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Bills of exchange, interest bans, and impersonal exchange in Islam and Christianity ☆

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ABSTRACT

A vast economic history literature suggests that medieval institutions supporting contract enforcement were necessary for impersonal exchange to emerge. Yet this literature cannot account for the bill of exchange, an important financial instrument that had positive legal standing in both the medieval Islamic and Christian worlds but remained relegated to personal networks only in the former. This paper suggests that a seemingly innocuous difference – the involvement of currency exchange in European but not Middle Eastern bills, a difference resulting from the secular legalization of interest in Europe – encouraged divergent endogenous processes resulting in these distinct institutional arrangements.

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1. Introduction

In recent decades, a large literature has emerged seeking the economic, geographic, institutional, and cultural causes underlying the "rise of the West" (North and Thomas, 1973; Jones, 1981; Diamond, 1997; Landes, 1998; Pomeranz, 2000; Acemoglu et al., 2005; Kuran, 2005a; Greif, 2006; Clark, 2007). An important subset of these works stresses the emergence of institutions which supported impersonal exchange in Europe as central to the divergence between the "West" and the rest of the world, arguing that such institutions facilitated the development of widespread financial markets, large-scale banking, and many other phenomena associated with economic growth. Yet, there is no consensus on why institutions that supported impersonal exchange emerged in Europe in the medieval period and not in other regions, such as the Middle East. A view championed by Douglass C. North, amongst others, is that the rise of political and legal institutions which ensured contract enforcement and property rights was the essential force driving the growth of impersonal exchange (North and Thomas, 1973; North, 1990, 1991). Avner Greif, on the other hand, argues that impersonal exchange was possible in an earlier period due to the "community responsibility system", an institution that supported such exchange through self-enforcing mechanisms (Greif, 2004b, 2006, chapter 10). Elsewhere, Greif and others have argued that the spread of impersonal exchange was facilitated in certain contexts by institutions (formal and informal) that mitigated the "fundamental problem of exchange" –

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the problem that individuals enter into exchange relationships only when the other party can commit ex ante commit to fulfill obligations ex post (Milgrom et al., 1990; Greif, 1992, 1993, 2000, 2004a; Greif et al., 1994; Clay, 1997a,b).

While each of these explanations sheds significant light on the emergence of institutions that made Western economic hegemony possible, there are many important historical phenomena that they cannot explain. One particularly significant historical feature unaccounted for in this literature is that long-distance financial instruments, particularly bills of exchange, remained confined to relatively small, personal networks in the Islamic world[1] but precipitated broader impersonal institutions in Europe (such as joint-stock companies and banks). Bills of exchange, described by Hunt and Murray (1999, p. 65) as "the most important financial innovation of the High Middle Ages", were known and employed in both the Islamic and Christian worlds and were generally *accepted* and *enforced* in courts wherever they were drawn. Hence, their relegation to personal networks in the Islamic world but not in the Christian world cannot be explained solely by differences in enforcement of property rights or institutions supporting community responsibility.

This paper employs a two-tiered argument to help account for the differing breadth of the networks associated with these financial instruments and institutions. The first tier suggests that differences in the institutions supporting (and supported by) European and Middle Eastern bills of exchange arose in response to a seemingly trivial difference in the method through which exchange transactions were conducted. In Europe, lenders profited from exchange transactions by buying and selling bills in different regions at different exchange rates. This provided wealthy lenders with a way of making profit while skirting the religious interest ban, and beginning in the fourteenth and fifteenth centuries, bills of exchange became an important financial instrument, rather than simply a means of decreasing transport costs. It was precisely because exchange transactions were closely tied with long-distance lending – due to the element of currency exchange – that they provided an incentive for European businessmen to establish organizations capable of extending impersonal credit.

On the other hand, in the Islamic world, bills of exchange (*suftaja*, plural *safatij*) did not involve currency exchange, but instead were written in one region for payment in the same specie in another region. The *borrower* (issuer) could charge a fee upon issue, but *lenders* could not profit from the exchange transaction itself, as gaining from differences in exchange rates was considered usurious and hence illegal. Thus, bills of exchange were rarely used for any purpose beyond their original intent – avoiding the costs and risks associated with moving specie in international trade. Unlike in Europe, *safatij* were not employed as instruments of finance, and lenders were thus not provided with the incentive to expand their operations beyond their prevailing network of personal relations, thereby inhibiting the growth of institutions capable of facilitating impersonal exchange.

This argument differs somewhat from Greif's analysis of impersonal exchange, which concentrates on institutions that mitigated the "fundamental problem of exchange" (FPOE). Instead, I suggest that specific institutional elements determined whether individuals had an incentive to enter into exchange agreements in the first place – even ones in which the FPOE was not a problem. This argument is complementary to Greif's – I propose that in cases where contracts are enforceable and the FPOE is not a problem (as the evidence suggests was the case with both European and Middle Eastern bills of exchange), divergent outcomes can still emerge as a result of differing institutional details.

The second tier of the argument addresses why European lenders were able to profit from differences in exchange rates but Middle Eastern lenders were not. I suggest that this difference was a result of the type of sanctions imposed on those who lent at interest (usury).[2] In particular, I argue that the greater degree to which political authorities depended on religious authorities for legitimacy in the Islamic world entailed an equilibrium in which interest was prohibited by religious *and* secular authorities. On the other hand, I argue that a late thirteenth-century decrease in the dependence of European political authorities on religious authorities sparked a series of interactions – commencing with the secular legalization of moderate interest – which gradually resulted in a complete removal of the interest ban. In this economic setting, lenders were permitted to respond to financial exigencies without fear of legal consequences, encouraging them to seek profit on exchange transactions despite condemnation by religious authorities. On the other hand, the significant level of "dependence" in the Islamic world supported an equilibrium in which the interest ban was never fully removed de jure (even though it was practically non-existent de facto). Under such conditions, it was quite costly for capital-wealthy lenders to openly react to financial exigencies in such a manner, and they were thus discouraged from "pushing the envelope" and seeking profit on bills of exchange.

Before concluding, I provide a "robustness check" of this hypothesis by briefly analyzing the history of interest and bills of exchange in medieval Byzantium. I find that, as in the Western Christian and Islamic worlds, the legality of profiting on the exchange portion of the bill was related to the secular and religious acceptance of interest, which itself stemmed from the relationship between the political and religious authorities.

This argument is not a deterministic one. At no point do I argue that Islamic institutions had to form like Western European ones in order to facilitate impersonal exchange, nor do I argue that Islam or Islamic institutions are incapable of change. Instead, I argue that incentives which encouraged the formation of institutions capable of supporting impersonal lending

[1] Throughout this paper, I use the terms "Christian world" and "Western Europe" to denote the pre-Reformation Christianized regions under the Church of Rome. I use the term "Islamic/Muslim world" somewhat broadly, comprising North Africa and the "Middle East" (that is, the entire Arab world, Iran, Turkey, the Balkan peninsula, and Spain up to the Reconquista). I recognize that this terminology is overly general and may at times be misleading, but this is not intentional – instead, I view this as an unfortunate consequence of the broadness of the subject matter at hand.

[2] Though the terms interest and usury have different meanings in their modern context, in pre-modern times they were largely synonymous, and will thus be used interchangeably throughout the paper (Divine, 1959; Persky, 2007).

were lacking in the Islamic world, *in part* due to the ''double illegality'' (secular and religious) of lending at interest, which discouraged institutional formation based on open, impersonal transactions.

This analysis suggests the existence of two different equilibria. One of these, which pervaded the Middle East, consisted of economic transactions and interactions which were based largely on social–personal networks where lenders had little incentive to ''push the envelope'' of the institutional structure. In the other equilibrium, which emerged in Western Europe, purely personal financial networks were undermined in favor of widespread, impersonal networks.

2. Bills of exchange in Western Europe and the Middle East

2.1. The mechanics and history of bills of exchange

2.1.1. Western Europe

Medieval European bills of exchange were debt instruments issued in one place and remitted in another, usually in a different currency payable at the market exchange rate (quoted in the locale of issue) with a stated maturity (usance) corresponding to a duration between 1 and 6 months. Bills of exchange worked as follows. A lender (known as a deliverer, normally a banker) bought a bill for ready cash from a borrower (known as a taker), who drew on one of his correspondents (payer) abroad. At maturity, the payer paid an amount in a foreign currency to the lender's correspondent (payee) (de Roover, 1963; Mueller, 1997, chapter 8).

Lenders made profit on bills by having the payee reverse the process (rechange) and buy a new bill, payable in the lender's home land, from another borrower. Because the second transaction took place in a distant land, the second bill was purchased at a different exchange rate than the first one.[3] The rate differential permitted lenders a chance to profit on exchange transactions.[4] Profit was not assured, however, as wild fluctuations in the exchange rates – which were subject to the local supply and demand of specie and credit, the balance of trade, the borrowing habits of the political authority, currency debasement, and so forth – could entail a loss for the lender, although most bills provided positive profit (de Roover, 1944, 1963; Mueller, 1997, chapter 8).[5]

The lender could make a profit so long as there were a difference in exchange rates between the cities concerned in the transactions. It did not matter which city the exchange and rechange process initiated. To see this, consider the following (obviously hypothetical) exchange transaction. Say that a bill purchased in New York to be remitted in Paris can be bought at a rate $1:0.5€, while a bill purchased in Paris to be remitted in New York can be bought at a rate 1€:$3. One could buy a bill in New York for $100 and remit it in Paris for 50€, then use this 50€ to buy a bill that yields $150 in New York, a 50% profit. On the other hand, one could start by buying a bill in Paris for 100€ and remit it in New York for $300 then use this $300 to buy a bill that yields 150€ in Paris, also a 50% profit.

If differences in exchange rates could be used to make an arbitrage-like profit, why did markets not eventually clear and exchange rates equalize? de Roover (1944) suggests that differences in exchange rates reflected a built-in interest payment, and hence such differences *had* to exist for an equilibrium to emerge. If no differences in exchange rates existed, then there would have been no incentive for the capital-wealthy to lend. Meanwhile, some merchants were willing to pay a premium (i.e. interest) to have access to this capital. For instance, de Roover (1944) notes that sellers of bills in London were often merchants who needed access to cash to pay for cloth, which they expected to sell in the Low Countries. One way of gaining access to this credit was by selling a bill in London to be honored in Antwerp or Amsterdam.

Bills of exchange thus performed three functions: currency exchange, short-term credit-extension, and trade facilitation. They originally emerged in order to support the last of these, enabling merchants to avoid the costs (armed guards) and risks (robbery) associated with moving specie (Kohn, 1999). Such costs were far from trivial – for example, the charge for moving bullion from Naples to Rome ranged between 8% and 12% of the value being moved (Hunt and Murray, 1999, p. 64).[6]

The earliest forms of bills of exchange arose in Genoa in the mid-twelfth century, but bills did not become widespread until the following century, when they were employed by merchants at the Champagne fairs (Hunt and Murray, 1999). They became ubiquitous in subsequent centuries, primarily in Italy, evolving into financial instruments which enabled lenders to make profits via differences in exchange rates (de Roover, 1963, p. 13).[7] They carried many advantages which were valuable

[3] Merchants eventually adopted bills quoted in fictitious units of stable value (in order to escape the dramatic changes in exchange rates resulting from currency debasement and speculation), but their adoption of this measure instead of discounting suggests that currency exchange maintained its important role in the exchange transaction (Einzig, 1970).

[4] Another way that bills were employed to simulate interest-bearing loans was through non-repayment by the payer. In this case, it was tacitly understood by all parties that a dishonored bill would be protested in court (for appearances) and returned to its place of issue, after which the taker was obligated to pay the deliverer back at the current rate of rechange, which acted as an interest payment (Einzig, 1970).

[5] Other types of exchange existed in the high-medieval period, such as 'petty exchange' and dry exchange. The former simply involved the exchange of one coin for another, while the latter dealt fictitiously in bills of exchange, involving no currency exchange and thus no risk for the lender (de Roover, 1944). The existence of other types of exchange does not detract from the argument made in this paper.

[6] In interregional transfers, bills of exchange also incurred a much lower time cost than specie. For example, Einzig (1970, p. 67) relates an instance (quoted by Yves Renouard) in which it took 21 days to deliver coins collected in Rouen to Avignon, whereas a courier could deliver a bill in 8 days.

[7] Bills of exchange evolved further in the late-sixteenth and seventeenth centuries when they became negotiable and endorsable (the first use of endorsement occurred in the 1570s). As endorsable instruments, bills were similar to convertible money (Kohn, 1999). This paper focuses on the pre-endorsement period, as bills of exchange served a very different function post-endorsement.

for extending credit regardless of usury theory: they were self-liquidating after usance, easily renewable through rechange, and the rates of interest were largely predictable within certain parameters (Mueller, 1997, chapter 8). Such characteristics encouraged their use by Italian bankers both as a safe means of short-term lending and as an alternative to discounted debt instruments, which were forbidden by the Church.[8]

Despite their usurious nature, bills of exchange were enforced by merchant law, and the deliverer could sue the taker if the latter's correspondent (the payer) refused the bill (de Roover, 1963, chapter 6; Kohn, 1999). The legal standing of bills of exchange was established by their being written in the hand of the taker, whose handwriting was known to his correspondents (Kohn, 1999).[9]

2.1.2. Middle East

As in Europe, numerous credit instruments were employed in the Islamic world. These included transfers of debt (*hawāla*), orders of payment (*sakk* and *ruq'a*),[10] and bills of exchange (*suftaja*, plural *safatij*). *Safatij* were known since the eight century C.E. (Lieber, 1968; Udovitch, 1979), well before similar credit instruments were employed in Europe.[11]

Safatij were written obligations that were issued by and drawn upon well-known merchants for repayment in the *same type* of currency paid to the issuing agent (Ashtor, 1973; Udovitch, 1975, 1979).[12] *Safatij* were generally employed in trade, but were also used for other purposes – for example, the 'Abbāsid financial administration used *safatij* to transfer funds between provincial treasuries and Baghdad, bribes were paid via *safatij*, and tax farmers used *safatij* to pay the royal treasuries (Lieber, 1968, p. 233; Ashtor, 1973, pp. 556–557; Ray, 1997, p. 71). *Safatij* were widely employed and enforced throughout the Ottoman period, where they frequently facilitated transactions between Anatolia, the Aegean islands, Crimea, Syria, Egypt, and Iran (Pamuk, 2004).

Unlike European bills of exchange, which involved four parties, *safatij* involved only three parties and worked as follows. *A* lent a sum of money to *B* in return for a *suftaja*, which was given to *C*, who resided elsewhere and paid *A* the same sum in the same currency (Ashtor, 1973, p. 556). A typical *suftaja* was written as follows: "Abū Mansūr asked me to take from him 25 dinars and 2 qīrāts, which I did and for which I wrote him a bill drawn on you" (Goitein, 1967, p. 243). Similarly, a characteristic "blank" *suftaja* read: "Give ___ all that he may demand, obtain a receipt from him, and debit the sum to me" (Mez, 1937, p. 476).

Safatij were neither transferable nor negotiable (similar to pre-sixteenth century European bills) and were immediately redeemable upon presentation (Goitein, 1967, pp. 244–245). The issuer (borrower) generally charged a fee, which was sometimes significant but could be as low as 1% of the *suftaja*'s value (Goitein, 1967; Udovitch, 1975). If the agent upon whom the *suftaja* was drawn delayed payment, he incurred a steep penalty which, if not paid, could be claimed by the *suftaja* holder via lawsuit in an Islamic court (Goitein, 1967, p. 243). The enforceability of such late penalties is exemplified in a case noted by S.D. Goitein (1967, p. 243): "The bill arrived on the holiday [and, therefore, was not paid; it was payable it seems, to a government office]. Immediately mounted police were sent out carrying an order for a fine of 6 dirhems per day."

Like European bills of exchange, *safatij* were written documents which extended credit and helped merchants avoid risk in transport. However, unlike European bills, *safatij* did *not* involve a currency exchange – the bill merely permitted merchants in one region to make payments in the same currency in another region. Indeed, while *safatij* were permitted by some Islamic jurists (the Hanafi) – and were thus enforceable in court – *lenders* were forbidden from profiting on the exchange transaction itself. Instead, only borrowers could profit from dealing in *safatij* (through the issue fee).

2.2. Consequences

Both European bills of exchange and *safatij* were employed to facilitate trade and extend credit. However, the additional element of currency exchange associated with the former allowed wealthy European lenders to profit from the exchange transaction. Since this profit was derived from two transactions which exploited variations in exchange rates in different cities, lenders

[8] Their use as a financial instrument is exemplified by the Covoni family of Florence, who between 1336 and 1340 registered a total of 443 exchange transactions: 70 were trade related and 373 were financial (Mueller 1997, pp. 317–318).

[9] The following correspondence between a factor of the Davanzati company and the Datini company is typical: "We are taking note of your handwriting, and you take note of ours. Tell us what is available in Pisa, and here you will be well served." (Mueller, 1997)

[10] The *sakk* and *ruq'a* acted like checks (indeed, the word 'check' is derived from the former) and were employed primarily in short-distance trade for relatively small sums (Goitein, 1967, pp. 240–241; Udovitch, 1975).

[11] Though it is certain that the *suftaja* pre-dates the European bill of exchange, there is considerable debate concerning the Middle Eastern origins of the European bill. Early twentieth-century scholars such as Usher (1914) believed Western bills to be of Italian origin, while later "Orientalist" scholars such as Schacht (1964) and Lieber (1968) believe that European bills owe a great deal to the Islamic world. Ashtor (1973) reconciles the two viewpoints, noting that while Europeans were aware of *suftaja* and even dealt in them, the difference in the economic setting in which they emerged, which (as emphasized in this paper) permitted an exchange transaction to be included in the European but not the Islamic bill, suggests that the European bill was a fundamentally different and unique credit instrument.

[12] Ashtor (1973, p. 562) notes that "studying the texts referring to the *suftadjas* drawn up in Iraq and Egypt at the time of the Abbasid caliphs, we note that the sums sent to another city or another country had to be collected in the same type of money in which the loan was made. But the tax-farmers and the governors of the provinces sent dinars to Bagdad although they had collected dirhems; in this case the bankers of the province had exchanged the dirhems for dinars. Thus the drawing up of a *suftadja* is often connected with an exchange transaction, *but the latter precedes it and is quite distinct*" (italics mine). Ashtor also notes that the lack of a currency exchange associated with the *suftaja* extends well beyond the Abbasid period and is a salient feature of transactions registered in the Geniza in the twelfth and thirteenth centuries.

who purchased bills of exchange were necessarily involved in *interregional* (and hence inter-currency) commerce with multiple agents. This seemingly innocuous element of European bills encouraged the formation of institutions capable of supporting interregional finance, such as the fifteenth-century fairs in Lyons and Besançon, which were organized by merchants in Florence and Genoa, respectively, in order to provide opportunities for credit transactions (Einzig, 1970). It likewise spurred the emergence of organizational forms suited to impersonal lending, a process exemplified by the Medici enterprise.

Headquartered in Florence, the Medici "bank" expanded in the fifteenth century into a decentralized matrix of partnership branches throughout Europe, all dealing to some extent in interregional finance and bills of exchange (de Roover, 1946b, 1963). The Medici enterprise differed from the "super-company" organizations of the fourteenth century (such as the Peruzzi, Bardi, and Acciaiuoli companies), which were centralized under one partnership that controlled foreign branches. Instead, the Medici house – much like the network controlled by its contemporary Francesco Datini – consisted of a series of partnerships that were separate legal entities, much like a modern day holding company (de Roover, 1946b, 1963).

These branches all dealt in exchange operations. For example, in the preamble of the Medici contract with the Bruges branch (which can be taken as indicative), the purpose of the partnership was defined as one which would "deal in exchange and in merchandise in the city of Bruges in Flanders" (de Roover, 1963, p. 87). To take advantage of opportunities afforded by dealing in bills of exchange, branches of the Medici banks acted as both principals and agents of other branches. Like the other leading bankers of the time, the Medici had branches or correspondents in all of the major financial centers of Europe, allowing the network to stay informed of fluctuations in the exchange rate and the money market (de Roover, 1946a, 1963).

The branch system was effective because it permitted Medici and Datini to extend their networks over long distances in the context of exchange transactions. This was important to their success (and ultimate decline), as purely impersonal lending was a dangerous proposition in this period. It is no coincidence that the Medici bank thrived when restrictions were imposed, or enforced (by the center in Florence), on those to whom partners could lend, and declined when such restrictions were relaxed (de Roover, 1963, chapter 5).

The Medici "hub-and-spoke" system emerged as a response to the economic exigencies imposed by the broader financial institutional complex. The enforceability and profitability of bills of exchange encouraged enterprises like the Medici and Datini to establish interregional branches to take advantage of exchange rate differences and capital scarcity – thus implicitly lending at interest – while at the same time diversifying portfolios to shield against risk. In an era before credit scores and international finance laws, these complex networks permitted capital-rich entrepreneurs in Italy to invest in all of the major financial centers of Europe. Though the Medici conducted transactions primarily with semi-personal relations (that is, those who were known to be good credit risks), the extension of the credit network achieved by the branching system allowed for less personal credit relations to arise: from the viewpoint of the primary capital holders (the Medici family in Florence), most financial activities were conducted with unknown relations.

However, nothing resembling these organizational forms emerged in the Islamic world. Instead, *safatij* were employed only where direct and permanent business connections existed between well-known, closely-knit groups of merchants and bankers (Goitein, 1967, pp. 244–245; Udovitch, 1975). The reason underlying this difference was not differential enforceability – bills were enforceable in court in *both* regions. Indeed, the large, enforceable fees imposed on late repayment of *safatij* (along with their convertibility upon delivery) discouraged most bankers from issuing large *safatij*; if the issuer did not have complete confidence that his partner could pay the loan, he risked incurring such fees, charged to his partner, upon delivery (Goitein, 1967; Udovitch, 1975, 1979). In a world of personal business relations dependent on repeated interaction, entering into such a contract without assurance that the bill could be paid was a risky proposition. For this reason, the Geniza documents (analyzed in detail by Goitein (1967, pp. 243–245)) reflect numerous instances of merchants unable to procure *safatij* and "great bankers" unwilling to issue *safatij*, instead encouraging merchants to carry purses of gold specie in order to conduct their business.

The crucial difference between European bills of exchange and *safatij* lies in how profit accrued through their use. In the Islamic world, *borrowers* could charge a fee for writing a bill, which was payable in a distant land. Without the element of currency exchange, there was little incentive for wealthy *lenders* to employ *safatij* as an instrument of finance. Instead, traveling merchants – not investors – remained the primary lenders (purchasers), and *safatij* remained relegated to facilitating trade. Foreign agents were unnecessary as long as the borrower–banker had confidence in his business partner (to whom he was generally connected via some social–personal relationship), and capital-rich Muslims could not earn returns by buying *safatij*, so there was little incentive to establish networks dealing in *safatij*.[13]

On the other hand, although European commerce at one point consisted primarily of networks of personal relations, the mechanics of bills of exchange encouraged the formation of less personal arrangements. The currency exchange element permitted *lenders* to profit from the transaction, which in turn provided capital-rich entrepreneurs with the incentive to employ

[13] Theoretically, bankers could have extended their networks in order to increase their confidence in the partner on the other end of the transaction (who would have been a part of the same 'business'), which would have encouraged the writing of larger *safatij* at greater fees. Yet, in this case the incidence of personal exchange is even greater, as both the borrower and his agent are part of an even closer (business) network. It is also possible that Muslim lenders could have learned the potential benefits of adding exchange to the *suftaja* through contact with Christian minorities. Indeed, Kuran (2004) notes that the Pact of Umar permitted Christian minorities (*dhimmis*) in Islamic lands to utilize Christian courts in transactions involving non-Muslims. Yet, it is unlikely that European bills of exchange were commonly employed as financial instruments in Muslim lands for two reasons: (1) bills of exchange were enforceable only by merchant law (Kohn, 1999); (2) the viability of bills of exchange as financial instruments depended on the existence of a critical mass of (in this case, Christian) borrowers and lenders in more than one region – at least before the advent of transferable bills. In fact, Kuran (2004) notes that Christian minorities generally abided by Islamic law until the eighteenth century, by which time much more advanced financial instruments were available to European lenders.

bills as an instrument of finance. Because currency exchange was generally associated with long-distance commerce, lenders were encouraged to form organizations such as the Medici bank, which extended credit networks via branching and allowed less personal credit relations to emerge.

3. Accounting for differences in bills of exchange

The previous section suggests that a seemingly innocuous difference between Western European and Middle Eastern bills of exchange – the inclusion of an exchange transaction in the former – entailed distinct institutional consequences. But should this difference be viewed as exogenous to the broader economic and institutional structures? If so, why did no instrument emerge in the Islamic world tying currency exchange with credit-extension, thus allowing for commercial opportunities like those that pervaded late-medieval Europe?[14]

This paper suggests that the first-order difference between the Middle East and Western Europe responsible for this distinction is that transactions involving guaranteed interest were permitted by secular authorities in Western Europe (beginning in the late-thirteenth century) but not in the Middle East. This, in turn, permitted an environment in which profiting from differences in exchange rates – which was viewed as usurious by both the Roman Church and Islamic law – was discouraged to a lesser extent. That is, despite other-worldly and social sanctions associated with transactions involving profit from exchange, bills were enforceable in European secular courts. On the other hand, the ban on guaranteed interest in Islam discouraged usurious financial instruments similar to the European bill of exchange from emerging in the Middle East; though, as noted below, the multifarious mechanisms for evading the ban permitted the employment of numerous substitutes for lending at interest.

The argument concludes by taking one more step back and answering the question: why were secular interest restrictions relaxed in the Christian world but not in the Islamic world? To this end, I discuss these interest histories in the context of the model proposed by Rubin (2009a), which argues that economically inhibitive laws, such as interest restrictions, are more likely to persist the greater the degree to which political authorities depend on religious authorities for legitimacy. The upshot of this argument is that interest restrictions are more likely to be self-enforcing in the Islamic world than in Christendom. It also provides a theoretical framework which helps account for changes in interest theory over time in both religions. Of particular importance to the present argument, it suggests that a thirteenth-century decrease in the dependence of European political authorities on religious authority encouraged the former to permit interest, which in turn encouraged lenders to employ bills of exchange as financial (and not just trade) instruments.

3.1. Theoretical background: "Church-state" relations and interest restrictions

I begin this part of the analysis by summarizing the logic of the model in Rubin (2009a), which helps explain why economically inhibitive religious laws, such as interest bans, have generally persisted for longer in Islam than in Christianity. That model suggests that this phenomenon results from the greater degree to which Islamic political authorities are dependent on conforming to the dictates of religious authorities for legitimacy, a difference which stems from the birth of these religions and is thus exogenous to the specific doctrines in question.

This difference is exogenous because it is a result of the circumstances surrounding the births of the two religions. Early Christians were forced to live under Roman authority, where it was both unnecessary and unfeasible to create a legal system based on religious principles, and early Church leaders advocated a separation between political and religious institutions. On the other hand, Islam was formed at a time of weak centralized power and tribal feuding in the Middle East, and consequently, Islamic ideals quickly became those of the state (Lewis, 1974, 1995). The relationship between political and religious authorities varied over time and place in both regions, but rarely did the degree of dependence in Western Europe approach that of the Middle East (Schacht, 1964; Lewis, 1974, 1993, 1995).[15]

The logic underlying the result is as follows. When dependence on religious authority is large, it is costly for political authorities to permit religiously-prohibited actions, so they are unlikely to do so. In turn, only a small portion of the laity transgresses the prohibition, since this entails worldly costs (such as contract non-enforcement) *and* other-worldly costs (such as hell). With few individuals breaking its dictates, the religious authority has little incentive to enact a costly reinterpretation. Thus, the players' interactions entail that no player has incentive to "push the envelope", and the institutions upholding the law are *self-enforcing*. However, when the level of dependence is small, the reverse is true, and the institutions undermine the related laws, thus encouraging endogenous institutional change. That is, the outcomes emanating from players' actions entail that the set of institutions constraining their behavior changes over time.[16]

Two predictions relevant to the present analysis arise from this model. First, the greater degree to which political authorities derive legitimacy from religious authorities in Islam relative to Western Christianity should entail that secular and religious interest restrictions are more likely to persist in Islam. Second, it suggests that secular relaxations of interest

[14] Money-changing existed in the medieval Islamic world just as it did in medieval Europe. The point stressed in this paper, however, is that these two transactions remained separate in the former, thus diminishing opportunities for profit.

[15] Lewis (1974, p. xviii) argues that "the dichotomy of *regnum* and *sacerdotum*, deeply rooted in Western Christendom, does not exist in Islam, and indeed, such pairs as spiritual and temporal, lay and ecclesiastical, and religious and secular have no equivalents in the classical languages of the Muslim peoples."

[16] For more on the theory of endogenous institutional change, see North (1990, chapters 9–11), Greif and Laitin (2004), and Greif (2006, chapters 5–6).

restrictions may result from a decrease in "dependence", with religious relaxations following subsequently. Indeed, I exploit the temporal variation in dependence to shed light on changes in the actions of both types of authorities. For example, I argue that secular relaxations of the ban commenced in Western Europe after a thirteenth century decline in the power of the papacy and they commenced in the Ottoman Empire after the sultans brought the religious authority into the state.

In the following sections, I provide evidence supporting these predictions by briefly summarizing the history of interest restrictions in both religions. I then tie these histories to the differing features of Western European and Middle Eastern bills of exchange.

3.2. Western European interest theory and practice

The Church's ban on taking interest emerged in the fourth century C.E., officially becoming doctrine in 325 when it was included in Canon 17 of the first Ecumenical Council (Nicæa). The ban was promulgated in a period where most loans were for consumption and it was meant to discourage wealthy lenders from taking advantage of their poor neighbors.[17] It was supported by subsequent Church councils, establishing the basis for the vigorous anti-interest campaign in the medieval period.

With European commerce stagnating until the commercial revolution (which commenced in the late-tenth and eleventh centuries), there was little need for religious authorities to reconsider the interest prohibition, as investment borrowing was not feasible on a large scale. Yet, as commerce revived throughout the continent (and especially in Italy) following the onset of the commercial revolution, interest restrictions were *strengthened*. Rubin (2009a) suggests that the strengthening of the ban followed the papacy gaining significant power vis-à-vis secular authorities during the late eleventh-century Papal Revolution and the resolution of the Investiture Controversy at the Concordat of Worms in 1122. This combination of the rebirth of commerce and increase in Church power meant that fundamental reinterpretations of "eternal" Christian doctrine would have undermined the Church's power vis-à-vis secular authorities, and hence the strengthening of usury doctrine can be viewed as part of broader eleventh through thirteenth-century Church programme to extend its power over secular rulers (Rubin, 2009a).

The ensuing "campaign against usury" was most strongly promulgated in the Second, Third, and Fourth Lateran Councils (1139, 1179, and 1215), which prescribed excommunication for usurers, refused usurers burial in Christian grounds, and interdicted usurers' offerings (Le Goff, 1979; Munro, 2003, 2008). Pope Gregory IX (1227–1241) followed these councils by issuing his *Decretales* in 1234, classing usurers as *infames* (making them ineligible to hold public office, honors, or to testify in court), commanding princes to expel usurers from their realms, forbidding landlords from renting property to usurers, and invalidating the wills and testaments of usurers. The campaign against usury culminated at the Council of Vienne (1311–1312), which decreed excommunication for all 'magistrates, rulers, consuls, judges, lawyers, and similar officials' who 'draw up statutes' permitting usury or 'knowingly decide that usury may be paid' (Munro, 2003, 2008).

Papal power declined in the mid-thirteenth century due to, amongst other things, the territorial growth of secular power, new theories of the state based on Aristotelian foundations, and movements within the Church criticizing the power of the papacy (Tierney, 1988; Feldman, 1997). This diminished the dependence of secular authorities on religious authorities for legitimacy and allowed them to regain suzerainty over their lands. In turn, secular authorities throughout the continent permitted moderate interest in spite of increased religious condemnation for such rulers.

The secular legalization of interest can thus be viewed as a result of decreased costs (due to decreased dependence on the Church) and increased benefits to secular authorities. For one, rulers faced increased pressures from the growing (in size and wealth) merchant class, some of whom "pushed the envelope" by employing religiously prohibited instruments such as bills of exchange. Moreover, the rulers themselves often needed access to credit, which was frequently obtained through forced loans.[18] The legalization of interest was primarily accomplished in the guise of interest caps, which permitted manifest usury below certain interest rates (see Table 1).

Although lending at guaranteed interest was legal, it carried significant social and spiritual penalties. As part of the campaign against usury, the Church explicitly prohibited manifest usury, or low-risk credit extended on collateral. The associated sanctions, which were generally not imposed on the merchant–bankers who dealt in bills of exchange and other instruments with non-guaranteed interest, were far from trivial: some of the most colorful medieval *exempla* (popular moral folklore) tied usurers to hell, and both Christian and Jewish usurers were frequently persecuted and expelled from towns at the behest of the populace (Gurevich, 1990).[19]

[17] The Church aimed its anti-usury doctrine at wealthy lenders, but it is possible that Church leaders had ulterior motives. For more on the fourth-century emergence of the Christian interest ban as an equilibrium outcome in the context of a pre-modern economy, see Rubin (2009b).

[18] Forced loans, which were obligatory to all citizens of wealth, were known in Venice beginning in 1262 and were funded at 5% per annum until 1380. These loans, which were also known in Genoa and Florence, were uncontestable and received relatively small interest (Lane, 1966, chapter 6; Mueller, 1997, chapters 10–14). Larger loans made by entrepreneurs (which were also often forced) to secular authorities were risky and default was common, and this was reflected in the interest rate they received. For example, Emperor Frederick II (1211–1250) usually paid between 30% and 40% interest. In 1221, the Countess Jeanne borrowed at 18% to ransom her husband, Frederick the Fair of Austria (1286?–1330) borrowed at 80% interest, and the Angevin King of Naples (Robert of Anjou) paid 30% in 1319 to his Florentine lenders (Cipolla, 1967, p. 64; Homer and Sylla, 1991, p. 94–95, 99). The high incidence of default on such loans discouraged the Medici from lending to secular authorities – the eventual drafting of such loans is cited as one of the reasons for the decline of the Medici bank (de Roover, 1963).

[19] The *exempla* were most notably used in the early thirteenth century by the newly formed mendicant orders, the Dominicans and Franciscans, to spread the Church's anti-usury message (Munro, 2003, 2008).

Table 1
Interest laws in medieval Western Europe.

Location	Date(s)	Law
Legal maxima, general laws		
Catalonia	10th century; 1235	10th century: legal max rate of 12.5%; 1235: Christians permitted to lend at 12%
Venice	12th–14th centuries	Loans at 20% regarded as custom, courts enforced rates between 5% and 12%
England	12th–15th centuries	Only immoderate interest subject to persecution
Aragon	1241	Jews and Moors limited to 20%, Christians limited to 12%
Cordova	1241	Legal max rate of 12.5%
Seville	1250	Legal max rate of 12.5%
Murcia	1266	Legal max rate of 12.5%
Florence	1345–1346	Following a financial crash, the Republic stopped all usury persecution
France	1349	Crown authorized interest up to 15% for fairs at Champagne and Brie
London	1363	Usury prosecution became sole jurisdiction of civil authorities
Legal maxima, pawnshops		
Milan	End of 12th century	Legal max rate of 15%
Verona	1228	Legal max rate of 12.5%
Sicily	Mid-13th century	Legal max rate of 10%
Modena	1270	Legal max rate of 20%
Genoa	13th century	Legal max rate of 15%
England	13th century	Legal max rate of 43⅓%
Provence	13th century	Legal max rate of 300%
Germany	13th–14th centuries	13th: legal max rate of 173%; 14th: legal max rate of 43⅓%
Bruges	1306, 1404, 1432	Legal max rate of 43⅓%
France	1311, 1361	1311: legal max rate of 20%; 1361: legal max rate of 86%
Lombardy	1390	Legal max rate of 10%
Burgundy	End of 14th century	Legal max rate of 87%
Florence	15th century	Legal max rate of 20%

Sources: de Roover (1948, p. 104), Lane (1966, pp. 61–63), Cipolla (1967, p. 65), Gilchrist (1969, pp. 112–113), Grice-Hutchinson (1978, pp. 36–41, 48), Helmholz (1986), Le Goff (1988, p. 72), Homer and Sylla (1991, pp. 97, 103, 110), Gelpi and Julien-Labruyère (2000, p. 27).

The harsh sanctions associated with manifest usury were a primary reason that credit instruments which concealed interest were employed by capital-wealthy lenders. Indeed, Raymond de Roover (1963) suggests that the Medici (and other major lenders) utilized bills of exchange to lend while avoiding social stigmas, which, despite the transparency of the intentions of those who dealt in bills, were generally reserved for pawnbrokers and lombards who openly lent at guaranteed interest. For such reasons, Frederic Lane (1966, p. 67) suggests (in an argument supporting the one presented here) that the upshot of the interest ban was to divert funds away from relatively unproductive consumer credit to commercial credit.[20]

The earliest alternatives to guaranteed loans at interest were those which had a clear commercial purpose besides lending at interest. Examples include partnerships (*societas* or *commenda*) and the *census* (or *rente*), an annuity on a fruitful good which was widely used in public finance (Munro, 2003, 2008). These contracts had features implicit in interest-bearing loans and became deeply embedded in public and private finance in the twelfth and thirteenth centuries.

Other, more straight-forwardly usurious financial instruments emerged after secular restrictions were loosened in the late-thirteenth century. For example, bills of exchange were widely employed as a usurious financial instrument beginning in the fourteenth century. Bills had already incited controversy amongst the Scholastics when they became an important trade instrument in the thirteenth century, but were a subject of even greater controversy after the fourteenth. Other, much more openly usurious substitutes to interest-bearing loans emerged in subsequent centuries, including the triple contract, mortgage, and fictitious sales.

Church authorities prohibited all of these usurious instruments well after the height of the "campaign against usury" of the twelfth and thirteenth centuries. However, these authorities felt pressure to relax restrictions on usurious instruments *after* they became deeply embedded in commercial relations (Rubin, 2009a). For example, the *societas* and *census* were accepted in the fourteenth and fifteenth centuries, centuries after they were permitted by secular authorities and employed ubiquitously (Noonan, 1957, chapters 6–7).[21] Likewise, bills of exchange were eventually accepted (based on their risky nature) in the fifteenth century, after their secular legality was assured and it was clear that they were essential to European finance (Noonan, 1957).[22] Even openly usurious instruments such as the triple contract and mortgage were eventually justified

[20] It is possible that social sanctions were placed on manifest usury only because the Church had no problem with commercial credit, and the usury ban was a means of permitting commercial but not consumption lending. However, such an interpretation has difficulty explaining why it took the Church centuries to permit obviously usurious commercial instruments such as bills of exchange or the triple contract.

[21] The first loosening of religious restrictions on the *societas* appeared in 1270, but broad acceptance by the Church did not occur until the fourteenth and fifteenth centuries (Noonan, 1957).

[22] Despite the eventual acceptance of bills of exchange as a legitimate credit instrument, the practice of discounting bills was not adopted in Protestant countries (which were generally more lenient regarding usury) until the seventeenth century and was delayed even longer in Catholic countries (Einzig, 1970, p. 84).

Table 2
Chronology of Western European interest practice and philosophy.

Time period (century C.E.)	Institutional "dependence"	Interest practice	Interest philosophy
Late 11th to mid-13th	Significant dependence: papal authority reaches zenith after Investiture Controversy, religious authorities gain suzerainty over secular lands	Interest banned by Holy Roman Empire; rudimentary interest-bearing transactions	Restrictions strengthened in 12th century (Lateran II, III, IV); staunch prohibition of interest in any form
Mid-13th to mid-15th	Little dependence: papal authority diminishes, powerful lay authorities reclaim suzerainty over lands	Moderate interest legal throughout much of Europe; forced loans and high-interest loans to secular authorities common; bills of exchange widespread; lombards granted charters to lend at guaranteed interest	Alternatives to loans at guaranteed interest, such as *census* and *societas* debated but eventually permitted; bills of exchange eventually accepted; ban on open interest still intact
Mid-15th to 19th	Close to zero dependence: Reformation further cripples Church's secular power	Guaranteed lending at interest ubiquitous; contracts involving interest common (mortgage, exchange banking); montes pietatis spread throughout Italy	Commercial practices simulating guaranteed loans, such as the triple contact, legitimated; montes pietatis permitted; ban on moderate interest eventually eliminated

by Christian religious authorities, often by resolving them into other, lawful contracts (Noonan, 1957, 1969; Divine, 1959; Gilchrist, 1969).[23]

A final blow to anti-usury doctrine occurred at Lateran V (1512–1517), when the Church officially sanctioned the monte di pietà, or pious pawn bank. Montes were originally charitable, religious institutions (introduced by Franciscans in Perugia in 1462) that collected funds to provide loans to the poor (Gilchrist, 1969, p. 115; Gelpi and Julien-Labruyère, 2000, pp. 42–43). The rate they charged (6–15%) was well below the one offered by other pawnbrokers, but still high enough to initially receive condemnation from the Church (de Roover, 1948, p. 130; Noonan, 1957, p. 295). The montes spread quickly throughout much of Europe (there were 87 in Italy alone) and the Church eventually sanctioned them in Lateran V (Gilchrist, 1969, p. 115). The montes, being the first institutions which lent openly at interest that the Church sanctioned, brought about the virtual disappearance of publicly licensed pawnbrokers.

By the end of the seventeenth century the ban was a dead letter.[24] The ban was officially lifted in a series of decisions between 1822 and 1836 in which the Holy Office publicly declared moderate interest legal to everyone, and in 1917 the Church offered the *Codex iuris canonici*, which replaced all earlier collections of canon law and allowed a legal title to interest (Noonan, 1957). A stylized chronology of Western European interest practice and philosophy is summarized in Table 2.

3.3. Middle Eastern interest theory and practice

The prohibition of interest (*ribā*) has always been a cornerstone of Islamic doctrine. The Qur'ān contains numerous injunctions forbidding *ribā*, which in pre-Islamic times was a usurious process in which the principal sum was doubled and re-doubled (Rahman, 1964; Schacht, 1995).

Within the first Islamic century, religious scholars gained considerable power as an independent legitimizing force (Masud et al., 1996; Berkey, 2003; Hallaq, 2005). Early Islamic leaders, who legitimated their right to rule primarily by obeying Islamic dictates (Greif, 2002), thus faced significant costs from not complying with Islamic law. This significant degree of dependence entailed an environment in which transactions openly involving interest were legally voidable. Such illicit transactions could be brought to court, where they were generally voided without further legal consequence (Gerber, 1999, pp. 129, 141).

This did not entail, however, that any transaction involving (veiled) interest was forbidden by political and religious authorities. Instead, straight-forward devices (*hiyal*) designed to evade the ban, most of which were not just permitted by religious authorities, but were *created* by them, were common in the early Islamic period (Khan, 1929; Schacht, 1964, 2006; Coulson, 1969; Grice-Hutchinson, 1978; Ray, 1997). A famous example of a *hiyal* is the double sale (*mukhātara*), which was known in Medina as early as the eighth century and consisted of a prospective debtor selling some commodity to a creditor for cash then immediately buying it back for a greater sum payable at a later date. This transaction was licit because it combined two legitimate activities (two sales), even though it essentially amounts to a loan at interest (the interest being the difference between the two prices).

[23] The Scholastics permitted these practices by appealing to theoretical concepts such as *lucrum cessans* (literally "profit ceasing", a pre-Smithian term for the opportunity cost of lent money), *damnum emergens* (loss occurring due to not having lent money), and *interesse* (originally a penalty paid for late repayment), all of which quickly gained currency in theological circles and presaged the Church's official relaxation of the ban (Noonan, 1957, chapters 5, 12).

[24] The Protestant Reformation likely catalyzed the further relaxation of the religious doctrine regarding interest, but the forces underlying the broader relaxation were in motion well before the Reformation. For more on the early Protestant views on interest, see Noonan (1957, chapter 18), Gelpi and Julien-Labruyère (2000, chapters 4–5), and Kerridge (2002).

Table 3
Chronology of Middle Eastern interest practice and philosophy.

Time period (century C.E.)	Institutional "dependence"	Interest practice	Interest philosophy
7th to mid-15th	Very significant dependence: "faith-based legitimacy" encouraged political authorities to cohere with dictates of religio-legal class	Contractual ruses (*hiyal*) and partnerships common; credit instruments (such as debt transfers, *safatij*) employed for long-distance transactions	Interest (*ribā*) ban emerged; *hiyal* (such as the double sale) and partnerships permitted and created by religious authorities, but no further relaxations
Mid-15th to 18th/19th	Significant dependence, but less than in previous periods: incorporation of *muftī*'s office into apparatus of the state	Interest charged more openly in accordance with *sharī'a* and support of political and religious authorities; most transactions conducted with ruses (such as *istiğlal*), with lip-service paid to *sharī'a*	Restrictions relaxed; more open institutionalized lending at interest; direct breaching of interest ban still a sin (if no lip-service paid to *sharī'a*)

Documentary evidence reveals that overt, guaranteed usurious practices were not a common means of extending commercial credit in early and medieval Islam (Udovitch, 1979). For example, in a study of the early twelfth-century Cairo Geniza, Goitein (1967, p. 170) observes that although credit and commerce flourished in Egypt, "even a cursory examination of the Geniza material reveals that lending money for interest was not only shunned religiously, but was also of limited significance economically ... therefore, the economic role of financial investment today was then fulfilled by various forms of partnerships".[25]

However, under the Ottomans, the religious authorities became a part of the state as a result of broad socio-political changes including increased demographic heterogeneity (which limited the coordinative ability of the masses) and lack of external threats (Coşgel et al., 2009). This change enabled a "limited but significant expansion in the ruler's prerogatives in relation to the *sharī'a*" (Berkey, 2003, p. 264). This decrease in dependence permitted an environment in which more straight-forward interest-bearing lending was permitted. For instance, seventeenth-century judicial records in Anatolian Kayseri suggest that interest was regularly charged on credit with the consent and approval of the judge's (*kādī*) court, the religious scholars (*'ulamā'*), and the *sultān* (Jennings, 1973). These records indicate that 20% per annum was considered acceptable and in accordance with the *sharī'a*.[26] However, most of these interest-bearing transactions involved some sort of ruse, the most popular of which was *istiğlal* (which involved the debtor giving his creditor a piece of real estate, supposedly as a sale, but actually as a pawn) (Gerber, 1988, chapter 7). Lip-service paid to *sharī'a* was not relegated to Kayseri but prevailed throughout the Ottoman Empire. For example, Gerber (1988, chapter 7) shows that interest ranging between 10% and 15% was considered legal in seventeenth-century Bursa, but such transactions were primarily conducted via ruses (mainly *istiğlal*). Other common ruses, such as the "wool-sale", where a piece of wool is purchased with the price being an interest payment, and resale with a stated profit (*murabaha*), attest that transactions conformed with the letter of the law in this period, even though interest-bearing lending was de facto legitimate.[27]

Yet, the interest ban has never been fully alleviated in Islam. Direct breaching of the interest prohibition has always been considered a deadly sin and remains so in modern times, even if, as a practical matter, interest has been legalized for centuries. A stylized chronology of Middle Eastern interest practice and philosophy is summarized in Table 3.

4. Bills of exchange and interest bans in broader perspective

The bill of exchange differed in the Islamic and Western Christian worlds largely because lending at interest was (secularly) legal in the latter, even if Christian religious authorities did not recognize the validity of bills until the fifteenth century. Because European lenders could take a legally enforceable return on exchange transactions, they were encouraged to employ

[25] Goitein also shows that by the mid-twelfth century, contracts stipulating interest can be found, but they were either derived from another type of contract or concealed in another way. The most common form of credit extension – partnerships – was widespread within the first few Islamic centuries. They most frequently took the form of the sleeping partnership (*mudāraba*, or "mutual loan"), or *'inān*, in which both partners invested some capital (Goitein, 1967; Udovitch, 1970; Labib, 1969). For an extended analysis of partnerships in the medieval Islamic world, see Udovitch (1970).

[26] While Jennings takes this as evidence that *hiyal* or other "frauds" were not necessary to conceal interest, he also notes that the most common terms used for interest in legal documents were *ribh* and *mu'amele-i şer'iyye*. Yet, *ribh* merely entails an annual return or earning on capital while *mu'amele-i şer'iyye* is a general terminology covering various methods – synonymous with *hiyal* – by which money could be lent within a legal framework. See Çağatay (1995, pp. 62–64) and Çizakça (1995, pp. 325–333).

[27] Timur Kuran has informed me that this assertion is supported in a data set he is currently building of sixteenth and seventeenth-century Ottoman financial records. In the records, interest was usually given and taken in concealed form (as the price of a "sword" or a "piece of broadcloth"). Plenty of registered cases exist where interest is given and taken openly by both Muslims and non-Muslims, but in only one of approximately 9000 cases is the Turkish word for interest (*faiz*) employed (similarly, the term *usura* was avoided in the West). Instead, the expression most frequently used is "I lent him *x* akce for 2 years, treating 11 for 10 annually". This seemingly innocuous method of expression likely had an important effect on the legality of the contract. By using such an expression, a contract could easily have been resolved as a *hiyal*, whereas those employing the term "*faiz*" explicitly violated the law. Though I do not know of any evidence that such contracts were resolved as *hiyal*, this may simply be because the legal ramifications of this type of wording were understood by all parties. I am deeply indebted to Professor Kuran for sharing this aspect of his data with me.

bills of exchange as substitutes for guaranteed interest-bearing loans, in turn avoiding social sanctions associated with manifest usury. Bills of exchange became a widespread *financial* (and not just trade) instrument in the late-thirteenth and early-fourteenth centuries, soon after secular authorities relaxed interest restrictions following a decrease in the "dependence" of political authorities on religious authorities. This paper suggests that these phenomena are interrelated: the decreasing "dependence" of Western European secular authorities on religious authorities encouraged the relaxation of secular interest restrictions, which in turn encouraged lenders to employ bills of exchange in a usurious manner, which itself encouraged the formation of interregional, impersonal organizational forms, such as the Medici enterprise, suited for dealing in bills of exchange.

On the other hand, Middle Eastern lenders were forbidden by *both* religious and political authorities from profiting on the exchange transaction itself, and *safatij*, where legal, remained confined to their original purpose – facilitating long-distance transport without the use of specie. While profiting from exchange transactions was not illegal in Islamic law – otherwise, money-changing would not have been a viable profession – profiting from exchange in conjunction with lending was forbidden by Islamic religious and political authorities.[28] Islamic law considered profit (beyond fees) stemming from exchange transactions to be usurious, and hence only *borrowers* were able to profit from issuing *safatij* (through issue fees). Wealthy lenders could not profit by using instruments similar to European bills of exchange, as such transactions were voidable in Islamic courts.[29]

This begs the question: why did Islamic religious authorities not create a *hiyal* by which Muslim lenders could use *safatij* to profit from differences in exchange rates, as was the case in Europe? There are two reasons why such a *hiyal* was never formulated. For one, although *safatij* were licit and exchange transactions were licit, combining them would have entailed the creation of an illicit instrument, as its purpose would have been to make a usurious gain. This is different from the double sale, which combined two licit but *separate* transactions. Secondly, one could then ask: why did Islamic authorities not set up a *hiyal* which simulated a European bill of exchange yet kept the *suftaja* and exchange transactions separate? That is, a lender could buy a *suftaja* in place A, have an agent turn in the *suftaja* in place B for the same currency, have the agent exchange the currency for a different currency in place B, buy another *suftaja* in place B with the new currency (similar to rechange), turn in that *suftaja* in place A in the new currency, and finally exchange the currency in place A for the original currency. If there are differences in exchange rates in places A and B, then this could give profit to the lender, as it did in Europe. However, this series of transactions also would have been illicit under Islamic law, even under the relaxed restrictions enforced by the Ottomans. The reason is that where the *suftaja* was permitted, it was *only* permitted as an instrument of trade.[30] Islamic jurists were suspicious of the *suftaja* due to its usurious nature (because of the fee charged and because the seller enjoyed the use of funds while the *suftaja* was in transit (Kuran, 2005b)), and hence any use of the *suftaja* outside of facilitating trade was forbidden. Unlike the double sale, which followed the letter but not the spirit of the law by combining two licit transactions, such a transaction would not have followed even the *letter* of Islamic law, as it would have turned the *suftaja* into an illicit transaction.[31]

[28] An alternative hypothesis for the absence of an exchange transaction associated with the *suftaja* is that there were fewer opportunities to trade currencies (perhaps stemming from less fragmentation in the Middle East relative to Europe) and thus less scope to use currency exchange as it was used by European lenders. Such a theory, however, is contradicted by historical evidence that indicates that numerous types of currencies (such as different types of dinars and dirhems) were available in the Islamic world. Indeed, Ashtor (1973, p. 560) notes that a "rich variety of money, that is to say the ease with which foreign monies could be obtained in the big cities, was a typical phenomenon of the monetary life of the Muslim countries at the time of the Abbasid caliphs and at that of the Crusades, distinguishing them signally, in this respect, from the countries of Western Europe." Moreover, the fact that differences in exchange rates in Europe were essential to bills being profitable does not mean that such differences could not have emerged in the Middle East (if they indeed did not exist). Once European bills of exchange became used as instruments of finance, differences in exchange rates emerged *endogenously* as interest payments. It thus follows that had Middle Eastern lenders been able to include an exchange transaction with the *suftaja*, differences in exchange rates in different Middle Eastern cities may have followed.

[29] This argument largely ignores the role that Jewish lenders played in both economies. Although they played an important role in finance in each region (as can be seen in the Geniza documents), their effect was much greater on the demand side of the lending market than on the supply side. That is, although Jewish lenders helped satisfy the capital demands of merchants and the poor in both regions, their presence does little to explain how capital-wealthy Christian or Muslim individuals invested their wealth. The hypothesis presented in this paper helps explain the supply side of medieval lending markets and how European and Middle Eastern institutions evolved as a result. A complete account of the markets must include a discussion of Jewish merchants, but such a discussion is outside the scope of this paper.

[30] Two schools of Sunni Islam (Maliki and Shafi'i) explicitly forbade *safatij* (though the Malikites permitted their use in cases of extreme danger to the traveling merchant), one school (Hanbali) permitted them as long as no fee was charged, and they were disapproved of, though permitted, by the Hanafi school (Dien, 1995). The Hanafites, however, insisted that the *suftaja* was only permissible when there was no agreement to pay elsewhere and where the sums paid and repaid were equal (Ashtor, 1973).

[31] The enforceability of fines for late repayment suggests another (theoretically) possible mechanism for a way that *safatij* could have been used to secure a profit for lenders. That is, the lender and borrower could have had a tacit agreement that the agent in the distant land would be late in repayment with the fee paid serving as interest. As was noted in footnote 4, this type of agreement was employed in Europe. It is unlikely that this tactic was used in the Islamic world for a variety of reasons, all of which are consistent with the theory presented in this paper. First and foremost, this would have been a clear violation of Islamic law. While numerous *hiyal* that were consistent with the letter but not the spirit of the law were employed to circumvent Islamic law, any implicit understanding between parties would have made the contract voidable under Islamic law, as such an agreement actually broke the letter of the law. Thus, the essential difference between the two regions is that a dishonored bill would have been enforceable in European courts *regardless* of the intent of the parties (indeed, the Church considered such an arrangement usurious (*in fraudem usurarum*, see Munro (2003)) but had little power to impose secular sanctions after its power waned in the late-thirteenth century) whereas such a bill would not have been enforced in Islamic courts if it were obvious that the intent was to circumvent interest restrictions. Moreover, even if such a practice became widespread, it is unclear how it would have facilitated impersonal lending. The set of potential sanctions that could enforce this type of contract would have been relegated to personal or social ones.

This is not to say, however, that Islamic law was incapable of change. It merely places the rigidity of this aspect of Islamic law into an equilibrium framework. Capital wealthy merchants were not able to gain from lending via *safatij* without incurring worldly *and* other-worldly sanctions, and they thus refrained from employing *safatij* in such a way. In turn, this lack of "push" from merchants to use *safatij* in this way provided little pressure on political or religious authorities to reinterpret their laws. This contrasts with the Western European history of interest and bills of exchange. Despite a vehement campaign against usury by the Church, lenders were able to gain via bills of exchange while facing only other-worldly (and *not* worldly) costs after the decline of secular dependence on the Church in the late-thirteenth century. This slackening of secular interest laws encouraged lenders to use alternatives to interest of all forms, which eventually placed pressure on the Church to reinterpret its usury doctrine. Although incentives existed to evade interest restrictions in both Western Europe and the Middle East, the post-thirteenth century relaxation of secular restrictions in the former provided incentive for merchants to employ more openly usurious instruments. This, in turn, pushed the two regions on vastly different equilibrium paths regarding the legality of interest and the associated institutional forms.[32]

Though the "double illegality" (secular and religious) of interest was not initially an impediment to Middle Eastern commerce – religious authorities permitted certain types of evasive practices (*hiyal*) that facilitated micro-level credit extension – the secular illegality of guaranteed interest discouraged the employment of *safatij* and other well-known trade instruments in long-distance credit extension, especially in transactions involving individuals outside the existing, social–personal networks. Unlike in Western Europe, where the religious acceptability of profiting from exchange was questionable but the secular legality was certain, both religious and legal sanctions were incurred by Muslims attempting to profit from differences in exchange rates. These dual sanctions were a result of the greater degree of dependence of political authorities on religious authorities in the Islamic world: the former incurred too significant a cost from diverging from the latter, and an equilibrium arose in which openly taking guaranteed interest was forbidden. As a result, institutions like those which arose in Europe in response to the potential profit afforded by dealing in bills of exchange did not emerge in the Islamic world, and most exchange operations remained confined to the prevailing set of self-enforcing institutions which supported contractual forms based on personal interactions between acquaintances and families (Goitein, 1967; Labib, 1969; Udovitch, 1975, 1979).

Numerous scholars have employed the widespread presence of interest-bearing lending via ruses in the Islamic world as evidence that the ban had no practical effect (Labib, 1969; Udovitch, 1975; Rodinson, 1973; Jones, 1988; Pamuk, 2004). This analysis suggests that such arguments suffer from focusing on first-order, micro-level observations. It sheds light on an avenue through which religious interest bans carried *macro*-level, institutional consequences – outcomes which are unlikely to be observed at any one point in time but can accumulate over time on the margin and are thus likely to be ignored by scholars analyzing the micro-level ramifications of actions and institutions.

Employing Joel Mokyr's (1990) terminology, this analysis suggests that the interaction of the Christian interest ban with the Western European politico-legal institutional structure encouraged a series of financial "microinventions" which led to institutional structures different than those in the Islamic world.[33] One of these microinventions was the inclusion of currency exchange in the bill transaction. While this microinvention was not sufficient for interregional, impersonal lending to emerge in Europe (certainly this outcome would not have come about without improved standards of weights and measures, advances in bookkeeping, and the like), the secular legality of profiting from exchange transactions provided incentives which encouraged the growth of institutions supporting such actions in Western Europe.

5. A "robustness check": interest bans and bills of exchange in medieval Byzantium

Medieval Byzantium provides an ideal setting for a "robustness check" of the theory presented in this paper. For one, Eastern political and religious authorities were intimately related since the time of Constantine. Moreover, the Christian legacy of banning interest pre-dated the East–West schism – the ban emerged in 325 at the Council of Nicæa (which was held in modern-day Turkey and accepted by all of the Eastern churches) – thus providing a similar "initial condition" for religious authorities in the two Christian regions. Theoretically, then, the causal linkages established in this paper should shed light on the history of interest restrictions and bills of exchange in medieval Byzantium.

Unlike in Western Christianity or Islam, however, the Byzantine *religious* authority "depended" on the political authority for legitimacy. This stemmed from the concept of caesaropapism – the combination of secular and religious authority, with the former generally superior to the latter – which entailed that religious authorities incurred a "cost" from diverging from the dictates of secular rulers. This concept of dependence is the reverse of that studied in Rubin (2009a), which examined the situation in which political authorities depended on religious authorities for legitimacy. The model can account for the Byz-

[32] An alternative argument suggests that the differential incentives for merchants to "push the envelope" of legal financial instruments arose from the existence of a "campaign against usury" in Western Christianity but not in Islam. However, as noted above, the flourishing of direct alternatives to interest in Europe came only after the slackening of secular restrictions against interest, which happened over a century after the commencement of the campaign against usury. Indeed, the lack of a campaign against usury in the Islamic world does not appear to have hindered demand or creativity for alternative credit instruments at all, and it could be argued that a much wider array of such instruments (though not ones which *directly* permitted interest) existed in the Islamic world than in the Christian world. Moreover, the relative paucity of social sanctions in the Islamic world cannot account for differences in the way that bills of exchange were employed. Although such sanctions were important catalysts for merchant creativity in Europe, Middle Eastern merchants and religious authorities had plenty of incentive to formulate and employ creative financial instruments, a phenomenon manifested in the preeminence of *hiyal*.

[33] This argument is intimately related to the literature stressing the importance of historical events and path dependence on the evolution of institutions. For more, see David (1994), Kuran (2005a), and Greif (2006, chapters 5, 7).

antine case, however; reverse dependence implies that political authorities incur little cost from permitting religiously banned actions and are thus likely to do so, with religious authorities following suit. In turn, the institutions supporting economically inhibitive actions are quickly undermined.

A cursory historical overview supports this prediction. In 528 C.E., Justinian enacted a law capping interest at 12.5% per annum, prohibiting only the promise of interest on loans (Grice-Hutchinson, 1978, pp. 28–29). This law remained valid throughout the early medieval period and was supported by Byzantine clergy, who formulated no new exegeses on interest until the twelfth century (Laiou, 1996). In fact, the only anti-usury legislation in the East during this period was promulgated by non-Byzantine churches, which "did not have the reverence for imperial law that the Byzantine church by necessity held" (Laiou, 1996, p. 448).

Later medieval Byzantine religious views on interest were also much more lenient than those of their Western counterparts – except for brief periods, lending at moderate interest was permitted to laymen by Eastern religious authorities. Although some fourteenth-century religious authorities railed against usury – a view seconded by some in the imperial court after a series of economic crises – the Byzantines (along with the Syrian church) were the only religious authorities of the Judeo-Christian tradition to permit interest (Laiou, 2003, p. 216). Byzantine religious authorities condemned only immoderate interest, which was also forbidden by civil law. This history accords with the logic presented in this paper: despite the early Christian legacy of banning interest, the "dependence" of Byzantine religious authorities on political authorities entailed a situation in which the latter openly permitted interest with the support of the former.[34]

The secular legality of interest affected the type of exchange contracts permitted in medieval Byzantium. Though few records of commerce in Constantinople survived its fall in 1453, numerous Italian records of transactions conducted with Byzantine businessmen suggest that Italian-style bills of exchange were widely employed in Byzantium. Currency was easily convertible in Byzantium, and Italian merchants took advantage of differences in local exchange rates to conceal interest, as they did throughout Europe. For example, several exchange contracts involving Byzantine and Greek businessmen analyzed by Laiou-Thomadakis (1981) involved bills purchased in one currency in one location payable in a different currency in another location.[35]

The Byzantines were borrowers, not creators, of these financial instruments. In fact, the very region most likely to support indigenous Byzantine exchange institutions – the eastern Mediterranean – was heavily dominated by the Italians, who profited greatly from the extraterritorial privileges granted to them by Byzantium. As Laiou-Thomadakis (1981, p. 211) notes, "the greatest disability of the Byzantines was that they could not participate in the primary forms of international trade, for the Italians controlled the most important prerequisites for this: communications through their fleets, the money markets through their elaborate banking and financial techniques, and the information mechanisms through their system of representatives in all important trade centers".

Thus, endogenous processes like those in Europe which facilitated the growth of impersonal exchange – exemplified by the Medici "hub-and-spoke" system – did not emerge in Byzantium. The reason for this is that the commercial revolution materialized in nearby Italy well before any such phenomena took place in the East. Western bills of exchange were readily accepted in the Eastern Christian world, suggesting that – unlike in the Islamic world – religious and civil law would not have been an impediment to the emergence of complicated transactional forms in which guaranteed interest was openly taken. Yet, as suggested in the introduction, the argument in this paper is not a deterministic one – institutions supporting impersonal exchange do not *necessarily* arise when earning profit on exchange transactions is legal. Instead, this argument is one about relative incentives and the broader, path-dependent consequences of seemingly innocuous institutional differences. The emergence of institutions supporting impersonal exchange in Western Europe was dependent on a complex web of interrelated political, economic, and social events (such as the commercial revolution, advances in transportation, and stricter standards of weights and measures), *one of which* was the inclusion of a currency exchange transaction in the bill of exchange.

6. Conclusion

This paper analyzes one of the many avenues through which institutions that supported impersonal exchange emerged in Western Europe but not in the Middle East. It explores the consequences of the differing relationships between political and religious authorities in the Islamic and Western Christian worlds, arguing that these distinctions entailed differing enforcement of interest restrictions, which affected the method through which exchange transactions transpired, which resulted in divergent endogenous processes essential to the build-up of institutional complexes supporting impersonal exchange in the two regions. Fig. 1 summarizes this argument.

Middle Eastern institutions did not need to evolve like Western ones in order to promote economic development. Yet, the incentive structures imposed on capital-wealthy entrepreneurs by religious and secular interest laws as well as the broader institutional structures had a practical economic effect – manifested in the relegation of long-distance Middle Eastern fi-

[34] For a more in-depth analysis of the Byzantine canonists' views on usury, see Laiou (1991).

[35] Also see Peragallo (1977), who analyzes the account book of Jachomo Badoer, a Venetian merchant who had extensive dealings in Constantinople. Peragallo argues that interest was not a hidden factor in the exchange rates, but this is likely because Badoer was employing bills as an instrument of trade, not finance. For more on Badoer, see Mueller (1997, 316–317).

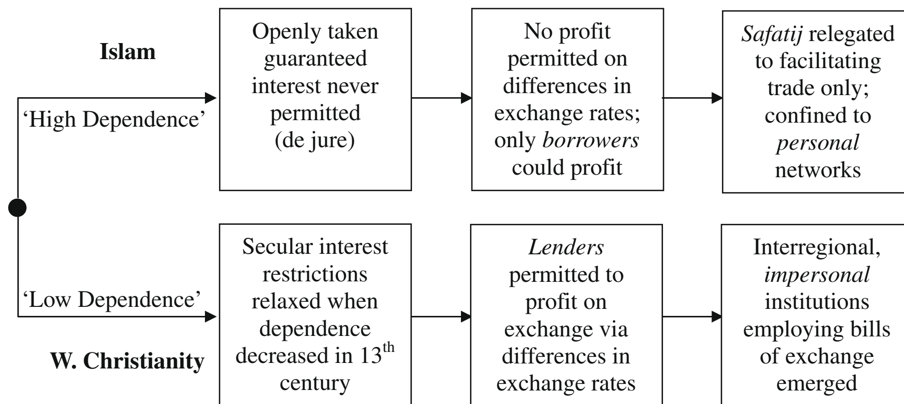

Fig. 1. Overview of the argument.

nance to networks of personal–familial relations – and were among the many factors contributing to the relative underdevelopment of the Middle East over the last seven centuries.

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