

The punitive consequences of organizational structures in England, France and the United States

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Abstract. We develop a framework for understanding how legal structures relate to imprisonment. We hypothesize that relatively more hierarchy within criminal justice institutions, compared to commercial law, fosters higher rates of incarceration. Our framework predicts that incarceration reflects asymmetric opportunities for rent seeking across differently organized legal institutions. Instead of comparing criminal justice institutions across nations in absolute terms, we investigate the relative degrees of institutional centralization across legal spheres. To provide support, we document the separate historical experiences that shaped divergent organizations across England and France. Within each country, criminal legal institutions developed inverse organizational traits from commercial legal processes. As a result, the contrasting organizations created asymmetric opportunities for rent seeking. Divergent contemporary outcomes can be understood by recognizing these initial organizational choices, the relative opportunities they created, and their subsequent path dependencies. We document contemporary England, France, and the United States' incarceration trends and penal outcomes to provide empirical support.

1. Introduction

As of 2015, more than 10 million individuals were held in penal institutions globally (Walmsley, 2016), with tremendous variation across different countries. The United States (US) has an annual average prison population of 732.5 inmates per 100,000 citizens, whereas the majority of countries detain less than 150 prisoners per 100,000 citizens. For example, England and Wales host an annual average rate of 144 inmates and France imprisons about 98 inmates per 100,000 citizens (UNODC, 2018).¹ What explains this wide variation of imprisonments by different nations?

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¹ The average rate is per 100,000. Annual data are collected and averaged from 2003 to 2014.

Cross-country incarceration rates are not adequately explained by obvious factors such as crime rates or allocations of law enforcement resources.² Akin to the “institutions matter” trend of political economists attempting to explain divergent economic and social outcomes (North, 1990), criminal justice theorists also recognize the importance of institutional structures.³ What remains unknown, however, is which institutions more heavily influence criminal justice outcomes and precisely how they alter punishment processes and incarceration rates.

This ambiguity results in part from a lack of detailed data measuring crime and punishment over time and across countries (Soares, 2004a, 2004b). Quantitative measures of comparative legal institutions are also limited. Typically, countries are classified into broad institutional baskets that correlate loosely with punishment outcomes (see Brodeur, 2007; Lacey, 2008; Neapolitan, 2001; Siems, 2016; Sutton, 2000, 2004). For example, countries with greater incarceration rates tend to have market economies (Cavadino and Dignan, 2006a, 2006b), non-plurality voting systems (Bomhoff, 2017; Lacey, 2012), and inherited the English common law (D’Amico and Williamson, 2015).⁴ Such schemas reflect broad groupings of institutional characteristics that often correlate with one another. Thus, it is difficult to discern with precision which specific institutional factor shapes incarceration and through what causal process.

Drawing from comparative law, new institutional economics, and public choice theory, we develop a framework for understanding the variation of incarceration rates across certain countries. We conjecture that contemporary patterns can reflect asymmetric opportunities for rent seeking across differently organized legal institutions. *Ceteris paribus*, hierarchically structured institutions foment opportunities for political capture, rent seeking, and political profitability (Milgrom and Roberts, 1992; Sah and Stiglitz, 1986; Williamson, 1981). Alternatively, decentralized systems foster the coordination of knowledge and incentives for learning, error correction, and institutional adaptation (McGinnis, 1999). Thus, we expect political effort to be channeled into arenas that are relatively more hierarchical.

Our model predicts that nations with more hierarchically organized criminal justice systems, relative to other domestic institutional sectors such as commercial legal spheres, will systematically foster incentives for expansive criminalization, harsher sentencing laws, and prison industrialization. Combined, these processes contribute to larger prison population rates.

2 See Neapolitan (2001), Sutton (2000, 2004), and Ruddell (2005) for thorough surveys of the research that empirically investigates these standard theoretical frameworks.

3 Durkheim (1895) and Weber (1922) were among the first to posit crime and imprisonment as shaped by socio-institutional structures. Rusche and Kirchheimer (1939) influenced Foucault (1975), who popularized this perspective and research agenda.

4 See also Spamann (2010) and DeMichele (2013, 2014).

At first, our theoretical prediction appears at odds with observations common throughout related literatures. Higher incarceration rates tend to occur in countries with market economies and English common law, which are characterized as possessing more decentralized institutional forms. Furthermore, “civil law is associated with a heavier hand of government ownership and regulation than common law” (La Porta *et al.*, 2008: 286). So, why is the robust association between common law and decentralization reversed for criminal legal outcomes, such as prison populations?

We attempt to resolve this puzzle by describing the differences in the historical developments of criminal justice across England and France after the 16th century. We mirror Glaeser and Shleifer (2002), who document how the evolution of commercial law in the 12th and 13th centuries in England and France shaped their respective approaches to modern commercial law. Less violence and more vibrant civic trust after revolutionary episodes in England relative to France allowed for a more decentralized approach to commercial law. To manage commercial disputes, England leveraged privately employed judges and trials by jury, whereas France retained state-employed authorities and codified commercial policies via a more centralized administration.

Similar to how alternative historical experiences structured varying degrees of centralized commercial law across England and France, we argue that unique historic episodes shaped institutional selection across criminal justice spheres in each country. The organizational patterns of criminal law, however, tend to be inversely organized from broader legal processes. Whereas commercial law evolved through long periods of decentralized competition, criminal law was a late appendage to the English royal courts. In the late 16th century, English authorities created a monopolistic dominance in criminal jurisprudence. Thereafter, England designed and financed criminal legislation, courts, policing services, and prison facilities through more hierarchical and governmentally dominated decision making than was typically used in commercial law processes. In contrast, constitutional designs in the wake of the French revolution placed strict limits on governmental discretion within the criminal trial process.

Collectively, the Norman conquests, the papal revolutions, and the drafting of constitutions in the wake of the French Revolution, consistently affirmed governmental power and hierarchical administration in the criminal legal sector of England and the commercial legal sphere of France. As a result, the contrasting organizational structures across commercial and criminal legal spheres created asymmetric opportunities for rent seeking. We propose that these relative differences in opportunism relate to these countries’ divergent rates of contemporary incarceration.

To provide further support, we show how recent US, English, and French prison and crime trends can be explained from our framework. In the US, increased hierarchical dominance via federal legislation and monetary transfers

shaped incentives for local authorities to leverage incarceration more heavily. In France, a larger public sector provided alternative venues for rent seeking; thus “tough-on-crime” efforts were redirected toward non-incarceration strategies. In contemporary England, prison growth accumulated substantially more than in France, but at tangibly lower levels than in the US. Competing interests within English criminal justice authority aligned to suppress prison sentencing and financing from reaching US proportions of mass incarceration.

Our work contributes to several strands of research. First, it adds to the law and economics literature by documenting how historical changes in legal structures relate to contemporary imprisonment outcomes. The framework proposed is similar to recent models of state predation and economic development (Acemoglu and Robinson, 2012), as excessive prison growth can be understood as an expression of unconstrained political extraction. This research also relates to recent literatures documenting the importance of historical factors in explaining contemporary institutional development and social outcomes (for a review, see Nunn, 2009). This includes, in particular, the legal origins literature (La Porta *et al.*, 2008). Common law is generally considered more decentralized and less hierarchical. Our findings, however, suggest that these organizational characteristics were reversed for English criminal justice in the modern legal era, and even more so for US criminal justice in the latter half of the 20th century. Similarly, the decentralized organizational characteristics of modern French criminal law were inverted compared to the hierarchically managed French commercial law.

By focusing on institutional organization across commercial and criminal legal spheres within countries instead of legal origin categories across countries, we provide an additional criticism of the legal origins literature (see Beck *et al.*, 2003; Klerman *et al.*, 2011; Spamann, 2016).⁵ Overly vague national categories can obscure the strategic opportunities for rent seeking created by relative disparities in the organizational patterns across institutional spheres within a country.

2. Different organizational patterns in criminal versus commercial law

Model assumptions and predictions

In our model, we emphasize historical processes that shaped the organizational patterns of criminal justice institutions inversely from commercial legal

⁵ The legal origins literature is criticized extensively. Some contest the causal influence of legal origins (Graff, 2008; Helland and Klick, 2011). Others question the exogenous nature of legal origins as colonial strategies differed across common and civil law traditions (Dari-Mattiacci and Guerriero, 2011). Similarly, Spamann (2010: 149) finds “no systematic difference in the complexity, formalism, duration, or cost of procedure in courts of first instance.” Guerriero (2011) argues that legal origins are proxies for the weakness of democracy and cultural heterogeneity, but agrees that institutional forms related to economic performance are slow changing and historically shaped. See also Pistor and Deakin (2012) for a thorough survey.

institutions within different countries. In particular, we hypothesize that a greater degree of hierarchical decision making within criminal relative to commercial law allows for capture, bureaucratic growth, and rent seeking within criminal justice institutions. Countries wherein the returns to rent seeking were larger in hierarchical criminal justice systems fostered greater incentives for political inefficiencies. Higher prison populations today can be seen as one such measurable result.

We adhere to the basic presumptions of public choice economics wherein political actors are motivated by self-interest (Buchanan, 1999). For example, bureaucrats will push for bigger budgets, larger staffs, and a more expansive scope of authority regardless of societal needs (Niskanen, 1968). Political agencies over-produce public goods when relevant interest groups reap concentrated benefits while dispersing costs (Buchanan and Tullock, 1962: 201). Furthermore, rent seeking continuously diverts resources from socially productive endeavors toward private interests, unless deterred through effective checks and balances (Tullock, 1965).

In so far as decentralized institutions possess more effective checks and balances than hierarchically structured institutions, we expect excessive imprisonment to coincide with more centrally managed institutional organizations. In addition, institutions that are organized more hierarchically generate greater capture opportunities (Williamson, 1981). Thus, we argue that higher imprisonment rates are akin to other forms of excessive governmental production. Therefore, we hypothesize that current patterns of excessive imprisonment coincide with historical legacies wherein criminal justice systems became more hierarchical relative to other legal institutional sectors.

Our claim is difficult to verify quantitatively. First, there are no detailed or accurate measures that represent the organizational structures of institutions, let alone the organizational patterns of criminal justice institutions across countries. Second, the organizational dynamics of criminal justice are often different from broader patterns of institutional organization within a nation. Therefore, we rely on historical case studies to help support our claim. While analysis of comparative cases does not have the identification power found in other empirical works, the historical and cross-sectional variation we describe provides a richer and more detailed account of the mechanisms that sustain organizational outcomes (Glaeser and Shleifer, 2002; Skarbek, 2016).

As we document below, England and the US have decentralized commercial law systems compared to France. However, criminal justice procedures in England became far more hierarchical in the modern legal era, and the US was founded with a similarly more centralized structure. During the latter 20th century, the US substantially increased its hierarchical organization in criminal justice procedures. England relied less heavily on royal legislatures in the 20th century compared to previous epochs. And, French criminal law has become more decentralized in contra-distinction to its commercial law.

Policy-implementing or conflict-solving systems

The common and civil law systems, birthed by England and France respectively, contain different motivational intentions and organizational properties (Damaska, 1986; Pistor, 2006). Motivations can be thought of as either “policy implementing” or “conflict solving,” while a system’s organizational properties can be described as relying upon “hierarchical” or “coordinate” authority (Damaska, 1986: 219).

Hierarchical authority better complements policy-implementing intentions, and coordinate authority coincides with conflict-resolving motivations. Hierarchical authority matched with conflict-resolving intentions represents an unstable equilibrium, as authorities empowered by hierarchical structures tend to implement policies reflective of private ruling interests. Furthermore, policy-implementing intentions are difficult to achieve within a decentralized organization, as competing interests block policy agendas.

No country is a pure case of any specific characteristic. In general, English commercial law was historically conflict-solving via coordinate authority. French law is generally described as policy-implementing via hierarchical authority. Though most commercial and private legal processes are intended for conflict resolution rather than criminal legal processes, the French system’s greater reliance on formal codes and administrative procedures creates opportunities and incentives for a larger expression of policy-implementing intentions over the English system.

Thus, we conjecture that the organizational structure of criminal justice institutions relative to commercial law shapes incentives for rent seeking and bureaucratic growth. In particular, asymmetric organization across criminal and commercial spheres creates relative opportunities for rent seeking. For example, effective constraints limit public predation in the commercial realm of English common law (Djankov *et al.*, 2008; La Porta *et al.*, 2004). Furthermore, administrative bureaucracies within the social welfare sector of France serve as low-cost alternative punishment mechanisms (D’Amico and Williamson, 2015: 597).

Legal spheres across English common and French civil law

Figure 1 labels and briefly describes commercial and criminal legal spheres across the English common law and French civil legal systems. More detailed historical and contemporary support will be provided in sections 3 and 4. The figure is offered as a summary of our main conjecture.

Common and civil legal origin categories reference historically different organizational traits of commercial legal institutions, but such descriptors can obfuscate the inversed organizational patterns of criminal legal processes. Thus, we analyze commercial and criminal legal spheres across English common law and French civil law to illustrate the asymmetric structural incentives for political capture and rent seeking.

Figure 1. Legal spheres across English common and French civil law

		English Common Law	French Civil Law
Sphere of legal decision making	A: Commercial law (torts, contracts, and other disputes)	<ul style="list-style-type: none"> -dominant legal process within Royal courts for both private and criminal disputes prior to the 13th century -more organized through decentralized coordinate authority historically and today compared to French commercial law (cell B) -more intended towards conflict resolution than French commercial law (cell B) 	<ul style="list-style-type: none"> B: Commercial law (torts, contracts and other private) -heavily codified and centrally managed after the Napoleonic code -more organized through hierarchical authority than English commercial law (cell A) -more intended towards policy implementation than English commercial law (cell A)
	C: Criminal Law (violent acts, theft, violations of social controls and prohibitions)	<ul style="list-style-type: none"> -newly developed in the 13th century -formalized via Royal monopoly in the 16th century -more reliant upon hierarchical authority cell A -more policy implementing than cell A 	<ul style="list-style-type: none"> D: Criminal law (violent acts, theft, violations of social controls and prohibitions) -more policy implementing than cell B -more coordinate authority than cell C in recent decades

Primarily concerned with economic performance, recent research compares commercial law by legal origin (cell A compared to cell B).⁶ In general, English commercial law is a decentralized, conflict-solving system that protects from state predation. French commercial law, alternatively, is a more centralized policy-implementing system that provides less effective checks against state predation.

We introduce a focus upon criminal law across England and France (cells C and D). Formal, government-provided criminal justice services were late appendages to both systems. For various historical reasons discussed below, England developed a more hierarchical criminal justice system, while France adopted more protection for individual rights in the criminal legal sector. This created organizational differences across commercial and criminal legal sectors within each country, thus generating alternative rent-seeking opportunities across England and France, respectively.

6 La Porta *et al.* (2008: 292) diagram institutional patterns and outcomes stemming from legal origins across social sectors. They do not include criminal law. Recently, Berinzon and Briggs (2016) have shown for a sample of seven former French African colonies significant divergence in the maintenance of the originally adopted French penal codes.

Under English commercial law (cell A), rent-seekers faced effective constraints against inefficient bureaucratic growth and predation, largely due to its decentralized, conflict-solving qualities (La Porta *et al.*, 2008). The centrally-organized, policy-implementing criminal justice system, however, presented fewer legal constraints, providing more opportunity for budgetary expansion (cell C). This inverted organizational structure of English criminal justice institutions suggests that rent seeking can occur through two incentivized processes.

First, political agents can gain more by rent seeking in criminal justice than in the commercial legal sector. If politicians aim to appease voter preferences or support job creation, the capital and labor intensive facets of law enforcement coupled with its less constrained bureaucracy may make the criminal justice arena a more attractive outlet over the commercial legal realm.⁷ Second, given some opportunities for rent seeking across both legal spheres, the organizational patterns of economic institutions tend to limit bureaucratic expansion and align incentives for the preservation of economic performance (La Porta *et al.*, 2004). In contrast, the organizational traits of the criminal justice system foster bureaucratic growth and reaffirm centralized authority.⁸

In France, the different organizational traits across commercial and criminal legal spheres (cells B and D) create opposite rent-seeking opportunities relative to those in England. The commercial sector was less protected in France from political rent seeking and state predation (La Porta *et al.*, 2008). The more accessible and liquid returns of rent seeking in the commercial legal sector may have served to limit rent seeking in criminal justice processes via high opportunity costs. In addition, French criminal prosecutions strongly favored individual rights and limited the powers of government. Thus, it is reasonable to infer that criminal legal processes in France (cell D) are more effectively constrained from political inefficiency than those within the commercial legal sector (cell B).

Our model hypothesizes that mass incarceration and excessive prison growth were in part driven by political and bureaucratic opportunism in the criminal relative to the commercial legal arena. In order to provide support for this claim, we next outline the divergent histories of criminal legal processes across England and France.

⁷ King *et al.* (2003) notice that prison construction became more opportune specifically for those townships with measurable declines in agricultural and industrial production in the latter part of the 20th century. See also Huling (2002). Besser and Hanson (2004) note the pervasive belief of prison construction as an economic stimulus strategy but show that new prison constructions depressed local economic conditions.

⁸ Avio (2003) surveys Nardulli (1984), Giertz and Nardulli (1985), and Benson and Wollan (1989), who explain how state officials can concentrate the benefits of perceived deterrence via prison growth while diverting the costs of construction, management, and potential overcrowding to federal jurisdictions.

3. Historical case studies of criminal law

Comparing criminal justice across France and England during the Middle Ages, Tobias (1979: 117) describes a “peculiar” feature in England (and Wales) wherein “private persons . . . bring the accused before the royal judges,” whereas in France “[b]oth in the days of the ancient regime and under the Code Napoleon, the tasks of hunting out offenders and prosecuting were matters for the state.” By the 19th century, this decentralized feature of English criminal law had substantially shifted toward more state authority and codification. Around the same time, France embraced protections of individual rights by regulating and limiting centralized power in the criminal legal sphere. We track these inverted historical changes, starting from the 11th century and fully culminating in a formally distinctive criminal legal sphere around the 16th century in both England and France.

English legal history

In the early Anglo-Saxon territories (prior to the 13th century) legal authority was divided jurisdictionally based on the nature of disputes. The international law merchant, canonical church, local, and royal court systems all coexisted and possessed distinctive laws and enforcement mechanisms suited to the nature of their respective types of disputes. Thus, adjudication for both civil and criminal offenses was addressed in a relatively competitive and decentralized fashion. Plaintiffs and defendants possessed some degree of choice regarding court authority, the system of rules to be applied, and the punitive enforcement method that governed their case.

Pluralistic legal environments limited opportunities for the monopolization and expansion of violent power (Coke, 1628; Frey, 2005). If courts were corrupt or inept at arbitration, disputants opted toward alternative venues. Successful courts were those most amenable to a variety of cases and interest groups. Such legal adaptability is accredited as a foundational element for England’s early dominance in economic performance (North and Thomas, 1976; Rosenberg and Birdzell, 1986). Decentralized rule making remains a descriptive feature of commercial dispute resolution in England today.

In England’s early legal history, punishment norms leveraged private efforts and resources to deter conflict and enforce property rights (Koyama, 2012, 2014). Beginning in the 13th century, however, certain historical processes inspired the English criminal legal process to become more consolidated and administered by centralized government authority. Private efforts conflicted with ruling interests in so far as they tied up resources otherwise useful for military purposes (Goebel, 1976: 21). Hence, royal authorities eventually sought to monopolize and control punishment services.

The earliest developments of a distinctively criminal legal sector within Anglo-Saxon territories arose from the importation of Frankish legal customs in the

wake of the Norman conquests (AD 1066) (Plucknett, 1929: 11–20; Pollock and Maitland, 1898: 70–118). Thereafter, royal courts borrowed legal concepts from the French legal system such as the codified distinctions between misdemeanors and felonies (Goebel, 1976: 62–122) and the King's Peace (Stephen, 1883: 60), a geographic territory wherein violence was prohibited (Goebel, 1976: 44–61; Plucknett, 1929: 367; Pollock and Maitland, 1898: 49–51). Both were characteristic of French law's centralized organization and codified policy-implementing intent.

Initially these importations may have reflected the adaptability of the common law to aid in social cooperation, as new Germanic and Frankish populations migrated to Anglo-Saxon territories; however, they also provided an opportunity for political capture and monopolized expansion of state authority. Compared to the decentralized commercial legal sphere, criminal legal authority provided distinct legislative powers to the crown. Benson (1992) illustrates that royal authorities gradually expanded the territory delineated by the King's Peace. Overtime, formal governmental power continuously displaced customary law, increasing the crown's capacity to impose social controls and collect taxes by monopolizing punitive resources.

In Damaska's (1986) terms, the criminal legal sphere had an increasing ratio of policy-implementing to conflict-resolving character. This allowed monarchical authority to exert more control over local magistrates through formal codification and oversight, creating a distinctive realm of criminal legal jurisdiction with stronger and larger governmental involvements (Merryman, 1969).

The papal revolutions (during the late 11th century) represented another significant change in the organizational patterns of criminal legal processes in English territories (Berman, 1983: 185). In their earliest forms, church courts enforced moral doctrine pertaining to religious membership and status, but the church's legal power to impose physical punishments was constrained via its embedded status within a broader competitive context.

In the wake of the papal revolutions, there was a stronger separation of church and state. The church essentially withdrew its claims to punitive authority surrounding the economic components of sacramental rights. Royal authority subsumed the church's legal powers and the material benefits that came along with it. Hence, the previous levels of competitive checks and balances were disrupted once monarchs possessed a greater monopoly over violent law enforcement and punishments (*ibid.*, 99–106).

During the 16th to 18th centuries, English royal authorities strengthened their dominant criminal legal power with governmental funding and management of public police, courts, and prison services (Berman, 2006: 306–329). Blackstone (1893) and Stephen (1883) noted that government policing created a distinctively public criminal legal sphere. Public laws and their ordinal rankings of severity were accordant to the primary interests of state authority – treason was deemed

worse than murder, both more serious than robbery, and efforts to preserve social order were structured in convenient alignment with maximizing a tax base. All took priority over the provision of law as a mechanism to protect individual rights, enforce property, and resolve conflicts.

The shift to policy-implementing intentions and a centrally managed criminal justice system can perhaps be seen as a rational response to the changing environment at hand. Industrialization appeared to foster new forms and frequencies of thefts and violence (Allen and Barzel, 2011), which calcified crime, law enforcement, and punishment as inherently social issues in need of uniquely public attention (Tobias, 1979: 7–24).⁹ If so, private individuals may have demanded the development of government-sponsored criminal justice in England to preserve social order (Djankov *et al.*, 2003; Glaeser and Shleifer, 2002). In similar vein, La Porta *et al.* (2008: 309) state that high crime rates and civil unrest have persistently been met with “good dollops of state intervention and control.”

French legal history

Drawing heavily from ancient Roman law, the French monarch Phillip II (1180–1223), sought to submit local magistrates (provosts) under centralized royal authority through conquest and representative oversight (bailiffs). Thus, monarchs of French territories played a large and active role in all types of law, including both commercial and criminal laws. At this time, the commercial and criminal legal spheres of France were more symmetrical in their degrees of hierarchical organization and state involvement. After the French revolution, commercial law became more centralized, but the protection of individual rights was heavily emphasized within criminal justice procedures (Apple and Deyling, 1995; Merryman, 1969).

Djankov *et al.* (2003) highlight the inverse effects the English and French revolutionary experiences had upon their respective legal systems. The greater degree of social disorder amidst the French revolution warranted a larger role of dictatorial governance compared to the English experience. As a result, centralized French bureaucracies impeded commercial transactions. This extremely violent conflict between government and citizens, however, also shaped the organizational structure in criminal law. In light of this experience, people likely demanded more individual rights and protections within criminal justice as they feared the costs of dictatorship more in that sphere.

For example, Stuntz (2011: 77) argues that the Declaration of the Rights of Man and of the Citizen (the proverbial Bill of Rights for France, passed in 1789) better preserves the protection of individual rights against criminal prosecutions

⁹ Foucault (1975: 7) popularized this timeline wherein amidst the industrial era all economically developed nations quickly reformed their legal and punishment practices citing humanitarian and rationalized rhetoric.

than even the American constitution. Similar to how English territories borrowed criminal legal concepts from the French, Jellinek (1901) documents that the French Declaration conspicuously resembled George Mason's contributions to the constitution of Virginia. Hence, just as the English criminal justice system after the Norman conquests became more centrally organized akin to traditionally French commercial legal patterns, the criminal justice system of French territories subsequently became more decentralized, mimicking historical English principles by constraining punitive discretion.

Subsequently, French criminal punishments were formally limited by penal codes that sought to protect citizens against excessive state power. Both the French penal code of 1791 and the Napoleonic Penal code of 1810 were motivated by the principle that "every citizen should know what punishment he should endure" (Beccaria, 1764), thus leaving much less room for judicial discretion compared to England and the US.

4. Contemporary evidence

In the previous sections, we compared the developments of criminal law across medieval England and France. These historic cases were chosen for multiple reasons. First, their contemporary incarceration rates are so substantially different as to warrant focused attention. Though both nations are economically developed with long-established stable democracies, England's average annual incarceration rate is nearly 50% greater than France's. Second, their respective histories are relatively well researched and documented compared to other nations. However, it is accurate to notice that the majority of prison growth globally has occurred since the 1970s. Hence, a comparison of more contemporary dynamics in differently organized legal institutions across countries is warranted to better verify our framework.

To do so, we survey the history of prison growth in England, France, and the US. The US incarceration rate is nearly 7.5 times greater than that of France and represents the supposed archetypal case of "mass incarceration." As a colonial extension of England, the US also represents a unique satellite of common law history but with distinctive historical experiences since independence.

US prison growth illustrates how organizational changes toward hierarchical decision making create lower cost opportunities for rent seeking in the criminal justice sector. France, in contrast, possessed similar public opinion and partisan trends as the US but avoided comparable prison growth. Alternative bureaucratic infrastructures operated as diversionary channels of state spending resulting in more usage of non-custodial punishments. Contemporary England sits between the US and France on a broader spectrum of prison outcomes.

Although the organizational patterns of the legal processes across these three nations have endured substantial changes through history, the available evidence suggests that the relative organizational structure of commercial law across

the US, England, and France exhibits some degree of path dependency (La Porta *et al.*, 2008). Furthermore, the variance of contemporary incarceration rates across the US, England, and France seems to accord with their respective historical experiences wherein the relative organizational differences across criminal and commercial law widened.

The US has fostered the most centralized criminal justice, thus creating the largest organizational difference across decentralized commercial and hierarchical criminal legal spheres. France's organizational differences were inverted from the English and US experiences with stronger protections in criminal law. England retains decentralized commercial law and relatively centralized criminal law, but possesses less dramatized differences between the two legal realms.

US criminal law and prison growth

While France and Scandinavian countries were first to develop publicly managed police (Dubber, 2005: 17, notes 8 and 9) and the originally religious practice of punishment via incarceration (Castel, 1988; Spierenburg, 1991), England and the US more enthusiastically embraced this method of social control. The US built more and larger penitentiaries earlier and faster than other developed nations (Hirsch, 1992). And it is the only developed nation today, which from its founding, possessed an established role of public prosecution (Friedman, 1993).

Such newly designed enforcement techniques were commonly accredited as the source of America's social harmony and economic performance over older world powers (Whitman, 2007). Intrigued by such, Tocqueville's original mission for visiting the US, crucial to drafting his *Democracy in America* (1835), was to tour American prisons and report on their potential applications to France. Beaumont and Tocqueville (1833) noted that the apparent success of the American penal system was paradoxical, as there was no single overarching system. Instead, they attributed the functionality of incarceration practices to the decentralized political structure of the early US (*ibid.*, 98). Thus, Beaumont and Tocqueville seriously doubted the effective application of penitentiaries to the more centralized French system, fearing that governmental decision makers would overinvest in prison design, construction, and operational budgets while ignoring the practical needs of crime control and fiscal constraints.¹⁰

In Tocqueville's America, criminal legal authority was retained at the local level. This allowed for experimentation with diverse models of prison management, the systemic reform of failing techniques, and fast discovery and replication of successful alternatives. For example, prior to the late 19th century,

10 "It is to be feared that the building which the government would cause to be erected for this purpose, would not be on a very economical plan; and that the expenses of construction, superintended by secondary agents, would much exceed the original estimates . . . Finally, how could the central power, the action of which is uniform, give all those modifications to the penitentiary system, which are necessary on account of local customs and wants?" (Beaumont and Tocqueville, 1833: 99).

civic efforts were primarily leveraged against the social problems associated with criminality such as unemployment, homelessness, under education, and mental health (Rothman, 1971, 1980). Furthermore, wardens, constrained by state budgets, leveraged their local knowledge of inmate behaviors to effectively select better candidates for early release (Bodenhorn, 2016).

In the early 20th century, the US experienced a substantial overhaul of institutional organization via the New Deal. Shleifer (2012) argues that this represented an efficient expansion of economic regulation as corporate interests captured local legislative and regulatory processes. While the federal regulation of labor markets, interstate commerce, and banking practices represented a new expansion of governmental authority (V. Ostrom, 1973), pre-existing constitutional limitations and financial competition ensured that the critical organizational feature of commercial law's decentralization remained.

More importantly, the US federal government expanded its influence, relative to local power, in the criminal justice system. City, county, and state jurisdictions, previously financed and managed by local efforts, were thereafter subsidized and regulated by a growing body of federal policies and dedicated advisory boards. Hence, the decentralized network of relatively independent jurisdictions became cartelized toward expansive bureaucracies (Greve, 2012).

As Stuntz (2011: 31) notes, "in the Gilded Age ... criminal punishment was [controlled through local democracy and the network of relationships that supported it,]... [T]he bottom line is clear enough: a locally run justice system grew less localized, [and] more centralized" (ibid., 7). Privately organized institutions, dedicated to conflict resolution, the security of personal rights, the enforcement of contracts, and the promotion of social order more generally, were slowly displaced by federal authority.

The rationalization of federal expansion in the American criminal sphere paralleled conceptual justifications for the development of criminal law under the English royal courts and the theoretical model of institutional choice between private and public disorder (Djankov *et al.*, 2003). Murakawa (2014) traces the stated desires of various federal policies to train, professionalize, finance, and manage criminal justice operations, all of which are motivated by the presumptive belief that such would resolve problems of civic unrest, police brutality, and racial biases. For example, perceptions of racist juries fostered greater judicial discretion and expanded the authority of federal appellate courts (Abramson, 2000). Similarly, local episodes of civil unrest and police misconduct were continually responded to with increased federal involvement and a displacement of informal community institutions. Simultaneously, the criminal justice labor force, budgetary totals, and the scope of regulatory authority expanded widely in conjunction with prison populations, racial disparity thereof, and most recently, reports of police misconduct and excessive force (Boettke *et al.*, 2016).

We view the substantially larger incarcerated populations within the contemporary US as indicative of the incentives for relevant decision makers to expand federal authority when afforded to do so more in the criminal justice arena compared to other legal spheres (i.e. the commercial legal sector). When afforded a choice between conflict solving and policy implementing, bureaucrats are not only inclined toward policy-implementing alternatives but also those strategies that preserve and expand state authority. Criminal justice spending in general, and prison growth in particular, are lower-cost avenues to grow governmental labor forces, fiscal authority, and the scope of enforcement powers while appeasing latent “tough-on-crime” sentiments amongst voters (Enns, 2014).

From 1982 to 2002, the largest net growth of US criminal justice expenditures (303%) occurred at the federal level. Furthermore, in 1982 the ratio of direct expenditures on police relative to corrections spending was approximately 2:1 (\$19,022 to \$9,049 millions), dropping to less than 1.5:1 by 2005 (\$94,437 to \$65,091 millions) (Kyckelhahn, 2012–2015). Of all criminal justice expenditures (local, state, and federal; police, judicial, and corrections), federal corrections spending had the largest percentage increase between 1982 and 2001 at 861%. Similarly, federal to state criminal justice transfers represented the greatest increase of all intergovernmental transfers, 2,629% from 1982 to 2001 (Bauer, 2004).

Also, the greatest increase of new prison constructions occurred at the federal level, and the largest growth of criminal offenses occupying prison space is for federally legislated drug violations (Kaeble *et al.*, 2015). Enhanced sentencing policies, newly constructed prison facilities, more professionalized staff members, and officers armed with technologically sophisticated weaponry, demonstrate that imprisonment has not merely increased in numbers. The qualitative allocation of law enforcement resources has become more punitive (policy implementing) and less protective (conflict resolving).

US federal legislation and direct financial transfers encouraged state and city jurisdictions to expand criminalization efforts. Thus, the fiscal and authoritative relation between local and federal governments has encouraged pervasive and consistent prison growth across the 50 states.

Contemporary French criminal justice

In the 1990s and early 2000s, France experienced a large increase in its prison population rate,¹¹ as did most nations where data are available (Faugeron, 1992: 252; Walmsley, 2003). Similar to the US experience, most commentators attributed French prison growth to changes in public opinion, right-wing political efforts to be tough on crime, and substantial racial tensions driven by increased

11 From 2006–2011, the French prison population grew 10.9% on net and its prison population rate grew 7.8% per 100,000 capita (UNODC).

immigration. None of these perspectives, however, adequately explain the large proportionate difference between the French and US experiences, which is a much larger difference than the change of imprisonment levels within France.

We argue that disproportionate prison growth in the US relative to England and France can be traced to asymmetric political and bureaucratic incentives fostered by different organizational traits. In response to frequent rioting in the late 1970s, a series of French penal reforms were implemented to balance conflicting voter preferences between humane punitive standards and social order. Punitive policy making and prison financing was publicly more contested and hence effectively directed away from prison growth. Roche (2007) terms these structural effects “diversionary” as public resources were funneled toward alternative non-penal strategies. Furthermore, with the Decentralization Act of 1982, France’s institutional organization within its criminal justice system took an opposite trajectory from the US toward decentralization.

Comparative scholarship emphasizes two differences across the American and French criminal justice systems. US processes are accusatory and adversarial; citizens are the primary instigators of criminal legal processes as they are entrusted to report crimes, formally press criminal charges against assailants, seek and sponsor private legal representation, provide prosecutors with supporting evidence and personal testimonies, express preferences for leniency or severity, and lastly request appeals. Hence, the US criminal justice system’s strong emphasis on procedural justice, and adversarialism is at the heart of Pfaff’s (2017) account of American mass incarceration.

In contrast, the French system is typically described as inquisitorial rather than adversarial and substantive rather than procedural (Apple and Deyling, 1995; Merryman, 1969). In France, criminal justice, like its commercial law counterpart, is more formally codified (Borricand, 1993). Rather than individual citizens instigating justice, regulatory monitors, local magistrates, and police officers are entrusted to press charges against violators. Instead of judicial discretion, criminal sanctions carry predetermined, but often lighter, punitive sanctions (Garoupa, 2001: 210). France also relies less heavily upon citizen juries, and it has a wider basket of punitive sanctions apart from imprisonment as a byproduct of its more extensive public infrastructures. For example, public benefits and licensure rights can be restricted or revoked in response to criminal violations (D’Amico and Williamson, 2015: 597).

The organizational dynamics of the French criminal justice system redirected rent-seeking efforts away from prison growth toward non-custodial strategies. Rather than larger budgets directly expanding the size and authority of police, prosecutors, judges, prison contractors, and prison labor administrators, financial resources flowed toward probationary, psychiatric, and public health services.

Some fiscal empirics provide useful comparisons. In 2013, France spent about 0.37% of GDP on criminal justice, with roughly 0.2% spent on its prison

administration (Cretenot and Liaras, 2013). In 2012 (the closest year on file via Kyckelhahn, 2015), the US spent 1.6% of GDP on criminal justice, with about 0.5% of GDP spent on prisons. In 2013, the United Kingdom (including Scotland and Wales) spent 0.12% of GDP on prisons (Ministry of Justice, 2014).

Contemporary England's criminal justice system

As the mother nation to the common law tradition, there are perhaps more structural and designed similarities between the contemporary English and US legal systems than between the US and France or between France and England. However, all three nations (and most countries globally) conform to similar trends in crime. Rates steadily increased from the 1970s until the 1990s, and markedly declined in the late 1990s, with a currently low historical rate.

France and the US both experienced tough-on-crime populist movements, right-wing partisan victories, and expansive criminalization policies. England also shared in these wider socio-political processes but to a lesser degree (Newburn, 2007). While sharing similarities on different margins to both the US and France, English prison trends in recent decades stand apart from both.

While England shares much of the common law qualities of private conflict-preserving intent and decentralized organization similar to the US, the particular pattern of English criminal justice organization is wholly distinct from the US model. As we described earlier, the US, with its 50 distinct criminal legal jurisdictions, endured a cartelized federalism in the latter half of the 20th century. Increased federal financial incentives and managerial oversight through national legislation coordinated local jurisdictions toward punitive expansion and expenditure. England also fostered tangible and at times extreme prison growth, but its trajectory was far more “zig-zagged” (Cavadino and Dignan, 2006a) than the US's persistent acceleration.

England's criminal justice system contains unique structural organization that shaped its incarceration outcomes toward similar growth as experienced in the US but at wholly different levels. First, the English legal system harbors a stronger separation of powers across judges, local magistrates, community police officers, and national legislatures. As basic theory predicts (Buchanan, 1983), each office and office holder prefers to retain and expand their own discretionary power rather than cede opportunities to other sectors. Hence, these competing interests operated similarly as diversionary public spending arenas did to avoid prison growth under the French system.

While the English system experienced a unique and substantial growth of centralization and governmentalized criminal justice authority during the 18th and 19th centuries, “the trend in the 20th century has been for much less legislative involvement” (Ashworth, 2001: 72). In short, the decentralized authority interests of the English criminal justice system interacted so as to preserve local discretion rather than to enhance royal or parliamentary authority over sentencing, legislation, or enforcement. While the tendency for higher

national authority to lean toward more punitive sanctions rings true for England (Ashworth, 1998), bureaucratic interactions in the 20th century resulted in little reliance on royal courts and thus far less accumulated prison growth than in the US.

Most notably, a convenient alignment of financial interests inspired royal authorities to support increased police discretion via formal cautions rather than criminal charges (Home Office, 1985). Local officers effectively gave warning citations rather than add casework to the crowded and costly court system (Ashworth, 2001).

In summary, unlike in the US where local state officials were inclined to consume prison space as a public good and consume broader federal funding sources (Giertz and Nardulli, 1985; Nardulli, 1984), England appeased competitive bureaucratic interests by reaffirming local discretion and indirectly promoting prison alternatives. Lacey (2012) similarly argues that proportionate voting processes mitigate punitive populism with easier paths for disaffected minorities to seek reform.

5. Conclusions

We develop a model of an asymmetric organizational structure of commercial and criminal legal sectors across different countries. With a greater concentration of centralized authority in the criminal justice sectors of England and the US, we expect to see greater opportunities for the expression of political interests via rent seeking relative to the commercial legal sector. Historical sources support an inverse organizational structure of criminal legal institutions across France and England. The late development of the criminal legal sector within England tended to be more hierarchically organized while French criminal justice processes hosted stronger explicit limitations on governmental growth in the penal sphere of the criminal justice system.

Prison growth can be seen as an incentivized bi-product of increased state authority over the criminal justice system. Economic theory suggests that qualitative performance will not necessarily result from more centrally managed organizations, especially if quality and efficiency result from knowledge detection and correction processes endemic to institutional decentralization. In this vein, mass incarceration may represent an unintended but potentially inevitable consequence of an ever more federally managed criminal justice system.

Our model, supporting historical materials and contemporary empirics, provides a unique framework for understanding the dynamics of imprisonment, the causes of mass incarceration, and the variation of prison populations across national borders. We suspect that other countries will exhibit incarceration patterns in accordance with the type of structured organizational patterns that developed across their own legal histories. In so far as inefficient prison growth is an unintended consequence of bureaucratic incentives and rent seeking, we

expect to see general correlations between more hierarchical criminal justice systems and imprisonment rates. No sufficient empirical measures are available that fully or effectively proxy the organizational patterns of national criminal justice systems. Hence, further research and empirical measures are needed to understand the generalizable potentials and limitations of this framework.

We note that organizational types of legal institutions are not fixed or unchanging in the long run. Early institutional selection shapes current outcomes and subsequent key historical moments reaffirm these structural patterns through continuous opportunities for institutional selection and change. Such influences are not fully deterministic but rather heavily shaped by some degree of path dependency. How subsequent and contemporary institutional choices will pan out will be shaped largely by these relative organizational differences and the incentivized opportunities they foster.

Although correlations between deeply embedded historical processes and contemporary incarceration outcomes are strong and robust (D'Amico and Williamson, 2015), changes have occurred and are likely to continue into the future. However, our model implies a certain degree of conceptual priority to reform processes that influence and affect the organizational differences across entire spheres of legality. Such structural change is admittedly complex, rarely viable, and not often accomplished via traditional political activism.

References

- Abramson, J. (2000), *We, the Jury: The Jury System and the Ideal of Democracy*. Cambridge: Harvard University Press.
- Acemoglu, D. and J. Robinson (2012), *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*. New York: Crown Business.
- Allen, D. and Y. Barzel (2011), 'The Evolution of Criminal Law and Police During the Pre-Modern Era', *Journal of Law, Economics and Organization*, 27(3): 540–567.
- Apple, J. and R. Deyling (1995), *A Primer on the Civil-Law System*, Washington, DC: Federal Judicial Center.
- Ashworth, A. (1998), *The Criminal Process* (2nd edn), Oxford: Oxford University Press.
- Ashworth, A. (2001), 'The Decline of English Sentencing and Other Stories', in M. Tonry and R. Frase (eds), *Sentencing and Sanctions in Western Countries*, Oxford: Oxford University Press.
- Avio, K. (2003), 'The Economics of Prisons', in A. Tabarrok (ed.) *Changing of the Guard: Private Prisons and the Control of Crime*. Oakland: The Independent Institute.
- Beaumont, G. and A. Tocqueville (1833 [1968]), *On the Penitentiary System in the United States, and Its Application to France: With an Appendix on Penal Colonies*, New York: Augustus M. Kelley.
- Bauer, L. (2004), *Criminal Justice Expenditure and Employment Extracts Program*. Washington, DC: Bureau of Justice Statistics.
- Beccaria, C. (1764 [1995]), *On Crimes and Punishments*, Cambridge: Cambridge University Press.
- Beck, T., A. Demircuc Kunt, and R. Levine (2003), 'Law and Finance: Why Does Legal Origin Matter?' *Journal of Comparative Economics*, 31(4): 653–675.

- Benson, B. (1992), 'The Development of Criminal Law and its Enforcement: Public Interest or Political Transfers?' *Journal des Economistes et des Etudes Humaines*, 3(1): 79–108.
- Benson, B. and L. Wollan (1989), 'Prison Overcrowding and Judicial Incentives', *Madison Paper Series*. 3: 1–22.
- Berinzon, M. and R. Briggs (2016), 'Legal Families without the Laws: The Fading of Colonial Law in French West Africa', *American Journal of Comparative Law*, 64(2): 329–370.
- Berman, H. (1983), *Law and Revolution: The Formation of the Western Legal Tradition*. Cambridge: Harvard University Press.
- Berman, H. (2006), *Law and Revolution II: The Impact of the Protestant Reformations on the Western Legal Tradition*. Cambridge: Harvard University Press.
- Besser, T. and M. Hanson (2004), 'Development of Last Resort: The Impact of New State Prisons on Small Town Economies in the United States', *Journal of the Community Development Society*, 35(2): 1–16.
- Blackstone, W. (1893), *Commentaries on the Laws of England, Volume II*, G. Sharswood (ed.) Philadelphia: Lippincott.
- Bodenhorn, H. (2016), 'Prison Crowding, Recidivism, and Early Release in Early Rhode Island', *Explorations in Economic History*, 59(C): 55–74.
- Boettke, P., J. Lemke, and L. Palagashvili (2016), 'Re-evaluating Community Policing in a Polycentric System', *Journal of Institutional Economics*, 12(2): 305–325.
- Bomhoff, J. (2017), 'Beyond Proportionality: Thinking Comparatively About Constitutional Review and Punitiveness', in V. Jackson and M. Tushnet (eds), *Proportionality: New Frontiers, New Challenges*, Cambridge: Cambridge University Press.
- Borricaid, J. (1993), 'France', *World Factbook of Criminal Justice Systems*, Washington, DC: Bureau of Justice Statistics.
- Brodeur, J. (2007), 'Comparative Penology in Perspective', *Crime and Justice*, 36: 49–91.
- Buchanan, J. (1983), 'Rent seeking, noncompensating transfers, and laws of succession', *Journal of Law and Economics*, 26(1): 71–85.
- Buchanan, J. (1999), 'Politics without Romance: A Sketch of Positive Public Choice Theory and its Normative Implications', in J. Buchanan, *The Logical Foundations of Constitutional Liberty*, Indianapolis: Liberty Fund, pp. 45–59.
- Buchanan, J. and G. Tullock (1962), *The Calculus of Consent: Logical Foundations of Constitutional Democracy*, Ann Arbor: University of Michigan Press.
- Castel, R. (1988), *The Regulation of Madness: The Origins of Incarceration in France*, Berkley: University of California Press.
- Cavadino, M. and J. Dignan (2006a), *Penal Systems: A Comparative Approach*, Thousand Oaks: Sage.
- Cavadino, M. and J. Dignan (2006b), 'Penal policy and political economy', *Criminology & Criminal Justice*, 6(4): 435–456.
- Coke, E. (1628), *Selected Writings of Sir Edward Coke*, S. Shepherd (ed.), Indianapolis: Liberty Fund.
- Cretenot, M. and B. Liaras (2013), *Prison Conditions in France*, Rome: European Prison Observatory.
- Damaska, M. (1986), *The Faces of Justice and State Authority: A Comparative Approach to the Legal Process*, New Haven: Yale University Press.
- D'Amico, D. and C. Williamson (2015), 'Do Legal Origins Affect Cross-Country Incarceration Rates?' *Journal of Comparative Economics*, 43(3): 595–612.
- Dari-Mattiacci, G. and C. Guerriero (2011), 'Law, Economics and History: Endogenous Institutional Change and Legal Innovation', in M. Faure and J. Smits (eds), *Does Law*

Matter? On Law and Economic Growth, Cambridge: Cambridge University Press, pp. 137–154.

- DeMichele, M. (2013), ‘Using Weber’s Rechtssoziologie to Explain Western Punishment: A Typological Framework’, *European Journal of Crime, Criminal Law and Criminal Justice*, 21(1): 85–109.
- DeMichele, M. (2014), ‘A Panel Analysis of Legal Culture, Political Economics, and Punishment among 15 Western Countries, 1960–2010’, *International Criminal Justice Review*, 24(4): 1–17.
- Djankov, S., E. Glaeser, R. La Porta, F. Lopez-de-Silanes and A. Shleifer (2003), ‘The New Comparative Economics’, *Journal of Comparative Economics*, 31(4): 595–619.
- Djankov, S., R. La Porta, F. Lopez-de-Silanes and A. Shleifer (2008), ‘The Law and Economics of Self-Dealing’, *Journal of Financial Economics*, 88(3): 430–465.
- Dubber, M. (2005), *The Police Power: Patriarchy and the Foundations of American Government*. New York: Columbia University Press.
- Durkheim, E. (1895 [1982]), *The Rules of Sociological Method*, New York: The Free Press.
- Enns, P. (2014), ‘The Public’s Increasing Punitiveness and Its Influence on Mass Incarceration in the United States’, *American Journal of Political Science*, 58(4): 857–872.
- Faugeron, C. (ed.) (1992), *Les politiques penales*, Problemes politiques et sociaux, La Documentation Francaise.
- Foucault, M. (1975 [1995]), *Discipline and Punish: The Birth of the Prison*. New York: Vintage Books.
- Frey, B. (2005), ‘Functional, Overlapping, Competing Jurisdictions: Redrawing the Geographic Borders of Administration’, *European Journal of Law Reform*, 5(3–4): 543–555.
- Friedman, L. (1993), *Crime and Punishment in American History*. New York: Basic Books.
- Garoupa, N. (2001), ‘An Economic Viewpoint of Criminal Systems in Civil Law Countries’, in B. Deffains and T. Kirat (eds) *Law and Economics in Civil Law Countries*. Somerville: JAI Press, pp. 199–216.
- Giertz, J. and P. Nardulli (1985), ‘Prison Overcrowding’, *Public Choice*, 46(1): 71–78.
- Glaeser, E. and A. Shleifer (2002), ‘Legal Origins’, *Quarterly Journal of Economics*, 107(4): 1193–1229.
- Goebel, J. (1976), *Felony and Misdemeanor: A Study in the History of Criminal Law*. Philadelphia: University of Pennsylvania Press.
- Greve, M. (2012), *The Upside-Down Constitution*. Cambridge: Harvard University Press.
- Graff, M. (2008), ‘Law and Finance: Common-law and Civil-law Countries Compared, An Empirical Critique’, *Economica*, 75(297): 60–83.
- Guerriero, C. (2011), ‘Legal Traditions and Economic Performances: Theory and Evidence’, in B. Bouckaert and G. De Geest (eds) Chapter 9 in *Encyclopedia of Law and Economics*. Cheltenham: Edward Elgar.
- Helland, E. and J. Klick (2011), ‘Legal Origins and Empirical Credibility’, in M. Faure and J. Smits (eds) *Does Law Matter? On Law and Economic Growth*. Cambridge: Cambridge University Press, pp. 99–114.
- Hirsch, A. (1992), *The Rise of the Penitentiary Prisons and Punishment in Early America*. New Haven: Yale Historical Publications.
- Home Office (1985), *The Cautioning of Offenders*. London: Home Office.
- Huling, T. (2002), ‘Building a Prison Economy in Rural America’, in *Invisible Punishment: The Collateral Consequences of Mass Imprisonment*, M. Mauer and M. Chesney-Lind (eds), New York: The New Press.

- Jellinek, G. (1901), *The Declaration of the Rights of Man and of Citizens: A Contribution to Modern Constitutional History*. New York: Henry Holt.
- Kaebler, D., L. Glaze, A. Tsoutis and T. Minton (2015), *Correctional Populations in the United States 2014*. Washington, DC: Bureau of Justice Statistics.
- King, R., Mauer, M. and Huling, T. (2003). *Big Prisons, Small Towns: Prison Economics in Rural America*. Washington DC: Sentencing Project.
- Klerman, D., P. Mahoney, H. Spamann, M. Weinstein (2011), 'Legal Origin or Colonial History?' *Journal of Legal Analysis*, 0: 1–31.
- Koyama, M. (2012), 'Prosecution Associations in Industrial Revolution England: Private Providers of Public Goods?' *Journal of Legal Studies*, 41(1): 95–130.
- Koyama, M. (2014), 'The Law and Economics of Private Prosecutions in Industrial Revolution England', *Public Choice*, 159(1–2): 277–298.
- Kyckelhahn, T. (2012–2015), *Justice Expenditure and Employment Extracts Series*. Washington, DC: Bureau of Justice Statistics.
- Lacey, N. (2008), *The Prisoners' Dilemma: Political Economy and Punishment in Contemporary Democracies*, Cambridge: Cambridge University Press.
- Lacey, N. (2012), 'Political Systems and Criminal Justice: The Prisoners' Dilemma after the Coalition', *Current Legal Problems*, 65(1): 203–239.
- La Porta, R., F. Lopez-de-Silanes, C. Pop-Eleches and A. Shleifer (2004), 'Judicial Checks and Balances', *Journal of Political Economy*, 112(2): 445–470.
- La Porta, R., F. Lopez-de-Silanes and A. Shleifer (2008), 'The Economic Consequences of Legal Origins', *Journal of Economic Literature*, 46(2): 285–332.
- McGinnis, M. (1999), *Polycentricity and Local Public Economies*, Ann Arbor: University of Michigan Press.
- Merryman, J. (1969), *The Civil Law Tradition: An Introduction to the Legal Systems of Europe and Latin America* (3rd edn). Palo Alto: Stanford University Press.
- Milgrom, P. and J. Roberts (1992), *Economics, Organization and Management*. Upper Saddle River: Prentice Hall.
- Ministry of Justice (2014), 'Costs per place and costs per prisoner', *National Offender Management Service Annual Report and Accounts 2013–2014*. London: Ministry of Justice.
- Murakawa, N. (2014), *The First Civil Right: How Liberals Built Prison America*, Oxford: Oxford University Press.
- Nardulli, P. (1984), 'The Misalignment of Penal Responsibilities and State Prison Crises: Costs, Consequences, and Corrective Actions', *University of Illinois Law Review*, 365–387.
- Neapolitan, J. (2001), 'Examination of cross-national variation in punitiveness', *International Journal of Offender Therapy and Comparative Criminology*, 45(6): 691–710.
- Newburn, T. (2007), 'Tough on Crime: Penal Policy in England and Wales', *Crime and Justice*, 36: 425–470.
- Niskanen, W. (1968), 'The Peculiar Economics of Bureaucracy', *American Economic Review*, 58(2): 293–305.
- North, D. and R. Thomas (1976), *The Rise of the Western World: A New Economic History*, Cambridge: Cambridge University Press.
- North, D. (1990), *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- Nunn, N. (2009), 'The Importance of History for Economic Development', *Annual Review of Economics*, 1: 65–92.

- Ostrom, V. (1973), *The Intellectual Crisis in American Public Administration*. Tuscaloosa: University of Alabama Press.
- Pistor, K. (2006), 'Legal Ground Rules in Coordinated and Liberal Market Economies', in K. Hopt, E. Wymeersch, H. Kanda and H. Baum (eds) *Corporate Governance in Context: Corporations, States, and Markets in Europe, Japan, and the US*. Oxford: Oxford University Press, pp. 249–80.
- Pistor, K. and S. Deakin (eds) (2012), *Legal Origin Theory*. Cheltenham: Edward Elgar.
- Pfaff, J. (2017), *Locked in: The True Causes of Mass Incarceration – and How to Achieve Actual Reform*. New York: Basic Books.
- Plucknett, T. (1929 [2010]), *A Concise History of the Common Law*, Indianapolis: Liberty Fund.
- Pollock, F. and F. Maitland (1898 [1968]), *The History of English Law Before the Time of Edward I: Volumes I and II*. Indianapolis: Liberty Fund.
- Roche, S. (2007), 'Criminal Justice Policy in France: Illusions of Severity', *Crime and Justice*, 36(1): 471–550.
- Rosenberg, N. and L. Birdzell (1986), *How the West Grew Rich: The Economic Transformation of the Industrial World*, New York: Basic Books.
- Rothman, D. (1971), *The Discovery of the Asylum*. New York: Book Service.
- Rothman, D. (1980), *Conscience and Convenience: The Asylum and Its Alternatives in Progressive America*. Abingdon: Routledge.
- Ruddell, R. (2005), 'Social Disruption, State Priorities, and Minority Threat: A Cross-national Study of Imprisonment', *Punishment & Society*, 7(1): 7–28.
- Rusche, G. and O. Kirschheimer (1939 [2003]), *Punishment and Social Structure*. New York: Transaction Publishers.
- Sah, R. and J. Stiglitz (1986), 'The Architecture of Economic Systems: Hierarchies and Polyarchies', *American Economic Review*, 76(4): 716–727.
- Shleifer, A. (2012), *The Failure of Judges and the Rise of Regulators*. Cambridge: MIT Press.
- Siems, M. (2016). 'Varieties of legal systems: towards a new global taxonomy', *Journal of Institutional Economics*, 12(3): 579–602.
- Skarbek, D. (2016), 'Covenants without the Sword? Comparing Prison Self-Governance Globally', *American Political Science Review*, 110(4): 845–862.
- Soares, R. (2004a), 'Crime Reporting as a Measure of Institutional Development', *Economic Development and Cultural Change*, 851–871.
- Soares, R. (2004b), 'Development, Crime and Punishment: Accounting for the International Differences in Crime Rates', *Journal of Development Economics*, 73: 155–184.
- Spamann, H. (2010), 'Legal Origins, Civil Procedure, and the Quality of Contract Enforcement', *Journal of Institutional and Theoretical Economics*, 166(1): 149–165.
- Spamann, H. (2016), 'The US Crime Puzzle: A Comparative Perspective on US Crime & Punishment', *American Law and Economics Review*, 18(33): 33–87.
- Spiereburg, P. (1991), *The Prison Experience: Disciplinary Institutions and Their Inmates in Early Modern Europe*. Amsterdam: Amsterdam Academic Archive.
- Stephen, J. (1883 [1963]), *A History of the Criminal Law of England*, New York: Burt Franklin.
- Stuntz, W. (2011), *The Collapse of American Criminal Justice*, Cambridge: Harvard University Press.
- Sutton, J. (2000), 'Imprisonment and Social Classification in Five Common-Law Democracies, 1955–1985', *American Journal of Sociology*, 106(2): 350–386.

- Sutton, J. (2004), 'The Political Economy of Imprisonment in Affluent Western Democracies, 1960–1990', *American Sociological Review*, 69(2): 170–189.
- Tobias, J. (1979), *Crime and Police in England 1700–1900*, New York: St. Martin's Press.
- Tocqueville, A. (1835), *Democracy in America*. Indianapolis: Liberty Fund.
- Tullock, G. (1965 [2005]), 'The Politics of Bureaucracy', in C. Rowley (ed.), *The Selected Works of Gordon Tullock, Volume 6: Bureaucracy*. Indianapolis: Liberty Fund: 13–235.
- United Nations Office on Drug and Crime, Data. Washington DC. Available at: www.unodc.org/unodc/en/data-and-analysis/statistics/crime.html (last accessed 19 March 2018).
- Walmsley, R. (2003), 'Global Incarceration and Prison Trends', *Forum on Crime and Society*, 3: (1–2): 65–78.
- Walmsley, R. (2016), 'World Prison Population List, Eleventh Edition', *World Prison Brief*. Washington, DC: Institute for Criminal Policy Research.
- Weber, M. (1922 [1978]), *Economy and Society*, Berkley: University of California Press.
- Whitman, J. (2007), 'What Happened to Tocqueville's America?' *Social Research*, 74(2): 251–268.
- Williamson, O. (1981), 'The Economics of Organization: The Transaction Cost Approach', *The American Journal of Sociology*, 87(3): 548–577.