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Thorsten Beck

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Thorsten Beck, CentER and EBC, Tilburg University and CEPR

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Centre for Economic Policy Research
77 Bastwick Street, London EC1V 3PZ, UK
Tel: (44 20) 7183 8801, Fax: (44 20) 7183 8820
Email: cepr@cepr.org, Website: www.cepr.org

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ABSTRACT

Legal Institutions and Economic Development*

Legal institutions are critical for the development of market-based economies. This paper defines legal institutions and discusses different indicators to measure their quality and efficiency. It surveys a large historical and empirical literature showing the importance of legal institutions in explaining cross-country variation in economic development. Finally, it presents and discusses three different views of why we can observe the large cross-country variation in legal institutions, the social conflict, the legal origin and the culture and religion hypotheses.

JEL Classification: K1, K4, O16, O43 and P14
Keywords: economic development, legal institutions, legal system indicators and property rights

Thorsten Beck
CentER
Tilburg University
P.O. Box 90153
5000 LE Tilburg
NETHERLANDS

Email: T.Beck@uvt.nl

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1. Introduction

Stark cross-country differences in levels of economic development have motivated economists to look for factors that explain these differences. But there is also a historic dimension; it is only for the past 500 years that Europe has gained a dominant socio-economic position, which has gone hand in hand with the rise of capitalism. What has driven this increasing divergence in the economic fates of societies? This chapter focuses on the efficiency of legal institutions as a major explanation for the rise of capitalism in Europe and other parts of the world, including some – but far from all - areas settled and colonized by Europeans. Specifically, this chapter (i) defines and discusses indicators of legal institutions, (ii) surveys the historic, theoretical and empirical literature on the importance of legal institutions for market-based capitalism and economic development and (iii) presents and compares different theories of why and how legal institutions developed differently across societies.

Until thirty years ago, economists focused mostly on production factors as major drivers of cross-country differences in GDP per capita. Specifically, technological progress, capital accumulation and population growth have been considered critical factors of growth in the neoclassical growth theory (Solow, 1956). The endogenous growth theory has focused on endogenous human capital accumulation as additional production factor and technological progress and constant returns to scale production functions as additional growth drivers (Romer, 1990, Aghion and Howitt, 1998). However, early on, economists noted the large extent to which cross-country differences in levels of economic development could not be explained by production factors. Solow (1957) pointed to the residual of more than 80% of cross-country variation in GDP growth, unexplained by differences in production factors, and attributed it to productivity growth. Economists have therefore looked beyond the production function and focused on the organization of economies. Adam Smith (1776) already stressed the importance of private property right protection for specialization and market exchange and thus ultimately for innovation and growth. Hayek (1960, p. 140) pointed to private property right as “vital for preventing coercion, securing liberty and enhancing personal welfare.” Economic historians, such as North and Thomas (1973), have provided first accounts of the critical role of institutions. The Barro-style growth regression model has been used extensively by economists to study the relationship between institutions and growth.

However, it is not only economists that have explored the divergence in economic development and the rise of capitalism in Europe. Historians, sociologists and anthropologists have studied the importance of institutions for economic development over the past centuries. Going back even further, Jared Diamond (1997) reviews the past 10,000 years of human history and attributes the success of Europe to the East-West geographic extension of Eurasia as opposed to the North-South orientation of Africa and the Americas. The East-West extension along similar climatic conditions allowed an easier spread of plants, domesticated animals and technology and thus enabled the faster development of Europe and Asia from hunters to settlers to states, implying an earlier build-up of the necessary institutions, ultimately explaining why it was Europeans who colonized the Americas and Africa and not the other way around.

This chapter focuses on the economic approach to institutions, thus focusing on their role of supporting markets and exchange between economic agents, overcoming market frictions. This is somewhat different from the sociological and legal approaches to institutions and their role in society. The sociological view of institutions focuses on interactions between individual within society and on dimensions such as normative behavior, social codes of conduct and beliefs, social structures and relationships and tradition (Greif, 2006, chapter 1; Smelser and Swedberg, 1994). In the legal profession, there are different schools of thought, ranging from traditionalists who see law as supra-human, to realists who see law as manipulated by humans and interpreting it in the context of public choice theory (McNollgast, 2007). Increasingly, however, economists have been influenced by the work in related disciplines. Social codes and traditions are seen as important determinant of institutions and comparative law study has informed the legal origin view of legal institutions.

Legal institutions comprise a wide array of rules, arrangements and actual institutions. They support commercial transactions among agents that do not know each other, might not meet again and can therefore not rely on reputation and repeated interaction. We can categorize legal institutions along several dimensions, whether they are private or public, information or enforcement based and whether they govern relationships between private agents or between private agents and governments. Recent cross-country data collection efforts have allowed researchers quantifying certain legal processes and measuring the efficiency of legal systems. Legal system indicators range from very general measures of the institutional framework over indicators of specific institutional arrangements and political structures to measures of specific legal procedures such as contract enforcement or property registration. These different measures can also be mapped into different concepts of institutions, ranging from specific rules to a broader concept of the institutional framework as encompassing both informal and formal institutions of a society.

Historic accounts, theory and empirical work have shown that legal institutions have a first-order impact on the structure and development of economies and have supported the rise of capitalism in Europe since Medieval times. Critically, a growing literature has shown the importance of property rights for economic development (Acemoglu, Johnson, and Robinson, 2005b). This is confirmed by a large literature showing the importance of legal institutions explaining cross-country and cross-industry variation in entrepreneurship, formality, corporate governance and structure, firm investment and firm growth. The experience of the transition economies over the past two decades has underlined the importance that effective legal institutions play for the successful transformation into a market economy (Beck and Laeven, 2006). Similarly, a large empirical literature has shown the critical role that legal institutions play in the development and structure of financial systems, corporate structure and governance and firms' investment decisions and growth (Beck and Levine, 2005).

If legal institutions are so critical to economic development, why do not all countries adopt sound legal institutions? Different hypotheses have been put forward to explain the large cross-country divergence in legal system quality. While the social conflict hypothesis conjectures that the socio-economic distribution of resources and political power determines formal institutions, including the legal framework, the legal origin view sees today's legal institutions as result of legal tradition, which in most countries was inherited through colonization or imitation. Policy choices made in France, the UK and Germany several centuries ago therefore have critical repercussions for legal institutions around the world today. A third hypothesis points to different attitudes of major religions and different approaches of societies towards individualism and risk-taking as driving institutional differences across countries.

It is important to point out the limitations of this survey. First, while we will review the institution and growth literature to the extent that it is relevant for the role and origin of legal institutions in modern economies, this is not a complete survey of that literature (Acemoglu, Johnson and Robinson, 2005b). This is also not a complete survey of the influence of historical development on today's economic outcomes (Nunn, 2009). Second, reform issues will not be discussed in depth, only to the extent that they illustrate the importance of specific legal institutions.[1] This survey is also related to several other recent surveys, including on the role of finance in economic growth (Levine, 2005a) and the importance of corporate governance for economic development (Morck, Wolfenzon and Yeung, 2005).

The remainder of the chapter is structured as follows. Section 2 defines legal institutions and presents different attempts at measuring them. Section 3 surveys the historic, theoretical and empirical literature that shows the importance of legal institutions for capitalism and economic development. Section 4 presents different theories of the divergence of legal institutions across countries and empirical evidence. Section 5 summarizes and looks forward.

2. What are legal institutions and how do we measure them?

Discussing the importance of legal institutions requires first defining them. Furthermore, using legal institutions in empirical work requires having appropriate measures for them. This section first defines legal institutions before discussing different indicators and measures for them.

2.1. Defining legal institutions

According to North (1990, p.3) institutions are the "rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction… they structure incentives in human exchange, whether political, social or economic."[2] Legal institutions – as subset of the overall institutional framework – can be defined as rules that govern commercial relationships between different agents of the society, i.e. firms, households, and government. In the broadest sense, legal institutions thus support market-based transactions by defining property rights and allowing for their transfer and protection. They allow for the writing and enforcing of contracts between agents that do not know each other, in a cost-effective manner, thus helping to avoid hold-up problems. Legal institutions also provide public goods and govern externalities and third-party effects through providing coordination mechanisms and resolving collective action problems (Rubin, 2005).

When defining legal institutions, one can distinguish between several levels, which are also reflected in the measurement of institutions, as I will discuss below. On the most general level, "legal institutions" refer to the institutional framework that underpins contractual relationships in a society and encompasses not only laws and their enforcement, but also norms and values. On a more specific level, we can refer to specific institutions that can be found across the world, such as court systems or property registries. On an even more specific level, "legal institutions" refer to specific legal procedures, such as enforcing contracts or registering property, which can be undertaken in a different manner and by different institutional structures across countries.

One specific set of institutions governs the relationship between agents within corporations. Corporate governance is an important area of legal institutions (Morck, Wolfenzon and Yeung, 2005) that defines the relationship between investors and managers and among investors with different stakes in the corporations. This relationship can be defined by public rules and laws, but also rules within the corporation as well as norms and traditions developed over time. One important dimension is the distribution of cash-flow rights on a corporation's profits, the control rights over management and how the two relate to each other. Over time, societies have defined these relationships in different ways and allowed for different corporate forms, such as partnerships, limited liability companies and publicly traded companies that allow separation of management and ownership. As we will discuss below, corporate governance institutions also help define the boundary between intra- and inter-firm transactions.

Given the intertemporal character of financial transactions and the high degree of asymmetric information and the resulting agency problems, legal institutions play an especially important role in the financial sector. Among the institutions that financial economists have focused on are those governing agency relationships, such as the rights of secured and unsecured creditors vis-a-vis borrowers in- and outside bankruptcy and the rights of minority shareholders vis-a-vis management and blockholders, as well as institutions that help overcome information asymmetries, including the quality of accounting and auditing frameworks and systems of credit information sharing.

One can classify the large number of legal institutions along different dimensions. Specifically, one can distinguish between (i) organic and designed institutions, (ii) information-based and enforcement-based institutions, and (iii) private and public institutions.[3] Critically, one can distinguish between contract enforcement and coercion-constraining institutions.

Let's discuss first the difference between information-based and enforcement-based institutions (Dixit, 2009). On the one extreme would be the internal value system, which might be influenced by social preferences and education, and bilateral interactions that govern the behavior of agents and commercial transactions. Information intermediaries, such as social networks, trade organizations, credit bureaus or credit rating agencies are multilateral institutions that focus on information exchange, either in a decentralized or more centralized manner, and that provide a disciplining tool by helping agents build (or destroy) reputation capital. Enforcement institutions, on the other hand, focus on direct, monetary or non-monetary, punishment as consequence of violating rules and can be regulatory agencies, courts and ancillary judicial services, thus mostly public institutions.[4]

Another important distinction, which we will use throughout this chapter is that between institutions governing commercial relationships between two private parties and institutions governing relationships between private parties and the government. These are also referred to as contract enforcement institutions and coercion-constraining institutions (Greif, 2005), respectively. Coercion-constraining institutions prevent governments from expropriating private citizens and defaulting on their commitments. Contract enforcement institutions, on the other hand, help resolve disputes between private parties. While these two sets of institutions are certainly not independent from each other, there is not a perfect correlation, as we will discuss below.

Among contract enforcement institutions, one can distinguish between private- and public-order legal institutions as well as between organic and designed institutions (Greif, 2005). While organic institutions arise endogenously out of the repeated exchange of agents, designed institutions are the result of coordinated actions of many individuals or government. The former can also be characterized as informal, while the latter as formal institutions. While the development of human societies from bands and tribes to chiefdoms and states has resulted in the development of public legal institutions supporting commercial transactions between agents that do not know each other, multilateral private institutions have also developed, both complementary and as substitute to public legal institutions.

Beyond bilateral organic private-order institutions, which are based on reputation and relationships, multilateral reputation institutions can support market transactions in a wider range of circumstances and in somewhat broader markets, including across geographic distances and borders. Multilateral arrangements rely on punishment by an individual member against another member who cheated a third party, also member of the network, without being directly negatively affected by the cheater (Greif, 2005). The organic character of these institutions implies that in many cases common social, ethnic or cultural norms provide the conditions for such networks to arise and enable punishment. Greif (1993) provides a detailed discussion of the Jewish Maghribi traders who traded all over Muslim dominated Mediterranean in the 11^{th} century and who used each other as agent for the sale of their goods. Based on Law Merchant, a multilateral punishment system, and the expectation that only members of the network could be hired as agents the Maghibri trader network survived for many decades.

While organic multilateral private institutions can help overcome the problem of asymmetric information, they also have shortcomings. First, they are not inclusive as they are limited to members of certain groups with common background**s** or common interests and thus exclude others. Today’s ethnic networks in Africa are a good example; while helping their members, they exclude the majority of agents in the economy and therefore undermine demand for public institutions. Second, organic multilateral private institutions are built for a specific, static environment, but cannot easily adapt to new and changing socio-economic circumstances. They “are more likely to arise where markets are thin and participants locked into relationships” (Greif, 2005, p. 732). Dixit (2003) shows theoretically how growth in the market beyond a certain threshold can lead to the breakdown of such networks. Finally, the initial fixed costs of setting up organic multilateral private institutions are low, while the marginal costs are high; on the other hand, fixed costs are very high for the set-up of formal legal institutions, while marginal costs are low. This makes the relative benefit of organic private multilateral arrangements decrease as the size of the population widens and the market increases in size and participants.

Unlike organic private institutions, designed private institutions are “intentionally established by economic agents in response to profit opportunities” (Greif, 2005, p. 739). They are similar to organic private institutions as they rely on socio-economic sanctions by their members, while they share with public institutions the formal rules and the intentional design and therefore also adaptability. They include business associations and self-regulated stock exchanges, but also private information providers, such as credit rating agencies and hotel franchises. The Internet revolution has given rise to new multilateral private institutions enabling market exchange, such as eBay, an online auction and shopping website, and Craigslist, a centralized network of online classified advertisements. The optimal size of such a private institutions depends positively on the speed with which information can be exchanged; in large networks with slow information sharing, violators might be able to continue in the network before word of their violation spreads. Internet platforms such as eBay and Craigslist can therefore sustain a large number of participants, as information exchange is almost instantaneous.

Another important private multilateral legal institution is arbitration, often an alternative to the public legal system that solves conflicts between contract parties that have pre-committed to using the arbitration system. The advantages for the users are greater specialization and thus competence of the arbitrators, the use of customary law and flexibility in terms of which legal system to choose. Arbitration without the backup by a public court system, however, is often not feasible, unless reputation forces the losing party to comply with the ruling (Rubin, 2005).

Compared to private institutions, public order institutions use the power of a third party, the state, to enforce rules and laws. They are open as they concern all agents in a political entity or beyond it in case of international legal institutions. As in the case of private contract enforcement institutions, however, incentives for this third party, the courts, police etc., are important. Judges and enforcement officials can be bribed and they can abuse their power. Limiting the extent to which this happens is the function of coercion-constraining institutions.

Coercion-constraining institutions govern the relationships between private citizens and the government and are therefore an important basis for public contract enforcement institutions as well as a backdrop for private legal institutions. Effective coercion-constraining institutions protect private citizen against unjustified expropriation from the government. They provide incentives for rulers and enforcement institutions to protect rather than abuse private property rights. There are coercion-constraining institutions based on an administrative structure, or on the absence of the state in the commercial area, such as in China during most of the Empire (Greif, 2005). The form of coercion-constraining institutions can determine the efficiency of public legal institutions. Coercion-constraining institutions built on the absence of the state are not conducive to the building of efficient public contract enforcement institutions (Greif, 2005).

Legal institutions are typically very persistent. Public legal institutions are especially difficult to change as this involves large fixed costs. Legal institutions are also self-enforcing**,** if they reflect the socio-economic power distribution in a society and help to preserve it (see section 4). In addition, initial private institutions influence the development of public institutions through the value system developed with these initial private institutions

(Greif, 2005). The persistence of legal institutions is also reflected in the classification of legal systems into Common and Civil Law systems (see section 4).

2.2. Measuring legal institutions[5]

While the legal and early institutional literature has extensively discussed different legal institutions and their importance, up until recently few quantitative measures of legal institutions and their quality were available. Early indicators were survey-based responses by experts to questions such as: "How strong and impartial is the legal system?"or: "what is the risk of expropriation of private foreign investment by government", compiled by the Political Risk Services (PRS) or Business Environment Risk Intelligence (BERI).[6] Such indicators are typically constructed on a scale of 1 to 6 or 1 to 10, with higher numbers indicating higher levels of institutional development.

There are several concerns with expert survey-based measures of legal institutions. First, they are perception-based and might reflect outcomes, especially levels of economic development, rather than institutional inputs, which would undermine their use in establishing the relationship between institutions and GDP per capita (Glaeser et al., 2004). Second, these measures are very broad, encompassing both formal and informal institutions, and do not allow any statement about institution-specific characteristics. They therefore also allow limited space for linking empirical findings to specific policy recommendations. Third, the scaling can be rather arbitrary; is the difference between a four and a five in Rule of Law the same as the difference between a five and a six? Finally, these measures are based on responses by experts often focusing on conditions for foreign investors, thus affecting only a small part of the economy (Pande and Udry, 2006). Institutional development, as perceived by these experts, might therefore not be relevant for economic decisions by large parts of the population in developing countries.

An alternative approach tries to gauge the quality of coercion-constraining political institutions. The Polity IV measure of *constraints on the executive* is one of the most frequently used indicators of coercion-constraining institutions.[7] While more specific than the PRS or BERI indicators, they are still based on expert opinion and do not refer to specific rules or institutional arrangements.

More detailed measures of political structure and the relative power of different players focus on specific rules. La Porta et al. (2004), for example, measure the tenure of Supreme Court justices and the possibilities of Supreme Courts to judge cases involving government administrations to construct indicators of judicial independence. Beck et al. (2001) construct indicators of checks and balances based on the number of potential veto players in the political decision process, and Keefer and Stasavage (2003) show that political independence of central banks in the conduct of monetary policy is more likely in countries with higher checks and balances. Similarly, voting procedures and average district sizes in parliamentary elections can have an important first-order effect on economic development (Persson and Tabellini, 2003).

A third type of institutional data refers to very specific contract enforcement institutions and their functioning. Since 2000, the Doing Business initiative at the World Bank Group has collected data on very specific legal procedures.[8] These indicators measure the time it takes to register a new company or property claims and the registration costs. They gauge the time and costs of enforcing a standard contract and the recovery rate for creditors in a bankruptcy. Cross-country comparability is ensured by defining standard situations, such as recovering the amount of a bounced check or evicting a non-paying tenant and standard asset size – e.g. relative to GDP per capita – for registration of property. Another and related set of indicators refers to specific laws on the books protecting the rights of secured creditors in and outside bankruptcy and the rights of minority shareholders vis-à-vis majority shareholders and management.[9] These indicators have also been used to rank countries according to the ease of doing business and have provided impetus for reform efforts.

Indicators of the political structure and specific dimensions of the business environment have the advantage that they measure very specific institutional arrangements on a consistent basis, which facilitates cross-country comparisons. However, they also have several shortcomings. First, they measure only public, but not private institutions. This is important as Fafchamps (2004) points to the lack of private rather than public legal institutions as characterizing institutional development (or rather the lack thereof) in Sub-Saharan Africa. Second, they might reflect de jure but not de-facto institutions, as illustrated very well by McMillan and Zoido (2004) for Peru under the Fujimoro regime in the 1990s, when the country received a perfect score for judicial independence while corruption was ripe in the judicial system.

A fourth category of proxies of the quality of legal institutions is based on firm- or household-level data. Firm-level surveys since the late 1990s have included questions on the perceived quality of the judiciary, the extent to which the legal system constitutes a constraint to operation and growth of the enterprise, and the risk of expropriation by government.[10] Such micro-data can capture not only cross-country variation in legal institutions, but also within-country variation in how legal institutions affect firms. Schiffer and Weder (2001) and Beck et al. (2006a) show that these obstacles vary across firms of different sizes, ownership and corporate form. There are several shortcomings to the use of such microdata, however. First, they are subjective and might not necessarily represent binding constraints on firms. Second, similar to aggregate survey data, they might be driven by outcomes, such as firm growth rather than being the driving force behind firm performance. Nevertheless, using appropriate econometric models, firm-level assessments of legal institutions have been widely used to assess the relationship between legal institutions and firm performance **(**see the next section**)**.

Kaufman, Kraay and Zoido-Lobaton (1999) and Kaufman, Kraay and Mastruzzi (2006, 2009) have developed six meta-indicators of institutional development, based on a large array of different institutional indicators, among them an indicator of the Rule of Law, based on more than 40 underlying indicators from over 20 sources. These indicators are estimates from an unobserved components model that assumes that the observed data on institutions are a linear function of the unobserved "true" measure of institutions.[11] Country estimates of institutions therefore come with standard errors, which helps underline an important point often ignored when using such indicators to compare and rank countries: small differences between countries or changes over time within countries might not be significant.

Using different indicators of legal institutions also provides insights into the persistence of legal institutions. While few indicators are available for more than ten years, some studies have collected data for one or few countries many years back. Balas et al. (2009) show that judicial formalism was higher in Civil Code than in Common Code countries not only in 2000, but also in 1950. On the other hand, Mussachio (2008) shows a reversal in shareholder and creditor rights in Brazil after a left-wing military take-over in 1945 and presents evidence that many French Civil Code countries had as strong creditor rights as Common Law countries in the early 20th century, while the opposite holds nowadays.

Does the variation in the efficiency and quality of legal institutions across countries matter? Are informal legal institutions substitutes for formal legal institutions? Or are they rather the results of the economic development process? The next section will discuss historical and empirical evidence that legal institutions – both formal and informal – matter for modern market economies and the economic development process.

3. Why are legal institutions important for a modern market economy?

Many commercial transactions are sequential, i.e. the quid and the quo are temporally separated. This is especially true for financial transactions where the gap between quid and quo can be years. This provides opportunities for one of the parties to renege on her contractual commitments and can lead to hold-up problems that increase in the specificity of assets and relationships. When deciding to renege, a party will compare the benefit of doing so with the cost, which – in the absence of legal institutions or plain violence - would be the loss of future business with the other party.

Informal, bilateral arrangements are only feasible if there is no information asymmetry, implying geographic proximity and no alternative trading partner. Even today, the limited choice of available partners can lock people into partnerships as McMillan and Woodruff (1999) report for Vietnam. During most of human history, i.e. except for the last 5,000 years or so, humans lived without formal private or public legal institutions. Organizations in bands or tribes did not require formal legal institutions as transactions were repeated and among agents who knew each other. Rather, humans could rely on the logic of repeated games and reputation.

Bilateral arrangements break down if markets become thicker, i.e. if contract parties have alternative partners for future transactions, thereby reducing the cost of cheating. In addition, information asymmetries increase as markets grow in size and geographic extension. Therefore, as tribes developed into chiefdoms and states, the likelihood of repeated transactions decreased and the need for rules to govern transactions between strangers arose. As shown by Brown, Falk and Fehr (2004), third party enforcement enables a society to move away from being “a collection of bilateral trading islands” to a market with public offers and one-shot transactions between anonymous trading partners.

3.1. Historic evidence

Adam Smith already stressed that private property rights encourage economic agents to develop their property, generate wealth, and efficiently allocate resources based on the operation of markets (1776). The importance of property rights and legal system efficiency in the rise of capitalism in the West has been documented by several economic historians. Among the first, North and Thomas (1973) pointed to the critical role of property right protection for international trade and economic development in Europe and North America. Similarly, Rosenberg and Birdzell (1986) point to institutions favorable to commerce and the emergence of the corporation as critical explanations for the rise of Europe and the West. Engermann and Sokoloff (1997) describe how extractive coercion-constraining institutions helped secure the entrenchment of the ruling elite in large parts of Latin America and undermined the build-up of effective market-supporting legal institutions and public infrastructure, while broad-based coercion-constraining institutions in the Northern part of the Americas and the resulting private property right protection helped develop markets and ultimately fostered economic development.

Avner Greif has described the positive effect of multilateral private and public contract enforcement institutions in the Medieval Ages on international trade and economic development. Merchant guilds, such as based in several Italian Cities and the Hansa in Northern Europe, were important institutions to support international trade expansion in the 11^{th} to 14^{th} century, also known as the Commercial Revolution, by overcoming rulers' commitment problem to not expropriate through the threat of a complete boycott if one trader's rights got abused (Greif, 1992). Similarly, the Community Responsibility System, whereby a community was held responsible for the debts of a single member, was critical not only to the surge of European trade during that time, but also to the rise of financial markets, including the use of letters of credit, today a standard instrument of international trade credit (Greif, 2004). But as already discussed above, organic private multilateral legal institutions such as the Maghribi Trader network also helped expand international trade.

Greif (2006) also argues that the historic absence of public legal institutions in the commercial area explains why China did not manage to develop a functioning market economy. While this gap was filled by private legal institutions, a tradition of coercion-constraining institutions supporting public contract enforcement institutions could not develop, so that the eventual introduction of coercion-constraining institutions in the early 20^{th} century did not protect private property rights from government abuse and expropriation.

3.2. Legal institutions and the real economy

A growing empirical literature has documented the important relationship between efficiency and structure of legal institutions and the process of economic development. By documenting this relationship, this literature has also explored the different channels through which legal institutions help economic development.

First, in environments where property rights are well defined and protected, people focus their entrepreneurial energy on innovative entrepreneurship rather than on predation and other criminal activity (Baumol, 1990). At the same time, people have to spend less time and resources to protect themselves from predation – be it from other private agents or the government – and can therefore become more productive. One convincing piece of micro-level evidence to support this hypothesis comes from Field (2007) who exploits the staggered issue of land titles to over 1.2 million Peruvian households between 1996 and 2003 and finds a significant and large effect of formal property rights on labor supply. Entry barriers into the formal economy can also have negative repercussions for entrepreneurship by preventing the entry of new firms and thus ultimately undermine innovation and competition. Klapper, Laeven and Rajan (2006) show that high registration costs impede the entry and growth of new firms, especially in industries that rely more on new firm entry. Along the same lines, Fisman and Sarria-Allende (2010) document how entry restrictions distort industrial competition, while Ciccone and Papaioannou (2007) show that countries with lower entry regulations see more entry in industries that are subject to expanding global demand and technology shifts. Berkowitz and Jackson (2006) compare the experience in Poland and Russia and find that lower entry barriers in Poland not only led to a higher share of small enterprises after the start of transition than in Russia but also a significantly smaller increase in income inequality. Using variation in the implementation of a business registration reform across Mexican municipalities, Bruhn (2008) finds a significant increase in registered enterprises as result of lower registration requirements and the introduction of a one-stop registration process.

Exit barriers can also prevent the reallocation of assets to their most productive use in society. The insolvency regime defines how a society deals with failing corporations -

whether to restructure or liquidate them – and the rights of different stakeholders in this process. The goal of the insolvency process should be a speedy, efficient and impartial resolution that maximizes the value of a firm's assets by liquidating unviable enterprises and restructuring the liabilities of viable ones. In reality, however, there is a wide variation in duration, efficiency and recovery rate of insolvency procedures around the world (Djankov et al., 2008a). Gine and Love (2010) show that a reform leading to a streamlined bankruptcy and reorganization procedure in Colombia contributed to a more efficient selection of viable firms into reorganization and non-viable firms into liquidation, thus improving the economy-wide allocation of assets. But it is not only the laws on the books that matter; Claessens and Klapper (2005) find a higher use of insolvency procedures in countries with more efficient judicial systems. The empirical evidence, however, does not always point to strong creditor rights in insolvency as the optimal policy; Acharya and Subramanian (2009) show that countries with more creditor-friendly insolvency regimes see fewer patents in industries that rely more on patents. Industries relying more on innovation grow more slowly in countries with stronger creditor rights.

Second, and related to the first point, the certainty of property rights facilitates investment and ultimately firm growth, as it increases investors' confidence that they will be able to appropriate the returns of their investment. Johnson, McMillan, and Woodruff (2002) show that in transition countries with strong private property rights protection entrepreneurs are more likely to reinvest their profits. Similarly, Cull and Xu (2005) find for China that both property right protection and access to credit matter for investment decisions of firms. Beck, Demirguc-Kunt and Maksimovic (2005) find that both financial and legal constraints can hold back firm growth, with this effect being stronger for smaller firms and in countries with less developed financial and legal institutions. Through their impact on investment, legal institutions also impact resource allocation, by influencing the industry structure of countries. Industries that rely more on intangible assets, such as patents or trademarks, whose returns are harder to appropriate and which are easier to expropriate by competitors, grow faster in countries with better property right protection **(**Claessens and Laeven, 2003). Similarly, more efficient legal institutions increase the availability of financing to industries that need them most and foster the creation of new establishments in these industries (Beck and Levine, 2002).

Third, entrepreneurs have higher incentives to work in the formal as opposed to the informal economy**,** if their property rights are protected and contract enforcement allows them to broaden their market outreach. By participating in the formal economy, enterprises can access broader markets and benefit from public investment, so that a higher share of firms in the formal economy has positive repercussions for economic growth (La Porta and Shleifer, 2008). Several cross-country studies provide empirical evidence for this hypothesis. Djankov et al. (2002) show that countries with higher entry barriers in the form of higher registration costs have larger informal economies. Johnson et al. (1997, 1998, 2000) and Friedman et al. (2000) document the importance of the contractual framework in explaining variation in informality across countries.

Fourth, legal institutions can have a critical impact on corporate structure and governance and ultimately firm size. Specifically, better legal institutions allow firms to grow faster by becoming more efficient and expanding their markets. Laeven and Woodruff (2007) show that firms in Mexican states with weaker legal institutions are smaller than in states with strong legal systems. The effect of legal system quality is stronger for proprietorships than for incorporated enterprises, which is consistent with theories predicting that proprietors are relatively more reluctant to invest in their companies than incorporated firms in weak legal environments given the absence of risk diversification possibilities of such an enterprise. However, legal system efficiency is also important for the rise of the limited liability corporation. One of the reasons for cross-country variation in the likelihood of incorporating is the fact that incorporated firms face lower obstacles to their growth in countries with better developed financial sectors and efficient legal systems, strong shareholder and creditor rights, low regulatory burdens and corporate taxes and efficient bankruptcy processes; it is thus more attractive to incorporate in countries with more effective legal systems (Demirguc-Kunt, Love and Maksimovic, 2006).

The impact of legal institutions on corporate governance structures of shareholding companies is also reflected in the valuations of firms by outside investors. Claessens et al. (2000, 2002), La Porta et al. (2002) and Caprio, Laeven and Levine (2007) find a positive relationship between the protection of minority shareholder rights and corporate valuation on the stock exchange. Nenova (2003) shows that the control premium stemming from holding a control proportion of a company's shares can be as high as 50% of firms' market value and is higher in countries with less efficient legal systems, where expropriation by the majority shareholder is easier, while Dyck and Zingales (2004) use data on sales of controlling blocks to show the importance of legal institutions, but also alternative control mechanisms, such as media and tax enforcement, to lower the private benefits of controlling a corporation.

Through its impact on governance structures, legal institutions have a critical impact on the boundary between intra-firm and inter-firm transactions. In societies with better property protection and contract enforcement, there will be more market transactions as agents can rely on the enforcement of third-party market exchanges, but also larger hierarchies and thus larger freestanding enterprises possible (Beck, Demirguc-Kunt and Maksimovic, 2006b). On the other hand, weak property right protection will lead to the rise of pyramidal structures (Khanna and Palepu, 2000), with negative repercussions for innovation and growth, for several reasons. First, in societies where most of the transactions takes place within (groups) of enterprises, capital allocation is also limited to intra-group allocation, thus reducing aggregate allocative efficiency (Almeida and Wolfenzon, 2005). Second, a limitation to intra-group transactions goes often hand in hand with barriers to entry and thus competition. Third, there will be less innovation, as the losses for other enterprises and products arising from innovation might not be external to the group as would be the case for most freestanding enterprises (Morck, Wolfenzon and Yeung, 2005). Finally, these negative effects are exacerbated by connected lending through banks, especially if they are part of the group.[12]

Fifth, a very rich literature has shown the importance of legal system efficiency for financial sector development, both in general, and with respect to specific institutions (Beck and Levine, 2005). The rights of secured creditors and of minority shareholders have been found to be positively associated with the size of credit and stock markets across countries;[13] credit information sharing is important for financial sector depth;[14] the effect of legal institutions on financial development can be traced through to economic growth;[15] and more efficient contract enforcement institutions are associated with lower interest margins, thus a higher intermediation efficiency.[16]

The impact of legal institutions on financial sector development has also been explored on the country-level. Visaria (2009) exploits subnational variation in the introduction of new tribunals to resolve large claim contract disputes and finds not only lower delinquency rates but also lower ex-ante interest rates for borrowers of large amounts. Variation in legal procedures and thus trial duration across Indian states can explain variation in farmers' access to credit market and growth of the manufacturing sector (Chemin, 2009b).

Recent research has also been able to differentiate between different institutions. In the transition economies of Central and Eastern Europe bank lending is more sensitive to reforms of collateral regimes than bankruptcy reform.[17] In Pakistan better judicial training for judges has a significant productivity effect, with the results of a higher case load for courts and new firm entry in the real sector.[18]

Given the micro-economic evidence for the importance of legal institutions, it is not surprising that researchers have been able to link institutional quality to economic development. Using historical data to extract the exogenous component of countries' legal institutions, and thus mitigate the concerns of reverse causation and simultaneity bias discussed above, recent work has shown the importance of institutions for economic growth. Hall and Jones (1999), Knack and Keefer (1997) and Mauro (1995) were among the first establishing an empirical relationship between institutions and growth across countries using an instrumental variable approach and exogenous country characteristics such as ethnic fractionalization to extract the exogenous component of institutions. However, the most convincing empirical analysis so far is by Acemoglu, Johnson and Robinson (2001, 2002) who combine historical evidence with new data. They show that former colonies with geographic endowments conducive to the rise of coercion-constraining institutions that protect property rights have significantly higher levels of GDP per capita today than former colonies with geographic endowments conducive to the rise of extractive coercion-constraining institutions. In transition economies, the speed at which market-compatible institutions were built after the start of transition had a critical impact on growth during the first post-communist decade (Beck and Laeven, 2006).

3.3. Legal institutions and the international economy

Legal system efficiency also has critical repercussion**s** for the level and structure of real and financial flows across countries. Lucas (1990) was the first to point to the paradox that capital does not flow to capital-scarce countries where the highest returns should be but rather to capital-abundant countries with low returns. Khan (2001) explains this with the lower private appropriation of investment returns in countries with less efficient legal institutions. This is confirmed by empirical work. Alfaro, Kalemli-Ozcan and Volosovych (2008) show that cross-country differences in institutional development are an important factor in explaining the Lucas paradoxon. Similarly, Papaioannou (2009) finds a positive relationship between the level of institutional development and international capital flows.

Cross-country variation in legal institutions has also an impact on international trade patterns, as both theoretical and empirical work has shown. This impact comes on top of the overall positive impact that public contract enforcement institutions have on the level of international trade, though the effect is economically smaller than one would expect[19] which points to the importance of private contract enforcement institutions, as already discussed in the context of the historic evidence above.[20] Including differences in the quality of contract enforcement institutions across countries can theoretically reverse predictions about factor price convergence and gains from trade.[21] Countries with more efficient contract enforcement institutions can gain comparative advantage in industries that depend more on legal institutions. Using import data at the 4-digit industry level for the U.S., Levchenko (2007) shows that countries with better developed institutions are more likely to export goods to the U.S. in industries that rely on a greater number of inputs. Along similar lines, Nunn (2007) constructs an indicator of the extent to which each industry relies on inputs that are traded on an exchange, reference priced or neither, with the latter conjectured to be more relationship-specific and thus relying more on legal institutions. He finds that countries with more effective contract enforcement institutions export more in industries that rely more on relationship-specific inputs.

The empirical work cited in this section has addressed endogeneity concerns using different econometric techniques, including instrumental variables, such as historic country traits relating to colonial history. However, what is the reason that historic country traits such as legal origin or colonial experience are related to the quality of legal institutions today? On a more basic level, why do some countries have more effective legal institutions than others? In the next section, we address this question.

4. Why do legal institutions vary across countries?

If legal institutions are critical for the development of economies and for the rise of capitalism, well-informed policymakers around the globe should focus on constructing such institutions. In reality, however, we observe a large variation in the design and efficiency of legal institutions across countries. We can distinguish between three broad hypotheses for such variation – the social conflict, legal origin, and culture views. These theories refer to institutions in the broader sense, both formal and informal, both coercion constraining and contract enforcing, though they have different emphases.

A fourth hypothesis that has dominated economic thinking until recently is that of efficient institutions. This hypothesis would imply that each society adopts the institutions that meets its needs best (Coase, 1960; Williamson, 1985). This builds on one of the most important principles in institutional economics and in the field of law and economics - the Coase theorem, which states that as long as property rights are tradable, their initial definition and distribution is irrelevant as parties can trade these rights and thus achieve a Pareto improvement (Coase, 1960). However, such a trade requires a clear definition of rights and a mechanism to trade them. In the face of high transaction costs or the lack of a mechanism to transfer property rights in a certain and final manner to the most efficient owner, the Coase theorem will break down. As we will discuss below, the Coase theorem also breaks down on a higher level on the creation of coercion-constraining institutions, as one of the parties involved (the state) is also an interested party in the transfer. The efficient institution hypothesis has therefore lost appeal as an explanation for cross-country difference in the efficiency of legal institutions. Informed by history, comparative legal studies and sociology, economists have considered alternative explanations for the wide cross-country variation in the efficiency of legal institutions.

4.1. Social conflict theory

The social conflict view, most clearly and eloquently formulated by Aceomglu, Johnson and Robinson (2005b), builds on the premise that the institutional framework is endogenous, imposed by the group with the largest political power. De jure political institutions reflect de facto political institutions that in turn are driven by resource distribution in a society. Political institutions are persistent, as the ruling group will fortify its de facto political power with the structure of de jure political power. The institutional framework is therefore not necessarily the most efficient, but rather the reflection of the economic and political distribution of power, which makes it inflexible when new opportunities or technologies arise. The ruling elite will create coercion-constraining institutions that entrench its powers and dominance, rather than institutions that maximize society's aggregate welfare. Critically, negotiated solutions to improve the institutional framework to increase aggregate welfare are not possible because winners cannot commit to compensate losers, as they will be able to write the rules afterwards. This is why the Political Coase theorem does not hold for coercion-constraining institutions (Acemoglu, 2003).

Changes in the political and therefore legal institutions are only possible under outside pressure or exogenous shocks, such as new technologies, diseases or globalization. One historic example, discussed by Acemoglu, Johnson and Robinson (2005b) is the devastating effect of the Black Death epidemics in the 1340s in Europe. The dramatic reduction in the labor-land ratio increased peasants' bargaining power vis-a-vis landlords and started the decline of feudalism.

Acemoglu, Johnson and Robinson (2005a) apply the social conflict theory to explain the rapid development of Europe after 1500, a process that can be seen as the First Great Divergence. There was also a divergence within Europe, with some countries or areas developing significantly faster than others. Specifically, Britain and Netherlands saw more rapid economic development after 1600 than other countries in Europe. The access to Atlantic trade opportunities after 1500 in interaction with initially better institutions explains the divergence. Specifically, both Britain and Netherlands had institutions that allowed merchants to benefit from the new trade opportunities in the Atlantic and thus gain economic power. In the case of Britain, the merchants used this newly found economic power to fight for greater political power during the Civil War (1642-49) and the Glorious Revolution (1688/89). In the Netherlands, the new wealth was used in the fight for independence from the Hapsburg Empire. In other countries with vast Atlantic trade opportunities (France, Portugal and Spain), on the other hand, trade was monopolized by the government, with the gains thus flowing to the crown and further strengthening their economic and political power.

The social conflict hypothesis also finds support in the colonization experience. Acemoglu, Johnson and Robinson (2001, 2002) show how economic development across the areas colonized by Europeans experienced a great reversal in the 18th and 19th century, with areas that were wealthier at the time and during the initial period of colonization losing their position vis-a-vis areas that were relatively poor during the initial period of colonization. They attribute this reversal to two main factors. First, in areas with disease environments friendly for colonizers, settler colonies were established with the necessary institutional framework for commercial transactions. In areas with hostile disease environments, on the other hand, extractive colonies were established with little if any institutions. Second, the population density of the colonized areas was critical in determining the nature of colonization. Where areas were densely populated, little new European immigration took place; rather the native population was used for forced labor. The institutional development during the colonial period persisted even after independence as the new incumbents used the existing institutional arrangements for their own purposes. Critically, the reversal and divergence in economic development among colonies started after the Industrial Revolution, as institutions became more important as new technologies required broad and long-term investment.

The evidence presented by Acemoglu, Johnson and Robinson is complemented by historic accounts. Engerman and Sokoloff conjecture that climatic conditions across the Americas provided different conditions for different crops and therefore agricultural organization and production.[22] While the climatic conditions in the Northern parts of North America were conducive to crops such as wheat and corn that were best produced by small-hold farmers, the conditions in the South of the U.S. and the Caribbean were conducive to crops that were best grown on large plantations, such as tobacco or cotton. Similarly, large parts of Spanish America had higher levels of natural resources and an abundant population that could be used for forced labor. These differences had repercussions for the choice of agricultural production and immigration policies. While the U.S. and Canada (as well as Argentina and Chile) encouraged open immigration from across Europe, immigration was restricted in other areas and the focus was on importing slaves rather than attracting free labor. This went hand in hand with colonial governments granting monopolies to the ruling elite. These different policies had implications for the political structure and the coercion-constraining institutions built across different parts of the Americas. While the large middle class arising in the North of the U.S. and Canada led to institutions that protected individual property rights, the enormous inequality in socio-economic conditions in other parts of the Americas led to building of extractive institutions that protected and entrenched the interests of the elite. This had implications not only for public investment, including in education, but also the process of economic development and inequality over the following 200 years.[23] Easterly and Levine (2003) confirm this hypothesis for a large cross-section of countries, linking different crops that are conducive to different agricultural organizations to institution building.

A related strand of literature relates to the existence and/or dominance of natural resources in an economy as explaining the lack of institution building (Sachs and Warner, 2001). It is generally easier to materialize short-term profits from natural resources such as oil than from fixed assets such as manufacturing plants, equipment and machinery, because proceeds from natural resources depend less on the creation of a market, human capital, and R&D investments. This in turn reduces incentives to invest in institutions (Besley and Persson, 2010). Higher natural resource abundance can thus increase the share of entrepreneurs engaged in rent-seeking rather than productive activities, with negative repercussions for economic growth (Torvik, 2002). The surplus nature of natural resources allows elites to extract rents and perpetuate their socio-political power. Beck and Laeven

(2006) show that variation in the extent of natural resources across transition economies can partly explain variation in institution building after 1990, when all these countries faced the same challenge of building market-compatible institutions. Cross-country regressions have confirmed this negative relationship between natural resource abundance and the rule of law[24], control of corruption[25] and overall institutional capacity.[26]

Related to the social conflict view is the hypothesis that ethnically fractionalized societies are more likely to develop extractive institutions as the ruling ethnic group tries to cement its dominance over the other group(s) (ab)using coercion-constraining institutions. Easterly and Levine (1997) show that the ethnic fractionalization can explain a large share of today's underdevelopment in Africa, while Coffee (2001) posits that the ethnic and societal homogeneity in Scandinavia can explain the socio-economic success of these countries.

While institutions are persistent, they can also be endogenously unstable, as with the Community Responsibility System in the Medieval Ages already mentioned above (Greif, 1992). This contract enforcement system was supported by coercion-constraining institutions reflecting the interests of those benefitting most from international trade. As the size of the network as well as the heterogeneity within the communities and across communities in terms of wealth and size increased, the benefits became less and less equally distributed within and across communities and the costs of verification of community affiliation increased. Ultimately, the system became a victim of its own success.

Social conflict theory also makes predictions about the relationship between the corporate sector and the political elite. In societies with more concentrated ownership in the corporate sector, entrepreneurs will be more likely to invest in political connections to preserve their privileged position and erect entry barriers against potential competitors, a phenomenon that Morck, Wolfenzon and Yeung (2005) refer to as economic entrenchment.[27]

Through political connections, the corporate elite is able to influence the development of legal institutions, ultimately leading to something that Hellman et al. (2000) referred to as "state capture" in the context of the transition economies.[28]

Critically, the social conflict view holds that coercion-constraining institutions have a first-order effect on economic development and attributes less importance to contract enforcement institutions. Greif (2005, p. 728) posits that "the ability to effectively supply designed… contract-enforcement institutions, depends on the prevailing coercion constraining institutions…" This is confirmed by the historical accounts by Malmendier (2009) that the Roman form of the shareholding company developed in the early – legally less developed – days of the Roman Republic, when it was supported by the political environment, while it disappeared during the Roman Empire, when the coercion-constraining environment was not favorable towards such an institution, in spite of increasing legal sophistication. Acemoglu and Johnson (2005) show that coercion-constraining institutions can explain cross-country variation in GDP per capita, while contract enforcement institutions cannot. As discussed by Woodruff (2006), however, these results might reflect the accuracy with which these two kinds of institutions are measured, rather than the importance of these two types of institutions.

In summary, social conflict theory posits that the efficiency of legal institutions, especially of coercion-constraining institutions, is the result of the distribution of socio-economic resources and power. It also posits that institutions are persistent and can most easily be affected and changed by influences outside the "system", including technological innovations, trade or war. The work by Acemoglu, Johnson and Robinson has started a large and still growing literature that relates historical events to patterns of institutional and ultimately socio-economic development today. Some of the work is on the cross-country or regional level, while other work exploits historic and institutional variation within large countries, such as India or the U.S.[29]

While there is considerable historical and empirical evidence in support of social conflict theory, it has also been criticized.[30] Specifically, geographic endowments, such as the disease environment or distance from the equator might have a direct impact on economic development rather than through institution building. This geography view posits that temperate climates, such as in Europe, North America and Australia have the advantage of higher crop yields, fewer fatal diseases and more conducive temperatures for economic activity.[31] Similarly, being landlocked can have negative repercussions for accessing other markets and thus exploit scale economies. Several studies, however, show that the effect of geographic endowments goes through institution building rather than having a direct impact on economic development.[32] Perhaps most convincingly, Acemoglu, Johnson and Robinson (2002) show that the growth divergence between settler and extractive colonies started with the Industrial Revolution rather than before, underlining the importance of institutions for sectors that rely heavily on specialization and division of labor.

4.2. Legal origin view

A second view is that the legal tradition adopted by countries has a critical impact on the nature of legal institutions and ultimately economic and societal organization.[33] This view has been informed by the comparative law literature that categorizes legal systems into several families or traditions as, most importantly, Common and Civil Law Code systems.[34] While Common Law can be described as decentralized or bottom-up law, code or statute law is centralized or top-down law. Djankov et al. (2003b) argue that in constructing their legal institutions societies face the trade-off between addressing disorder stemming from market failure and avoiding government failure and abuse. Any government strong enough to impose effective public contract enforcement institutions is strong enough to abuse them unless restrained by effective coercion-constraining institutions. Different legal traditions have chosen different points along the line of this trade-off. Specifically, European history has determined the relative trade-off for a few countries and enshrined them in legal tradition, with repercussions for the rest of the world that received these legal traditions through colonization or imitation.

But let us step even further back to Roman history. Different approaches to legal system development can already be observed during Roman history. While Roman law had developed over centuries on a case-by-case basis, adjusting from the needs of a small farmer community to the needs of a world empire with only a minor role left for formal legislation, Emperor Justinian changed this process by codifying existing law into the Codex Justinian in 529 AD. This was part of an attempt to not only eliminate jurisprudence and gain control by the chief executive over the law- and rule-making process, but also a political attempt at power concentration. This "Justinian deviation", however, did not succeed; rather, jurisprudence continued to shape the law. Over the next centuries, European law developed in a piecemeal manner, with several legal frameworks, such as canonical and merchant law competing with each other.

The Medieval Ages saw a critical difference in political structure between England and France that shaped the development of their legal systems.[35] The French Crown wanted to use the judiciary to unify a politically divided and strife-ridden country and therefore adopted a centralized and inquisitor judicial system, while the English crown could afford a relatively decentralized judiciary as England was relatively more peaceful but also politically more unified during this period. Therefore, England developed jury trials as early as the 12th

century and adopted the Magna Carta with Habeas Corpus rights in 1215. The legal development in England in the following centuries was dominated by competition between several court systems, including ecclesiastical, royal, feudal and mercantile law courts (Zywicki, 2003). As parties could choose their court, the outcome - the adoption of the Law Merchant into common law – can be considered the most efficient one.

The 17th and 18th centuries deepened the differences between the legal traditions in England and the European Continent. English Common law asserted its independence from the State during the great conflict between Parliament and the English kings in the 16th and 17th centuries. While the Crown attempted to reassert feudal prerogatives and sell monopoly rights to cope with budgetary shortfalls, Parliament (composed mostly of landowners and wealthy merchants) along with the courts took the side of the property owners against the Crown. This political struggle culminated in 1688, when the Stuarts were thrown out and James I lost his head. Being on the winning side, the English judiciary gained considerable independence from the Crown, including lifetime tenure in the 1701 Act of Settlement. Important consequences of this independence were the respect for private property in English law, especially against possible encroachments by the sovereign, and for freedom of contracting.

On the other extreme, Napoleon made a similar attempt as Justinian at codifying law, exploiting the fact that the French judiciary had been on the losing side of the revolution. Like Justinian, Napoleon sought a code that was so clear, complete, and coherent that there would be no need for judges to deliberate publicly about which laws, customs, and past experiences apply to new, evolving situations. As in the case of Justinian, the French deviation did not hold for long. Nevertheless, critical differences between both legal traditions survived and were widened in their export to other countries. Specifically, jurisprudence and precedence have a limited role in the French Civil Code system, while procedural rigidity is more important. Similarly, the judicial approach of the Civil Code system is inquisitor as opposed to the adversary approach of the Common Law system that requires open arguments. Finally, the role of the judge is quite different in the two legal traditions, with the judge being independent from government in the Common Law tradition, while being seen as an executor of law in the Civil Law tradition.

The German and Scandinavian legal systems developed somewhat separately, but were informed by the Common and French Civil Code approach. In the case of the German legal tradition, simultaneously developed in Germany, Austria and Switzerland, the development and adaptability of legal systems is a critical element in the respective codes. In the German Civil Code, for example, several articles refer to “good faith” (Art. 157 and 242), and emphasize that the “underlying intention and not the literal meaning of the word should prevail” (Art. 133), which allows judges to adapt to new circumstances and go beyond formal rules.

The British Common Law tradition was transplanted around the globe via colonization, while Napoleon spread his Code throughout Continental Europe and the French legal tradition was in turn spread by the French, Belgians, Dutch, Spanish and Portuguese to their respective colonies. The German Civil Code spread through imitation to Japan and from there to Korea and China. Critically, not only the codes but the legal culture was transplanted, with important repercussion for legal system efficiency in the receiving countries. As shown by La Porta el al. (1997, 1998) and Beck, Demirguc-Kunt and Levine (2003a), the different development of the legal families had important implications for the legal institutions. And while there are arguments that legal systems within the Industrialized

World have started to converge recently, the differences across legal families have been exacerbated in their export outside Europe.

There are several reasons why transplantation of the Napoleonic Code to colonies outside Europe had more detrimental consequences than within Europe. First, the Europeans rigidly imposed the Code Civil in their colonies even though there were – and remain -- serious tensions between the Code and indigenous laws, which impeded the efficient development of legal institutions.[36] Second, while the European nations overcame the rigidities of the Napoleonic Code, they exported its antagonism toward jurisprudence and its reliance on judicial formalism to minimize the role of judges. They also exported the French tradition of avoiding open disputes about legal interpretation and the Napoleonic doctrine to formally inhibit open disputations by judges on how to weigh competing statutes, ambiguous laws, and past court decisions in deciding new cases hindered the development of efficient legal systems around the world. Third, given the Napoleonic doctrine, judges frequently "… are at the bottom of the scale of prestige among the legal professions in France and in many nations that adopted the French Revolutionary reforms, and the best people in those nations accordingly seek other legal careers" (Merryman, 1996, p. 116). As a consequence, the legislature will have a tendency to write "bright line laws" to limit the role of the courts. Once a country adopts the "bright line" approach to law making, it is very difficult to change, as courts will not be challenged to develop legal procedures and methods to deal with new circumstances thus retarding the development of efficiently adaptive legal systems (Pistor et al. 2002, 2003).

Legal traditions in Europe have repercussions for both coercion-constraining and contract enforcement institutions. The political structure implied by the Civil Code tradition foresees a strong executive vis-a-vis a purely executing and not-independent judiciary, while the Common Law tradition foresees a strong and independent judiciary. This is confirmed when comparing indicators of judicial independence across legal families (La Porta et al., 2004). Similarly, Berkowitz and Clay (2005, 2006, 2007) use the fact that parts of the U.S. were originally colonized by Civil Code countries, such as Mexico, France or Spain to show the persistence of legal tradition, as states with Civil Law tradition were less likely to grant independence to their judiciary in the 20th century, provide them with fewer resources, and have lower-quality courts at the beginning of the 21st century. The flexibility and adaptability of contract enforcement institutions also vary across legal traditions. While the French Civil Code systems rely more on formalistic procedures and on judgments based narrowly on statutory law, the Common Law tradition embraces case law and judicial discretion (Djankov et al., 2003a). Further, litigation against existing rules and laws helps find the most efficient outcome (Posner, 1973). Beck, Demirguc-Kunt and Levine (2003b, 2005) demonstrate that it is this difference in adaptability of legal systems rather than judicial independence that can explain differences in financial sector development and financial constraints reported by firms.

The effect of legal origin is not limited to legal institutions, but has had a much broader impact on the societal organization of economies.[37] The approach of the Civil Law system is policy implementing and socially-conditioned private contracting, while Common Law can be considered dispute resolving and unconditioned private contracting.[38] This difference can even be traced back to different schools of philosophy. While Jean-Jacques Rousseau's social contract (1762) built on the idea of the state securing freedom, equality and justice for all, even if against the will of the majority, John Locke (1689) started from the individual and his right to defend his "life, health, liberty of possessions". These different approaches towards society and policy-making can be observed across a large set of policy areas. Entry into the formal economy is subject to more cumbersome regulation in Civil than in Common Law countries;[39] labor market regulation is less employer friendly in Civil Code countries;[40] media freedom is lower in Civil Code countries;[41] military conscription is more likely in Civil Code countries;[42] and individual liberties and private property rights are more strongly protected in Common Law countries.[43] Mahoney (2001) finds a higher growth rate of Common Law countries over the period 1960 to 1992 than Civil Code countries.

Common law and Civil law also have different approaches to enterprises, with repercussions for corporate governance (Ahlering and Deakin, 2007). While the Common law tradition sees an enterprise as a purely private initiative with workers being contractual claimants on its revenues, the Civil Code tradition of Continental Europe sees workers as stakeholders with rights beyond their contractual claims and employers with obligations beyond contractual relationships. On an even broader level, Pistor (2005) links the legal origin of the OECD countries with two different models of market economies: liberal market economies where the control rights are on the individual level and transactions are undertaken in competitive markets and at arms-length and coordinated market economies where control rights are vested to a larger extent in groups and the government and non-market exchanges have an important role. She links the difference between liberal and coordinated market economies to the respective legal tradition: Common Law in the case of liberal and Civil Code in the case of coordinated market economies.

The legal tradition view has been criticized for several different reasons. First, categorization into a few legal families is seen as too crude. For instance, Franks and Sussman (2005) describe differences in the adaptability of two Common law countries: the United Kingdom and the United States, where in the UK freedom of contracting predominates the rights of judges, while the reverse holds in the U.S. Berkowitz, Pistor, and

Richard (2002) stress that the transplant process – not just whether countries are classified as having British, French, German, or Scandinavian legal origins – is important for establishing well-functioning legal systems. Pistor et al. (2002) describe the significant differences in the transplant process in Colombia and Chile, which resulted in the latter adopting more appropriate and efficient legal institutions than the former. Second, several authors have focused on the time variation in legal institutions, which is not compatible with time-invariant legal traditions and have suggested that it is changing political conditions that determine institutions (e.g. Pagano and Volpin, 2005). Brunt (2007) analyzes the transition of South Africa from a Dutch to an English colony and shows that it is the definition of property rights and thus coercion-constraining institutions rather than changes in contract enforcement institutions that resulted in improvements in agricultural productivity and output in the early 19^{th} century.

Beck, Demirguc-Kunt and Levine (2003a) and Levine (2005) conduct a horse race between the social conflict and the legal origin view and show that among former colonies, both proxies for the social conflict view and legal origin dummies can explain cross-country variation in property right protection and financial development.

4.3. Culture and religion

A third strand of the literature focuses on cultural and religious differences across nations driving differences in legal institutions. Weber (1958) attributes the success of Great Britain and other European countries to the Calvinistic Reformation and its emphasis on individual accountability, thus fostering entrepreneurship and competition. The more hierarchical religions, such as Catholicism and Islam, on the other hand, are more hostile to free competition and market exchanges (La Porta et al., 1999). In the 19^{th} century this became obvious, when the Catholic Church embraced corporatism as an alternative economic model to socialism and capitalism that featured an economy's organization into vertical corporations and cartel like structures that prevented competition from new entrants as well as wage and price controls (Morck and Yeung, 2009). This model was happily adopted by several South European dictators in the 20th century, including Mussolini and Franco, as well as later by several Latin American countries. This should be therefore also reflected in the legal institutions developed in countries dominated by different religions or denominations. La Porta et al. (1999) show that the quality of government is indeed higher in Protestant countries than in countries dominated by Catholics or Muslims. The difference in legal institutions across major religions can also be observed in the legal institutions underpinning the financial sector (Stulz and Williamson, 2003). In particular, the Catholic Church has historically taken a negative stance toward the charging of interest and creditor rights, while the Qur'an prohibits the charging of interest. In contrast, the Protestant Reformation advanced a different religious attitude towards finance, whereby the payment of interest was considered a normal part of commerce, so that the rights of creditors were more naturally emphasized in countries dominated by Protestant religions. As shown by Stulz and Williamson (2003), countries with a predominantly Catholic religious heritage tend to have less developed credit markets and more poorly developed financial institutions.

Another critical difference across nations is the attitude towards individualism and risk-taking. Licht, Goldschmidt and Schwartz (2005) show that the variation in the quality of legal institutions across countries can be partly explained by variation in societal attitudes towards assertiveness, venturing and active determination and individualism, as opposed to risk avoidance and collectivism. Greif (1994) applies the distinction between communalist/collectivist and individualist societies to discuss the different development of

China and Europe and explains why it was Europe that gave rise to capitalism, not China. The absence of the Chinese state in the commercial area and the rise of organic communalist contract-enforcement institutions, influenced by the Confucian ideology that focuses on informal rather than formal conflict resolution, ultimately resulted in an institutional development that did not provide for the necessary public contract-enforcement institutions as in Europe.[44] This is different from the individualistic tradition in Europe, going back to ancient Greece and early Christianity, which allowed the establishment of economically motivated, rather than kin-based private institutions. Similarly, the ethnic fractionalization in many African countries gives rise to segregated organic communalist private legal systems that prevent the rise of designed private and public legal institutions. The ultimate consequence is that it is the absence of designed private multilateral legal institutions and not necessarily the lack of public legal institutions that explains the low quality of legal institutions in many developing countries (Fafchamps, 2004). More than in the other two views, the culture and religion view sees private institutions, both organic and designed, as critical as they impact the subsequent development of public institutions.

Finally, specific historic events might turn into a traumatic experience for nations, with long-ranging implications for institutions. Murphy (2005) sees the 1720s Mississippi Bubble with its subsequent banking crisis and hyperinflation as critical for the negative French attitude towards the financial sector. Similarly, the hyperinflationary experience in Germany has resulted in a hawkish approach towards monetary policy deeply entrenched in Germany for the following 80 years. Malmendier and Nagel (2010) show that "depression babies", i.e. individuals growing up during the depression era in the U.S. are less likely to invest in equity and have overall more risk-averse investment strategies.

4.4. From the origin of institutions to their impact on economic development

The three explanations discussed above are competing but not exclusive; however, they have different implications for policy reforms, focusing either on coercion-constraining institutions, public contract enforcement institutions or on the underlying informal institutions. All three hypotheses posit the persistence of institutions, though for different reasons. However, increasing globalization together with the recent IT revolution has reduced communication costs to almost zero, and might have an additional impact (Morck and Yeung, 2009). Specifically, suppressive coercion-constraining institutions might be easier to challenge in times of globalization and rapid information flows, as suggested by political revolutions in Eastern Europe and Central Asia in the early years of the 21st century.

The systematic variation of legal institutions with historic country characteristics allows the use of these characteristics as instrumental variables in regressions of real sector outcomes on indicators of (legal) institutions. They are exogenous to today's real sector outcome, including economic development, and can explain cross-country variation in today's (legal) institutions. At first look, these variables therefore seem good instruments and their use will allow us to answer several questions, on the origin of institutions and on the channels through which institutions affect real sector outcomes. Recently, however, doubts have been raised.

First, as already discussed above, measurement issues have been raised. Albouy (2004) has shed doubts on the Acemoglu, Johnson and Robinson data on settler mortality. Legal origin dummies have been seen as too rough and simplistic. Measuring religion is complicated by the fact that the dominance of a religion or denomination might not necessarily be captured by the percentage of population being nominally registered, but the intensity of religious practice. In addition, there might be a high correlation between French

Legal Origin and the dominance of the Catholic denomination, as becomes obvious in the discussion of corporatism, originally championed by the Catholic Church, but propagated in countries both dominated by the Catholic denomination and political structures fostered by the Napoleonic legal tradition.

Second, the exclusion condition, i.e. the condition that the exogenous characteristics influence the dependent variable only through the endogenous variable**,** is hard to test. As shown by the prolific La Porta et al. group, legal origin can explain an array of institutional arrangements. However, this also disqualifies legal origin as instrument for one specific institution, since using it as instrument for one institution might lead to an upwards coefficient estimate in the second stage if the instrument is correlated in the same direction with another omitted institution. This problem is exacerbated by the fact that the number of exogenous country traits is limited.

Relating exogenous country traits to the development of legal institutions has therefore helped us understand the origins of legal system development. However, there is a limit to which using these country traits as instruments can help us understand the relationship between legal institutions and real sector outcomes and help us even less unbundling institutions. Other methodologies might be more helpful, an issue I will pick up in the last concluding section of this chapter.

5. Implications for policy reform and future research

This chapter surveyed the literature on legal institutions and their importance for market-based capitalism and economic development. This concluding section discusses what we have learned and where there are still gaps. I also point to some policy conclusions from this research program.

A large literature has shown the importance of legal institutions for the real economy. Coercion-constraining institutions that guarantee private property rights and effective contract enforcement institutions that resolve conflicts in a swift, predictable and fair manner foster entrepreneurship and investment in the formal economy, enhance market exchange and trade within and between countries and ultimately help economies grow faster. Less is known, however, about which institutions matter. While Acemoglu and Johnson (2005) have undertaken a first attempt in disentangling the effect of coercion-constraining and public contract enforcement institutions, more work remains to be done. More promising than cross-country work seem to be in this context country-level studies that allow the study of the functioning of specific institutions within a country, best to do when introduced in a staggered manner.[45] The shortcoming of such a country-specific approach is the lack of external validity beyond the country being studied. One can hope that through accumulation of studies the profession will get to consistent results. Further, most of the empirical literature has focused so far on public institutions, while private contract enforcement institutions and their interaction with public institution have been significantly less explored. A recent but growing literature has linked social capital to real sector outcomes[46]; bridging the gap between that literature and the literature on public legal institutions will bring us closer in understanding the relative importance and complementarities of public and private institutions. New private institutions arising on the Internet, such as eBay and Craigslist, are important to understand in this context. On a more general level, the faster speed and lower costs of information transfer and dissemination might have important repercussions for the emergence and importance of private legal institutions, an area that certainly will be the focus of intensive research in the coming years.

While a large literature has helped us understand the historic origins of legal institutions, including colonial ties, less is known about the cultural origins of legal institutions. This debate has obtained new attention as China has recently been cited as "counter-example" for the law and development and – more specifically – the law and finance literature, as it has economically thrived without the public legal institutions of the West.[47] Understanding the interaction between private and public legal institutions over time and across countries is thus not only important for assessing their relative importance for economic development, but also for understanding the origins of legal institutions.

As discussed above, a lot of progress has been made in constructing indicators of public legal institutions, while there is still a significant gap on measures of private institutions. Promising in this context seem to be enterprise and household data. While firm-level surveys regularly include questions on the functioning of legal systems from firms' viewpoint, these questions focus on public institutions only; expanding the questionnaire to private legal institutions is important to understand the use of both public and private contract enforcement. Similarly, designing household surveys on the use of public institutions and private arrangements for conflict resolution can help make progress in this area.[48]

The research discussed in this survey has also critical repercussions for policy reform in developing countries. The finding that legal institutions have a critical impact on the development and structure of economies calls for attaching a high priority to reforms in this area. This certainly has been heeded by international organization and donors. However, the experience in transition and developing countries as well as the literature also provides important insights into how to reform legal institutions. First, legal institutions have to be seen in the context of the legal tradition of a country. Trying to impose institutions out of a different legal tradition is not helpful, as Russia found out the hard way; the short flirt with the Common Law tradition did not bear fruits. A different focus might therefore be called for. Take the example of court reform. In spite of their shortcomings and deficiencies, court systems in the former British colonies still have a reasonable reputation. They can rely on a large body of case law and precedents, from London and other parts of the former British Empire. What courts in many common-law countries in Africa are lacking are capacity and specific skills. The introduction of commercial courts might be helpful in this context. The situation in most Civil Code countries in Africa is different, as courts in these countries have deficiencies along many dimensions and suffer from very low reputation. In these countries, establishing alternative dispute resolution systems might be more helpful. Second, in the absence of external pressures, legal system reform cannot happen against the interests of the ruling elite. Again, the experience of the transition economies has clearly shown this. In countries with more entrenched communist elite and where these elites had higher surplus stakes in the form of natural resource rents, there was a slower or no development of the necessary legal institutions for a functioning market economy (Beck and Laeven, 2006). A third important insight from the literature is that contract enforcement institutions cannot be separated from coercion-constraining institutions. While the legal and economic literature has made a distinction between these two types of institutions (Acemoglu and Johnson, 2005), there is a high correlation and interaction between both of them, even if this is not always documented in the data. The state cannot really function as neutral arbiter in disputes between private agents, if it cannot be held accountable through coercion-constraining institutions (Greif, 2005).

Endnotes – Chapter 2

[1] As one example, see Black and Tarassova (2002) for the challenges of legal system reform in Russia.

[2] An alternative concept refers to “economic governance”, defined as “structure and functioning of the legal and social institutions that support economic activity and economic transactions by protecting property rights, enforcing contracts, and taking collective action to provide physical and organizational infrastructure” (Dixit, 2009).

[3] See Dixit (2009) and Greif (2005).

[4] Dixit (2009) refers to these different institutions as first-party (value), second-party (bi- and multilateral private institutions) and third party (public institutions).

[5] For a similar discussion on measuring institutions more generally, see Woodruff (2006).

[6] For a good description of indicators measuring different aspects of the institutional framework, see Kaufman, Kraay and Zoido-Lobatón (1999) and subsequent papers by Kaufman, Kraay and Mastruzzi (2006, 2009).

[7] Specifically, this indicator “refers to the extent of institutionalized constraints on the decision-making powers of chief executives, whether individuals or collectivities”, ranging from unlimited authority (one) to executive parity or subordination (seven). See Marshall and Jaggers (2009).

[8] For details and data, see: www.doingbusiness.org.

[9] La Porta et al., (1997, 1998) and Djankov et al. (2008b).

[10] For details and data, see http://www.enterprisesurveys.org.

[11] See Kaufman, Kraay and Zoido-Lobaton (1999) and Kaufman, Kraay and Mastruzzi (2006, 2009) for a detailed discussion.

[12] See Caprio, Laeven and Levine (2007), and La Porta, Lopez-de-Silanes and Zamarripa (2003).

[13] La Porta et al. (1997, 1998).

[14]Djankov, McLiesh and Shleifer (2007).

[15] Levine (1998, 1999) and Beck, Levine, and Loayza (2000).

[16] Demirguc-Kunt, Laeven and Levine (2004) and Laeven and Majnoni (2005).

[17] Haselmann, Pistor and Vig (2010). Not surprisingly, given their heavier reliance on secured lending, foreign bank lending increases by even more.

[18] Chemin (2009a).

[19] Leeson (2008).

[20] See Rauch (2001) for an overview.

[21] Costinot (2009), Acemoglu, Antras and Helpman (2007) and Levchenko (2007).

[22] Engerman and Sokoloff (1997) and Sokoloff and Engerman (2000).

[23] See Engerman, Mariscal and Sokoloff (2009) and Nunn (2008).

[24] Norman (2009).

[25] Papyrakis and Gerlagh (2004).

[26] Isham et al., (2005).

[27] See Faccio (2006) and Braun and Raddatz (2009) for the financial sector.

[28] The role of the oligarchs in Russia is probably one of the most illustrative examples of how the new corporate elite entrenched their position through political connections, culminating the in the dominance of politics by oligarchs towards the end of the Yeltsin government and maybe even beyond that.

[29] See Nunn (2009) for an overview.

[30] Given the high profile nature of the Acemoglu, Johnson and Robinson work, it is not surprising that their work has been especially closely scrutinized. Albouy (2004) sheds doubt on their settler mortality measure, while Glaeser et al. (2004) claim that it is human capital accumulation rather than institutions that can explain cross-country variation in economic growth.

[31] Landes (1998), Bloom and Sachs (1998) and Diamond (1997).

[32] Acemoglu, Johnson and Robinson (2002), Easterly and Levine (2003) and Rodrik, Subramanian and Trebbi (2004).

[33] See La Porta, Lopez-de-Silanes and Shleifer (2008) for a recent overview.

[34] Zweigert and Kötz (1998), Reynolds and Flores (1989), Glendon et al. (1982); and David and Brierley (1985).

[35] Dawson (1960), Berman (1983), and Glaeser and Shleifer (2002).

[36] Zweigert and Kötz (1998) and Berkowitz, Pistor, and Richard (2002).

[37] See La Porta, Lopez-de-Silanes and Shleifer (2008) for an overview.

[38] Damaska (1986) and Pistor (2005).

[39] Djankov et al. (2002).

[40] Botero et al. (2004).

[41] Djankov et al. (2003c).

[42] Mulligan and Shleifer (2005a,b).

[43] Scully (1992), Beck, Demirguc-Kunt and Levine (2003a) and Levine (2005b).

[44] See also Hamilton (1990).

[45] See, e.g., Chemin (2009a, b), Visaria (2009), and Bruhn (2008).

[46] See Guiso, Sapienza and Zingales (2006) for a survey.

[47] See, e.g., Allen and Qian (2009).

[48] See, e.g., Gramatikov et al. (2010).

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