Usury and Medieval Public Finance

Why the (Franco-)Flemings and not the Italians Invented the Modern 'Financial Revolution' Department of Economics: SWEAT 24 July 2012

- 1) Earl Hamilton (AER 1947): 'a national debt is one of the very few economic phenomena without roots in the Ancient World'
- 2) Origins: Towns of 12th century Italy:
- provide first evidence for organized public debts, with dedicated taxes to pay interest
- BUT their route was a 'dead end' historically

- 3) David Stasavage, States of Credit: Size, Power, & Development of European Politics (2011): the origins do NOT lie in medieval Italy but in N. France/Flanders
- - 'While Italian city-states like Genoa, Venice, and Florence are commonly seen as forerunners with regard to public debt, it was actually the system of municipal debt developed in northern Europe that would set the model for long-term borrowing in Europe until the end of the nineteenth century'.
- 4) cites Tracy (2003) & Munro (2003): on Low Countries (but our interpretations differ)

Basic Themes of this Paper:

- 1) That the true origins of modern European public finance, of the so-called 'Financial Revolution', are to be found in the towns of NW France & Flanders (then part of France) in and from the 13th century -- and not in Italy
- 2) That the role of the medieval usury doctrine and the responses to it together explain the differences in the evolution of public debts in France-Flanders and Italy
- 3) The responses to the usury doctrine and evolution of civic debts in NW Europe also led to the development of modern financial markets: to provide European-wide negotiability and transfer of public debt instruments:
- 4) Financial Revolution fully evolved by mid 18th century: permanent funded national debt based on internationally negotiable annuities - perpetual but redeemable

- The usury doctrine, but especially from the revival of the Church's anti-usury campaign in the early thirteenth century, provided a very major problem for all West European governing authorities (states) throughout the later medieval and Renaissance eras.
- For how could governments borrow extensive sums of money – so necessary to finance chronic warfare – without paying interest, thereby involving the participants in the sin of usury?
- both lenders & borrowers charged with usury

Usury Doctrine: essentials

- 1) The ecclesiastical usury doctrine: ban against demanding ANY payment beyond the principal in a loan (*mutuum*): of money or other fungibles
- 2) Ban never applied to licit investment returns:
- - **profits**: from investments in any enterprise
- - rent: for use of real estate, other physical property
- - annuity payments: annual returns on *rentes*
- 3) Usury applied ONLY to the mutuum loan contract: by which lender transferred ownership & fruits of their capital lent to borrower, while investors in other equity contracts retained ownership of their capital and thus fruits of their capital

Scholastic Usury Doctrine in 13th century

- (1) Usury is a violation of commutative justice: equality in exchange: in that the lender gains more than the borrower, and steals from the borrower.
- (2) Usury is a violation of Natural Law: based on newly reintroduced texts of Aristotle (384-322 BCE): Nichomachean Ethics (1247, 1260); Politics (1260):
- a) that money (coin) has only one NATURAL use: as a medium of exchange
- b) that money is inherently sterile: 'cannot breed'
- c) lending money at interest is a VIOLATION OF NATURAL LAW: the most heinous sin against God
- (3) 'Usury is Theft of Time, belonging only to God'
- but why does this argument not apply to rents (& rentes)?

The canonical Extrinsic Titles: were they just loopholes?

- (1) By the principles of commutative justice, canon lawyers permitted lenders to claim compensation only if they suffered *subsequent* loss because of loans: → 'interesse'
- a) Mora, or Poena detentori: fines for late payment, beyond stipulated redemption date.
- b) Damnum emergens: compensation for the lender's unanticipated capital losses suffered from fire, theft, war, storms, etc., but only after having made the loan
- (2) *Lucrum cessans:* a disputed and rejected title
- - a lender's opportunity cost: in not being able to invest those funds licitly in a rent- or profit-producing asset.
- - almost all Scholastics rejected this title, because it would mean pre-determined interest (& imply money not sterile!)

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Common Usury Myths Refuted

- (1) Abhorrence of usury was not just 'medieval' Christian: predated Christianity, and found in Judaism , ancient Greece, and much of the non-Christian world to modern times: especially in all Islamic societies
- (2) Usury applied to ALL loans: not just charitable loans
- (3) Usury did not mean extortionate interest, but ALL interest: anything beyond the principal of a loan
- (4) The canonical Extrinsic Titles were not 'loopholes': but legitimate claims to compensation for a lender's loss that took place after the loan had been transacted
- (5) That prosecutions were chiefly for 'flagrant usurers' and that interest was easily hidden in a loan: irrelevant arguments!
- usury could NOT be disguised from God (in a society with few atheists – or few who did not fear damnation & fires of Hell)
- (6) Most Protestants in early-modern Europe also opposed usury

The costs of the usury doctrine: high interest rates

- Lawrence Stone, *The Crisis of the Aristocracy*, 1558-1641 (Oxford, 1965): on Elizabethan & Stuart England
- 'Money will never become freely or cheaply available in a society which nourishes a strong moral prejudice against the taking of any interest at all – as distinct from objections to the taking of extortionate interest.'
- 'If usury on any terms, however reasonable, is thought to be a discreditable business, men will tend to shun it, and the few who practise it will demand a high return for being generally regarded as moral lepers.'
- Also: risks of prosecution /and or defaulting debtors
- Charles Kindleberger (1948): 'that usury belongs less to economic history than to the history of ideas': NOT TRUE!

Revival of Anti-Usury Campaign in the 13th century – 1

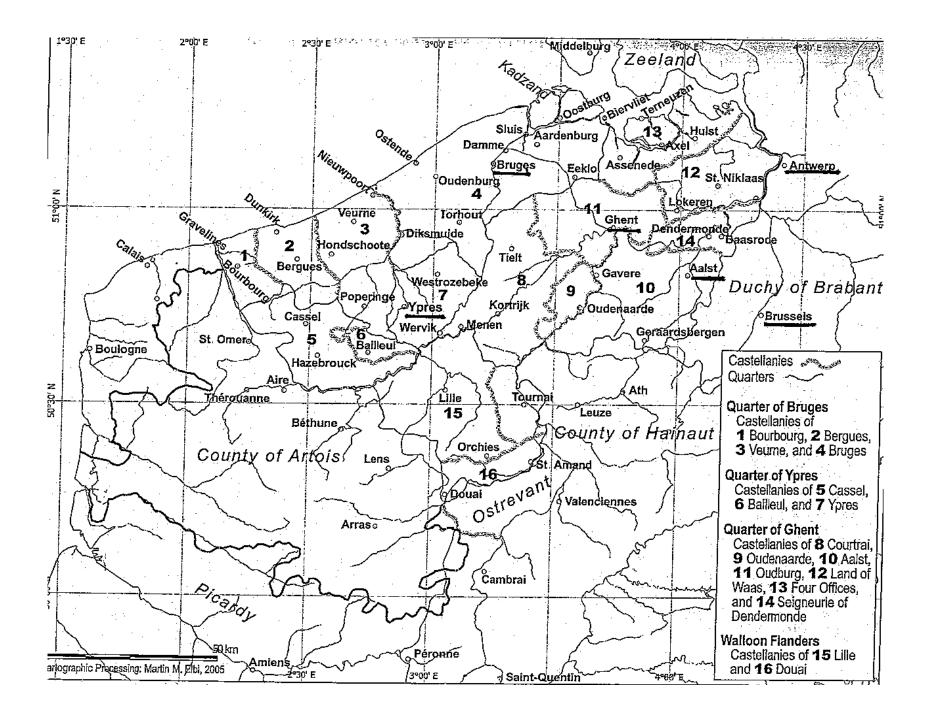
- (1) Church councils: Lateran III (1179) & IV (1215):
- - probably a reaction to ongoing Commercial Revolution
- - harsh penalties for usurers: excommunication
- - anti-Semitic aspects of Lateran IV: linking Jews to usury
- required annual confessions (1215) →
- (2) The New Mendicant Preaching Orders: chief agency for conducting the anti-usury campaign
 - a) Franciscans: Order of Friars Minor 1206-10:
 - b) Dominicans: Order of Friars Preacher 1216
- **exempla**: preachers' diabolic tales of ghastly, horrific fates in Hell awaiting all unrepentant usurers

Revival of Anti-Usury Campaign - 2

- (3) *Decretales* of Gregory IX (1227-41): 1234
- usurers classed as *infames*, as were heirs who failed to make restitutions
- - princes commanded to expel all usurers
- also to be classed as usurers, infames: those protecting usurers, permitting them Christian burials
- (4) Dominican Scholastics: St. Albertus Magnus (?-1280) and St. Thomas Aquinas (1225-74)
- (5) Dante Alighieri (1265-1321): Commedia (Divine Comedy): ca. 1304-21
- placed usurers in Seventh Circle (Inferno): as 'last class of sinners ... punished in the burning sands'

Usury Doctrine & the Origins of the Financial Revolution

- 1) Intensification of the Anti-Usury Campaign in 1220s & 1230s: primary explanation for origins of the Franco-Flemish 'financial revolution': shift from loans → to rente contracts (annuities)
- 2) Georges Bigwood: that counts of Flanders & Artois, the Church, town gov'ts: all conducted a 'remorseless' campaign against usury during 13th century
- 3) Pierre Desportes, Reims et les Rémois (1979): when church officials threatened Rheims merchants with eternal damnation for their 'usures', many preferred 'to purchase rente contracts than to make loans'.
- 4) What are the origins of the rente contracts how did they work?



- 1) Origins or *rentes*: 8th-century census contracts from Carolingian monasteries:
- in securing bequests of lands from laity, monasteries guaranteed the donor a lifetime or perpetual usufruct income (*redditus*) to be derived from the **rental value** of donated land:
- hence the terms: *rente* and *rentier*
- 2) Evolution into constitution de rente: by which property owner sold, for a specified lump sum of money, the right to receive from his lands a fixed annual income – usually a perpetual income

- 3) Became a common agrarian contract in Mediterranean regions by 12th & 13th centuries
- by which small peasant land holders sold such census 'rentes' to (chiefly) absentee (nonresident) urban merchant-financiers
- débirentier: property-owning seller of rente who pledges all assets to meet annual payments (on pain of forfeiture of the land: like a mortgage)
- créditrentier: the one who purchases the contract: to receive perpetual annual income

- 4) Transfer of *Rentes* to realm of urban public finance: first in NW Europe from 1220s, as noted above
- a) Towns in SOUTHERN France (French & English): did NOT adopt rentes: they lacked the communal independence of northern Franco-Flemish towns
- b) Catalonia Aragon: its towns later adopted this financial system: Barcelona from 1325; Valencia, from 1355: known as *censals, censuales, violaris*
- 5) Municipal governments: assumed role of débirentiers SELLING rentes, for fixed lump sums in cash, to créditrentiers, many of whom were foreign merchants & financiers – buying income-earning assets

- 6) Two types of medieval *rente* contracts:
- a) life-rents: rente viagère, lijfrenten, censal vitalico or violari: extinguished (usually) on créditrentier's death
- some transferred to spouse or child, on death of holder;
 b) perpetual redeemable rents: rente héritable, censal mort, erfelijke renten or erfrenten → losrenten (in early-modern Netherlands): transferable by inheritance or by sale to third parties → fully negotiable by 16th century-
- - but also REDEEMABLE: only by the seller (issuer)
- 7) Typical Rates of Return (14th century): far cheaper than voluntary loans: but life rents usually paid out double:
- a) **life rents**: 1/7 = 14.29%
- b) perpetual redeemable rents: 1/14= 7.14%

Origins: Urban *rentes* of Franco-Flemish Towns from 1220s

- 1) From 1220s: northern French towns began selling rentes (= annuities): to secure municipal financing, having failed to secure sufficient mercantile loans
- -1228, 1232: Troyes (Champagne Fairs): first to do so (rente buyers from Arras, St. Quentin, Rheims)
- **1235: Auxerre:** *rente* sales to Rheims merchant-financiers
- **1244: rente sales by Arras** (France's financial capital)
- 2) Other towns French towns selling rentes: 1250 1271: Roye, Calais, St. Riquier, Saint-Omer
- 3) Flemish towns selling *rentes*: Douai (1270), Ghent (1275), Bruges (by 1290): Flanders French royal fief

Church's Reaction to 13th century Rente Sales - 1

- 1) Franco-Flemish urban sales of rentes → provoked strong clerical opposition as a 'cloak for usury'.
- (2) Pope Innocent IV (1243-54) disagreed (c.1250): stipulated that a *rente* involved no usury: not a *mutuum*:
- because those buying *rentes* could never demand redemption: if they could do so → would become a *mutuum* contract
- they were merely **buying future income-streams**
- (3) Ensuing theological disputes finally ended with Council of Constance (1414-18) & three ensuing papal bulls:
- Martin V (1425), Nicholas II (1452), Calixtus III (1455):
- upholding the essential views of Innocent IV (1251):

Church's Reaction to Rentes -2

- 4) 15th-century canon law provisions for licit rentes

 a) that rentes be redeemed only by the will and at
 sole discretion of the seller-issuers (débirentiers):
 never at request of buyers (créditrentiers)
- b) that any redemption of rentes must be at par value (nominal -- not 'real' values)
- c) that annual payments on rentes must come from the products of the land: to be linked with a land-rent contracts (redditus)
- → levy of excise taxes on consumption of foodstuffs
 & other products of land: the most widely used method to finance municipal & state annuities

Franco-Flemish Financial Revolution: in summary

- 1) Rente Sales: adopted by counts of Flanders, counts of Holland, dukes of Brabant, in 14th century
- communal towns were the more credible borrowers (greater patrician gov't continuity) → so that princes used towns to sell rentes (annuities) on their behalf
- 2) Developed more fully in 15th & 16th-century Habsburg Netherlands: after rentes fully approved by the Papacy
- but still responsibility of its provincial estates (not the federal Staten Generaal) → system maintained by the post-1579 Dutch Republic (Union of Utrecht)
- 3) Rente-system spread to rest of western Europe during the 16th century: except Italy and (initially) England
- 4) England: from the Glorious Revolution of 1688:
- **borrowed from Dutch** → Financial Revolution completed by 1750

The Modern Financial Revolution: its necessary components

- 1) A permanent funded national debt
- a) **permanent**: debt instruments never had to be redeemed (repaid), but state could choose to do so, if advantageous
- b) funded: annual payments paid from excise taxes and customs duties legislated by Parliament
- - annual returns or yields on public debt: as 'interest'
- c) 'national' (or state): debts were responsibility of Parliament or Estates: not of the prince
- 2) Debt instruments: NOT interest-bearing bonds or loans
- - but in form of **fully negotiable** *rentes* **or annuities**
- - marketed & transferred on international exchanges: Antwerp (1532), Amsterdam (1609), London (1750s), Paris



- 1) Venice:
- a) **1164: commune secures loan** of 1150 silver *marci* to be repaid (over 12 yrs) from taxes levied on Rialto market: loans were voluntary
- b) 1172: Doge Sebastiano Ziano begins system of forced loans: *prestiti* [or 1207: Lane & Mueller]
- c) 1187: commune grants creditors control over salt tax and some house rents for 13 yrs →
- Salt Office made responsible for payments of both interest and principal – for what were still deemed to be temporary loans

- 1) Venice: cont'd
- d) By 1207: most public debt now in forced loans
 = prestiti financed by Rialto taxes 'until all such loans were repaid': but still deemed to be temporary
- e) 1262: Venetian Senate consolidated all debts into one fund → Monte Vecchio (as later known)
- debt holders received 5% annually from 8 excise taxes
- - marketability of Monte credits fully guaranteed

- 1) Venice: cont'd
- f) SECONDARY MARKET in civic 'debts' → prestiti traded between par and 75%: from 1260s to the 1430s [except during War of Chioggia, 1378-81 : see graph]
- Ufficiale degli Prestiti: agency to pay interest on public debt: 5%: 1262-1379; 4% thereafter -- & not continuously
- By 1320: Procurator of San Marco (Camera Imprestitorum): serving as de facto agency for transferring *prestiti* debt claims

- 1) Venice: cont'd
- g) From 1363: repayments of principal ceased → perpetual liabilities of the Venetian state
- but Venetian state often redeemed them by buying claims on secondary market
- h) 1377-81: War of Chioggia: Venice vs Genoa:
- -interest [paghe] payments temporarily suspended (to 1383), while new series of prestiti were imposed to finance the war: assessed at 41% of patrimony property values

- 1) Venice: cont'd
- i) From 1432: wars in Lombardy (Milan) →
 interest fell into arrears
- j) Feb. 1454: last official levy on Monte Vecchio: followed by Peace of Lodi (April 1454) → forced loans replaced by the *decima*, in 1463, as form of direct taxation based on property values
- k) **1482: Monte Nuovo**: temporary return to old system of forced loans



GRAPH 11.1. Market Values of Government Credits in Venice, 1285-1500

- 2) Genoa: even earlier history
- a) **1149:** commune grants consortium of civic lenders control over the *compera*: consolidated fund of taxes for paying creditors
- b) 1258: forced loans exacted *luoghi*, with a funded civic debt
- c) 1340: all forced loans from 1258 consolidated into a new compera
- d) **1407-08: commune consolidated loans** into **Casa di San Giorgio**: having reducing interest rates from 10.0% to 7.0% (1405) to 5.25% (in 1420).

- 3) Siena: 1287:
- began exacting forced loans, while continuing to solicit voluntary loans
- 4) Lucca: 1370: consolidated its public debt in *Dovana Salis et Massa Creditorum:* based on forced loans (*proventus*)
- 5) **FLORENCE: our most important example of civic finance**
- a) from later 13th century: forced loans (*prestanze*) combined with some voluntary loans – chiefly forced
- b) 1343-45: commune established consolidated civic fund for public debt, chiefly in *prestanze*: known as *Monte Comune* – with civic secondary market in monte credits
- c) interest payments (*paghe*) of 5% per yr- usually

Usury and Italian Public Debts - 1

- 1) Was the usury doctrine a problem for the Italian public debts? No -- and then Yes!
- 2) Contentions that interest payments on FORCED LOANS were NOT sinful:
- a) because loans were involuntary, forced -- no free will (voluntas), as required for complete, valid definition of usury.
- b) communal purpose of prestanze → defence of the commune and Church: at lower cost: cheaper than loans → from economies of scale + compulsion (or 'constrained choice')

Usury and Italian Public Debts - 2

- c) forced loans were a far more palatable substitute for direct taxation: benefit in paying subscribers a just compensation (with *paghe*):
- ecclesiastical version of damnum emergens (extrinsic title)
- - Florence 1315: had abolished estimo land tax
- abortive revivals of *estimo*: 1328, 1342, 1352, 1355, 1378-82; *Decime* taxes of 1480, 1495, 1534 (based on Catasto, first established 1427)
- Venice: Lane & Mueller: 'direct taxes were abhorred'; but also had to adopt *decima* in 1463

Usury and Italian Public Debts - 3

- 3) Problem: the role of secondary markets
- a) secondary markets important for civic success of forced loans:
- -allowing 'victims' to regain some capital losses by selling debt claims to other (3rd parties), but at some discount → mitigate public discontent over forced loans
- *paghe* payments → made the *crediti di monte* marketable assets (even trades in *crediti* alone)
- b) Question: were buyers guilty of usury? For willingly buying interest-bearing debt claims?

- 3) Problem: the role of secondary markets:
- c) Francesco da Empoli (Franciscan: d. 1370): Determinatio de materia montis: of 1353:
- - **defended buyers** of Monte shares (with interest)
- buyers were NOT lenders to the state and thus not engaged in usurious conduct
- the crediti di monte no longer based on original loan, but instead based on an emptio-venditio (purchase-sale) contract, in which buyer purchased the right (ius) to receive a stream of future income (uncertain) from the state (via previous holders)
- - **similar to northern arguments** justifying the *rentes*

- 3) Problem: the role of secondary markets:
- d) Piero degli Strozzi (1293-1362): Dominican
- condemned this view: that buyers became 'true creditor of the commune ... so that the commune is his debtor';
- *paghe* were the city's *donum* or gift which the subscriber had no right (*ius*) to sell-
- buyer of Monte shares 'entertained corrupt hope to profit from the [original] loan'

- 3) Problem: the role of secondary markets:
- e) Many other Dominican and Francisan theologians generally condemned participation in the secondary markets for *crediti di monte*
- as 'nutritive of sin', in 'fraudem usurarum'
- - at best, they counselled avoidance of markets
- f) **Dominicans**: seen as the more hostile to such markets (as involving usurious transactions)
- but Kirshner and Armstrong: deny any distinctive difference between the two Orders, while noting that chief opponents were theologians on both sides, rather than jurists, canonists.

- 3) Problem: the role of secondary markets:
- g) Lorenzo di Ridolfo: Tractatus de usuris (1404)
- Florentine patrician and lay jurist (doctor of both laws): employed by the commune to defend the Monte and secondary markets: with arguments similar to those of Empoli:
- h) Similar debates found in Renaissance
 Genoa & Venice Kirshner, Lane & Mueller

Italian Public Debts: Merchant's Usury-based Scruples - 15th cent

- 1) Genoa: Kirshner (1976): cites 'well-documented cases of investors who, because of scruples of conscience, were hesitant about purchasing shares in the public debt'
- 2) Florence: will of Angelo Corbinelli (1419): ed. Amstrong (2003): confessed to being 'uneasy in his conscience' about incomes from *crediti di monte*, even though from *prestanze* (& not secondary market)
- if Church Council (Constance) should determine illicit nature of such incomes, his 'heirs shall act in every respect in conformity' with any such Council or Church decrees on the nature of such incomes (restitution)

- 1) Preference of Italian communes with strong republican traditions:
- a) to rely on forced loans as mark of communal independence: not rely on foreign financing
- b) to demonstrate that all citizens of the commune had a personal moral duty to support and defend the state
- - (i) in providing personal financial support to ensure the commune's defence, security, and territorial integrity-
- (ii) liability for prestanze based on personal assets: ability to pay
- (iii) but taxes to pay interest came from excises levied on all citizens, poor and rich alike

- 2) Major differences between basing public finances on forced loans and *rentes*
- -a) differences in original levies or sales:
- forced loans were levied, therefore, ONLY on citizens of the commune concerned
- but communal rentes were freely sold to ALL willing buyers, within & outside towns: in France, Low Countries, Catalonia, German states, etc.
- majority of *rente* investors resided outside the town, or even outside the principality

- b) major difference in secondary markets:
- Italian communes generally restricted secondary markets to those within the commune (some exceptions: Venice?; Florence in 1420s)
- but secondary markets for *rentes* (perpetual) were CHIEFLY extra-urban: regional and became international: → Antwerp, Amsterdam, London
- c) Italians' perceived risk with the *rente*-based financial system: becoming dependent on foreign investors (some from hostile states)

- 3) Brief Experience of Renaissance Italy with annuities: failed to gain public acceptance
- a) Florence in 1420s: *Monte delle doti:* dowries for daughters resembling annuities? debatable
- b) Venice: sales of annuities
- 1536: Venetian Zecca (mint) and NOT the commune
 sold life-annuities @ 14%
- 1571: Venetian gov't sold perpetual but redeemable annuities @ 8% to finance war with Turks
- 1577 1600: commune spent 10 million ducats to redeem all outstanding Zecca and civic annuities → thus ending this experiment

End of Part I

- 1) This concludes the first part of my paper, since time and the audience's patience does not permit me to present part II
- 2) Part II is on the establishment of full fledged, legally supported negotiability – which is not the same as transferability – in the 16th century: to create the essential foundations for international markets in state annuities → modern `financial revolution`

Secondary Markets: Negotiability

- 1) Problems with secondary markets in public debts in late-medieval Italy, Flanders, France, Catalonia:
- involved only restricted transferability, though much less restricted outside of Italy
- transferability is NOT sufficient for negotiability: see Kirshner (1993); Kerridge (1998)
- 2) Legal foundations of negotiability for commercial bills:
- a) London Law Merchant Court: Nov. 1436
- **Burton v Davy**: granted 'bearer' (3rd party) of bills-ofexchange same rights as the designated payee: to sue as a legal creditor for payment & full recovery

Markets – Negotiability: 2

- b) precedent adopted by law-merchant courts in Lübeck (1499, 1502), Antwerp (1507), Bruges (1527)
- c) Habsburg Netherlands: 1537 1541:
- national legislation for full negotiability: guaranteeing legal rights of bearers or other assignees to sue, as creditors, for full payment of dishonoured notes
- d) Antwerp Beurs (Bourse): 1531: international market in negotiable *rentes* and *juros* (Spanish)

Usury and Negotiability: 1

- 1) Negotiability depended on changing national usury legislation: to permit discounting
- a) **1540: Habsburg Netherlands** (Charles V): interest payments on commercial loans legal, valid up to 12%
- b) 1545: England under Henry VIII: interest legal on all loans up to 10% - statute revoked by Parliament (Ed VI) in 1552: by Calvinists
- 1571: statute restored by Elizabeth's Parliament (10% limit): over much Protestant opposition

Usury and Negotiability: 2

- 2) Marketing of commercial bills and *rentes* in 16th-century Low Countries:
- a) discounting: selling bills for less than maturity value, to account for the foregone interest [discount = medieval usury]
- b) spread of endorsement of discounted bills: establish better legal protection for assignees
- 3) Later Reductions in legal maximum in England → public debt problems
- - to 8% (1624), 6% (1651; 1660); to 5% (1713)
- - to 1854, when usury laws were finally abolished

Spread of Financial Revolution

- 1) System of Provincial Rentes developed in 16th-century Habsburg Netherlands
- inherited by the new Dutch Republic (United Provinces -1576): with Revolt of Netherlands and 80 Years' War with Spain (1568-1648)
- 2) By later 16th & 17th centuries, most West European states had adopted some or other variant of this system just described of public finances based on *rentes*:
- Habsburg Spain, Valois France, various German states, as well as the Netherlands (except the Italian states)
- 3) England was other major exception: waited until aftermath of the Glorious Revolution of 1688-89

English 'Financial Revolution' 1693 – 1757 (1)

- 1) English 'Financial Revolution': not original
- largely borrowed from the Dutch (Republic of United Provinces): by gov't of King William III of England (had been Willem III of Orange, Dutch stadhouder), m. to Mary II, d. of James II – Stuart king deposed in Glorious Revolution of 1688
- 2) Began in 1693: with the Million Pound Loan: not a loan, but a lifetime annuity
- 3) Establishment of Bank of England in 1694, with another £1.2 permanent loan → £11,686,800 (1749)
- - thus came to hold large part of the permanent debt
- - and managed all of the national debt, from 1721

English 'Financial Revolution' 1693 – 1757 (2)

- 4) Chancellor Pelham's Conversion in 1749-57:
- conversion of entire national debt into the Consolidated Stock of the Nation ('consols'): as
 3.5% then 3.0% perpetual annuities: marketed on the London Stock Exchange, Amsterdam Beurs.
- 5) English 'Financial Revolution' represents the fullest fruition, in the European evolution of a national, funded, 'permanent' public debt

English 'Financial Revolution' 1693 – 1757 (3)

- 6) Not 'redeemed' until Chancellor Goschen's conversion of 1888: not for 139 years!
- exchanged for 2.75% perpetual annuities
- 1903, rate again reduced (by 1888 law) to 2.5%:
- 20 July 2012: selling on the LSE @ £70.16 = yield of 3.56% (for a 2.5% 'ticket' on £100 share)
- 7) but most other modern states had a mixture of perpetual and lifetimes rentes = annuities (former: the most negotiable) → until ceasing with World War I

APPENDICES

- 1) Bruges Civic Debts in 1298
- 2) Venetian Public Debt: interest rates
- 3) Aristotle on Usury and Natural Law
- 4) Usury as Theft: Deserving Death
- 5) St. Thomas Aquinas on Fungibles
- 6) Dilbert on Fungibles
- 7) Kirshner on Italian Public Debts
- 8) 'Interesse' and opportunity cost
- 9) Lateran IV (1215): Jews and Usury

Appendix I: Bruges Civic Debt in 1298

- 1) Total civic debt in 1298: £346,880 parisis
- 2) Almost half held by Arras bankers: led by the Crespin family: £157,093 = 45.29%
- 3) Composition of debt held by Arras bankers:
- a) **£124,307: in 'usurious' loans** = 79.13%
- b) £32,787: in *lijfrenten* = rentes viagères = 20.9%: with total annuity payments of £3,154 5s 11d par. to 225 rente holders (= 9.62%: in civic accounts)
- 4) Other (non-Arras): *erfelijk renten*: £1,029 10s 1d: with payments of only £99 par. to four persons

Appendix II: Venetian Debt: Gross Interest

Years	Up to Stated Ceiling	Above the Ceiling
1262 – 1381	5%: unlimited	5%
1382	4%: unlimited	4%
1412	4%: 2,500 ducats	3%
1419	4%: 2,000 ducats	3%
1434	4%: 3,000 ducats	4%
1439	4%: 4,000 ducats	3%
1444-1576	4%: 4,000 ducats	

TABLE II.I

Interest and Rates of Interest Received by the Estate of Bishop Jacopo Bertaldo (d. 1315), 1355–1576

Period	Gross Interest Rate p.a.	Claims Paid	Cash Paid (ave. p.a. in ducats)	Net Interest Rate p.a.	Comments
1355-79	5	1355-79	47	5	
1382-85	4	10	37.6	4	Arrears in the 1380s; some paghe consolidated
1386-1400	3	1386-1400	43.2	3	Reduction as tax, then confirmed
1401-20	3	1401-20	43.2	3	
1421-34	3	1421-33 ^a .	39.43	2.68	3 paghe in arrears, 6 paghe paid only half
1435-39	3	1433 ^b -36 ^a	26.4	1.8	No payment in 1439
1440-41	3	1436 ^b -37 ^a	14.75	1.0	No payment in 1441
1442-43	3	1438-39 ^a	21.3	1.45	9 paghe in arrears; paga 1437 ^b paid in 1445
1444-59	2	1439 ^b -48 ^a	17.16	1.17	Reduction plus 5% tax; 19 paghe in 31 semesters
1459-64	2	1448 ^b -51	18.75	1.27	7 paghe in 11 semesters
1465-66	2	1452	13.25	0.9	14 years in arrears
1467-1534	2	1453-83	11.94	0.81	58 paghe in 68 years; none 1509–17
1535-48	2	1484-89ª	9.05	0.61	Many paghe paid in installments
1549-76	2	1489 ^b -1503	14.5	0.98	29 paghe; 73 years in arrears

Source: ASV, PSM, ultra, b. 45.

Note: Nominal value of portfolio: 940 du., 1355-79; 1,440 du., 1387-1420, 1,472.5 thereafter. ^aMarch claim.

^bSeptember claim.



Fig. 17. Interior of the Venetian Loan Office, situated at the Rialto. Officials and staff are shown paying out interest on government obligations to a lay brother of the monastery of S. Maffeo di Murano. Detail of an illuminated manuscript of about 1390.

Catastico di S. Maffeo di Murano, Seminario Patriarcale, Venice. Photograph by Osvaldo Böhm.

Appendix III: Aristotle on Usury: 'Politics'

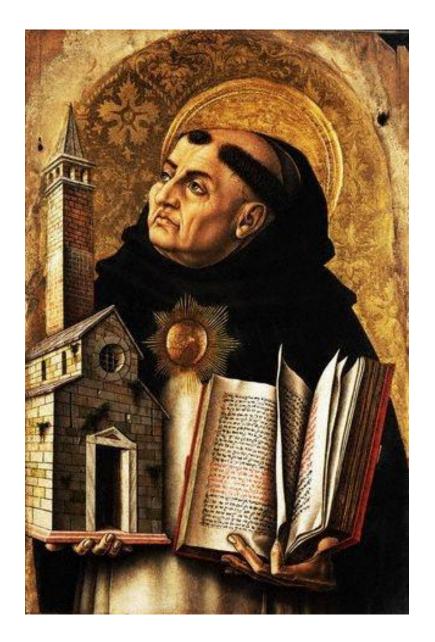
- The most hated sort [of money-making], and with the greatest reason, is usury, which makes a gain out of money itself, and not from the natural use of it. For money was intended to be used in exchange, but not to increase at interest.
- And this term usury [τόκος], which means the birth of money from money, is applied to the breeding of money because the offspring resembles the parent. Whereof of all modes of making money this is the most unnatural.

Appendix IV: Usury as Theft Deserving Death

- 1) Ezekiel: book 18.13 (ca. 586 571 BCE)
- He who 'hath given forth upon usury, and hath taken increase: shall he live? He shall not live ... he shall surely die'.
- 2) St. Ambrose (339-97 CE), bishop of Milan
- 'if someone takes usury, he commits violent robbery [*rapina*], and he shall not live.'
- incorporated in Gratian's Decretum: codification of canon law, 1130-40

Appendix V: St. Thomas Aquinas on Fungibles (1)

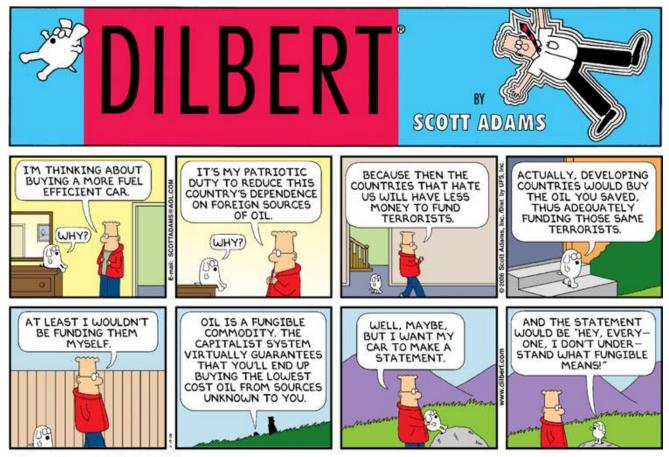
- (1) Fungible:
- - a commodity that can be replaced by any other identical commodity: non-differentiated: e.g., paper clips (sheaves of wheat, flagons of wine)
- **coins:** gold and silver: undifferentiated by denomination, so that one replaced by another, i.e., as a fungible
- **'consumption in use fungibles'**: any fungible commodity is necessarily consumed in its use and can thus be replaced only by an exact replica:
- (2) Non-fungibles:
- commodities with individual defining characteristics, which are also not consumed in their use:
- e.g., an acre of land, a house, a barn, a horse, ox, a plough



St. Thomas Aquinas on Fungibles and the Usury Doctrine (2)

- (3) Aquinas: distinction between loan of fungibles and non-fungibles
- (a) a loan of a fungible is to be repaid in the exact same amount (quantity) of other but the same identical replacement (replica) commodity,
- (b) **but a non-fungible is to be returned, as the very same commodity**: for which a rent may be charged for the use of that commodity, and for deterioration
- (4) this concept has the same intellectual foundation as the 'transfer of ownership' concept, which applies only to a mutuum
- and thus **not** to property rentals (in which ownership is not transferred)

Appendix VI: Dilbert on Fungibles



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Appendix VII: Kirshner on Italian Public Debts

- 1) Julius Kirshner: 'States of Debt': paper presented to Mellon Sawyer Seminar on Debt, Sovereignty and Power: Cambridge, Nov. 2006
- that medieval Italian communal *prestanze*, etc. were not genuine public debts
- - because of their character in being forced loans
- - periodic non payment of interest
- 2) David Stasavage (2011) disagrees: non-payment of interest was 'a property also observable in public debts that are purely voluntarily subscribed' (p. 33. n. 16)
- also compulsory sales of *rentes* in France, Netherlands

Appendix VIII: 'Interesse'

- 1) Cardinal Hostiensis (Henry of Susa): c. 1271
- -'If some merchant, who is accustomed to pursue trade and commerce of the fairs, and profit there from, has, out of charity to me, who needs it badly, lent money with which he would have done business, I remain obliged to his *interesse*, provided that nothing is done in fraud of usury':
- i.e., obliged to his opportunity cost = interest
- 2) Azo of Bologna (late 12th century): quod interest → interesse (a substantive): what remains or lies between, or differs from

Appendix IX: Jews and Usury in Lateran IV (1215): 1

- Fourth Lateran Council (1215): Constitution no. 67: on Jewish Usuries
- "The more Christians are restrained from the practice of usury, the more are they oppressed in this matter by the treachery of the Jews, so that in a short time they exhaust the resources of the Christians. Wishing
- Wishing, therefore, in this matter to protect the Christians against cruel oppression by the Jews, we ordain ... that if in future, under any pretext, Jews extort from Christians oppressive and excessive interest, the society of Christians shall be denied them until they have made suitable satisfaction ...

Appendix IX: Jews and Usury in Lateran IV (1215): 2

- Christians shall also... be compelled by ecclesiastical censure, from which there shall be no appeal, to abstain from all business dealings with them.
- We decree that the Jews be compelled ... to compensate churches for the tithes and offerings owing to them, which the Christians were accustomed to supply... before they fell into the hands of the Jews under some title or other.'
- typical late-medieval rates for legal pawnbroking (as practises by Jews and Lombards): 2d per £ (2/240) per week = 43.33% annual interest.

Appendix IX: Jews and Usury in Lateran IV (1215): 3

- Constitution no. 68:
- Jews must war a dress that distinguishes them from Christians
- Constitution no. 69:
- Jews are not to hold public office, 'Since it is absurd that a blasempher of Christ should exercise authority over Christians
- Constitution no. 70:
- Jewish converts may not retain their former rites