higher percentage of female participants in Antwerp. Nevertheless, it is important to keep in mind that the annuities market was considerably smaller in Leuven than in Antwerp. The number of annuities sold per inhabitant in Antwerp was almost three times larger than the corresponding number for Leuven. As argued above, due to the economic difficulties of the 1490s, Leuven’s market was more exclusive and probably represented a narrower segment of society. Therefore, the results indicate that even as the annuity market was increasingly narrowed to all but the happy few, some women retained the capacity to invest and they remained a substantial group among the investors. Among debtors, however, women were almost entirely absent in Leuven.

The general market share of women in capital markets in Antwerp and Leuven around 1490 seems roughly comparable, and there seems to be no remarkably smaller share of women in Leuven, as a city in economic crisis, than in Antwerp. Unfortunately, we lack comparable data from regions in post-Black Death Southern Europe to enable a fuller evaluation of the share of women (given that very few studies have assessed women's share in private capital markets as a whole).⁵⁵ Nevertheless, the share of women is comparable to the general European assessments made by Jordan.⁵⁶ The Antwerp and Leuven evidence thus provides little support for the thesis that the Low Countries, as the alleged premier region of the European marriage pattern in north-western Europe, offered women more economic opportunities than their counterparts in other regions, at least in terms of their relative share in capital markets. It is clear, however, that more comparable studies are required before a thorough comparison with capital markets in southern European regions can be made.

Closer to Brabant, a few studies do provide material for comparing women's participation in private capital markets. Table 3 summarizes their results but should be approached cautiously since these studies used different methods or did not distinguish debtors from creditors. Moreover, the studies of fifteenth-century Ghent and of sixteenth-century Ghent and Antwerp only included widows, without accounting for the demographical weight of this group. This makes it impossible to assess the general female market share from their results.⁵⁷ The only suitable material for comparison therefore stems from Hutton's work on mid-fourteenth-century Ghent, and from the study of Van Zanden *et al.* on Edam in 1564. Remarkably, both of these studies found much higher female participation in annuity transactions, with women representing around one-third of the participants.

[INSERT TABLE 3 HERE]

On the one hand, Hutton's study of the oldest aldermen's registers for fourteenth-century Ghent (composed between 1337 and 1361) found that female debtors and creditors together took up a share of 32% in the annuities market.⁵⁸ However, with merely 66 contracts, the registers contained very few annuity transactions. Most financial transactions concerned non-collateralized loans (741 contracts), of which 29% were contracted by women.⁵⁹ Female participation in Ghent was therefore much higher than in Leuven and Antwerp, where the overall share of female market participants in 1490 amounted to 7% in the former and 9% in the latter. If variables in Ghent, Antwerp, and Leuven were comparable, this would indicate that women's access to capital markets in the late fifteenth-century had decreased significantly compared to the mid-fourteenth century, which corresponds with general assessments of changing economic opportunities for medieval women. On the other hand, Van Zanden *et al.* found that women were parties to 'about a third' of all annuity transactions in Edam in 1564, during a period of economic upswing. This is considerably higher than the female percentages for the late-fifteenth-century Brabantine cities of Leuven and Antwerp, suggesting that sixteenth-century Edam (in the north of Holland) may have offered women better economic possibilities. Such a conclusion would dovetail with recent studies that have argued that there was no decline in women's economic possibilities in early-modern Holland but, rather, a remarkable expansion.⁶⁰

Assessing and explaining changes in women's access to capital markets based on quantitative measures of women's participation in capital markets however requires many more case studies. This underlines the urgent need for more empirical data in the field, as a recent volume on pre-industrial credit emphasized.⁶¹ Meanwhile, comparing the results from fifteenth-century Leuven and Antwerp to existing studies reveals that neither paradigm – the all-compassing decline in women's economic activities from the fourteenth to the sixteenth

centuries, nor the general rise in their economic opportunities due to the Northern European marriage pattern in the fifteenth century – can adequately account for the differences in women’s participation in financial markets. Moreover, quantitative assessments of market shares can only reveal so much. Understanding which women could enter the market, in terms of their marital status, and whether they did so on equal footing to their male counterparts, allows us to evaluate their participation in more depth. To answer these questions, the next two sections compare the participation of men and women in annuity markets and analyse the marital status of female participants.

Male and female market patterns: similarities and dissimilarities

This article has demonstrated so far that the participation of male and female parties in the Brabantine annuity markets was quite different in terms of numerical importance: but did the men and women who participated in the market follow different patterns? The factors to take into consideration for this are their networks of trade partners, the value of their transactions, and the interest rates charged for annuities.⁶² Assessment of these will help reveal whether there were actually typical female and male forms of moneylending, as Jordan has argued, or whether the main difference between women’s and men’s participation was the frequency.

With regard to the first factor, trade partners, Jordan concluded that a key characteristic of medieval women’s participation in financial markets was their involvement in ‘networks of female solidarity’. By this logic, most female participants would have predominantly engaged in woman-to-woman exchange. However, Table 4 shows no trace of such ‘female networks’ in Antwerp’s capital markets, because both men and women predominantly contracted transactions with unrelated men (around 60% of their contracts), and male parties even entered more often into contracts with women than their female counterparts. In Leuven, there was a slightly

stronger tendency among female parties to engage in annuity transactions with other women; 10% of their transactions were with other women, a figure that only amounted to 4% for men. Rather than a preference to engage in transactions with other women female parties tended to turn to family members when contracting annuities. This difference was the most pronounced in Leuven, where family members constituted 20% of women's transaction partners, compared to a mere 3% for male parties. In Antwerp, female parties in the capital market also regularly engaged in annuity contracts with family members, but this was less gender-specific: the pattern is also discernible among male parties (16% of their transactions) and married couples (27% of their transactions).⁶³ The analysis of transaction partners therefore reveals that gender differences between male and female parties were more pronounced in Leuven than in Antwerp, with women in Leuven more frequently turning to family members than their male counterparts, perhaps signaling that women and men had differing economic networks in Leuven.

[INSERT TABLE 4 HERE]

The second factor, interest rates, is generally considered a good indicator of gendered barriers to capital markets. If women were charged a higher rate than men as debtors, or a less attractive rate as creditors, this would suggest that female parties encountered disadvantages in the negotiations preceding the annuity contract.⁶⁴ In sixteenth-century Edam, Van Zanden *et al.* found no traces of such gender-specific interest rates.⁶⁵ For Antwerp and Leuven, Table 5 presents the average interest rate for male and female parties. These results, especially for women, should be used with caution: some are based on only a few annuity contracts, as many annuities were in kind. Nevertheless, from the comparison of male and female interest rates it is apparent that in Antwerp, women who entered the market faced the same conditions as men. In

Leuven, however, women did seem to face a systematic disadvantage in the negotiations preceding the contract as creditors. For both hereditary and life annuities, women were on average charging a considerably lower interest rate than male creditors. It is impossible to gauge whether this was also the case for female debtors in Leuven, as the data is based on only two contracts.

[INSERT TABLE 5 HERE]

The last factor, median contracted value (also shown in Table 5), confirms the relatively strong position of women as creditors in Antwerp's annuity market: they invested the same value as men in hereditary annuities – the most popular financial instrument in the city by a large margin. For life annuities, this appears to have been different, but the results seem to have been distorted by the small number of observations.⁶⁶ When women were borrowing money in Antwerp, which they only did in small numbers, they borrowed lower amounts than male debtors. In Leuven, the median transaction value again highlights the weaker position of female creditors: not only were they charging lower interest rates than male parties, but women also invested less capital.

Thus, whilst the proportion of women participating in the capital markets of Leuven and Antwerp largely corresponds with historiographical assumptions regarding medieval women and credit, the characteristics of women's activities in the capital market do not. Firstly, women did not predominantly engage in female networks, as Jordan argued. While they might have done so in informal credit markets (which are outside the scope of this study), woman-to-woman exchange in the formal capital market was rare. Rather, women more often turned to family networks than did men, especially in Leuven. Second, while women seem to have had a weaker

position than men in Leuven's capital market, which aligns with patterns found elsewhere in Europe,⁶⁷ this was not the case in Antwerp – at least not for female investors. In contrast to the patterns outlined by Jordan, women and men invested similar amounts, contracted the same interest rates, and engaged in the same networks. Therefore, while the market share of women in Antwerp was not exceptional, the modalities of their activities as investors were. In this regard, the results for Antwerp support the positive assessments of women's participation in financial markets in the Low Countries offered by Van Zanden *et al.* and Hutton. The contrasting results in Leuven, however, suggest that the strong position of female investors in financial markets was not a general phenomenon in the late medieval Low Countries, but tied to a specific economic context: an expanding economy, as could be found in Antwerp and Edam.

Women and marital status in the Brabantine capital markets

Studies of pre-industrial credit have sketched a general profile of female participants in capital markets. Despite regional differences, the wealthy widow looms large in these accounts, especially as a creditor.⁶⁸ Indeed, it has been suggested that it was only at this phase in their life cycle that women were able to control their wealth independently.⁶⁹ Thus, widows are usually said to have been able to buy annuities themselves, whereas other (younger) women received them as an inheritance or support from their family.⁷⁰ However, recent studies have departed from the long-standing focus on widows to emphasize the roles of never-married and married women in the economy.⁷¹ In theory, women had opportunities to enter the capital market at all adult stages of their lives in Leuven and Antwerp: the inheritance rights of daughters were legally secured, married women remained the owners of their property and, at least in Leuven, unmarried women could act without a guardian. Yet in practice, they did not, and marital status constituted

an important determinant of women's market participation in both Leuven and Antwerp.

However, the marital status of female parties in the capital markets of Leuven and Antwerp differed considerably, with widows being much more prominent in the former city.

In many cases, the contracts in the aldermen's registers allow us to establish the marital status of a female contracting party directly: women are regularly identified as the (former) wife of a man. In a number of contracts in both Leuven and Antwerp, women also appear only by their names or as 'daughter of x'. This could, of course, signify that these women were never married or not-yet-married, but it might also reflect the negligence of the clerks who deemed the mentioning of a (present or former) husband irrelevant to the contract. Therefore, women mentioned without a (present or former) husband could have been unmarried, but certainty is impossible. However, it was very rare for women to be mentioned without a marital status in one contract but as widowed or married in another contract.⁷² Moreover, when real property was involved in the transactions, as was the case with annuities, clerks were particularly diligent in noting down family associations. Thus, while a degree of uncertainty surrounding the marital status of these unidentified women remains inevitable, this study contends that the majority of these unidentified women was never-married at the time of the transactions (although they might marry later in life). As I have argued elsewhere, this is supported by the strategies of this group in financial and real estate markets, which followed different patterns to those of widows.⁷³

The profile of female parties in annuity transactions in Leuven, as shown in Table 6, corresponds strongly to the picture painted by Jordan and other historians. Widows by and large formed the majority of female parties (70%) in the annuity market. Whilst women rarely sold annuities in Leuven, in the one instance that they did, the debtor was a widow acting under guardianship.⁷⁴ The presence of a guardian is remarkable in itself, as widows did not require a guardian to manage property according to Leuven's customary law. This indicates how unusual it

was for women, even widows, to mortgage their properties with long-term debts in Leuven. While this hypothesis must remain tentative until further research pursues a thorough analysis, the specific organization of Leuven's annuity market might have caused the almost complete absence of women as borrowers. As we have seen, life annuities in Leuven were not usually secured by mortgaging a piece of real estate, but by a group of guarantors who stood surety. This predominance of personal creditworthiness over real estate ownership as a requirement for obtaining long-term loans might have worked against women in Leuven. Another explanation, as will be outlined below, might be that women in Leuven were not in need of long-term borrowing.

The profile of female investors in Leuven also corroborates previous research, with widows contracting the majority of the transactions. Never-married women appear in much smaller numbers (32%), and the few never-married women investing in long-term debt seem to have been more confined to elite women or women acting within family relations. Of the hereditary annuities, two out of the three transactions were sold by a brother to his sister.⁷⁵ Among the five buyers of life annuities, two stemmed from elite families,⁷⁶ and another woman was probably donated a life annuity: Katherine Mychiels received a life annuity of a wealthy nun whose father, a master in civil law, had employed Katherine as a servant in his household.⁷⁷ Married women, finally, remained strikingly absent in Leuven's capital market. They were not encumbering their assets with annuities, nor were they making any long investments in their own name. The picture emerging of fifteenth-century married women's participation in Leuven's markets thus aligns completely with the historiographical view of married women in the fifteenth century: they remained invisible in the formal economy.

[INSERT TABLE 6 AND TABLE 7 HERE]

Antwerp's annuity market, however, presents a striking contrast to Leuven and the existing historiographical picture of female participation in capital markets in two aspects (see Table 7). First, although they did not borrow money through annuities, never-married women appear as the main female investors in capital markets, at 60% of all female annuity buyers. Moreover, the position of never-married women as investors was relatively good. In terms of interest rates, they were able to negotiate the same rate as other parties, because not one woman was charging a lower rate the standard rate of the market. This contrasts with the findings of Jord Hanus for sixteenth-century 's-Hertogenbosch, who found that never-married female creditors were not able to obtain the same interest rates as other investors.⁷⁸ The median value of the investments of never-married women indicates that they were focusing on the low, and especially, middle levels of the market: their median invested value was 8 lb. Brabant groat, whereas male and widowed investors more often invested in the higher market echelons, resulting in a median invested value of respectively 16 lb. and 16 lb. 16 s. Brabant groat. While widows were thus investing larger amounts in the capital market than their never-married counterparts, they were less frequent participants at 28%. In short, looking at the capital markets, it is clear that single women in Antwerp appear as the main female investors who specialized in the lower to middling levels of the market.

A tentative explanation for their frequent investments might lie in the demographic dynamics of Antwerp. Even though there are no studies of gender and demography for medieval Antwerp, studies of similar cities allow us to assume that never-married women were more prevalent in Antwerp, resulting in a higher proportion of women living on their own. Research has shown that growing commercial cities often attracted many single women, who could make a living in sales or service. Such cities typically housed a large share of female-headed households, often by never-married or not-yet-married women.⁷⁹ Demographic calculations for the fifteenth

century are only available for a few cities in nearby counties. In Bruges in 1394-1396, a booming city heavily involved in commerce and retail, Peter Stabel found that never-married women constituted 10.6% of the inhabitants, whereas widows represented 3.6% of households.⁸⁰ In Edam in 1462, Van Zanden *et al.* found a similar share of female-headed households, with 15.6%. By 1563, this had even increased to 27.6%.⁸¹ A comparable dynamic with a high number of unmarried women might be expected in Antwerp, a port city with an expanding economy oriented towards luxury industries, services, retail and trade. Antwerp probably offered women more economic opportunities outside the household than the declining industrialized city of Leuven.

Several studies of the early modern period have demonstrated that never-married women used capital markets to invest their wages and savings in order to improve their financial positions – thereby increasing their marital options, by making them more attractive marriage partners, or helping to sustain the celibate lifestyle.⁸² High participation by never-married female investors in Antwerp might therefore be the result of larger numbers of young single women living in the trade city and looking for ways to invest inherited capital or the fruits of their economic activities. This might also explain the very high female participation observed by Van Zanden *et al.* in the capital market of Edam in 1563, where women participated in one-third of all annuity transactions. While their study does not give a breakdown of the marital status of the female transaction parties in that year, the female market share corresponds strikingly with the high percentage of female-headed households in the city.⁸³

Assuming that single women constituted approximately 10% of the inhabitants of Antwerp, as they did in nearby Bruges, these women certainly fulfilled their quota as investors considering they comprised 8% of all annuity creditors. For life annuities – their preferred investment – this was even higher at 12%. Moreover, while it is impossible to gauge the decision-

making process behind the transaction, the legal acts leave no doubt that the women made the investments themselves: unmarried women, both in Leuven and Antwerp, signed these contracts in their own name and without a guardian. This significantly contradicts the common assumption that family members usually bought annuities for non-widowed women.

Yet, as visible as these never-married women were as investors in annuities, they seem to have not participated in the capital market as debtors. The small group of female debtors in Antwerp consisted of widows and married women. The reason for never-married women's absence as borrowers in Antwerp awaits further research, but two hypotheses can be put forward. Other studies of early modern financial markets have drawn attention to structural disadvantages faced by never-married women. In their study of household debts in seventeenth-century Württemberg, a rural region in Germany, Sheilagh Ogilvie *et al.* found that creditors disadvantaged young unmarried people and women in the market because they were seen as greater credit risks.⁸⁴ Hanus equally discovered traces of this mechanism in sixteenth-century 's-Hertogenbosch.⁸⁵ A second explanation could lie in the activities of these never-married women in the wider economy. Historians have argued that annuities were sold to finance large-scale productive investments, particularly in commerce and real estate, or to establish or expand craft workshops and businesses and purchase equipment.⁸⁶ People rarely used annuities to finance short-term operations or surmount financial difficulties.⁸⁷ Therefore annuity debtors were often independent business owners and craftspeople. In addition, a study of eighteenth-century Antwerp showed that the most likely people to sell annuities were families with young children, which indicates that people had the greatest need for long-term loans early in their life cycles when they started their own households and set up businesses.⁸⁸ As the late medieval guild economy increasingly pushed out single women as independent participants,⁸⁹ this might have made them unlikely candidates to enter the capital market as debtors.

A second finding of this study regarding how women's participation in Antwerp's capital market differed both from the patterns outlined by Jordan and also those found in Leuven, is the participation of married women. Although the vast majority of women participating in Antwerp's capital market were either never-married or widowed, their married counterparts were not negligible: they represented 23% of all female parties and were especially visible as annuity sellers (62% of the female debtors). Given that these transactions involved the encumbering of real property, these women were always accompanied by a guardian (their husband or another man). As investors, however, married women were much less active in the capital market. Again, it is impossible to discern the motivations behind these Antwerp contracts signed by married women. However, there is no evidence that they borrowed money with the intention of supporting their own economic ventures – for instance to finance investments in their own names – and married women rarely invested in the capital market, nor were they active in the real estate market.⁹⁰ While the explanation must remain tentative, this study suggests that the beneficiary of these occasional annuity sales by wives was the household, or rather, the household enterprise headed (at least formally) by their husbands. In this way, Antwerp wives seem to have contributed to the functioning and expansion of the household business. . In Leuven, the patrimonial property of wives seems not to have been mobilized in the same way. However, further research is required to explain these differing functions of wives' property and to understand how this affected women's position in the household economy.

The Antwerp capital market therefore contradicts previous studies which have suggested that economic opportunities in the fifteenth-century Low Countries were predominantly limited to widows.⁹¹ Both married women and never-married women participated, although they took up very different roles: wives sold annuities (probably to support the household enterprise), and never-married women invested in annuities. The role of the never-married women in Antwerp's

market is particularly striking; this dynamic and commercialized economy might have counted a large population of never-married women and offered them more economic opportunities, which they were able to capitalize in the capital market. However, in terms of the amounts they invested, never-married women clearly had fewer advantages than their widowed and male counterparts. Probably the same was true for never-married men, although they cannot be detected in the sources.⁹²

Conclusion

Women's access to capital markets could significantly improve their position in pre-industrial societies. In the Low Countries, only a limited group of women were able to profit from this market at the end of the fifteenth century, regardless of economic conditions. In Leuven, an industrialized city facing a sustained economic crisis, and in Antwerp, a commercialized town which found itself at the start of a 'golden age', the market share of women in capital markets was similar: they represented 1% to 4% of debtors, and 13% to 15% of the creditors. Although situating these figures in a European context is challenging because of the lack of comparable studies, this share mirrors patterns found by historians for other European regions. Therefore, this study offers little support for a significantly larger economic participation of women in the Low Countries in general, at least in terms of their numerical importance in capital markets, as has been argued by Van Zanden *et al.* in their studies on the European marriage pattern.

The results do corroborate one central aspect of the paradigm associated with the European marriage pattern: the emphasis it places on never-married women in the economy. This study also adds one important nuance to the positive assessments of their economic participation: it was highly context-specific and did not occur in an industrialized and declining urban economy. Never-married women only appeared as significant investors in the capital market of a

commercialized booming economy, which probably attracted many single women and offered them economic opportunities, such as late-fifteenth-century Antwerp. There, with a market share comparable to their estimated demographic weight of about 10%, never-married women certainly fulfilled their potential as investors. Moreover, although they operated in lower market echelons than widows, there are no signs that these women faced structural disadvantages when investing in the market. This shows a strong similarity to patterns detected by historians who looked at women's involvement in seventeenth- and eighteenth-century financial markets, particularly during England's financial revolution.⁹³

Additionally, this study highlights the remarkably small proportion of female borrowers through annuities. Except for a limited group of married women selling annuities in Antwerp (probably to support the household enterprise), women rarely encumbered their assets with long-term debts. This study has suggested two possible explanations for this gender-specific pattern, which will require further research. Especially in Leuven, where the specific organization of the capital market resulted in a stronger emphasis on personal networks as opposed to real estate ownership for creditworthiness, women may have faced impediments that prevented them from entering the capital market as borrowers. However, women in both Leuven and Antwerp may have also lacked the incentive to sell annuities because they did not have access to independent entrepreneurial activities in crafts or commerce. Therefore, they did not need to borrow large amounts of capital through annuities. Moreover, this mechanism might also have prompted never-married women to focus more heavily on annuity investments. While men in that life cycle stage might be more likely to tie up their money building their economic futures as craftsmen or traders, women looked for other opportunities to secure their financial futures. Annuities perfectly served that need.

Finally, the results of this study lay bare how women's position in capital markets could strongly vary between cities within the same region, and with similar juridical and political conditions. Although the growing and commercially oriented economy of Antwerp did not give women a larger share in the capital market than in Leuven, the evidence indicates that Antwerp women did face better conditions when entering the capital market. This demonstrates the explanatory limitations of broad interregional comparisons of women's economic opportunities across (medieval) Europe. Instead, this study encourages more research into intraregional differences in order to advance our understanding of the complex variables governing women's economic opportunities in late medieval societies.

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⁷ For a good recent summary of the debate, see O. Gelderblom and F. Trivellato, 'The business history of the preindustrial world: towards a comparative historical analysis', *Business History*, 61, 2 (2019), 238-239.

⁸ See the overviews in: W.C. Jordan, *Women and Credit in Pre-industrial and Developing Societies* (Philadelphia, 1993), 17-78; E. Dermineur, 'Women and credit in pre-industrial Europa: an

overview' in E. Dermineur (ed.), *Women and Credit in Preindustrial Europe* (Turnhout, 2018), 1-18.

⁹ Dermineur, *Women and Credit, op. cit.*, drew attention to this issue and forms a first step towards addressing it. Several studies offer either anecdotal evidence (see for example McIntosh, *op. cit.*, 85-116) or only look at female participants (see for example C. Béghin-LeGourriérec, 'Le rôle économique des femmes dans les villes de la sénéchaussée de Beaucaire à la fin du Moyen Age (XIVe -XVe siècles)' (PhD thesis, EHESS, 2000). The few in-depth articles for late medieval Western and Central Europe mostly concern obligations. For Germany, see H. Gilomen, 'Frauen als Schuldnerinnen und Gläubigerinnen in der Stadt Basel in den 1420er Jahren' in G. Signori (ed.), *Prekäre Ökonomien: Schulden in Spätmittelalter und Früher Neuzeit* (Konstanz, 2014), 103-137; For the Low Countries, see: Hutton, *op. cit.*, 81-101; J.M. Murray, 'Family, marriage and moneychanging in medieval Bruges', *Journal of Medieval History*, 14, 2 (1988), 115-125; J.L. Van Zanden, J. Zuijderduijn, and T. De Moor, 'Small is beautiful: the efficiency of credit markets in the late medieval Holland', *European Review of Economic History*, 16, 1 (2012), 3-22; J. Zuijderduijn, 'The ages of women and men: life cycles, family and investment in the fifteenth-century Low Countries' in Dermineur (ed.), *op. cit.*, 95-120.

¹⁰ Recent studies of early modern women and credit can be found in J. Spicksley, 'Usury legislation, cash, and credit: the development of the female investor in the late Tudor and Stuart periods', *Economic History Review*, 61, 2 (2008), 277-301; E. Dermineur, 'Single women and the rural credit market in eighteenth-century France', *Journal of Social History*, 48, 1 (2014), 175-199.

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¹² E. Dermineur, ‘Les femmes et le crédit dans les communautés rurales au 18e siècle’, *Traverse Revue d’Histoire*, 2 (2014), 53-64; J. Spicksley, ‘Fly with a duck in thy mouth’: single women as sources of credit in seventeenth-century England, *Social History*, 32, 2 (2007), 187-207.

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¹⁴ Hutton, *op. cit.*, 81-100.

¹⁵ Van Zanden, Zijderduijn, and De Moor, *op. cit.*, 11-17.

¹⁶ The so-called ‘hearth lists’, Brabantine household counts, only allow us to calculate the number of tax-paying and poor households per city (J. Cuvelier (ed.), *Les dénombrements de foyers en Brabant XIVe-XVIe siècle* (Brussel, 1912-1913)).

¹⁷ Most importantly, H. Van der Wee, *The Growth of the Antwerp Market and the European Economy (Fourteenth – Sixteenth Centuries)* (Den Haag, 1963); R. Van Uytven, *Stadsfinanciën en stadseconomie te Leuven van de XIIIe tot het einde der XVIe eeuw* (Brussel, 1961). Unless otherwise mentioned, this section of the article is based on these studies.

¹⁸ Van Uytven, *op.cit.*, 467 (based on Cuvelier (ed.), *op.cit.*, 432-433).

¹⁹ M. Limberger, ‘Regional and interregional trading networks and commercial practices at the port of Antwerp in the 14th and 15th centuries’, *Nuevo Mundo Mundos Nuevos* (2016), 3-5.

²⁰ For these calculations, see A. Bardyn, ‘Women’s fortunes. Gender differences, asset management, and investment in late medieval Brabant’ (PhD thesis, KU Leuven, 2018), 78.

²¹ J. Van Gerven, ‘Vrouwen, arbeid en sociale positie. Een voorlopig onderzoek naar de economische rol en maatschappelijke positie van vrouwen in de Brabantse steden in de late middeleeuwen’, *Revue Belge de philologie et d’histoire*, 73, 4 (1995), 947-966.

²² Unless otherwise mentioned, this section of the article is based on J. Gilissen, ‘Le statut de la femme dans l’ancien droit belge’ in J. Gilissen (ed.), *La femme* (Brussels, 1962), 255-321; P. Godding, *Le droit privé dans les Pays-Bas méridionaux du 12e au 18e siècle* (Brussels, 1987).

²³ Provisions for the surviving spouse, however, differed in each city. In Antwerp, the matrimonial community was divided equally in two between the surviving spouse and the heirs. In Leuven, due to the *droit de devolution*, the surviving spouse was granted usufruct to the totality of the marital estate, whereas the heirs received the ‘nude ownership’. This would have given widow(er)s in Leuven a slightly stronger position than their counterparts in Antwerp, at the expense of the heirs, although their control over the property was more limited (see K. Cappelle, ‘“in de macht, plicht en momboorije van heuren man”. De rechtspositie van de getrouwde vrouw in Antwerpen en Leuven (16de eeuw)’, *Pro Memorie*, 18, 1 (2016), 46-68. However, it is important to emphasize that in both towns, widows and widowers were granted the same rights.

²⁴ E. Kittell, ‘Guardianship over women in medieval Flanders: a reappraisal’, *Journal of Social History*, 31, 4 (1998); Hutton, *op. cit.*, 59-79.

²⁵ L. Van Aert, ‘Tussen norm en praktijk. Een terreinverkenning over het juridische statuut van vrouwen in het zestiende-eeuwse Antwerpen’, *Tijdschrift voor sociale en economische geschiedenis*, 2, 3 (2005), 22-42.

²⁶ The role of these unnamed guardians appears to have been limited to an ad-hoc legal assistance for women (Bardyn, *op.cit.*, 51-52)

²⁷ City Archive of Antwerp (subsequently CAA), Registers of the Aldermen, nr. 97-102; City Archive of Leuven (subsequently CAL), Registers of the Aldermen, nr. 7384.

²⁸ See B. Lambert, ‘Merchants on the margins: fifteenth-century Bruges and the informal market’, *Journal of Medieval History*, 42, 2 (2016), 226-253.

²⁹ B. Lemire, *The Business of Everyday Life: gender, practice and social politics in England, c. 1600 – 1900* (Manchester, 2005).

³⁰ J. Zuijderduijn, *Medieval Capital Markets. Markets for renten, state formation and private investment in Holland (1300-1550)* (Leiden, 2009).

³¹ This public capital market had a more unstable character, as it was used by officials such as the city's aldermen to obtain funds by selling annuities. For a discussion of its interaction with the private capital market, see for example J. Dambruyne, *Mensen en centen. Het 16de-eeuwse Gent in demografisch en economisch perspectief* (Gent, 2001), 21-22. The position of women on public capital markets has received considerable attention for the early modern period, especially in the Low Countries. For an overview, see J. Hanus, *Tussen stad en eigen gewin. Stadsfinanciën, renteniers en kredietmarkten in 's-Hertogenbosch (begin zestiende eeuw)* (Amsterdam, 2007), 70. There are no studies on gendered participation in the public capital markets of Leuven or Antwerp, apart from my own research (Bardyn, *op.cit.*, 128-131).

³² This paragraph is based on Dambruyne, *op. cit.*, 113-145; H.P. Baum, 'Annuities in late medieval hanse towns', *Business History Review*, 59, 1 (1985), 34-35.

³³³³ Zuijderduijn, *Medieval Capital Markets, op.cit.*, 11; De Moor, Van Zanden, and Zuijderduijn, *op.cit.*, 662.

³⁴ E. Van Onacker, 'Proactive peasants? The role of annuities in a late medieval communal society: the Campine area', in C. Briggs and J. Zuijderduijn (eds.), *Land and Credit: mortgages in the medieval and early modern European countryside* (Cham 2018), 274-275; B. Willems, *Leven op de pof: krediet bij de Antwerpse middenstand in de achttiende eeuw* (Amsterdam 2009), 113; Dambruyne, *op.cit.*, 126; Baum, *op.cit.*, 36.

³⁵ This was possible thanks to a database containing all transactions of the aldermen for the years 1490 to 1492, constructed by Tim Bisschops, his students and Peter Stabel at the University of

Antwerp. I thank Peter Stabel for sharing this database with me. To allow for a direct comparison with Leuven, this study only uses the year 1490 from this database.

³⁶ The third room was probably only open on busy days, as this register is always the smallest of the three.

³⁷ P. Godding, 'Les conflits a propos des lettres échevinales des villes Brabanconnes', *Tijdschrift voor rechtsgeschiedenis*, 22, 3 (1941), 308-353.

³⁸ M. Limberger, *Sixteenth-century Antwerp and its Rural Surroundings* (Turnhout 2008), 42-45.

³⁹ For the Low Countries, see in particular: H. Soly, 'De schepenregisters als bron voor de conjunctuurgeschiedenis van Zuid – en Noord-Nederlandse steden in het Ancien Régime. Een concreet voorbeeld: de Antwerpse immobiliënmarkt in de 16^{de} eeuw', *Tijdschrift voor Geschiedenis*, 87 (1974), 521-544.

⁴⁰ One might wonder if the revaluation of the groat by Duke Maximilian of Austria in December 1489 (through which he increased the silver weight of the coin), affected private capital markets in 1490 in the same way as it hit public markets (many cities defaulted or postponed their annuity payments). See J. Zuiderduijn, 'De schuldvraag. Monetaire politiek, publieke schuld en wanbetaling in Holland, ca. 1466-1489', *Low Countries Journal of Social and Economic History*, 9, 3 (2012), 27-46). In short, for Antwerp there is no evidence that the year 1490 constituted an exceptional year of mistrust or unrest on private financial markets. Rather, on the contrary, interest rates were lower than in the middle of the fifteenth century, and they remained steady over the next two years. In Leuven, as the analysis in this section of the article demonstrates, the market showed clear signs of distrust in 1490. It is, however, impossible to determine to what extent this was caused by the military catastrophe in the region around Leuven or the coinage reform (or both). A detailed analysis of this question can be found in Bardyn, *op.cit*, 89-94.

⁴¹ The differences are discussed in full in Bardyn, *op.cit*, 71-106.

⁴² See the methodological considerations in Soly, *op.cit.*, 521-544.

⁴³ Both Soly (for sixteenth-century Antwerp) and Dambruyne (for seventeenth-century Ghent) excluded life annuities from their conjunctural analysis. For fifteenth-century Haarlem and 's Hertogenbosch respectively, Zuijderduijn and Hanus did include life annuities in their analysis - although life annuities were rarely sold in the latter city. Soly, *op.cit.*, 524; J. Dambruyne, 'De Gentse immobiliënmarkt en de economische trend, 1590-1640', *Bijdragen en mededelingen betreffende de geschiedenis der Nederlanden*, 104, 2 (1989), footnote 19; J. Hanus, 'Een efficiënte pre-industriële kapitaalmarkt? Het vroeg zestiende-eeuwse 's-Hertogenbosch als voorbeeld', *Low Countries Journal of Social and Economic History*, 6, 3 (2009), 95; J. Zuijderduijn, 'Conjunctuur in laatmiddeleeuws Haarlem. Schepenregisters als bron voor de economische ontwikkeling van een Hollandse stad', *Holland. Historisch tijdschrift*, 40, 1 (2008), 3-17.

⁴⁴ Based on Soly's data and taking a population size of 87,000 inhabitants into account, the number of new annuity contracts per 100 inhabitants equally amounted to 0.42 (H. Soly, *Urbanisme en kapitalisme te Antwerpen in de 16de eeuw. De stedenbouwkundige en industriële ondernemingen van Gilbert Van Schoonbeke* (Brussel 1977), 77-95).

⁴⁵ These numbers are the extrapolated yearly total based on the sample of 39.7% of all contracts in 1490.

⁴⁶ Godding, *Le droit privé, op.cit.*, 484-485.

⁴⁷ This practice of temporarily fiduciary annuities also existed in Ghent (Dambruyne, *Mensen en centen, op.cit.*, 116-117).

⁴⁸ Bardyn, *op. cit.*, 102.

⁴⁹ Bardyn, *op. cit.*, 100-105.

⁵⁰ Jordan, *op. cit.*, 17-78.

⁵¹ Hutton, *op. cit.*; Van Zanden, Zuijderduijn, and De Moor, *op.cit.*

⁵² Zuijderduijn, ‘The ages’, *op.cit.*.

⁵³ CAL, nr. 7384, fol. 359r.

⁵⁴ De Moor and Van Zanden, *op.cit.*, 1-33.

⁵⁵ Dermineur, *Women and Credit*, *op. cit.* Studies that investigated women in credit markets (IOUs), debt instruments not considered in this study, do sometimes give a complete gender breakdown of the market, see for pre-Black Death Southern Europe: K.L. Reyerson, *Business, banking and finance in medieval Montpellier* (Toronto 1985), 67-76; A. Courtemanche, *La richesse des femmes. Patrimoines et gestion à Manosque au XIVe siècle* (Montréal 1993), 134-135. For post-Black Death Europe, see Gilomen, *op. cit.*, 103-137.

⁵⁶ Jordan, *op. cit.*, 17-78.

⁵⁷ Why this choice was made, is unclear. The fact that these studies stemmed from the 1970s and early 1980s probably played a role, as then it was still generally assumed that economically active women were almost always widows (in fact, one might wonder if this rule of thumb had not led scholars to classify every woman acting without a guardian as a widow).

⁵⁸ Hutton, *op.cit.*, 67.

⁵⁹ *ibid.*, 87.

⁶⁰ M. Van der Heijden, E. van Nederveen Meerkerk, and A. Schmidt, ‘Terugkeer van het patriarchaat? Vrije vrouwen in de Republiek’, *Low Countries Journal of Social and Economic History*, 6, 3 (2009), 26-52.

⁶¹ Dermineur (ed.), *op.cit.*

⁶² Jordan, *op. cit.*, 17-78.

⁶³ The general importance of family relations in Antwerp annuity contracts, as opposed to Leuven, could partly be a consequence of the different inheritance systems in the two cities. In Leuven, the marital state continued to exist until both spouses had died under the management of the widowed

spouse, whereas in Antwerp it was immediately divided upon the death of one of the spouses. For more on this, see Bardyn, *op.cit.*, 140-141.

⁶⁴ Hanus, 'Een efficiënte', *op.cit.*, 108-109.

⁶⁵ Van Zanden, Zuijderduijn, and De Moor, *op.cit.*, 19.

⁶⁶ This is confirmed by including the two succeeding years in the analysis (which are also included in the Antwerp database). This results in more life annuity contracts, for which the male median value was 7.8 lb. Brabant groat, and the female median valued amounted to 8 lb. Brabant groat.

⁶⁷ Jordan, *op. cit.*, 20.

⁶⁸ Jordan, *op. cit.*, 20-25 and 57-77.

⁶⁹ For the Low Countries, see especially M. Danneel, *Weduwen en wezen in het laat-middeleeuwse Gent* (Apeldoorn and Leiden, 1995); M. Boone, M. Dumon and B. Reusens, *Immobiënenmarkt, fiscaliteit en sociale ongelijkheid te Gent 1483-1503* (Kortrijk, 1981).

⁷⁰ Zuijderduijn, *Medieval Capital Markets*, *op.cit.*, 239; Baum, 'Annuities', 38-39.

⁷¹ J.M. Bennett and A. Froide (eds.), *Singlewomen in the European Past, 1250-1800* (Philadelphia, 1999); Hutton, *op. cit.*, 52-54; C. Beattie and M. Stevens (eds.), *Married Women and the Law in Premodern Northwest Europe* (Woodbridge, 2013); J. De Groot, I. Devos and A. Schmidt (eds.), *Single Life and the City: 1200-1900* (Basingstoke, 2015).

⁷² Bardyn, *op.cit.*, 178.

⁷³ Bardyn, *op.cit.*, 211-258.

⁷⁴ CAL, nr. 7384, fol. 204r. The second contract was signed by a nun. As religious women are not included in this analysis of marital status, this contract is not included in the table.

⁷⁵ CAL, nr. 7384,, fol. 110r and 318v.

⁷⁶ CAL, nr. 7384,, fol. 11r and 147v.

⁷⁷ CAL, nr. 7384,, fol. 504r.

⁷⁸ Hanus, ‘Een efficiënte’, *op.cit.*, 108-109.

⁷⁹ P. Stabel, ‘Working alone? Single women in the urban economy of late medieval Flanders (thirteenth-early fifteenth centuries)’ in De Groot, Devos and Schmidt (eds.), *op. cit.*, 29-31.

⁸⁰ *ibid.*

⁸¹ Van Zanden, Zuijderduijn, and De Moor, *op.cit.*, 12.

⁸² See parallels in Spicksley, ‘Single women’, *op.cit.*, 187-207; Dermineur, ‘Single women’, *op. cit.*, 184-194.

⁸³ Van Zanden, Zuijderduijn, and De Moor, *op.cit.*, 12.

⁸⁴ Ogilvie, Küpker, and Maegraith, *op.cit.*, 158-164.

⁸⁵ Hanus, ‘Een efficiënte’, *op.cit.*, 108-109.

⁸⁶ Van Onacker, *op. cit.*, 274-275.

⁸⁷ Baum, *op.cit.*, 34-38

⁸⁸ Willems, *op.cit.*, 120-124.

⁸⁹ For the Low Countries, see in particular Howell, *Women, op.cit.*

⁹⁰ Bardyn, *op.cit.*, 270-289.

⁹¹ Howell, *The Marriage Exchange, op. cit.*, 119-120; Hutton, *op.cit.*, 128.

⁹² This issue is highlighted in J.P.J. Goldberg, ‘Desperately seeking the single man in later medieval England’, in De Groot, Devos and Schmidt (eds.), *op. cit.*, 117-137.

⁹³ A. Froide, *Silent Partners. Women as public investors during Britain's financial revolution, 1690-1750* (Oxford, 2016), 118-150; Spicksley, ‘Usury legislation’, *op.cit.*, 277-301.

Tables

TABLE 1. Hereditary annuity transactions in the aldermen's registers of Leuven (1490) and Antwerp (1490)

Annuities	ANTWERP					LEUVEN ^a				
	(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)
New	158	41%	0.42	16.0	6.3%	18	32%	0.12	4.5	6.1%
Transfer	136	35%	0.36	16.0	6.3%	28	50%	0.18	8.2	5.6%
Redemption	94	24%	0.25	18.0	6.3%	10	18%	0.07	13.3	5.6%
Total	388	100%	1.04	-	-	55	100%	0.37	-	-

^a Extrapolated from a sample of the aldermen's registers of Leuven (39.7%)

Legend: (1) number of transactions (2) share within transaction category (3) number of transactions per 100 inhabitants (4) median invested sum expressed in lbs. of Brabant groats (5) average interest rate.

Source: CAA, registers of the aldermen, nr. 97-98; CAL, registers of the aldermen, nr. 7384. The per capita calculations are based on the number of inhabitants of the cities recorded in J. Cuvelier (ed.), *op.cit.*, 463, and Van Uytven, *op.cit.*, 478.

TABLE 2. Market share in % of men, women, married couples, groups, and institutions.

ANTWERP 1490	DEBTORS					CREDITORS				
	Men	Women	Couple	Group	Institution	Men	Women	Couple	Group	Institution
Hereditary annuity (N=289)	68%	4%	13%	12%	3%	64%	15%	9%	9%	3%
Life annuity (N=40)	78%	3%	8%	10%	3%	8%	15%	20%	58%	0%
Total	69%	4%	12%	11%	3%	57%	15%	11%	15%	3%
LEUVEN 1490 ^b	Men	Women	Couple	Group	Institution	Men	Women	Couple	Group	Institution
Hereditary annuity (N=115)	45%	1%	15%	37%	3%	69%	10%	6%	9%	6%
Life annuity (N=54)	31%	2%	13%	54%	0%	26%	19%	30%	26%	0%
Total	40%	1%	14%	42%	2%	55%	13%	14%	14%	4%

^b The numbers for Leuven represent 39.7% of all contracts registered in 1490, bringing the total number of contracts to 287 hereditary annuities and 136 life annuities.

Source: CAA, registers of the aldermen, nr. 97-98; CAL, registers of the aldermen, nr. 7384.

TABLE 3. Overview of women's market share in studies of capital markets in north-western Europe.

CASE STUDY	FEMALE DEBTORS (%)	FEMALE CREDITORS (%)	FEMALE PARTIES (%)	SOURCE
Ghent, 1337-1361	/	/	32%	Hutton, <i>op.cit.</i> , 67.
Ghent, 1483	5,7 % (only widows)	7.5% (only widows)	/	Boone, Dumon, and Reusens, <i>op.cit.</i> , 210-213.
Antwerp, 1545 (new and transferred annuities)	5.6 % (only widows)	11.9% (only widows)	/	Soly, <i>Urbanisme, op.cit.</i> , 81-83.
Edam, 1564	/	/	one third of all parties	Van Zanden, Zijderduijn, and De Moor, <i>op.cit.</i> , 17.
Ghent 1555-1556	8.4% (only widows)	15.6% (only widows)	/	Damburyne, <i>Mensen en centen, op.cit.</i> , 128 en 138.

TABLE 4. Comparison of the trade partners of male and female parties in Antwerp and Leuven

Transaction partner	ANTWERP		LEUVEN	
	Men	Women	Men	Women
Men	60%	58%	78%	50%
Women	10%	6%	4%	10%
Instution	5%	3%	1%	5%
Couple	9%	6%	13%	15%
Family	14%	23%	1%	20%
Female family	2%	3%	2%	0%
Total	100%	100%	100%	100%

Source: CAA, registers of the aldermen, nr. 97-98; CAL, registers of the aldermen, nr. 7384.

TABLE 5. Median invested value of male and female parties in the capital markets of Antwerp and Leuven (1490).

		MEN		WOMEN	
		Median invested valued in lb.	Average interest rate	Median invested valued in lb.	Average interest rate
ANTWERP					
Debtors	Hereditary annuity	16.0	6.2%	12.5	6.3%
	Life annuity	3.8	11.2%	3.4*	/
Creditors	Hereditary annuity	16.0	6.2%	16.0	6.2%
	Life annuity	8.5*	10%*	2.7*	11.5%*
LEUVEN					
Debtors	Hereditary annuity	4.5	5.7%	0.2*	5.7%*
	Life annuity	3.9	10.0%	7.5*	10.0%*
Creditors	Hereditary annuity	4.5	5.9%	4.5	5.6%
	Life annuity	7.5	10.3%	3.0	10.0%

* Based on less than 4 observations

Source: CAA, registers of the aldermen, nr. 97-98; CAL, registers of the aldermen, nr. 7384.

TABLE 6. Leuven (1490): percentage of female debtors and creditors per credit type according to marital status.
Based on a sample representing 39.7 of all contracts in the year 1490.

	Debtors (1)			Creditors (22)			Total (23)		
	Unknown	Married	Widow	Unknown	Married	Widow	Unknown	Married	Widow
Hereditary annuity	0%	0%	100%	25%	0%	75%	23%	0%	77%
Life annuity	0%	0%	0%	40%	0%	60%	40%	0%	60%
Total	0%	0%	100%	32%	0%	68%	30%	0%	70%

Source: CAL, registers of the aldermen, nr. 7384.

TABLE 7. Antwerp (1490): percentage of female debtors and creditors per credit type according to marital status.
Based on all contracts registered in 1490.

	Debtors (13)			Creditors (47)			Total (60)		
	Unknown	Married	Widow	Unknown	Married	Widow	Unknown	Married	Widow
Hereditary annuity	0%	58%	42%	54%	15%	32%	42%	25%	34%
Life annuity	0%	100%	0%	100%	0%	0%	86%	14%	0%
Total	0%	62%	38%	60%	13%	28%	47%	23%	30%

Source: CAA, registers of the aldermen, nr. 97-98.

Figure 1. The Duchy of Brabant in the Medieval Low Countries. With indication of the four capital cities (© Iason Jongepier, GISHistorical Antwerp, UA Antwerpen/Hercules Foundation).

