Wealth Inequality in a Time of Transition: Coastal Flanders in the Sixteenth Century

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Abstract
In this article we aim to make a case for a renewed attention to the structural social and political processes that influenced changes in early modern levels of inequality. We argue that early modern changes in inequality were not solely, or even primarily, determined by (exogenous) demographic trends and macro-economic growth, but by structural changes in the (political) economy of early modern society. By studying a micro-level case-study of inequality during a period of intense change in economic structure, this article aims to reconcile such traditional interpretations with the recent historiography on early modern inequality.

1 Introduction

In recent years the historical study of inequality has witnessed a remarkable revival of interest, of which Thomas Piketty’s *Le Capital au XXIe siècle* is merely the most striking and influential instance.¹ If there is one theme that emerges from the growing body of literature on the subject, it is the calling into question of the formerly dominant stylized facts first formulated by Simon Kuznets around the middle of the twentieth century. Kuznets had hypothesised that the widening of income disparity was inversely related to the level of modern economic development. During the nineteenth-century modernization process productivity differentials between traditional (rural) and modern (urban) economic sectors at first contributed to inequality, but as economies matured and the majority of the population en-

¹ T. Piketty, *Le Capital au XXIe siècle* (Paris 2013). More recently also the historical chapters, which include the pre-industrial period in B. Milanovic, *Global inequality. A new approach for the age of globalization* (Cambridge, Mss. 2016) and W. Scheidel, *The Great Leveler: violence and the history of inequality from the Stone Age to the Twenty-First Century* (Princeton 2017).
tered high-productivity and high-wage sectors, inequality would decline again at a higher level of economic development. The top incomes research group led by Thomas Piketty and Anthony Atkinson has shown that these stylized facts do not hold for the end of the twentieth and the beginning of the twenty-first century. Yet similar doubts over the straightforward relationship between economic performance and inequality have been voiced by historians of the more distant past. In a seminal article on early modern inequality trends in Holland Jan-Luiten van Zanden had originally hypothesised that a similar growth of inequality also characterised pre-industrial phases of economic development (thus tracing a so-called super Kuznets curve), although for slightly different reasons than Kuznets had surmised. However, recent research across late medieval and early modern Europe has suggested that in fact inequality tended to rise also in the absence of economic growth or during periods of economic decline. On the other hand, new evidence of diminishing levels of inequality in Portugal during early modern phases of economic contraction, serves to underline the complexity of the relationship between growth and inequality.

If there is now some degree of consensus that straightforward associations between macro-economic growth and pre-modern inequality are no longer generally accepted, it is less clear what explanatory factors have come in its place. The conflicting evidence on the growth-equity trade-off in pre-industrial Europe has led some scholars to reject any explanation of pre-industrial inequality patterns that are rooted in economic development. Branko Milanovic, for instance, has recently re-introduced a Malthusian explanation according to which inequality in early modern Europe moved on the ebbs and flows of population growth and decline. In a similar vein Walter Scheidel has argued that throughout history – including that of pre-industrial Europe – several economic and political factors tended to consistently foster inequality, whereas only war, revolution and pandemics have shown to be great levelers of socio-economic disparities. Indeed, historians of early modern Europe have similarly tended to argue that inequality everywhere tended to rise as a result of political factors such as state formation, or as

2 S. Kuznets, ‘Economic growth and income inequality’, *The American Economic Review* 45 (1955) 1-28.
3 J.-L. van Zanden, ‘Tracing the beginning of the Kuznets Curve: Western Europe during the early modern period’, *The Economic History Review* 48 (1995) 643-664.
4 G. Alfani and W. Ryckbosch, ‘Growing apart in early modern Europe? A comparison of inequality trends in Italy and the Low Countries, 1500-1800’, *Explorations in Economic History* 62 (2016) 143-153.
5 J. Reis, ‘Deviant behaviour? Inequality in Portugal 1565-1775’, *Clisometrìca* forthcoming; C. Santiago-Caballero, ‘Income inequality in central Spain, 1693-1835’, *Explorations in Economic History* 48 (2011) 83-96.
6 Milanovic, *Global inequality*, chapter 2.
7 Scheidel, *The great leveler*.
a result of shifts in income shares caused by growing population pressure. If, in writing a ‘new history of inequality’, economic historians have tended to focus almost exclusively on economic development and demography as explanatory factors, they have often ignored older, more implicit historical accounts of social change. Where does this new consensus leave the traditional explanations of early modern inequality trends offered by classical, structuralist, and neo-marxist scholars? For instance, Marx’ account of primitive accumulation across early modern Europe, in which the political expropriation of the labouring class of the means of production took central place, has been largely ignored rather than disproven. Even though the structuralist social history that dominated the 1960s and 1970s emphasised the importance of an early modern process of ‘proletarianization’ that was rather similar to Marx’ primitive accumulation, this theme has barely resurfaced since the history of inequality has regained attention in the last decade. In this article we aim to make a case for a renewed attention to the structural social and political processes that influenced changes in early modern levels of inequality. We argue that early modern changes in inequality were not solely, or even primarily, determined by (exogenous) demographic trends and macro-economic growth, but by structural changes in the (political) economy of early modern society. By studying a micro-level case-study of inequality during a period of intense change in economic structure, this article aims to reconcile such traditional interpretations with the recent historiography on early modern inequality.

2 A rural society in transition

Based on new empirical evidence on land, income and wealth inequality at the household level, we trace the effects of structural economic transformation on social stratification, polarisation and inequality in the fifteenth- and sixteenth-century polder region of the Flemish countryside. Most of these data have been used first in K. Dombrecht, Plattelandsgemeenschappen, lokale elites en ongelijkheid in het Vlaamse kustgebied (14de-16de eeuw), unpublished PhD dissertation (Ghent 2014).
od is a particularly interesting case study for addressing the question of inequality and economic development. During the fifteenth century the Low Countries experienced a period of prolonged peace and prosperity. Political unification under the personal rule of the Burgundian dukes brought political and monetary stability, while the social and economic turmoil of the first decades of the Black Death had given way to unprecedentedly high average living standards. From the 1460s onwards, and exacerbated by a (civil) war fought against Maximilian of Austria in the 1480s, international commerce and export industries in Flanders – and in Bruges in particular – suffered decline, although they remained at a high level. During the sixteenth century Flanders would again witness growing demographic pressure, but also the growing commercialisation of production in both urban and rural contexts, expanding consumerism, the decline of Bruges and the rise of Antwerp as the main staple market for global trade in Europe. Political and military turmoil following the beginning of the Dutch Revolt again brought economic instability and decline by the final quarter of the century.

How these developments affected social inequality remains a much debated, and largely unresolved, issue. With regards to the fifteenth century, most historians have argued that this was a ‘golden age of the artisan’ or even a ‘golden age of labour’, although others have expressed doubts over whether living standards for most were indeed substantially higher than before the Black Death, or whether this indeed applied to all types of labourers, and whether or not it was offset by larger levels of unemployment. For the sixteenth century the disagreement seems even more profound. Whereas some have stressed the decline of real wages and the growing impoverishment of the labouring classes as a result of demographic pressure, others have maintained that the urban middling groups were remarkably resilient and prosperous during this period.

11 A recent overview in B. Blondé, A. Van Bruaene, M. Boone (eds.), Gouden Eeuwen. Stud en samenleving in de Lage Landen, 1300-1600 (Gent 2016), chapters 1 and 2.
12 T. Soens and E. Thoen, ‘Vegetarians or carnivores? Standards of living and diet in Late Medieval Flanders’, in: S. Cavaciocchi ed., Le interazioni fra economia e ambiente biologico nell’Europa preindustriale, Secc. XIII-XVIII – Economic and biological interactions in pre-industrial Europe from the 13th to the 18th Centuries (Instituto Internazionale di Storia Economiche ‘F. Datini’ Prato, Serie II-Atti delle ‘Settimane di Studi’ e altri Convegni 41) (Prato 2010) 495-527; E. Scholliers, De levensstandaard in de XVe en XVIe eeuw te Antwerpen (Antwerpen 1960); W. Blockmans and W. Prevenier, ‘Armoede in de Nederlanden van de 14de tot het midden van de 16de eeuw: bronnen en problemen’, Tijdschrift voor Geschiedenis 98 (1975) 531-538.
13 See in particular J. Hanus, Affluence and inequality in the Low Countries. The City of ’s-Hertogenbosch in the Long Sixteenth Century, 1520-1650 (Leuven 2014) for a recent analysis and authoritative overview of the debate.
The issue of late medieval and early modern inequality, and its relation to economic development in the fifteenth and sixteenth centuries has so far mostly been studied in an urban context. Although there exists an extensive literature on the effects of commercialisation on the social position of specific social groups in the countryside – such as the rise of the large tenant farmer, or the marginalisation of the landless labourer – very few studies explicitly address the question of inequality and early modern economic development in the rural economy as a whole. The present study aims to do precisely this, by analysing changes in the distribution of wealth between rural households in a region characterised by profound commercialisation and a gradual transition to agrarian capitalism. The area of study is the polder region, in the northern, maritime part of the County of Flanders. In particular we focus on the ambacht of Dudzele, which comprised the villages of Dudzele, Koolkerke and Ramskapelle, and which was located approximately seven kilometres to the North of the city of Bruges. Erik Thoen and Tim Soens have described this region as a social agro-system in a phase of quick transition during the later middle ages. Whereas these coastal flatlands had been populated by a peasant society until the thirteenth century – dominated by small, land-owning peasants with farm sizes no larger than a few hectares in surface – the landscape and economy had been thoroughly transformed by the end of the sixteenth century. Instead of small-scale production aimed at the reproduction of the household and farm unit, specialised large-scale arable farming and extensive animal husbandry had become the principal basis of the regional economy.

This transition had already begun since the thirteenth century. Rural society became increasingly dominated by (semi-)large leasehold farms that were aimed primarily at the commercialisation of their produce. Although small landowners never entirely disappeared from the landscape, the rural economy became dominated by capitalist tenants who had their fields worked by hiring the labour of the remaining small peasants and landless

14 J. Moriceau, Les fermiers de l'Ile-de-France: l'ascension d'un patronat agricole, XVe-XVIIIe siècle (Paris 1994); R.C. Allen, Enclosure and the yeoman: the agricultural development of the South Midlands 1450-1850 (Oxford 1992).
15 See D. Curtis, ‘Trends in rural social and economic history of the pre-industrial Low Countries’, BMGN – Low Countries Historical Review 128:3 (2013) 60-95.
16 For the classic study on agrarian capitalism, see R. Brenner, ‘Agrarian class structure and economic development in pre-industrial Europe’, Past and Present 70 (1976) 30-75.
17 E. Thoen and T. Soens, ‘The family or the farm: a Sophie’s choice? The late medieval crisis in Flanders’, in: J. Drendel ed., Crisis in the later middle ages: beyond the Postan-Duby paradigm Sophie’s choice (Brepols 2015) 195-224; Soens, De spade in de dijk? Waterbeheer en rurale samenleving in de Vlaamse kustvlakte (1280-1580) (Gent 2009).
proletarians. In the polder region of Flanders this development occurred in a dialectic relationship to ecological developments. Changes in the agricultural organisation of the region resulted in a more precarious organisation of the institutions responsible for the protection against the sea. As the water management institutions became financed and controlled increasingly by landowners who did not reside in the area, investments in water management infrastructure declined during the fifteenth and sixteenth centuries. In the long run, the deteriorating ecological circumstances of the region increased the precariousness of living conditions and undermined the survival chances of small landowning peasants – and thus contributed to a further concentration of ownership.\textsuperscript{18}

The shifts in the demographic and ecological structure of rural society in coastal Flanders also resulted in a different economic orientation of the region. From at least the end of the fifteenth century onwards, agricultural production became increasingly less oriented towards grain cultivation, and more heavily concentrated on livestock farming. In the fifteenth centu-

\textsuperscript{18} Soens, \textit{De spade}, 257–269.
ry this initially brought about a growing importance of sheep herding and pig farming, which was probably combined with a stronger commercial integration with the urban textile centres of the region – foremost among which where Bruges and Ghent, but which also included the smaller textile centres such as Aardenburg or Gistel that were more reliant on locally produced wool. In the sixteenth century the farming of cattle and fatting of oxen gained in prominence, especially for the richer farmers in the region. Again, this change in output was related to a stronger orientation to commercial production (of meat) for the urban markets in Flanders.

Although the timing and specific contours were different, the changes experienced in fifteenth- and sixteenth-century coastal Flanders are not dissimilar to the transitions towards agrarian capitalism that characterised early modern England or the Guelders river area: land property and use became increasingly concentrated, production became ever more commercialised, and hired labour became more common, while total labour inputs in the rural economy (as well as population figures) declined drastically.

3 Measuring economic inequality: the data

Several types of historical sources have been mobilised to produce estimates of levels and changes in economic inequality in the past. At the most aggregate level, some historians have attempted to trace inequality trends based on proxies for the income of different social groups in society. Thomas Piketty has recently used the ratio of returns to capital to the gross growth of the economy as a shorthand for explaining long-term inequality trends (Piketty’s so-called second fundamental law of capitalism). In a similar fashion, Jeffrey Williamson has used the ratio of the real wage to GDP per capita as a similar proxy for inequality as well.

19 In the second half of the fifteenth century there were approximately between 2,300 and 3,000 sheep in the parishes of Dudzele and Ramskapelle (Dombrecht, Plattelandsgemeenschappen, 111). J. Mertens, De laat-middeleeuwse landbouweconomie in enkele gemeenten van het Brugse platteland (Brussel 1970) 167-188; J. Vermaut, ‘Structural transformation in a textile centre: Bruges from the sixteenth to the nineteenth century’, in H. Van Der Wee (ed.), The rise and decline of urban industries in Italy and the Low Countries (late Middle Ages – early modern times) (Leuven 1988) 187-205 and P. Lindemans, Geschiedenis van de landbouw in België (Antwerpen 1994) 394-441.

20 Soens and Thoen, ‘Vegetarians or carnivores?’, 525; L. Vervaet, Goederenbeheer, 87-91.

21 See for instance B. van Bavel, Manors and Markets (Oxford 2010).

22 Piketty, Le Capital.

23 J. Williamson, ‘Earnings inequality in Nineteenth-century Britain’, Journal of Economic History 43:3 (1983) 457-476 and J. Williamson, Did British capitalism breed inequality? (Boston 1985).
Reis has recently proposed a similar statistic in the form of a rent-wage index as a more appropriate indicator of inequality trends in pre-industrial rural societies.24 These aggregate statistics each offer an indication of the relative share of capital, labour and rent incomes in total income, as a way of estimating the direction of inequality trends without needing detailed data on the income or wealth of individual households. Although such statistics can be useful in trying to explain observed inequality trends, they offer only partial glimpses of specific aspects of economic inequality in the past, and can therefore only document actual inequality levels or changes when combined with proper micro-level data.

To produce a less selective estimate of economic inequality that tries to capture the disparities in the personal (or household) distribution of income or wealth, three main sources have so far been mobilised with success in historical studies on pre-industrial inequality. A growing literature, pioneered by Peter Lindert and Jeffrey Williamson, is based on so-called social tables. Those social tables summarise the aggregate income (or wealth) of specific social groups in a given society, and can be used to estimate total inequality – based on the assumption that within-group inequality was zero.25 The reliability of these estimates ultimately depends on how fine-grained the social tables are, and how viable the assumption of no within-group inequality is, but as a general method to estimate and compare pre-industrial inequality in its broadest contours, the method has enjoyed considerable success. For the Low Countries no such social tables have been found or constructed yet, and such a method would probably be too imprecise to measure changes over a relatively short time-span in a specific region.26

More conventional, but also more labour-intensive methods of historical inequality measurement are based on two different types of archival sources: fiscal sources and estate data. Most studies have traditionally been based on sources of a fiscal nature. The variety of taxes on rural and urban property holding, use, and ownership, and on status, occupation, and income instituted by local, provincial and central governments throughout medieval and early modern Europe has allowed for many ambitious and extensive research endeavours since at least the 1960s.27 Nevertheless, these

24 Reis, ‘Deviant behavior?’
25 The main contribution here is B. Milanovic, P. Lindert & J. Williamson, ‘Pre-industrial inequality’, *The Economic Journal* 121 (2011) 255-272.
26 The only existing social table for the Low Countries is derived from the fiscal data produced by Van Zanden, see: Milanovic et al, ‘Pre-industrial inequality.’
27 See E. Vanhaute, ‘Het debat dat er geen was. Sociale stratificatie in de geschiedschrijving,’ in: J. Art (ed.), Docendo discimus: liber amicorum Romain van Eenoo (Gent 1999) 229-240.
efforts have not generally led to a clear picture of medieval or early modern inequality, as most researchers were soon forced to conclude that the questionable comparability, frequent silent omissions, and selective character of the sources prohibited a bigger picture from emerging. More recent research has attempted to circumvent these problems by opting exclusively for consistent source types and limiting the type of questions asked.28

In this article we will use seven tax lists from the fifteenth-century Flemish polders region as a first indication of rural inequality levels during this period.29 Although the precise criteria for taxation remain largely unspecified, it can be deduced that farm size was the main source of revenue taxed. Since these sources did not tax ownership but use, and since land was still the main factor of production in the countryside, it is reasonable to assume that these fiscal distributions offer a relatively reliable proxy for (agricultural) income inequality.30 However, due to its reliance on the use of land, this source type potentially misses important aspects of changes in inequality related to the growing number of proletarianised labourers.

A second source type that allows for the reconstruction of historical inequality estimates stems from the registration of inheritances. Despite a variety of judicial contexts, many societies across late medieval and early modern Europe (and beyond) developed rather similar practices of recording the value of inheritances to safeguard the share due to minor children until they would come of age. Such records can, with the help of sampling and correction techniques, be used to produce estimates of overall wealth inequality – a strategy that has been the object of several large-scale research projects in different countries.31 In the current article we use about 1,200

28 Alfani and Ryckbosch, ‘Growing apart’.
29 Most of these were published in the appendices of A. Zoete, De beden in het graafschap Vlaanderen onder de hertogen Jan zonder Vrees en Filips de Goede (1435-1467) (Brussel 1994) 254-256. The new taxes pertain to Dudzele and have been used in Dombrecht, Plattelandsgemeenschappen, 38-42, 143-147.
30 On these tax lists see Zoete, De beden and T. Soens, De spade in de dijk? Waterbeheer en rurale samenleving in de Vlaamse kustvlakte (1280-1580) (Gent 2009) 183-184. A comparison between the tax lists and probated wealth also indicates a relatively high degree of correlation (Pearson’s R = 0.59): Dombrecht, Plattelandsgemeenschappen, 52-53.
31 There is the classic research undertaken by Alice Hanson Jones and Adeline Daumard, which has been re-valued by Lindert & Williamson, and Rosenthal, Postel-Vinay & Piketty. A. Daumard, La bourgeoisie parisienne de 1815 à 1848 (Paris 1963); A. Hanson Jones, American Colonial Wealth: Documents and Methods (New York 1977); P.H. Lindert and J.G. Williamson, Unequal Gains: American Growth and Inequality since 1700 (Princeton 2016); T. Piketty, G. Postel-Vinay and J.L. Rosenthal, ‘Wealth concentration in a developing economy: Paris and France, 1807-1934’, The American Economic Review 96:1 (2006) 236-256. More recently, similar projects are being undertaken for Sweden and the Ottoman Empire.
registered inheritances from the ‘orphan books’ of Dudzele Ambacht and the neighbouring Oostkerke Ambacht in order to trace changes in wealth inequality from the middle of the fifteenth until the final quarter of the sixteenth century. Together these comprised the villages of Dudzele, Koolkerke, Ramskapelle, Oostkerke, Westkapelle, Lapscheure and Sint-Annaten-Vrijen.

Inheritance registers were recorded in the ‘orphan books’ of the rural district of the Brugse Vrije (the ‘Franc of Bruges’) continuously from 1458 onwards. Surprisingly, rural or economic historians have only rarely used those so far. Each record included the names of the minor children and of the father (and from the 1530s onwards also the name of the mother), followed by a description of the moveable (‘katelen’) and immovable goods (‘erven’). The value of real estate was usually not recorded, which is why we converted the size of the land owned to hypothetical yearly yields based on average lease prices of land in Dudzele Ambacht for that period. By similarly converting all other values to hypothetical yearly revenues – based on the prevailing interest yields of long-term credit – the total yearly revenue of the inherited capital, both personal and real, could be estimated.

Before a reliable wealth distribution can be reconstructed based on the recorded inheritances, some important caveats have to be taken into account, while adjustments to the original data have to be made. In order to arrive at a better uniformity of the data, only the recorded inheritances that dealt with the transmission of wealth from parents to children were used, thus excluding the inheritances from grandparents, uncles and aunts, siblings or cousins. Customary law in the region stipulated that the immovable goods inherited by either parent – the so-called props – were transferred to the children at the time of death of one of the parents, although in practice the widow(er) enjoyed usufruct of half of the props for the remainder of his or her life. Moreover, at the time of death of one parent, half of the props of the surviving spouse were also transferred to the children (at least in theory). The chattels and conquesten (the goods acquired during the time of marriage, held in communion by both spouses) were divided

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32 The data was gathered and used first in Dombrecht, Plattelandsgemeenschappen and A. Verstraeten, De morte patris et matris. Een sociaal-economische studie van het ambacht Oostkerke tijdens de tweede helft van de 15de en de 16de eeuw aan de hand van de registers van wezengoederen (unpublished Ma thesis, Ghent 2013).
33 Exceptions are Soens, De spade, 186-189; J. Mertens, ‘Middeleeuwse sociale structuren. Enkele kanttekeningen’, Tijdschrift voor Geschiedenis 84 (1971) 261 and Zoete, De beden, 201-206.
34 The average lease prices were taken from the accounts of the Saint-Johns Hospital from Bruges which owned leasehold farms in Dudzele Ambacht, see Vervaet, Goederenbeheer.
in two: one half went to the children, the other to the surviving parent.\textsuperscript{35}

Given this legal context, there are several possible types of registration that can be encountered in the inheritance records. First of all, there are the inheritances recorded at the time of death of the first parent. Some of these records only include the inheritance share of that particular parent (type 1), but if the surviving parent later passed away while there were still minor children in the household, that share was annotated to the same record (type 2). If all children had been emancipated (by reaching majority age or by marrying), no record was kept. In some cases the entire inheritance of both father and mother was recorded in a single entry (type 3), presumably because both passed away in a short timespan. In order to make all records comparable, the wealth recorded in the records of type 1 have been doubled, so as to resemble the ones of type 2 and 3. However, a more fundamental problem in using the ‘orphan books’ to reconstruct the entire wealth distribution is that only the inheritance share of the minor children are recorded.\textsuperscript{36} Since all children were entitled to an equal share in the total inheritance, and since the number of emancipated (non-minor) children is not recorded in the registers, there is no way of knowing for sure what the share was that went to the non-minor children. Therefore total inherited wealth per household remains unknown. Moreover, the inheritances split up refer only to the goods that were part of a single marital communion. If there were multiple (sequential) marriages there could be multiple inheritances, which again confronts us with the fact that the total wealth to be inherited/distributed remains unknown.

Rather than trying to account for the missing estate shares that went to non-minor children, or the equally missing shares that went to children from later or previous marriages, we have opted to use the distribution of inherited wealth per child as an (imperfect) proxy for the distribution of household wealth – and thus as the basis for our estimations of wealth inequality.\textsuperscript{37} In a sense, this means that we approach the distribution of inheritances not as a proxy for the inequality of the parent households, but as a proxy for the inequality in wealth of the households of the children it

\textsuperscript{35} See Ph. Godding, \textit{Le droit privé dans les Pays-Bas méridionaux du 12e au 18e siècle} (Brussels 1987) and L. Gilliodts-Van Severen, \textit{Coutume du Franc de Bruges} (Brussels 1880), vol. 1.

\textsuperscript{36} M. Danneel, ‘De Brugse wezenboeken als bron. Mogelijkheden en beperkingen (Late Middeleeuwen – Vroege Moderne Tijden)’, in F. Daelemans (ed.), \textit{Bronnen voor de geschiedenis van de materiële cultuur: staten van goed en testamenten} (Brussel 1988) 39 and E. Thoen, \textit{Landbouweconomie en bevolking in Vlaanderen gedurende de late Middeleeuwen en het begin van de Moderne Tijden} (Gent 1988) vol. 1, 26.

\textsuperscript{37} Dombrecht, \textit{Plattelandsgemeenschappen}, 42-50 for more details.
produced. Even though the inheritances are not reliable as a measure of the absolute wealth of households, it is likely that they offer a good indication of the relative distribution of wealth, as well as of its changes through time.

The analysis of wealth inequality presented below is based on all the inheritances from parents to their children recorded in Dudzele and Oostkerke Ambacht for nine specific sample periods.

4 Economic inequality in a time of transition

What can the available sources on the distribution of land use and wealth tell us about economic disparities in late medieval and early modern coastal Flanders? Let us turn first to the available tax registers from the fifteenth century, based on the amount of land used, for this region and period.38 Throughout this section we use several measures indicative of the concentration of resources in a given distribution. The Gini coefficient – still the most popular inequality statistic – algebraically summarizes the shape of the Lorenz curve, which plots the cumulative shares of population and income. The coefficient varies between 0 and 1, where the former denotes complete equality, and the latter complete inequality. This statistic is complemented by more intuitively interpretable statistics such as the share of wealth (or fiscal value) owned by the top 10%, and the share of the bottom 50% of the distribution.

Table 1 summarizes inequality measures for seven rural communities in the Franc of Bruges, including Dudzele Ambacht, during the fifteenth century. Except for the cases of Zuienkerke and Varsenare, which were slightly more egalitarian, all Gini coefficients lie between a narrow range of 0.47 and 0.52, and the top 10% share stood between 30 and 37%.39

Although these figures might seem relatively low compared to similar evidence on fiscal inequality in Italy, France or the Netherlands, it is important to remember that these data pertain mostly to land use or farm size, not to land ownership as in the case of most other data used for this purpose.40 When comparing these Gini coefficients to very similar fiscal data

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38 We have used the so-called ‘zetteningen’, the local tax assessments used to assess the individual share of each household or ‘income unit’ in the (fixed) share of the community in the central subsidies of the county. The so-called ‘zetters’ were responsible for assessing each unit’s share in the total contribution. These taxes were primarily based on income, and mostly determined by income from the use of land.

39 The Gini coefficient is an inequality index that varies between 0 and 1, where the former denotes complete equality, and the latter complete inequality.

40 For instance G. Alfani and F. Ammannati, ‘Economic inequality and poverty in the long run:..."
Table 1. Inequality statistics for fiscal records on land use in coastal Flanders, 15th century

| Location      | Gini | Top 10% share | Bottom 50% share | n   |
|---------------|------|--------------|------------------|-----|
| Zuienkerke, 1425 | .42  | 32           | 21               | 277 |
| Slijpe, 1431   | .49  | 33           | 16               | 191 |
| Lissewege, 1483| .47  | 37           | 18               | 575 |
| Meetkerke, 1483| .48  | 30           | 16               | 110 |
| Varsenare, 1484| .44  | 30           | 20               | 106 |
| Dudzele, 1484  | .52  | 36           | 14               | 425 |
| Straten, 1486  | .52  | 34           | 14               | 102 |

Source: calculations based on Zoete, De beden, appendix XIII and Royal Archives of Belgium, Charters Blauwe Nummers, n° 2090 (for Dudzele).

from the sixteenth-century Campine region, where Gini coefficients ranged between 0.50 and 0.56 in 1554-69, the results appear largely comparable.\(^{41}\) This is quite remarkable, since the social agro-system of the Campine region has been described as egalitarian, whereas the Coastal region has often been seen as more unequal.\(^{42}\) Moreover, compared to Inland Flanders in the sixteenth century (c. 1580), the Gini coefficients in the fifteenth-century Coastal region were decidedly low: in Inland Flanders the Gini ranged from 0.53 to 0.69.\(^{43}\)

This impression of a relatively low level of inequality seems to be confirmed by a comparison with two fiscal lists from coastal Flanders in 1570: a *pointing* from Oostkerke, and a *penningkohier* from Watervliet – two types of sources that also taxed the amount and value of land cultivated. In the case of Oostkerke the Gini coefficient amounted to 0.49, and in the case of Watervliet it was 0.55.\(^{44}\) Although this latter result is slightly higher than the results based on the fifteenth-century fiscal distribution – thus perhaps indicating a slight increase over time – the Gini is clearly lower than in the case of the Florentine State (late thirteenth-early nineteenth centuries), Dondena Working Paper series 70 (2014).

\(^{41}\) E. Van Onacker, *Leaders of the pack? Village elites and social structures in the fifteenth- and sixteenth-century Campine area* (unpublished PhD dissertation, Antwerp 2014) 87.

\(^{42}\) See Van Onacker, *Leaders of the pack?*

\(^{43}\) These figures are based on the hundreth penny levy introduced in the 1570s, and calculated from the distribution of the value of farms held (used), excluding those users who did not occupy a homestead within the parish borders. The parishes studied are Pittem, Kortrijk Buiten, Deerlijk, Moen, Avelgem, Wannegem, Erpe and Mere. Municipal Archives Ghent, Oud Archief Stad Gent, reeks 28.

\(^{44}\) For Oostkerke: State Archives Bruges, *Bundels Brugse Vrije*, n° 271. For Watervliet: Municipal Archives Ghent, Oud Archief Stad Gent, reeks 28bis, n° 2/32.
case of villages in Inland Flanders at the same time. However, the very nature of the fiscal records, based as they were on land use, might hide from view precisely those aspects of change in inequality that were characteristic of this region: changes in the distribution of land ownership (rather than use), and in the size of the population dependent on revenues from land rather than from labour.

To be able to more properly trace changes over time, and to use a source that can lend some more depth to the picture of economic stratification, we turn now to the records detailing the inheritances of orphans. Table 2 shows the main summary statistics related to the inheritance registers in Dudzele Ambacht and neighbouring Oostkerke Ambacht. Apart from the Gini index, this table also includes a Theil index. This alternative inequality measure from the entropy family of inequality indices has a different sensitivity compared to the Gini index (the Theil is more sensitive to changes around the top of the distribution, whereas the Gini is most sensitive to changes around the mode), which adds more perspective to the figures.

Table 2. Summary statistics of wealth inequality from the orphan’s inheritance registers in Dudzele and Oostkerke, 15th-16th centuries

|       | Median | Gini | Theil | Top 10% share | n    |
|-------|--------|------|-------|---------------|------|
| Dudzele |        |      |       |               |      |
| 1458-75 | 119    | .80  | 1.58  | 68            | 99   |
| 1481-99 | 172    | .64  | 0.75  | 45            | 83   |
| 1500-19 | 238    | .61  | 0.70  | 41            | 113  |
| 1520-39 | 251    | .66  | 0.79  | 48            | 144  |
| 1540-59 | 293    | .77  | 1.32  | 63            | 147  |
| 1561-82 | 157    | .77  | 1.21  | 63            | 145  |
| Oostkerke |       |      |       |               |      |
| 1458-80 | 211    | .70  | .93   |               | 168  |
| 1510-30 | 256    | .72  | 1.09  |               | 177  |
| 1569-80 | 143    | .82  | 1.76  |               | 119  |

Note: all values are based on the estimate of ‘yearly revenues’ per child (see data section above). The median wealth value is expressed in litres of wheat to correct for price inflation.
Sources: Royal Archives of Belgium, Registers Brugse Vrije, n° 16469-16481 and Verstraeten, De morte patris et matris.

Before interpreting these results, it should be mentioned that due to the relatively small sample size and the large levels of difference between poor
and rich estates, the inequality measures are subject to a degree of sampling error. The inclusion of just one or two very rich inheritances in a collection of inheritances no larger than a hundred records can have a strong influence on the Gini and (particularly) the Theil indexes of inequality. Nevertheless, two patterns seem to emerge from this data. In the case of Dudzele the second half of the fifteenth century is characterised by a decline of wealth inequality, which seems to corroborate the finding of relatively low inequality levels in the 1480s derived from the fiscal data above. However, the trend during the sixteenth century seems to be one of a gradual growth of inequality. The same upsurge in wealth inequality is evident in the data for Oostkerke. In this case there is no evidence of a decline during the second half of the fifteenth century, although it is clear that the inequality upswing was stronger in the sixteenth century.

5 Explaining rural inequality swings:
two complementary models

Why did inequality decline in Dudzele during the second half of the fifteenth century, and why did it increase in both Dudzele en Oostkerke throughout the sixteenth century? Obviously a single linear transition towards a capitalist agrarian economic structure between the fourteenth and sixteenth centuries seems unable to account for this cyclical pattern. Moreover, even if this economic transition is to be invoked as an explanation, this still begs the question as to how precisely commercialisation and inequality were intertwined.

In order to explore this question, we will consider two dominant models to account for changes in economic inequality in pre-industrial societies. As mentioned in the introduction, the most widely accepted model to explain inequality in pre-industrial society is the Malthusian one. The general mechanism at work in this model is one in which the prices of different factors of production and consumption shifted to the detriment of the poorer social groups as result of population pressure. In other words, the factor shares in total income changed as a result of changing factor prices. Most clearly this is the case when population pressure lowered the price of labour (because of an excess in supply), while it simultaneously raised the price of capital – including land. Wouter Ryckbosch has shown how the ratio of the real wage to GDP per capita in the Southern Low Countries declined during the sixteenth and seventeenth centuries, indicating
that such a process might have been at work during this period. Specifically for a rural context, Jaime Reis has recently argued that the ratio of the land rent to the real wage is a good way to capture this dynamic of shifting factor prices as a result of population pressure. In a more indirect way, Hoffman, Jacks, Levin and Lindert have also shown that population pressure in early modern Europe caused prices of basic foodstuffs to rise, while wages and the prices of luxury goods declined, thus causing a deepening of (real) inequality levels.

How does this Malthusian explanation based on shifting factor prices fit the data for the late medieval and early modern polders region of Flanders? A lack of sources prohibits a direct and reliable reconstruction of the demographic trend in this region, yet based on the indications of beer consumption, the number of communicants in nearby villages, and the prevalence of abandoned villages (Wüstungen) at least the direction of demographic change can be sketched summarily. The most important thing to note is that the prolonged war against Maximilian of Austria in the 1480s caused a considerable drop in the population of Dudzele and nearby villages. During the sixteenth century population levels never recovered, and probably remained well below fifteenth-century numbers. This evolution suggests that the late fifteenth-century waning of inequality in Dudzele at a time of drastic population decline is consistent with the Malthusian hypothesis, whereas the subsequent growth of inequality in Oostkerke and Dudzele at a time of stable or dwindling population figures during the sixteenth century is not. The general price mechanism associated with the Malthusian model also holds some explanatory value in this case, as factor prices did indeed shift favourably for the lower social classes in the second half of the fifteenth century. Apart from the war-ridden crisis years in the 1480s grain prices stayed rather low, and land rents declined slowly, while nominal wages remained constant. In the sixteenth century this trend was reversed, as grain and land prices started to increase more rapidly than wages, even though – as has been noted – this was not driven by regional demographic growth.

Although it is less prevalent in recent economic history on the subject, there also exists a second type of explanatory model to account for changes

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45 Ryckbosch, ‘Economic inequality.’
46 Reis, ‘Deviant behavior?’
47 Ph. Hoffman, D. Jacks, P. Levin and P. Lindert, ‘Real inequality in Europe since 1500’, The Journal of Economic History 62:2 (2002) 322-355 and J. Hanus, ‘Real inequality in the early modern Low Countries: the city of ’s-Hertogenbosch, 1500-1660’, Economic History Review 66:3 (2013) 733-756.
48 See Dombrecht, Plattelandsgemeenschappen, 59-136 for more details.
in pre-modern inequality levels. Starting from the observation that not all instances of inequality growth can be accounted for by reference to changes in population – as the case of sixteenth-century Coastal Flanders demonstrates – this model invokes more structural social and economic change as a causal factor. In this sense, it has more in common with Marx’ notion of ‘primitive accumulation’ than with Malthusian dynamics in an immovable economy. Rather than only looking at shifts in factor prices as the main determinant of inequality changes, this approach also looks at the distribution of the ownership of the factors of production. In other words, instead of only looking at the share of total income accruing to capital, land, or labour (i.e. factor shares), this approach also wants to take into account the distribution of the ownership of these factors of production across the population (i.e. factor endowments).49

When taking this approach to bear on our data for Coastal Flanders, the sixteenth-century ‘conundrum’ of rising inequality in the context of lower population figures becomes easier to understand. Table 3 shows some crucial aspects of the composition of the wealth inherited in fifteenth- and sixteenth-century Dudzele and Oostkerke.

Table 3. The wealth composition of inheritances, per orphan

|        | No real estate (%) | 0-5 ha (%) | > 5 ha (%) | > 10 ha (%) | Median size (in ha) | n   |
|--------|--------------------|------------|------------|-------------|---------------------|-----|
| **Dudzele** |                   |            |            |             |                     |     |
| 1458-75 | 42                 | 55         | 3          | 2           | 0,6                 | 99  |
| 1481-99 | 66                 | 29         | 5          | 0           | 1,2                 | 83  |
| 1500-19 | 63                 | 35         | 3          | 2           | 1,3                 | 113 |
| 1520-39 | 66                 | 26         | 8          | 3           | 2,2                 | 144 |
| 1540-59 | 70                 | 18         | 12         | 5           | 2,4                 | 147 |
| 1561-82 | 68                 | 22         | 10         | 7           | 2                   | 145 |
| **Oostkerke** |                |            |            |             |                     |     |
| 1458-80 | 48                 | 36         | 2          | 0           |                     | 168 |
| 1510-30 | 64                 | 19         | 4          | 3           |                     | 177 |
| 1569-80 | 72                 | 12         | 5          | 2           |                     | 119 |

Note: the median value only pertains to those inheritances that included real estate. Sources: see table 2.

49 An introduction in Ryckbosch, ‘Economic inequality’.
Two crucial trends are clear from the compositional breakdown, evident in both Dudzele and Oostkerke. First of all, the number of inheritances that included no real estate grew remarkably: it increased with a factor of 1.7 from 42 to 68% in a century in Dudzele, and with a factor of 1.5 from 48 to 72% in Oostkerke. This indicates that the ownership of land became increasingly concentrated in fewer hands, with a growing number of households becoming dependent on leasehold or wage labour to be able to secure a living. This tendency towards concentration of the ownership of land is evident also among those households that did own real estate. The number of small estates (inherited per orphan) fell drastically throughout the period under study in both communities. At the same time, the number of large landholdings grew slightly – even though it remained relatively low. What the data from these inheritance registers tells us is that the number of land-owning peasants diminished rapidly from at least the middle of the fifteenth century onwards (but probably sooner).50

This pattern is also clear from other sources. Land registers from Dudzele in 1477 and 1567-77 indicate that the number of landowners in the community almost halved in less than a century: from 573 to 290 – even though the total acreage under cultivation remained the same (2,545 ha).51 As peasant ownership dwindled, clerical and aristocratic landowners saw their share in total land property rise, while the share of urban landowners probably remained constant at a relatively high level. By 1567-77 only 14% of the total acreage in Dudzele was owned by local residents. By contrast, 30% belonged to non-local landlords (most of which were probably urban citizens), 22% belonged to noblemen, and 34% to ecclesiastical institutions. These absentee landlords usually leased out their land in the shape of large commercial farms, usually between 20 and 50 hectares large.

This structural transformation in the ownership structure of land had profound consequences for the distribution of income and wealth. It should be noted that this is not a statistical necessity: in theory it would be perfectly possible for such a shift in the composition of wealth away from real estate ownership for large shares of the population to be compatible with stable or diminishing levels of inequality. Growing concentration of ownership of one wealth component (land) does not, in principle, preclude the possibility that this was compensated for in other wealth components. However, in this case it is clear that the concentration in land owner-

50 See Soens, De spade.
51 Archive of the OCMW Bruges, Sint-Janshospitaal, A8 (ommeloper 1447) and State Archives Bruges (RAB), Registers Brugse Vrije, no 15983-15986 (ommeloper 1567-77).
ship was associated with a growth in inequality. Therefore, rural society in Dudzele began to resemble less a peasant society in which differences in farm sizes marked social and economic status, and more a capitalist society fundamentally divided by the ownership of labour (by the growing numbers of landless labourers), land (by the absentee landlords) and capital (by the locally based large tenant farmers).

A final note on the relationship between the two (complementary) interpretative models invoked and the inequality patterns observed, is in order here. A causal relationship that appears to be absent at the level of analysis studied here, might very well be noticeable at a higher level, or on a larger scale. For instance, the structural shift towards a higher degree of concentration of land ownership during the fifteenth century went hand in hand with a demographic decline in the region. It is likely that many proletarianized peasants migrated out of the region as a result of this process, so that at the local level the resulting distribution became more egalitarian, while at a more macro-level – including that of the Flemish urban centres to which most regional migration gravitated – inequality actually went upwards.

In a related process, the growing concentration of land ownership in the hands of absentee landlords might have raised inequality levels at a macro level, even though it could result in a more egalitarian wealth distribution at the local level (especially when most large farms became leaseholders). This phenomenon of capital transfers most likely reinforced the upward inequality trend of the sixteenth century further, as the price of land rents (lease prices) rose faster than wages (Figure 1). As a result, the share in total income of landlords increased, while the shares of labourers and (to a lesser extent) leaseholders dwindled. In other words, the trend of factor prices worked to decrease the share of total income that accrued to labour, whereas it raised the share of income accrued by the owners of capital and land. However, given the prevalence of absentee land ownership as well as labour migration, the effects of these changing factor incomes on inequality can only be meaningfully observed at the regional level, instead of the local one.

6 Conclusions

The period of the fifteenth and sixteenth centuries brought about a fundamental transformation of the rural economy in the polders region to the North of Bruges. Agricultural produce became more commercialised,
as a larger share of the acreage was now used for keeping livestock, while grain cultivation declined. Large farms, often held in lease by substantial tenant farmers, increasingly dominated the agricultural landscape. How did these processes of commercialisation affect the distribution of income and wealth in rural society?

The analysis of fiscal and inheritance sources presented in this article suggests a more complicated picture than could be expected based on the nature of economic change in this time and place. A brief scrutiny of the tax sources available for the fifteenth century suggested a relatively egalitarian distribution of land use (and agricultural income) compared to Inland Flanders or later time periods. This might appear counter-intuitive or paradoxical, since peasant societies are generally assumed to have been relatively egalitarian, whereas a more capitalist agrarian society is understood to have been generally more inegalitarian. However, since the sources based on land use probably omit the bottom part of society that became proletarianised, this observation is not illogical. An analysis of the wealth distribution based on inheritance registers suggested a decline of wealth disparities during the second half of the fifteenth century, followed by a sustained growth of inequality until the final quarter of the sixteenth century. This implies that the growth of wealth inequality during the economic

Figure 1. The land rent to wage ratio in Coastal Flanders, 1420-1580

Notes: the land rent value is based on the leasehold prices of the goods of Saint-John’s Hospital (Bruges) in the parish of Zuienkerke. The wages rate is based on the wage of unskilled labourers employed in the coastal town of Blankenberge.
Sources: Vervaet, Goederenbeheer, 512-513; Soens, De spade, appendix 1, 570.
transition period was not linear, and that a levelling of wealth disparities also characterised some episodes of the process.

Economic historians in search of explanations for upward and downward swings in pre-industrial inequality levels have generally tended to focus on the deterministic effects sorted by demographic and economic forces on the personal distribution of income and wealth. By far the most attention, in this respect, has been paid to the effect of growing population pressure as a fundamental cause for growing inequality levels. However, the case of Coastal Flanders studied here does not easily adhere to this pattern, as population levels went down from at least the 1480s onwards – while inequality started to grow for several decades after that. Even if shifting factor prices, and corresponding incomes, played a role in shaping pre-industrial rural inequality, its effects might have been more easily discernable at a macro than at a micro level. The growing land rent to wage ratio during the sixteenth century, for instance, almost certainly deepened rural-urban inequalities – as it benefited mostly urban, aristocratic and clerical absentee landlords – more than it changed the local distribution of income in the rural parishes of Dudzele or Oostkerke examined here.

In order to account for the growth of inequality in the village communities of sixteenth-century coastal Flanders, the changing composition of wealth offers important clues. From the inheritance data it is evident that from the middle of the fifteenth century onwards the number of households with ownership of real estate dwindled, while land in the community became increasingly concentrated in the hands of a small number of rich farmers and urban, noble and clerical landlords. Tim Soens has pointed out how this transition away from a peasant society was reinforced by ecological pressures. As the institutional organisation of water management in the polders shifted towards absentee landlords and a handful of wealthy tenants, the ecological threat to peasant subsistence in the area became even greater. Whether such ecological or institutional factors were in fact the fundamental cause of the changing patterns of land ownership, and of wealth inequality in general – or if those were a consequence – is not easy to determine. It is likely that both processes reinforced each other.

The case of the polders region of Flanders during the sixteenth century indicates that wealth inequality could grow substantially also in a context of demographic stability (or decline), and stable factor prices. It is the changing distribution of factor endowments between landlords, farmers, peasants, and labourers that seems most obviously to be held accountable

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52 Soens, De spade, 257–269.
for this change. Explanations for this process will thus have to be searched for also outside of the domain usually explored by the ‘new’ history of pre-industrial economic inequality written by economic historians: in the power relations between these social groups, their organisational and political cohesion, and in the differential effects of wealth transmission across generations. In this sense, the ‘old’ social history of medieval and early modern Europe can offer valuable ‘new’ perspectives to enrich the history of pre-industrial economic inequality.

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