

Legal Competition in the Medieval World

Aaron L. Bodoh-Creed, Cornell University *

June 30, 2009

Abstract

We develop a model of competition between legal systems with overlapping jurisdictions based on Hotelling competition that suggests that, absent institutional reform, courts with overlapping jurisdictions will be driven to adopt divergent legal doctrines in order to extract rents from agents with heterogeneous preferences over which doctrine is applied to their case. This has the effect of weakening the ability for relational contracting to be self-enforcing and lowers the volume of trade possible. This article provides an historical overview of the source and nature of some of these overlapping jurisdictions in the medieval era and the variety of legal regimes active across jurisdictions. Several institutional reforms, such as the system of merchant law that developed in continental Europe, are discussed as potential solutions to the problem of legal competition.

1 Introduction

Legal enforcement of contracts has long been recognized as a principal component of effective economic relations. In modern applications of contract theory, it is often taken for granted that a single, unified legal system will enable the agents to enforce the terms of the contracts as written. In practical terms, faith that the terms of a contract can be enforced via coercive governmental authority serves as the basis for trade in which the exchange of goods and money is separated over time or geography. For many economic endeavours, such as principal-agent relations, the very nature of the goods being exchanged entails such a separation.

*The author would like to thank Avner Greif and Isabelle Sin for invaluable discussions regarding this topic. This work is preliminary - please do not cite without author's express permission. E-mail: acreed@cornell.edu

For small transactions it may be the case that contracts are governed within the jurisdiction of a single, clearly identified sovereign that can interpret and enforce the agreements. However, in instances of interstate trade, it is often unclear which state's legal regime is applicable. This problem is all the more vexing when the legal regimes have material differences in either contract enforcement or methods for calculating damages contingent on the judgement that a breach occurred. This can create incentive problems for the agents since they will take into account the possibility of an unfriendly sovereign hearing the case when the contract is written. In the modern world, the ability to select the jurisdiction within which a case is heard is known as *forum shopping*.

The principal goal of this paper is to consider the effects of overlapping jurisdiction within the context of past and present economies. Specifically, we will examine the case of medieval economic development in western Europe, an environment in which economic and political systems developed in conjunction with increased international trade. The insights we derive in this setting also apply to instances of jurisdictional overlap in tightly integrated economies such as the European Union and interstate trade within the United States, economic units that are plagued by overlapping legal systems. We will develop a tractable demand side model of contracting related to the anonymous matching literature (Ghost et al. [5], Kranton [9], Watson [19]). The focus of our analysis is a novel model for the supply side competition of legal enforcement through the horizontal differentiation of the legal regimes in each jurisdiction. We will find that overlapping jurisdictions provides an incentive for legal systems to compete and issue biased judgements. As a result, the set of self-enforcing contracts the agents can create shrinks, which in turn has deleterious effects on economic development.

The structure of the paper is as follows. Section 2 develops the historical background, discusses the overlapping jurisdictions within the medieval world, and provides examples of the diversity of legal judgements amongst these jurisdictions. Section 3 provides a brief overview of the model and analysis. Section 4 develops the relational contracting model that forms the demand side of the model. Section 5 develops the model of inter-court competition that comprises the supply side of our analysis. Section 6 discusses the analysis and the institutional solutions that mitigated the detrimental effects of inter-jurisdictional legal competition. Section 7 concludes.

2 History

The focus of this paper is on the importance of a phenomenon known within the modern legal world as forum shopping. Forum shopping specifically refers to the choice of a litigant as to the court in which to plead his case. Obviously the litigant has an incentive to choose the court system that is most likely to interpret the facts of the case in his favor and, contingent on winning the case, make a generous award. To determine that forum shopping could have been an influential force in contracting in the medieval world, we are required to establish two facts. First, there must have been the existence of courts that possessed overlapping jurisdictions. This allows the agents to have a non-trivial choice as to where to wage their case. Second, given courts with overlapping jurisdictions, it must be that the *ex ante* expected outcomes differ for the litigant in these courts. It suffices for our study to show that there existed a diversity of overlapping legal doctrines within the medieval world. Once these two facts are adequately established, we can use them as a basis for our model of the supply of and demand for contract enforcement.

2.1 Common, Civil, and Merchant Law

Legal history in Europe is dominated by two traditions: common and civil law. The common law regime developed in medieval Britain and is characterized by a system of courts divided into parallel jurisdictional hierarchies. Within each hierarchy, prior decisions by judges in higher courts have the weight of law (called the principal of *stare decisis*) and form a body of precedent that is used in forming judgements in subsequent cases. Litigants are usually allowed to appeal rulings to a higher court within the hierarchy. As the English government has developed in the modern era, the power of judges to create law via precedent has receded as legislatures have developed the power to formulate statutes that describe laws that are in turn interpreted by the judicial system.

The civil law tradition is by far the older and more prevalent system within continental Europe. This form of law is descended from the Roman emperor Justinian's *Corpus Juris Civilis*. Civil law emphasizes the use of statutes handed down by sovereigns that are applied mechanically by judges and, in principle, leaves little room for judges to reach novel legal outcomes through the interpretation of statutes and the facts of the case. This emphasis on mechanical execution of complete, coherent statutes provides a certainty to the legal system at the cost of the equity allowed by tailoring rulings to the facts of each case.

Judicial decisions do not have the character of law and have no binding influence on future judgments other than providing a suggestive model for the application of a statute.

The merchant law system developed in both common and civil law jurisdictions in medieval Europe to serve the customary needs of the local merchants. Law merchant judges were used to regulate transactions at Champagne Fairs [13] in the 10th and 11th century. Permanent merchant courts formed in the cities of northern Italy and other municipalities as these political entities gained the independence to regulate their own affairs. These merchant courts were often the result of pressure applied by merchant guilds on the municipal authorities to cede jurisdiction over mercantile matters to specialized courts. For example, it was not until 1233 that the ordinary courts and magistrates of Pisa ([14], p. 45) conceded jurisdiction over the majority of commercial disputes within the city. The practice spread to other regions as trade took on greater importance in those regions. Merchant courts were gradually incorporated into the sovereigns' legal systems in the 18th and 19th century with the effect of codifying the customary practices of the merchant class alongside the much older civil law structure inherited from Roman law.

2.2 Diversity of Rules

In the feudal period, judges within the civil law tradition had considerably more power than their modern day equivalents. It was not uncommon for judges to issue self-interested misinterpretations of a sovereign's laws or to entirely ignore laws when convenient (Mer-ryman et al. [12], p. 18). Although modern governments have gone to great lengths to restrain the power of the judiciary through precisely written statutes, commercial law in the civil law tradition has often been sufficiently vague that it required significant interpretation by the judges. For example, in the modern Italian civil code judges are advised to assess damages according to equitable principles with little guidance as to what these principles ought to be. Therefore, both in the past and present, judges within the civil law system had significant de facto authority to interpret the statutes they were directed to apply. This provides a source of diversity of legal regimes across courts that, in light of the common heredity of the civil law systems, may surprise the reader familiar with the history and philosophy of the civil law tradition.

Merchant law (*lex mercatoria*) developed in the medieval period in both common and civil law jurisdictions as an alternative to the regular court system. One principal reason for the development of merchant law is that other legal systems often did not recognize

the customary transactional forms merchants used in their contracts. For example, it was not until 1692 that a Bill of Exchange was enforced by the common law courts of England, although such contracts were in use prior to this time (Mitchell [14], p. 92). Roman law also did not recognize the validity of consensual contracts that governed commercial partnerships and principal agent relationships (Mitchell [14], p. 102). Although the merchant law was developed in different regions and different times and sought to apply local mercantile customs adapted to local trade, they often shared common views on contracts and other commercial relations that were, from a mercantile perspective, superior to those embodied in the sovereign's court system.

However, even the merchant law was not uniform throughout Europe. In the medieval era, the Earnest Penny consisted of a modest down payment on a purchase that signaled the buyer's commitment to accept goods from the seller at a later date. This was a crucial trade device since traders would often bring only a sample of their goods to trade fairs and use agreements relying on the Earnest Penny to execute large volumes of trade at a later date. The opportunity cost for a seller of committing to trade with a buyer was exceptionally high and some assurance was required that the buyer would not renege on a trade at the last moment. In fact, if transport costs were high, the ability for a buyer to renegotiate the terms of trade might have taken the form of a hold-up problem that could have crippling effects on long distance trade.

Mitchell ([14], p.3) provides examples of the varied interpretations of the role of the Earnest Penny in finalizing a contract. At various times and in various jurisdictions, merchant law courts considered the custom of the Earnest Penny completely non-binding, a bond against later breach of contract, or material consent to the finality of the contract. Sachs [17] provides evidence that even within the relatively small geography of England a diversity of views regarding the proper interpretation of the Earnest Penny prevailed. In the fair court of St. Ives, payment of the Earnest Penny signaled the completion of the sale and all parties were committed to completing the contract. In Preston, the Earnest Penny served as a form of bond and sales could be canceled prior to delivery of the goods with the repayment of twice the value of the bond.

A buyer accused of breach of contract would clearly prefer to be judged in a mercantile court of Sicily, which viewed the Earnest Penny as merely a bond, rather than a court of Northern Italy, where the Earnest Penny was usually seen as making the contract binding and the breacher thereby liable for full compensation. In this case, the ability of the agent to choose the forum that hears the case could have a grave impact on the incentive effects

of the Earnest Penny custom. Given the importance of the Earnest Penny as a tool for exchange, one might have expected that uniform, predictable rulings by courts regarding its meaning would be crucial for trade. The very nonuniformity of such an important trade custom suggests the possible existence a myriad of differences over other important issues of commercial law.

One source for this nonuniformity is based on the procedures of the merchant law courts. Often the judgements were handed down by juries consisting of local merchants. To the extent that the merchant populations in different regions had correspondingly diverse opinions regarding the equitability of judgements, one ought to expect merchant law court judgements to vary. This is a reflection of the merchant law courts' basis in custom, which has the potential to favor the idiosyncratic needs of local merchants.

2.3 Diversity of Courts

As noted above, merchant law developed as an alternative for the merchant community to appealing to the regular court system to enforce contracts. The case of Pisa is suggestive, since the merchant law courts were required to wrest jurisdiction over commercial cases from the civil courts over a long period of time. Similar processes are evident in Valencia and other major trading centers that developed a system of merchant law courts. This suggests that for a potentially lengthy period, merchants could employ either the merchant or the civil courts to enforce their contracts. Litigants presumably attempt to employ whichever court system they found friendliest to their case.

Merchants engaged in international trade may not be collocated at any point of an economic relationship, and the choice of jurisdiction is correspondingly complicated. Many medieval courts were hostile to the claims of alien merchants ([14], p. 85). Evidence of this can be seen in the extent to which powerful communities of traders went to secure a friendly venue to hear their claims. For example, Venice forced several trading partners to accept the presence of Venetian judges to hear the claims of Venetians abroad ([14], p. 52). Presumably other powerful city-states, notably those of Northern Italy, attempted to seize from local courts jurisdiction over disputes involving their citizens abroad. This solution to jurisdictional overlap would only be possible when the balance of power between the trading partners was starkly different - few sovereigns would be eager to surrender their rights and privileges to a foreign power.

Sachs [17] provides three-fold evidence on jurisdictional overlap of merchant courts

within England. First, a large number of commercial cases continued to be tried within the common law system even though local mercantile courts were available to hear the case. Given the sharp differences between the merchant and common law interpretations of economic relations, this suggests that agents may have been exploiting these differences for their own ends. Second, merchants had the option of appealing the decisions of merchant law courts at fairs to royal courts that employ common law principles ([17], p. 36). Therefore, even where merchant law would appear to have strict jurisdiction (ex: the fair at St. Ives), merchants could exploit latent jurisdictional overlap. Third, merchant law courts in England were perceived to have jurisdictions of wide and ambiguous geographic scope ([17], p. 67). Courts were known to have asserted jurisdiction over any dispute for which the disputants could be induced to attend court. There is evidence in the record of the St. Ives court judging commercial contract disputes wherein both the location at which the contract was finalized and the location of planned execution were outside of the St. Ives fair. With such broad jurisdiction, litigants have flexibility in determining when and where a case would be heard.

3 Analysis Overview

This work emphasizes the effect of overlapping jurisdictions on the efficacy of the courts in enforcing contracts and the resultant effects on the agent incentives at the time of contracting. Any of the jurisdictional overlaps described above could be treated within this framework. For example, one could consider the overlap between the common and merchant law systems within England or conflict between the merchant law in separate states. Anytime that the sides of the contract find it feasible and desirable to apply to different judicial authorities to hear the dispute, the model below will apply. Our model will abstract away from many of the details of the legal systems to capture the fundamental character of the incentives.

Since our focus is not on the legal system per se but its effects on the incentive system within which the economic agents interact and form contracts, we will require a model of contracting for the agents. Our model is based on the familiar Trust game, which captures the notion that one side of the contract has an incentive to default in the absence of any reputational (repeated game) or legal incentives. Our model will allow the payoffs to be scaled to account for economic relationships of different significance and include a choice on the part of the agents regarding which of several biased courts in which to seek a hearing

in the event of breach of contract. These features allows us to explore the effects of an exogenously determined selection of legal systems on the set of self-enforcing contracts.

To close the model, we also require a model that describes the decision of the legal systems on how to interpret and enforce contracts. We assume the courts compete within a Hotelling competition framework to attract cases, which leads to the outcome that the biases of the court become polarized. The use of a Hotelling model has the benefit that the qualitative outcomes of the model have proven robust to a variety of extensions. Interpreted within our demand side contracting model, we find that in equilibrium the legal systems choose biases that limit the agents to the smallest set of self-enforcing contracts possible.

Finally, we discuss institutional reforms that could be used to improve the set of contracts to which the agents can commit, some of which appear within the historical record. Our model provides a theoretical justification for the implementation of these policies and explains how these reforms changed the incentives of the agents in the economy. We also discuss some potential extensions of our model to other areas that are, at present, outside of the scope of this study.

4 Demand Model

4.1 Model Definition

In this section we will outline the model of demand for legal regimes on the part of the contracting agents. We will focus on a simple reduced form model of the contracting process in order to focus attention on the upstream effects the issue of legal regime choice has on the efficiency of contract. We will leave the issue of how the set of legal regimes develops, the supply side of the model, until the next section.

We will assume that the players are participating in a principal-agent relationship wherein each period one merchant provides capital (i.e. trade goods, funding an investment opportunity) and the other player acts as an agent executing an economic transaction. The relationship between the players is assumed to be repeated with discount factor δ , which captures the notion that players with a successful past relationship can use the prospect of future collaboration to insure that the parties carry out their portions of the agreement reliably. Each period of the game consists of a two period subgame as described in the figure below:

<INSERT FIGURE ONE - GAME TREE>

In the first subperiod, the principal chooses the size of the contract that they will execute with this denoted by the variable a . In agency contracts such as a "commenda" contract ([14], p. 124) in which a principal provides capital for an agent to trade in a foreign port, the variable a represents the amount of capital provided to the agent. In the applications considered in this paper, larger contracts increase the payoff, denoted $v(a)$, for both players if the agent executes the transaction faithfully. If the agent chooses to cheat the principal, then the agent earns a payoff $d(a) > v(a)$ and the principal suffers losses $l(a) < 0$. For an agency contract, this could represent the agent absconding with the principal's goods or the agent withholding remittance of the full profit

In addition, we will assume that there exists a chance ρ that the transaction fails for reasons outside of the control of either agent. In the case of trade goods, this could represent either piracy or inclement weather that sinks a ship on which the product was being shipped. Investment relationships could fail due to adverse market conditions unforeseen by the agent. In the event of exogenous failure, the agent is assumed to be unable to provide verification of the exogenous failure to the principal. Therefore, the principal will not be able to discern whether the agent cheated or the failure of the contract was outside of the agent's control. While this assumption is extreme, we consider this a reduced form for cases where the agent could manipulate available signals of exogenous failure to hide his own malfeasance. This converts the game into one of imperfect public monitoring and provides an avenue for the use of the legal system, described below, to be used on the equilibrium path. In the event the contract fails, the principal and the agent are both assumed to lose $l(a)$. In the case of the principal this reflects direct pecuniary harm, whereas for the agent it can reflect opportunity costs. Since our analysis is concerned exclusively with the incentive constraints of the agent, the exact forms of the parties losses will not affect our analysis.

The payoffs described above are captured in the following payoff matrix. If the agent chooses to break (fulfill) the contract in period t , we let $c^t = 1$ ($c^t = 0$). We list the principal's payoff before the agent's within each cell of the matrix. To capture the respective roles of these payoff functions, we will assume that $v'(a) > 0$, $v''(a) < 0$, $v(0) = 0$, $d'(a) \geq 0$, $d''(a) > 0$, $l'(a) \leq 0$, and $l''(a) \leq 0$.

	$a \in \mathbb{R}_+$
$c^t = 0$	$v(a), v(a)$
$c^t = 1$	$d(a), l(a)$

If the contract is not fulfilled, either because an agent defected or due to random circumstance, the agents have the ability to appeal to the courts for compensation. As discussed above, often there are multiple courts with overlapping jurisdictions available to the agents. The courts available to the agents are defined by the choice set $C = \{e_j(a)\}_{j=1}^J$ where the term $e_j(a)$ represents the expected payment from the agent to the principal contingent on the case being heard in court j when the contract has a size a . We will assume that $e'_j(a) \geq 0$ and $e''_j(a) \geq 0$. There is also a null court, e_0 , included in C to represent the choice not to seek a judgement in court. We will assume that if both agents seek a court judgement, each agent has a 50% chance of his choice of jurisdiction being honored.

The expected payment by a court, e_j , is composed of two components. First, the probability of the judgement going in the litigant's favor is an issue. As discussed above, this could turn on a variety of differences in the legal system including different traditions on how incompleteness of contracts is resolved, different interpretations of legal jargon, simple bias in the court system towards one agent or the other, or the information verifiable in court as to whether malfeasance occurred. Second, the courts could employ different notions of how damages are to be computed. One significant difference between the various interpretations of the Earnest Penny are the prescriptions for assigning damages. In modern contract law, there are several different techniques for computing the damages at judgement (see [8] for an overview).

The most fundamental omission from our model is in the ad hoc way in which conflicts over choice of venue are determined. Although a wide array of venues for judgements are mentioned in the literature, the historical record provides little guidance as to how private parties determined which venue to employ or how courts might have resolved conflicting claims in different venues. Given that both agents must be induced to appear in court, this provides evidence that all parties had some leverage to choose the venue in which to appear. We have made the choice to assume that each agent has an equal chance of obtaining their most desired jurisdiction. However, it could be that agents have differential

power in determining which jurisdiction pertains. For example, a large merchant might be able to force an agent to abide by a judgement favorable to the merchant. On the other hand, an agent residing in a foreign state might only be compelled to obey a judgement in a court of his home territory, which would constrict the merchant to choose a court within the geographical local of the agent. Finally, it is possible that agents could seek multiple, potentially conflicting judgements, from separate courts. This latter possibility, while perhaps the simplest to model, would generate extreme outcomes without obvious documentary support within the historical record.

4.2 Equilibrium Analysis

We will employ the notion of a perfect public equilibrium (PPE) using the contract's successful execution as the public signal (for a survey of the PPE literature, see [10]). We will focus our analysis on the largest contract that is consistent with a PPE in the game outlined above. As usual in the imperfect monitoring literature, to support a high value of a it is necessary to use the severest possible punishment in the event of the failure of the contract. In this model, the optimal punishment one agent can inflict on another is to seek the highest expected court judgement and then terminate the trade relationship following the trial. Given these equilibrium actions, our challenge is then to find the value of a such that the incentive constraints strictly bind for the agent.

The payoff to an agent from trying to fulfill a contract of size a is

$$V = (1 - \rho) * [(1 - \delta) * v(a) + \delta V] + \rho * (1 - \delta) * [l(a) - \frac{e_A^*(a) + e_P^*(a)}{2}] \quad (4.1)$$

where V is the present value of future income when the contract is executed in the present period, δ is the agent's discount factor, $e_A^*(a) = \min \{e_i(a) : e_i \in C_A\}$ is the agent's preferred jurisdiction, and $e_P^*(a) = \max \{e_i(a) : e_i \in C_P\}$ is the principal's preferred court. Note that each agent has his choice of court realized with probability $\frac{1}{2}$, the expected payment if the contract is taken to court is then $\frac{1}{2}(e_A^*(a) + e_P^*(a))$. The payoff to defection is then

$$(1 - \delta) * \left[d(a) - \frac{e_A^*(a) + e_P^*(a)}{2} \right] \quad (\text{Defection Payoff})$$

First, we can compute the net present value of cooperation as

$$V = \frac{(1 - \delta)}{[1 - (1 - \rho) * \delta]} \left[(1 - \rho) * v(a) + \rho * \left(l(a) - \frac{e_A^*(a) + e_P^*(a)}{2} \right) \right] \quad (\text{Cooperation Payoff})$$

Our incentive constraint is then

$$\frac{1}{[1 - (1 - \rho) * \delta]} \left[(1 - \rho) * v(a) + \rho * \left(l(a) - \frac{e_A^*(a) + e_P^*(a)}{2} \right) \right] \geq d(a) - \frac{e_A^*(a) + e_P^*(a)}{2} \quad (\text{Incentive Constraint})$$

For simplicity, we will assume that $\frac{d}{da} \left[(1 - \rho) * v(a) + \rho * \left(l(a) - \frac{e_A^*(a) + e_P^*(a)}{2} \right) \right] > 0$ at $a \geq 0$.

Proposition 1. *For ρ small enough and δ large enough that there exists an $a > 0$ such that this inequality is satisfied. Further, if the inequality holds strictly for a^* , it holds weakly for all $a \in [0, a^*)$ and is violated for $a > a^*$.*

Proof. For the first portion of the proposition, it suffices to note that for ρ small enough and δ large enough, the left side of the inequality can be made arbitrarily large. For the second part, note that from the concavity of $v(\circ)$ and $l(\circ)$ and the convexity of $d(\circ)$, we know that the right and left hand sides of the inequality cross at most once at $a > 0$. In addition, for small decreases of a from a^* , we have that the derivative of the left side is smaller than the right side, implying that the inequality continues to hold. Together these facts imply the second claim of the proposition \square

We would like to examine the effect on the set of self-enforcing contracts of both a change in the exogenous preference and technology parameters (δ, ρ) and the legal regime in place in the economy.

Proposition 2. *a^* is increasing in δ and decreasing in ρ . If $\tilde{C}_A \subset C_A$, then the set of self-enforcing contracts is larger under \tilde{C}_A (a^* is larger under \tilde{C}_A). If $\tilde{C}_P \subset C_P$, then the set of self-enforcing contracts is larger under C_P (a^* is larger under C_P).*

Proof. Note that increases in δ or decreases in ρ increase the derivative of the left hand side of the inequality. This implies that the a^* at which the inequality is satisfied is increasing in these variables. It is obvious that $e_A^*(a) = \min \{e_i(a) : e_i \in C_A\} \leq \min \{e_i(a) : e_i \in \tilde{C}_A\} = \tilde{e}_A^*(a)$. Note that if the incentive constraint inequality holds strictly

given $e_A^*(a)$, then the inequality holds weakly under $\tilde{e}_A^*(a)$. Symmetric logic proves the comparative static regarding $\tilde{C}_P \subset C_P$. \square

The last comparative static is the crucial one for our demand side analysis as it examines how the supply of legal systems and the overlapping jurisdictions affect the ability for the agents to form contracts. This comparative static result captures the intuition that if the agent cannot precommit to seeking justice in a particular forum, then he will ex post have an incentive to apply to the most favorable venue and this reduces the punishment the principal can use to effect good behavior from the agent. Conversely, courts that inflict harsh penalties on agents upon the breach of a contracts can be used by the principal to re-enforce the shadow of the future that incentivizes the agent.¹

5 Supply Model

5.1 Background

The bulk of the economics literature, most notably the contract theory and mechanism design literature, assumes a perfect, impartial legal system exists to efficiently punish parties that breach contracts. The assumption of an exogenous, mechanical court system is overly strong along two dimensions. First, it is assumed that all courts would issue ex ante identical rulings regarding any breach of contract, which effectively assumes that forum shopping is futile. Empirical evidence of forum shopping on a wide scale both in the modern and the medieval world is sufficient to cast doubt on this premise. Second, the courts are assumed to have no discretion in their rulings or ability to extract rents from the litigants. In fact, much of the law and economics scholarship assumes that, to the extent legal system are designed or compete amongst each other, the end goal is economic efficiency rather than self-interested aims on the part of legal actors. As discussed above evidence of judicial rent seeking is a frequent occurrence in history, and remains present to this day as evidenced by concerns over judicial partiality requiring judges to recuse themselves from certain cases. The supply side framework analyzed below can be seen as

¹The players of the game are all assumed to be risk neutral for expositional ease. To the extent the agents are risk averse, then increasing the difference in $e_A^*(a)$ and $e_P^*(a)$ will lower the utility of both agents by a greater degree than this model predicts. Further, the risk-reduction entailed by the ability to precommit to use a court could enhance efficiency without any other changes in the legal systems available prior to committing.

a first step towards understanding interrelationships between the incentives of the designers of the legal system, how these incentives influence the choice of legal system implemented, and how this in turn influences the contracting choices in the economy.

The most prominent models of competition between legal systems focus on the analysis of the relative importance of transaction costs between the competing legal systems (for example, see Mattei [11] and Ogus [15]). This framework assumes that the efficiency of legal systems can be compared on the basis of the transaction costs added to the economic activities of the contracting parties. From this perspective, legal systems will adopt more efficient practices over time, which will lead to a convergence of legal systems to the lowest transaction cost form. Economic agents will hasten this process by selectively employing more efficient legal system when they are available and, if the creators of the legal system derive rents from this activity, provide an incentive for sovereigns to actively design efficient legal regimes.

The transaction cost literature places an emphasis on states encouraging efficient contracting with the implicit argument that this will serve the interests of the sovereign. Little attention is given to the precise incentive structure relating the state's choice of law and the economic agents' activity or how these two factors influence each other in equilibrium. Although some role for the law to be chosen by special interests is sometimes noted, usually it is assumed that these result in, at most, mild inefficiencies and are not explicitly modeled. The potential capture of the legal system by special interests, in our case the parties to a contract, and the effect this will have on upstream contracting will be the focus of our analysis.

Separately, legal scholars have studied the notion of regulatory competition in the provision of public goods. A canonical early model by Tiebout provides the framework for a large literature applying these ideas to the law. The Tiebout model assumes that agents have a choice as to which jurisdiction in which to reside, and each jurisdiction is controlled by a sovereign that provides public goods for the agents residing within their jurisdictions. The principal intuition from the model is that since the agents can switch residences, the sovereigns will have an incentive to compete using the level of public goods provided. The insights from these models have been employed in the law and economics literature to explain, for example, the prevalence of U.S. firms incorporating within the state of Delaware.² This literature suggests the possibility of a spoilage of the commons

²Over 40% of the firms listed on the New York Stock Exchange are formally incorporated within Delaware. Commentators argue whether this is due to laws that favor efficient corporate activity (ex:

type problem wherein regulators apply an inefficiently low level of regulation in order to attract firms from whom the government can capture rents. Clermont et al. [3] provides another modern day example in the discussion of the role of change of venue motions in the trial of civil disputes in the United States. In this case, the parties to the dispute argue in formal proceedings as to the proper venue for a case with the intention of using the choice of venue to enhance bargaining positions in pre-trial settlement negotiations.

The focus on public goods by authors in the regulatory competition tradition implicitly assumes that the states are engaged in a form of vertical competition. From the perspective of the agents, the public goods that are on offer such as low tax rates or legal regimes are valenced products - all of the economic agents agree that they would like more of the public good at lower cost. In our model, agents will have divergent opinions as to the optimal choice of public good. This will have the effect of a race to the extremes by the legal systems, implying the existence of a diversity of legal regimes, rather than a race to the bottom.

5.2 Model

We will assume that the jurisdiction shared by each court contains a unit mass of agents and a unit mass of principals that must match each period and form contracts in order to reap payoffs as per the demand model above. For ease of analysis, we will assume that the agents do not suffer any losses upon breach of contract (see the discussion following the proposition below). We will assume that at time $t = 0$ each of two legal systems sharing a single jurisdiction choose values $e_j \in [0, 1]$ that denote the expected payments from the agent to the principal as a fraction of the principal's losses.³ These payments are only made if the case is heard in court j .⁴ For example, an extreme value of $e_j = 1$ would then entail the court requiring the agent to compensate the principal for the full value of his losses with ex ante certainty. The commitment of the courts to their action captures the fact that legal systems and the biases inherent in them represent a custom with a life much longer than the duration of a single contracting relationship. It also analytically convenient in that the supply side model is a static game with a correspondingly simple

taw law structure) or whether it is (presumably inefficient) lax standards in corporate governance law.

³This formulation does not allow for either punitive damages in excess of the material damages suffered by the principal or fines paid to the agent in the event the principal loses the case in the court. Neither addition would change the qualitative conclusion of the model.

⁴The notation is slightly different here than in the demand-side section in that court judgements will consist of a fine paid to the court (denoted r_j) and a direct payment to the other party ($-1 * e_j * l(a) \geq 0$).

analysis.

Given that a case is tried within its court, we will assume that sovereign j can extract rents r_j from the agents. r_j is assumed to be an object of choice for sovereign j and plays a role analogous to product price in a Hotelling model of product market competition. In our formalism, these rents provide the designers of the legal system with an incentive to cater to the contracting agents' preferences. This could represent anything from a direct fee for conducting a trial to a tax imposed on the parties to have access to the court system. Charters, such as that for the fair conducted by the abbot of Ramsey (the fair at St. Ives), explicitly granted rights to the profits generated by the court ([1], [17] p. 14). The revenues from the courts included fines imposed on defendants when the jury decided for the plaintiff as well as fines against the plaintiff for filing a 'false claim' when the court decided in favor of the defendant. Sachs [17] (fn 43) argues that the contents of the court records suggest an emphasis on the revenue streams generated by the cases rather than an effort to formalize a record of legal precedent. In addition, one can point to the fact that positions of legal authority were sufficiently desirable that they were bought and sold for positive prices (Merryman [12], p. 16) as evidence of the importance of revenues from the legal system.

A modern example of this rent extraction can be seen in the history of U.S. state corporate law ([6]). During the late 1800s, the U.S. state of New Jersey established a set of corporate laws friendly to corporate trusts and monopolies, but imposed a higher than average corporate tax (known as a franchise tax) as the cost for incorporating in the legal regime. Some authorities argue that Delaware's present status as a center for incorporation is the result of the state using lax incorporation laws to extract rents in the form of franchise taxes. The qualitative results derived below will hold so long as there is some incentive by the courts to induce agents to file suit within their jurisdiction.

Proposition 3. *The unique symmetric Nash equilibrium of the supply side of the model has the outcome $e_i = 1$, $e_{-i} = 0$.*

Proof. We will take as a notational convenience that $e_1 \leq e_2$. In this case, all of the agents will attempt to have their case heard in court 1, while the principals will attempt to have

the case heard in court 2. The payoffs for the agents are

$$\begin{aligned} V_A(e_1, e_2) &= \frac{(1-\delta)}{[1-(1-\rho)*\delta]} \left[(1-\rho)*v(a) + \rho*l(a)*\left(\frac{e_1+e_2}{2}\right) \right] \\ V_P(e_1, e_2) &= \frac{(1-\delta)}{[1-(1-\rho)*\delta]} \left[(1-\rho)*v(a) + \rho*l(a)*\left(1-\frac{e_1+e_2}{2}\right) \right] \end{aligned} \quad (5.1)$$

Recollecting that $l(a) < 0$, it is obviously in court 1's interest to choose $e_1^* = 0$ and in court 2's interest to choose $e_2^* = 1$ to maximize profits. Note that since $V_A(e_1 = 0, e_2 = 1) = 0 \geq V_A(e_1 = 1, e_2 = 1)$ and $V_P(e_1 = 0, e_2 = 1) = 0 \geq V_A(e_1 = 0, e_2 = 0)$, the agents continue to strictly prefer court 1 and the principals strictly prefer court 2.

If we assume that the courts must respect an individual rationality constraint that $V_A, V_P \geq 0$, then the courts choice of rents must obey the following inequalities

$$V_A(e_1, e_2) - r_1 = \frac{(1-\delta)}{[1-(1-\rho)*\delta]} \left[(1-\rho)*v(a) + \rho*l(a)*\left(\frac{e_1^*+e_2^*}{2}\right) \right] - r_1 \geq 0 \quad (i)$$

$$V_P(e_1, e_2) - r_2 = \frac{(1-\delta)}{[1-(1-\rho)*\delta]} \left[(1-\rho)*v(a) + \rho*l(a)*\left(1-\frac{e_1^*+e_2^*}{2}\right) \right] - r_2 \geq 0 \quad (ii)$$

$$2 * \left(r_1 + \frac{1}{2} * \frac{(1-\delta)}{[1-(1-\rho)*\delta]} \rho * l(a) \right) \leq r_2 \quad (iii)$$

$$2 * \left(r_2 + \frac{1}{2} * \frac{(1-\delta)}{[1-(1-\rho)*\delta]} \rho * l(a) \right) \leq r_1 \quad (iv)$$

i) and ii) represent the individual rationality constraints, while iii) and iv) must hold to prevent the courts from undercutting each other and seizing the entire market. A solution obviously exists to this system since all constraints hold at $r_1 = r_2 = 0$ and, at the optima, two of the four will generically bind. Note that if only (i) and (ii) bind, then the courts completely extract the rents from the agents. \square

Complete divergence is most likely not a robust finding of the model, but one would expect partial divergence under any model of this form since total convergence by the courts ($e_1 = e_2$) results in 0 profits. Several modifications of the model could limit the courts' incentives to completely diverge.⁵ For example, if the agents suffered significant

⁵There are modifications to the model we could incorporate that *increase* the incentives for the courts to diverge. For example, if the courts differ both in transaction costs and legal outcomes, the low transaction cost courts might use this advantage as a form of vertical competition in addition to the horizontal competition modeled above.

losses upon breach of contract or the principals earned greater profits than the agents when a contract was executed, this would put a limit on the rents that could be extracted. If the agents had a limited liability constraint placing an upper bound on the payment they could offer, then this would have the effect of bounding the fees charged the principals. Finally, if each court had exclusive jurisdiction over some population of principals and agents, then the courts would have an incentive to apply a rule that would encourage efficient trade in the population within its sole jurisdiction and thereby raise the rents that could be extracted once these agents appealed to court. This final modification has similarities to models of multi-market competition and, if the court was required to apply a uniform rule to all litigants, would curb the courts incentives to completely diverge from each other in policy.

6 Discussion

The above model of competition between the legal systems of two sovereigns was based on the Hotelling model of differentiated product competition. As such, it is obvious that there will be divergence in the characteristics of the legal systems implemented by the two sovereigns as the existence of identical legal systems prevents the extraction of rents from the economic agents. From the extensive literature on the Hotelling model within the industrial organization literature, we know that the above qualitative conclusions will be robust to the addition of more courts, the extension of the space of characteristics of the legal system, and even the introduction of vertically differentiating qualities such as low transaction costs. The principal intuition is that, so long as courts have incentives to attract cases into their jurisdiction, the sovereigns will employ biases in the legal system to attract clients.

The net effect of the supply side competition is to lower the size of the set of incentive compatible contracts. Two potential institutional response are to clearly define the jurisdictions of the courts to be mutually exclusive or to allow the agents to contract about what court will hear their claims. Both of these have the effect of identifying which jurisdiction pertains to the enforcement of the contract, thus limiting the ability of the agents to forum-shop and restraining the incentives for the court systems to differentiate themselves in order to attract cases.

Mitchell ([14], p.2) cites evidence that debt contracts of merchants from Ypres feature clauses insisting that cases of breach of contract be contested in the courts of Ypres. To

the extent that these clauses are, in fact, valid principles on which to contract, the agents would then have an incentive to agree to employ a court whose level of bias insures that a high volume of trade is incentive compatible. However, to the extent that the available courts differ, this suggests an interesting problem wherein the agents would have to bargain in the shadow of the law over which court system to employ. Although outside the scope of this paper, if there are significant bargaining frictions, this process could be far from optimal.

A second potential solution is for the sovereigns to agree between themselves as to the jurisdictional boundaries of their courts. By monopolizing jurisdiction over commercial disputes, the merchant guild played a significant role in this process in the Italian city states of the Medieval era. For example, in 1233 the ordinary courts and magistrates of Pisa ([14], p. 45) conceded jurisdiction over the majority of commercial disputes within the city. Merchant courts with a broad jurisdiction were incorporated into the charter of Valencia ([14], p. 57-58). However, in 14th century England, the analogous institution, known as the Court of Admiralty, was accused of securing an excessively great jurisdiction over mercantile affairs. The central authority later limited this court's jurisdiction solely to matters involving foreign, sea-borne trade ([14], pp. 74-76). It is clear that even the institution of the merchant guild was not fully successful at resolving the matter of overlapping jurisdiction. So long as merchants could appeal to common law courts as well as local merchant courts, jurisdictional overlap would entail a loss of trade.

Hierarchical levels of sovereignty impose an added difficulty on the resolution of jurisdiction. In the modern day United States, in addition to forum shopping between the states for contract law, there is an issue of whether to resolve claims at the state or federal level and the subsequent question of which jurisdiction within the federal system. For example, the formation of the United States Court of Appeals for the Federal Circuit was explicitly designed to take certain classes of cases such as patent disputes out of the jurisdiction of the regular U.S. federal appeals court system. This specialization both fosters expertise within the justices and staff of the court on the subject matter and prevents litigants from forum shopping.

Ault [1] describes the system of hierarchical, feudal jurisdictions present in medieval England in a series of case studies. Of particular note for our purposes is the banlieu surrounding the monastery of Ramsey. The charter provided by King Edgar provides for the banlieu to have exclusive jurisdiction over matters of civil and criminal law. Ault cites instances in which cases were moved from the Royal court of the king into the court of the

banlieu for judgement with the jurisdiction provided by the charter stated as justification for the change of venue. Ault ([1] p. 120) describes several disputes over land-holdings and land-usage, all of commercial import, within the banlieu that were remanded to the local authorities. The clear jurisdictional authority provided by the charter prevented appeals to higher levels of feudal authority that might have allowed a hearing by a justice predisposed to rule for one of the litigants.

6.1 Corruption

In the above work, the extraction of rents was treated as the legal right of the court. In much of the medieval world, the legal system did operate in this fashion with judges extracting fees from the litigants. However, there are instances in which the courts operated in, at best, a quasi-legal fashion in which justice was for sale. These venal courts were common in France as late as the revolution of 1789. Judges could not commit to adhere to their own rulings since appeals brought increased revenue to the court and a high frequency of reversed rulings provides incentives for litigants to file these appeals. The net effect was a venal justice system and an extraordinarily slow process of judgement (see Rosenthal [16] for an extensive analysis of legal conflict in pre-revolutionary France).

More generally, this suggests that our model could serve for an analysis of competition between corrupt agents. It has sometimes been suggested that public sector corruption could be reduced by providing competing government agents for each service on offer. If the services offered by each agent are perfect substitutes and the agents cannot collude, then the Tiebout model suggests that the fees the corrupt agents can extract would fall sharply as the number of competing agents increases. For well-defined and standardized services, the conditions of perfect substitutability hold and the Tiebout model provides a reasonable approximation of reality.

However, as the example of medieval France suggests, there are government services for which competing agents can horizontally differentiate. A single corrupt agent might provide services at the economically efficient level and extract the surplus created as rents. In the case of France, this could have amounted to auctioning off a once-and-for-all ruling on the case or a "fair" court whose rulings encouraged efficient behavior. Once efficient behavior in contracting was established, the profits from the relationship could then be corruptly taxed by the sovereign.⁶ The party with the ability to generate the most surplus

⁶In our model, the contract is effortless and hence the corrupt taxation would amount to a transfer

from the ruling presumably would submit the highest bid and the court would rule in his favor. However, multiple agents provide the prospect of purchasing differentiated products (rulings) with the agent benefitting from the bias paying a fee to the venal court system. The biased rulings would cause the behavior of the agents to diverge from the efficient outcome as in our model above.

Obviously the above scenario can apply to any agent of the government with discretion as to how to behave. The discretion is the very source of the ability of the agents to horizontally differentiate their services. We should be clear that we are not asserting that a corrupt monopolist is either superior or inferior to competition between corrupt agents. However, we would like to emphasize that it is far from clear that increased competition in government can serve as a panacea for corrupt practices.

7 Conclusion

One promising area of future research in the field of comparative law is the formal modeling of the interactions of distinct legal regimes mediated by the agents that participate in each of the systems. The game theoretic studies thus far completed within this field have built either on a transaction cost framework or on a Tiebout public goods framework, both of which predict the gradual convergence of legal institutions. Taking the existence of overlapping legal jurisdictions as a fact, we study forum shopping using a model based on Hotelling competition that predicts a divergence of legal regimes as the courts seek to extract rents from consumers seeking legal judgments. This model provides a robust picture of the welfare consequences of forum shopping and provides a framework for studying welfare improving institutional responses. In addition, our supply side model can serve as a framework for further studies of horizontal competition between legal actors as well as the incentives motivating the design of legal systems.

The focus of this paper was the effect of overlapping jurisdictions within medieval Europe. The years of the late middle age witnessed the rapid expansion of legal systems throughout Britain and continental Europe, the result being multiple jurisdictions with overlapping authority and divergent legal doctrines in small geographical areas. The demand side of our model shows how the legal structure at the time weakened the incentive to fulfill contracts and reduced the volume of economic activity that could be contracted

payment without distorting agent choices. This is obviously a weakness in naively applying our conclusions, but the extension of our intuition to a model with effort-distorting taxes is straightforward.

in an incentive compatible fashion. The supply side of our model showed that in a situation where courts or the sovereigns controlling them can extract rents for access to their jurisdiction, then this rent extraction motive provides incentives for courts to adopt biased, divergent legal doctrines.

A variety of institutional reforms were attempted to remove this obstacle to successful economic development. The two principal techniques are the sharp delineation of jurisdiction and the harmonization of legal doctrines between jurisdictions in a fashion that mitigates the incentive problems faced by the contracting agents. Although these solutions limited the damage that overlapping jurisdictions could inflict on trade, problems relating to forum shopping persist to the present day and some of these solutions can be seen in modern contracts. For example, much like the debt contracts of Ypres, modern contracts often declare a particular venue and mode through which the dispute will be resolved (i.e. binding arbitration within a designated U.S. state). Institutional reforms that move class action lawsuits from the U.S. state courts to a designated U.S. federal court represent a reform of the judicial system akin to the assignment of jurisdiction over commercial disputes to mercantile courts in the Medieval world. Problems of the modern legal system and the sometimes Medieval solutions used to solve them remain a promising field of future work using models of the form developed above.

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