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UNIVERSITY OF AMSTERDAM

LAW, ECONOMICS AND HISTORY: ENDOGENOUS INSTITUTIONAL CHANGE AND LEGAL INNOVATION LAW

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Law, Economics and History: Endogenous Institutional Change and Legal Innovation

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Abstract

Understanding the origins of formal and informal institutions of cooperation and regulation and their long-lasting impact on market exchange and technological investment is one of the most pressing questions in law, economics and history. Accordingly, despite the different angles considered by different disciplines, the notion that institutions emerge endogenously in the face of both welfare-enhancing and rent-seeking motives has recently come to be an accepted paradigm. Yet, despite this convergence, an even more vigorous effort in inquiring the determinants and the effects of institutional change is needed in order to guide legal and institutional reforms. The aim of this chapter is to substantiate this desideratum and, at the same time, to provide a new interdisciplinary research agenda.

JEL classification: K4, N2, O4, P50.

Keywords: endogenous institutions, legal origins, legal innovation, democracy, corporate form.

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1. Introduction: The Endogenous Institution Approach

Understanding the origins of formal and informal institutions of cooperation and regulation and their long-lasting impact on market exchange and technological investment is the most pressing questions in law, economics and history. Accordingly, despite the different angles considered by different disciplines, the notion that institutions emerge endogenously in the face of both welfare-enhancing and rent-seeking motives has recently come to be an accepted paradigm. Yet, despite this convergence, an even more vigorous effort in inquiring the determinants and the effects of institutional change is needed in order to guide legal and political reforms: the aim of this chapter is to substantiate this desideratum and, at the same time, to provide a new interdisciplinary research agenda.

The need to understand institutional genesis is innate to human thinking. Already Aristotle, referring to the constitution of Athens, discussed a common belief held by many who thought that Solon had ‘deliberately made the laws indefinite, in order that the final decision might be in the hands of the people’¹ and contrasted it with an alternative explanation based on the inherent incompleteness and, at times, internal inconsistency of the law. In modern words, Aristotle’s problem concerned the factors determining the emergence and the functioning of the key institution of his time. Similarly, Justinian’s codification of Roman law was motivated by the need to affect the path of unregulated development of Roman law, as the emperor found ‘the whole extent of our laws which has come down from the foundation of the city of Rome and the days of Romulus to be so confused that it extends to an inordinate length and is beyond the comprehension of any human nature’.² An urgent need for consolidation (of the achievements of the revolution, in this case) also inspired the Napoleonic codification.³ Codifications provide but an example of a more general class of legal, cultural and political institutional changes, including the enlargement of the suffrage, the protection of minorities, the abolition of slavery, the development of social capital, the emergence of the modern business formats, and the rise of the regulatory state among other equally important issues. Institutional genesis occurs not only at the juncture of demand for institutional change from one or

¹ Aristotle 350 BC, Sec. 1, Part 9.

² *Const. Deo auct.* § 1 (translation from Watson 2009).

³ Holtman 1967.

several sectors of society and of supply of such changes by another sector, but also depends on the complex interaction of other factors such as path dependence, exogenous shocks, technological constraints and international or domestic political competition. This complex web of simultaneous forces unveils the crucial challenges analysts face: when the same primitive forces shape at the same time institutions and economic development or when the latter feeds back to institutions, a source of ‘exogenous variation’ in institutional change is needed to correctly assess the relation between the economy and the shared rules of conduct. In the following we show how an increasing legacy of research has started to tackle this issue combining in novel ways insights from legal scholarship, economic theory and history. Our illustration is not meant to be an exhaustive account of the relevant contributions but rather to highlight, through some interesting examples, the challenges faced by the endogenous institutional analysis literature in delivering both a serious historic and institutional reconstruction and a rigorous economic analysis. In section 2 we will first look at the origins and evolution of legal institutions and then shift our attention to the more long-lasting political ones. In section 3, we will build on this discussion to propose an interdisciplinary approach to the analysis of institutional change and legal innovation based on a deeper study of history. Finally, we will conclude in section 4 highlighting how this approach could be applied to several open research questions that naturally lend themselves to an interdisciplinary inquiry.

2. The Origin and Impact of Shared Rules of Conduct

2.1. Legal Institutions

Two are the sets of historical factors affecting the functioning of the legal system: those that shape the way in which the law is created and those that determine the social approach to the regulation of a particular harmful act. We will look at very recent literature dealing with each of them in turn.

2.1.1. Endogenous Legal Systems: Beyond the Civil vs. Common Law Divide

From an abstract standpoint, the legal system is a mechanism aggregating social preferences into a level of deterrence for harmful conduct; the gears of such mechanism are the lawmaking rules fixing the identity of the lawmaker – for instance, the Legislator or appellate judges – and the procedures of dispute adjudication. Such rules are so long-

lasting that comparative legal scholars have referred to them as a unitary bundle of institutions called ‘legal origins’. Two are the most widespread legal origins worldwide: the civil law and the common law.⁴ While the latter originated in thirteen-century England and has been transplanted through colonization into England’s ex-colonies, the former has its original roots in Roman law and has been imported through the Napoleonic codes to Italy, Belgium, the Netherlands, Spain and Portugal. These last four powers, along with France, spread it to the Near East, Latin America, Northern Africa and Indochina. While common law recognizes a key role to precedents and allows more procedural discretion to lower adjudicating courts, civil law relies on legal codes and bright-line adjudication rules.⁵ Building on these deep differences, a massive literature, started almost 15 years ago, proposed the idea that the exogenous transplantation process brought into the colonies not only specific laws, but also a more ‘general style of the legal system’ as well as the mother-country human capital.⁶ Hence, even if the original transplanted laws adapted to local circumstances and technological progress, the bundle of lawmaking and adjudication rules, with their ideological content and their impact on the judiciary, remained unaltered, continuing to shape the quality of the new laws. Accordingly, the ‘legal origins’ movement has provided evidence suggesting that, compared to the countries to which the French civil law was originally transplanted, those that initially received common law show:

‘(a) better investor protection, which in turn is associated with improved financial development [...], (b) lighter government ownership and regulation, which are in turn associated with less corruption, better functioning labour markets, and smaller unofficial economies, and (c) less formalized and more independent judicial systems, which are in turn associated with more secure property rights and better contract enforcement’.⁷

In the last few years, however, an increasing legacy of legal studies have criticized the ‘legal origins’ maintained assumption that the transplanted legal infrastructures remained

⁴ ‘The following factors [crucially shape] the style of a legal system [...]: (1) its historical background and development, (2) its predominant and characteristic mode of thought in legal matters, (3) especially distinctive institutions, (4) the kind of legal sources it acknowledges and the way it handles them, and (5) its ideology’ (Zweigert & Kötz 1998, p. 68).

⁵ See Zweigert & Kötz 1998. See also Guerriero 2010b, for a more articulated analysis.

⁶ See for a review of the literature La Porta, Lopez-de-Silanes & Shleifer 2008 and Guerriero 2010b.

⁷ La Porta, Lopez-de-Silanes & Shleifer 2008, p. 298.

unchanged over time, noticing, in the first place, the growing importance of legislation in common law countries.⁸

Inspired by this crucial observation, the ‘legal origins’ project has been challenged on both theoretical and empirical grounds by studies aimed at proving the basic point that different bundles of legal institutions are optimal in different social contexts. First, more careful historical analyses have refuted the medieval-grounded primacy of common law in protecting private ordering.⁹ Second, consistent with recent evidence, a growing number of models have clarified that the evolutionary efficiency of case law is far from obvious at the theoretical level.¹⁰ Third, the initial partition in countries that inherited the civil law tradition and countries that inherited the common law tradition has been proved inconsistent with the fact that a large number of countries effectively chose whether to retain the originally transplanted institution or shift. This critique to the ‘legal origins’ project has been based on both a more detailed process of data gathering and a deeper theoretical inquiry into the comparative properties of the two legal traditions.¹¹

This work has recorded: 1) the lawmaking institution in place at independence and in 2000 in 156 countries that received their initial legal order externally; 2) the four most relevant adjudication institutions in place in 98 of these 156 countries at the same points in time. Contrary to the ‘legal origins’ maintained hypothesis, 26 countries have reformed their lawmaking institution and 91 their lawmaking and/or at least one of the adjudication procedures in such a way that: 1) reforms toward case law in countries to which statute law was imposed by continental European colonizers are more likely the weaker democracy and the broader cultural heterogeneity; 2) symmetrically, moves toward statute law in England's ex-colonies are found where the cultural differences among subgroups are the smallest.

Culture is the main driver of this pattern. Recent psychological studies suggest that humans have well defined preferences over the harshness of punishment for dangerous actions, and that these tastes are modulated by the cultural biases of the group

⁸ See, for instance, the anecdotal evidence on corporate governance discussed in Roe 2004.

⁹ See the historical comparison of the evolution of courts in England and in France in Klerman & Mahoney 2007.

¹⁰ Gennaioli & Shleifer 2007a, Anderlini, Felli & Riboni 2010 and Baker & Mezzetti 2010 provide different justifications to the lack of convergence toward efficiency of precedents shown by Niblett, Posner & Shleifer 2010.

¹¹ See Guerriero 2010a. Dari-Mattiacci & Guerriero 2011 confirm these patterns looking at roman law and exploiting the fact that between the fifth century B.C. and the fifth century A.D. Rome went through two momentous law making reforms. Finally, Guerriero 2011b exploits the exogenous instruments identified in

to which individuals pertain.¹² Under case law appellate judges bring the bias of their own group into the law. Yet, the institutional relevance recognized to precedents moderates them. Thus, opposing biases balance one another over time leading to the socially optimal rule, which is the mean of those preferred by each group. This comes at the cost of everlasting uncertainty over the law. Under statute law, instead, legal rules are selected by a Legislator, who weights the welfare of society against the perquisites obtained favouring a cultural group and has as outside option the optimal law. When the disagreement among social groups is limited, the costs that a collective action requires discourage bribing; hence, statutes are contemporaneously certain and optimal, and statute law outperforms case law. When, however, cultural heterogeneity is sufficiently high, statutes become more biased the lower the quality of the political process – i.e., democracy. In this case, it can be shown that case law prevails over statute law when political institutions are sufficiently weak. This model also shows that the use of limited discretion by adjudicating courts increases appellate judges' overruling costs and makes statute law volatile. Thus, a pure common (civil) law tradition where case (statute) law is used along with flexible (bright line) adjudication rules will endogenously arise.

These results cast two fundamental doubts on the 'legal origins' approach. First, how can we give a causal interpretation to the impact of institutions which were not even in place?¹³ Second, how can we defend the exogeneity assumption if the evolution of legal systems is driven by primitive forces affecting also the performances we want to explain? These are two of the key questions that the approach proposed in this chapter can help to tackle.

2.1.2. *Endogenous Laws and Regulations: Understanding Comparative Variation*

Even if the presence of different law-making and adjudication institutions can explain the distance between the prevailing laws and the socially optimal ones,¹⁴ there is still

Guerrero 2010a to measure the truly exogenous impact of the transplanted legal tradition on economic outcomes.

¹² See Herrmann, Thöni & Gächter 2008.

¹³ A similar criticism is proposed by those contributions showing that the initial 'legal origins' codification was picking a correlation between specific features of colonization – like human capital and the enforcement of property rights – and economic development (Perotti & Von Thadden 2006; Garoupa & Gomez Liguere 2010; Musacchio 2010).

¹⁴ Another dimension determining the overall quality of the law is the degree of government centralization. While a centralized government fares better in terms of reducing inter-jurisdictional externalities and preventing races to the bottom (see *Louis K. Liggett Co. v. Lee* – 288 U.S. 517 [1933], 558-559 – and *New State Ice Company v. Liebmann* – 285 U.S. 262 [1932], 311), local governments exploit local knowledge

unexplained variation in the regulations adopted by legal systems pertaining to the same legal origins. Again the endogenous institutions framework has been fruitfully employed to identify primitive forces, such as the relative power of different social groups and their preferences for wrong-doing, in order to shed more light on these regularities. This can be seen as a relevant progress upon the traditional comparative law and economics approach, which has been functional in spirit and, thus, prone to look for regularities more than differences. Such an approach has maintained that, if laws in different countries are meant to provide solutions to very similar problems, they have to be similar.¹⁵ As a result, only two are the possible justifications to comparative variation: a disagreement about the optimal solution and the functional equivalence of different solutions. While the former reduces to admit that the existing variation is a temporary state deriving from human limitations in quickly grappling with important issues,¹⁶ the latter justification touches the heart of the problem. Essentially, saying that different rules in different countries are functionally equivalent is to say that, from a functional perspective, there is no variation at all.¹⁷

The difficulties in accepting this conclusion and the inability of the legal origins scholarship in explaining different regulations across societies within the same legal tradition have led several social scientists to propose path dependence as an explanation:¹⁸ laws today are different because they were different in the past. Yet, path dependence only moves the question back in time without solving the fundamental issue of the origins of legal rules. In the following, we document how the endogenous institutions framework has provided some preliminary, interesting insights in the understanding of comparative variation by way of a recent example, looking at the observed differences in the rules concerning good-faith purchase of stolen goods by an innocent buyer. Different countries balance the interests of the buyer and of the original owner of the good in different ways,

(Tiebout 1956; Oates 1972), respect heterogeneous preferences, diversify the risk of taking bad decisions (Arcuri & Dari-Mattiacci 2010), and can engage in a healthy competition to the top (Romano 1985; Breton, 1996) in providing the best rules.

¹⁵ Levmore 1987 applies this principle in explaining the variation in the good-faith purchaser rules around the world.

¹⁶ Hence, a temporary mismatch between problems and optimal rules generates an equally temporary variety of laws. This theory fits well with the federalist idea that, once the solution is found in one jurisdiction, it will easily spread to other countries, pushed by competitive forces.

¹⁷ Acemoglu & Johnson 2005 also show that, once the effects of private law and the public provisions protecting private property are separated, only the latter seem to have a sizable effect on performance. The argument here is not functional identity, but rather the ability of parties to contracting around the inefficiencies of private law.

¹⁸ Roe 1996 proposes path dependence, chaos and evolutionary theory as tools in the economics of legal evolution.

ranging from full protection of the owner to full protection of the buyer. The most recent contribution in the law and economics literature has evidenced that the theoretically optimal rule – balancing the owner’s incentives to protect his property and the buyer’s incentives to inquire about title – differs from any of the solutions adopted in reality.¹⁹ As a consequence, societies around the world should try to converge towards the optimal rule, as the theory of temporary disagreement would suggest. Yet, this conclusion would imply that comparative variation in such a crucial piece of market regulation has originated randomly around the world and that the push towards efficiency has nowhere been met by reform.

A recent study addresses this issue by systematically coding the extent of protection of the owner vs. the buyer for over one hundred countries and by explaining the large comparative variation with reference to the quality of the public enforcement of the law and the level of morality in society.²⁰ Crucially, this theory is based on: 1) the observation that, given uncertainty in the roles that each individual will take in a transaction (either buyer or seller), individuals are essentially behind a veil of ignorance and their best option is to favour the optimal rule; 2) the quality of the public enforcement of the law and the level of morality in society are likely to be independent from the rules of private law.²¹ The testable predictions are confirmed by the empirical investigation.

As this example reveals, the endogenous institutions approach is able to generate testable predictions concerning comparative variation starting from allegedly exogenous factors and offering a third way to justify comparative variation, next to functional equivalence and institutional disagreement.²² In the case of the good-faith purchase problem, this third explanation coincides with an efficient response to two exogenous

¹⁹Schwartz & Scott 2011 derives the theoretically optimal rule for good-faith purchase and argues that reforms should make the observed variety of legal solutions converge towards this rule.

²⁰Dari-Mattiacci, Guerriero & Huang 2011.

²¹The key model’s results are that: 1) there are equilibria in which moral intermediaries – who suffers a moral cost from stealing – signal their good title by charging higher prices, provided that the moral cost is sufficiently high; 2) a society should accept more coercion, if buyers value the good more than owners, and less coercion, otherwise; 3) in the last case, the market shrinks because moral types refrain from stealing. So, mature economies – those for which, due to preference heterogeneity, owners value goods more than the buyer – will move toward buyer protection, the higher is the share of moral types (lower extent of coercion) and the less efficient is public enforcement (lower impact of owner protection).

²²This result belongs to a series of other findings showing that regulatory institutions arise as the rational attempt of a society to solve a technological failure – e.g., preventing the majority of market participants from being coerced by a subgroup of more powerful special interests (Glaeser & Shleifer 2003; Djankov *et al.* 2003; Benmelech & Moskowitz 2010; Guerriero, 2011a) or of similarly powerful untrustworthy agents (Aghion *et al.* 2010).

constraints. In the conclusions we will propose other possible applications of the endogenous legal institutions approach.

2.2. Political Institutions

A plethora of contributions have documented that informal – i.e., a culture of cooperation – and formal political institutions – i.e., a democratic government – are the two key factors favouring economic development: while the former facilitates cooperation, the latter helps enforcing property rights.²³ Yet, only recently social scientists have begun to uncover the origins of these institutions in order to figure out the chain of causality – i.e., whether political institutions drive development or the other way round, to isolate the individual contributions of each type of institution – i.e., informal and formal – and to characterize their interaction.

A first strand of literature has proposed the idea that an historical experience of an efficient political organization, such as the free city-state in medieval Italy, can permeate the long-run institutional development and economic success of a society.²⁴ However, documenting that the two types of settings reinforce one another and are persistent explains neither the primitive forces producing each of them nor the way in which they interact with each other and affect economic outcomes. A first step along these lines has been taken by two recent papers. According to one of them,²⁵ democracy expands where it helps the existing elite to credibly convince the citizens that their property rights will not be expropriated. A case in point is the political evolution of Athens and Sparta at the end of the Dark Ages. While the terrain in Sparta was plain, in Athens it was hillside; this geographic characteristic made investments in new harvesting technologies by the farmers more difficult to monitor by the landowners. Hence, the elite in Athens, differently from its counterpart in Sparta, extended the franchise in order to credibly enforce property rights and, thus, stimulate difficult-to-monitor investments. Building on a similar intuition, a second study shows that regions with more volatile climate in the growing seasons of the period 1500-1750 present today stronger norms of cooperation. In other words, the latter developed in preindustrial times as a result of

²³ Guiso, Sapienza & Zingales 2006 review the contributions looking to the relation between culture and the economy, Persson & Tabellini 2009 document the role of democracy in pushing development via property rights protection.

²⁴ See the evidence discussed in Guiso, Sapienza & Zingales 2008 and Tabellini 2010.

²⁵ Fleck & Hanssen 2006.

episodes of mutual insurance against climatic risk.²⁶ Yet, even if innovative, these papers neither clarify whether forces shaping one type of institution affect also the other type nor characterize the full set of interactions among culture, democracy and the economy.

An even more recent contribution has shed more light on these points, bridging together the intuitions of the two papers just discussed and looking at the experience of 100 European regions between the 11th and 17th centuries.²⁷ From a theoretical point of view, this study argues that: 1) exogenous geographical factors have a first order effect only on the institution more related to the economic activity it determines – risk sharing for culture and investment for democracy; 2) cultural formation and democratization reinforce each other working as commitment devices in the intermediate situations – when showing commitment to cooperate in the future, by either assuring property rights as elite or cooperating in investment as citizens, is crucial in favouring investments; 3) technological shocks could destroy valuable institutions by affecting the related economic activity. Estimates based on the geographical features and institutions of the regions studied are consistent with this prediction. Crucially, the mix of clear-cut predictions and the identification of the roots of institutional formation will allow future contributions to characterize the role of each type of institution in shaping economic development and to identify the best public policies to implement.

3. Learning from History

The endogenous institutions approach naturally extends to history and, vice versa, insights from history cross-fertilize modern theories on how institutions emerge and develop. Ancient economies, in particular in the Greco-Roman world, were technologically and organizationally very different from modern ones. Not only did they heavily rely on chattel slavery as a mean of production, but they also lacked many of the tools – including both technology and accounting techniques, such as double entry book-keeping – that appeared only later during the middle ages and the industrial revolution. This observation has induced many scholars (the ‘primitivists’) to claim that the Roman economy was essentially a household economy and denied any role for market exchange.²⁸ In contrast, ‘modernists’ have argued that also ancient economies were based

²⁶ Durante 2010.

²⁷ Boranbay & Guerriero 2011.

²⁸ Finley 1973; Pearson 1957.

on regular markets and that market exchange played an important role.²⁹ The debate has become ideologically and terminologically loaded and scholars are trying to go beyond it, in order to inquire to what extent – between the two extreme views taken by the primitivist and modernist positions – market exchange played a role in ancient economies.³⁰ Once reformulated, the inquiry on the structure of ancient economies reveals very interesting issues for the legal economist as to exactly how market exchange was organized and especially how the institutions supporting such an exchange emerged and evolved in a technologically-constrained environment. Also, the needs and the characteristics of the economy may have fed back into the institutions generating further change. One example of such fruitful interdisciplinary is provided by inquiries into the genesis of the corporate form.

An Example: The Origins and Evolution of the Modern Corporate Form

The emergence of the legal infrastructure supporting the modern corporate form is one of the most influential legal innovations, one that broke with the past and spurred a host of further changes in the law and in society. The corporate form has proven to be essential for business for it allows broad participation of diffuse investors in risky business endeavours, facilitate financing and allows for long-term investments that transcend the live-spans of the individual investors or managers. Despite its downsides, this business format has dominated economic life in the western world for at least three centuries. A famous and somewhat abused quote from Justice Holmes states that ‘The life of the law has not been logic; it has been experience’.³¹ Yet, the challenge is precisely to find a logic in how experience guides the development of the law through time. It is important to understand why a certain legal change occurred in a specific jurisdiction or at a specific point in time, why it was not imitated elsewhere and, most interestingly, why it had not occurred earlier.

The origin of the corporate form is usually identified in the Dutch East India Company (VOC, 1602), which also gave birth to the first stock market. An analysis of the historical pattern that brought about the VOC reveals two interesting facts. First of all, other countries were in the same business of East Asian trade at the same time as the Dutch Republic, but organized their business in a different way. Second, trade with Asia

²⁹ Rostovtseff 1957.

³⁰ See Andreau 1999; Maucourant 2004; Temin 2006; Scheidel, Morris & Saller 2007.

had been going on for a while and companies were usually dissolved at the end of each voyage and then reformed again. The creation of the VOC breaks both with the Dutch Republic own past and with the strategies employed by competing countries. In the natural world such changes occur because of random variation, but this does not seem to be the case here. A recent study explains this legal innovation with reference to, on the supply side, the political situation of the Dutch Republic and, on the demand side, the specific commercial and military conditions of the time.³² The prospects of enormous gains in the Asian trade were essentially aligned with the military interests of the Dutch Republic at war with Spain. Uniting commercial and military interests required a commitment on the part of the government not to expropriate merchants once the investments had been made. Such commitment required in turn a relatively weak and accountable government. Strong monarchies in Spain, Portugal and England were unable to commit not to expropriate the gains from trade, while the essentially federal structure of the Dutch Republic limited the possibility for the government to act against the interests of the majority of the merchant community. In turn, the ability to commit allowed the state to step in and provide a path-breaking legal structure for the VOC, one that (next to monopoly rights for the exploitation of the Asian trade) conferred on the company limited liability and a medium-term life-span (initially 10 years, later made indefinite), preventing individual investors from requiring the drawing of accounts (and hence liquidation) during this period. Such a degree of long-term commitment and limited liability would not have been possible by private contracting due to prohibitive coordination costs.³³ This approach leverages on the institutional context in which legal change occurs and allows institutions to evolve endogenously in response to changing external conditions. Nevertheless, it does not disregard the importance of cultural transmission, legal traditions and technology. In fact, demand for a business format guaranteeing asset partitioning and continuity had been felt for quite some time before the creation of the VOC.

A proof of it can be indirectly obtained from business practices in ancient Rome (between the second century BC and the second century AD). A business format allowing for asset partitioning and continuity (in addition to a form of direct representation) was constructed around the attribution of dedicated assets to a slave. These assets,

³¹Holmes 1881, p. 1.

³²Dari-Mattiacci *et al.* 2011.

³³Hansmann & Kraakman 2000.

autonomously managed by the slave, were essentially a functional equivalent of a modern limited-liability company. In contrast, partnership contracts were a purely private affair and did not confer limited liability, did not imply representation and were dissolved if any of the partners died or exited. One explanation for this asymmetry is the fact that separating liability from management ran against strong cultural beliefs, holding that losses should fall where profits accrue (*ubi commoda ibi incommoda*). Businesses run by slaves were subject to a legal regime that circumvented these restrictions. As a default, the master was not liable for obligations contracted by his slave. Thus, legal evolution went in the direction of extending the liability of the master for debts generated by the slave. Being an extension of liability (rather than a restriction), the evolution of this business format went along the cultural constraints, for it attributed more liability to the master (rather than less).³⁴

After the end of classical slavery, the evolution of a (functionally) similar format based on the participation of free individuals as managers (rather than slaves) required several centuries. The VOC was only the first step. An additional innovation was made with the general incorporation statutes in the 19th century, which lifted state discretion in the concession of the corporate status and made this format available for a wide variety of businesses.³⁵ Even if much work is needed, these studies suggest that a crucial import of the focus on endogenous institutional development is the unveiling of the mechanisms that bring the system in disequilibrium and spur change. These forces do not operate in a vacuum. Rather, context and culture are important constraints.

4. Conclusions

Interdisciplinary research at the juncture of law, economics and history has shown great potential in providing a new perspective on important research issues. This potential is even greater if measured in terms of new challenging questions arising at the interface of these three disciplines. Next, we offer some considerations on three clusters of questions. The list is by no means exhaustive but should provide three interesting directions for the drafting of innovative research agendas.

³⁴ Abatino, Dari-Mattiaci & Perotti 2011.

³⁵ See, for instance, Harris 2000, p. 277-85.

4.1. Emergence and Impact of Lawmaking Institutions

The literature on the economic effects of different lawmaking institutions – namely, common vs. civil law – and the literature on their origins can be taken further by both integrating these two perspectives and broadening the scope of the inquiry. The focus has been almost exclusively on common vs. civil law, but modern societies witness a wide variety of sources of law besides courts and legislatures; moreover, different modes of production of legal rules exhibit much more nuances than this traditional divide can possibly embed. This observation suggests that the inquiry could be profitably both broadened and deepened in order to take into account the internal functioning of lawmaking institutions, their accountability to a constituency and their ability to process information,³⁶ and to include in the analysis the complex interaction among sources of law.³⁷

4.2. Relative Weight of Demand-Side and Supply-Side Drivers of Legal Change

Inquiries into the explanation of comparative legal variation face two main challenges. On the one hand, understanding the effects of change in fact means assessing the (potential) demand for change in society (or a portion of society). On the other hand, only by assuming a strong drive towards efficiency can one use the (social) demand for institutional change as an accurate description of the forces determining change. In reality, important factors affect the emergence of such demand, how it is channelled through the existing institutions and whether and how it will be received and, possibly, met. Integrating demand- and supply-side aspects of institutional development provides a richer picture than simply looking at either of them in isolation; for it is at the juncture of demand and supply that institutional and legal change occur.³⁸

4.3. Formal and Informal Institutions

Next to the technological determinants of institutional change, a very important and often neglected engine of evolution is culture. Lawyers typically look at the law as a cultural phenomenon and it is reasonable to think that slow cultural development accompanies,

³⁶See, for instance, the analysis of the interaction between judicial incentives and legal human capital in Hadfield 2011.

³⁷For instance, Pistor & Xu 2003 examine the interaction of legislation and regulation.

facilitates or at times hinders reforms. This implies that, on the one hand, culture should feature as an important explanatory variable in model of legal and political institutional change; on the other, however, economic development, the opening of markets, or changes in the institutional structure of society are likely to feedback on cultural norms, spur change or, possibly, break firmly-held beliefs. In this perspective, the challenge of future studies on formal and informal institutions is to build and test models in which, given a parsimonious set of truly exogenous forces, culture, laws and the economy interact.

References

- Abatino, B., Dari-Mattiacci, G. & Perotti, E., ‘Depersonalization of Business in Ancient Rome,’ *Oxford Journal of Legal Studies*, 2011, forthcoming.
- Acemoglu, D. & Johnson, S., ‘Unbundling Institutions,’ *Journal of Political Economy*, 2005, p. 949-995.
- Aghion, P., Algan, Y, Cahuc, P. & Shleifer, A., ‘Regulation and Distrust,’ *Quarterly Journal of Economics*, 2010: 1015-1049.
- Andreau, J., *Banking and Business in the Roman World*, Cambridge: Cambridge University Press, 1999.
- Arcuri, A. & Dari-Mattiacci, G., ‘Centralization versus Decentralization as a Risk-Return Trade-off’, *Journal of Law and Economics*, 2010: 359-378.
- Aristotle, *The Athenian Constitution* (F.G. Kenyon trans.). MIT, The Internet Classics Archive, classics.mit.edu, 1994.
- Baker, S. & Mezzetti, C., *A Theory of Rational Jurisprudence*, Working Paper, 2010.
- Benmelech, E. & Moskowitz, T.J., ‘The Political Economy of Financial Regulation: Evidence from U.S. State Usury Laws in the 19th Century’, *Journal of Finance*, 2010, p. 1029-1073.
- Boranbay, S. & Guerriero, C., *Endogenous (In)Formal Institutions*, Working Paper, 2011.
- Breton, A., *Competitive Governments*. Cambridge: Cambridge University Press, 1996.
- Dari-Mattiacci, G. & Guerriero, C., *Fiat Lex: Lawmaking, Politics, and Cultural Heterogeneity in Ancient Rome*, Working Paper, 2011.
- Dari-Mattiacci, G., Guerriero, C. & Huang, Z., *The Good-Faith Purchaser: Markets, Culture, and the Legal System*, Working Paper, 2011.

³⁸For instance, Parisi & Fon 2003 stress the importance of supply in the evolution of precedents.

- Dari-Mattiacci, G., Gelderblom, O., Jonker, J. & Perotti, E., *Institutional Discontinuity: The Twisted Emergence of Legal Personality in the Dutch East India Company*, Working Paper, 2011.
- Deakin, S., 'Legal Evolution: Integrating Economic and Systemic Approaches', *Review of Law and Economics*, 2011, forthcoming.
- Djankov, S., Glaeser, E., La Porta, R., Lopez-de-Silanes, F. & Shleifer, A., 'The New Comparative Economics,' *Journal of Comparative Economics*, 2003, p. 595-619.
- Durante, R., *Risk, Cooperation and the Economic Origins of Social Trust: an Empirical Investigation*, Working Paper, 2010.
- Fernandez, P.A. & Ponzetto, G.A.M., 'Case Law vs. Statute Law: an Evolutionary Comparison', *Journal of Legal Studies*, 2008, p. 379-430.
- Fleck, R.K. & Hanssen, F.A., 'The Origins of Democracy: A Model with Application to Ancient Greece', *Journal of Law and Economics*, 2006, p. 115-146.
- Fleck, R.K. & Hanssen, F.A., *How Tyranny Paved the Way to Wealth and Democracy: A Model with Application to Ancient Greece*, Working Paper, 2010.
- Fon, V. & Parisi, F., 'Litigation and the Evolution of Legal Remedies: A Dynamic Model', *Public Choice*, 2003, p. 419-433.
- Garoupa, N. & Gomez Liguerra, C., 'The Syndrome of the Efficiency of the Common Law', *Boston University Journal of International Law*, 2011, p. 287-335.
- Guiso, L., Sapienza, P. & Zingales, L., 'Does Culture Affect Economic Outcomes?', *Journal of Economic Perspectives*, 2006, p. 23-48.
- Guerrero, C., *Democracy, Judicial Attitudes and Heterogeneity: the Civil Versus Common Law Tradition*, Working Paper, 2010.
- Guerrero, C., 'Legal Traditions and Economic Performances: Theory and Evidence,' in B. Bouckaert & G. De Geest (eds.), *Encyclopedia of Law and Economics* Cheltenham, Edward Elgar, (2nd ed.), 2010, forthcoming.
- Guerrero, C., *The Political Economy of (De)Regulation: Theory and Evidence from the U.S. Electricity Market*, Working Paper, 2011.
- Guerrero, C., *Endogenous Legal Traditions and Economic Outcomes*, Working Paper, 2011.
- Hadfield, G.K., 'The Dynamic Quality of Law: The Role of Judicial Incentives and Legal Human Capital in the Adaptation of Law', *Journal of Economic Behavior and Organization*, 2011, forthcoming.
- Hansmann, H. & Kraakman, R.H., 'The Essential Role of Organizational Law', *Yale Law Journal*, 2000, p. 387-440.

- Harris, R., *Industrializing English Law: Entrepreneurship and Business Organization, 1720-1844*, Cambridge: Cambridge University Press, 2000.
- Henry, P.B. & Miller, C., ‘Institutions versus Policies: A Tale of Two Islands’, *American Economic Review*, 2009, p. 261-267.
- Herrmann, B., Thöni, C. & Gächter, S., ‘Antisocial Punishment Across Societies’, *Science*, 2008, p. 1362-1367.
- Holmes, O.W., *The Common Law*, Boston: Little, Brown, and Co., 1881.
- Holtman, R.B., *The Napoleonic Revolution*, New York: J.B. Lippincott, 1967.
- Klerman, D. & Mahoney, P.G., ‘Legal Origin?’, *Journal of Comparative Economics*, 2007, p. 278-293.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. & Vishny, R.W., ‘Law and Finance’, *Journal of Political Economy*, 1998, p. 1113-1155.
- La Porta, R., Lopez-de-Silanes, F. & Shleifer, A., ‘The Economic Consequences of Legal Origins’, *Journal of Economic Literature*, 2008, p. 285-332.
- Levmore, S., ‘Variety and Uniformity in the Treatment of the Good-Faith Purchaser’, *Journal of Legal Studies*, 1987, p. 43-65.
- Maucourant, J., ‘Rationalité économique ou comportements socio-économiques’, in: J. Andreau, J. France & S. Pittia (eds.), *Mentalités et choix économiques des Romains*, Bordeaux: Ausonius, 2004, p. 227-240.
- Moses, I.F., *The Ancient Economy*, London: Chatto & Windus, 1973.
- Musacchio, A., *Law and Finance C. 1900*, Working Paper, 2010.
- Oates, W.E., *Fiscal Federalism*, New York: Harcourt Brace, 1972.
- Pearson, H.W., ‘The Secular Debate on Economic Primitivism’ in: K. Polany, C.M. Arensberg & H.W. Pearson (eds), *Trade and Market in the Early Empires. Economies in History and Theory*, Glencoe: The Free Press, 1957, p. 3-11.
- Perotti, E. & Von Thadden, E.-L., ‘The Political Economy of Corporate Control and Labor Rents’, *Journal of Political Economy*, 2006, p. 145-174.
- Persson, T. & Tabellini, G., ‘Democratic Capital: The Nexus of Political and Economic Change’, *American Economic Journal: Macroeconomics*, 2009, p. 88-126.
- Pistor, K. & Xu, C., ‘Incomplete Law’, *New York University Journal of International Law and Politics*, 2003, p. 931-1013.
- Roe, M.J., ‘Chaos and Evolution in Law and Economics’, *Harvard Law Review*, 1996, p. 641-668.
- Romano, R., ‘Law as a Product: Some Pieces of the Incorporation Puzzle’, *Journal of Law, Economics and Organization*, 1985, p. 225-83.

- Rostovtseff, M.I., *The Social and Economic History of the Roman Empire*, Oxford: Oxford University Press, 1957.
- Scheidel, W., Morris, I. & Saller, R.P., *The Cambridge Economic History of the Greco-Roman World*, Cambridge: Cambridge University Press, 2007.
- Schwartz, A. & Scott, R.E., 'Rethinking the Laws of Good Faith Purchase', *Columbia Law Review*, 2011, forthcoming.
- Smits, J.M., 'Is Law a Parasite? An Evolutionary Explanation of Differences among Legal Traditions', *Review of Law and Economics*, 2011, forthcoming.
- Tabellini, G., 'Culture and Institutions: Economic Development in the Regions of Europe', *Journal of European Economic Association*, 2010, p. 677-716.
- Temin, P., 'The Economy of the Early Roman Empire', *Journal of Economic Perspectives*, 2006, p. 133-51.
- Tiebout, C.M., 'A Pure Theory of Local Expenditures', *Journal of Political Economy*, 1956, p. 416-33.
- Watson, A. (ed.), *The Digest of Justinian*, Philadelphia (PA): University of Pennsylvania Press, 2009.
- Zweigert, K. & Kötz, H., *Introduction to Comparative Law*, Oxford-New York: Oxford University Press, 1998.