3. The Scholastic Analysis of Usury and Other Subjects

Scholastics and Merchants

The early history of financial economics is intimately related to the evolution of scholastic doctrine on contracts involving usury, exchange, risk and partnership. The Schoolmen, the authors of scholastic doctrine, were not financial economists.[1] Nor did the Schoolmen possess much hands-on knowledge about the workings of financial markets. Rather, the Schoolmen were scholars, steeped in the tradition of medieval Christianity. Justice, not profit, was their primary motivation. Yet, until well into the 18th century, the Schoolmen had a fundamental role, both directly and indirectly, in shaping the laws that governed the activities in financial markets.

The Schoolmen were careful, even ponderous, in arriving at positions on specific issues. In the process of formulating doctrine on issues relating to economic matters, the Schoolmen developed a body of knowledge that has been categorized as 'scholastic economics', for example, de Roover (1955), Schumpeter (1954, ch. 2). The role of scholastic economics in the evolution of modern 'economic science' is something of an enigma. A number of important historians of economic thought, such as Schumpeter and de Roover, find roots of modern economics in the scholastic doctrines, Adam Smith' s views on monopoly being an important case in point (de Roover 1951). Yet, the conventional approach in the modern history of economic thought is to ignore the contributions of the Schoolmen and trace the pre-Smithian roots of economics to the mercantilists.

Unlike scholasticism, there has been considerable debate about whether mercantilism qualifies as an 'ism', that is, 'a theory governed by an inner harmony and advocated or applied in a particular time or phase of development' (Heaton 1937, p.393). Was there a coherent economic approach that could be associated with mercantilism? Hecksher (1935) attempted to answer this question in the affirmative, identifying five unifying themes. However, Heaton (1937), Johnson (1937) and others ably demonstrated that this was a slippery slope. Hecksher (1936, 1955) recognizes that numerous qualifications are required to obtain some semblance of a coherent notion of 'mercantilism'. Perhaps the most successful efforts aimed at distilling certain common elements have drawn primarily on the English mercantilist contributions, for example, Viner (1937) and Schumpeter (1954).

Even if it is not possible to identify a fully coherent doctrine of mercantilism, there are certain distinct features that can be identified in the musings of the various merchant writers of the 16th to 18th centuries. One particular feature is the underlying moral approach of the

mercantilists, an approach that is in stark contrast to the moral approach of the scholastics. De Roover (1951, pp. 323-5) identifies this point in a comparison of the mercantilist contributions to those of the Schoolmen:

> the Doctors were moralists, their main preoccupation was with social justice and general welfare … The mercantilists, too, professed to further the cause of the commonweal; however, their declarations in this respect should not always be taken at their face value. All too often they serve as a screen for private interests …
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> In contrast to scholastic economics, mercantilism was amoral. The later mercantilists were interested in a large population and full employment only because they thought such conditions would stimulate trade and increase the economic power of the state. Usury was no longer considered a voracious monster … Trade has no soul and the individual did not count: why should mercantilists be disturbed by moral issues?

This contrast in moral orientation between the scholastics and mercantilists has implications for interpreting the place of financial economics within modern economic science.

The roots of modern financial economics are firmly planted in the mercantilist camp, if only because many of the early contributions were from merchants engaged in financial markets. Moral issues, such as those surrounding the payment of interest on loans, were not an essential element in the requisite financial calculations. In contrast, Adam Smith, the acknowledged founder of modern economics, was a Professor of Moral Philosophy. Smith's attack on mercantilist ideas was engaged at various levels. That a number of these ideas were a natural progression from the ideas of the Schoolmen is not surprising. What is somewhat surprising is that the connection is not more commonly recognized and developed. One essential connection is the concern with moral issues. Drawing on the arguments developed in the *Theory of Moral Sentiments*, Smith was able to construct a moral basis that provides the foundation for modern economic analysis.

At best, Adam Smith is a minor figure in the history of financial economics. Most of the early financial economists were merchants and reckoning masters operating at the core of financial markets. Recognizing that mercantilism is, perhaps, most effectively identified with the public views of prominent merchants, the roots of financial economics are planted squarely in the 'amoral' domain of mercantilism. Though many of these early financial economists were almost certainly devout in their private lives, profit was the discipline of the financial markets. This mercantilist genealogy is in contrast to the moral philosophy that is a systemic part of the doctrines of both the Schoolmen and Adam Smith.

As such, scholastic economics plays a different role in the study of financial economics than in other areas of economics such as microeconomics or international trade theory. The pricing of securities requires an assessment of the expected rate of return, given the level of risk posed by the investment. By influencing the legal framework within which financial markets operated, scholastic doctrine played an essential

role in determining the securities contracts that were traded. Similarly, the assessment and allocation of risk within a partnership also fell within the scope of scholastic doctrine, affecting how business financing was structured. The role of insurance in business dealing and the emergence of joint stock companies were other areas that scholastic doctrine affected.

Ancient Doctrines on Interest Payments

The use of credit is prehistoric, predating the use of coinage and, possibly, the use of barter (Homer and Sylla 1991, p. 16). Even in the most rudimentary societies, three basic types of credit transactions can be identified: loans where no direct repayment is expected, effectively gifts that may or may not have an implied *quid pro quo*; loans where repayment involves the return of the loaned article in the same condition as when it was borrowed; and loans at interest where, in addition to the return of the loaned article, repayment includes an additional amount to compensate the lender for the use of the article. There is evidence of all three types of loan transactions in ancient societies. For example, early languages, such as Sumerian and Egyptian, contain words for interest. Unfortunately, there also appears to have been those who used the payment of interest as a pretext to exploit their neighbours. As a consequence, ancient societies developed laws regulating the payment of interest.

Much of the ancient literature and law is concerned with condemnation or restriction of interest. Where interest was permitted, a maximum allowable rate was usually specified. Legal restrictions on the payment of interest can be found, for example, under the Mosaic Code where it was forbidden for Jews to lend at interest to other Jews, but not to strangers. Another example is provided by the Code of Hammurabi which recognized loans at interest and fixed a maximum interest rate that was higher on loans of grain than for loans of silver. Attempts to charge higher rates through subterfuge cancelled the debt. Allowances were provided for cases where the debtor could not make full repayment. Similar practices were followed in Assyria, Babylonia, Mesopotamia and Persia.

There were sensible reasons for the practice of restricting interest payments. The accumulation of capital and the associated use of credit in the production process was quite limited in ancient markets. Loans were typically for consumption purposes, involving a poor debtor and a rich creditor. The important philosophers of Greece, such as Aristotle and Plato, did not devote much writing to interest but were generally opposed to the payment of interest, apparently because of a moral aversion to having rich lenders benefit at the expense of poor borrowers. Despite the views of the philosophers, by 'the third century BC Greek finance was highly developed and the use of credit was general. By 200 BC the real estate loan, once dreaded, came to be regarded as a convenient means of procuring money at a moderate rate, especially by the smaller farmer' (Homer and Sylla 1991, p. 38).

Recognizing some influence from Aristotle, the scholastic position on interest was primarily and selectively gathered from Roman law. The legal framework for the early part of Roman history was the *Lex Genucia*, 322 BC, where lending at interest was forbidden between Roman citizens. This restriction was later extended to *socii* and to provincials (Böhm-Bawerk 1914). To quote Homer and Sylla (1991, p.46):

> These early centuries of Roman history have left … little evidence of organized financial activity or credit other than personal debt secured by real estate. Large banking firms were unknown. The state, however, encouraged foreign traders to come to the city, and for their convenience it rented out money booths in the forum. The bankers were called by the Greek name 'trapezit' and probably were mainly Greeks, as they were later in Cicero's day. They were trusted with large sums, lent money at interest, paid interest on deposits, changed money, bought and sold as agents, and later kept agents in the provinces and issued foreign drafts.

Aristotle on Interest and Usury

In the Politics (III, 23) Aristotle observes:

> Of the two sorts of money-making one … is a part of household management, the other is retail trade: the former is necessary and honourable, the latter a kind of exchange which is justly censured; for it is unnatural, and a mode by which men gain from one another. The most hated sort, 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, which means the birth of money from money, is applied to the breeding of money, because the offspring resembles the parent. Wherefore of all modes of making money this is the most unnatural.

Over time Roman law on interest evolved considerably. By the first century BC, Rome had emerged as the financial centre of the ancient world. Various legal conditions had developed under which the taking of interest between Romans was permitted. However, even where the payment of interest was permitted by the Romans, only simple interest was allowed. Even though compound interest was recognized and prohibited (Lewin 1970), the payment of compound interest was permitted if the contracting process was properly structured. Malynes in the *Lex Mercatoria* addresses this point directly:

> The Romans and Grecians made a difference … according to the law of *Justinian*. But the taking of one in the month was most usual, because Merchants were the most lenders. And this twelve *pro centum* is to be understood also to be Interest upon Interest, wherein equity is to be observed: for this twelve pounds being delivered out again unto another, is *pro rata* as beneficial as the

> £100 principal. Albeit in the case of damage, when matters between men are grown litigious, and depending in suits, then the courts of Equity will account the whole time of forbearance of the money, according to years past, without any Interest upon Interest.

Hence, while compound interest was not permitted by law, by using a sequence of contracts compound interest could be paid.

Scholastic Economics

During the 1940s and 1950s a number of economists, including de Roover (1955) and Schumpeter (1954), attempted to 'rescue the Schoolmen from intellectual exile' (Kirshner 1974, p.19) by changing the conventional perception of scholastic economics. The main thrust of the argument was that the roots of classical economics were derived from the Schoolmen and not from mercantilists, physiocrats and 18th century free trade writers. Scholastic economics was not a medieval doctrine due to Thomas Aquinas but, rather, an evolving school of thought that reached an apex with the works of the Spanish Jesuit Luis Molina (1535-1600) and the Belgian Jesuit Leonard Lessius (1554-1623), building on the contributions of the school of Salamanca founded by Francisco de Vitoria (1480-1546), for example, Grice-Hutchinson (1952).

The revisionists aimed to change the prevailing view that the science of political economy begins with Adam Smith. While admitting that it is 'improbable that Adam Smith went back to the ponderous treatises of the Doctors' (de Roover 1951, p.302), substantive connections were made between Smith and the writings of the jurists and natural law philosophers Hugo Grotius (1583-1645), a Dutchman, and Samuel Pufendorf (1622-1694), a German. Though Grotius and Pufendorf cannot be considered scholastics, the influence of scholasticism on natural law philosophy is systemic. Not only do scholasticism and natural law philosophy share an Aristotelian foundation, many scholastic arguments were readily adopted and adapted by natural law philosophers. In this fashion, many fundamental elements of scholastic economics, such as the aversion to monopoly, are reflected in the writings of Adam Smith.

Much of the revisionist argument was aimed at demonstrating the contribution of scholastic views on value and price, topics that are of only general interest to a study of financial economics. On the notions of 'just price' and utility as a source of value there was general agreement among the revisionists. However, on the central issue for financial economics, the usury question, the revisionists were not in agreement. On the subject of usury Schumpeter (1954) and Dempsey (1948) both argued forcefully that scholastic doctrine was a major advance in interest theory, for example, Melitz (1971). In contrast, de Roover (1955) felt the 'great weakness of scholastic economics was the usury doctrine' (p.173). The most detailed study of the scholastic usury doctrine, Noonan (1957), identifies various shortcomings of the usury doctrine but eventually concludes that 'the theory is formally perfect'

(p.360).

While it is tempting to focus on specific components of scholastic doctrine relevant to financial economics, such as the usury doctrine, such an approach is ill-advised. In particular, the apparent casuistry reflected in many scholastic writings on usury is better understood by considering economic writings in the appropriate context. The Schoolmen were products of the Church school and university educational system. Subjects of relevance to economics, particularly practical areas such as financial economics, were something of a sideshow to the more important subjects of ethics and law. Economic questions were typically addressed in the context of evaluating civil contracts involved in specific transactions. This approach to economic questions was consistent with the tradition of Roman law, which was an essential component of the scholastic tradition.

Following de Roover (1955, p.307): 'What the Doctors of the Middle Ages were really interested in was to determine the rules of justice governing social relations.' While charity was an important element of scholastic tradition, it was justice that governed scholastic thinking. Two forms of justice can be identified: distributive justice and commutative justice. Distributive justice related to the distribution of wealth and income. Scholaticism perceived a natural order where every individual was to receive according to one's station in life. Though there was an element of communalism in scholastic thought, the distinction between private and public property was accepted. Substantial variation in the distribution of wealth and income was permitted, providing such variation was 'just', or in accordance with the scholastic perception of morality, ethics and the law. Differences in the social structure across societies were also accepted, meaning that scholasticism permitted variations in the types of distribution consistent with justice.

Commutative justice deals with the rules governing relations between individuals. Such rules govern the exchange process, the buying and selling of goods. Considerations of commutative justice are essential to scholastic economics. The concepts of 'just price' and usury relate primarily to commutative justice which determines the 'equality of objects given in exchange' (Noonan 1957, p.31). Issues of justice apply as much to the rich as to the poor. As such, the exchange process is a test of honesty, the question of charity is largely irrelevant. Commutative justice is closely related to the perception of property rights and the acceptance of profit. Scholastics acknowledged the acceptability of both property rights and profits. However, certain types of profits, such as those earned from usury, were not acceptable. In the words of St. Bernadine: 'All usury is profit, but not all profit is usury.'

In the rudimentary markets of feudal times, the demands on scholastic economics were relatively uncomplicated. Questions about just price and usury were often simple. For example, Böhm-Bawerk (1914) and others argue that the bulk of loans in ancient and medieval times were of the consumption variety, usually involving a rich lender and a poor borrower. In these circumstances, on grounds of both charity and commutative justice, charging of interest would arguably be unjust.

Whether this is a valid motivation for early scholastic usury notions depends on whether the empirical observation is correct. In medieval times, the State was often a sizeable net borrower, for example, for funding Crusades, and the Church was often a large lender.[2] Hence, there may have been a decidedly more complex economic and political interaction underlying medieval financial markets and, as such, the consumption loan rationalization for medieval scholastic usury doctrine may be too simple.

In any case, as markets evolved contracts became more complicated and a much wider variety of circumstances were encountered. The difficulties of sorting out a just relationship were not always clear to the Schoolmen, whose education and training did not always provide the type of commercial knowledge required to make reasoned determinations. By the 16th century, the conceptual problems of identifying specific transactions that were usurious were almost insurmountable for the Schoolmen. An important scholastic of the Salamanca School, Domingo de Soto (1504-1560), wrote in 1553: 'this matter of exchange, although sufficiently abstruse by itself, becomes each day more complicated because of the new tricks invented by the merchants (to avoid the usury restrictions) and more obscure because of the conflicting opinions advanced by the doctors' (see de Roover 1956, p.257).

Ekelund et al. (1996) on the Usury Doctrine

Ekelund et al. (1996) attempt to reconcile Church doctrine with the actions of a rent-seeking corporation. The evolution of usury doctrine (pp.121-2) is explained as:

Although conventional economic wisdom denigrates the doctrine of usury as outside the standard logic of economic theory, it offers little in the way of explanation for the doctrine's endurance over the centuries. Was the doctrine of usury simply a bad idea that became increasingly anachronistic as economic markets slowly advanced, or were there identifiable economic reasons why the doctrine persisted during the Middle Ages?

Existing explanations of usury … stress doctrine more than policy. They imply that from an economic standpoint, usury was a bad idea that somehow lingered too long. Such explanations may be classified into three categories. The first approach seeks to understand medieval Church practice by emphasizing the role of theological dogma. A second approach attempts to elucidate the doctrine of usury by exegetical analysis of medieval texts. A third approach concentrates narrowly on the nature of economic doctrine, seeking lasting contributions to economic analysis.

The explanation of the medieval doctrine of usury offered here differs from existing ones in three major respects: (1) it emphasizes the policy or *practice* of usury rather than the doctrine; (2) it treats usury as merely one of many policy variables at the Church's disposal in its efforts to achieve certain objectives; (3) it presupposes actions by Church officials based on the theory of bureaucratic-monopolistic behaviour. This approach leads to the conclusion that the doctrine of usury persisted because it was in the … Church's interest to regulate loan markets.

In a controversial and stimulating attack, Ekelund et al. (1996) question the whole approach of attributing intellectual validity to scholastic doctrine. Scholastic doctrine was largely the result of the 'corporate' Roman Catholic Church seeking to legitimize various economic activities. Specifically, the 'Church functioned as a franchise monopoly that enjoyed certain economies of scale but that continually faced the dual problems of enforcement and entry control … (the) Church surpassed many modern-day corporations in its size, complexity and sophistication'. The conclusion reached by Ekelund et al. (1996, p.128) is startling: 'It is our view that historians of economic thought have tended to overintellectualize the doctrine on usury, which is the one aspect of the Church's complex regulatory framework that has typically drawn the most attention.'

In effect, Ekelund et al. argue that Church doctrines concerned with financial activities were largely the outcome of a rent seeking process. Their argument is not limited to the usury doctrine but extends, for

example, to the doctrine of just price. To what extent can Ekelund et al. be accused of 'underintellectualizing' the content of scholastic doctrine? The immense size of the Church dictates that it was deeply involved in economic and financial activities.[3] The Church could not avoid establishing doctrines in those areas in which the Church had a beneficial interest. However, it is a leap of faith to proceed to drawing the conclusion that, because there was a beneficial Church interest, that scholastic doctrine was designed to maximize the potential rents from that beneficial interest.

Types of Law

What is the law? The answer to this question is fundamental to understanding the rationale and impact of scholastic doctrine. As Noonan (1957, p.21) states: 'A firm belief in the rationality, immutability and universality of law is at the heart of the scholastic approach to all moral problems.' Because various types of law can be distinguished, considerable confusion and debate over scholastic doctrine arises where different types of law seem to conflict. This is particularly the case in business affairs, where the application of specific law is unclear. While the statement of specific laws may be apparent, whether this law or that law applies to a particular business contract or transaction is not always obvious. This problem is further exacerbated by the wide variety of laws available.

For purposes of discussing scholastic doctrine, three general types of law can be identified: divine law, positive or civil law and natural law. The divine law originates with the Bible. However, interpretation of scripture is complicated. St Paul's Epistle to the Romans (Romans, chs. 1-16) provides a useful example. St Paul recognizes the commandments of the Old Testament, divine law as revealed to the Jews and to be accepted by Christians. He also recognizes the divine law revealed in the New Testament, which incorporates and advances the divine law of the Old Testament; and recognizes law that extends beyond divine law and applies to all individuals, Christians, Jews, Gentiles and pagans. This law, which is an interpretation of natural law, imposes 'natural moral duties' (Noonan 1957, p.21) required to maintain civil society. Canon law evolved as a collection of laws providing scholastic interpretation of the divine law contained in the scriptures.

Natural law is more difficult to define. Discussion of natural law can be found in the Greek philosophers, such as Aristotle, and is explicitly developed in Roman law. Natural law is immutable and has roots in antiquity. 'The natural law may not be dispensed from by any human authority. It binds all men. Its first principles are innate, though experience is necessary for their application or development. Sometimes the natural law is considered in its subjective principles, and then it is identified with reason itself; sometimes it is considered in its objective content then it is identified with what is taught by reason' (Noonan 1957, p.23). Natural law applies to fundamental issues such as the rules governing union of the sexes, the birth and raising of children and the

proper treatment of neighbours. Because divine law also speaks to these issues, early canonists did not properly distinguish between divine law and natural law. However, by the 18th century, natural law philosophy had largely superseded scholasticism.

Unlike natural and divine law, civil or positive law was changeable and could differ across time and locations. Civil law is designed to maintain social order and, by design, must recognize that virtue is sometimes a difficult objective. Vices may be also permitted, if these do not conflict with the social order. Civil law is made by governments or by local custom and, as a result, can be adapted to conform to changing social norms. Despite these qualifications, there are limits to the types of civil laws that can be imposed. In particular, the natural law is the measure of civil law. For example, natural law dictates that criminals must be punished. The civil law establishes the precise punishment that will be applied. Civil laws that violate natural law would be unreasonable and would lead to the breakdown of social order.

Significantly, natural law does not provide precise guidance on numerous issues of importance to civil law. The institution of private property is a case in point. Is private property protected under the natural law? The answer to this question is at the root of many fundamental political and economic questions. Modern capitalist societies maintain that reason dictates private property is required for social peace and the encouragement of industry. Hence, private property rights are derived from the natural law, albeit that the specific form of private property rights have to be determined by civil law. In turn, private property rights play a central role in the scholastic usury doctrine. Usury is considered to be a form of theft, violating the property rights of the individual who is required to make these payments that are unjust. As such, the usury doctrine applies equally to rich and poor.

While other types of law, such as canon law, can be identified, these other types can be treated as derivatives of the three general types. Within the scholastic framework, even the physical law of nature can be associated with natural law and divine law. The three general types of law are definitely not mutually exclusive. Though conflicts of interpretation can arise, consistency between the types is expected. However, in practice, the impact of canon law on civil law varies across time. During medieval times, the strength of the Church dictated that canon law was central to the determination of civil law. Yet, by the 18th century, many features of civil law were at variance with canon law, especially in Protestant countries. This reflected the general decline of the Church's influence and the rise of secular influences in society.

The peak of social and ecclesiastical opinion against usury probably occurred in 1311 with the pronouncement by Pope Clement V at the Council of Vienna that secular magistrates passing laws favourable to the payment of interest, or failing to repeal such laws, would be subject to excommunication (Böhm-Bawerk 1914, ch. 3). While it would have been possible to develop a usury doctrine based on principles of Christian charity, the basis of the scholastic usury doctrine developed

during the period 1150-1350 was drawn from natural law, supplemented with references to divine law derived from scriptural references. This approach, that was the foundation for later developments of the scholastic usury doctrine, placed usury doctrine within the context of commutative justice and reason. Hence, usury doctrine applied to a poor lender as much as a rich lender.

By the time of the *Treviso*, the practical implications of the scholastic usury doctrine were not as significant as might be thought. In order to have substantial impact on business practices, scholastic doctrine had to be reflected in civil law, otherwise usury was an issue of relevance only to Christian conscience. At certain times and locations, such as during the Spanish Inquisition, the force of canon law could be severe because it was given the power of punitive sanctions admissible under civil law. However, such situations were unusual. While various civil laws were passed to prohibit or restrict the payment of interest on loans, such civil laws also recognized the numerous licit exceptions to usury doctrine that had been developed within the usury doctrine proper.

To quote Noonan (1957, p.195):

> Whether they were culpably or inculpably ignorant, medieval businessmen did not observe the prohibition (on charging interest on loans) in its entirety; and secular rulers made no attempts to enforce it completely. Particularly in sales on credit, in purchases of bills of exchange, and in deposit banking, the theories of the leading moralists were ignored. This popular rejection of the strict rules may itself be considered a factor conditioning the meaning of the early analysis. The practical morality of the times may have been more in accord with later liberal developments than a mere reading of the old theological texts would suggest. Probably the chief economic result of the prohibition was to restrain conscientious Christians from entering the small-loan market and to stimulate a greater use of risk-sharing investments than might otherwise have occurred.

This said, the combination of civil and canon laws restricting usury was sufficient to have a profound impact on the methods used to conduct credit transactions. While the payment of interest was not prevented, the procedures governing these activities were substantively affected. Merchants were induced to design financial transactions in a fashion that was consistent with the letter, if not the spirit, of the usury restrictions.

De Roover (1944, p.185) directly addresses the impact of the usury doctrine and arrives at an even more forceful opinion:

> The usury prohibition should be taken more seriously than it usually is. One should not assume that the canonist doctrine on usury was merely a topic for academic discussion among theologians. The opposite is true: the usury prohibition had a tremendous influence on business practices all through the Middle Ages, the Renaissance, the Reformation period, and even down to the French Revolution. Since the taking of interest was ruled out, such a practice had to be concealed by resorting to various subterfuges, which the merchants justified by all kinds of sophisticated and fallacious arguments.

That interest was paid in commercial transactions during the Renaissance and Reformation is not disputable. What is of topical interest is the

techniques and arguments that were used to structure licit interest bearing transactions. Understanding of these techniques and arguments requires discussion of the evolution of scholastic usury doctrine and the exceptions that were permitted to this doctrine, such as *cambium* and *census*.

Doctrine on Usury[4]

Roman law was selectively used by the early scholastics to develop the foundations of the usury doctrine. Roman law had highly evolved rules concerning contracts. Loan contracts were characterized according to whether ownership of the good being loaned was transferred during the period of the loan. In a *commodatum* the use of a good was freely transferred but ownership resided with the lender. Two developments on the *commodatum* were: the *locatio,* where free transfer was replaced with a charge for lending the good; and the *foenus* where a premium was charged for the loan. These contracts were deemed licit because ownership, and the associated possibility of loss, resided with the lender. Hence, the lender was permitted to impose charges beyond the return of the original goods.

In a *mutuum*, the ownership of the good was temporarily transferred during the period of the loan. Ownership permitted the borrower use of the good, even to consume the good, so long as the same quality and quantity of good was returned at the end of the loan. Hence, the *mutuum* applied to the case of fungibles, or goods that were measured using number, weight or measure. A *mutuum* would not apply to the loan of a commodity with special characteristics, such as a horse or a house. However, under scholastic doctrine, a *mutuum* did apply to the loan of money. 'Money is sterile'. This position had significant implications for financial transactions.[5] Because ownership of the good in a *mutuum* resided with the borrower during the period of the loan, the borrower assumed the peril of ownership. It was not considered licit to impose a charge above the return of the goods in kind.

Important Biblical Passages on Usury

'And if you lend to them of whom ye hope to receive, what thanks have ye? for sinners also lend to sinners to receive as much again. But love ye your enemies, and do good, and lend, hoping for nothing again …' (Luke 6: 34-5).

'If thou lend money to any of my people that is poor by thee, though shalt not be to him as a usurer, neither shalt though lay upon him usury.' (Exodus 22: 25).

'Lord, who shall abide in thy tabernacle? … He that putteth not out his money to usury, nor taketh reward against the innocent …' (Psalm 15).

'And if thy brother be waxen poor, and fallen in decay with thee … yea, though he be a stranger or a sojourner … Take thou no usury of him, or increase … Thou shalt not give him thy money upon usury, nor lend him thy victuals for increase.' (Leviticus 25: 35-7).

'He that hath not given forth upon usury, neither hath taken any increase … he is just.' (Ezekiel 18: 8-9).

'Thou shalt not lend upon usury to thy brother; usury of money, usury of victuals, usury of anything that is lent upon usury: Unto a stranger thou mayest lend upon usury; but unto thy brother thou shalt not lend upon usury …' (Deuteronomy 24: 19-20).

More precisely, under canon law *interisse* (from the Latin verb 'to be lost')[6] was acceptable while *usura* (from the Latin noun 'use') was not. Compensation could be charged for a *mutuum* loan only if it was a reimbursement for a loss or expense, no net gains were permitted (see, for example, Dempsey 1948). However, this strict interpretation of a *mutuum* was not workable in practice. Various conditions arose where it was reasonable to require payment on a *mutuum* beyond the return of the original fungible good. This led to the development of the scholastic doctrine of *extrinsic titles*, conditions where payment on a *mutuum* beyond the return of the goods in kind was permitted. While a number of different types of extrinsic titles were permitted, three were particularly important: *lucrum cessans, damnum emergens* and *poena conventionalis*.

The *poena*, or penalty, was chronologically the first widely used

extrinsic title invoked to legitimize payments on loans beyond the return of principal. *Poena* is *interesse* in the strict Roman sense, it is a penalty that is imposed as compensation for a delay in payment of principal. However, instead of waiting until the actual damages due to delay in payment can be determined, *poena* is agreed upon in advance and the penalty specified in the loan contract. Hence, licit loan contracts could be written with the implicit understanding that the borrower would delay payment the requisite number of days beyond the due date required to incur the *poena* condition. Principal plus penalty would *de facto* be the same as a loan at interest, albeit not subject to the sanctions of canon law.

Poena was acceptable to the early scholastics because the basic concept of a loan as a gratuitous transactions was retained. Both *lucrum cessans*, 'profit ceasing', and *damnum emergens*, 'loss occurring', represent substantive changes to this position. Both these forms of extrinsic title require that a return be paid on a loan that is not due to any fault of the borrower. As a consequence, these extrinsic titles are much closer to the modern day concept of interest. Up to around 1250, the leading scholastic writers did not recognize the licitness of these two forms of extrinsic titles as a basis for receiving payment beyond the return of principal. The period between 1250-1400 witnessed some arguments made in favour of the two extrinsic titles but, by 1400, the majority of scholastic opinion was still against (Noonan 1957, ch. V).

Other Biblical Passages Related to Usury

'And Jesus went into the temple of God, and cast out all them that sold and bought in the temple, and overthrew the tables of the moneychangers … And said unto them, it is written, my house shall be called the house of prayer; but ye have made it a den of thieves.' (Matthew 21: 12-13).

'For the love of money is the root of all evil…' (Timothy 6: 10).

'He that is greedy of gain troubleth his own home; but he that hath gifts shall live.' (Proverbs 15: 27).

Around 1400, payments on the forced government loans imposed by the Italian city states, the *mons*, had become a source of considerable controversy. Though such loans had a history stretching back over a century or more, by 1400 the size of these loans had grown to be multiples of the Italian city states' abilities to finance the repayment of principal on such loans out of tax revenues. This undermined the traditional *census* justification for such loans, based on a direct

connection of the loans to specific tax revenues. The controversy centred on the annual payments that were made on the forced loans. The governments of the city states were careful to identify the form of such payments in a manner that was seemingly consistent with scholastic doctrine. The *mons* statutes of Florence, for example, stated that the payments were made as 'gift and interest' to the holders of shares in the *mons*. The obligation of the state to make regular payments was explicitly denied.

The difficulty that payments on the *mons* posed for the scholastic defenders was the absence of a traditional argument supporting such payments. Those opposed to payments argued that, as *poena* (penalty) was the only accepted justification for payments due from the beginning of a loan, the payments were usurious. The final result of the controversy was that the defenders were able to gain general acceptance of *damnum emergens* as a licit extrinsic title, with considerable progress being made on the licitness of *lucrum cessans*. By the time of the *Treviso*, scholastic writers such as St Bernadine (1380-1444) had established general theoretical grounds for *lucrum cessans*, though contracts such as fictitious exchange were still not considered acceptable. Despite this change in scholastic doctrine, during the 16th century extrinsic titles were much less important sources of justification for interest payments than the *census*, the triple contract and, using implicit interest, the bill of exchange.

Noonan (1957, p.20) summarizes scholastic doctrine on usury by identifying a number of common elements: 'the nature of law; the rightness of private property; the character of justice; the nature of profit; the place of intention in human acts; and the difference between public and private sinners'.[7]

Doctrine on Exchange and *Census*

Medieval scholastic doctrine on *cambium* or exchange is relatively sparse. There was no direct Roman law on the subject that was directly applicable and the early canon laws, such as the *Naviganti*, did not deal with *cambium* directly. The first scholastic writings relating directly to the exchange transactions associated with banking activities at the fairs deemed such activities usurious. However, by the time of the *Treviso*, the majority of scholastic writers favoured the general licitness of *cambium per litteras*, the bill of exchange, at least as it applied in genuine exchange transactions. There was disapproval of dry exchange (*cambium siccum*) and fictitious exchange (*cambium ad Venetias*) transactions, which used bills of exchange to structure transactions that were arguably disguised loans.

The bill of exchange was, in fact, an important financial market mechanism for the payment of interest at a time when such payments were deemed unacceptable by the Schoolmen. Merchants were able to disguise interest payments in bill of exchange transactions because there was both a time and an exchange element in the transaction. The bill of exchange separated, in both time and place, the initial delivery of one

currency from the repayment of the other currency, for example de Roover (1944). This time element created the opportunity for an interest payment, in a given currency, to be disguised in the process of exchange and re-exchange. Though there was some degree of risk in the exchange rate applicable to the re-exchange transaction being uncertain at the time the initial bill of exchange was initiated, the payment of interest was facilitated by the market practice of systematically quoting exchange rates in one centre at a premium (or discount) of the par for the exchange rate with the other centre.

Though there were some writers, such as Thomas Wilson (1525-1581) in *A Discourse Upon Usury* (1572), who explicitly objected that the bill exchange transaction was usurious, the primary canonists accepted the merchants' stated view that the bill of exchange was an inherently risky transaction. Due to this risk, interest was not assured and the transaction was not usurious (de Roover 1944, pp. 198-9):

> The canonists accepted this theory … that the exchange contract was not a *mutuum* or a loan of money for certain gain and hence did not fall under the scope of the usury prohibition. According to them, the exchange contract was either a permutation of monies (*permutatio praesentis pecuniae cum absenti*) or a contract of purchase and sale (*emptio venditio*). They failed to see that dealings in time or usance bills necessarily involved the extension of credit. The canonists did not realize the dual nature of merchants' exchange.

Only where the merchant attempted to eliminate the inherent riskiness of the re-exchange transaction, as in dry or fictitious exchange, did the canonists object.

Despite the scholastic usury doctrine, the financial markets were able to design securities that enabled the payment of interest. The bill of exchange was a key financial security for the payment of short term interest. It was the backbone of the international money market. The payment of interest for long-term borrowings was enabled by the scholastic doctrine on the *census*. The *census* contract does not appear in Roman law and is almost certainly the outcome of feudal economic relations. More precisely: 'A *census* is an obligation to pay an annual return from fruitful property' (Noonan 1957, p.155). The *census* was the most common contract used both for investment in land and for State credit. The popularity of this form of contract was probably related to the medieval ban on *mutuum* loans.

Initially, the *census* was an exchange of money for an agreement to pay a certain quantity of produce, such as grain, for a number of years in the future. Other than the difference in the timing of the settlement and delivery, this type of transaction did not differ from a typical exchange. As long as the *census* was done at a just price, the transaction was licit. As markets and trade evolved, a 'new' *census* agreement also evolved to include transactions where the 'payment from fruitful property' was made in cash, instead of goods. By the middle part of the 15th century, the sale of both 'old' and 'new' *census* was widespread. The State sold *census* on available revenue sources, from monopolies, tax revenues and State lands. Both the landed nobility and peasants sold

census on their possessions. Even workmen sold *census*, secured by their future labour.

To the modern reader, the distinction between a new *census* contract and a usurious loan is subtle, at best. Instead of the exchange of money for 'fruitful goods' embodied in the old *census* contract, the new *census* contract involved a current payment of money by the lender in exchange for an agreement by the borrower to make a sequence of regular future payments of money. How did this differ from a regular loan? A credible answer to this question was a quandary for the Schoolmen as well. Much of the scholastic discussion concentrated on identifying practical distinctions between a usurious loan and a *census*. For some types of *census*, such as the old or 'real' *census*, the distinctions were obvious. Being dependent on the returns generated from real estate, this *census* was similar to a loan secured by a mortgage. However, the return paid on this *census* 'was set directly by the estimated productivity of the (real estate) base' (Noonan 1957, p.159).

Some other types of *census* were more difficult to distinguish from a loan than the real *census*. A life *census*, depending on the length of the life for either the lender or the borrower, was distinct from a loan in having the element of life contingent risk. Both the personal and temporary *census* were less transparent cases. Payments on a personal *census* depended on the labour services of the issuer, which differs from a loan in the restriction that the issuer be an income-producer. A temporary *census* ran for a fixed number of years and required fixed annual payments. This was very similar to a loan. An additional feature that made the *census* distinguishable from a loan was the treatment of redemption. The *census* contract could be non-redeemable or redeemable at the option of the buyer, the seller or both. A temporary, personal *census* having fixed payments that were redeemable at the option of the buyer, was dangerously close to the case of a usurious demand loan.

Decisions of the Schoolmen about the *census* were organized according to the arguments about the different possible types. There was little debate about a perpetual, real *census*. This type of contract was licit. The personal *census* met general opposition. More importantly, government credit contracts, effectively government bonds, were generally approved. The terms of redemption also attracted attention: 'the *census* might be redeemable, or redeemable only at the option of the buyer or only at the option of the seller, or it might be redeemable by either'. Noonan (1957, p.164) observes that on various other forms of the *census* contract: 'The overall impression from (a) survey of authors is one of considerable confusion'.

Doctrine on Gambling and Risk

Modern social attitudes toward gambling are confusing. There is an explicit aversion to certain forms gambling, as reflected in various state or provincial laws prohibiting slot machines, while at the same time there is an acceptance of other forms, for example, state/provincial lotteries or

the coin toss at the start of a game. These modern customs and laws have a long history. This history is intertwined with intellectual progress on the mechanics of gambling practices. During the 17th century, gambling played 'a primary, though not necessarily unique, impetus for developments in probability' (Bellhouse 1988, p.65). In turn, this intellectual progress diffused only slowly into customs and laws surrounding gambling. Society at large struggled with the implications that probability theory had for previously held beliefs.[8]

The probabilistic basis for many modern laws can be traced to the 16th and early 17th century writings by Protestant sects such as the French Calvinists and English Puritans (Bellhouse 1988). The traditional views of the Roman Catholic Church on gambling were much less rigid. The rigid Puritan anti-gambling position required a more precise analysis of the probabilistic events associated with gambling activities. Thomas Gataker (1574-1654) and other, later, Puritan writers argued forcefully that it was not possible to sustain the early Puritan view that 'all randomized outcomes are determined by God', leading to the conclusion that gambling constituted a form of blasphemy as it undermined the 'singular and extraordinary providence of God which controls a purely contingent event' (Ames 1629, quoted in Bellhouse 1988).

Gambling presented a somewhat puzzling problem for the scholastics because gambling relies on a chance event while, at the same time, the influence of God is all pervasive. This led St Thomas Aquinas to a relatively sophisticated conclusion: '…the ultimate reason why some things happen contingently is not because their proximate causes are contingent, but because God has willed them to happen contingently, and therefore has prepared contingent causes from them'. Aquinas offers little direct guidance on gambling other than to forbid the practice in specific cases such as 'winning at the expense of minors and those out of their minds, who have no power to alienate their property; or out of sheer greed to induce someone to gamble; or again, to win by cheating'.

Important Biblical Passages on Gambling

'the land shall be divided by lot: according to the tribes of their fathers they shall inherit. According to the lot shall possession thereof be divided between few and many.' (Numbers 26: 55-6)

'Therefore Saul said unto the Lord God of Israel, Give a perfect *lot*. And Saul and Jonathan were taken: but the people escaped. And Saul said, Casts *lots* between me and Jonathan my son. And Jonathan was taken.' (I Samuel: 41-2)

'The lot causeth contentions to cease, and parteth between the mighty.' (Proverbs 18: 18)

'The lot is cast into the lap; but the whole disposing thereof *is* of the Lord.' (Proverbs 16: 33)

'And they prayed, and said, Thou, Lord, which knowest the hearts of all *men*, shew whether of these two thou hast chosen… And they gave forth their lots; and the lots fell upon Matthias; and he was number with the seven Apostles.' (Acts 1: 24,26)

'And they crucified him, and parted his garments, casting lots: that it might be fulfilled which was spoken by the prophet, They parted my garments among them, and upon my vesture did they cast lots.' (Matthew 27: 35)

Ashton (1899) on Gambling

Ashton (1899) is a somewhat rambling presentation, punctuated with gems of insight. Though written at the end of the 19th century, Ashton (1899, p.2) captures social attitudes towards gambling, in general, and stock trading, in particular, which prevailed in the previous century:

> *Gambling*, as distinguished from *Gaming*, or playing, I take to mean an indulgence in those games, or exercises, in which *chance* assumes a more important character; and my object is to draw attention to the fact, that the *money motive* increases, as chance predominates over skill. It is taken up as a quicker road to wealth than by pursuing honest industry, and everyone engaged in it, be it dabbling on the Stock Exchange, Betting on Horse Racing, or otherwise, hopes to win, for it is clear that if he know he should lose, no fool would embark on it. The direct appropriation of other people's property to one's own use, is, undoubtedly, the more simple, but it has the disadvantage of being both vulgar and dangerous; so we either appropriate our neighbour's goods, or he does ours, by gambling with him, for it is certain that if one gains the other loses. The winner is not reverenced, and the loser is not pitied. But it is a disease that is most contagious, and if a man is known to have made a lucky *coup*, say, on the Stock Exchange, hundreds rush in to follow his example, as they would were a successful gold field discovered —— the warning of those that perish by the way is unheeded.

Ashton selects stock trading as his first example of a gambling activity, on a par with horsing racing as an exercise in which chance, instead of skill, plays the important role in determining outcomes.

Unlike usury where the Bible provides explicit guidance, the treatment of gambling is more obscure.[9] Gambling, in the form of 'divination by lots', seems to be recommended by the Bible as the desired mechanism for determining God's will in situations where the desirable outcome is uncertain, for example, in deciding whether Saul or Jonathan is to be 'taken' in I Samuel 14:41. However, divination by lot is not applicable as a rationale for all forms of gambling activity. Aquinas provided some guidance about the types of actions that could be determined through divination by lot. By Gataker's time, the casuistry surrounding the issue was considerable. For example (Bellhouse 1988, p.70):

> Gataker (1619) … makes an interesting argument against Divine intervention in randomized events using proof by contradiction. He notes that in repeated trials it is unlikely that the same outcome will always recur. He argues that in

> repeated trials it is unlikely that the same outcome will always recur. He argues that if the lot is used to find God's purpose and the outcome of the lot is variable then God must be fickle; but God is not fickle and hence God must not determine the outcome.

Gataker's views on probabilistic outcomes eventually came to be accepted. By the end of the 17th century, the practice of divination by lot had been ended by all but a small number of extreme Christian sects.

Scholastic doctrine did make a distinction between gambling outcomes, determined by randomizers, and the related notion of risk. The concept of risk or 'peril' was inherited from Roman law and explicitly recognized in scholastic doctrine. For example, risk is fundamental to the concept of *mutuum*. Because the ownership of the good is transferred to the borrower, the risk of ownership is also transferred. This makes the charging of interest illicit. In the case of temporary transfers involving non-fungibles such as houses or horses, the risk of ownership during the period of ownership still resides with the lender. As such, the incidence of risk on a loan is an important element in deciding whether the loan is licit (Noonan 1957, pp.40-41). The trading of risk, in the form of insurance, was permissible so long as the object was not to circumvent other restrictions, such as the usury doctrine.

The admission of insurance as a valid contract led to one of the more interesting rationalizations for interest payments: the triple contract. This contract involved the merging of the *societas* with insurance. The *societas*, or partnership, was a central feature of Roman commercial relationships. The concept was adopted without substantive changes by scholastic doctrine. In Roman law, a *societas* is 'the union by two or more persons of their money or skill for a common purpose, usually profit' (Noonan 1957, p.134). The triple contract involved the insurance of a partner's profit, in exchange for any returns above that insured level. In effect, the triple contract was, in terms of cash flows, indistinguishable from an interest-bearing security, either a short-term deposit or a long-term bond.

The Christian aversion to gambling extended naturally to speculation in financial markets. The *windhandel* trade in 17th century Dutch commodity and security markets led to a series of pamphlets on the subject that are reflective of the state of liberal Christian thinking on this issue (De Marchi and Harrison 1994, p.56):

> Calvinist *predikanten* (preachers) held that gain is not in itself to be refused; rather it may be honest or 'foul'. The labourer is worthy of his hire; and since trade undergirds the Republic's well-being, so the honest merchant too should enjoy a reward for his risk and trouble. Net profit indeed —— something over and above a reward for risk and trouble —— is also not unacceptable, so long as it does not arise through damage done to another, is put to good use, and is not an expression of avarice.

In this view, the Calvinists could cite general Church doctrine, based on Biblical passages relating to 'overprofit', such as Ezekiel 18: 9, 18: 13. What remained was to sort out whether a specific activity was

acceptable.

Dutch Calvinists writing on the acceptability of the 17th century *windhandel* trade were decidedly negative. These views were reflected in repeated legislative attempts to ban the trade:

> it is no accident that the official ordinances prohibiting short selling themselves argue in effect that the guiding rule espoused by the preachers-- no harm to others ——was invariably broken by the share traders. Starting with the first, in 1610, the ordinances repeat the arguments initially adduced by the VOC directors: *windhandel* harms the reputation of the company, makes a mockery of the state, and disadvantages widows and orphans and any who cannot sit out a period of low prices. Even if share trading had the dubious status of gambling, what caused the practice to incur moral censure was, over and above that, (1) the ruin that often ensued for losers, especially those who allowed themselves to become leveraged beyond their means; (2) the shady tricks employed; (3) the strong sense (which necessarily held true for option trades) that in all such dealings one party must lose; and (4) the idea that the short seller must fervently pray for prices to go against the buyer.

The difficulty of interpreting and extending scholastic doctrine to the progressive evolution of trading in financial markets was not limited to the *windhandel* trade.[10]

The Evolution of Scholastic Doctrine[11]

Scholastic doctrine was the product of an intellectual approach to science and philosophy stretching back to Aristotle. Scholasticism was not static, it was an approach that underwent considerable evolution in the centuries following the contributions of St Thomas Aquinas. Important contributions still appear as late as the 17th century, such as those originating with the School of Salamanca in Spain (de Roover 1955, p.316):

> In economics, the scholastic doctrine reaches its full maturity in the monumental works of Cardinals Juan de Lugo (1583-1660) and Giambattista de Luca (1613-1683) … Despite an impressive array of scholarship, their works ill conceal the fact that the Doctors had exhausted the possibilities of their method and that further progress no longer depended upon more elaboration and refinement, but upon a complete renewal of the analytical apparatus.

For whatever reason, scholasticism was unable to cope with the profound advances in experimental sciences that started with the Renaissance. Though scholastic doctrine still had a strong hold over social attitudes, particularly in countries such as Spain, France and Italy, by the 17th century the battered intellectual framework had largely lost its credibility.

The influence of scholasticism over social and intellectual life changed at different rates throughout Europe. For example, contracts explicitly permitting interest, up to some legal maximum, were legalized in England and Holland during the 16th century, though such contracts were not legally permitted until the mid-18th century in Italy and 1789 in France. The Catholic Church did not formally abandon the usury

doctrine until 1830. Similarly in intellectual life (de Roover 1955, p.317):

> On the continent of Europe, and to a lesser extent in England, the dying Aristotelian system kept its hold on the universities, which thus become asylums for old fogies and citadels of bigoted pedantry. Learning deserted this musty environment and found a haven in the academies and in the salons of the eighteenth century.

In England, there was considerable intellectual progress from the time of Thomas Wilson, who criticised the interest embedded in the bill of exchange transaction, to that of Gerard de Malynes.

Who was Gerard de Malynes (1583-1623)? As with many individuals in the early history of financial economics, many personal details of Malynes life are either sketchy or unknown. That Malynes was both a mercantilist and a prolific writer is well known. Malynes' s *Consuetudo vel Lex Mercatoria or the Ancient Law Merchant* (1st ed. 1622) and *A Treatise of the Canker of England's Common Wealth* (1601) are, perhaps, the works that attract the most modern attention. De Roover (1974, pp.350-51) explains why Malynes is of interest in the context of scholastic doctrine:

> Of all mercantilists, Malynes is perhaps the one who was influenced the most by Scholastic doctrines. This influence is not so much in evidence in his polemical pamphlets on foreign exchange ——although one finds it there, too ——as in his great work, *Consuetudo vel Lex Mercatoria.* That Malynes, more than any other economic writer of his time, represents the transition from Scholasticism to mercantilism is not a debatable statement. The supporting evidence is so overwhelming that there is little room for doubt.

As such, Malynes's writings are an excellent reflection of the social acceptance of scholastic doctrine in the merchant community of the early 17th century.

Much like Richard Witt, Gerard de Malynes is an enigma. Both his name and origins are uncertain. Though Malynes claims in *Lex Mercatoria* that his ancestors were from Lancastershire, based on historical detective work, de Roover (1978, pp.347-8) concludes:

> there is no doubt that he was a Fleming born in Antwerp who emigrated to England either for religious reasons or for business purposes, perhaps as a factor of Antwerp merchants trading with England … The decisive proof … that Gerard de Malynes hailed from the Low Countries rests on the fact that, in English records of the 1580s and 1590s, he is consistently listed among the aliens residing in the City and Suburbs of London. He was a member of the 'Dutch' church.

There were good reasons why Malynes would seek to disguise his true identify. Perhaps the most compelling was his desire to acquire political influence. This is reflected in his changing his name in his published work from Gerard de Malynes, for 1603 and prior, to Gerard Malynes, in those articles published after 1603; the time period that coincides with

the most influential of Malynes writings.

Based on the name originally chosen following emigration to England, Gerard de Malynes seems most likely to have been from Malynes, 'a rather important town located halfway between Antwerp and Brussels'. Yet again, there is evidence to indicate that Malynes's real name was Gerard van Mechelen, a member of an aldermanic family from Antwerp. This would seem to be supported from an examination of Malynes's known acquaintances and business associates in London. In his business dealings, Malynes 'did not enjoy an untarnished reputation inasmuch as he involved himself in some shady business deals and highly speculative ventures that did not always turn out as expected'. After a close examination of the available historical evidence, de Roover (1974, p.349) concludes: 'Malynes, while he proclaimed himself in his writings to be a worshipper of free trade (the expression then used for free competition), was in actual fact a projector of the worst kind and a monopolist who sought only his own advantage'.

These personal shortcomings of Malynes were matched by his positive scholarly contributions. 'However disreputable and cunning as a businessman, Malynes was a scholar of sorts and a devotee of good literature. He was quite a learned man, perhaps the most learned of all the mercantilists' (de Roover 1974, p.349). Judging from the content of *Lex Mercatoria*, this learning included a healthy exposure to scholastic doctrine. Malynes was definitely familiar with the works of various recent predecessors, such as 'Doctor Wilson'. As such, the contents of the *Lex Mercatoria* can be taken as an important reflection of the stature and acceptance of the usury doctrine within the English merchant community, circa 1622.

The bulk of the discussion of usury in *Lex Mercatoria* is contained in the second part, chapters 10-16. The titles of these chapters are indicative of the coverage: Ch. 10, Of the lawes and prohibitions against usurie; Ch. 11, Of usurie politicke, and moneys delivered at interest; Ch. 12, Of intollerable Usurie, and Lombards; Ch. 13, Of *Mons pietatis*, or Banks of charitie; Ch. 14, Of the true calculation of moneys at interest; Ch. 15, Of usurious Contracts; Ch. 16, Of lawfull Bargaines and Contracts. Relative to other topics, the coverage given to usury is considerable. Referencing the many 'authors which have written against usurie in all ages', Malynes clearly identifies usury with 'biting' (Malynes 1622, p.325):

> Usurie in the Hebrew tongue is called Biting, of this word *Neshech*, which is nothing else but a kind of biting, as a dog useth to bite or gnaw upon a bone, so that he that biteth not doth not commit Usurie; for Usurie is none other thing than biting, as I said of the verie Entimologie and proper nature of the word, otherwise it cannot be called *Neshech*, as the Hebricians say.

The contrast between Thomas Wilson and Malynes is apparent.

Opinion on the Scholastic Usury Doctrine in the 18th Century

By the 18th century, the scholastic usury doctrine had only limited influence in civil law. Payment of interest on loans of money was permitted throughout most of Europe.[12] Remnants of the scholastic usury doctrine survived in the civil law statutes requiring a legal maximum interest rate that could be charged on loans. Recognizing that states were almost invariably large debtors, the legal maximum interest rates may have been due more to concerns about state finances than for religious considerations. Despite this decline, scholastic usury doctrine still received some attention from financial economists, such as Cantillon, and the later scholastics, such as Ferdinando Galiani (1728-1787), for example, de Roover (1955, p.334). However, this attention was invariably critical and aimed at pointing out the limitations and inconsistencies in the doctrine.

Cantillon (1755, p.205-11) is particularly critical of the usury doctrine. Cantillon explicitly recognizes that there are often valid economic reasons for lenders to charge high rates of interest: 'a Money Lender will prefer to lend 1000 ounces of silver to a Hatmaker at 20 per cent. interest rather than to lend 1000 ounces to 1000 water-carriers at 500 per cent. interest'. Elements such as risk and solvency of the borrower play a fundamental role in determining the rate of interest that is charged. Even in situations where loans are made at high interest rates, such as 430 per cent. per annum to 'Market-women at Paris … there are few Lenders who make a fortune from such high interest'. With Cantillon, analysis of the payment of interest had evolved from the scholastic concern with natural law and commutative justice to an economic analysis of the reasons why a specific rate of interest was charged.

Cantillon explicitly recognizes the implications of his reasoning for the usury doctrine developed by the scholastics or, in Cantillon's words, 'the casuists':

> The Casuists, who seem hardly suitable people to judge the nature of Interest and matters of Trade, have invented a term, *damnum emergens*, by whose aid they consent to tolerate these high rates of interest; and rather than upset the custom and convenience of Society, they have agreed and allowed to those who lend at great risk to exact in proportion a high rate of interest: and this without limit, for they would be hard put to it to find any certain limit since the business depends in reality on the fears of the Lenders and the needs of the Borrowers.
>
> Maritime Merchants are praised when they can make a profit on their Adventures, even though it be 10,000 per cent.; and whatever Profit wholesale Merchants may make or stipulate for in selling on long credit produce or Merchandise to smaller retail Merchants, I have not heard the Casuists make it a crime. They are or seem to be a little more scrupulous about loans in hard cash though it is essentially the same thing. Yet they tolerate even these loans by a distinction, *lucrum cessans*, which they have invented. I understand this to mean that a Man who has been in the habit of making his money bring in 500 per cent. in his trade may demand this profit when he lends it to another. Nothing is more amusing than the multitude of Laws and Canons made in every age on the subject of Interest and Money, always by Wiseacres who were hardly acquainted with Trade and always without effect.

The dramatic erosion in the level of social concern over usury is evident from a comparison of Cantillon's views with the writings of Malynes a century earlier.

By the time the *Wealth of Nations* appears, there was little social relevance to the scholastic doctrine for the analysis of interest payments. In the *Wealth of Nations*, Adam Smith (1776, p.339) launches a now familiar assault on the notion that prohibitions on interest payments are socially beneficial:

> In some countries the interest of money has been prohibited by law. But as something can every-where be made by the use of money, something ought every-where to be paid for the use of it. This regulation, instead of preventing, has been found to increase the evil of usury; the debtor being obliged to pay, not only for the use of money, but for the risk which his creditor runs by accepting a compensation for that use. He is obliged, if one may say so, to insure his creditor from the penalties for usury.

In turn, Smith argues that laws which fix a legal maximum which is 'fixed below the lowest market rate' are not substantively different than total prohibitions. Similar arguments by Charles de Moulin (1500-1566) more than two centuries earlier had exposed the author to persecution for heresy. In contrast, Smith's observations attracted little controversy.

If Adam Smith rejected the scholastic usury doctrine, then what is the precise connection between Smith and the scholastics? Were Smith's views a natural progression from the scholastics, as indicated by de Roover and others, or was Smith something much different? Such questions are not easy to resolve. Smith was definitely concerned with commutative and natural justice and with natural law themes, for example, Young and Gordon (1996). In this regard, Smith's views were a coherent progression from the scholastics. On certain specific issues, Smith held views that were closely aligned with the Schoolmen. For example, Smith's approach to monopoly could be fairly characterized as a development on scholastic notions, for example, de Roover (1951). Yet, Smith did not embrace the body of scholastic doctrine. Rather, Smith evolved a new framework, based on the central scholastic concerns of distributive and commutative justice. As such, there are elements of the scholastics in Smith's writings. However, Smith was too far removed from the medieval concerns of scholasticism. Smith was a product of his times, and those times were much different than those of the Schoolmen.

Keynes on Usury

In commenting on Keynes's views on mercantilism, Hecksher (1955, v.2, p.340) concludes that 'it only includes those parts of mercantilist theory that happen to coincide with his own analysis of economic behaviour'. The same can be said about Keynes's views on the usury doctrine. For example, Keynes (1936, pp.352) claims that:

> it now seems clear that the disquisitions of the schoolmen were directed towards the elucidation of a formula which would allow the schedule of the marginal efficiency of capital to be high, whilst using rule and custom and the moral law to keep down the rate of interest.

How Keynes (1936, p.351) came to the almost startling conclusion is laid out as follows:

> Provisions against usury are amongst the most ancient economic practices of which we have record. The destruction of the inducement to invest by an excessive liquidity-preference was the outstanding evil, the prime inducement to the growth of wealth, in the ancient and medieval worlds. As naturally so, since certain risks and hazards of economic life diminish the marginal efficiency of capital whilst others serve to increase the preference for liquidity. In a world, therefore, which no one reckoned to be safe, it was almost inevitable that the rate of interest, unless it was curbed by every instrument at the disposal of society, would rise too high to permit an adequate inducement to invest.

Though Keynes's analysis of mercantilism attracted considerable attention, his views on the usury doctrine have largely been ignored. What support can be found in the scholastic doctrine on usury for these suppositions?

Reading Keynes is often a difficult task. For example, many of the important theoretical notions contained in the *General Theory*, such as 'the propensity to consume, to hoard or to save', 'liquidity preference' and the 'inducement to investment' are carefully constructed from psychological foundations. The theoretical structure developed using these notions is decidedly *ex ante* and, as such, is not empirically testable. As Hecksher (1955, v.2, p.341) points out: 'the scope of economic statistics … and the growth of econometrics … are of no help at all when we attempt to evaluate Keynesian theory'. In various places, Keynes makes observations that are designed to illustrate the points being made. The observations themselves, as in the case of mercantilism or the usury doctrine, may be misplaced. But to focus on the cavalier attitude toward historical detail misses the essential points that Keynes is trying to make, which are invariably something about the theory that is being advanced.

On the usury doctrine, Keynes provides no documentary evidence to support the seemingly off-target claims that are being made. However, the basic point that Keynes (1936, p.351) is trying to make appears to be this:

> for centuries, indeed for several millenniums, enlightened opinion held for certain and obvious a doctrine which the classical school has repudiated as childish, but which deserves rehabilitation and honour. I mean the doctrine that the rate of interest is not self-adjusting at a level best suited to the social advantage but constantly tends to rise too high, so that a wise Government is concerned to curb it by statute and custom and even by invoking the sanctions of the moral law.

It is fair to say that a thread running through the scholastic doctrine on usury is that the rate of interest does have a tendency to rise higher than

is morally acceptable. This basic point is a central feature of the theoretical argument developed within the *General Theory*. Even though the modern scholastic revisionists, such as de Roover and Schumpeter, did not recognize the connection, Keynes can also legitimately be counted among those who recognized and appreciated the profound arguments that the Schoolmen advanced in their usury doctrine. As with Keynes's views on mercantilist theories of interest, it is less important to focus on the validity of his historical analysis than to recognize the affinity that Keynes felt with the scholastic usury doctrine.

Appendix: 'Merchant of Venice', William Shakespeare (1600)

William Shakespeare (1564-1616) cannot, by any stretch of the imagination, be characterized as an early financial economist. Yet, as the leading dramatist of the Elizabethan era, Shakespeare's plays provide appealing and sometimes revealing insights into the social attitudes of his time.[13] One of these plays, *The Merchant of Venice* (1600), prominently features a Jewish usurer, Shylock, and a Venetian merchant, Antonio, who makes his living from trading, buying goods in other lands and transporting them by sea to sell in Venice. Antonio is more than a principled Christian. He does not engage in lending at interest and publicly chastises the Jewish moneylenders for doing so. Shylock has a venomous dislike for Antonio. Speaking of Antonio Shylock (I.3.38-48) says:

Shylock: How like a fawning publican he looks!
I hate him for he is a Christian:
But more for that in low simplicity
He lends out money gratis, and brings down
The rate of usance here with us in Venice.
If I catch him once upon the hip,
I will feed fat the ancient grudge I bear him.
He hates our sacred nation, and he rails,
Even there where merchants most do congregate,
On me, my bargains, and my well-won thrift,
Which he calls interest. Cursed be my tribe,
If I forgive him!

The play revolves around a three month loan of 3000 ducats made by Shylock to Bassanio, an 'intimate' friend of Antonio. The loan is needed for Bassanio to sustain his gentlemanly lifestyle, required to continue his pursuit of marriage to Portia of Belmont, a wealthy heiress. The loan is secured by the bond of Antonio, with the penalty for forfeiture being a pound of Antonio's flesh.

The dialogue surrounding the granting of the loan captures a 'fundamental, structural, ethical distinction' of Renaissance commerce, in general, and Venetian commerce, in particular (Holderness 1993, p.23). This distinction, which is not present in modern commerce, is between productive commerce, the trading activities of Antonio, and sterile commerce, the usurious lending of Shylock. There is the obvious question about why Antonio is willing to borrow at interest:

Antonio: Skylock, albeit I neither lend nor borrow
By taking nor by giving of excess,
Yet to supply the ripe wants of my friend
I'll break a custom…

The discussion proceeds with Shylock making a Biblical defence for the practice of taking usury. However, the reference is to a transaction between Jacob and Laban concerning sheep. Antonio (I.3.95) correctly

questions the validity of the Biblical argument, 'The devil can cite Scripture for his purposes'.

From this point Shakespeare develops the battlefield for the deeply held revulsions of both the usurers and Christian borrowers:

Shylock: Three thousand ducats —— 'tis a good round sum.
Three months from twelve, then let me see the rate.
Antonio: Well, Shylock, shall we be beholding to you?
Shylock: Signior Antonio, many a time and oft
In the Rialto you have rated me
About my moneys and my usances:
Still I have borne it with a patient shrug,
For suff'rance is the badge of all our tribe.
You call me misbeliever, cut-throat dog,
And spit upon my Jewish gaberdine,
And all for use of that which is mine own.
Well then, it now appears you need my help:
Go to then, you come to me, and you say,
'Shylock, we would have moneys' —— you say so!
You that did void your rheum upon my beard,
And foot me as you spurn a stranger cur
Over your threshold. Moneys is your suit.
What should I say to you? Should I not say
'Hath a dog money? Is it possible
A cur can lend three thousand ducats?' or
Shall I bend low, and in a bondman's key,
With bated breath, and whisp'ring humbleness,
Say this:
'Fair sir, you spit on me on Wednesday last ——
You spurned me such a day —— another time
You called me dog: and for these courtesies
I'll lend you thus much money'?
Antonio: I am as like to call thee so again,
To spit on thee again, to spurn thee too.
If thou wilt lend this money, lend it not
As to thy friends —— for when did friendship take
A breed for barren metal of his friend? ——
But lend it rather to thine enemy,
Who if he break, thou mayst with better face
Exact the penalty.
Shylock: Why, look you, how you storm!
I would be friends with you, and have your love,
Forget the shames that you have stained me with,
Supply your present wants, and take no doit
Of usance for my moneys, and you'll not hear me:
This is kind I offer.
Antonio: This were kindness!
Shylock: This kindness will I show.
Go with me to a notary, seal me there
Your single bond, and, in a merry sport,
If you repay me not on such a day,

In such a place, such sum or sums as are
Expressed in the condition, let the forfeit
Be nominated for an equal pound
Of your fair flesh, to be cut off and taken
In what part of you body pleaseth me.
Antonio: Content, in faith —— I'll seal to such a bond,
And say there is much kindness in the Jew.
Bassanio: You shall not seal to such a bond for me,
I'll rather dwell in my necessity.
Antonio: Why, fear not man, I will not forfeit it.
Within these two months, that's a month before
This bond expires, I do expect return
Of thrice three times the value of this bond.

When Antonio's ships fail to return within the three months as expected, the bond is forfeit and Shylock appeals to the Venetian courts to ensure payment of his bond. Bassanio, who in the interim was able to obtain the hand of the rich Portia in marriage, appears with three times the value of the principal for repayment. Shylock will not be appeased. A pound of flesh is his due.

And so the story goes, a finely woven garment of plots and subplots, full of symbolisms and abstract references. Despite the apparent support of the laws of Venice which sanctify commercial transactions such as loans at interest, when Shylock steps outside the bounds of credible business practice by turning down three times principal and demanding the potentially fatal pound of Antonio's flesh, Portia, disguised as an eminent jurist, is able to use the laws of civil society to overturn the commercial transaction. Civil society, even an overtly commercial one such as that in Venice, must place limits on the sanctity of business dealings. With a dose of Christian charity from Antonio, Shylock is punished for his bloodthirsty demands. He is to forfeit half of his worldly goods to Antonio, to be transferred: 'Upon his death unto a gentleman that lately stole his daughter'. Shylock is also required to convert to Christianity and to will his remaining wealth to his 'son Lorenzo and his daughter'.

Those unfamiliar with Shakespeare and Elizabethan theatre may be surprised that much of the structure for the *Merchant of Venice* appeared in a tale '*Il Pecorone*' which is contained in a book of tales compiled around 1378 by Ser Giovanni, though the actual book was not published in Italian until 1558. As with many Italian authors of that era, little is known of Ser Giovanni. There is little doubt about the connection between '*Il Pecorone*' and the *Merchant*. In '*Il Pecorone*' there is a godfather who borrows ten thousand ducats from a Jew in Venice, secured by a contract that if the bond was not satisfied by St. John's Day, the Jew may have one pound of the debtor's flesh, from whatever part of the godfather's body the Jew desires. The money is needed for the godson, Giannetto, to satisfy the conditions of a strange contest for winning the hand of a rich woman from the mysterious port of Belmonte.

Giannetto is eventually successful in winning the hand of the rich

woman of Belmonte but is distracted by the wedding festivities and his godfather's bond becomes forfeit. Much as in the *Merchant*, the Jew will have no mercy on Giannetto's godfather and it would appear he is doomed, even though Giannetto rushes to his godfather's aid in Venice with more than sufficient funds to satisfy the debt. However, the godfather is saved by Giannetto's rich bride from Belmonte who appears in disguise as a Doctor of Laws and is able to save the godfather by careful manipulation of the Venetian court case. In addition to these similarities between '*Il Pecorone*' and the *Merchant*, there are others that are important to the plot but not of immediate interest to the social attitudes towards usury, for example, Quiller-Couch and Wilson (1969), p.viii-x.

Shakespearean scholars have long debated the ethic undercurrents present in the *Merchant*. Is Shylock despised by Antonio because he is a Jew, a usurer, or both? Elizabethan England was quite a hostile environment for Jews. Driven by popular convictions, various laws had been passed by the Plantagenets banishing most Jews. Those that were permitted to stay, mostly for their professional skills, could not practice their religion. In 1594, around the time the first stage presentations of the *Merchant* appeared, the Queen's physician, a Portuguese of Jewish ancestry, Roderigo Lopez, was tried, convicted and hanged. Lopez was accused of plotting, together with Antonio a pretender to the Portuguese throne, to assassinate the Queen. The Lopez trial was something of a kangaroo court, with decided similarities to Antonio's trial in the *Merchant*.

That the Lopez trial was a significant influence on the *Merchant* is generally acknowledged. It was by no means clear that Lopez was actually involved in the crimes for which he was hanged and there are various subplots within the *Merchant* that tend to make Shylock a sympathetic villain. Yet, the connections with the Lopez trial are incidental in many ways. Perhaps there are other reasons for giving Shylock a tragic face? In particular, the important theme concerning social attitudes towards usury is retained in the *Merchant*. On this point, the comparison with '*Il Pecorone*' is interesting. Circa 1600, England had a number of similarities with Venice, circa 1378. As in Venice, a thriving merchant class had emerged engaged in trading over the seas. Though laws were in place permitting the taking of interest, there was still considerable social resistance to the practice. As such, it is not the taking of interest which is Shylock's sin, but rather the overwhelming desire for vengeance.

As a literary contribution, the *Merchant* is not designed to provide definitive information on the usury question. Though there are visionary elements in Shakespeare's plays, he was in the business of producing popular plays. Similar to much of what appears on modern television, Shakespeare's plays were considered, by the scholarly community of his time, to be somewhat vulgar entertainment. To be popular, plays had to appeal to general public attitudes. The result is that plays, such as the *Merchant*, are a historical reflection of those widely held attitudes. In this light, the indignation expressed toward usury by Thomas Wilson in

1572 would seem to find only limited support in the society of the 1590s. The concerns about usury are recognized but usury is considered acceptable if conducted within the framework of conventional business practice.

Being such a richly layered literary effort, the *Merchant* contains various elements of modern interest to historians of financial economics. In addition to reflecting 16th century social attitudes toward usury, the *Merchant* contains scattered references to the business practices of the time. Recently, Markowitz (1999) has uncovered such a reference and uses this as a basis for attributing a place for the *Merchant* in the history of portfolio theory. Specifically, Markowitz references a statement that Antonio makes (I.1.41):

> My ventures are not in one bottom trusted,
> Nor to one place, nor is my whole estate
> Upon the fortune of this present year;
> Therefore, my merchandise makes me not sad.

Markowitz (1999, p.5) claims that: 'Clearly, Shakespeare not only knew about diversification but, at an intuitive level, understood covariance.' However, given the later developments in the *Merchant*, it is not at all clear that Antonio's understanding of covariance was as deep as Markowitz claims.

Notes

1. Reference to the 'Schoolmen' is generic. The category of individuals involved is quite broad, including both canonists and theologians: 'The distinction between a scholastic canonist and a scholastic theologian may seem trifling. Each was a servant of the Church; each was guided by the teaching of the Gospel, the natural law and the canons. Yet the observer will note differences in their approach … The canonists were concerned mainly with solutions valid for the external forum of the Church; they were concentrating on the administration of the law. The theologians were focusing mainly on the confessional. Moreover, the canonists, fitting their commentaries to specific canons, made no comprehensive effort to reconcile the canons or to produce a synthesis. The theologians were at once more systematic, more logical, and often more severe' (Noonan 1957, p.48).

2. Following Homer and Sylla (1991), this was also true in the ancient markets of countries such as Greece.

3. Ekelund et al. (1996, p.8) report the following: 'Before the year 900 AD, the Church directly owned approximately one-third of all cultivated land in western Europe, including 31 percent of such land in Italy, 35 percent in Germany, and 44 percent in northern France.'

4. Despite the academic attention given to the scholastic usury doctrine, the underlying importance of the financial transactions involved requires discussion. In this vein, (Noonan 1957, p.249) observes: 'Throughout the sixteenth century, the triple contract and the personal *census* are more important than interest titles.'

5. The position that 'money is sterile' is usually attributed to Aquinas who, likely, derived this view from Aristotle.

6. Noonan (1957, pp.105-6) traces the origins of the usage of the word *interesse*. The word originates from the Roman law regarding *quod interest*, 'that which is the difference', which applies to the payment a delinquent party to a contract is required to pay to the damaged party. The concept extends beyond the narrow notion of payment on a loan to incorporate damages due on any contract, for example, a partnership, due to the default or delinquency of one of the parties. The term is taken up in the writings of the 12th century Bolognese school. Usage of the term is commonplace after 1220.

7. Various interpretations of canon law permitted interest to be paid on state loans, partnerships, and the census. Interest was also disguised in monetary exchange transactions combined with credit which took the form of bills of exchange (for example, Einzig 1970). The interest derived from partnerships led to the development of interest on bank deposits and, starting around 1485 (Noonan 1957), to the 'triple contract', an 'insured' partnership with a fixed rate of return. The interaction between the growth of commercial activity and social acceptance of interest payments is an essential element in the evolution of security pricing theories. For example, consider the emphasis on problems of dividing the shares from partnerships. Throughout the earlier history, prohibitions against usury had a significant impact on the recognition and valuation of interest payments (for example, Noonan 1957; Daston 1988, ch. 1). As well as being a primary source of funds for business enterprises, because income received from partnerships was considered licit under canon law, the partnership was also used as a method of disguising interest payments in order to avoid the usury prohibition.

8. The level of confusion surrounding gambling during the early history is reflected in the usage of the word 'lot': 'In their writings on gambling and divination the Puritans often use the words "lot" and "lottery". Their usage of these words is similar to some modern usages but differs slightly from the most common usage. By "lot" the Puritan writers mean any randomizer such as cards or dice; by "lottery" they mean any outcome determined by randomization' (Bellhouse 1988, p. 67). Prior to Gataker, Puritan writers did not typically distinguish between pure gambling using purely random devices such as dice and gambling which involved a combination of skill and chance.

9. There are numerous sources which attempt to trace the various Biblical references, for example, Ashton (1898).

10. Forward trading in commodities posed another problem for scholastic doctrine. In addition to coming under many of the same criticisms aimed at the dishonest practices of the *windhandel* trade, forward trade posed additional doctrinal problems, for example, Ekelund et al. (1996, pp. 126-7).

11. Fisher (1907) does not review the history of interest, referring the reader instead to the first edition of Böhm-Bawerk (1914) which Fisher identifies as the definitive treatment of the subject. A more modern account of the evolution of scholastic doctrine can be found in de Roover (1955).

12. Smith (1776, p. 339) states: 'In some countries the interest of money has been prohibited by law.' The context of this quote implies that these laws were in place circa 1776 but it is possible that Smith has in mind prior historical situations where interest had been prohibited in European countries. If not, then Smith is likely alluding to 'Mahometan nations' or Mohammedan or Muslim countries where 'the law prohibits interest altogether' (p. 96).

13. Attacks on usurers also appear in other literary classics. For example, the *Inferno*, a classic from the Middle Ages by Dante Alighieri (1265-1321), makes reference to Cahors, a city in southern France, which in Dante's time, was well known as a place where usury was widely practised. Dante (Canto XI) refers to inhabitants of 'Sodom and Cahors and all those souls who hate God in their hearts and curse His name'. Modern Shakespeare scholars find a similar thematic connection between homosexuality and usury in the *Merchant*, where it is the implicit and unrequited homosexual connection between Antonio and Bassanio which produces the preconditions for the usurious transaction between Antonio and Shylock.