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# History of Economic Thought

## II. Scholasticism and the Middle Ages

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## II. Scholasticism and the Middle Ages

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1. The High Middle Ages
2. The Later Middle Ages
3. The Spanish Scholastics
4. Non-Scholastic Economic Thought



# 1. The High Middle Ages

## Setting the Stage

- Economic development returned from eleventh, maybe even tenth century. Why?

## Key Ideological Factors

- Roman inheritance of law – private property, law merchant
- Favourable Christian attitude to labour
- Gregorian Reforms – Freedom of the Church

## Key Political / Institutional Factors

- Church rival authority to worldly rulers: *Treuga Dei* and *Pax Dei* movements
- Legal pluralism and development – e.g., Amalfitan marine law, feudal codes



## Disintegration of empire and lack of central control

- Emergence of independent Italian city states and communes
- Independence of the Church – freed from imperial influence, rival centre of authority

## Church and Society

- Monasticism – monks spread technology, cultivated new lands
- E.g. Cistercians, the monastery of Clairvaux
- Decline of serfdom, slavery – but itself from economic factors

Eric Jones, *The European Miracle*, Jean Baechler, *Les origines du capitalisme*, Ralph Raico, *The Theory of Economic Development and the European Miracle*



## Charlemagne's monetary reform: 240 pennies to pound of silver

- Monetary system fragmented, minting rights alienated
- Only unit of account (pounds, shillings, pence, *livres*, *sous*, *deniers*)

## Debasement and Competition

- C. 1130: *denier* of Le Puy worst, only 2 ¼ d. fine (19 percent)  
Toulouse 10 d. fine (83 percent)
- Best coins: English sterling penny and Cologne pfennig, both 92 percent fine
- Coins circulated widely beyond minting area, a mixture of different coins in use
- *De facto* currency competition secured quality of coinage



## Early Canon Law

- Collections of Ivo of Chartres (c. 1040-1115) included both Roman free-market theme and Carolingian price regulation
- Gratian's *Decretum* 1140. He and the decretists very anti-mercantile
- Huguccio (d. 1210) radical reconstruction of patristic teaching on property: sacrosanct, in principle free from government interference

## *Decretals of Gregory IX in 1234*

- Decretalists more liberal: just price = free market price
- Alanus Anglicus: no *turpe lucrum* if the future price is uncertain
- Decretalists progressively freed trade from stain of *turpe lucrum*



## Usury Prohibition Strengthened

- Origins in Council of Nicaea and Charlemagne
- Synods of Aachen 789, Nijmegen 806 definition: “an exchange where more is demanded back than what is given”
- Considered especially evil form of *turpe lucrum*, filthy gain
- Urban III (1120-1187, pope 1185-87) found new scriptural reason for ban of usury in Luke 6:35: lend freely hoping for nothing in return

## First Weakening: Cardinal Hostiensis (1200-1271) and *lucrum cessans*

- “Cease of gain”, interest justified in compensation if money could have been invested profitably
- Extremely limited at first: only occasional, charitable loans
- *Lucrum cessans* eventually expanded into opportunity cost



## Scholastic Philosophy

- Bible and Church Fathers
- Plato and later philosophers; rediscovery of Aristotle 12<sup>th</sup> - 13<sup>th</sup> century
- General view: all sources of knowledge are in harmony, can be harmonized

## Scholastics and Economics

- Moral philosophy/theology also intensely practical: how to apply general principles to concrete actions and exchanges, contracts?
- Theologians rehabilitated trade, merchants – reinforced by rediscovery of Aristotle
- Division of labour important, providential
- Money facilitates mutually beneficial exchange
- Mercantile profit justified as payment for labour of transport and storage, assumption of risk





## William of Auxerre (1140/50-1231)

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- Teacher in Paris, one of the first to read Aristotle (again)

### William on Usury

- Considered it intrinsically evil, a violation of natural law
- New argument: usurer is “selling time”, which is common to all
- Loans and interest are not really voluntary, only conditionally so
  - Since the borrower would prefer an interest-free loan
  - He is somehow forced to pay interest



## St Albert the Great (1206-1280)

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### *Doctor Universalis*

- Dominican friar, professor in Paris and Cologne
- Wrote broadly on all issues of theology, philosophy, science

### St Albert on Usury

- Resurrected Aristotelian argument against usury: Unnatural that money should beget money
- Famous formulation: *pecunia non pecuniam parit*

### Value and Price

- “A price is just which can equal the value of the goods sold according to the estimation of the market place at that time”



## St Albert, *Commentary on Aristotle's Politics* (c. 1263)

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And he adds a distinction of activities that are called money-making: for there are two kinds of it, as has already been said. One involves exchanging money for money, and this is not the purpose for which money was invented. The other kind involves exchanging money for food and clothes and other necessary goods that are of use to a housekeeper, and for this purpose money was invented. And he names the properties of both, saying: the one that exchanges money for necessary goods according to nature is essential and praiseworthy. The other one, however, that is the one that converts money into money, is justly censored. And he adds the reason why it is censored: for indeed the exchange of money for money is unnatural, because it does not convert money into naturally necessary things. This was demonstrated with the example of King Midas, who, having turned everything he was provided with into gold, died from hunger... [S]o usury was born. Usury is a sort of profit that relies on unnatural exchange. In Greek it is called *tokos*, which in Latin means birth. And this is what he adds: it multiplies by itself within its kind—that is, money bears money.



# St Thomas Aquinas (1225-1274)

## *Doctor Angelicus*

- Dominican friar, pupil of Albert
- Great synthesis of Aristotle and Christian thought
- Greatest theologian/philosopher of the Middle Ages

## **St Thomas on Markets and Price**

- Demand based on individual need the true measure of value
- Incorporated Aristotle's exchange value discussion
- Vague on just price – but seems to accept market price as just
- Saw mutual advantage in interpersonal exchange

## **On Private Property**

- Private property good: social peace and production
- Property grounded in original appropriation
- Important for later Dominican-Franciscan debate





## St Thomas, *Commentary on Aristotle's Nicomachean Ethics* (c. 1271)

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We must say that, in regard to justice in exchange, there should always be an equality of thing to thing, not, however, of action and passion, which implies corresponding requital. But in this, proportionality must be employed in order to bring about an equality of things because the work of one craftsman is of more value than the work of another, e.g., the building of a house than the production of a penknife. Hence, if the builder exchanged his work for the work of the cutler, there would not be equality of thing, given and taken, i.e., of house and penknife. Then, he proves his statement, saying that justice in exchanges includes reciprocation according to proportionality...

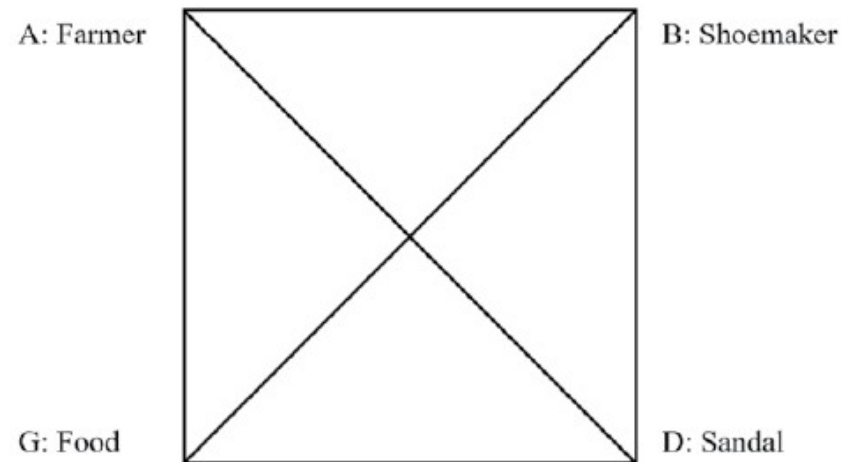
[I]t is necessary that all things capable of exchange should be comparable in some way with one another so that it can be known which of them has greater value and which less. It was for this purpose that money or currency was invented, to measure the price of such things... He states that for this reason it is possible to equate things because all things can be measured by some one standard, as was pointed out. But this one standard which truly measures all things is demand. This includes all exchangeable things inasmuch as everything has a reference to human need. Articles are not valued according to the dignity of their nature, otherwise a mouse, an animal endowed with sense, should be of greater value than a pearl, a thing without life. But they are priced according as man stands in need of them for his own use.



# St Thomas, *Commentary on Aristotle's Nicomachean Ethics* (c. 1271)

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Next, he puts in a diagram what has been said about the proportional figure. Take then (as in the previous example) a square A, B, G, D, and two diagonals AD and BG intersecting one another. Let A represent the farmer and G the food, his product, e.g., a bushel of wheat. Let B represent the shoemaker and D his equated product, i.e., as many sandals as have the value of a bushel of wheat. There will then be a just reciprocation if A is joined with D and B with G. If there is not such a compensation men will not share their goods with one another.





## On Money

- Medium of exchange, measure for expressing values, unit of account
- Value of money fluctuates naturally – this is unproblematic

## On Usury (following St Albert)

- Money fixed in terms of itself – therefore unnatural to charge interest
- Charging interest means charging twice for the same thing:
  - For the money itself and for its use – but the two are identical to Aquinas
  - Use of money is ownership of it (from St John Chrysostom)

## Exception to Usury

- Investment in *societates* just, since the partner retains ownership
  - Tradition going back to Ivo of Chartres
  - But contradiction: use is with the (active) partner, how is ownership retained?
- Aquinas' views on usury dominant for 200 years



## St Thomas: *Commentary on Aristotle's Politics* (c. 1272)

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And so, in order to make exchanges in remote parts of the world, people established mutually to give and receive something that could be easily and expeditiously transported but would of itself have utility. Metals (e.g., bronze, iron, silver, and the like) are such. For they are intrinsically useful insofar as one makes vases or other implements out of them, and yet they could be easily transported to remote places, since a small amount of them, because of their rarity, were worth a great deal of other things. Just so, human beings who have to make a long journey now carry silver or gold coins instead of bronze ones for their expenses. Because of the aforementioned need of exchange at remote places, the value of metal was first determined only by its weight and size, as, for example, some peoples use forms of bulk silver. But later, in order to free human beings from the need to measure and weigh metal, they printed a mark to signify that the metal is of such and such amount.





## B1. John Duns Scotus (1266-1308)

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### *Doctor Subtilis*

- Franciscan friar, Scottish, taught in Paris and Cologne (and more)

### **Just Price**

- The just price is the seller's cost of production plus compensation for industry, labour, and risk
- First statement of cost-of-production or labour theory of value?

### **Private Property and Communism**

- Prelapsarian communism: private property came in only after the Fall
- Comes from Franciscan ideal of total, “apostolic” poverty: use of perishable things does not necessarily imply ownership
- Extreme position on apostolic poverty smashed in 1329 by John XXII in *Quia vir reprobus*: use of consumable things necessarily implies ownership of them



## A Practical Philosopher

- Provençal, Franciscan, lector in Florence
- Two treatises on contracts contain his economics – practical!

## Subjective Utility Theory

- Economic value from scarcity and utility
- Utility separated into two parts: objective utility for achieving ends and subjective utility of a product for individuals
- Subjective utility is what determines market price
- Paradox of value solved: utility is relative to scarcity, supply
- First academic use of the concept “capital”: fund of money invested in a business venture
- Knowledge of Olivi erased – but St Bernardino copies him



## Markets and Prices

- Emphasis on private property
- Exchange is beneficial, but values must be equated somehow
- The just price is the market price – or the decreed price
- Utility and cost-of-production theories of value

## Usury

- Usury condemned as immoral, universally prohibited
- Usury prohibition spurred analysis of productive uses of money and possible reasons (“extrinsic titles”) for interest:
  - *Lucrum cessans*
  - Investment in *societates* / partnerships



# Europe 1300 AD





## 2. The Later Middle Ages

### Crisis of the Fourteenth Century

- Secular economic decline in most of Europe 1300-1450
- Population: high of 54 million 1340, fell to 37 million by 1450
- Black Death 1348-50: bubonic plague, killed 1/3, recurrent epidemics thereafter
- Fundamental cause: lowered living standards led to lower resistance to disease

### Reemergence of serfdom after the plague

- To control labour to the benefit of landowners and employers
- Failed in Western Europe, led to “second serfdom” in Eastern



## Reemergence of Centralized Rule/Control

- Especially in France, England, Italian cities
  - War-making and state-making
  - Direct destruction small, increased taxation more important
- New ad valorem taxes, salt monopoly in France
- Destruction of Champagne Fairs

## Church Loses Independence

- Capture of Boniface VIII 1303 and the move to Avignon 1305
- The Western Schism 1378-1417 and loss of moral authority

## Monetary Control Reimposed

- Monopoly reasserted – used to extract taxes (*monetagium*)
- Debasement in emergencies followed by revaluation
- Legal par imposed on new and old coin
- Periodically causes monetary shortages (Gresham's law), leads to need for periodic recoinage



## Gold Coinage and International Trade

- Genoa and Florence 1252 (florins), Venice 1284 (ducats) again minted gold
- Italy-Flanders trade spurred development of bills of exchange
- Banking emerges to finance trade – Italian specialty

## Banking and Book-Keeping

- Double entry bookkeeping perfected
  - Luca Pacioli (1445-1517) described it 1494
  - Indispensable aid to economic life – and to economic thinking
- Investment and deposit banking develops
  - Huge impetus for thought on money and usury – no banker wanted to be an usurer
  - Limited partnerships and guaranteed “profits”
- Investment in debt, bonds emerges – annuities, *rentes*, monte de pietà



## Nominalism

- William of Ockham (c. 1288-1347) and voluntarism
- Could lead to abandonment of natural law tradition
- Marsiglio of Padua example of this: *Defensor Pacis* 1324, against natural law/right reason, the state must be absolute

## Jean Buridan (1300-1358)

- Metallist/commodity theory of money:
  - Money originates as a useful commodity in the market
- Catalogue of the qualities of money:
  - Portability, high value per unit weight, divisibility and durability





## Nicole Oresme (1325-1382)

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- Mathematician, astronomer, bishop of Lisieux

### ***De Moneta*, c. 1350-60**

- Part of the opposition to John II of France
- The community and individuals, not the king owns the money
- Widely circulated, became new orthodoxy after 1358
- First treatise on money

### **Metallism, Gresham's Law, Debasement**

- Clearly states Gresham's law, suggests Cantillon effect
- Profit from debasement is unjust and unnatural – worse than usury, the king steals his subjects' money- the act of a tyrant



## Oresme on Gresham's Law

Again, such alterations and debasements diminish the amount of gold and silver in the realm, since these metals, despite any embargo, are carried abroad, where they command a higher value. For men try to take their money to the places where they believe it to be worth most. And this reduces the material for money in the realm.





## The Odd Man Out

- Urged government fixing of prices
- Argued that prices should be fixed so each seller could maintain his station in life
- Decidedly minority view, obscure figure

## Historical Error

- Heinrich plucked from obscurity in nineteenth century to conjure distorted view of static and harmonious middle ages
- Invented by Roscher, Sombart
- Picked up by R. H. Tawney Amintore Fanfani
- Refuted by Schumpeter and de Roover



## Alexander Bonini (or Lombard, c. 1270-1314)

- Launched discussion of foreign exchange: 1307 lecture in Genoa, *Treatise on Usury*
- Attacks usury, defends foreign exchange dealings: utility justifies profits, *lucrum cessans* valid in foreign exchange
- Also discusses *census* contracts and risk

## Lorenzo di Antonio Ridolfi (1360-1442)

- Florentine lay canon lawyer, thoroughgoing defence of exchange contracts c. 1400
- Fluctuations in value of money at different places from changes in demand, metallic content, justifies exchange and credit



## St Bernardino of Siena (1380-1444)

- “Apostle of Italy”, Vicar General of Franciscan Observants
- *On Contracts and Usury* 1431-3
  - Applied market-price principles to wages
  - Followed Alexander Bonini on foreign exchange
  - Hostile to usury – but admits *lucrum cessans*, since we’re dealing with capital, not barren money

## St Antonino of Florence (1389-1459)

- Bishop of Florence 1445
- St Bernardino’s main disciple, popularizer and casuist
- Against foreign exchange as implicit usury, harsh on usury



## **Johannes Nider (1380-1438)**

- Swabian, Dominican, professor in Vienna
- Utility explains price à la Olivi, St Bernardino
- Exchange dealings just – no usury

## **Gabriel Biel (1430-1495)**

- Swabian, nominalist, professor in Tübingen
- Exchange yields mutual subjective benefit
- Attacked debasement as dishonest, theft
- Sophisticated analysis of foreign exchange: bankers that accept a bill of exchange perform service of “virtual transport” of money



## Biel and Demolition of the Usury Prohibition

- Justified *census* contract
- Both buyer and seller expected to gain, therefore licit

## Conrad Summenhart (1465-1511)

- Biel's successor at chair of theology in Tübingen
- *Tractatus de Contractibus* 1499 systematic assault on usury prohibition
- Massively widens possible exceptions, *lucrum cessans* and *census*
- Critiques all the arguments against usury in other contracts
- Only two left: Aristotle's authority and (supposed) divine prohibition



## 3. The Spanish Scholastics

### Background

- Recovery from 1450: trade moved to Antwerp
- Age of Discovery: exploration fuelled commercial expansion
- Inflow of American silver led to “price revolution”

### School of Salamanca: Silver Age of Scholasticism

- Renascent Thomism
- Spain’s Golden Age
- Inflow of gold and silver, and economic relations with other countries stimulate economic thinking





## Thomas de Vio, Cardinal Cajetan (1468-1534)

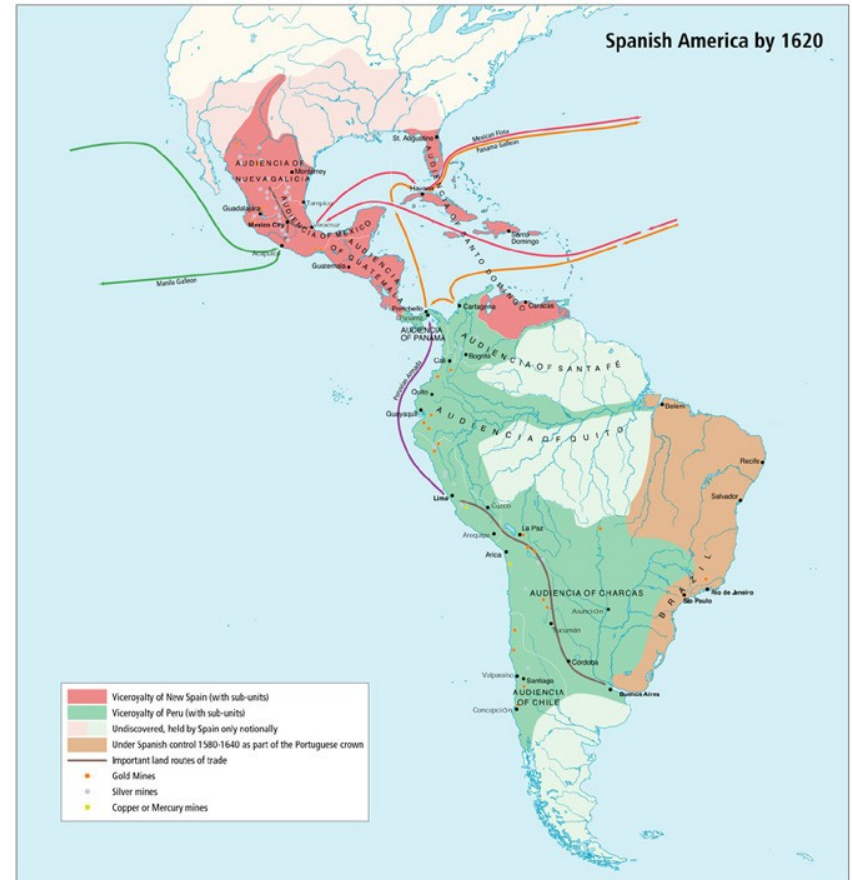
- Dominican, general of the order 1508-1518, Italian
- Commentary on St Thomas' *Summa Theologiae* revived Thomism

## Exchange and Usury

- *De Cambiis* (1499) provides full defense of foreign exchange dealings. Here too customary market price = just price
- Moderate on usury
  - Greatly widens *lucrum cessans*, critiques Aquinas' rejection
  - *Lucrum cessans* a general justification for business loans: a lender can charge interest for profit foregone



# The Spanish Empire c. 1600





## Francisco de Vitoria (1485-1546)

- Founder of the school
- Prime professor of theology in Salamanca from 1526, reformed the university
- Founder of international law, no writings, lectures preserved

## Domingo de Soto (1494-1560)

- *De Iustitia et Iure* 1553
- Anti-usury, reactionary – but first to reject Luke 6:35 as grounds for usury prohibition
- Analysis of exchange rates and movement of currencies
- Rudiments of purchasing power theory
- Abundant money in Spain cause flow to Flanders, since demand for money higher there

## Juan de Medina (1490-1546)

- The first to argue for *damnum emergens*
- Risk of non-payment could be valid title to interest



## **Eminent Canon Lawyer**

- Developed principles set forth by Vitoria
- Economic “liberal”: first to denounce price fixing as unwise, needless and/or harmful

## **Monetary Theorist**

- Unambiguous presentation of quantity theory – but also stresses demand side in determining value of money
- Value of money = purchasing power of money
- Rejects the idea that money is a fixed measure of value of other goods



## Azpilcueta *On Exchange* (1556)

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Aristotle thought it was wrong to exchange and trade with money because he did not think this third use of money was natural or brought any benefit to the republic or had any other purpose but that of profit, which is an end without an end. Saint Thomas said that any art of exchange whose main purpose was only to obtain profit was illicit. Saint Thomas himself, however, declares that the art of exchange is licit if its purpose is a moderate profit to support oneself and one's home and if the art of exchange brings about some benefit to the republic. We say that if it is exercised as it should be and the purpose of the profit is directed to honestly and moderately support oneself and one's home, then it is licit. It is not true that using money to obtain a profit by exchanging it goes against its very nature because, even if it is a different use than the first and main one for which it was created, it is still apt for a less principal and secondary use. This happens, for example, when shoes are used to make a profit, which, although it is a different use than the primary one for which they were created (which was to wear on feet), does not go against their very nature.



## Azpilcueta, *On Exchange*

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[A]ll other things being equal, in those countries where there is a great lack of money, less money is given for marketable goods, and even for the hands and work of men, than where there is an abundance of it. This we can see from experience in France where there is less money than in Spain. Bread, wine, wool, hands, and work cost less. Even in Spain, when there was less money, much less was given for saleable goods, and the hands and work of men, than later when the discoveries of the Indies covered it in silver and gold. The cause for this is that money is worth more where and when there is a lack of it than where and when there is an abundance.



## Diego de Covarrubias y Leiva (1512-1577)

- Value of goods depends on estimation of customers – even if that estimation is foolish
- Great influence in Italy, down through Galiani

## Luís Saravia de la Calle Veronese

- influential handbook in moral theology 1554
- Insisted that utility and scarcity alone determine price. Influential in Spain and Italy

## Tomás de Mercado (d. 1585)

- Important handbook 1569: *Tratos y contratos de mercaderes*
- Applied utility analysis to money
- Wanted to ban the export of metals

## Domingo de Bañez (1527-1604)

- *De Iustitia et Iure* 1594. Systematic discussion of purchasing power theory of exchanges



# Tomás de Mercado, *Manual of Deals and Contracts* (1569)

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[M]odern exchange transactions are founded on the diversity in the estimation of money. It is understood that this estimation is to be universal throughout the whole of a kingdom, not peculiar to two or three or five needy persons in a town. Thus we see that in all Flanders and in all Rome money is more highly esteemed than in all Seville, and in Seville more than in the Indies, and in the Indies more than in New Spain, and in New Spain more than in Peru...

[T]he thing that causes a rise or fall in the market is the abundance or scarcity of silver. If it is abundant the rate is low and, if scarce, high. Clearly, then, abundance or scarcity causes money to be little or greatly esteemed. Hence, if in Seville at the present moment money is esteemed more highly than it will be in a month's time, this is simply because in some way the market will have been altered and freshly supplied and, since money will be more abundant, its estimation will fall. Estimation is and always will be the basis of such transactions.





## Jesuit Salamancan

- Professor in Alcalá, Coimbra, Évora
- Massive magnum opus *De Iustitia et Iure* in six volumes, 1593, 1597, 1600 and three posthumously

## Money and Prices

- Pursued comprehensive supply and demand analysis of prices
- Carried on Salamancan tradition of exchange rate analysis in terms of purchasing power

## Usury

- Supported Juan de Medina's view on risk, *damnum emergens*
- Argued for *lucrum cessans* as a justification for interest



## Molina on money

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Just as an abundance of goods causes prices to fall (the quantity of money and number of merchants being equal), so does an abundance of money cause them to rise (the quantity of goods and number of merchants being equal). The reason is that the money by itself becomes less valuable for the purpose of buying and comparing goods. Thus we see that in Spain the purchasing-power of money is far lower, on account of its abundance, than it was eighty years ago. A thing that could be bought for two ducats at that time is nowadays worth five, six, or even more. Wages have risen in the same proportion, and so have dowries, the price of estates, the income from benefices, and other things.



## **Francisco Suarez (1548-1617)**

- Jesuit, magnum opus: *De Legibus ac de Deo Legislatore*

## **Juan de Mariana (1536-1624)**

- Jesuit, historian and theologian
- *De Monetae Mutatione* 1609 denounced debasement – Mariana imprisoned
- Debasement adds to problem of price inflation

## **Leonard Lessius (1554-1623)**

- Fleming, Jesuit, Salamancan in spirit
- *De Iustitia et Iure* 1605 hugely influential
- Enormously liberating effect on usury prohibition

## **Juan de Lugo (1583-1660)**

- Jesuit, student at Salamanca, teacher at Roman College of the Jesuits, cardinal
- *De Iustitia et Iure* 1642
- *Lucrum cessans* “the general title for purging usury”



## Lessius, *On Buying and Selling* (1605)

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A good that must be delivered to the buyer after a few months is worth less than a good that must be delivered to him immediately. For a present good and the immediate ownership over it offer many opportunities that a future good does not. So if he buys and gives the money at once, he is allowed to pay less than he should have paid at the time of delivery...

[W]hen such bonds are offered for sale as merchandise, they are estimated to be worth less than ready money by the common judgment of people. For ready money offers many opportunities that bonds do not. Consequently, they may be bought at a lower price. This inference is right because the just price of any saleable good is the price settled by the common estimation...

In this particular case, those bonds are needed less than ready money and do not offer the same potential of benefits and opportunities to make a profit. Therefore, they are prudently estimated to be worth less.



## **Usury question a key issue in discrediting scholastics**

- Attacked from “the left”: Protestants without and Jansenists within
- From “the right”: secularist and rationalist who wanted to get rid of any political application of religious and moral principles
- One camp attacked the scholastics for weakening the usury prohibition, the other for keeping it

## **Casuistry, moral theology and philosophy also attacked**

- By one camp as a way of weaselling out of moral responsibility
- By the other for imposing religious dogmas on all spheres of life



# The Fall of Scholasticism, continued

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## **The loci of intellectual activity increasingly changed**

- Away from universities, to pamphleteers, businessmen, public officials
- Meant more diversity of thought, greater spectrum of views
- But scholasticism faded away, only revived in nineteenth century

## **Important natural law tradition developed in Protestant Europe**

- Inspired by the scholastics
- Hugo Grotius (1583-1645) in Holland
- Samuel Pufendorf (1632-1694) and Christian Wolff (1679-1754)

## **Rise of vernacular languages as medium of social and economic thought**

- Influence of scholastic economics to Catholic countries



## 4. Non-Scholastic Economic Thought

### Protestant Reformation

- Reformers freed from Church also freed from her intellectual traditions
- Church “nationalized”, not independent centre of authority

### Protestant Doctrines

- Total depravity of human nature: neither intellect nor the senses can be trusted
- Fideism and trust in revelation privileged
- But authority of Christian tradition still strong



# Luther (1483-1546) and Calvin (1509-1564)

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## Martin Luther

- Reverted to minority view on just price: cost of production plus expenses and labour, and risk
- Also reverted to drastic usury prohibition: no *lucrum cessans*, no *census*

## John Calvin

- Dumped the usury prohibition altogether
  - Greatly hedged the charging of interest with qualifications in practice
  - A moderate position – modern idea of usury as excessive interest
- Calvinist emphasis on one's calling, success as indicator of election. Leads to focus on work, postponement of earthly gratification
  - Weber thesis from this – but debatable given medieval capitalism
  - Emil Kauder and the origin of the labour theory of value in Puritanism

## Claudius Salmasius (1588-1653)

- finally threw out usury prohibition





## Nicolas Copernicus (1473-1543)

- Tasked by king of Poland to study tangled Prussian currency question
- *Monetae Cudendae Ratio* 1526
- Set forth Gresham's Law and quantity theory

## Bernardo Davanzati (1529-1606)

- Florentine merchant
- *Lezione delle Moneta* 1588
- Solved paradox of value
- Applied utility analysis to money



# Summary of Scholastic Economics

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- Subjective utility theory of value
- Opportunity cost concept developed under guise of *lucrum cessans*
- Quantity theory of money
- Purchasing power analysis of exchange rates, value of money
- Sophisticated analysis of flow of specie, balance of payments dynamics understood as monetary phenomena
- Never gave up Aristotelian idea of equality in exchange
- Hostility to usury continual, never gave up basic negative attitude