**Capital market and interest rate in medieval Holland (12th-16th-centuries)**

Jaco Zuijderduijn  
Utrecht University

*In the late Middle Ages interest rates dropped heavily in large parts of Europe. The causes of this development are still not fully understood. This paper explores one possible explanation: improvements in the institutional framework. Costs of capital could drop when authorities took an interest in market-performance. They improved the institutional framework and thus helped to lower information costs and transaction costs on the capital market, allowing interest rates to drop. The case of medieval Holland is not only interesting because it can shed light upon the course of interest rates, in the late Middle Ages the foundation of the market-structure of the Dutch Republic was created as well. It allowed for a funded debt, capital-intensive economic sectors and foreign investment. In the paper the importance of medieval developments is discussed.*

In general, trade is subject to agreements and rules. Many of these are caused by the fact that not all transactions are paid for directly in cash. As soon as credit is involved, agreements and rules are indispensable to protect the creditor against default of payment. Credit-transactions are only possible when the debtor has enough credit-worthiness: the loan must at least be backed by securities, and a third party must provide the creditor with the means to seek compensation when the debtor defaults. The rules offering creditors legal security make up an institutional framework which helps trade flowing and supports the functioning of the capital market. The institutional framework, consisting of both formal and informal rules, is the subject of my research. However, it does not merely contain rules aimed at the improvement of credit-worthiness, but all rules effecting credit-transactions (payments on account) and capital-transfers (loans).

The legal framework that supports and enables borrowing depends primarily on reliable authorities who provide subjects with legal security. Compared with other factor markets the capital market seems to be closest connected with legal security. When a creditor agrees to receive an annual pension, or a merchant agrees to be paid in terms, both ran a considerable risk of not being paid. The expansion of capital transfers beyond the small circle of friends and relatives clearly requires a legal framework supported by institutions, in particular government institutions. Thus, the development of the capital market is closely connected to state-formation. However, there are only few scientific models explaining economic growth by taking political developments in consideration. The New Institutional Economics (NIE) approach to economic development is the main exception. It supposes institutions and institutional arrangements decide the pace and direction of economic development.

Legal frameworks are constructed in a forcefield, where groups with conflicting interests negotiate what the market-structure should look like. Authorities and (groups of) subjects all had different ideas about how the market was supposed to function, and how this should be achieved. The way religious authorities sometimes opposed credit, while...

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1 Admittedly, informal institutions may have lowered incentives for formal -government- institutions. Cf. the work of A. Greif.
2 Hatcher & Bayley, *Modelling the Middle Ages*, 192-197.
worldly authorities and merchant-communities favoured it, is a clear example. Thus, the political and social structure of a society determines who will have the final say about market-structures, and in the end how well an economy can perform. As the organization of most societies differs, it is to be expected market-structures differ markedly as well.

When the historical component is added, one of the most interesting cases of a well-performing economy is that of the Dutch Republic. This small country managed to gain economic world-supremacy in the seventeenth-century, and what is even more remarkable, it did so without a large population or rich resources. It seems the Republic rather relied on things as organisation, financial instruments etc. Its capital market was rather advanced: the Republic managed to create a huge funded debt to finance its wars. In spite of the enormous demand for capital –especially in Amsterdam, the center of international finance– interest rates remained low. Compared with other countries, the Republic’s market-structure –and the institutional framework underlying it– were probably relatively good. But where should one look for its origins?

Most historians would look no further back than the sixteenth-century. The origins of the Dutch Miracle are often explained by pointing at the religious wars elsewhere in Europe, the flow of Antwerp merchants towards Amsterdam, and a sixteenth-century financial revolution. On the other hand, recent research has indicated some unique characteristics, particularly of Holland, the core-region of the later Republic, before the sixteenth-century. According to Jansen, Holland already experienced a first phase of economic growth in the second half of the fourteenth-century3. This development resulted in a remarkably urbanised region with a highly proto-industrial and market-orientated countryside. Thus, the main characteristics of seventeenth-century Holland can be traced back to the late-middle ages. Perhaps there are indications that the origins of the Republic’s market-structure must rather be looked for in medieval times as well?

First, it is necessary to examine the forcefield where both state-formation and the creation of the institutional framework took place (section 1). The distinct composure of the Holland society had a decisive influence upon the way institutions functioned. Furthermore, state-formation was a prerequisite for the creation of an institutional framework, and the creation of public debt -an essential element of state-formation- tied authorities even closer to the problem of credit-worthiness. Next the way organizations created the institutional framework is discussed (section 2): how did they improve legal security and lower information costs on the capital market, and how did they allow for the use of credit in economic exchange? Finally, the way the legal frameworks influenced market-performance will be addressed (section 3). What did the Holland capital market look like, which financial techniques did the institutional framework allow for and what was the volume of the capital market?

1. Forcefield

As has been explained the performance of the capital market depends on the level of organisation a society has reached. Obviously state-formation itself is no guarantee for the creation of market-structures and economic growth. After all, a strong state does not automatically create the prerequisites for economic growth. The opposite is rather true:

3 H.P.H. Jansen, ‘Hollands advance’.
without a certain balance of power the state is likely to neglect economic interests of its subjects. The possibilities for economic growth thus depend on the precise composure of the political climate. In Holland two phenomena stand out: the weak position of the nobility and clergy and the strong position of cities—a position that never became a hegemony though! The result was state-formation in consultation with the Holland citizens.

Despite the influential citizens, Holland cities did not develop to become city-states. Nor did they gain any real power in their surroundings. In other highly urbanised areas—Northern Italy and the Southern Low Countries—cities dominated their surroundings. Why did Holland cities not develop to become city-states? Hoppenbrouwers pointed at several factors: the gains were small, cities did not collaborate, and the opposition of both local lords and princely power was too strong. The latter element is of particular interest. Did Holland cities simply flourish too late? When they started to expand, in the second half of the thirteenth-century, their ambitions were checked by strong counts. In the remainder of the middle ages the state remained strong enough to withstand urban ambitions. Local lords were not particularly strong, but had the advantage that only few cities had usurped or received rights concerning their countryside. Legally, they simply had a strong case.

In the thirteenth-century Holland was already a relatively urbanised region, while the typical medieval social orders of noblemen and clergy may have been influential, but lacked means of power. Feudal structures were weak or absent in the chief part of the county. This abnormal social composition was the result of the peat-reclamations: the counts had attracted settlers to reclaim large parts of Holland’s uninhabited swamps by offering them some excessive rights. They were free from personal bonds and only had to pay a small fixed fee for the possession of the land, which they practically held in full-ownership. As a result the majority of the Holland peasantry had little to deal with noblemen.

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4 North has stressed this downside of strong states: for late medieval rulers it often was too tempting to levy high taxes and tolls (North, Structure and change, 28).
5 The organisations that attempt to alter the legal framework are central to the NIE. It is important to find out why some are more successful than others (North, Institutions, 73).
6 The idea of ‘civic state-formation’ was formulated by Mitteis (H. Mitteis, ‘Rechtsfolgen des Leistungsverzug beim Kaufvertrag nach niederländische Quellen des Mittelalters’ in Deutschrechtlichen Beiträge. Forschungen und Quellen zur Geschichte des Deutschen Rechts VII series nr. 2 (Heidelberg 1913) 110-254, there 124-125.
7 The same goes for cities in the Holy Roman Empire (T.S. Jansma, Tekst en uitleg, 37).
8 Perhaps it is better to state that the urgency was low: cities were primarily concerned with the supply of foodstuffs, and this often induced them to take control of the countryside. In Holland most grain came from abroad, and cities needed not intervene in rural matters to secure supplies (cf. Jansma, Tekst en uitleg, 36).
9 Hoppenbrouwers, ‘Town and country’, 76.
10 The Italian city-states developed decisively in the eleventh-century, in a period of severe political disintegration (G. Tabacco, ‘Northern and central Italy in the eleventh century’ in New Cambridge Medieval History IV). Compared with the Southern Low Countries, urbanisation in Holland started late, after about 1250 (Van Uytven in NAGN II, 190-195).
11 Where cities had strong claims they managed to control their surroundings, regardless of local noblemen. The Land van Heusden and Dordrecht surroundings are clear examples.
12 H. van der Linden, Het platteland in het Noordwesten met de nadruk op de occupatie circa 1000-1300’ in Algemene Geschiedenis der Nederlanden 2 (1982) 48-82, there 73-78.
The political system in the peat-area had some modern features as well. The count was in control of all lordships, the independent lordships we encounter outside the peat-area were absent. These lordships were governed in a uniform way: in each village administration was in the hands of a sheriff, assisted by village-representatives. No other local authorities -such as lords and religious institutions- were active in the peat-area, making for a clear and predictable social order. Furthermore, local governance was not burdened with ancient rights one family of noblemen had received centuries earlier; in the villages of the peat-area rights aimed at the protection of the patrimony were absent. Such an ancient right was the *naastingsrecht*, the right to take-over the sale of real estate or obstruct mortgaging. The *landgift* was another obstruction to trade: in some areas land could only be sold after gaining the lord’s permission and paying a fee. In the peat-area the *landgift* was absent. The same goes for feudal levies and labour-services.

The main part of Holland was reclaimed in a time when the state had matured and could well do without the alienation of its rights. When in large parts of Europe the power of governments had been under pressure of local strongmen, round the year 1000, the chief part of Holland was a swamp no man in his senses would claim. The weak position of the clergy has not yet been linked to Holland’s occupational history. According to Jongkees it must be ascribed to the relatively low wealth and power of Holland abbys. Brokken stressed personal conditions, and a lack of unity, organisation and political participation. However, neither one of them seems to address the heart of the matter: why was the Holland clergy relatively poor and disorganised? Essentially, the same question can be applied to the nobility, which was surpassed by the main cities in the course of the late middle ages.

Nobility and clergy had a strong position outside the peat-area, but in the late middle ages this was only a small part of the county. When large numbers of settlers reclaimed the peat-area, the proportion of Holland inhabitants dominated by noblemen and clerics rapidly declined. Their position was further weakened by the growing number of cities. The modernisation of administration was rarely obstructed by nobility and clergy: if they did hold substantial power at all -outside the peat-area-, the balance of power within the county prevented that local lords could do much harm to the process of state-formation.

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13 It seems relatively ‘modern’ settlements, such as city’s and villages in the peat-area, did not know the right to take-over (*naastingsrecht*). According to Bezemer the *naastingsrecht* was not in effect in the main cities, while most of the examples he gives of rural *naastingsrecht* are from the south of the county, which was outside the peat-area (W. Bezemer, ‘Een en ander over het oud-Hollandsche naastingsrecht’ in *Rechtsgeleerd magazijn Themis* (1892) 505-535).

14 The expansion of the Holland state coincided with the monetarisation of the European economy. Regals were no longer alienated; noblemen, clerics and officials were rather rewarded with money rents. While regals had been alienated for centuries elsewhere in Europe, the Holland state had a good alternative during its expansion (Spufford, *Money and profit*, 63).


16 To make matters worse, in the non-peat-area the nobility and clergy had to compete with the Holland cities, which are predominantly located on the sandy *geestgronden*.

17 In the late middle ages the Holland nobility and clergy represented far less than 50% of the Holland inhabitants. The urbanisation rate has been estimated to have been 33% in 1400, and 45% in 1514. When we estimate the number of inhabitants in the non-peat-area to have been 30% -it was probably less-, it is obvious that the nobility and clergy only dominated a small part of the Holland population (Van Bavel & Van Zanden, ‘The jump-start of the Holland economy’, 505).
In sum, in the late Middle Ages Holland was a heavily urbanised area where the power of cities was checked by the counts. Villages were autonomous and well-organised, while the position of the nobility and clergy was rather weak. Politics were dominated by the central government and local authorities. They had the best possibilities to alter the institutional framework.

2. Institutional framework

Why did central and local authorities alter the institutional framework of the capital market? Taxation was a major incentive: the late middle ages were a period of fierce international competition between states. To withstand attacks from competitors, and expand their own territory, the counts of Holland were constantly looking for revenues. Ultimately the ruler with the best access to capital stood the best chance of gaining territory. The way the wealthy Philip the Good took over Holland in 1432 after John and Jacqueline of Bavaria had exhausted their resources -including their credit-worthiness- is a good example. The insatiable financial demands of the counts had some important effects that influenced the coming-to-being of a legal framework: taxation, public debt and monetary policy all had a heavy influence upon the growth of civil service and legal framework. Some incentives to improve economic structures were not initiated by the central government’s financial demands. Concerns about law and order -the effects of fraud in the market-place- were another reason for authorities to take control of economic traffic, while subjects could convince authorities to issue laws and introduce institutions to lower information costs and transaction costs as well.

In this section I will link up authorities and institutional framework. Two important legal instruments will be addressed. The registration of mortgages lowered information costs. It first appeared in the fifteenth-century and was applied in all of Holland at the end of the sixteenth-century. Its development will be treated using some decrees issued by Charles V and Philip II. Civil law lowered transaction costs, especially when it allowed for the seizure of collaterals. In this respect some important advances were made in the fifteenth-century. These will be discussed using an early-sixteenth-century Haarlem by-law.

Information costs: registration of mortgages

Local authorities already registered transfers on the land and capital market in the fifteenth-century. Some of these early registers have been preserved, the majority has been lost. In the sixteenth-century the central government issued some decrees aimed at the introduction of registration in all of Holland. At the end of the sixteenth-century probably all cities and village kept such registers. They could be consulted by creditors to gain information about debtors and collaterals. Thus, registration obviously decreased information costs.

Registration depended on centralized ratification. In 1529 Charles V issued a decree forcing Holland subjects to bring the sale of land or annuities before the government of the village where the real estate or mortgaged good was located. Only the annuity-contracts ratified by the local sheriff were legal. This continued to be the law
until the fall of the Dutch Republic. The principle of ratification by the local court was nothing new: it was dealt with in the charters of numerous cities and regions. Yet the 1529 decree is of particular importance because it unified Holland law.

In the remainder of the sixteenth-century registration was extended. It was a strict condition for the decree on taxation introduced in 1542. Holland subjects were to be taxed the tenth penny of annuities, rents and real estate. It was levied in 1543, and unlike other new taxes it was a success. In 1560 Philip II charged secretaries and clerks to start the registration of mortgages on penalty of a fine. Registration became compulsory in 1612, when the government declared mortgaging without registration invalid.

The 1529 decree describes the central government’s incentives:

…dat Onse ondersaten daghelijcks alieneren, vervreemden, hypotheecqueren ende anders haer goeden belasten voor anderen heeren richters ende bancken dan degeene, onder die welcke die goeden gelegen zijn, waarmede die koopers werden gecircumvenieerd ende bedrogen ende daeruyt dickwils questie ende processen rijsen, midts dat diegene, die de verkoopinge transporten oft alienatiën doen, somtijds dien panden of de bepalinge ende limiten derselver niet wel en verklaeren ende oock die lasten ende opstal van de voorschreve huysen, landen ende eren verswijgen, ende dat die overmidts de voirschreve officieren ende rechters den rijkdom van heuren poorters, buyren ende ingesetenen niet en kunnen geweten, omme daernae heur settinge ende ommeslagen ende anders te maecken nae grootheyt van elcks goet…

…every day our subjects alienate, mortgage and burden their goods before other judges and courts than those of the places where the goods are located, causing the buyers to be deceived and arguments and lawsuits to arise, because debtors and sellers of land sometimes fail to indicate the premises or limits [of land] and conceal the charges on the houses, fields and yards. As a result the authorities cannot estimate the wealth of citizens and neighbours, and cannot assess how much they should contribute to taxes…

The central government tried to limit fraud by ordering ratification by the court where the real estate was located. Here knowledge of real estate was pooled, either by registration or in the memory of court-members. Creditors and buyers of land could access this ‘pooled knowledge’ when they had their transaction ratified. Thus, information costs were lowered considerably. The central government tried to maximise tax-revenues as well. In the countryside taxes were levied according to wealth and ratification by the local court clearly decreased possibilities of tax-evasion.

The lowering of information costs was an incentive of local authorities as well. This was the case in Den Briel, a small city in the south of Holland. According to Jan Mathyssen, the author of the Rechtboek van Den Briel (probably written in the first

19 Ratification by the local court appears in the 1477 Grote Privilege issued by Mary of Burgundy. This decree was wrested by her subjects, and was not observed by the central government.
quarter of the fifteenth century), authorities wanted to make sure nobody had ancient claims on real estate about to be mortgaged. When the Den Briel aldermen found out someone tried to mortgage real estate with ancient claims on it, the culprit was fined ten pounds *hollands*. If not, the aldermen gave their permission to mortgage the good22.

Although the central government had strong incentives to improve registration, both local authorities and even individual subjects may have advocated legislation. The stadholder and Counsel of Holland had advised the central government before it issued the 1529 decree23. Furthermore, the 1560 decree explicitly mentions abuses on the markets for real estate and capital: these abuses were linked with poor registration:

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\text{Ende voorts dat ter cause vande verkoopingen ofte belastingen van goeden…}
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\[
\text{…veel abuysten, inconvenienten ende questien gebeuren ende voort ghestelt worden, uyt dien dat vande selve verkoopingen ofte belastingen geen behoorlijck registre gehouden en wort…24}
\]

Regarding the sale or mortgaging of real estate… …many abuses occur and disputes arise, because of sales and mortgages no proper registers are kept…

It is clear registration was not necessarily a mere initiative of the central government. Local authorities were confronted with the consequences of high information costs and probably demanded changes as well.

*Transaction costs: seizure in sixteenth-century Haarlem*

Institutional frameworks were foremost created in cities. Unlike villages, cities had good access to the central government. In the fourteenth-century they participated in the *Staten*, the representative counsel. They tried to influence politics in informal ways as well: bribes were used and personal relations with members of the central government were maintained by grants. City-governments had a right to legislation. They were allowed to issue by-laws on condition that the sheriff—the representative of the count—agreed on the matter25. Thus, decision-making was fast and accurate. A document of the city of Haarlem can tell us about the way the city-government tried to lower transaction costs. The *Modus Procedendi* as the document is called, consists of 34 by-laws stipulating how civil action should be carried out. It was probably written down in the beginning of the sixteenth-century.

I would like to focus on the execution of defaultants. When authorities help creditors to seek compensation from debtors transaction costs decrease. In Haarlem they did in several ways. The court could sentence the debtor to hand over the collateral, in most cases immovable the creditor had accepted as a security. This should be done

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23 Cau, *Plakkaatboek I*, 373.
within fourteen days.\textsuperscript{26} When the debtor did not cooperate, or there were other reasons why the creditor was not compensated, the court turned to arrest. First moveables were seized, excluding those the debtor used to make a living. If necessary immoveables were seized as well and ultimately the debtor was imprisoned for debt. These measures were executed by civil-servants, beadles and clerks. They summoned debtors to appear in court, seized their goods and arrested them.\textsuperscript{27}

The \textit{Modus Procedendi} contains some improvements we encounter elsewhere in Holland as well. The city-government took responsibility for imprisonment for debt. It put city-prisons to the avail of civil law. Earlier, creditors had to provide for imprisonment themselves: they had to arrange a place for imprisonment –this could even be their own home– and had to pay for the debtor’s food. Prisons were rarely used for the execution of sentences. Of course this was a dismal procedure. It was criticised by the lawyers Wielant and Roussel, who advised the Haarlem government to expand the use of prisons at the beginning of the sixteenth-century.\textsuperscript{28} Wielant even suggested to prohibit imprisonment at home. Imprisoning someone at home for over twenty hours was to be fined with banishment. An exception was made for didactic purposes: fathers were allowed to lock up disobedient sons.\textsuperscript{29} It seems Haarlem creditors still had to pay a small sum for the imprisonment, but this practise was about to change. In the course of the sixteenth-century the costs of imprisonment were transferred to the debtor. Thus, execution was further improved.\textsuperscript{30}

The public sale of seized goods was another improvement. These were not simply handed over to the creditor, as had been customary until the fifteenth-century, but were sold at an auction organised by the city-government. The debtor’s goods were sold until the creditor was compensated. Compensation in hard cash was preferred over goods. These could raise less than expected and it took time and money to sell. These expenses were carried by the city-government.

The \textit{Modus Procedendi} was drafted by the Haarlem sheriff, aldermen, majors and counsel. We don’t know how many counsellors participated, but it seems reasonable to say at least thirty citizens negotiated with the sheriff. They were no representatives of their fellow-citizens: medieval government was not democratic. It consisted of the most wealthy. Although city-governments had corrupt and nepotistic tendencies they were careful not to harm the economy. Public good and self-interest often coincided: government-members were often merchants themselves and were served best with a solid institutional framework. Many Haarlem regents were brewers and beer-merchants. They depended on financial techniques to finance their businesses and keep trade flowing. Perhaps even more important is that the wealthy were the main investors on the capital market. They invested in annuities and bought bonds on the secondary capital market and profited from a sound institutional framework.

\textsuperscript{26} The source has thirteen days, but I incline to think this has been a mistake made either by a sixteenth-century copyist or the editor. In the \textit{Modus Procedendi} terms of seven and fourteen days are frequently referred to. Such terms make much more sense than those of thirteen days, especially when we keep in mind that the court was in session on fixed days.

\textsuperscript{27} Huizinga, \textit{Rechtsbronnen Haarlem}, 193 articles 29-33.

\textsuperscript{28} Hallema, \textit{De geschiedenis van het gevangeniswezen}, 51.

\textsuperscript{29} Fruin, ‘Een wetboek van Philips Wielant’, 67.

\textsuperscript{30} Zuijderduijn, ‘Diverging developments’ (paper 2004).
The concerns of the Haarlem government are clearly visible in the Modus Procedendi. It was drawn up because of

…ongeregelt hedhen, ghebreeeken, abusen gehouden ende gheuseert in tstuck van der justicien ende exercitie van dien in der vierscharen deser stede…

…abuses in legislation and the jurisdiction of the city’s court…

These abuses threatened public good. The Modus Procedendi was aimed against the numerous types of fraud that obstructed the course of justice. Debtors failed to show up at court-sessions, fled the city or used safe-conducts to escape conviction. As said the Haarlem government tried to lower transaction costs by taking responsibility for imprisonment for debt and public auctions. In other cities institutional frameworks were improved as well, allowing the capital market to expand.

3. Capital market

In ‘Institutions, institutional change and economic performance’, Douglas North distinguishes several stages of economic growth. The first stage is that of local exchange within the village. This type of economy is characterised by self-sufficiency and a low degree of specialisation. When the village-economy is incorporated within a regional economy, it enters another stage, characterised by multilateral trade over a large area, the creation of specialised market-places, and an increase in the number of trading partners. In this economy an increasing percentage of the labour force is engaged in trade and commerce. The next stage is that of an economy with more specialized producers. Economies of scale make hierarchical producing organisations more attractive, and full-time workers are employed by entrepreneurs. Along with specialization urbanisation increases as well. In the last stage ‘specialisation has increased, agriculture is a small percentage of the labour-force, and gigantic markets that are national and international characterise economies’. This economy is highly specialised and urbanised.

When we assume North’s model justifies the way economies developed it is possible to fit late-medieval Holland in the third stage of economic development. The county was heavily urbanised: in 1514 45% of the people lived in cities. Its labour-force was specialised, and hierarchical producing organizations were important as well. Proto-industrial entrepreneurs organised the production that workers carried out. An increasing proportion of the labour-force was already active in manufacturing and services. What is of interest here, is the kind of institutions North thinks an economy in this stage of development requires. He writes that this stage ‘entails some form of coercive political order, because as more complex and impersonal forms of exchange evolve, personal ties, voluntaristic constraints, and ostracism are no longer effective’.

31 Huizinga, Rechtsbronnen Haarlem, 187.
32 North, Institutions, 119-120.
34 Van Bavel, ‘Proto-industrialisation’.
35 Van Zanden, ‘Taking the measure’.
36 North, Institutions, 121.
In the preceding section the development of this coercive political order has been addressed. Authorities increased their control over the capital market in the course of the late middle ages. But did they create the prerequisites for more complex and impersonal forms of exchange? The answer has two sides. The qualitative side is concerned with what capital was used for and how important the capital market was for economic development. The quantitative side of the capital market is addressed as well: did the medieval institutional framework already allow for a large number of transactions and low interest rates?

**Qualitative aspects**

Historians have stressed the importance of secondary capital markets. The value of such markets is clear: they offer creditors the possibility to sell their bonds whenever they want to, and get most of their initial investment back. Resale increases liquidity and makes investing on the capital market more attractive. In general secondary capital markets are believed to have appeared in the seventeenth-century. In Holland annuities and bonds were transferred much earlier, as will be shown here, but the number of these transactions is deemed to have been too low to speak of a truly secondary market. Still, there are strong indications that medieval creditors could easily get rid of annuities and bonds, and that liquidity was not all that bad.

The possibility to resell annuities and bonds depends strongly on the level the institutional framework is on. Third parties rarely know the debtor and his or her credit-worthiness, let alone intentions. Thus, investing on the secondary capital market is relatively risky, and in general investors will want to pay less than the face-value of annuities and bonds. A solid institutional framework can improve their legal security, and consequently help to increase the demand on the secondary capital market, or drive prices towards face-value. In medieval Holland things were no different: it is hard to see how anything resembling a secondary capital market can have appeared without institutions lowering information costs, transactions costs and allowing for enforcement. Therefore, the mere existence of resale can be used as an indicator for the development of the institutional framework.

So, what is there to say about resale in medieval Holland? Annuities were resold as early as the fourteenth-century. In 1309 the Haarlem religious institution of St. Jan already bought an annuity on the secondary market. Religious institutions were eager buyers: in the fifteenth and sixteenth-century they were often locked out of the land market and primary capital market, because authorities objected to their tendency to hoard, to their tax-exemptions, and to their judicial privileges. The secondary capital market was one of the few sectors religious institutions could still invest in, and there is plenty of evidence they did. In 1505, Haarlem forbade the resale of annuities, and even

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37 The absence of price-listings published in journals is regarded as another indication that a secondary capital market did not appear before the seventeenth-century. The lack of bonds used as collateral seems to indicate the same (Gelderblom & Jonker, ‘Completing a financial revolution’, 642-643).

explicitly forbade resale to religious institutions and universities\textsuperscript{39}. The small city of ‘s Gravenzande prohibited the resale of annuities to religious institutions as well\textsuperscript{40}.

That resale was already quite common in the fourteenth-century is indicated by the existence of annuity-contracts made out on bearer. In Haarlem in 1318 an annuity-contract was put on name of Ver Aven uten Campe, or the bearer of the contract\textsuperscript{41}. Many thousands of similar contracts are known\textsuperscript{42}, while some by-laws indicate bonds made out on bearer were common as well\textsuperscript{43}. Some legal sources indicate bonds were transferred as well, and more importantly, that transactions on the secondary capital market were upheld in a court of law: in the fifteenth-century the Leiden court heard a case between Adriaan Jansz. and Mouwerijn Klaasz. Mouwerijn had summoned Adriaan to honour the bond the former had bought on the secondary market. The court ruled in his favour\textsuperscript{44}.

Bonds were frequently sold to third parties, just like redeemable annuities and bills of exchange. The earliest example of the resale of a bond is from 1432\textsuperscript{45}. The same applies to obligations: according to a 1497 Dordrecht decree obligations changed hands rapidly before being repaid. Here obligations were resold as early as 1409\textsuperscript{46}.

Unfortunately, little is known about the prices paid on the secondary market. A scarce example from the city of Schiedam does indicate, however, that discounting was practised. In 1493 the city sold a redeemable annuity to Gijsbrecht Cornelisz. The annuity was worth 8 lb. every year, and had been bought for 120 lb. In 1538 the annuity was owned by Jacob Pietersz. van Buyten, who must have bought it on the secondary market. He sold it to the Zeven Getijdemeesters, a religious institution, for 128 lb.; the annuity was sold above face value, at a rate of 106.7\%\textsuperscript{47}. Altogether it seems liquidity was no real problem: creditors could easily cash their annuities, bonds and bills of exchange.

What could be other indications of a more complex capital market? Two aspects come to mind: the importance of impersonal transactions and the background of participants. Both are closely connected with the institutional framework: low information costs, low transaction costs and a coercive political order decreased the objections subjects may have had to investing on the capital market. The breakthrough to an anonymous, regional or even inter-regional capital market would suggest the institutional framework had reached a certain level.

To start with the anonymous capital market, there is one issue that has to be tackled first. How do we know for sure transfers were impersonal? Admittedly, it is impossible to ascertain whether a creditor and debtor were strangers who merely found

\textsuperscript{39} Sewalt, \textit{Atterminacie ende staet}, 97. Leiden had already complained about the resale of annuities to religious institutions and universities in 1497 (Van Mieris, \textit{Charterboek Leiden}, 419).

\textsuperscript{40} A. Telting, ‘Oude rechten van ‘s Gravenzande’ in VMOVR (1901), 354-429, there 400.

\textsuperscript{41} SAK Inventarisreeks band 23 regesten kloosters nr. 204, cf. nr. 396, 579.


\textsuperscript{43} Fruin, \textit{Rechtsbronnen Dordrecht I}, 56, 62, 135, 236-237.

\textsuperscript{44} Blok, \textit{Rechtsbronnen Leiden}, 323; cf. Fruin, \textit{Rechtsbronnen Dordrecht II}, 14, 41.


\textsuperscript{46} …die dicwil in veel luyden handen comen eer dieselve betaelt wort… (Fruin, \textit{Rechtsbronnen I}, 135; Fruin, \textit{Rechtsbronnen II}, 14).

\textsuperscript{47} The \textit{rentevoet} changed from 1/15 to 1/16, but as the annual interest remained the same, the sum they paid must have increased. Similar fifteenth-century examples of exchange rates are known from the German Empire (Kuske, \textit{Schuldenwesen}, 87).
each-other through an intermediary. The distance between the residence of creditor and
debtor can suggest they did not know each-other or at least did not meet up at a regular
basis. The latter is important, because it has an effect on information costs, transaction
costs and the costs of enforcement. Therefore, I opt for distance between creditor and
debtor as an indication of anonymity, or at least as an indication of complexity of
transactions.

The largest distance was covered by public debt. Cities were in demand of
eormous sums of capital, sums often not available in their direct surroundings. In the
thirteenth-century they already borrowed on the rich capital markets of the cities of
Flanders and Brabant. This situation changed little over time: in 1542 Leiden had to pay
interest in all of the Low Countries. Apart from the county of Holland, Leiden had to pay
annuities in Guelders (Kampen and Deventer), Zeeland (Zierikzee, Middelburg), the
Sticht (Utrecht), Flanders (Brugge), and Brabant (Antwerp, Mechlin, Den Bosch)\(^{48}\). It is
likely these large cities had intermediaries, such as moneychangers and Lombards, who
could manage Leiden’s debt and thus keep the city’s information costs and transaction
costs low. Even villages borrowed abroad: in 1514 Spanbroek in the north of Holland
was indebted in the Guelders cities of Harderwijk and Kampen, while Ouddorp had
borrowed from a Louvain student\(^ {49}\).

Individuals borrowed closer to home. Cities were at the centre of regional capital
markets. In Leiderdorp, close to the city of Leiden, the capital market was dictated by
citizens (table 1). Most loans were contracted between citizens and merely secured on
rural real estate owned by urban debtors. A mere 27% of the transfers did actually
involve peasants, while in only 8.1% of the cases it is appropriate to speak of a
transaction between peasants. Elsewhere the division between town and countryside was
not that pronounced, but cities still dominated rural capital markets. In Oost-IJsselmonde
39% of the transfers between 1552 and 1575 was between peasants, in Heemskerk (1557-
1564) 15% and in Heiloo & Oosdom (1560-1562) 20%\(^ {50}\).

Table 1. Leiderdorp 1569-1574: annuities\(^ {51}\)

<table>
<thead>
<tr>
<th>Transfer</th>
<th>N</th>
<th>%</th>
<th>Amount (Kg.)(^ {52})</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>City -&gt; city(^{53})</td>
<td>22</td>
<td>59.5</td>
<td>6302(^ {54})</td>
<td>59.5</td>
</tr>
<tr>
<td>City -&gt; countryside</td>
<td>5</td>
<td>13.5</td>
<td>1974</td>
<td>18.6</td>
</tr>
<tr>
<td>Countryside -&gt; city</td>
<td>2</td>
<td>5.4</td>
<td>492</td>
<td>4.6</td>
</tr>
<tr>
<td>Countryside -&gt; countryside(^{55})</td>
<td>3</td>
<td>8.1</td>
<td>492</td>
<td>4.6</td>
</tr>
<tr>
<td>Unknown</td>
<td>5</td>
<td>13.5</td>
<td>1330</td>
<td>12.6</td>
</tr>
</tbody>
</table>

\(^{48}\) Zuijderduijn, ‘Holland city-finances’, 22.
\(^{50}\) Zuijderduijn, ‘Rural capital market’, 18-19.
\(^{51}\) GAL, archief Leiderdorp, oud-rechterlijk archief, inv. nr. 2.
\(^{52}\) In Karolusguilders (Kg.) of 20 stuivers.
\(^{53}\) Excluded is a life-annuity issued in 1573 (protocolboek f. 102).
\(^{54}\) In only one of the cases the capital remained in Leiderdorp.
When we turn to economic sectors that depended on payment by instalments, some anonymous markets appear as well. The Haarlem shipbuilding-industry sold ships to buyers in all of Holland and even abroad, in Denmark, Guelders and Friesland. These ships were paid for by instalments, using the ship and its cargo as a collateral. The Leiden cloth-industry equally depended on credit: merchants used bonds and bills of exchange to pay for wool. And in the village of Ouderkerk aan de IJssel, bonds were an important financial instrument for the brick-industry.

Quantitative aspects

As said, interest rates are probably the best indicator for institutional development. They reflect the level information costs and transaction costs are on. Interest rates are hard to find. Concerned about usury, creditors and debtors took great care to conceal the true nature of their deals. Usually, only the annual pension is mentioned in annuity-contracts. The principal sum remains unknown, as well as the ratio between the two -the interest rate. Sometimes creditors and debtors were less careful and mentioned both. It is not hard to see why some did this: in practise annuities were not regarded as usury, and mentioning both pension and principal sum could prevent a lot of trouble once an annuity was redeemed. Lacking an interest rate, annuities may well have caused disputes about the estimated value of the principal sum: did the (original) creditor negotiate 5% or 10% interest?

In graph 1 the available interest rates for the large abbeys of Egmond, Rijnsburg and Leeuwenhorst are processed. The general development is clear: interest rates dropped from 20% in the twelfth century to 10% in the thirteenth and fourteenth. Round 1400 interest rates started to drop to 6.0%-6.25%. During the next two centuries interest rates fluctuated around this level.

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56 Niermeijer, *Van accijnsbrief tot Zuidam*, appendix table II.
57 Posthumus, *Lakenindustrie I*, 228-231.
58 Zuijderduijn, ‘Sources regarding the rural capital market’, 17-19.
The rapid decline of interest rates, with 4% in about two centuries, seems to indicate that institutional change was considerable. Compared with the Early Modern Period, when interest rates dropped only 2%, to reach 4%, interest rates declined far more heavily in the Middle Ages.

Another indicator for institutional change is the volume of the capital market. How many people were willing to lend, and what amounts did they invest? In graph 2 volume and number of transactions have been processed for Haarlem. Both figures have been corrected: volume for inflation and numbers for population growth. It appears that in the fifteenth-century the volume of the capital market was already quite high. The 1471 level was reached again in 1515, but in the remainder of the century less money was transferred on the Haarlem capital market. The number of transactions declined in the course of the sixteenth-century.

The picture graph 2 gives runs counter to general views on the development of the Holland economy. It is believed that economic growth was low until the second half of the sixteenth-century, when the take-off towards the seventeenth-century situation took place. The Haarlem capital market seems to have developed differently. Here, the economy already did well in the second half of the fifteenth-century. This indicates it is indeed fruitful to explore the economic history of Holland prior to the mid-sixteenth-century. The Haarlem example also indicates the institutional framework was not decisively improved during the sixteenth-century, but already permitted a large number of transactions on the capital market in the fifteenth-century. The development of interest rates (graph 1) indicates the same.

Conclusion

Medieval institutional change in Holland is a force to be reckoned with. There are plenty indications that the development of the capital market was well on its way when Holland
entered its Golden Age: information costs were dealt with by local registration, transaction costs were lowered by a host of legal instruments and rules, and the latter were enforced by an increasing number of civil servants. Institutional change facilitated economic growth: interest rates dropped rapidly in the fourteenth- and fifteenth centuries. The volume of the capital market was already considerable as well: in Haarlem in the second half of the fifteenth-century it was not smaller than at the end of the sixteenth and beginning of the seventeenth-century.

The institutional framework developed along with state-formation. The financial demands of the central government forced local authorities and subjects to organise the local economy. Government agents took an interest in the monitoring of trade because they had to raise taxes, and because they were responsible for law and order. Subjects needed a solid institutional framework to be able to invest. They organized themselves, in particular in city-governments, and demanded the alteration of the institutional framework. In the end the most important organization of subjects, the Staten van Holland, even grasped control of politics.

In the seventeenth-century Holland was obviously different than its neighbours. It was the core-region of the Dutch Republic, and is regarded as the first modern economy. That its capital market had its roots in the late middle ages is clear to see, but to what degree is it possible to indicate medieval factors contributing to Holland’s later success? A few elements can be pointed out: the collective indebtedness, emphasised by Tracy, has firm medieval roots. It forced the main cities to cooperate and influence domestic and foreign policy, thus paving the way for a representative institution. Collective indebtedness became increasingly important in the sixteenth-century, and has been attributed a crucial role in the political emancipation of the Staten.

A second element I would like to stress is Holland’s relatively homogeneous and transparent society. In the peat-area nobility and religious institutions did not gain much power. Government agents were undisputed as local authorities, and as a result, both town and countryside were characterised by a comprehensive legal structure. This allowed for low information costs and transaction costs, and helped to bring about the economic integration of town and countryside in a way we do not encounter elsewhere in medieval Europe. Despite its high urbanization-rate Holland never had to cope with city-states. It is not surprising to see that the Holland countryside was capital-intensive: the low information costs and indiscriminate legal structure probably lowered resistance to capital-transfers (as well as transfers of land) between town and countryside.

Politics and economics became interdependent as state-formation progressed. Authorities were primarily concerned with taxation and public order and therefore they took an interest in market-performance. They lowered information costs and transactions costs. Local authorities were most influential in this respect: especially in cities decision-making was swift and efficient. Here incentives to improve the institutional framework were considerable: cities made optimal use of public debt and citizens were the main participators on the capital market. As a result the improvements we encounter in Haarlem are visible in all cities in medieval Holland. The institutional framework of the Dutch Republic—and its success—can only be comprehended when its long genesis is taken into account.

59 Tracy, A financial revolution; Zuijderduijn, ‘A financial evolution’ (paper 2003).