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**Controlling Corruption in Law Enforcement:
Incentives, Safeguards, and Institutional Change in the Ottoman Empire**

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**CONTROLLING CORRUPTION IN LAW ENFORCEMENT:
INCENTIVES, SAFEGUARDS, AND INSTITUTIONAL CHANGE IN THE OTTOMAN
EMPIRE**

by

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Abstract: Until the seventeenth century, the Ottomans used fines extensively for law enforcement and employed agents to collect the fines. Fines can be costly to implement because of agency problems and corruption. To solve the problem of corruption, the Ottomans implemented a variety of mechanisms, including periodic rotation of officials, separation of adjudication from punishment, and compensation for law enforcers through a two-part scheme consisting of fines and taxes. The system underwent a significant transformation after the seventeenth century, following a period of high inflation that raised the agency cost of a fixed fine system. Imperial decentralization in the provinces and the institution of long-term tax-farming also altered the government's relationship with local law enforcement agents and reduced the effectiveness of control mechanisms. Consequently, the Ottomans relied less on fines for punishment. Using insights from the law and economics literature, we examine how the earlier mechanisms helped to combat corruption in law enforcement and why they were less effective in later periods.

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Key words: corruption, criminal fines, deterrence, incentives, institutional change, Ottoman Empire

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CONTROLLING CORRUPTION IN LAW ENFORCEMENT: INCENTIVES, SAFEGUARDS, AND INSTITUTIONAL CHANGE IN THE OTTOMAN EMPIRE

An instrument of law enforcement commonly used throughout history has been to punish crimes, in whole or in part, by monetary fines. For certain crimes, governments have often preferred fines over imprisonment or corporal punishment because the latter options have typically been costlier than fines to implement, and also because fines could be used to compensate the victims or to repair the social harm. Used alone or in combination with other punishments, fines are effective in reducing crime because they enhance deterrence. Since Gary Becker's pioneering work on the economics of crime, a significant body of research has accumulated on the theory and practice of using fines for public enforcement of the law.¹

In practice, however, fines can be costly to implement because of agency problems and corruption. Governments have commonly used agents to apprehend offenders and to collect fines, often paying agents, directly or indirectly, a share of the fine revenue for compensation. Although tying the agent's income to fine revenue may motivate high effort, it may also lead to corruption if agents maximize their own income rather than social welfare. Recent studies have identified the cost and consequences of rent-seeking in law enforcement due to opportunistic behavior. Weighing the cost and benefits of using fines and agents against alternatives, governments have implemented a variety of systems of law enforcement in history.²

This paper will study the use of fines and agents for law enforcement in the Ottoman Empire and the institutional mechanisms that they implemented to control corruption. Two objectives guide the inquiry. The first is to identify the basic components of the classical

Ottoman system of law enforcement. Ruling for more than six centuries over lands that spanned three continents, the Ottomans gradually developed a system that initially relied heavily on fines and local agents. In a well-established system that prevailed in the sixteenth century, they punished many offenses by fines and allocated the fine revenue to local officials who were in charge of identifying suspects and punishing criminals. To prevent corruption by law enforcement agents, they separated personnel for adjudicating and punishing criminals, periodically rotated public officials between regions, and implemented a compensation scheme that paid officials shares of criminal fines and local taxes. Using insights from recent law and economics literature, we study how the Ottomans used fines to deter crimes and how these mechanisms controlled corruption.

Our second objective is to trace how the system changed over time and why. After the seventeenth century, the system underwent a significant transformation. During this period high inflation levels undermined the effectiveness of fixed fine rates. Moreover, imperial decentralization in the provinces and the institution of long-term tax-farming altered the government's relationship with local law enforcement agents and reduced the effectiveness of mechanisms that previously helped to control corruption. Due to these developments, the Ottomans relied less on fines for punishment in later periods.

Our work is related to three strands in historical literature. The first is recently growing literature on crime and punishment in the Ottoman Empire. Using rich Ottoman court records and other archival evidence as sources, a number of scholars have recently studied various aspects of law enforcement in the Ottoman Empire, such as crime and punishment in İstanbul, illicit sex (*zina*) in Aleppo, and law and gender in Aintab. By providing an economic analysis of Ottoman law enforcement, we contribute a new perspective to these issues. Our work is also

related to the literature on the relationship between Ottoman and Byzantine institutions. Studying commonalities between the public institutions of these states, such as in systems of taxation and governance, historians have identified the origins of some Ottoman institutions. Although it is beyond the scope of this paper to examine the origins of law enforcement practices in the Ottoman Empire, our analysis brings forth the economic logic and systematic elements of these practices, which we believe will draw attention to commonalities in the use of fines between the two states. Finally, our work is related to the enormous literature on law enforcement in Europe during the same period. Scholars have extensively studied the basic components and socio-economic principles of law enforcement in European states and the evolution of these systems over time. By providing a systematic analysis of the basic components and evolution of Ottoman law enforcement, we facilitate comparisons between the Ottomans and other European states.³

OTTOMAN LAW ENFORCEMENT WITH FINES AND AGENTS

The Ottomans used fines extensively to punish criminal offenders. Although fines were originally unrecognized in the criminal sections of the Islamic law (*shari'a*) and some religious scholars disapproved of them as dangerous innovations (*bid'at*), other scholars, such as Abū Yūsuf, the great jurist of the eighth century, issued opinions in approval of monetary fines. Notwithstanding legal hesitation, some of the previous Islamic states of Turkic heritage, such as the Seljuks and the Dulkadir, commonly used fines for law enforcement. The Ottomans were distinct in that the jurists generally approved fining offenders, and the government adopted them as an integral component of the Ottoman criminal codes and applied them extensively and systematically in a variety of circumstances.⁴

During the fifteenth and sixteenth centuries, the Ottomans developed a system of law enforcement that used fines as either the only penalty or in conjunction with other forms of punishment. Consistent with the practice in previous Muslim states, Ottoman law also prescribed discretionary measures (*ta'zīr*), such as flogging, bastinado (*falaka*), banishment, and imprisonment. A novel characteristic of the Ottoman criminal code for some offenses was to impose a monetary fine in conjunction with chastisement, possibly a practice borrowed from the Byzantine Empire. Here the fine was linked by a fixed ratio to the number of strokes inflicted on the offender, usually one *akçe* for each stroke. More commonly, a monetary fine was the only penalty. A large variety of offenses, including theft, fornication, drinking wine, selling unstamped cloth, damaging someone else's property by stray animals, and hunting or scaring animals in grounds reserved for certain officials were often punished by fines.⁵

The economic theory of law enforcement provides a simple basis for choosing fines as the most common form of punishment against crimes. In general, the key difference between fines and imprisonment (or other forms of non-monetary penalty) is that the latter is costly to impose. Since adding a prison term imposes a cost not just on the offender but on the society as a whole, it is optimal to use fines first (up to the wealth of the offender) before incurring the cost of sending the offender to prison. Note that this is based on the assumption commonly made in the early literature that fines are costless (or cheaper) to implement. If the social cost of implementing fines rises significantly, such as when fines collection leads to corruption, then the situation could be reversed, as we elaborate on later.⁶

The Ottomans' extensive use of fines in the fifteenth and sixteenth centuries, an era that is often referred as the "classical" period, is consistent with the economic theory of law enforcement. Evidence on the Ottoman economy and society of this period suggests that fines

were cheaper to implement than non-monetary forms of punishment. It would be reasonable to expect the cost of imprisonment to be prohibitively high in rural areas because of the low population density and consequently low economies of scale in the provision of prison services. Provincial soldiers, who were generally responsible for punishing offenders, typically had long periods of absence during the war season, and thus were unable to provide complete monitoring of prisons. The irreversibility of some non-monetary forms of punishment, such as the death penalty or severe corporal punishment, also raised their social cost, particularly for crimes where the probability of accurate detection was low. By contrast, fines offered greater flexibility in setting the level of punishment, and they were in principle reversible if an error was made.

By indicating that the practice of the Ottomans was consistent with economic theory of law enforcement, we do not mean that they somehow foresaw future theoretical developments in law and economics or that they always deliberately sought to maximize efficiency. We know too little about individual rulers and important officials to draw inferences about the knowledge or motivation that was literally the basis for all of their choices in law enforcement. We are simply suggesting that a cost-benefit analysis would be useful for making sense of trends in patterns of punishment. The application of economic analysis to law enforcement is based on the proposition that examining costs and benefits is useful for explaining enforcement rules and institutions. Although this is not an uncontroversial proposition, the continuing vitality of this approach suggests that it has some validity, as we seek to demonstrate in this paper. We proceed by adopting the methodological position that Ottoman rulers, subjects, and officials tried to maximize their own well-being by minimizing cost and maximizing revenue.⁷

The Ottomans' use of fines is also consistent with the historical precedent inherited from the Byzantine Empire. The Byzantine criminal system used fines extensively for

punishment. Although historians have studied many of the financial and administrative institutions that the Ottomans borrowed from Byzantium, they have not systematically examined the parallels between their systems of law enforcement. It may not be a coincidence that the Dulkadir, another Islamic polity that utilized fines as popular methods of punishment, was also founded in the former Byzantine territories. A comparative evaluation of the Ottoman and Byzantine fines could demonstrate the extent to which the Ottomans were influenced by their Byzantine predecessors.⁸

Ottoman sultans issued criminal statutes that specified in great detail the fines that applied to specific offenses. Table 1 shows some of the criminal fines that were specified in the Ottoman Criminal Code of Sultan Süleymān the Magnificent, drafted in 1545. As one would expect, fines varied significantly among offenses depending on the severity of the crime and the harm to the victim. For example, the fine imposed for murder, unless punished by retaliation (see note "a" below the Table), was generally significantly higher than that for wounding with a knife or arrow, and there was similarly a significant difference between the fines on stealing grain and wounding with a knife or arrow. The considerably higher fines on fornication and sodomy by married individuals presumably reflected on the greater social harm caused by these offenses .

TABLE 1
EXAMPLES OF FINES ON CRIMINAL OFFENSES
(akçes)

OFFENSE	STATUS OF OFFENDER	OFFENDER'S WEALTH			
		RICH	AVERAGE	POOR	VERY

					POOR
Murder^a		400	200	100	50
Wounding with a knife/arrow^b		200	100	50	
Stealing grain		40	20	10	
Concealing stray animals		40	20	10	
Fornication	Married	300	200	100	40-50
	Unmarried/Widow	100	50	30	
Sodomy	Married man	300	200	100	40-50
	Unmarried man	100	50	30	

Source: Ottoman Criminal Code of Sultan Süleymān the Magnificent, as reprinted in Ahmet Akgündüz, (ed.) *Osmanlı Kanunnāmeleri ve Hukukî Tahlilleri* (İstanbul, 1990); English translation in Heyd, *Studies*.

Notes: a. According to the Code, "[i]f a person kills a human being, retaliation (*kisās*) shall be carried out [and] no fine shall be collected." The fine for murder applies if "retaliation is not carried out or the killing is not such as to require retaliation". (Heyd, *Studies*, 105).

b. The penalty for wounding also includes strokes. The monetary fine "shall be collected...after he has been chastised" (Heyd, *Studies*, 107).

Table 1 also shows that fines depended not just on the severity of the offense or the harm to the victim but also on the offender's ability to pay, as specified in terms of his or her wealth. The fine for killing a person, for instance, varied from 400 *akçe* for a rich offender, whose wealth exceeded 1,000 *akçe*, to 200 *akçe* for a middle income offender whose income was between 600 and 1,000 *akçe*, to only 50 *akçe* for a very poor offender whose income was lower than 400 *akçe*.⁹

The discriminatory fine structure that depended on the offender's wealth is consistent with the economic theory of law enforcement. Based on the notion of optimal deterrence, this theory would recommend setting fines in proportion to an offender's ability to pay. Becker first established the proposition that when punishment takes the form of monetary fines and

apprehension is uncertain, it is optimal to set the fine as high as possible while proportionately lowering the probability of detection so as to achieve the desired “expected fine” (and hence deterrence) at the lowest social cost. It follows that the fine should be set equal to the offender’s wealth, which is the maximum amount the offender could pay. Mitchell Polinsky and Steven Shavell extended this logic to show that when offenders vary in their wealth levels, the optimal structure of fines involves offenders facing fines that are increasing in their wealth, up to a maximum fine that is less than the wealth of the highest-wealth person.¹⁰

In imperial records, expected fine revenues were generally recorded in tax registers called *tahrir defterleri* under the general heading of “windfall” revenue (*bād-i havā*), or in reference to more specific fines (*cerīme*) expected from widely observed misdemeanors such as crop damage caused by stray cattle. Further details on the types and amounts of fines can be found in the surviving records of actual revenues from these fines. A document pertaining to the fines collected by Hüseyin Subaşı, an official in charge of collecting fines in eight villages around the town of Ramle in 1586, shows that there were thirty-three instances of crimes and misdemeanors in the four months covered by the register, including fighting (with fines ranging between 20 and 540 *pāra*), stealing rice (200 *pāra*), and drinking wine (160 *pāra*).¹¹

The second basic component of Ottoman law enforcement was the use of agents to apprehend and punish offenders. Prior to the seventeenth century, during the so-called classical period, the Ottomans generally used local officials for law enforcement, who then received a share of fine revenues for remuneration. In a multi-tiered system of government, the Empire consisted of several administrative levels that divided the Empire into provinces, the provinces into districts, and the districts into fiefs. In the provinces close to the imperial center, government

agents also typically received income directly from taxable sources assigned by the central government.. For example, if a certain cavalryman (*sipahi*) was appointed as the fiefholder of a village, all peasants in that village paid their taxes directly to him as his remuneration, which he shared with the local governor. In return for the right to collect taxes, he provided local protection to the peasants, men and arms to the central government in times of war, and possibly other services such as the maintenance of roads and bridges. Typically the same official was also charged with enforcing the law and collecting the fine revenue in his region. To enforce the law in towns, the government similarly appointed local officials (e.g., *subaşı*) who received income from fine revenues.¹²

INCENTIVES AND CORRUPTION IN LAW ENFORCEMENT

Using agents for law enforcement introduced well-known agency problems for the government to consider in choosing between fines and other forms of punishment. There were, more specifically, two types of agency problems in implementing a system of fines and organizing the personnel for law enforcement. The first was the traditional principal-agent problem concerning the suboptimal effort or investment of the agent charged with enforcing the law. For example the agent could devote too little effort in identifying, apprehending, and punishing criminals if he did not internalize the full social benefits from law enforcement. In particular, depending on his compensation scheme, he could fail to account for the deterrence effect of his activities. The general source of the problem was that the agent had different interests than ruler, and the ruler could not easily observe what actions the agent had taken or should have taken in specific cases. It was difficult for the ruler to observe the agent's behavior because he had imperfect information about the local enforcement of the law; indeed, this was

the reason why he employed local officials for law enforcement in the first place. Moreover, even if he could somehow gather the required information, it was too costly for him to determine what would have been the appropriate action in each case and whether the official's action deviated from it significantly. As a result, the agent could underenforce the law without easy detection.

The second problem was the possibility of corruption in law enforcement. This could happen when an agent accepted payment in exchange for not reporting a violation, threatened to frame an innocent person to extort money, or actually did frame innocent individuals to raise the fine revenue. An enforcement agent motivated by rent-seeking could engage in such behavior if the benefits of corruption in the form of greater income exceeded the expected cost, given the risk and penalty for being caught. Note that this type of problem is not typically present in the standard principal-agent settings, such as sharecropping or wage contracts, which have been traditionally examined in the literature. Whereas the typical concern in a standard principal-agent setting is the effort choice of the agent, the possibility of corruption in law enforcement adds a new dimension to the agency problem. Corruption in law enforcement is socially costly because it dilutes deterrence. When innocent individuals are extorted or framed, they bear an expected payment, which reduces the cost of committing the crime.

The fine-based criminal system created clear incentives for Ottoman law enforcement agents to detect criminals, but it also created a risk that they would implicate innocent subjects, or overcharge actual criminals. For instance, when a thief that was caught in the act inside a house in Aintab (c. 1540), the local tribal chief, who acted as the local police, claimed that his intention was rape, and thus he was required to pay a higher fine. In another case, fine collectors incited unmarried men to assault women of high social standing in order to render the latter

vulnerable for high fines for illicit sex. Such behavior was not limited to Aintab, and the literature provides numerous examples of unjust or excessive fines imposed on the subjects. Since enforcement officials who were compensated solely by fines did not internalize the deterrence effects of their actions, corruption was potentially a serious problem.¹³

It is nearly impossible to determine the extent of the problem and how it changed over time or differed from corruption in other societies. By its nature, corruption does not leave trace in historical documents. This may explain why the Ottoman historians expressed conflicting views on the extent of corruption in the Empire. For example, whereas Ahmet Mumcu has found bribery and favoritism to be widespread in the fifteenth and sixteenth centuries, Haim Gerber has argued that the system functioned relatively fairly in the same period. Although Avi Rubin's recent research on Ottoman courts in the nineteenth century indicates that the Ottoman government considered corruption to be a serious and nagging problem during this period, it is not clear whether the problem worsened or improved over time. We are even less certain about comparisons with other societies. Some European travelers made implicit or explicit comparisons between their own systems and that of the Ottomans, but Wilfrid Prest, a historian of judicial corruption in Early-Modern England, has found such comparisons to be unjustified.¹⁴

Historical evidence nevertheless suggests that corruption was a significant potential problem for law enforcement in the Ottoman Empire. Imperial orders sent to provincial centers regularly warned judicial and military officials against acts of corruption and oppression, indicating the presence of these practices as continual concerns. In the same vein, European travelers' accounts on the Ottoman Empire that were composed between the seventeenth and nineteenth centuries generally made a special mention of corrupt practices (especially bribery) by both court-functionaries and law-enforcement officials. Although we cannot be certain that

imperial orders were followed or that Europeans' assessments were objective and free of anti-Ottoman bias, their presence suggests strongly that corruption was a potential problem.¹⁵

How did the Ottomans attempt to control agency problems and corruption? The starting point was to define and outlaw wrongdoing in law enforcement. The Ottoman legal system clearly considered the possibilities of corruption and misconduct as significant concerns. According to the "circle of justice," traditionally considered to be the basis for Ottoman political theory, economic prosperity depended on meting out justice to the tax-paying subjects. The sultans typically laid the legitimacy of their rule on their ability to administer justice, specifically the protection of the subjects from abuse and corruption in the hands of the military-administrative authorities, including the law enforcers. In drafting the legal code of a province (*kānunnāme*), and in rescripts of justice (*adāletnāmes*) that the imperial center sent to the provinces on a regular basis, they generally took great care to address and prohibit behavior that was deemed corrupt, such as excessive taxes and illegal impositions of criminal fines.¹⁶

MECHANISMS FOR CONTROLLING CORRUPTION

Since declaring wrongdoing as illegal alone would have been insufficient, the Ottomans also had to implement effective institutional safeguards and incentive mechanisms to ensure the prevention of such behavior. To determine how the Ottomans solved agency problems in law enforcement, we discuss three mechanisms aimed at regulating rent-seeking behavior. Specifically, we examine the separation of personnel for adjudicating and punishing criminals, periodic rotation of public officials between regions, and a compensation scheme that paid officials shares of criminal fines and local taxes. Using insights from the law and economics literature, we discuss how these mechanisms helped the Ottomans prevent corruption and ensure that law enforcement agents exerted optimal effort in catching criminals.

Separation of Adjudication and Punishment

One of the mechanisms the Ottomans implemented to control corruption was to separate adjudication from punishment. They did this by using two classes of officials for criminal justice: namely, judges and the military and executive personnel. In principle, the judges could try suspects and determine guilt, but they could not carry out the punishment. This was the task of local military or executive officials (such as a governor, sub-governor, *sipahi* or *subaşı*) who were responsible for apprehending and punishing criminals. Moreover, only the latter officials had the right to collect fines as part of their income. The ultimate objective in separating adjudication from punishment was not just to achieve complete specialization between these tasks but to prevent abuse of power. If the judges did not receive the fine revenue, they had no incentives to overenforce the law to raise incomes. Similarly, if law enforcement officials were suspected of abusing their power, they could be taken to court.¹⁷

The economic model of law enforcement generally assumes a welfare maximizing government that automatically chooses the socially optimal enforcement scheme. In this setting, no allowance needs to be made for the possibility (likelihood) that police officers would shirk in their efforts to apprehend offenders, or worse, accept bribes from offenders in return for letting them go free. Given the practical importance of these problems, however, Gary Becker and George Stigler proposed that the compensation of enforcers be made dependent on their performance, for example by paying them a reward, or bounty, for those offenders that they apprehend, thereby effectively “privatizing” the enforcement of law.¹⁸

While this solution partially aligns the interests of enforcers and society with regard to the enforcer’s choice of effort (as discussed in more detail below), it does not address the

problem of wrongfully fining an innocent person. If no effort is made to independently assess the guilt of the offender before collecting his fine, a private enforcer would clearly maximize his net income by randomly apprehending individuals rather than investing effort in locating the true offender. If, however, the enforcer knew that an independent adjudicator would evaluate the guilt of the defendant before assessing the fine, the enforcer would have a greater incentive to seek out the true offender. Indeed, it is easy to show that the more accurate the adjudicator is in assessing a defendant's guilt, the greater will be the enforcer's effort.¹⁹

Evidence from Ottoman court records indicate that separating adjudication from punishment kept some of the corruption by law enforcement officials under control. These records show numerous cases of abuse being brought before a judge, who then sentenced corrupt officials to various forms of punishment. As Uriel Heyd states, in some cases guilty officials were sentenced to return the fines they had falsely collected from others, and some of the particularly oppressive officials were additionally punished with strokes. Based on his extensive study of legal procedure in Kayseri, Ronald Jennings has similarly found that when a law enforcement official was accused of corruption, "he was brought to court immediately and subjected to the law like any other law violator." Although the existence of some court cases may not completely prove that the separation of adjudication from punishment had success in preventing agency problems everywhere, it does suggest that it helped to control corruption in some cases by providing a mechanism for people to bring corrupt officials to justice.²⁰

Separating adjudication and punishment was unlikely to eliminate the problem entirely, however, because the separation could not be complete. Not all criminal cases were handled by the court system, and not everyone had easy access to courts, especially in rural areas. Since establishing courts everywhere and bringing all criminal cases before a judge would have been

prohibitively costly, the Ottomans handled a variety of minor, sometimes even major, offenses directly by law enforcement officials without the involvement of a judge. According to the Islamic legal theory, executive officials could punish criminals on their own if the accused had confessed or if the evidence overwhelmingly indicated guilt, such as when a person was caught drunk. Although we do not know the extent of summary punishment by executive officials (since these cases were not recorded in court registers), contemporary foreign observers generally reported that a variety of criminal cases were tried directly by these officials rather than by judges. Officials motivated by rent-seeking could thus still have numerous opportunities to raise their income by fining innocent people. The possibility of reporting abuse to courts could be of little use for some because the access to these courts was costly in some areas. Thus, although the attempt to separate adjudication and punishment certainly limited the problem, it did not eliminate it. Other mechanisms were needed to control it further.²¹

Rotation of Public Officials

A distinct Ottoman practice that further helped to prevent corruption was an established system of rotation among public officials. According to this system, core elements of which could be found in previous Near Eastern states, provincial military and administrative personnel, including judges and law enforcement officials, were rotated from one region to the next on a more or less regular schedule. The frequency and period of rotation varied among regions, across occupations, and over time. Studying a sample of provincial cavalrymen in mid-sixteenth century, Karen Barkey has found that “an average of 45 percent of officials were rotated” during the three snapshot years that she chose for sampling. Judges in eighteenth century Aleppo were similarly rotated about every year. Whereas some contemporary western observers and modern

historians have noted the hardship that this system caused for public officials, Barkey has viewed systematic rotation as “part of the Ottoman state mode of social control.” By rotating public officials in and out of assignments, the Ottoman rulers ensured that these officials would not become ensconced in the provinces or develop local ties and power.²²

To demonstrate the effect of rotation on law enforcement, we note that systematic rotation could prevent corruption by limiting the local interaction between judges and law enforcement officials. This follows from the argument made above about why separating adjudication from punishment may not be sufficient to prevent corruption. Despite being separate in principle, rent-seeking judges could over time develop alliances with agents in charge of punishment, take part in their corruption, and share the proceeds of this collaboration for higher incomes. One of the mechanisms that could prevent such collaboration was the system of rotating officials among the districts. If judges and law enforcement officials did not stay in a location long enough to build an alliance, they could not easily engage in joint corruption.

Compensation of Enforcers

A final mechanism for controlling corruption was the Ottoman system of compensating law enforcement officials with shares of fines and taxes. Unlike the previously discussed mechanisms of separating adjudication from punishment and systematically rotating public officials, which functioned as an external control on their behavior, this method would depend on the self-motivation of agents by making it in their self-interest to avoid corruption. The argument follows from some of the recent developments in the law and economics literature on efficient enforcement of the law. One of the well-known results is that although compensating enforcers competitively with a share of the fine collected from offenders would give enforcers an incentive

to invest in apprehension efforts, such a scheme will not generally result in efficient enforcement. Monopolizing fine collection under a single agency would not work either, because the enforcer would only care about the expected fine revenue rather than internalize the social benefits from deterrence when making his enforcement choice. In fact, the enforcer actually benefits from a higher crime rate because it increases his potential fine revenue. One way to resolve this problem, according to Nuno Garoupa and Daniel Klerman, is to combine fine sharing with a reward that is inversely related to the number of offenses. Following up on this suggestion, Metin Coşgel, Haggay Etkes, and Thomas Miceli have shown that such a scheme is achievable in practice by simply combining the tasks of law enforcement and tax collection, where the joint enforcer-collector is compensated by both a share of the fine revenue and taxes collected.²³

The intuition for this proposal is as follows. If we suppose that the tax base is decreasing in the crime rate (due, for example, to theft), then a tax collector who is compensated by a share of collected taxes will have an interest in reducing the crime rate in order to increase his income from taxes. As a result, he at least partially internalizes the benefits of deterrence. He does not fully internalize the benefits, even if he retains all collected taxes, however, because total tax revenues represent only a fraction of aggregate wealth. Still, the scheme improves the enforcer's incentives compared to the pure fine-sharing scheme.

The Ottomans implemented just such a two-part mechanism for compensating law enforcement officials. As noted earlier, they typically used local military -administrative officials for law enforcement. An interesting feature of this system was that these officials typically carried out a variety of functions for the state, in addition to enforcing the law locally. As public servants, they protected local population against external threats, provided men and

arms to the ruler's army in times of war, and possibly performed various other services such as the maintenance of roads and bridges. In exchange, they typically received income from a share of the local tax revenues. For example, in return for serving in the army and providing local protection to peasants, cavalymen (*sipahi*) were typically appointed as the fief-holder of a village, and all peasants in that village paid their taxes directly to him as his remuneration.

As the second component of a two-part scheme, the income of law officials included a share of the fine revenue. The delegation of taxes and fines to the same recipient was a fundamental principle of the allocation of revenue in the Ottoman Empire under the rule that the fines “belong to the land [on which the offence was committed] (*cürm-ü cināyet toprağa tābi’dir*).” In accordance with this principle, law enforcement agents received not just taxes but also a share of the fines of the same taxable source. This rule applied directly to the “free” (*serbest*) lands, where the “landowner” (*sahib-i arz*), *i.e.*, the high ranking government official (such as the *beylerbeyi*, *sancakbeyi*, or *zaim*) who claimed the taxes and revenues generated by these areas, or his agents, received the fines in their entirety. On the lands that were not categorized as “free,” which were technically state-owned (*miri*), the fiefholder shared the fines with the governor, typically in an equal proportion.²⁴

THE DECLINE OF FINES IN OTTOMAN LAW ENFORCEMENT

Fines became less prevalent in the Ottoman Empire during the seventeenth and eighteenth centuries, a period of major social, economic, and administrative transformation. They do not appear in several provincial *kanunnāmes* composed during this period, and there is evidence that many offenders who could be fined were instead sent to the galleys or punished by

forced-labor. The first two modern Ottoman penal codes (1840 and 1850), make no mention of fines as acceptable forms of punishment; in the second one they are explicitly forbidden.

Although the last Ottoman criminal code (1858), prescribes a number of fines (*ceza-yı naqdi*), these are in conformity with the French legal practices.²⁵

Using the economic approach to law enforcement developed above, we argue that the primary reason for the reduced use of fines was the significant rise in the cost of implementing them. Some of the major developments that took place in the Ottoman society during this period caused the direct and hidden costs of implementing fines to rise considerably. As we detail below, while inflation raised the direct cost of implementing fines, transformations in regional administration and provincial society raised the indirect agency costs by eliminating or reducing the effectiveness of mechanisms that previously worked well in combating corruption.

In a vast rural state such as the Ottoman Empire and at a time when the means of communication were poorly developed, the efficiency of using fines for law enforcement in the provinces depended heavily on the frequency of the need to revise the scale of fines. The cost could be very low in a stationary environment, where the scale of fines did not have to change for long periods of time. But in an environment of rapidly changing prices it would be costly for fines to keep up with inflation because the central government would need information about local prices to be able to update the schedule of fines appropriately, and it would need to notify local courts and law enforcement agencies to implement the new schedule of fines promptly. This is known in economics as “menu cost,” a phenomenon that can delay price adjustment significantly, especially in a centralized bureaucratic setting. The higher cost of changing fines in an inflationary environment may thus explain why the rates remained largely unchanged in the Ottoman Empire after the sixteenth century. Although prices increased about twenty-two times

between the 1500s to the 1800s, fine rates remained largely unchanged during this period. Since this caused the real rates of fines to decline significantly, it also reduced the ability of fines to deter criminals and their effectiveness in law enforcement. The inflationary environment of this period may be one of the reasons why the Ottomans relied less on fines after the sixteenth century.²⁶

From the perspective of law enforcement agents who relied on fine revenues for income, falling official rates clearly meant a fall in their revenues and a rise in their incentives to engage in corruption by finding ways of raising the rates unofficially. Heyd noted that law-enforcers, whose incomes were partially determined by fines, must have been increasingly motivated to force offenders to pay higher rates than prescribed in the *kanunnāmes*. Fariba Zarinebaf also notes that fines were often negotiated by the litigants and law-enforcers. Such practices likely raised the agency costs of fine collection, leading to their eventual abandonment.²⁷

This raises the question of whether the control mechanisms that were identified above continued to prevent corruption during this period. We have argued in the previous section that the Ottomans implemented three mechanisms that could control corruption before the seventeenth century, namely the periodic rotation of officials, separation of adjudication from punishment, and combined use of fines and taxes to compensate law enforcement officials. However, the effectiveness of these mechanisms declined significantly during the second half of the seventeenth and eighteenth centuries as a result of the structural transformation that the Ottoman Empire experienced during this period. The Ottoman polity became increasingly decentralized as regional actors (provincial military-administrative authorities, local notables, tribal leaders, regional dynasties) acquired a greater degree of ability to influence the social, economic, political, and administrative affairs in their regions. It is not our intention to revisit the

causes or phases of this complex development, which is well-documented elsewhere, but we should emphasize for the concerns of this article that in the provinces the direct governmental control of the sixteenth century was replaced by an arrangement that accommodated provincial power configurations and led to the “localization” of political and administrative control. Barkey describes this process as the emergence of “local governance regimes,” which were led by dynasties of regional notables and which acted as “small states.”²⁸

The decline of the periodic rotation of provincial officials is a consequence of the political and administrative localization in the late seventeenth and eighteenth centuries. By this time, the local elites “had usurped most of the administrative and military posts in the provinces, either through purchasing titles or membership into Ottoman military and administrative provincial establishment, or through tax-farmers”. As local elites appropriated provincial positions in their locations, it became increasingly difficult for the government to rotate them, thus mitigating its ability to curb the creation of strong relationships and coalitions among the inhabitants of their jurisdictions. In fact, in many places provincial offices became identified with specific families and were often transferred from one generation to the next one.²⁹

Obviously, these developments must have adversely affected the relative power of judges. As provincial officials gained power and became locally entrenched, the judges, who occupied their positions for only about a year, gradually lost their relative ability to limit predatory activities by these strongholds or to rectify the crimes of provincial authorities. If indeed the local influence of provincial power-holders increased in the post-classical period, it would be unrealistic to expect the *kadis* to act against what might be considered as illegitimate acts of law-enforcement. Indeed, we have examples from the eighteenth century that demonstrate how the magistrates in many locations assisted the illegal or illegitimate activities of local

authorities. For example, Johann Strauss writes in detail about how a certain Hacı Ali, a *zabit*, or the principal law-enforcement agent of Athens in the late eighteenth-century, co-opted the local judge and manipulated the judicial processes to his advantage. Similarly, in the documents that Talat Yaman published from eighteenth century Küre, there are allegations of cooperation between provincial judges and local notables to make false allegations against rival provincial interests.³⁰

We also have examples demonstrating how local *kadıs* failed or chose not to protect common people against clear abuses of law enforcers. Consider the following entry from the court records of Kastamonu:

Ali Beşe son of Hüseyin of the village of Kız Boncuğu claimed in the presence of the father and legal representative of Molla Mehmed, Elhac Mustafa, that “while Ümmü Gülsüm, daughter of Osman Beğ, was in Istanbul, residing in the house of Elhac Hüseyin in the Hasan Efendi quarter of the Kasım Paşa district, she agreed to be my (Ali Beşe’s) wife, and I agreed to pay her a prompt dowry of 6000 *akçes*. On 15 Şevval 1147 (/10 March 1735), the imam of the aforementioned Hasan Efendi quarter contracted our marriage, and Ümmü Gülsüm became my “virgin wife” (*zevce-i gayri medhul bi-ham* – literally: “the wife with whom I did not consummate the marriage”). Yet, after her return to Kastamonu, she agreed to give herself to the aforementioned Molla Efendi and, subsequently, the sheikh of the Kadiriye order, Elhac Mustafa Efendi, contracted their marriage. According to the noble *fetva* in my possession, this second marriage is invalid. I would like the court to order Ümmü Gülsüm to ‘release’ herself to me and prevent Molla Mehmed from intruding into our affairs.” ...

When questioned, the representative Elhac Mustafa acknowledged that “following her return from Istanbul, Ümmü Gülsüm agreed to marry my son and that the aforementioned sheikh contracted their marriage.” Then Elhac Mustafa said that Ali Beşe had made the same accusations before, in front of a previous *kadi*, but he could not prove his claims. Subsequently, Ali Beşe publicly declared in the court that “my case [concerning Molla Mehmed and Ümmü Gülsüm’s marriage] is based on falsehood.”

Ali Beşe answered as follows: “At that time my opponents bribed the military commander of Kastamonu, Bayrakdar Şaban Ağa, who had me imprisoned and used force on me to make me say these words.” The representative acknowledged that Ali Beşe’s previous statement was in fact forced. Then Ali Beşe was invited to corroborate his allegations regarding his marriage to Ümmü Gülsüm. He introduced to the court as witnesses Yüzbaşı Mahmud Ağa son of Elhac Osman and Elhac Hüseyin Beşe son of Mehmed, both of whom stated that “indeed the aforementioned Ümmü Gülsüm was married to Ali Beşe in Istanbul, in the house of Elhac Hüseyin located in the Hasan Efendi quarter of the Kasım Paşa district. Ali Beşe paid 6000 *akçes* as her prompt dowry, and the imam of the Hasan Efendi quarter, Mehmed Efendi, contracted the marriage. We are witnesses to this situation and testify as such.” After their testimonies were accepted, the court ordered Ümmü Gülsüm to “release” herself to Ali Beşe (dated, 3 Cemaziyelahir 1150 / 28 September 1737, Kastamonu Court Records, vol. 35).

It is not clear in the document if the first *kadı* knew about the actions of the commander, who was clearly one of the military administrative authorities in Kastamonu responsible for law-enforcement. It is possible that he did. But even if he did not, Ahmed Beşe did not appear to have reported the commander's abuse, which suggests the futility of such an action. It is also not clear why Ahmed Beşe chose to bring the case to court two-and-a-half years after the incident. It is possible that Bayrakdar Şaban Ağa was not around anymore, so he felt more confident to claim his rights. Whatever the reasons were for Ahmed Beşe to try his chance in the court again, there is no indication in the records that the commander was investigated or punished for his actions. Overall, while it is true that such examples do not necessarily prove that the system ceased to function in a legitimate manner in the post-classical period, they do justify doubts about how well judicial agents restrained the predatory tendencies of law-enforcers.³¹

The effectiveness of the separation between adjudication and punishment becomes more complicated when we consider that provincial courts were not even the primary arenas of dispute resolution in criminal cases during the seventeenth and eighteenth centuries. According to Eyal Ginio, in the fourteen months between June 1740 and July 1741, 184 cases were brought to the court of Salonica and only thirteen of them were crime related. In the ten-year period between 1781 and 1791 only 27 of the 450 or so disputes brought to the court of Kastamonu were crime related. Instead many individuals, if not all, resolved their disputes out of court. For example, Boğaç Ergene (2003) demonstrated that many residents of Çankırı and Kastamonu in Anatolia during the late seventeenth and early eighteenth centuries avoided the court and instead approached the local military and administrative authorities. Most of the time, the provincial authorities did not refer these cases to courts but punished the offenders without a court judgment. Furthermore, Judith Tucker indicated that sexual crimes, such as abduction or

elopement, were often resolved privately, especially in the countryside. In such cases, the offenders were punished by their own kin or the relatives of the harmed parties. If the court was indeed a secondary alternative as an arena of dispute resolution in criminal cases during the post-classical period, its effectiveness to protect the common people from local authorities must have also been negligible.³²

Finally, the transformations of the seventeenth and eighteenth century reduced the effectiveness of the third mechanism that had previously helped to control corruption, namely the combined use of fines and taxes for the compensation of law enforcement agents. The fiscal and financial transformation that the Ottoman society experienced after the seventeenth century must have complicated fine collection and other penal practices since this process altered the system of revenue extraction. As a part of this transformation, many prebendal estates (*timars*, *zeamets*, *has*) were auctioned off to private entrepreneurs as tax-farms, initially for one- to three-year-long renewable tenures, but later, after 1695, for much longer, often life-term durations. In these locations the tax-farmers, or their local agents or sub-contractors, replaced the prebendal functionaries (such as *sipahis*) as those responsible for collecting the fines.³³

We can relate this transformation to a number of possible problems associated with revenue extraction. First, the institution of tax-farming in the Ottoman Empire led to the emergence of new groups of revenue extractors in the provinces, aside from the official state functionaries. Although provincial authorities continued to rely on the revenue sources in the countryside, tax-farming allowed the wealthier segments of the imperial and provincial society, regardless of their official statuses and responsibilities, to invest in and make claims to official revenue sources. Unfortunately, we possess no empirical study that reveals how the introduction of tax-farming influenced the numbers of tax/revenue extractors in the provinces, or changed the

tax/revenue burden of local populations. However, if the numbers of revenue-extractors did indeed increase due to the institution of tax-farming, it might have led to intensified competition over scarce resources as well as the inclination to over-exploit these resources in legitimate or illegitimate ways.³⁴

Second, although fines continued to “belong to land” in tax-farms, it is not clear who became responsible for law-enforcement in these locations and how they fulfilled this responsibility. One possibility is that tax-farmers, many of whom were investors from distant locations or, more likely, their local representatives assumed the roles of policing. If it was the tax-farmers or their agents who policed their regions, the duration of the tax-farming contract as well as the durations of the sub-contracts must have influenced these individuals’ tendencies to under- or over-enforce the law. In cases of longer-term tax-farming contracts such as *malikane mukataas* (life-term tax-farms), one can imagine that the tax-farmers were not interested in sacrificing their long-term interests to their short-term benefits by seeking over-enforcement. However, in the majority of the *mukataas* the tax-farmers did not personally take over the direct management of their revenue sources, but sub-contracted them to local agents for shorter periods. Thus, the short-term considerations of the sub-contractors might have led to excessive fining.

Alternatively, and given the civilian backgrounds of many tax-farmers or their agents, it could be the local military-administrative authorities, such as the governors or sub-governors of the administrative units that contained specific tax-farms, or the *subaşı*s of nearby towns, who assumed the policing responsibilities. If this was the case, it would explain why tax-farmers often conflicted with local military-administrative officials over fine revenues. Such conflicts were common according to historical sources. For example, a series of archival documents published

by Yaman demonstrates how the tax-farmers of the copper mines of Küre (located in north-central Anatolia) and the surrounding villages that provided laborers for mining, often complained about how local military-administrative authorities claimed the fine revenues for themselves. Although Yaman's documents emphasize the fact that fines belonged to tax-farmers, they do not reveal the functions, if any, that tax-farmers served in terms of policing and/or-law enforcement. Nor do other historical sources indicate if local authorities, when subjecting provincial populations to such payments, were in fact seeking compensation for the services they actually performed.³⁵

As mentioned, complaints about fine collection in the seventeenth and eighteenth centuries might have led to its eventual abandonment. Nevertheless, it is also easy to understand why the imperial government did not expressly ban fine-collection after the seventeenth century. After all, fines constituted a revenue-source that contributed to the overall profits of tax-farms. The need to keep tax-farms attractive for potential investors must have mitigated the desire to curb corruption associated with fine-collection by completely abolishing it. The same factor might have also restrained the imperial government from intervening in disputes between tax-farmers and local populations that involved claims about excessive fine collection, lest such interventions might generate resentment among tax-farmers and a disinclination to invest in provincial revenue sources. Among other factors, contradictory impulses (the need to protect the interests of tax-payers and the need to maximize returns to investment sources) might have led the imperial government to adopt relatively passive and accommodative provincial policies in the post-classical period.

CONCLUSION

This paper has studied the use of fines and agents in the Ottoman Empire. The economic analysis focused on the incentives for would-be offenders to make efficient decisions regarding the commission of criminal acts (the notion of optimal deterrence) and for law enforcers to engage in corruption. To prevent corruption, the Ottomans used a variety of mechanisms, including separation of personnel for adjudicating and punishing criminals, periodic rotation of public officials between regions, and compensating officials shares of criminal fines and local taxes. Insights from recent law and economics literature suggest that these procedures had qualities which enhanced efficiency in law enforcement and that the Ottomans recognized the economic benefits of employing these strategies long before economists pointed them out in theory.

The decline of fines in penal processes coincided with high inflation rates, the localization of political and administrative control, and the institution of life-term tax-farming in the post-classical period. The circumstances of the late seventeenth and eighteenth centuries made it difficult for the imperial government to maintain the system of fines and curb the potential abuses and irregularities associated with fine collection. As the inflationary environment raised the menu cost of price adjustments, it was costlier for the government to readjust the rates of fines from the center. The government also found it harder to rotate provincial authorities, separate adjudication from punishment, and ensure that recipients of fines also received tax revenues. Finding it less feasible to maintain a reasonably-well functioning fine system, the Ottomans increasingly turned to other methods for punishment in later periods.

NOTES

¹ Gary Becker, "Crime and Punishment: An Economic Approach," *Journal of Political Economy* 76 (1968), 169-217. For reviews of this literature, see Thomas Miceli, *The Economic Approach To Law* (Stanford, 2008), chapter 9, and Mitchell Polinsky and Steven Shavell, "The Economic Theory of Public Enforcement of Law," *Journal of Economic Literature* 38 (2000), 45-77.

² Polinsky and Shavell, "Corruption and Optimal Law Enforcement," *Journal of Public Economics* 81 (2001), 1-24; Nuno Garoupa and Daniel Klerman, "Optimal Law Enforcement with a Rent-Seeking Government," *American Law and Economics Review* 4 (2002), 116-140; and Metin M Coşgel, Haggay Etkes, and Thomas Miceli, "Private Law Enforcement, Fine Sharing, and Tax Collection: Theory and Historical Evidence," *Journal of Economic Behavior and Organization*, forthcoming.

³ Fariba Zarinebaf, *Crime and Punishment in Istanbul: 1700-1800* (Berkeley, 2010), 162. ; Elyse Semerdjian, *"Off the Straight Path": Illicit Sex, Law, and Community in Ottoman Aleppo* (Syracuse, 2008); Leslie Peirce, *Morality Tales: Law and Gender in the Ottoman Court of Aintab*. (Berkeley, 2003); Anthony Bryer and Heath W. Lowry, *Continuity and Change in Late Byzantine and Early Ottoman Society: Papers Given at a Symposium at Dumbarton Oaks in May 1982* (Washington, D.C., 1986); Halil İnalçık, "The Problem of the Relationship between Byzantine and Ottoman Taxation." in M. A. Cook, ed. *Akten Des XI. Internationalen Byzantinisten-Kongresses* (Munich, 1960), 237-242; Clive Emsley, *Crime, Police, and Penal Policy: European Experiences 1750-1940* (Oxford, 2007); David Levinson, *Encyclopedia of Crime and Punishment* (Thousand Oaks, 2002); Julius R. Ruff, *Violence in Early Modern Europe, 1500-1800* (Cambridge, 2001); Xavier Rousseaux, "Criminality and Criminal Justice History in Europe (1250-1850): Bibliographical Essay," *Criminal Justice History* 14 (1993), 159-81; David de La Croix, Xavier Rousseaux, and Jean-Pierre Urbain. *To fine or to punish in the late Middle Ages* (Louvain, 1994).

⁴ Uriel Heyd, *Studies in Old Ottoman Criminal Law* (Oxford, 1973); Rudolph Peters, *Crime and Punishment in Islamic Law: Theory and Practice from the Sixteenth to the Twenty-First Century* (Cambridge, 2005).

⁵ Heyd, *Studies*, 277; Zarinebaf, *Crime and Punishment*, 162.

⁶ Becker, "Crime and Punishment,"; Polinsky and Shavell, "The Economic Theory".

⁷ There were also various social, political, and historical constraints that limited what they could accomplish. For an analysis of the relationship between efficiency and constraints in taxation, see Coşgel, "Efficiency and Continuity in Public Finance: The Ottoman System of Taxation," *International Journal of Middle East Studies* 37 (2005), 567-86.

⁸ İ. Tokalak, *Bizans - Osmanlı Sentezi: Bizans Kültürü ve Kurumlarının Osmanlı Üzerindeki Etkisi* (Istanbul, 2006). Angeliki Laiou, "Law, Justice, and the Byzantine Historians: Ninth to Twelfth Centuries," in Laiou and Dieter Simon, eds. *Law and Society in Byzantium, Ninth-Twelfth Centuries*. (Washington D.C., 2004), 182. Paul Magdalino, "Justice and Finance in the Byzantine State, Ninth to Twelfth Centuries," in Laiou and Simon, eds, *Law and Society*, 96. Warren Treadgold, *A History of the Byzantine State and Society* (Stanford, 1997), 179, 352.

⁹ Heyd, *Studies*. Note also that fine levels also depended on the legal/personal status of individuals, such as whether they were free or slave, Muslim or non-Muslim, or adult or minor.

¹⁰ Becker, "Crime and Punishment," and Polinsky and Shavell "A Note on Optimal Fines When Wealth Varies Among Individuals," *American Economic Review* 81 (1991), 618-621. The economic intuition is that, if the maximum fine were raised to the wealth of the highest-wealth person and the probability of apprehension lowered proportionately, then all individuals with lower wealth would be undeterred because they would not be able to pay the full fine.

¹¹ Coşgel, "Ottoman Tax Registers (*Tahrir Defterleri*)," *Historical Methods* 37 (2004), 87-100; Amy Singer, "Marriages and Misdemeanors: A Record of 'Resm-i` Arus ve Bad-ı Hava'," *Princeton Papers: Interdisciplinary Journal of Middle Eastern Studies* 4 (1996), 138.

¹² Glen W. Swanson, "The Ottoman Police," *Journal of Contemporary History* 7 (1972), 243-60. The system was also flexible enough to accommodate variations in regional arrangements, especially in the distant corners of the empire. For example, in Kurdish territories, tribal leaders performed law-enforcement responsibilities collected the fines. In Egypt, the *fellahin* paid their fines to their *kashifs* (local governors). See Heyd, "Jurm," *Encyclopedia of Islam*, 2nd edition (Leiden, 1965), 604 and Michael Winter, *Egyptian Society under Ottoman Rule, 1517-1798* (London, 1992) 90-1). In this article we focus on the system and the practices that existed in the central provinces.

¹³ Peirce, *Morality Tales*, 319. See Ebru Boyar and Kate Fleet, *A Social History of Istanbul* (Cambridge, 2010), 115-116 and 198 for a discussion of the creative ways in which Kara Hızır, the *subaşı* of Istanbul in the 1540s, extorted money, not only from the guilty but also from the innocent.

¹⁴ Ahmet Mumcu, *Osmanlı Devleti'nde Rüşvet: Özellikle Adli Rüşvet* (Ankara: Ankara Üniversitesi Hukuk Fakültesi, 1969); Haim Gerber, *State, Society and Law in Islam: Ottoman Law in Comparative Perspective* (Albany, State University Press, 1994); Avi Rubin, *Ottoman Nizamiye Courts: Law and Modernity* (London: Palgrave MacMillan, 2011); Wilfrid Prest, "Judicial Corruption in Early Modern England," *Past and Present* 133 (1991), 67-95.

¹⁵ Boğaç A. Ergene, *Local Court, Provincial Society, and Justice in the Ottoman Empire : Legal Practice and Dispute Resolution in Çankırı and Kastamonu (1652-1744)* (Leiden, 2003); Christoph Herzog, "Corruption and Limits of State in the Ottoman Province of Baghdad during the 19th Century," *The MIT Electronic Journal of Middle East Studies* 3 (2003), 36-43. Ergene, 2003: 108-124. Herzog goes so far as to insist that as long as we have no evidence to the contrary European accounts should be considered strategically reliable given the lack of comparable sources that provide ethnographic information.

¹⁶ Halil İnalcık, "Adaletnameler." *TTK Belgeler, II* (1965), 49-145. Boğaç Ergene contrasts this concept of justice promoted by the imperial center with concepts of justice as mutual commitments and rights of the sultan and his servants, which were advocated by Ottoman officials in the administrative or geographic periphery. See Boğaç A.Ergene, "On Ottoman Justice: Interpretation in Conflict (1600-1800)," *Islamic Law and Society*, 8 (2001), 52-87.

¹⁷ For the separation of powers between the judges and executive officials, see Heyd (1973: 208), Ronald C.Jennings, "Kadi, Court, and Legal Procedure in 17th-Century Ottoman Kayseri," *Studia Islamica* 48 (1978), 133-72; Metin Kunt, *The Sultan's Servants : The Transformation of Ottoman Provincial Government, 1550-1650* (New York, 1983). 21-23; and Sami Zubaida, *Law and Power in the Islamic World*. Library of Modern Middle East Studies (New York, 2003), 56-58.

¹⁸ Gary Becker and George Stigler, "Law Enforcement, Malfeasance, and Compensation of Enforcers," *Journal of Legal Studies* 3 (1974), 1-18; Polinsky and Shavell, "Corruption,". See the survey of this literature by Reza Rajabiun, "Private Enforcement of Law," in Nuno Garoupa (ed.) *Criminal Law and Economics* (Cheltenham, 2009), 60-89.

¹⁹ Using a purely mathematical method, we can show this argument as follows. Let $p(x)$ be the probability that the enforcer locates the true offender, where x is his expenditure on effort, and $p' > 0$, $p'' < 0$. Also, let f be the fine, and let s be the enforcer's share of the fine, $s \leq 1$. As for the adjudicator, we assume that he makes two types of errors: a type one error (acquittal of the guilty), and a type two error (conviction of the innocent). Further, let q_1 be the probability of a type one error, and q_2 the probability of a type 2 error, where we assume that $1 - q_1 > q_2$. This means that the adjudicator is more often right than wrong in the sense that he convicts the guilty more often than the innocent. For details, see Keith Hylton, "Costly Litigation and Legal Error Under Negligence," *Journal of Law, Economics & Organization* 6 (1990), 433-452.. We can now write the expected profit of the enforcer as $\pi = [p(x)(1 - q_2) + (1 - p(x))q_1]sf - x$. The

resulting first order condition for x is $p'sf(1-q_1-q_2)-1=0$, from which it follows that the enforcer's effort is positive but decreasing in the probability of both types of errors.

²⁰ Heyd, *Studies*, 297; Jennings, "Kadi, Court," 167.

²¹ Heyd, *Studies*, 210-11; Zubaida, *Law and Power*, 57.

²² Karen Barkey, *Bandits and Bureaucrats: The Ottoman Route to State Centralization*. (Ithaca, 1996), 470, 460; Abraham Marcus, *The Middle East on the Eve of Modernity: Aleppo in the Eighteenth Century* (New York, 1989), 80-82.

²³ William Landes and Richard Posner. "The Private Enforcement of Law," *Journal of Legal Studies* 4 (1975), 1-46; Mitchell Polinsky, "Private versus Public Enforcement of Fines," *Journal of Legal Studies* 9 (1980), 105-127; Garoupa and Klerman, "Optimal Law Enforcement," 131; Coşgel, Etkeş, and Miceli, "Private Law Enforcement."

²⁴ Heyd, "Jurm," 604. See Heyd, *Studies*, 289 and Peirce, *Morality Tales*, 324 for examples of how fine revenues were allocated.

²⁵ Ariel Salzmänn, "An Ancien Régime Revisited: "Privatization" and Political Economy in the Eighteenth-Century Ottoman Empire." *Politics & Society* 21 (1993), 393-423; Salzmänn, "Measures of Empire: Tax Farmers and the Ottoman Ancien Régime, 1695-1807," *Ph.D. Dissertation*. Columbia University, 1995; Heyd, "Jurm," 604; Zarinebaf, *Crime and Punishment*, 164.

²⁶ For the change in prices, see Süleyman Özmucur and Şevket Pamuk, "Real Wages and the Standards of Living in the Ottoman Empire, 1469-1914." *Journal of Economic History* 62 (2002), 301.

²⁷ Heyd, "Jurm," 604; Zarinebaf, *Crime and Punishment*, 163-4.

²⁸ İnalçık, "Centralization and Decentralization in Ottoman Administration," in Thomas Naff and Roger Owen (eds.), *Studies in Eighteenth Century Islamic History*. (Carbondale, 1977), 27-52; Salzmänn, "An Ancien Régime"; Salzmänn, "Measures of Empire; Karen Barkey, *Empire of Difference: The Ottomans in Comparative Perspective*. (Cambridge, 2008), 256-7; Dina Khoury, "The Ottoman Centre versus

Provincial Power-holders: An Analysis of the Historiography,” in Suraiya Faroqhi (ed.), *The Cambridge History of Turkey*, (Cambridge, 2006) 1, 136-7).

²⁹ Khoury, “The Ottoman Centre,” 136; Barkey, *Bandits and Bureaucrats*, 481.

³⁰ İnalcık, “Centralization and Decentralization,” 28; Johann Strauss, “Ottoman Rule Experienced and Remembered: Remarks on some Local Greek Chronicles of the *Tourkokratia*,” in Fikret Adanir and Suraiya Faroqhi (eds.), *The Ottomans and the Balkans*. (Leiden, 2002), 210-1; Talat Yaman, “Küre Bakır Madenine Dair Vesikalar.” *Tarih Vesikaları* 1 (1941), 266-82. The disappearance of the checks-and-balances between adjudicative and law-enforcement agents might have also led to abuse on the part of court officials, who often claimed shares of fine revenues for themselves. Heyd, “Jazā’.” *Encyclopedia of Islam*, 2nd edition (Leiden, 1965), 518, argues that “in later periods *qadis* often exacted fines for themselves”.

³¹ Heyd, “Jazā’.” 519, argues that “(f)rom the 11th/17th century ... criminal justice was ... administered by increasingly corrupt *qadis* or the arbitrary will of oppressive governors and their subordinates. Ottoman criminal justice, praised by European observers in earlier periods for its efficiency degenerated completely”.

³² Eyal Ginio, “The Administration of Criminal Justice in Ottoman Selânik (Salonica) during the Eighteenth Century.” *Turcica* 30 (1998), 187-188; Ergene, *Local Court*; Judith Tucker, *In the House of the Law: Gender and Islamic Law in Ottoman Syria and Palestine* (Berkeley, 1998). According to Heyd, “Jazā’.” 519, “(t)he clash between the authority of the *qadi* and the governor in the administration of criminal justice remained a major problem throughout the Ottoman history”.

³³ Peters, *Crime and Punishment*, 97.

³⁴ According to Pamuk, “The Evolution of Financial Institutions in the Ottoman Empire, 1600-1914.” *Financial History Review* 11 (2004), 17, “some 1,000 to 2,000 Istanbul based individuals, together with some 5,000 to 10,000 individuals based in the provinces, as well as innumerable contractors, agents,

financiers, accountants and managers” became involved in revenue extraction through tax-farming over the eighteenth century.

³⁵ Yaman, “Küre Bakır.”