EED Working Paper Series

Working Paper 2013-1

Two contrasting experiences. The rural land market in sixteenth century Flanders and Brabant

Nicolas De Vijlder

Work in progress, please do not quote

Abstract

The development of factor markets during the transition from the middle ages into the early modern period was of crucial importance for long term economic growth. However, especially in the Southern Low Countries, the land market remains understudied. In this paper I focus on the late sixteenth-century rural land market, using two case-studies each consisting of three parishes. A first case-study is formed by the parishes of Sleidinge and Evergem situated inland-Flanders near the city of Ghent. The second cases-study comprises the parishes St-Kathelijne Lombeek, Wambeek and Ternat and is located about ten kilometers from Brussels. Our preliminary research garnered several interesting results. Although both casestudies are part of the larger agrosystem of Inland Flanders, market activity (type of plots sold, average acreage sold, yearly turnover etc...) differed greatly between the two regions. Our analysis shows that these contrasting experiences can be explained by a combination of institutional, socio-economic and geographical factors.

Keywords

JEL codes : N13, N33 and N93, P13, P25



Economy, Ecology, Demography Research Group, Ghent University www.eed.ugent.be

Table of content

Table of content	1
Introduction-Research question	1
Overzenne and Evergem. Same region but miles apart?	6
Dukes, counts and ecclesiastical institutions: the feudal and administrative context	7
Landscape & geography	8
Economy & society	11
Farm size, property distribution and social inequality	15
Two mid-sixteenth century land-markets compared	20
Market activity & turnover	20
Types of land transferred	23
Conclusion	25

Introduction-Research question

By the end of the middle ages, the Southern Low Countries are considered to be amongst the most densely urbanized regions in Western Europe. With over a third of the population living in towns and cities, it is not unsurprising that Belgian socio-economic historians have since long focused their research agenda on the urban environment. In the past three decades however, a renewed interest in rural history has been noticeable. This evolution came in response to a reinterpretation of rural history 'from below' which developed in both France and England during the seventies. With proponents as Guy Bois and Emmanuelle Le Roy Ladurie on the one hand and Richard Hoyle, Michael Postan and Robert Brenner on the other, awareness for the socio-economic conditions in the countryside was sparked amongst social and economic historians alike. The latter's Marxist analysis of the late medieval and early modern rural society ignited a fierce debate on the origins of agrarian capitalism in north-Western Europe. Especially the driving force behind the commercialization of the countryside was up for discussion. For Brenner, the 'rise of the rural market' could be explained through the concept of power-relations. He (and others) argued that because of expropriation and population pressures, peasants were forced to interact with the market since their livelihood could no longer be sustained by their farms' revenues.¹ From a New Institutional Economics (NIE) approach, the surge in market activity could be explained by the disappearance of several institutional constraints, such as the disappearance of communal land or the decreased grip of the extended family on the land, and the formalization of property rights.² Due to the widely divergent analyses presented by both approaches, historical factor markets quickly became a field of their own. In particular the distribution of property and the ownership of

¹ Brenner R., 'Agrarian Class Structure and Economic Development in Pre-Industrial Europe' In: *Past & Present*, 70, 30-75. 2 Van Bavel B.J.P., Manors and Markets, Oxford, 2010, pp. 162-178; Howell M., Commerce before capitalism in Europe, 1300-1600, Cambridge, 2010, p.49-50; North D.C., Structure and change in Economic history, New York, 1981.

the means of production became one of the major research lines on which rural historians have been focusing on during the past quarter of a century.

For some time now, the general developments concerning the distribution of property within the late medieval and early modern society have been well established.³ While some local disparities (e.g.) might occur, the broad trend goes as follows. Roughly between the end of the Black Death and the start of the seventeenth century, a redistribution of property between social groups occurred throughout large parts of north-Western Europe. In time this evolution led to a more market-oriented form of agriculture. The larger estates produced surpluses which were sold on the market, whereas cotters (for their survival) generated other forms of revenue to sustain in their subsistence. These strategies could range from producing cash-crops such as flax or hops, working as labourers on nearby farms, developing proto-industrial activities themselves or a combination of all the above. Of course, the route of survival that was chosen, depended largely on the economic context.⁴ In inland Flanders and South Brabant, the absence of large farms and a high degree of urbanization, created the ideal prerequisites for producing cash-crops and developing proto-industrial activities as alternative income-yielding strategies.⁵ In coastal Flanders on the other hand, working as a farmhand was predominant due the presence of large-scale market-oriented farming.⁶

As a counterpart to the above-mentioned redistributions-processes, land markets grew impressively over the course of the fourteenth, fifteenth and sixteenth centuries. By no means do I suggest that before the Black Death, factor markets were completely absent from society. Over the past decennium, several British historians pointed out that the twelfth and thirteenth century were periods of intense commodification.⁷ However, both the scale, intensity and impact of the aforementioned developments would, in the long run, redefine economic and social structures. Furthermore, not only property was transferred through market-like institutions. In a cash-struck society, credit was needed to sustain land transactions. Recently, Bruce Campbell even stated that the availability of credit can be considered a *conditio sine qua non* for an active land market. Consequently, following the continuously-growing land market, credit expanded as well.

These evolutions, however, are merely the end result of an aggregation of hundreds of thousands of (trans)actions between economic actors over time. These actions themselves were triggered by elements either endogenous of exogenous to the local economy. The distribution of

³ See for example the recent overview edited by Bas Van Bavel and Richard Hoyle: Van Bavel B.J.P. and Hoyle R., Social Relations, property and Power, Rural economy and society in North-Western Europe, 500-2000. Turnhout, 2010.

⁴ Thoen E., "A 'commercial survival economy' in evolution. The Flemish countryside and the transition to capitalism (Middle Ages - 19th century)" In: Hoppenbrouwers P. C. M. en Van Zanden J. L., *Peasants into farmers? The transformation of rural economy and society in the Low Countries (Middle Ages-19th century) in light of the Brenner debate*. Turnhout 2001; Vandenbroeke C., Sociale geschiedenis van het Vlaamse volk, Leuven, 1984.

⁵ Thoen E., 'Social agrosystems' as an economic concept to explain region differences. An essay taking the former county of Flanders as an example (Middle Ages - 19th century). In: Hoppenbrouwers P. and Van Bavel B.(eds.), *Landholding and land transfer in the North Sea area (late*

Middle Ages - 19th century). Turnhout, 2004, pp.37-39. Thoen E., 'A commercial survival economy'.

⁶ Van Bavel B., 'Early Proto-industrialization in the low countries? The Importance and Nature of Market-Oriented Non-Agricultural Activities on the Countryside in Flanders and Holland, c. 1250- 1570', *Revue belge de philology et d'histoire*,2003, 81.4, pp.1109-1165. and P. van Cruyningen,'Vrouwenarbeid in de Zeeuwse landbouw in de achttiende eeuw', *Tijdschrift voor Sociale en Economische Geschiedenis*, 2005, 2, 3 pp.45-59.

⁷ Britnell R.H.,The commercialization of English society 1000–1500, Cambridge, 1993; Britnell R.H., and Campbell B.M.S.(eds.), A commercializing economy: England 1086–c.1300, Manchester, 1995; Masschaele J., Peasants, merchants, and markets: inland trade in medieval England, 1150–1350, New York, 1997; Dyer C.C., Making a living in the Middle Ages: the people of Britain, 850–1520, New Haven and London, 2002; And Campbell B.M.S., Factor markets in England before the Black Death Continuity and Change, 2009 vol. 24 (01) pp. 79-106.

property, the feudal structure, soil quality and the legislative framework are all examples of elements endogenous to the local community. Crop failures as a result of marauding and pillaging armies or increased mortality due to epidemics are exogenous shocks. Whilst being an integral element of the late medieval and early modern economy they had, due to their very nature, very disruptive effects for the status quo. Several scholars have for example noticed a high correlation between activity on the land market en grain prices, with the highest number of transactions recorded in years of dearth.⁸ Recently, the causal relationship between the asset management of households with respect to their risk-coping and life-cycle strategies on the one hand and growing inequality on the other has only been falsified empirically.⁹

However, how elements endogenous to the local economy shaped the land market are much less studied. In this paper, a comparative approach will be used in order to comprehend how, why and to what degree certain structural elements had an impact on the local land market. The analysis of the land-market itself will be focussing on three elements; market activity and yearly turnover, the types of plots transferred and finally actors on the land market. The remainder of this paper is structured as follows. First, a short note is given on the selection of the case-studies and the sources I've used. This is followed by a pairwise analysis of the economic, social and geographical structure of the case-study (e.g. of the elements endogenous to the area). Subsequently, I'll discuss the characteristic features of the land market in both localities and how they were influenced by the endogenous factors described earlier. Finally, a short conclusion is presented.

Case-studies and sources

This paper will present research on the sixteenth-century land market in the ducal domain of Overzenne and the manor of Saint Bavon, owned by the bishops of Ghent. The later case-study consists of three parishes near Ghent in the county of Flanders whereas the former entails three communities some 10 kilometres south-west of Brussels on the border of the duchy of Brabant and the county of Flanders. They were selected for a number of reasons. First, they each had to have sufficient discriminatory elements without making a comparative approach completely irrelevant. As such, the domain of Overzenne and the manor of Saint Bavon differ extensively in geographical terms, but very little in their spatial position to nearby cities. In the next section, I will elaborate more extensively on these elements. Second, sufficient source material had to be present for both case-studies and the source material had to be representative for the wider region around the locality. Furthermore, research-results had the be comparable, which implies a limited temporal lag (preferably none whatsoever) between the sources for both case-studies. .

Traditional research on the peasant land market is highly depended on the use of legal documents to track land sales. For example, most of the aforementioned research concerning

⁸ Schofield P.R., 'Dearth, debt and the local land market in a late thirteenth-century village community', In: *Agricultural History Review*, 45 (1997), 1–17; Hudson W., 'The prior of Norwich's manor of Hindolveston: its early organization and the right of the customary tenants to alienate their strips of land', In: *Norfolk Archaeology* 20 (1919–1920), 179–84; Davies M., and Kissock J., 'The Feet of Fines, the land market and the English agricultural crisis of 1315 to 1322', In: *Journal of Historical Geography*, 30 (2004), 215–30.

Bekar C.T., and Reed C.G., 'Open fields, risk, and land divisibility', In: Explorations in Economic History, 40 (2003), 308-25.

⁹ Using on the distribution of property between the Domesday survey (1086) and the Hundred Rolls (1279-1280) book and the Hundred Rolls Clyde Reed and Cliff Bekar, 'Land Markets and Inequality: Evidence from Medieval England' Simon Fraser University, Department of Economics Working Paper nr. 12-14, 2012.

England has been based on the in-depth analysis of manorial court rolls.¹⁰ Similarly, most research on the Low Countries used aldermen registers or sources derived thereof to asses market activity.¹¹ These sources contain detailed information about a vast array of (legal) transactions between private persons and hence make a logical starting point at first. However aldermen registers have some significant drawbacks as well. Since all voluntary jurisdiction was being recorded in the registers, only a small proportion of the records actually concerns the transfer of land. The majority of the minutes deal with minor disputes, small legal claims of rent transactions. Furthermore, while the aldermen registers of major cities in the Southern Low Countries are available from as early as the fourteenth century, this is not the case for localities in their hinterlands. In rural Flanders, Brabant and Hainaut, most aldermen registers are only fragmentarily preserved from the midsixteenth century on. Hence, a year-to-year view of the land market would only be possible from the start of the seventeenth century onwards. Finally, whenever burghers bought or sold land in the countryside, these acts would be executed before the aldermen bench of their respective towns and not necessarily the aldermen bench of the locality where the land was situated. Hence, urban landowners are underrepresented in rural aldermen registers. This is obviously an especially pressing problem in densely urbanized regions such as early modern Flanders and Brabant.¹² Because of these elements, other sources had to be used in order to gain insight into the rural market for land.

Manorial accounts do not possess the above-mentioned drawbacks. They are well preserved for rural manors scattered across Flanders and Brabant form the early fifteenth century onwards. The revenues of several seigniorial rights furthermore provide us with a direct insight into the land market on the one hand and the general economic, social and demographic condition of the locality on the other. The *mortemain* or *dode hand* right (which entitled the lord to the best piece of movable property of the household after the death of a copyholder) can for instance be used to reconstruct demographical trends.¹³ Likewise, rents, lease and tithe revenues (which were often monetized by late fifteenth century) can be used to trace yield variations and reconstruct prices series for both land and agricultural produce. In a similar fashion, the market for land can be explored by using the revenues from the *pontgeld* (in Brabant) or *markgeld* (in Flanders). Both manorial rights were

¹⁰ Schofield P.R., Manorial Court Rolls and the peasant land market in Eastern England. C.1250-c.1350. In: Feller L. and Wickham C .(eds.), Le Marché de la Terre au moyen Age, École française de Rome, 2005, 237-271.

¹¹ Scheelings F.G., 'Pachtprijzen in midden- en zuidwest-Brabant in de zestiende eeuw. Enkele methodologische beschouwingen bij het schetsen van een landbouwconjunctuur', In: *Bijdragen tot de geschiedenis*, LXV, vol. 1-2, Antwerpen, 1982, pp. 41-64. and Daelmans F., Pachten en welvaart op het platteland van Belgisch Brabant. (15e-18e eeuw). In: *A.A.G. Bijdragen*, 1986, pp. 173-175; Thoen E., Landbouwekonomie en bevolking in Vlaanderen gedurende de late Middeleeuwen en het begin van de Moderne Tijden. Testregio: de kasselrijen van Oudenaarde en Aalst, Gent, 1988, pp.112-114 and p.1119; Vandewalle P., Le marché immobilier dans la région de Dunkerque, 1590-1900. In: Dorban M. and Servais P., Les mouvements longs des marches immobiliers ruraux et urbains en Europe (XVIe-XIXe siècles), Louvain-la-Neuve, 1994, pp.9-30; Van Maelzaeke B., 'De financieel-economische politiek van het hospitaal in de 15de en 16de eeuw' In: *Geschied- en Oudheidkundige Kring van Oudenaarde en van zijn Kastelrij en van den Lande Tusschen Maercke en Ronne, 29*, 2002, pp.261-292; Limberger M., 'Credit, the land market and the connection between the rural and urban economy. The use of Perpetual annuities in Aartselaar (Brabant) from the fourteenth to sixteenth century. In: Schofield P.R. and Lambrecht T., *Credit and the rural economy in North-western Europe, c.1200-c. 1850.* Turnhout, 2009, pp.63-74. De Wever F., 'Rents and Selling Prices of Land at Zele, Sixteenth-Eigteenth Century.' In: Van der Wee H., (ed.), *Productivity of land and agricultural innovation in the Low Countries*, 1250-1800. Leuven, pp.43-65.

¹² Thoen E., Lanbouwekonomie en bevolking in Vlaanderen gedurende de late Middeleeuwen en het begin van de Moderne Tijden. Testregio: de kasselrijen van Oudenaarde en Aalst. Gent, 1988, p.3.

¹³ Erik Thoen, Lanbouwekonomie en bevolking in Vlaanderen, p.18-19; Blockmans W.P., 'The social and economic effects of plague in the Low Countries, 1349-1500', In: *Belgisch tijdschrift voor filologie en geschiedenis*, 1980, pp. 835-863.

conveyance taxes (generally between 5% and 6.25% of the transaction price) one had to pay when either selling real-estate or when rents were issued on property. As a result, this particular revenue entry gives an instant overview of market activity in a single year. Note that these taxes were not due on every type of land. Only on cijnsgronden (copyhold for lack of a better word) either pontgeld of markgeld had to be paid. Hence, not every land transaction in a particular locality is recorded. The transmission of freehold land consequently escapes the scope of this source. This furthermore sets an additional criterion for the selection of our case-studies, since the total amount of copyhold of the manor should be representative for the entire locality. The local bailiff or steward (depending on local customs or ad-hoc arrangements) was responsible for the collection of the aforementioned tax. Hence, the individual transactions on which pont- or markgeld was due, were listed in either the manorial or bailiff accounts. In order to avoid fraudulent behaviour and safeguard the proper registration of the revenues, the local steward or bailiff was frequently granted a percentage of the revenues of the *pontgeld* as part of his remuneration. Nonetheless, the information contained within the records of these transactions could differ quite strongly, depending on the diligence of whomever was responsible. Nevertheless, some fundamentals could always be extracted regardless of the case study. This comprises the surface area of the transferred plot, the type of plot, the parish it was situated in, the sale price, whether rents were established on the plot (and if so to what amount) and the names and surnames of the contracting parties. In the case of Overzenne, the local steward always indicated whether the sale of land occurred as a result of a decease.14 The amount detail provided improved substantially as time progressed. By the middle of the sixteenth century, in most cases additional toponyms concerning the location of the plot were provided, as well as the owners of the neighbouring plots and the closest blood relatives of both buyers and sellers.

Additionally, the accounts of Alva's 20th- penny tax will be used to gain insight into the social and economic structure of both communities.¹⁵ This tax, which was implemented in the 1570s, brought along a major fiscal reform in the Low Countries.¹⁶ For the first time personal wealth, both movable and immovable, was taxed to augment the nascent Spanish state's income. Direct taxes did exist before the second half of the sixteenth century, but were mainly based on population figures to divide royal taxes between the municipalities. At the local level, the most frequent form of taxation was indirect, namely a variety of excises on consumption goods and basic foodstuffs.¹⁷ Although the goal of this tax reform was to create a long lasting unified fiscal system within the Spanish Netherlands, the attempt remained short lived. Not unsurprisingly, since Wim Blockmans describes the fiscal system in the sixteenth century as follows: 'The administration of taxation in the Valois and later Habsburg territories in the Low Countries was partially unified from 1470 onwards, but after the 1520s the provinces reverted once again to their distinctive fiscal systems. The

¹⁴ State Archives Brussels (SAB), Chamber of Accounts, Manorial Accounts of Overzenne, 4738-4742.

¹⁵ City Archives Ghent (CAG) Series 28, Penningkohieren, St Kathelijne Lombeek and Sleidinge

¹⁶ Limberger M., 'Mapping fiscal land values. Alva's 100th-penny tax and its use as a source for the reconstruction

of land values in the Low Countries in the sixteenth century'. Paper presented at the symposium: The

Economic History of the Low Countries before 1850, Antwerp, 2004, p.2-4.

¹⁷ Arnould M.A., 'L'impôt sur le capital en Belgique au XVIe siècle' In: *Le Hainaut économique*, 1946,I, pp. 19-20; Van Aelst T., De Antwerpse stadsfinanciën tijdens de Calvinistische Republiek (1577-1585). Unpublished master dissertation, Ghent University (2000), promotor Prof. Soly H., pp.134-135.; Kreglinger A. Notice historique sur les impôts communaux de la ville d'Anvers, Brussel, 1845, PP. 104-105; 't Hart M. and Limberger M., Staatsmacht en stedelijke autonomie. Het geld van Antwerpen en Amsterdam (1500-1700), In: *Tijdschrift voor Economische en Sociale Geschiedenis*, 2006, 3, p.43.; Limberger M., The making of the urban fiscal system of Antwerp until 1800. Excises, annuities and debt management, Utrecht, 2009, Paper presented at the World Economic History Congress, p. 17.

attempts of the central government to control the regional and local receivers were largely unsuccessful. [...] Local and regional particularism continued to characterise the [...] fiscal systems which emerged after the revolt'.¹⁸ The accounts of the aforementioned tax provide vital information as to the land market in the Southern Netherlands in the second half of the sixteenth century. First, combining total population figures with the tax lists allows us to reconstruct the social property distribution within the parish. Second, since every household's property portfolio (both free- and leasehold) was recorded, the average holding and plot size, as well as the distribution between leasehold and freehold within a parish can be calculated.

The combination of the aforementioned sources allows us an in-depth comparative analysis of the dialectic relationship between the rural economy and the land market. Using the accounts of the 20^{th} penny tax we can reconstruct the property distribution within the parishes. Correspondingly, the manorial accounts will be used to apprehend the specificity of the land market in both case-studies.

Overzenne and Evergem. Same region but miles apart?

The main research question that will be addressed in this paper is how the socio-economic structure of a community interacted with the market for land. As noted before, this was not a one-way street. The market for land could in the long run transform the socio-economic structure of the locality. Yet, in order to achieve insight in the later process, first order of business is to comprehend the former. Nonetheless, this positive-feedback loop will be taken into account throughout our analysis.

The socio-economic structure of the localities is by itself and complex interplay between a host of features, whom at the first sight are typical for a certain region (e.g. soil quality, production methods labour relations etc..) The concept of 'social agrosystems' provides us with an analytical framework that allows us to explore the interaction between these different elements. Developed by Erik Thoen, a social agrosystem 'is a rural production system based on the region-specific social relations involved in the economic reproduction of a given geographical area'.¹⁹ Whereas other conceptual frameworks such as agrosystems (developed in the eighties by agronomists), only focus on the technical mode of production, Thoen tries to incorporate social and structural elements in his analysis. The soil and the environment, the power structures and social relations, the holding size, the labour relations and income strategies, the technology used and finally the interaction with other economic regions are considered to be the six elements key to describe and distinguish social agrosystems. In order to assert to what degree the socio-economic structure of both our casestudies differ, the conceptual framework of the social agrosystems will be used as a starting point. However, not all elements mentioned above will be taken into account. For example, agricultural technology will not be taken into account explicitly, since technological differences between both regions are very likely to be non-existent. Furthermore, elements concerning the distribution of wealth, agricultural exploitation and income strategies shall be discussed together. Finally,

¹⁸ Blockmans W. 'The Low Countries in the Middle Ages', In: Bonney R.(ed.), The Rise of the Fiscal State in Europe, c.1200-1815. Oxford, 1999.

¹⁹ E. Thoen 'Social argosystems' as an economic concept, pp48-51.

concerning the linkages with other economic regions, we will limit ourselves to the relations and interaction between the respective case-studies and their closest towns.

Dukes, counts and ecclesiastical institutions: the feudal and administrative context

As stated earlier, two case-studies will be used to analyse the interaction between factor markets and their broader socio-economic and geographical context. Our first case-study concerns three parishes (Wambeek, Saint-Katherina Lombeek and Ternat) in South Brabant, approximately 15 kilometres west of Brussels. Together with Asse, Kapelle-op-den-Bos, Hombeek, Zemst, Merchtem, Liezele, Lippelo, Malderen, Steenhuffel Wolvertem (partly) and Rossem, they form the ducal domain of Overzenne.²⁰ While the Duke collected 5% of the value of the transaction in his other Brabantine domains (for example the manors of Tervuren and Vilvoorde), this wasn't the case in the domain of Overzenne. As the result of an interesting institutional arrangement between the first secular lords of the aforementioned parishes and the duke of Brabant, the revenues of the *pontgeld*, whilst being collected by the ducal administration, had to be shared with the local lord. Thus, the revenues recorded in the manorial accounts only accounted for 2,5% of the total price.²¹

During the early middle ages Ternat, Wambeek and St-Katherina Lombeek belonged tot the domain of the Saint-Gertrude abbey in Ninove. However, the manor was sold during the high middle ages to the Van Wezemaals who constructed the first castle *Kruikenburg / Cruquenborg* in Ternat. Henceforward, the manor would be known as the manor of *Kruikenburg*. By the end of the fourteenth century, the Van Wezemaals had run into financial trouble and were forced relinquish their rights and sell the property.²² Its new owners, the 't Serclaes family, were prominent burghers from the nearby Brussels. By this time, the domain had a surface area of 2750 hectares of which 680 hectares were heath and woodland.²³ They held onto the property throughout the fifteenth and well into the sixteenth century but by 1562 the manor changed hands again, this time through marriage. In 1562 Charles de Fourneau, son of Simon de Fourneau old chamberlain of Charles V, was joined in marriage with Maria van Ghijn, lady of Kruikenburg.²⁴ For the remainder of the *Ancien Régime* the manor of Kruikenburg remained in the hands of the de Fourneau family.

The second case-study consists of two parishes (Sleidinge and Evergem) belonging to the former manor van St-Bavon, situated approximately 10 kilometres to the north-west of Ghent. Since the abbey of St-Bavon was dissolved by royal decree in 1540, its properties were transferred to the diocese of Ghent and the entity was renamed the duchy of Evergem. The designations 'the manor of St Bavo', 'Sleidinge-St Bavo' and 'Evergem St-Bavo' however, remained to be used throughout the sources.²⁵ Consequently, the origins and development of Sleidinge and Evergem cannot be seen

²⁰ Ockeley J., Het domein Overzenne in het kwartier Brussel, ESDB NUMMERING VOLGT pp. 654-655

²¹ SAB, Chamber of Accounts, Manorial Accounts of Overzenne, 4733-4742.

²² De motte in Ternat, in historisch-geografische context.

²³ Verbesselt J., 'Het kadaster, studiebron voor dorpsgeschiedenis, Wambeek, Ternat en Sint-Katherina-Lombeek', In: *ESB*, 1986,69, pp. 296-315.

²⁴ Scheelings F., Pachtprijzen in midden-en zuidwest- Brabant in de zestiende eeuw. Enkele methodologische beschouwingen bij het schetsen van een landbouwconjunctuur', In: Bijdragen tot de geschiedenis, 1982, 65, pp. 41-64.

²⁵ State archives Ghent (SAG), St-Bavo archives, Accounts of *wandelkopen*, in Evergem, Wondelgem en Sleidinge, B 3068-3078.

apart from the development of the abbey of Saint-Bavon. There are clear indications that the abbey of St-Bavon led the exploitation of this region from the 10^{th} century onwards.²⁶

By the middle of the sixteenth century, the feudal structure of both parishes was as follows. Sleidinge could roughly be subdivided in two large parts, Sleidinge-St Bavo (approximately 1220 ha) and Sleidinge-*Keure* (comprising 801ha).²⁷ . The former was part of the old manor of St-Bavon, while the latter was part of the *Keure* of Desteldonk, belonging to the domain of the count of Flanders.²⁸ Evergem can be divided in three main parts. The hamlet of Belsele, to the west of the village centre, was part of the manor of Vinderhaute. This area was originally part of the estate of St-Bavon, but during the invasion of the Normans the area was abandoned. When possessions of the abbey were reinstated in 966, not all land could be recovered.²⁹ To the north east of the centre lay the neighbourhood Doornzele which, like Sleidinge-*Keure*, belonged to the *Keure* of Desteldonk (see map 2).³⁰ The remainder Evergem, compromising 2550 hectares or about three quarters of the parish, was part of the county of Evergem. Thus, the surface area of this case study amounts to approximately 3770 hectares.

In addition, there were several small enclaves within the aforementioned larger territorial entities, which were manors in their own right. In contrast to the county of Evergem, *de Keure* van Desteldonk or manor of Vinderhaute which held low, middle and high justice, these manors frequently had no jurisdictional rights whatsoever, consequently they resorted under the jurisdiction of the surrounding larger manor.³¹ Not at all unexpected since most of the time, these manors were a fief of the county of Evergem.

Landscape & geography

The feudal structure in both our case-studies shows great similarities. In terms of geographical context however, there are some striking differences with far-reaching consequences. After all, elevation, soil quality and waterways not only define the landscape but determine the potential agricultural output as well. Hence, they had a large impact on the economic structure of the locality. The first case-study, compromising Wambeek, Saint-Katherina Lombeek and Ternat is neatly girded by the Dender to the West and the Senne in the East. The parishes themselves are traversed by a dense structure of brooks, creeks and smaller waterways.

²⁶ Verhulst De Sint-Baafsabdij te Gent en haar grondbezit, 7e-14e eeuw: bijdrage tot de kennis van de Structuur en de uitbating van het grootgrondbezit in Vlaanderen tijdens de middeleeuwen p. 241 ev.

²⁷ CAG, Series 28.Penningkohier Sleidinge, Verwerkt en uitgegeven door Luc Neyt, Notteboom H., Neyt L. e.a., Geschiedenis van Sleidinge, 2006, p. 170.

²⁸ Ibid., p. 25.

²⁹ De Vos A.(werkgroep), Geschiedenis van Evergem, 1994, pp. 61-62 ; Notteboom H., Neyt L., Geschiedenis van Sleidinge, pp. 25-27.

³⁰ De Vos A. (werkgroep), Geschiedenis van Evergem, p. 66.

³¹ Ibid., p. 67.



Map 1: Digital height model Ternat, St-Katherina Lombeek and Wambeek.³²

As with the remainder of South-west Brabant, they are furthermore characterized by a sloping countryside. Elevation fluctuates rather strongly in this case-study, as can be seen in map 1(dark grey indicates depressions, the lighter the colour the higher). The wet meadows (*meersen*) of Saint-Katherina Lombeek are located 20 meters above sea-level, whereas Wambeek and the hamlet *Ter Linden* are situated roughly 30 meters higher. The subsoil consists largely of loam, ranging from wet sandy loam in the North to plain loam in the South. A wetter soil consistency can be found near brooks such as the 'Muggenbeek', 'Kasteelbeek' and 'Molenbeek'. Its high propensity to retain nutrients in combination with good drainage qualities, make this soil-type highly fertile. Around the middle of the thirteenth century, around a quarter of the domain was still covered in woodland and heath. The most drastic change of soil exploitation (and at the same time the most drastic increase in available arable land) within these localities took place during the second half of the thirteenth century, as a result of population pressures, when large strips of wood-and heathland (*wastinae*) were gradually converted into cultivated land. Hereafter, the total surface area of the three parishes covered with woodland and heath decreased to about 4,8 square kilometers.³³

Our second case-study, consisting of Evergem and Sleidinge, was located in the county of Flanders, where it borders the neighbouring city of Ghent to the north-west. Unlike the domain of Overzenne, the general topography in north-Flanders is rather flat. On average, the two localities are located a mere six meters above sea-level, with a maximum altitude difference of two meters.

³² http://geo-vlaanderen.agiv.be/gdiviewer/

³³ Verbesselt J., 'Het kadaster, studiebron voor dorpsgeschiedenis', pp.298-310.



Map 2: Digital height model Evergem and Sleidinge.³⁴

The soil structure nevertheless consists of an alternation between minor depressions and dry and sandy ridges, a result of aeolian sand depositions.³⁵ A comparable soil composition can be found throughout the former castellany of Oudburg, to the north of Ghent.³⁶ As in the domain of Overzenne, these parishes were intersected by several brooks and creeks. The *Langebeek* for example, forms the border between Sleidinge and Evergem.³⁷ The *Kale* likewise forms the border between Evergem and the nearby Wondelgem.³⁸

Due to a combination of the soil composition and the abundant presence of small streams and ditches throughout our case-study, the landscape in Evergem and Sleidinge was dominated by marshes and swamps interspersed by narrow and dry stretches of land. For example, during the middle ages approximately half of Sleidinge was still marshy, particularly the neighbourhoods *Berrent* and *Broek* belonging to Sleidinge-*Keure*. Occupation was then still concentrated on the dryer but sandier Sleidinge St-Bavo.³⁹ Due to increasing population pressures in the late fourteenth and fifteenth century, the development of de damper regions of the three parishes took off. Nevertheless, inundations (in particular in the vicinity of larger streams such as the *Kale* and the *Sassche Vaart*) proved to be a yearly nuisance.⁴⁰ By the end of the seventeenth century, local

³⁴ http://geo-vlaanderen.agiv.be/gdiviewer/

³⁵ Geschiedenis van Evergem p 3-4.

³⁶ De Wever F., Pacht-en verkoopprijzen in Vlaanderen (16de-18de eeuw). Bijdrage tot de conjunctuurstudie tijdens het Ancien Régime, *Tijdschrift voor geschiedenis*, 1972, 85, pp. 249-273 (p. 251).

³⁷ Notteboom H., Neyt L., e.a., Geschiedenis van Sleidinge, Sleidinge, 2006, pp.84 ev.

³⁸ De Vos A. (werkgroep), Geschiedenis van Evergem, Evergem, 1994, p.3

³⁹ Notteboom H. en Neyt L., Geschiedenis van Sleidinge, pp. 15-18.

⁴⁰ Notteboom H. e.a., Geschiedenis van Sleidinge, pp 84-87; De Vos A., Geschiedenis van Evergem.

landowners urged the sovereign and his representative in the Spanish Low Countries, Maximilian II Emanuel, in a petition to tackle this aforesaid problem. After an enquiry by the *Raad van Vlaanderen*, works started on a sluice and the dredging of several streams.⁴¹

The preceding shows that both case studies are characterized by a very distinct geographic area. The villages of the first case-study are nestled in a hilly region, with a very fertile subsoil. Small streams ensured the presence of fertile meadows in the valleys. The parishes of Sleidinge and Evergem on the other hand, were situated in flat regions with a predominantly sandy substrate. The soil was consequently less fertile, resulting in lower yields per acre. Furthermore floods proved to be a reoccurring problem, especially since streams and ditches were poorly maintained.

Economy & society

To which degree did the geographical context had an impact on the agricultural exploitation of both cases? This question will be assessed using four parameters: land allocation, property distribution and types of farming, population pressure and the interaction with the nearby town(s).

Contrary to the surrounding regions of South East Brabant and inland Flanders, population pressure in the domain of Overzenne was nearly absent during the fifteenth and sixteenth century. During the fifteenth century, on average about 250 hearths were counted. During the political and military troubles of the last quarter of the fifteenth century, population decreased by 6.25 percent between 1480 and 1496. This is quite remarkable since in the south of the county of Flanders and the countryside around Leuven, two areas flanking this region respectively to the East and West, the rural population declined between 35-50 per cent during the same period.⁴² Even the surrounding parishes in the west of Brabant were apparently struck harder than the domain of Overzenne.⁴³ As was the general tendency in the Southern Low Countries during the first half of the sixteenth century, the population recovered from this late medieval demographic crisis. The number of

hearths in Wambeek, Ternat and St-Katherina-Lombeek rose, from 225 hearths in 1496 to 274 hearths in 1526. Still, when comparing figures between the first half of the fifteenth and the first half of the sixteenth century, the population in our test-region grew only modestly from 1.285 to 1.525 inhabitants.⁴⁴ This results in an average population density of approximately 54 people per square kilometre.

⁴¹ De Potter, F. Geschiedenis van de dorpen van Oost Vlaanderen, Evergem, 1870, p. 16.

⁴² Cuvelier J., Les dénombrements de foyers en Brabant XIVe-XVIe siècle, Bruxelles: Kiessling et

Imbreghts, 1912, p452-453 and Thoen E, Landbouwekonomie, p.113.

⁴³ Population in other West-Brabantine parishes declined on average with 30-35 per cent. See: Daelemans F., Boeren in oorlogstijd, de sociale economische en demografische gevolgen van de oorlogen op het platteland in Brabant (15e-18e eeuw). In: *Mensen in Oorlogstijd*, Brussel, 1988.

⁴⁴ During the same period, rural households in inland Flanders had on average between 2,25 and 3,35 children. Consequently, population number were calculated using an estimation of 5 people per hearth. (Thoen E., Landbouwekonomie, p.113 and p.1119.

-				
	domain of Overzenne	pop/km²	county of Evergem	pop/km²
1401-1450	1285 (1436)	46.14		
1451-1500	1125 (1492)	40.39	2104 (1469)	59.27
1501-1550	1255 <i>(1526)</i>	45,63	1746 (1501)	49.18
1551-1575	1230 (1573)	44,72	2790 (1572)	78.59
1576-1600	623 (1592)	22,65	1886 (1594)	53.13

Table 1: Estimated population and population pressure , domain of Overzenne and county of $\mathsf{Evergem}^{45}$

Early population data concerning our second case study are scarce. The first more or less suitable data for the county of Flanders date from 1469, when a hearth count was held.⁴⁶ By the middle of the fifteenth century, the county of Evergem (Evergem St-Bavo and Sleidinge St-Bavo) inhabited about 526 families or 2104 people (see table 1). With about 400 hearths, the parish of Evergem entailing Evergem St-Bavo and the hamlets Belsele and Doornzele, was by far the most populous village in the castellany of Oudburg.⁴⁷ Their proximity to Ghent made both parishes furthermore popular with affluent burghers. From the middle of the fourteenth century we have clear indications that several of them owned property, ranging from small tracts of land to large leasehold farms.⁴⁸ By the final quarter of the sixteenth century one fifth of the parish of Sleidinge was owned by urban patricians or burghers.⁴⁹ This is in stark contrast to the domain of Overzenne, where the number of urban property-owners remained limited to a few exceptions.⁵⁰ However, the proximity of Ghent also had its downsides. During the final decades of the fifteenth century, population declined sharply (minus 17 percent over the course of thirty years) as a result of the marauding armies, who were expected to break the Ghent uprising against Maximilian of Austria. Between 1488 and 1493, several farmhouses were burnt down by the count's forces, destabilizing the viability of the countryside. Take for example the leasehold farm 'Het Goed ter Hooiwege' otherwise known as the 'Stenen Duivenkete', since the early fourteenth century owned by the Wenemaers Hospital in Ghent. This farm came with arable land and meadows totalling to 27 hectares which made it one of the few large farms in the community of Sleidinge. However, political turbulence of 1488-93 had taken its toll on the farmstead. In 1490, the main house, barn and several other outbuildings were burnt down by Picardic forces.⁵¹ Only after the peace treaty of Cadzand did the hospital deem it appropriate to rebuild some of the buildings. Although peace was restored, economic recovery was slow. For the remainder of the fifteenth century, the lease would be significantly lower or even waived completely.⁵² Likewise practices can be found in the countryside

⁴⁵ Sources: Domain of Overzenne - Cuvelier J., 'Les dénombrements de foyers en Brabant (XIVe-XVIe siècle)', *Académie royale de Belgique*, Brussels, 1912, pp. 452-453. And Herpelinck H.J., De heren van Kruikenborg, Wetteren, 1993, p 237.. For the County of Evergem own calculations using: De Vos A.(werkgroep), Geschiedenis van Evergem, p. 94 en p. 200-2005. Notteboom H. e.a., Geschiedenis van Sleidinge, pp.121-134

⁴⁶ As was previously the case, the number of hearths were multiplied with 5 to attain the total population.

⁴⁷ Those 400 hearths represent more then 11 percent of the total population of the castellary of Oudburg. De Vos A., Geschiedenis van Evergem, p.94.

⁴⁸ Notteboom H. e.a., Geschiedenis van Sleidinge, pp156 ev.

⁴⁹ Ibid. p. 170. This is comparable to earlier findings of c.1570, Van Den Abbeele, 1985.

⁵⁰ SAG, St-Bavo archives, Accounts of *wandelkopen*, in Evergem, Wondelgem en Sleidinge, B 3068-3078.

⁵¹ Notteboom H. e.a., Sleidinge, p. 161.

⁵² Ibid.

around Bruges, where the local St-John hospital waived the rent of large tenant farmers during periods of economic downturn. 53

Over the course of the sixteenth century population recovered strongly. By 1572, the county of Evergem had an estimated population of 2790 inhabitants, resulting in an astonishingly high population density of 78 souls per square kilometre. Yet, the final quarter heralded a new population decline, this time as a consequence of the Spanish war effort against the Calvinistic administration in Ghent between 1577 and 1584. A new hearth count at the start of the seventeenth century (1604), showed the recovery was already under way. The start of the seventeenth century recovery was already well under way, since a new hearth count estimated the number of inhabitants in the Sleidinge St Bavo and Evergem around 2295.

By the start of the seventeenth century, land allocation within Ternat, Wambeek and St-Katherina Lombeek was as follows.

			· /	
		Wambeek	St Katherina Lombeek	Ternat
Farms, arable meadows	land and	75,22%	64,84%	73,62%
Wet meadows		7,94%	17,65%	14,56%
Woodland		16,52%	15,48%	11,08%
Ponds		0,32%	2,03%	0,74%

Table 2: Land allocation within the domain of Overzenne (1605). ⁵⁴

Farms and arable land accounted for roughly 64 to 75 percent of the total surface of the community, whereas woodland covered between 11 and 16 percent of the parishes. As can be seen in table 1, wet meadows were, compared to Ternat and St-Katherina Lombeek, underrepresented in Wambeek. This was due to the fact that the former parishes were situated in a depression in the landscape, whereas the latter was located on top of a slope (see map 1). Using the accounts of the 100th penny tax, a different picture emerges. As can be seen in the figure below, a significant part of the agricultural land was defined as hop-gardens (so-called 'hoplochting'). Truly remarkable, because in the adjacent 'land van Aalst', with a similar soil consistency and population density, the number of hop-exploitations is rather limited in the second half of the sixteenth century. Consequently, the prevalence of hop-gardens in the domain of Overzenne was in all likelihood caused by the presences of the right geographical conditions in combination with a strong urban demand from Brussels. The emergence of hop growing in the domain of Overzenne ran parallel with the growth of Brussels. During the fifteenth century, the number of lots which were planted with hops were still scarce.⁵⁵ This changed during the first half of the sixteenth century. The population growth of Brussels led to an increasing demand for beer. Consequently, the provisioning of the urban center systematically expanded, with foodstuffs being increasingly transported over prolonged

⁵³ Vervaet L., "De relatie van het Brugse Sint-Janshospitaal met de grote hoevepachters in de 15e en 16e eeuw: wederkerigheid en duurzaamheid in functie van voedselzekerheid", *Belgisch Tijdschrift voor Filologie en Geschiedenis*, XC, 2012, 4.

⁵⁴ Own calculations using Verbesselt J. 'Het kadaster, studiebron voor dorpsgeschiedenis', pp.298-306.

⁵⁵ N. De Vijlder, The rural land market in the Southern Low Countries, Fifteenth to sixteenth centuries master thesis Faculty of Economics (promotor prof.dr. K. Schoors), Ghent University, 2012, pp.46-50.

distances. During the thirteenth century, a similar process had taken place.⁵⁶ In St-Kathelijne Lombeek, this crop was cultivated largely on small very fertile plots. In general, the land used for hops were about 50 percent more expensive than average arable land. In combination with the specific attributes (stakes etc..) needed for hop growth, the cultivation of this crop was highly capital intensive. It were consequently the larger farmers who specialized in wherein.



Figure 1: Land allocation St-Kathelijne Lombeek - 1577.⁵⁷

Using a *landboek* drafted on behalf of the diocese of Ghent, a similar exercise can be done for the parish of Sleidinge. A comparison between the two case-studies however, is difficult. Not only were there two different subdivisions applied, but we have no indication as to whether the terminology used in both sources corresponds to the same type of land.

	Total Sleidinge
Farms and arable land	10.31%
Land	58.30%
Wet meadows	11.43%
Woodland	15.85%
Land, woodland and marshes	4,08%

⁵⁶ Charruadas P. (2004), *Molenbeek-Saint-Jean: Un village bruxellois au Moyen Age*, Brussels: Cercle d'histoire, d'archéologie et de folklore du comté de Jette et de la région; Charruadas, P. 'Champs de Légumes te Jardins de Blés. Intensification agricole et innovations culturales autour de Bruxelles au XIIIe siècle.' In: *Histoire et Sociétés Rurales,* 28, 2007, pp.11-32.

⁵⁷ Stadsarchief Gent, Series 28, Penningkohier Sint-Kathelijne Lombeek 1571.

⁵⁸ Notteboom H. e.a., Sleidinge, pp. 134-145.

Keeping in mind these restrictions, it seems that the differences in both geography and population pressure had relatively little impact on land allocation within the two case-studies. Despite the higher population density in Sleidinge, the proportion of land under cultivation was in the same order of magnitude as in the domain of Overzenne (68,6% versus an arithmetic mean of 72,5%). The relative amount of woodland likewise fluctuates between the same upper and lower boundaries, as do the percentage of wet meadows.

Farm size, property distribution and social inequality

In recent historiography it has been argued that during the transition from the late middle ages into the early modern times (roughly the fifteenth and sixteenth century), the ownership structures of the European countryside underwent significant changes. This redistribution of land within the society was characterised by a) a strong accumulation of landownership by some social groups (noblemen, burghers and 'capitalist' farmers) and b) an increasing segment of the rural population (cotters, manouvriers) whom were confronted with dwindling farm sizes. Using the accounts of the 100th penny tax, some ratios were calculated to measure to what extent a similar evolution had taken place in both our case-studies. Based on previous research for inland Flanders a positively skewed distribution is expected. By the middle of the sixteenth century, inland Flanders and Brabant were scattered with communities in which a few households possessed considerable farms and the vast majority of the population had limited holdings. The question is however, if and how the relative inequality differs between the domain of Overzenne and the county of Evergem.

In terms of landownership, there are some striking differences between the domain of Overzenne and the county of Evergem. In the latter, only 15% of the land was owned by ecclesiastical institutions, whereas they held on to over 30% of the land in the domain of Overzenne. Moreover, in Sleidinge and Evergem these institutions were largely based in the city of Ghent, whereas in the latter case the largest institutional property-owners were the abbeys of Ninove and Groot-Bijgaarden.

	Sleidinge	St-Kathelijne Lombeek
Ecclesiastical institutions	15%	31%
Burghers	21%	3%
Nobility (rural)	0%	23%
Rural population (non-nobility)	64%	43%

Table	e 4: Owners	hip distri	ibution Sl	eidinge and	d St-Kathe	lijne Lombeek. ⁵

In St-Kathelijne Lombeek, the local nobility possessed considerable tracts of land totalling to a quarter of the village surface. This was less the case in Sleidinge. Here however, the urban burghers invested heavily in the countryside and by 1577 they owned about one-fifth of the parish of Sleidinge. In St-Kathelijne Lombeek, only 2.3 percent of the parish was owned by burghers. As a result the amount of land the none noble population possessed in both parishes was quite different.

⁵⁹ SAG, Series 28, Penningkohier van Sleidinge en St-Kathelijne Lombeek.

In Sleidinge, about 65 % of the parish was owned by (local) peasants as opposed to 43% in St-Kathelijne Lombeek.

Comparing the relative farm size distribution between the domain of Overzenne and the county of Evergem, (figures 1 and 2), highlights some marked differences between both regions. In St-Kathelijne Lombeek, the majority of the exploitations were less than 1 hectare.⁶⁰ Consequently, more than 50 percent of the population depended almost entirely on alternative sources of income to sustain in their livelihood. Another 31 percent of the households would have to rely on a combination of farming and alternative income sources. Only 17 percent of the households in St-Kathelijne Lombeek could sustain themselves though traditional agricultural exploitation. Consequently, the domain of Overzenne fits well within the social-property distribution as described for inland Flanders by Thoen.⁶¹ The region around Aalst *'het land van Aalst'*, adjacent to the domain of Overzenne in the West, had a largely similar property distribution. The parishes of Teralfene, Welle and Lede, between 86 and 81 percent of the households tilled less than 5 hectares. Two thirds of whom (50 % of total population) cultivated less then a hectare.⁶²





A distinctly different picture emerges for the farm-size distribution in Sleidinge. Here, only a quarter of the population had little or no land. Furthermore, almost half of the exploitations were larger then 3 hectares. Consequently, half of the households could theoretically sustain in their own livelihood without being depended on the market. Those larger than five hectares (30%) would moreover create labour demand, necessary for the survival of their less affluent counterparts. Temporary labour migration during the summer months to parishes in the North of the castellany

⁶⁰ Only when the accounts mentioned a house or farmhouse as being part of the assets of a person was the exploitation taken into account for this analysis. Please note that this was only so for figures 1 and 2. See footnote 61 as well.

⁶¹ Voetnoot naar THOEN over sociale agrosystemen, kijk ook in paper eline naar waar zij verwijst voor lede.

⁶² De Brouwer J., Denderleeuw. In Land van Aalst, reeks XII, nummer 1 -- De Brouwer J., Geschiedenis van Lede. In: Heemkundige kring Lede, 1963.

⁶³ SAG, Series 28, Penningkohier St-Kathelijne Lombeek

of Oudburg was another alternative source of income for these at the lower end of the propertydistribution. For the castellany of Oudburg as a whole, earlier research based on the same 100th penny accounts suggest that approximately one third of the holdings were smaller than one hectare, about half of the exploitations were between 1 and 10 hectares in size and hence the remaining 16 percent being larger then 10 hectares.⁶⁴ Hence, our findings for Sleidinge corroborate closely with those for the castellany of Oudburg as a whole. The presence of several large tenant farms in Sleidinge, as is the case throughout the whole region called *'het meetjesland'* can be linked to the fact that the improvement of this region was controlled centrally by large institutional, in case of the county of Evergem ecclesiastical institutions, which enabled the development of large (tenant) farms.⁶⁵



Figure 3: relative farm size Sleidinge - 1577.66

The table below gives an overview of different inequality measures for the County of Evergem and the domain of Overzenne.⁶⁷ For both case-studies, the accounts of the 100th penny tax

⁶⁴ De Ridder C., De penningkohieren als sociaal-ekonomische en demografische bron. De Oudburg en het Meetjesland rond 1570. Unpublished thesis, (promotor Vandenbroecke C.), Gent,1985.

⁶⁵ Thoen E., Landbouwekonomie en bevolking in Vlaanderen gedurende de late Middeleeuwen en het begin van de Moderne Tijden. Testregio : de Kasselrijen van Oudenaarde en Aalst (eind 13de-eerste helft 16de eeuw). Leuven, 1988, p.866.

⁶⁶ SAG, Series 28, Penningkohier Sleidinge.

⁶⁷ Several measures are available to us to asses inequality. These range from straightforward measures like the variance, coefficient of variation, histograms, Lorenz curves and Gini-coefficients to more sophisticated methods like Generalized Entropy measures or the Atkinson index. Within economic literature several axioms are used to asses the value of a measure of inequality. The most frequently cited axioms are: *the Pigou-Dalton Transfer Principle* (which requires the inequality measure to rise in response to a income transfer from a poor to a rich person), *the income scale independence, anonymity, the principle of population* (meaning that the merging of two identical distribution should not alter the inequality measure) and finally *decomposability* (which implies that the total inequality of the group should be decomposable as the inequality within several sub-groups and the in-between-group inequality. See: Cowell, F.A., 1985, "Measures of Distributional Change: An Axiomatic Approach" *Review of Economic*

Studies, 52: 135-51. While the Lorenz curve and the corresponding Gini-coefficient have the benefit of being easily interpretable, they have their shortcomings. George Deltas hinted for example at the significant small-sample bias of the

were used to construct these inequality indicators. Furthermore, wealth was defined as the total acreage of the farm, not the amount of land owned. The implication here being that leased plots were added to the assets of the tenant and not of the landlord.

Judging by both the Gini-coefficient and the Theil-index, both case-studies were two deeply polarized societies by the final quarter of the sixteenth century.⁶⁸ As to their relative position, St-Kathelijne Lombeek was clearly confronted with a higher degree of inequality, since in all four cases, both the Gini-coefficient en Theil index are significantly higher.

	Sleidinge - value	Sleidinge -acreage	St-Kathelijne Lombeek -	St-Kathelijne Lombeek -
			value	acreage
P90/P10	22.333	43.75	19	28.2
P90/P50	4.467	5.132	4.13	6.13
P75/P50	2.25	2.449	2.232	2.174
Theil	0.56386	0.71847	0.80255	1.60177
Gini	0.56215	0.6215	0.60592	0.78216

Table 5: Inequality Sleidinge - St-Kathelijne Lombeek (1577).69

The P90/P10, ratio, the ratio of the upper bound value of the ninth decile to that of the first decile. In the domain of Overzenne this ratio is 28.2, indicating that the exploitation size of the 9th decile is just over twenty-eight times larger than the holdings of the 1st decile. In Sleidinge however, with it's presence of several very large tenant farms, this ratio is an astonishing 43.75. The P90/P50 and P75/P50 ratio are largely similar for both Sleidinge and St-Kathelijne Lombeek, indicating that the relative wealth of middle classes in these communities is largely similar.

Finally, table 4 shows clearly that inequality is always larger when it is expressed in terms of acreage than when measured through the value of the exploitation. Compare for example Sleidinge's P90P/10 ratios expressed in terms of value and acreage of the holdings. While the 9th decile has an exploitation 43 times larger than its 1st decile, it's apparently only 22.33 times more expensive. Theoretically this can be interpreted twofold. On the one hand, this spread can be explained by the fact that the average value per *bunder* was higher for cottars than for larger peasants. This seems very unlikely because this would imply that small peasants were cultivating

Gini coefficient. For populations with (20 < n < 50) the bias could be as large as 7,5 percent. Gini-coefficients are furthermore biased towards the median of the distribution, hence underestimating the effect of outliers. Consequently using the Gini-coefficient implicitly Frank Cowell highlighted both the limited decomposability of the Gini coefficient, and established that similar Gini coefficients might conceal significantly different income/wealth distributions.

The Theill index (as part of the larger family of the Generalized Entropy measures) and Atkinson indexes measures do not posses the above-mentioned drawbacks. They furthermore provide the possibility to define the sensitivity towards certain parts of the distribution through inequality aversion parameters (α and ε for GE and Atkinson index respectively). For an α close to zero, GE-measures are sensitive for changes at the lower end of the distribution. Correspondingly, for $\alpha > 1$ the GE-measure becomes sensitive to changes at the higher end of the distribution. The Theill-index has $\alpha = 1$, and is equally sensitive for changes across the distribution.

⁶⁸ Please note that the following figures and graphs underestimate the total farm size since properties outside the parish were not taken into account. The peasants who held the bulk of their assets outside the parish but leased a small tract of land within the community will likewise contaminate our findings. However, this bias applies to the surrounding parishes as well, which in theory cancels out the aforementioned overestimation of small holdings. We should nevertheless be aware that in reality, the number of small exploitations might be somewhat lower. in theory bias is As a result, the number of small exploitations will be slightly overestimated.

⁶⁹ Own calculations using: SAG, Series 28, Penningkohier Sleidinge 1577 and St-Kathelijne Lombeek 1577.

the highest-yielding plots. Another, more likely explanation would be that the tax system, while theoretically being a flat tax, was in reality a regressive tax system. Consequently, the observed inequality measured through the value of the exploitation underestimates the 'real' inequality. The graph below, on which the exploitation size is confronted with the average assessed value per square meter of each holding for both villages, supports the latter case.





Figure four shows that the way the 100th penny tax was collected in Sleidinge and St-Kathelijne Lombeek was regressive (indicated by the negative slope of the line of best fit). The two gradients of -1.11 (Sleidinge) and -1.08(St-Kathelijne Lombeek) moreover indicate that in both parishes, the decrease of the tax rate as the amount subject to taxation increased, was largely similar. Finally, the average taxable value is higher in the domain of Overzenne than in the county of Evergem, since the former has an intercept of 10.264 whereas the latter has in intercept of 7.2478.

The past few pages have yielded several interesting observations, which are summarized in the following table. Given the preconditions sketched in table 6, which hypothesizes can be formulated concerning the land market in both our case-studies? First of all, we expect relatively high prices in the domain of Overzenne compared to the county of Evergem, due to the higher population density in the former. Second, the better soil quality in Overzenne should likewise have

⁷⁰ Own calculations using: CAG, Series 28, Penningkohier Sleidinge 1577 and St-Kathelijne Lombeek 1577.

a positive effect on local land prices. Our third and final hypothesis concerns the types of land transferred though the market. Here, the expected outcome is less clear. At the one hand, the market for land should follow the general trends in land allocation fairly closely.

	Domain of Overzenne	County of Evergem	
Feudal structure	Secular lord, part of domain of	Ecclesiastical lord, part of diocese of	
	the duke of Brabant	Ghent	
Soil quality & geography	Loamy soil, sloping countryside	Sandy soil, limited height difference	
Square surface (in km2)	27.5	37.7	
Population density 1500-1550	45.63	49.18	
Population density 1550-1600	44.72	78.59	
Ownership distribution			
Ecclesiastical institutions	31%	15%	
Burghers	3%	21	
Nobility (rural)	23%	0%	
Rural population	43%	64%	
Leasehold/copyhold ratio	2.00	1.70	
Farm size distribution			
<1 ha	52%	26%	
1-3 ha	31%	30%	
3-5ha	5%	14%	
5-10ha	6%	16%	
>10 ha	6%	14%	
Inequality - acreage			
P90/P10	28.2	43.75	
Theil	1.06077	0.71847	
Gini	0.78216	0.6215	

Table 6: Pairwise comparison of the two case studies

Two mid-sixteenth century land-markets compared

Market activity & turnover

The scope of our pairwise comparison of the land market in the domain of Overzenne and the county of Evergem runs from approx. 1530 until 1555. For this period, 1.062 land sales were collected. About a third of relate to the county of Evergem . Due to a hiatus in the sources, the data only start from 1545 onwards. The remaining 694 transactions concern the land market in the domain of Overzenne. For this case-study, we have collected data from 1530 until 1555.

It immediately becomes clear that the market activity (measured by the average number of transactions per year) varies greatly between both case-studies. In Overzenne, there are about 28 recorded land sales per year, whereas more than double of that was registered in the county of

Evergem. In both instances, this is double the amount of transactions that were recorded in during the third quarter of the fifteenth century.

Table 7: N	Market activity	(1460-1553)	.71
------------	-----------------	-------------	-----

	Domain of Overzenne	County of Evergem
Av. no. transactions (1460-1470)	13	23
Households active on land market (1460-1470)	10%	11%
Av. no. transactions (1530-1553)	28	61
Households active on land market (1530-1553)	23%	22%

When controlling for the number of households in both localities, by the middle of the sixteenth century, about one in five of them were active on the land market in Overzenne either as a buyer or a seller.⁷² In Sleidinge and Evergem, the activity levels were almost identical. Given a community of about 558 households and an average of 61 transactions per year, 21 percent of the households were active on the land market. As can be seen in table seven, participation levels doubled over the span of 60 years. Moreover, it seems that although the rural population proportionally owned more land in the domain of Overzenne than it did in the county of Evergem, this did not seem to affect overall involvement. Although it is well established that some parts of the Low Countries the commercialization of the countryside was well on it's way, the high participation rates by the middle of the sixteenth century are striking.⁷³ A largely similar long-term evolution can be seen on the credit market in the rural hinterland of Antwerp.⁷⁴ Despite the different contexts of both case-studies, one in five of all rural households were actively participating on the land market by the middle of the sixteenth century. However, some downward adjustment of this numbers is in order. First, since in any given year one household could buy, sell or mortgage multiple plots of land, the participation of households is slightly overestimated. Second, especially in the county of Evergem, the proportion of the market activity as a result of burghers buying and selling assets shouldn't be underestimated. Still the development of the rural land market and the increased commercialisation of the countryside in Flanders and Brabant between the second half of the fifteenth and third quarter of the sixteenth century is impressive.

While the average household participation on the land market did not differ considerably between the domain of Overzenne and the county of Evergem, the turnover did so significantly. As can be seen in table 8, in an average year a lot more land changed hands in the parishes of Evergem and Sleidinge than in south-Brabant (69 ha. versus 11.7 ha.). The total yearly turnover expressed in Flemish pounds was, not unsurprisingly higher in Evergem than in Overzenne. Do note however that the ratio was slightly lower(5.9 versus 5.11) indicating that on average, land prices in the

⁷¹ SAB, Chamber of Accounts, Manorial Accounts of Overzenne, 4738-4742 and SAG, St-Bavo archives, Accounts of *wandelkopen*, in Evergem, Wondelgem en Sleidinge, B 3068-3078.

⁷² Calculated as follows ((transactions per year) / (average number of households))*2 (since each transaction has a buyer and seller) = participation rate.

⁷³ Van Bavel B.J.P., Manors and Markets, Oxford, 2010, Van Bavel B.J.P. and Hoyle R., Social Relations, property and Power, Rural economy and society in North-Western Europe, 500-2000. Turnhout, 2010.

⁷⁴ Limberger M., 'Credit, the land market and the connection between the rural and urban economy. The use of Perpetual annuities in Aartselaar (Brabant) from the fourteenth to sixteenth century. In: Schofield P. and Lambrecht T., *Credit and the rural economy in North-western Europe, c.1200-c. 1850.* Brepols, 2009, pp. 66-68

domain of Overzenne were than in the county of Evergem. Hence, these findings correspond to our earlier observations (figure 4).

	Domain of Overzenne	County of	Ratio 1/2
	(1)	Evergem (2)	
Yearly turnover in ha.	11.72	69.58	5.94
Yearly turnover in Flemish pounds	175.86	898.93	5.11
Yearly turnover in ha. per household	0.05	0.12	2.62
Yearly turnover in Flemish pounds per	0.71	1.61	2.25
household			
Yearly turnover in ha. as percentage of	0.43%	1.85%	
acreage			

Table 8:	Turnover	of the	land	market	in t	the	domain	of	Overzenne	and	the	county	Evergem	(1530-
1553) ⁷⁵												-	-	

So far, the land market in the county of Evergem seems to tremendously outperform that of the domain of Overzenne, both in terms of revenues and acreage sold. Up until now however, the differences in population density were not taken into account. As we saw earlier, the number of inhabitants per square kilometre was significantly higher in Sleidinge and Evergem than in Ternat and its surroundings. Hence, since there was more competition in the former, a higher turnover is to be expected. However, when expressing the turnover in relation to the number of households in both communities the difference, although smaller, still prevails. Consequently, other explanation has to be found. The key to this conundrum lies in the combination of two elements, namely the differences in the leasehold/copyhold ratio and the relative proportion of cottars and near-landless peasants in both regions. As noted earlier (table 6 and up), near-landless cottars (with exploitations smaller than 3 ha) made up 80 % of the community in the domain of Overzenne. In this region the amount of leasehold was furthermore outnumbering freehold or copyhold with two to one. As a result, the vast majority of the rural population owned only little land. Their assets mostly comprised of their own farmstead and a small farmyard.⁷⁶ Hence, they would probably only part with their land to cope with extreme exogenous shocks as suggested by Razi.⁷⁷ In Sleidinge and Evergem on the contrary, a large proportion of the community owned larger farms and the relative proportion of leasehold was less important. Consequently, a larger share of the population was in the possibility to buy or sell land, either as a risk-coping mechanism, as part of their life-cycle or as an accumulation strategy.

⁷⁶ CAG Series 28, PenningkohierenSt-Kathelijne Lombeek.

⁷⁵ SAB, Chamber of Accounts, Manorial Accounts of Overzenne, 4740-4742 and SAG, St-Bavo archives, Accounts of *wandelkopen*, in Evergem, Wondelgem en Sleidinge, B 3068-3078.

⁷⁷ Razi Z., "Family, Land and the Village Community in the Later Medieval England." In: Past and Present 93, 1981, pp. 3-36.

Types of land transferred

Throughout the fifteenth and early sixteenth century, the types of holdings that were transferred in the domain of Overzenne differentiated. Around the start of the fifteenth century, plain arable land and farmsteads were the two types of assets that were most frequently sold. Three quarters of all transactions dealt with the sale of those types of property. By the middle of the sixteenth century, 'plain' land and farmsteads declined in relative importance, to the benefit of farmyards, woodland, heath, wet meadows, orchards and even one or two hop-gardens.⁷⁸ As mentioned earlier, this diversification came as the result of an increased demand for foodstuffs from the nearby Brussels. The Brussels-effect might similarly explain the marked rise in the number of sold gardens. Research by Charruadas showed that villages in the immediate vicinity of Brussels (St-Jan-Molenbeek) saw a surge in the cultivation of pulses and other vegetables on large gardens surrounding the farmsteads, during the 14th century.⁷⁹ The rising number (both in absolute and relative terms) of sold gardens could consequently be interpreted as a direct consequence of the growth of the urban population. As demand for vegetables increased, peasants were more eager to get hold of those tracts of land on which they could cultivate them. Hence, the demand for gardens went up. This begs the question why peasants would be inclined to sell land which by which by their very nature were an integral part of their farmstead. Selling those plots of land would literally imply giving up the last straw that could help them sustain in their livelihood. Consequently, due to the limited supply, the price average price for gardens went up. In terms of the average plot size

The receipts of the conveyance tax not only gave information about the type of land that was sold, but in many cases also specified the acreage of the sold plot. Already at the start of the fifteenth century average plot sizes in the Overzenne region were very small (0,8 hectares on average). As can be seen in table 5, average plot size diminished between periods 1 and 2. This is especially true for land, woodland and heath, since average plot size decreased approximately by half. Not only did the average plot size diminish, the spread between the largest and smallest plots decreased as well. Comparing the average plot size of sold gardens would lead us to believe this type of land followed the same tendency. The small number of transaction in the earlier period implies that mean and median aren't significant, as far as garden, woodland and heath are concerned. However, in most cases minimum and maximum are lower in the latter period compared to the earlier period, which implies that average plot sizes did declined over time.

⁷⁸ N. De Vijlder, *The rural land market in the Southern Low Countries, Fifteenth to sixteenth centuries.* Master thesis Faculty of Economics (promotor prof.dr. K. Schoors), Ghent University, 2012, pp.48-49

⁷⁹ Charruadas P. (2004), *Molenbeek-Saint-Jean: Un village bruxellois au Moyen Age*, Brussels: Cercle d'histoire, d'archéologie et de folklore du comté de Jette et de la région; Charruadas, P. 'Champs de Légumes te Jardins de Blés. Intensification agricole et innovations culturales autour de Bruxelles au XIIIe siècle.' In: *Histoire et Sociétés Rurales*, 28, 2007, pp.11-32.

Type of land	Period	Mean	Median	Ν	Range	Minimum	Maximum
Land	1404-1434	0,80257	0,62880	210	4,951	0,079	5,030
	1523-1553	0,50691	0,31440	216	3,122	0,022	3,144
Garden	1404-1434	0,90437	0,11950	3	2,436	0,079	2,515
	1523-1553	0,25432	0,12420	14	1,229	0,028	1,258
Woodland	1404-1434	2,43645	1,72910	4	5,030	0,629	5,659
	1523-1553	1,10956	1,25750	17	2,122	0,079	2,201
Heath	1404-1434	0,83087	0,62880	7	1,729	0,157	1,886
	1523-1553	0,49044	0,31440	24	1,100	0,157	1,258

Table 9: Evolution of plot size per type of land in the domain of Overzenne (1404-1553).⁸⁰

Due to source limitations, a similar long-term analysis can't be carried out for the county of Evergem. Only by the middle of the sixteenth century do the steward's accounts provide sufficient detail to reconstruct price levels for the county of Evergem. Comparing mid-sixteenth century land prices and average acreage per plot (tables 10 and 11) yields some interesting observations, in line with our earlier findings. First, it seems that general price levels were higher in the domain of Overzenne than in the county of Evergem. Plain arable land for example, was twice as expensive near Brussels as it was near Ghent. As similar, though less pronounced difference is observable with meadows and woodland. Tough demand and competition for land must have been higher in Evergem than in Overzenne, due to a higher population density in the former region (44 pop/km² versus 78 pop/km²), average land prices were significantly higher in the latter region. Hence, intrinsic soil quality apparently (and consequently future yield) played a significant role in the price-setting for land.

Domain of Overzenne		Av. Acreage in ha.	Av. Price in Flemish pounds	Av. Price per ha. in Flemish pounds	
Land	212	0.50	16.39	32.33	
Wet meadows	32	0.98	35.29	35.73	
Woodland	21	1.10	22.11	19.93	
Hop gardens	4	0.25	15.17	59.79	
Farmsteads	30	0.85	25.70	30.22	

Table 10: Price of land in the domain of Overzenne (1530-1553).⁸¹

From the table above it furthermore becomes clear that hop gardens, with an average price twice as high of regular land, were especially prized possessions in the domain of Overzenne. However, the amount of plots transferred through the market do not correspond with the relative amount of hop gardens present in the region (see figure 1). This indicates that –from an economic perspective- the most interesting (highest yielding) plots were not transferred through regular market channels. Evidently, they were more likely to stay in the hands of the family an be transferred from one generation to the next. Hence the possession of hop gardens could not only be

⁸⁰ SAB, Chamber of Accounts, Manorial Accounts of Overzenne, 4740-4742

⁸¹ SAB, Chamber of Accounts, Manorial Accounts of Overzenne, 4740-4742

an indicator of wealth, but also play a crucial role in the sustaining and transmission of wealth throughout generations.

County of Evergem N		Av. Acreage in ha.	Av. Price in Flemish	Av. Price per ha. in Flemish	
			pounds	pounds	
Land	20	0.741	12.47	16.82	
	5				
Wet meadows	23	0.527	15.61	29.64	
Woodland	12	0.291	4.17	14.33	
Farmsteads	62	1.829	17.10	9.35	

Table 11: Price of land in the county of Evergem (1545-1553).⁸²

In the county of Evergem the types of land that were sold can be subdivided in four straightforward categories (land, wet meadows, woodland and farmsteads). Unlike the domain of Overzenne, no apparent diversification of the land market took place. Not at all unsurprising given the relative lack of diversity in the landscape. For example, whereas the higher grounds in Brabant were not used for arable farming but rather as heath to provide grazing grounds and hay for the animals, no such 'wastinae' was still present by middle of the sixteenth century.

As in Overzenne, not all types of land were sold as frequently as the relative amount present in the locality would let us to believe. Wet meadows were, similar to hop gardens in Overzenne, expensive plots of land with a (by its very nature) limited availability. Consistent with the previous example, the amount sold through the market is an underrepresentation. Hence, in all probability, a largely similar process was at work, whereby those owning some valuable wet meadows had no incentive to sell their plots. Moreover, the economic structure of both communities had, not unsurprisingly, a strong impact on the nature of the land market. In mid-sixteenth century Ternat, average plot sizes were up to one third smaller than in Sleidinge and Evergem, reflecting the variation in the relative importance of cottars versus peasants and larger tenant farmers.

Conclusion

In the outset of this paper, we proposed to analyse the impact of elements endogenous to the local economy and society on the local land market. Throughout the first part, we showed that while the domain of Overzenne and the county of Evergem were part of the same sub-region (comprised of inland Flanders and south-Brabant) of the Southern Low Countries, their geographical, economic and social context differed markedly. The parishes Ternat, Wambeek and St-Kathelijne Lombeek were situated in the south of Brabant, had a hilly geography, a rich loamy soil and several brooks and creeks. Evergem and Sleidinge on the other hand, were the textbook example of 'le plat pays'. Height difference remained limited to 2 metres and the overall soil consistency was rather sandy.

In the former region very small exploitations prevailed, whereas in the latter region a the proportion of very small, near landless households remained limited. All these elements

⁸² SAG, St-Bavo archives, Accounts of *wandelkopen*, in Evergem, Wondelgem en Sleidinge, B 3068-3078.

constructed a social and economic reality, which provided the framework within which buyers and sellers would meet, and hence create a land market.

The second part of the paper was focussed on untangling of complex relationship between the socio-economic structure of the one hand and the land market on the other. Although the overall market participation differed little between the county of Evergem and the domain of Overzenne, the difference in the day-to-day impact of the land market on the local economy was striking. The overall turnover varied greatly between the two regions. As we showed, this was the direct consequence of the relative distribution of the holding-sizes, in combination with the relative importance of leasehold as opposed to freehold of copyhold. The evidence suggest that a considerable part of the population of Overzenne was excluded of participating on the market for land, since they had insufficient assets. This was apparently less the case in the parishes of Sleidinge and Evergem. Here, about half of the population tilled exploitations larger than 3 hectares and leasehold was less predominant than in Overzenne. Consequently, a considerable part of the households could transfer property without undermining their own livelihood. Hence, a considerable part of land was transferred through the market at a yearly basis. However, not all types of land were transferred as frequently as one would expect. In both our case-studies, we found that land with specific attributes (scarcity or limited availability in combination with a higher than average yield), were underrepresented in market transactions. Theses types of land (hop gardens and wet meadows) were apparently held within the family and probably played a crucial role in the establishment of intergenerational wealth.

All this nevertheless, brings up the question of why those peasants were so willingly to part their assets. Within the current historiography, several explanatory models have been suggested (respectively life-cycle, accumulation and risk-coping strategies). However, the answer won't probably be as clear-cut as the current historiography might suggest. As we've illustrated in this paper an in-depth approach is necessary, to allow for the regional specificity. As our research showed, intra-regional differences which may at first sight seem trivial, determine to a large extent the outcome of complex economic processes as the development of factor markets.