

Legal Origin and Financial Development: New Evidence and Old Claims

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Abstract—The ‘law and finance theory’ predicts that the common law system provides the best basis for financial development and economic growth, followed by Scandinavian and German origin civil law and finally French origin civil law. This paper summarises the key points of the theory as well as a number of sceptical views. Moreover, it argues that the theory faces an identification problem, since the majority of common law countries have a market-based financial system, whereas the majority of civil law countries have a bank-based financial system. Furthermore, it is shown that one of the corner stones of the law and finance theory, its proposition that a common legal tradition implies a similar set of legal rules and procedure to protect financial investors, does not hold empirically. Last but not least, it is shown that recent additions to the theory’s creditor right indicators data pool are eliminating the (weak) correspondence between business law and legal family that could be found in the original data set. Accordingly, the theory’s claim that creditor protection is largely determined by the legal tradition of a particular country has to be reconsidered.

Index Terms—Legal tradition, creditor rights, financial development.

I. INTRODUCTION

The ‘law and finance theory’ argues that the legal system, which today’s countries inherited from the past, is crucial in the way it is favouring financial development. Moreover, as financial development is nowadays widely regarded as a driving force of economic growth, the legal system is perceived as an ultimate cause of economic growth and development. Apart from this, the theory identifies two dominating legal traditions, the common law tradition inherited from England, and the civil law tradition that is going back to 19th century codifications in France, Germany and Scandinavia. The major conclusion is that the common law system provides the best basis for financial development and economic growth, followed by Scandinavian and German origin civil law and finally French origin civil law. This paper will take a closer look at some of the data that constitute the empirical basis of the theory, including some recent extensions that have considerably broadened the country coverage. It will be shown that major predictions of the theory are not supported.

II. THE LAW AND FINANCE THEORY

Less than ten years after the seminal contributions – two widely cited papers by La Porta, Lopez-de Silanes, Shleifer

and Vishny [1] and [2] (henceforth: LLSV) – the finance and law literature has produced its first synthesis. Written by two insiders (Beck and Levine), [3] gives an authoritative overview over this research programme, its foundations, assumptions, data and its main findings. In particular, Beck and Levine argue that the law and finance theory explains why ‘some countries have well-developed growth-enhancing financial systems, while others do not’, and why ‘some countries developed the necessary investor protection laws and contract-enforcement mechanisms to support financial institutions and markets, while others have not.’ The theory’s ability to answer these questions is attributed to two related hypotheses:

(1) ‘In countries where legal systems enforce private property rights, support private contractual arrangements, and protect the legal right of investors, savers are more willing to finance firms and financial markets flourish.’

(2) ‘The different legal traditions that emerged in Europe over previous centuries and were spread internationally through conquest, colonization, and imitation help explain cross-country differences in investor protection, the contracting environment, and financial development today.’

III. THE LLSV INDICATORS THE LAW AND FINANCE THEORY

Let us now, for the purpose of this paper, leave the theory’s predictions undisputed and take another look at creditor rights. Indeed, the most significant extension of the original LLSV data so far has been provided by Djankov, McLiesh and Shleifer (the latter one of the contributors to the seminal LLSV papers [1], [2]), referring to creditor rights. In particular, [4] construct a data set (henceforth: DMS) covering 133 countries and four binary indicators, which are described as equivalent to those constituting the LLSV creditor rights index.¹

To start with, let us have a look whether – or to which degree – the four DMS indicators differ from the LLSV indicators, which they are supposed to mimic. To this end,

¹ The description of the data that is supplied together with the data posted on the web is as follows: ‘an index aggregating creditor rights, following [2]). A score of one is assigned when each of the following rights of secured lenders are defined in laws and regulations: First, there are restrictions, such as creditor consent or minimum dividends, for a debtor to file for reorganization. Second, secured creditors are able to seize their collateral after the reorganization petition is approved, i.e. there is no ‘automatic stay’ or ‘asset freeze.’ Third, secured creditors are paid first out of the proceeds of liquidating a bankrupt firm, as opposed to other creditors such as government or workers. Finally, if management does not retain administration of its property pending the resolution of the reorganization.’ This data set is hence designed to enlarge the coverage of the LLSV creditor rights index and at the same time to preserve its character.

Table I presents non-parametric correlations for those countries that are included in both data sets.

TABLE I: LLSV AND DMS CREDITOR RIGHTS INDICATORS: SPEARMAN'S RHO

	LLSV			
	Reorgani- sation	No automatic stay	Secured first	No managemen- t stay
CR1 (restrictions on entering)	0.50* (47)	0.24 (47)	0.02 (48)	0.48* (47)
CR2 (no automatic stay)	0.43* (47)	0.36* (47)	0.21 (48)	0.18 (47)
CR3 (secured creditor paid first)	0.06 (47)	0.18 (47)	0.59* (48)	0.13 (47)
CR4 (management does not stay)	0.28* (47)	0.57* (47)	0.27* (48)	0.40* (47)

As the non-parametric correlation coefficients given in Table I reveal, the DMS indicators are not merely an extension of the LLSV data. If this were the case, the correlations in the diagonal should be equal or close to unity, which they are clearly not. In fact, they are low to moderate (ranging from 0.36 to 0.59), and in four cases (highlighted in bold), the DMS indicators that allegedly represent the same information as the LLSV indicators correlate higher with another of the LLSV indicator than with that they are supposed to represent. This is an irritating finding. We would expect some minor variation between the two data sets, as the reference years are not the same. The LLSV indicators reflect corporate law in the 1990s, whereas the DMS indicators refer to 2003. Yet, one of the core arguments of the law and finance theory is that legal origin has a highly persistent influence on how corporate law protects investors. A time span of roughly ten years should hence not affect the correlation in any substantial way so that we would expect Table I to be very similar to an identity matrix. Accordingly, the DMS indicators have obviously been substantially recoded and consequentially, whatever the LLSV creditor rights index and the DMS creditor rights index are measuring, it is something substantially different. We shall come back to what the two indices may reflect later. At this stage, let us briefly compare their mean scores across the main legal families, which are given in Table II.

TABLE II: CREDITOR RIGHTS INDICES (GROUP MEANS) BY LEGAL FAMILY

Legal origin	LLSV	DMS (LLSV sample)	DMS (full sample)
Civil law	1.79 (29)	1.59 (29)	1.62 (97)
Common law	3.11 (18)	2.72 (18)	2.28 (36)

As Table II shows, LLSV's original result that the common law countries score higher on the creditor rights index can be reproduced with the DMS data. Despite substantial recoding, the group means are again significantly different, and this result is the same in qualitative terms for both the full DMS sample of 133 countries and the 47 country sample that is covered by the LLSV data. What happens if we look at the four LLSV/DMS indicators from a heuristic perspective and see whether the data allow identifying groups of variables or

observations that are similar in certain respects, though not necessarily along the lines suggested by the theory of law and finance? To this end, we submit these indicator sets to a series of hierarchical cluster analyses, a method that is designed to identify groups of observations that are similar in a number of aspects.

If the theory were correct, a hierarchical cluster analysis should divide the country sample into two top-level clusters corresponding to the two major legal traditions. Such a pattern would not require that the common-law countries protect financial investors better than civil-law countries; just that they treat them differently, which means that this method is not affected by the problems that haunt the anti-creditor as well as the creditor rights indices, namely how to aggregate the information that is conveyed by the indicator set. To assess the similarity or dissimilarity between observations, we refer to the Euclidean distance for binary data, which is defined as the square root of $(b+c)/(a+b+c+d)$, where $b+c$ is the number of discordant cases (0,1; 1,0) and $a+d$ the number of concordant cases (0, 0; 1,1) for a pair of observations in contingency tables for all indicators. The clusters are determined by the Ward method, which is minimising the within-groups variance. Starting from the lowest level of aggregation, this algorithm successively considers all possible pairings and joins those observations to clusters or merges those clusters to higher-level clusters that result in the minimal increase in total within-groups variance. The focus of this algorithm is thus on the within-group homogeneity rather than on the dissimilarity between clusters, which is corresponding well with the assumption of the theory of law and finance that a shared legal tradition will result in similar provisions of corporate law to protect investors' rights. With the clustering algorithm determined accordingly, we perform three cluster analyses referring to, firstly, a 4x47 data matrix representing the LLSV creditor rights indicators that are included into the index, secondly, a 4x47 matrix covering the same countries but referring to the DMS indicators and thirdly, to a 4x133 matrix representing the DMS county sample. We then evaluate the results in terms of the correspondence of the two clusters on top of the hierarchy with the theory's basic legal family distinction. To this end, we define a variable 'common' that equals one if a country is classified as belonging to the common-law tradition, and zero if it belongs to the complementary civil-law group. We then compare its binary correlation with two dummy variables for the first two clusters on top of the hierarchy. The results are shown in Table III.

TABLE III: BINARY CORRELATION (Φ) OF 'COMMON' WITH CLUSTERS 1 AND 2

	LLSV data	DMS data (LLSV sample)	DMS data (full sample)
Cluster 1	0.59	-0.30	-0.08
Cluster 2	-0.59	0.30	0.08
N	47	47	133

Note that Table III represents the fit of an a priori from the theory of law and finance to the data, according to which the indicator should produce clustering of the countries into two groups corresponding to the major legal traditions common law and civil law. Interestingly, this distinction is reasonably

well reproduced by the clustering that refers to the LLSV indicators. The correlation of common-law membership with cluster 1 is 0.59. Since the clusters and legal groups both dichotomise the sample, this implies that the correlation of the common-law dummy variable with cluster 2 equals -0.59 , and that same correlations with inverted signs would apply for a civil-law dummy variable. Surprisingly, the correspondence of a two-cluster distinction to the basic legal traditions drops to 0.30 for the same countries, when the clusters are determined with the DMS indicators, which – as they are a recent achievement – we would expect to be closer in line with the theory. Last but not least, there is no correspondence at all when we extend the analysis to the DMS 133 country sample.

These are interesting results. The theory's original idea that major differences in how countries protect investors can be detected along a line that is marked by the two major legal traditions is supported more convincingly for the same countries by the LLSV indicators than by the recorded DMS data. Moreover, for the extended country sample, our cluster analysis completely fails to reproduce the theory's legal family distinction. The original data hence clearly beat the update. In other words, while the LLSV data are supportive of the idea that characteristic similarities of corporate law across countries can be attributed to joint legal origins, the DMS data set is not implying such causality.

IV. SUMMARY

The 'law and finance theory' identifies two dominating legal traditions, a common law tradition inherited from England, and a civil law tradition that is going back to 19th century codifications in France, Germany and Scandinavia. The major conclusion is that the common law system provides the best basis for financial development and economic growth, followed by Scandinavian and German origin civil law and finally French origin civil law. Moreover, as financial development is nowadays widely believed to promote economic growth, the law and finance theory is perceived as an important building block in the ongoing search for the ultimate sources of economic growth and development. We argued that the theory faces an identification problem. The majority of common law countries have a market-based financial system, whereas the

majority of civil law countries have a bank-based financial system. Yet, since the correspondence is far from perfect, the legal family origin might still reveal essential features beyond the market structure paradigm.

The corner stone of the law and finance theory is the proposition that different legal traditions imply different degrees of investor protection. We reported evidence that this is not as firmly reflected by the available data as claimed by the theory. In particular, a new dataset on creditor protection by [4] that covers nearly three times as many countries as the LLSV data at first sight appears to deliver fresh support for the theory, at least if we restrict ourselves to comparisons of an LLSV-type creditor rights index across countries. However, the new data set does not comprise the LLSV 'remedial' variable that helped us to re-assess the LLSV creditor rights index scores across legal families. We hence cannot say whether the amended index would not also imply markedly less difference in investor protectiveness between countries with different legal traditions, as it was the case for the smaller LLSV country sample. Yet, what we can say is that the larger data set is strikingly less consistent with respect to the theory's fundamental distinction between common law and civil law countries. If we cluster the countries according to their joint similarity of the four indicators, the original LLSV data is split into clusters that largely correspond to the two main legal families, whereas the new data set on creditor protection is not. In other words, while the LLSV data are supportive of the idea that characteristic similarities of corporate law across countries can be attributed to joint legal origins, the latest data set on creditor protection is not implying such causality, so that the theory's essence is getting lost.

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