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Law and finance: Common-law and civil-law countries compared

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Law and Finance: Common-law
and Civil-law Countries Compared

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Law and Finance: Common-law and Civil-law Countries Compared

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Abstract:

The "law and finance theory" is an ambitious and fascinating attempt to combine insights from the theory of corporate finance, institutional economics, legal and economic history as well as the recent studies on the determinants of economic growth into an encompassing theory, thereby filling important gaps of our understanding of the ultimate causes and linkages underlying modern economic development. It argues that the legal system, which today's countries inherited from the past, is crucial in the way it is favouring – or hampering – financial development. The major conclusion of this literature is that the common law system generally provided the more favourable basis for financial development and economic growth, and on the other hand, the French branch of the civil law tradition is the least favourable in this respect. This paper identifies a number of problems that cast serious doubt on the soundness of the empirical basis generally referred to in this literature. However, our analyses support the idea that the legal tradition has pronounced effects with respect to shareholder protection. In particular, while a critical look at the indicators revealed that there is not much evidence that common law countries protect financial investors *better* than civil law countries, we find support for the view that investors are treated *differently*.

JEL categories: K22, G20, P00

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Law and Finance: Common-law and Civil-law Countries Compared

Introduction

Initiated by a couple of seminal and widely cited papers by LA PORTA, LOPEZ-DE SILANES, SHLEIFER and VISHNY (LA PORTA ET AL. 1997, 1998, henceforth LLSV), the last few years have witnessed the emergence of a considerable body of literature on law and finance.

This literature is an ambitious and fascinating attempt to combine insights from the theory of corporate finance, institutional economics, legal and economic history as well as the recent bulk of studies on the determinants of economic growth into an encompassing theory, thereby filling important gaps of our understanding of the ultimate causes and linkages underlying modern economic development.

In a nutshell, the "law and finance theory" – as it is called by its proponents – argues that the legal system, which today's countries inherited from the past, is crucial in the way it is favouring – or hampering – financial development. Moreover, that latter is regarded as a major driving force of economic growth, so that in this view, the legal system is perceived an indirect, albeit ultimate cause of economic development. Schematically, the causal chain is:

legal system → financial development → economic growth

Drawing on a taxonomy developed by scholars of law and legal history, this literature divides the present world into countries with a common law tradition inherited from England, a slightly more diversified group with a civil law tradition going back to 19th century codifications in France, Germany and Scandinavia and a few countries that do not fit into either of the two broad groups and are classified as socialist.

While some qualifications are made, the major conclusion of this literature is that the common law system generally provided the more favourable basis for financial development and economic growth, and on the other hand, the French branch of the civil law tradition is the least favourable in this respect.

In what follows, we shall first summarise the main findings and hypotheses generated by this literature. The focus of this will be on the first link, the legal system → financial development nexus. While the potential policy importance of this literature depends on the existence of both the legal system → financial development and the financial development → economic growth links, we follow the common practice and take the second link for granted.¹

The second part of this paper will review some more sceptical voices and take a closer look at some data that underlie most – if not all – empirical findings, thereby constituting the backbone of the law and finance theory.²

¹ For a summary of the research on the financial development → economic growth link, see GRAFF (2000). Doubts concerning the universality of this alleged causality are presented in GRAFF (2002, 2005). Nevertheless, the bulk of the law and finance literature deals explicitly with the first link, and to know more about this is valuable for its own sake, even if the effect on growth may seem less firm than is widely believed.

² The data underlying the recent empirical finance and law research programme are available on the World Bank's Law and Finance Research website (Financial Structure and Economic Development Database, www.worldbank.org/research/projects/finstructure/database.htm). They are summarised in the appendix. For more information and additional data on financial structure, see BECK ET AL. (2001).

1 The Law and Finance Literature

After less than ten years, the finance and law literature has reached the first degree of maturity and produced its first synthesis, an extensive handbook survey. In particular, written by two insiders, BECK and LEVINE'S article "Legal Institutions and Financial Development" (2003) for the forthcoming "Handbook of New Institutional Economics" gives an authoritative overview over this research programme, its foundations, underlying assumptions, the data it usually analyses and its main findings. Without neglecting their own contributions, the authors nevertheless devote a fair share of room to the sometimes slightly deviating views of other key contributors. Hence, for the following, we shall rely heavily on this paper.

BECK and LEVINE claim that the motivation for the interest in the legal system → financial development link is that it proves helpful in explaining 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" (p. 1).

Then the *law and finance theory* is decomposed into a number of (related) hypotheses:

1. "[I]n 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."

Given this, two distinct mechanisms are held responsible for these outcomes:

- a. A *political mechanism* that works through the way that "legal traditions differ in terms of the priority they attach to private property vis-à-vis the rights of the State and ... the protection of private contracting rights";
- b. an *adaptability mechanism* that refers to the degree of formalism in the legal system that, if overdone, may impair the legal system's capability to "minimize the gap between the contracting needs of the economy" and the normative status quo.

The corner stone of this approach is obviously the function of property rights to ameliorate the risk involved in all financial contracts due to informational asymmetry, moral hazard and outright fraud. To the degree that the legal system offers effective protection against the occurrence and finally, the consequences of market failure, financial investors will be more inclined to lend, be it to financial intermediaries or directly on the financial markets.

Accordingly, the law and finance theory deals mainly with the *legal protection of lenders*, and this explains its close ties to the theory of corporate finance on the one hand, and to new institutional economics on the other hand. The roots in corporate finance explain that this literature is to a considerable amount concerned with the position of the shareholder. Moreover, given that corporate finance is trivial with single majority shareholder, the law and finance theory is particularly interested in whether "inside managers and controlling shareholder are ... in a position to expropriate minority shareholders and creditors". Specifically, it focuses on to which degree the legal system offers them protection against:

- theft,
- transfer pricing,
- asset stripping.

Apart from these shareholder's ("anti-director") rights, the law and finance theory devotes some attention to creditor's rights – mainly to how bankruptcy laws deal with creditors – and to the degree to which the legal norms are effectively enforced ("rule of law").

Notwithstanding important differences between equity and debt finance, the unifying focus in the law and finance theory is the distinction between insiders (shareholders as well as creditors) and outsiders (stakeholders, "the State").

The nucleus of this approach is the lender's willingness to invest, in this framework, the legal system's support to insiders and stakeholders is generally expected to be detrimental to financial development, whereas its support to outsiders is seen as beneficial.

Now, the innovative addition of the law and finance theory to these well-established ideas and assumptions lies in the way it combines them with its peculiar view on legal history. Let us therefore take a closer look at along what categories the law and finance theory is treating the historical legacy of law. To transport the argument is all clarity, we shall (again) rely on BECK and LEVINE and cite from their survey (2003: 9 ff):

The common law legacy

"British common law is unique both in terms of (a) the relationship between the State and the Courts and (b) jurisprudence. From 1066, the English law evolved based on the resolution of specific disputes and increasingly stressed the rights of private property [and] the courts developed legal rules that treated large estate holders as private property owners and not as tenants of the king. Indeed, the common law at the dawn of the 17th century was principally a law of private property. ... In terms of legal formalism, English law typically imposes less rigid and formalistic requirements on the presentation of evidence, witnesses, etc., and instead offers judges greater latitude ... In terms of jurisprudence, the English common law tradition is almost synonymous with judges having broad interpretation powers and with courts molding and creating law as circumstances change. The common law is obsessed with facts and deciding concrete cases, rather than adhering to the logical principles of codified law. ...

The English common law spread through colonization and conquest to all corners of the world."

The civil law legacy

The civil law family is traced back to the Roman Empire, the first society with a secular and statutory law. In BECK and LEVINE'S words (p. 5 ff): "When Emperor Justinian had the Roman law compiled in the sixth century, he attempted to implement two substantive modifications. First, while Roman law placed the law above all individuals, the Justinian texts placed the emperor above the law. Second, Justinian broke with Roman law by attempting to eliminate jurisprudence. 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. Justinian changed this doctrine ... France's legal system evolved as a regionally diverse mélange of customary law, law based on the Justinian texts, and case law ... [B]y the 18th century, there was a notable deterioration in the integrity and prestige of the judiciary. The Crown sold judgeships to rich families and the judges unabashedly promoted the interests of the elite and impeded progressive reforms. Unsurprisingly, the French Revolution turned its fury on the judiciary and quickly strove to (a) place the State

above the courts and (b) eliminate jurisprudence. Codification under Napoleon supported the unification and strengthening of the State and relegated judges to a minor, bureaucratic role. According to the theory underlying the French Civil Code, the legislature drafts laws without gaps, so judges do not make law by interpreting existing laws. The theory is that the legislature does not draft conflicting laws, so that judges do not make law by choosing between laws. The theory is that the legislature drafts clear laws so that judges do not make law by giving meaning to ambiguous laws. 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. Furthermore, this approach required a high degree of procedural formalism to reduce the discretion of judges in regulating the presentation of evidence, witnesses, arguments, and appeals ... The French situation encouraged the development of easily verifiable “bright-line-rules” that do not rely on the discretion of judges ...

Napoleon secured the adoption of the Code in all conquered territories, including Italy, Poland, the Low Countries, and the Habsburg Empire. Also, France extended her legal influence to parts of the Near East, Northern and Sub-Saharan Africa, Indochina, Oceania, French Guyana, and the French Caribbean islands during the colonial era. Furthermore, the French Code heavily influenced the Portuguese and Spanish legal systems, which helped spread the French legal tradition to Central and South America.

In Germany, "it was Bismarck's decision in 1873 to codify and unify the whole of private law in Germany that led to the adoption of the German civil law in 1900... [but u]nlike in France, German courts have published (since at least the 16th century) comprehensive deliberations that illustrated how courts weighted conflicting statutes, resolved ambiguities, and addressed changing situations ... Through active debate between scholars and practitioners, Germany developed a dynamic, common fund of legal principles that then formed the basis for codification in the 19th century. Moreover, in contrast to the revolutionary zeal and antagonism toward judges that shaped the Napoleonic Code, German legal history shed a much more favorable light on jurisprudence and explicitly rejected France's approach ... Whereas the Napoleonic code was designed to be immutable, the Bürgerliches Gesetzbuch was designed to evolve ... Thus, while codification had a similar role in Germany and France in unifying the country and reasserting the power of the central state, Germany had a very different approach toward jurisprudence ...

The Austrian and Swiss civil codes were developed at the same time as the German civil code and the three influenced each other heavily. In turn, Czechoslovakia, Hungary, Yugoslavia, and Greece relied on German civil law in formulating and modernizing their legal systems in the early part of the 20th century. The German Civil Code was not imposed but exerted a big influence on Japan. At the end of the 19th century, Japan looked toward Europe as it sought to draft a commercial code ... Although Japan came under the influence of the Common law during the post World War II occupation period ..., it is not uncommon to classify Japan as a German civil law country, particularly when focusing on Commercial and Company law. Similarly, the German code influenced the development of commercial law in Korea, especially through the Japanese occupation. During the early decades of the 20th century, China (and hence Taiwan) examined European law in seeking to improve the operation of their commercial law. China introduced civil codes in 1925 and 1935 that ... were shaped by German civil law."

Finally, the finance and law theory distinguishes Scandinavian from German civil law, but it is not very explicit about the differences and their potential consequences. If anything, this literature stresses that Scandinavia – like Germany – rejected the legal traditions brought about by the French Revolution. Scandinavian civil law did not spread to other countries.

By now, I suppose the reader will have realised how this view of the history of law combines with the focus on the lender's property right.

First, this perception of the common law leads to the conclusion that it must undoubtedly be more flexible to deal with complicated matters like financial contracts which are contingent on a host of foreseeable and unforeseeable states of nature and business. For the civil law family, the conclusions will be mixed: While the revolutionary fury to wipe out jurisprudence and establish a permanent order of reason through codified law must be seen as the antithesis to flexibility, the German (and Scandinavian) systems are looked at with a bit more sympathy and are praised for having rejected the French approach. Accordingly, with respect to the *adaptability mechanism* this theory will predict the following ranking of legal systems in terms of appropriateness to promote financial development:

Common law — German and Scandinavian civil law — French civil law

Second, the law and finance theory is itself predictable in that – though touching on topics outside the usual realm of orthodox economics – it is a typical in its perception of "the State" as a menace, a Leviathan which is always trying to grab an undue share of resources, thus interfering with the peaceful activity of private economic agents.³ In BECK and LEVINE'S words, this sounds only a bit less drastic: "The political mechanism holds that the Civil law has tended to support the rights of the State, rather than private property rights ... with adverse implications for financial development ... [C]ivil legal tradition ... can be taken as a proxy for the intent to build institutions to further the power of the State. A powerful State with a responsive civil law at its disposal will tend to divert the flow of society's resources toward favored ends ... which is antithetical to competitive financial markets. Furthermore, a powerful State will have difficulty credibly committing to not interfere in financial markets, which will also hinder financial development."

Accordingly, the *political mechanism* implies the following bi-polar classification of legal systems in terms of appropriateness to promote financial development:

Common law — civil law

3 Should We Believe what the Law and Finance Theory is Telling Us?

Taken together, the story told so far is intuitively plausible, though not to the same degree in all of its nuances. In particular, the *adaptability mechanism* straightforwardly implies that common law countries should have a legal system that effectively guarantees the highest level of protection to financial investors, followed by German and Scandinavian origin civil law countries, whereas French legal origin should in this respect yield the poorest result. Given adequate cross country data, this is a testable hypothesis, and one of the major achievements of the law and finance literature is that it has put together a set of international data to perform this task.

However, I find the *political* argument far less convincing. In particular, the mechanism by which civil law should promote the Leviathan to expand its sphere at the cost of private finance and interfere in an unhelpful way with the functioning of free financial markets remains very unclear. Unless one assumes that a state that dares giving judges a legal code and making

³ In the end, the "adaptability" argument is likewise serving as a rationale to demonstrate the alleged superiority of the Anglo-Saxon model of corporate finance (see SINGH et al. 2001: 19 ff), but it is by far more supported by a logical sequence of arguments than the anti-state attitude underlying the postulation of the "political" mechanism.

them adhere to it is likely to do other nasty things, particularly to financial investors,⁴ this argument would merit more elaboration.

To be sure, the law and finance literature is to a large extent of empirical nature, and its attractiveness certainly lies in the fact that it offers a neat framework to link phenomena that otherwise would seem unrelated.

Let us hence take a look at the data originally put together by LLSV (1998) and referred to ever since in an impressive number of papers. To emphasise: This taxonomy of legal systems and the assessment of the normative framework for corporate finance and credit markets is the very backbone of the law and finance theory, since all subsequent studies take this as a starting point. Therefore, the validity of this original data is crucial for the degree of confidence one would want to have in the whole research programme.

To start with, below, we reproduce their table 2 (pp. 130 f). This table organises a sample of 49 countries along the legal system dimension and lists eight variables that characterise various aspects of shareholder rights (six of them binary) plus an index resulting from a combination of six of them. In particular, the indicators are:

One share-one vote	One if the Company Law or Commercial Code of the country requires that ordinary shares carry one vote per share, and zero otherwise. Equivalently, this variables equals one if the law prohibits the existence of both multiple-voting and non-voting ordinary shares and does not allow firms to set a maximum number of votes per shareholders irrespective of the number of shares she owns, and zero otherwise.
Proxy by mail	One if the Company Law or Commercial Code allows shareholders to mail their proxy vote to the firm, and zero otherwise
Shares not blocked	One if the Company Law or Commercial Code does not allow firms to require that shareholders deposit their shares prior to a General Shareholder Meeting thus preventing them from selling those shares for a number of says, and zero otherwise.
Cumulative voting	One if the Company Law or Commercial Code allows shareholders to cast all of their votes for one candidate standing for election to the board of directors (cumulative voting) or if the Company Law or Commercial Code allows a mechanism of proportional representation in the board by which minority interests may name a proportional number of directors to the board, and zero otherwise.
Oppressed minority	One if the Company Law or Commercial Code grants minority shareholders either a judicial venue to challenge the decisions of management or of the assembly or the right to step out of the company by requiring the company to purchase their shares when they object to certain fundamental changes, such as mergers, assets dispositions and changes in the articles of incorporation. The variable equals zero otherwise. Minority shareholders are defined as those shareholders who own 10 percent of share capital or less.

⁴ This is what BECK and LEVINE seem to have in mind when they elaborate that "a powerful State will have difficulty credibly committing to not interfere in financial markets, which will also hinder financial development". In other words, the Leviathan not even needs to act to exert a negative influence, for this it is sufficient that financial investors perceive the State as a Leviathan (which is exactly what mainstream economics teaches them to do, but this is another story).

Pre-emptive rights	One if the Company Law or Commercial Code grants shareholders the first opportunity to buy new issues of stock and this right can only be waived by a shareholder vote, and zero otherwise.
Extraordinary meeting	Minimum percentage of ownership of share capital that entitles a shareholder to call for an extraordinary shareholders' meeting. It ranges from one to 33 percent.
Anti-director rights	An index aggregating the shareholder rights. The index is formed by adding 1 if: (1) the country allows the shareholders to mail their proxy to the firm; (2) shareholders are not required to deposit their shares prior to the General Shareholders' Meeting; (3) cumulative voting or proportional representation of minorities in the board of directors is allowed; (4) an oppressed minorities mechanism is in place; (5) the minimum percentage of share capital that entitles a shareholder to call for an Extraordinary Shareholders' Meeting is less than or equal to 10 percent (the sample median); or (6) shareholders have pre-emptive rights that can only be waived by a shareholders' vote. The index ranges from 1 to 6.
Mandatory dividend	Equals the percentage of net income that the Company Law or Commercial Code requires firms to distribute as dividends among ordinary shareholders. It takes a value of zero for countries without such a restriction.

These indicators are obviously capturing interesting and characteristic features of a shareholder's position in corporate finance, and the header of the index combining the second through seventh of them (the first is put aside and dubbed a "voting right", and the same happens to the eighth, which is called "remedial") – "anti-director rights" – is a neat expression of the general focus on outsider versus insider rights and control.

This index (with a theoretical range from 0–6) seems to conform the law and finance theory, at least to some extent: The common law countries show an average of 4.0, whereas the Scandinavian, French and German civil law countries on average score 3.0, 2.33 and 2.33, respectively. Accordingly, as predicted, the common law countries seem to offer better shareholder protection on average than the civil law countries. However, the ranking within the civil law family is less in line with the theory, which would have the French system perform worst. Nevertheless, the evidence seems favourable with respect to the basic distinction of law families, and most of the subsequent literature refers to this as a confirmation of the underlying assumption. Moreover practically all subsequent empirical work builds – at least in part – on the anti-director rights index. Let us hence take closer look at its elements.

One share one vote: This dummy variable stands for the provision of proportional voting power with respects to claim on dividends. The textbook model of corporate finance assumes this as given. Surprisingly, only 17% of the common law countries have legal provisions for this, compared to 29% of French and 33% German civil law countries. The four Scandinavian countries are different in that none them scores 1. Taken together, 26% of the civil law countries follow the one share one vote principle. Compared to the 17% of the common law countries, if anything, this indicator actually falsifies the law and finance theory.⁵ Note that curiously, it does not enter into the index.

⁵ We note in passing that BECHT (1999) points out that minority voting right protection is a two-sided sword. While it may be beneficial in improving corporate control, it can lead (institutional or moneyed) investors to hold large packages of shares and thereby impair liquidity on secondary markets, which is a basic condition for getting prices right.

Proxy by mail: This dummy variable reflects the easiness with which a shareholder can cast his vote. The common law countries score consistently higher on average (39%) than the civil law countries (5%, 0% and 25%, for one out of four Scandinavian countries). The basic idea is that this stands for the chance of the minority shareholder to stand up and fight for his rights (without having to travel to Detroit or Frankfurt). However, this seems to presuppose the existence of corporate democracy working along the lines of a Swiss village meeting on the market place where communal issues are decided by a majority raising their hands. In particular, LICHT et al. (2001: 26) remind us of the fact that minority voting right protection in corporate finance is something distinctively different from the protection of democratic rights in the political sphere. The "small public shareholder" is rational to be "apathetic"; what matters is whether *large* minority shareholders have a voice. The latter are likely to be institutional investors or individuals from industrial dynasties, and for the proxy by mail facility as well as some of the other items with equal weight in the LLSV anti-director rights index are largely irrelevant.

Shares not blocked before meeting: This dummy variable too reflects the easiness with which a shareholder can cast his vote. The common law countries score also consistently higher on this index. Blocking shares is not practised in any common law country, whereas this is practised in 12 out of 9 French civil law countries, in one out of six German civil law countries and in all four Scandinavian countries. Again, the basic idea seems to be that it expresses the easiness to participate in strategic decisions of the joint enterprise, but, having in mind that the minority shareholder is different from a Swiss villager who would be annoyed to have to deposit his papers at the town hall before going to the market place, I cannot see much content in this variable. Moreover, LLSV completely disregard the possibility that the prerequisite to deposit one's shares before being allowed to vote, which according to their data apart from Scandinavia is mostly endemic Latin America, might be a protective measure against fraud, thereby effectively *protecting* rather than excluding minority shareholders.

Cumulative voting: This dummy variable captures measures that provide for a proportional representation of opinion rather than majority candidates on companies' boards. With respect to this, there is effectively no difference between the major legal system country groups. Apart from the four Scandinavian countries, which do not provide for this, the legal family subgroups all score around 30% (with the common law countries 28% actually being on the lower end). Hence, this variable does not offer support for the law and finance theory either.

Oppressed minority: This dummy variable captures in how far the legal system supports shareholders to fight management or majority decisions or to exit by requiring the company to purchase their shares. As far as I can judge, this seems a sensible and valid approach to pin down the link between law and finance, and it provides the best support to the law and finance theory so far: Except for Thailand, all common law countries provide for this, whereas the number is 50% for German and 29% for French origin legal system countries. Again, the Scandinavian countries are special in that this mechanism is not in force in any of them (which is still not completely out of line with the theory, since they are common law countries).

Pre-emptive rights: This dummy variable reflects whether shareholders can effectively protect themselves against "watering down" of their shares during new stock emissions. I find this variable appealing, however, it does not offer any support for the law and finance theory: 62% of the French legal origin countries protect shareholders in this respect, three out of four Scandinavian countries do the same, but only 44% of the common law countries. The German legal origin countries score even lower (33%), but the pro-

portion of common law countries with this provision is lower on average than that of all civil law countries taken together.

Extraordinary meeting: This is the last indicator included in the anti-director rights index, and at the same time the only one measured on a numerical scale. It reflects the minimum percentage of ownership to call for a shareholder meeting and ranges from one to 33%. In order to join this to the other dummy variables that ultimately add up to the anti-director rights index, this variable is dichotomised assigned the value 1 if the requested share is equal or less than the sample median. Note that there is some arbitrariness involved in this procedure (we shall come back to this point below).

Mandatory dividend: This quantifies the legally required minimum dividend out of net income. This certainly protects the financial interest of small shareholders to receive a reliable income out of dividends. Interestingly, this provision is known *only in French legal origin countries*, which might want the reader think that this actually contradicts the law and finance theory. But beware, LLSV come to the opposite conclusion (p. 1132): "This result is broadly consistent with the rest of our evidence and suggests that mandatory dividends are indeed a remedial legal protection for shareholders who have relatively few other legal rights." Mildly put, I find this interpretation questionable. To me it appears very much like an ad hoc rationalisation of an unexpected result: The French legal system must produce inferior outcomes, if it does not, this only proves that it does because it has to resort to a remedy. Be it as it may, this indicator is not analysed further, neither by LLSV nor by the subsequent literature.

Now, what do the proponents of the finance and law view get out of this? LLSV (1998: 1132 f) maintain that "the differences in the various measures of shareholder rights between different legal families are often significant and almost always significant when common- and civil-law families are compared ... In sum, common-law-countries have the relatively strongest, and the French-civil-law countries the weakest, protections of shareholders ...", and this is reiterated in practically all subsequent papers adhering to this research programme.⁶

In my view, this claim is not supported by the data. Firstly, the reported *t*-test based significances of the differences of the shareholder protection dummy variables are flawed, because a *t*-test is not adequate for comparison of binary variables. Other non-parametric tests could be performed, but leaving this aside, from the discussion above, out of the LLSV indicator set for shareholders rights, "Proxy by mail" and "Shares not blocked before meeting" are practically irrelevant and therefore not valid. However, these indicators are included into the overall anti-director rights index, whereas the relevant and valid indicators "One share one vote" and "Mandatory dividend" are excluded for unconvincing reasons. Moreover, the way that "Extraordinary meeting", a variable that enters the index, is dichotomised results in a higher proportion of common law countries that require a "low" share, whereas slightly different dichotomisation of the continuous raw data (assign 1 if the requested share is less rather than equal or less than the sample median) reverses the result and lets the common law countries appear more protective towards share holders. The following table illustrates this point: The raw data (ESMREQ) do not show a pronounced difference across groups (12% versus 9% required share) and the difference is not statistically significant ($p = 0.20$). However, LLSV's dichotomisation (ESM_LL) results in 94% of common law versus 68% of civil law countries being shareholder protective, whereas the slightly different median split (ESM_MG) – which is preferable, since it splits the sample into groups that are closer to each other in numbers – lets the civil law countries outperform the common law countries (35% versus 28%). Accordingly, this dichotomisation is not robust and can produce any desired result.

⁶ E.g. LEVINE (2002: 418), BECK and LEVINE (2003: 22),

Table: Mean values of different quantifications of "Extraordinary meeting" by legal family

Family	ESMREQ	ESM_LL	ESM_MG
civil law	0.12	0.68	0.35
common law	0.09	0.94	0.28
Total	0.11	0.78	0.33

Next, let us look at the "Mandatory dividend" variable, which equals zero for all countries except a few countries with French civil law tradition. Recall that LLSV consider it as "remedial" so that it should be interpreted as a signal of weak shareholder protection. Their data, however, do not confirm this interpretation. The (nonparametric) correlation with the LLSV anti-director index (into which it does not enter) is virtually zero (-0.07) and insignificant. It is however positively and significantly correlated with the other indicator that LLSV exclude from their overall index ("One share one vote"). The pairwise correlation with the six indicators that form the index is negative and positive in three cases, respectively. Since two out of the three negative correlations are with the two indicators that we would not consider particularly valid ("Proxy by mail" and "Shares not blocked before meeting"), if anything, there is a tendency for "Mandatory dividend" to correlate positive with the valid core of the indicator set, which runs counter to the attempt to describe it as "remedial". Hence, if one wants to attach any meaning to it, one should include it into the index with a *positive* value for shareholder protection.

Table: Correlation of "Mandatory dividend" with other indicators

		MANDIV	
Spearman's rho	SRIGHTS	Correlation Coefficient	-0.07
		Sig. (2-tailed)	0.61
	ONE	Correlation Coefficient	0.38
		Sig. (2-tailed)	0.01
	PROXY	Correlation Coefficient	-0.18
		Sig. (2-tailed)	0.22
	BLOCKED	Correlation Coefficient	-0.02
		Sig. (2-tailed)	0.88
	CUMVOTE	Correlation Coefficient	0.06
		Sig. (2-tailed)	0.70
	MINOR	Correlation Coefficient	-0.04
		Sig. (2-tailed)	0.81
	PREEMPTN	Correlation Coefficient	0.22
		Sig. (2-tailed)	0.13
	ESMREQ	Correlation Coefficient	0.05
		Sig. (2-tailed)	0.76

Next, let us look at the between group differences of the binary shareholder rights variables from LLSV's table 2. The following table shows that the picture is mixed. The civil law countries tend to perform better on "one share one vote" and "Pre-emptive rights", and the common law countries are better on "Proxy by mail", "Shares not blocked before meeting" and "Oppressed minority". Finally, "Cumulative voting" does not differ markedly between the large legal families.

Table: Dichotomous indicators scoring 1 by legal family (% of countries in group)

Family	ONE	PROXY	BLOCKED	CUMVOTE	MINOR	PREEMPTN
civil law	26	06	55	26	29	58
common law	17	39	100	28	94	44
Total	22	18	71	27	53	53

Now, how do these points taken together affect the index values for the different legal families? If our argumentations has been convincing so far, what follows is that out of the indicators that contribute to the alleged supremacy of the common law countries in terms of shareholder protection as quantified by the anti-director rights index, two are not valid and should be dropped and a third one is dubious because of its dichotomisation. Moreover, two variables that would suggest a supremacy of the common law countries are disregarded for the construction of the index.

This is an irritating finding. As shown in the table below, referring to the same data as LLSV and the subsequent finance and law literature, the alleged supremacy disappears when the set of information is combined in different – and possibly more plausible ways.

INDEX0 is the LLSV anti-director rights index, INDEX1 is the same without the two indicators of dubious validity and "Extraordinary meeting" dichotomised alternatively. INDEX2 adds "One share one vote" to INDEX1, and INDEX3 adds a dummy variable that adopts the value 1 when there are provisions for mandatory dividend. Obviously, the LLSV's key relationship between the legal system and shareholder protection cannot be reproduced with our alternative indices. Indeed, the more we modify the index according to our theoretical intuition, the closer the group means move towards each other. Moreover, the same is true when we test for group mean differences between the French legal origin group – which has an especially bad reputation in the finance and law literature – and the rest of the world. For this group, the LLSV index scores significantly lower ($p < 0.01$), but for the alternative indices we cannot reject the null that the sample means are equal ($p = 0.35$, $p = 0.58$ and $p = 0.84$, respectively).

Table: Alternative shareholder rights indices by legal family

COMMON	INDEX0	INDEX1	INDEX2	INDEX3
civil law n = 31	2.42	1.48	1.74	1.94
common law n = 18	4.00	1.94	2.11	2.11
Total n = 49	3.00	1.65	1.88	2.00
t-Test for difference between groups	25 ($p < 0.01$)	2.20 ($p = 0.15$)	0.99 ($p = 0.33$)	0.18 ($p = 0.67$)

TABLE 2
SHAREHOLDER RIGHTS AROUND THE WORLD

Country	One Share— One Vote	Proxy by Mail Allowed	Shares Not Blocked before Meeting	Cumulative Voting/ Proportional Representation	Oppressed Minority	Preemptive Right to New Issues	Percentage of Share Capital to Call an Extraordinary Shareholder Meeting	Antidirector Rights	Mandatory Dividend
Australia	0	1	1	0	1	0	.05 ^a	4	.00
Canada	0	1	1	1	1	0	.05	5	.00
Hong Kong	0	1	1	0	1	1	.10	5	.00
India	0	0	1	1	1	1	.10	5	.00
Ireland	0	0	1	0	1	1	.10	4	.00
Israel	0	0	1	0	1	0	.10	3	.00
Kenya	0	0	1	0	1	0	.10	3	.00
Malaysia	1	0	1	0	1	1	.10	4	.00
New Zealand	0	1	1	0	1	0	.05	4	.00
Nigeria	0	0	1	0	1	0	.10	3	.00
Pakistan	1	0	1	1	1	1	.10	5	.00
Singapore	1	0	1	0	1	1	.10	4	.00
South Africa	0	1	1	0	1	1	.05	5	.00
Sri Lanka	0	0	1	0	1	0	.10	3	.00
Thailand	0	0	1	1	0	0	.20 ^b	2	.00
United Kingdom	0	1	1	0	1	1	.10	5	.00
United States	0	1	1	1	1	0	.10	5	.00
Zimbabwe	0	0	1	0	1	0	.05	3	.00
English-origin average	.17	.39	1.00	.28	.94	.44	.09	4.00	.00
Argentina	0	0	0	1	1	1	.05	4	.00
Belgium	0	0	0	0	0	0	.20	0	.00
Brazil	1	0	1	0	1	0	.05	3	.50
Chile	1	0	1	1	1	1	.10	5	.30
Colombia	0	0	1	1	0	1	.25	3	.50
Ecuador	0	0	1	0	0	1	.25	2	.50
Egypt	0	0	1	0	0	0	.10	2	.00
France	0	1	0	0	0	1	.10	3	.00
Greece	1	0	0	0	0	1	.05	2	.35

Indonesia	0	0	1	0	0	0	0	0	0	.10	2	.00
Italy	0	0	0	0	0	0	0	0	0	.20	1	.00
Jordan	1	0	1	0	0	0	0	0	0	.25	1	.00
Mexico	0	0	0	0	0	0	0	0	0	.33	1	.00
Netherlands	0	0	0	0	0	0	0	0	0	.10	2	.00
Peru	1	0	1	1	1	1	1	1	1	.20	3	.00
Philippines	0	0	1	1	1	1	1	1	0	open	3	.00
Portugal	0	0	1	0	0	0	0	0	1	.05	3	.00
Spain	0	0	0	1	1	1	1	1	1	.05	4	.00
Turkey	0	0	1	0	0	0	0	0	0	.10	2	.00
Uruguay	1	0	0	0	0	0	0	0	1	.20	2	.20
Venezuela	0	0	1	0	0	0	0	0	0	.20	1	.00
French-origin average	.29	.05	.57	.29	.29	.29	.29	.62	.15	.15	2.33	.11
Austria	0	0	0	0	0	0	0	1	.05	.05	2	.00
Germany	0	0	0	0	0	0	0	0	.05	.05	1	.00
Japan	1	0	1	1	1	1	1	0	.03	.03	4	.00
South Korea	1	0	0	0	0	0	0	0	.05	.05	2	.00
Switzerland	0	0	0	0	0	0	0	1	.10	.10	2	.00
Taiwan	0	0	0	1	1	1	1	0	.03	.03	3	.00
German-origin average	.33	.00	.17	.33	.50	.33	.33	.33	.05	.05	2.33	.00
Denmark	0	0	1	0	0	0	0	0	.10	.10	2	.00
Finland	0	0	1	0	0	0	0	1	.10	.10	3	.00
Norway	0	1	1	0	0	0	0	1	.10	.10	4	.00
Sweden	0	0	1	0	0	0	0	1	.10 ^b	.10 ^b	3	.00
Scandinavian-origin average	.00	.25	1.00	.00	.00	.00	.75	.53	.10	.10	3.00	.00
Sample average	.22	.18	.71	.27	.53	.27	.53	.53	.11	.11	3.00	.05

B. Tests of Means (<i>t</i> -Statistics)											
Common vs. civil law	-72	3.03*	4.97*	.15	5.59*	-91	1.48	5.00*	-2.55**	5.00*	-2.55**
English vs. French origin	-87	2.82*	3.87*	-.05	5.45*	-1.08	-2.53**	4.73*	-2.67**	4.73*	-2.67**
English vs. German origin	-85	3.29*	5.00*	.00	2.83*	.46	2.54**	3.59*	.00	3.59*	.00
English vs. Scandinavian origin	1.84***	.50	.00	2.55**	17.00*	-1.09	-1.00	1.91***	.00	1.91***	.00
French vs. German origin	-.22	1.00	-1.78***	-.22	-.96	1.23	2.64**	.00	2.67**	.00	2.67**
French vs. Scandinavian origin	2.83**	-1.37	-3.87*	2.82**	2.83	-.48	2.43**	-1.06	2.67**	-1.06	2.67**
German vs. Scandinavian origin	1.58	-1.00	-5.00*	1.58	2.23***	-1.27	-4.62*	-1.08	.00	-1.08	.00

NOTE.—Variables are defined in table 1.

^a As a percentage of votes.^b As a percentage of the number of shares.

* Significant at the 1 percent level.

** Significant at the 5 percent level.

*** Significant at the 10 percent level.

Let us now move to creditor rights. To begin with, it is useful to note that the proponents of the law and finance view do not have separate theories for shareholder and creditor rights. The predictions of their theory are general in the sense that common law countries should perform better than common law countries in both respects, and that a French legal legacy would produce the most unfavourable results.

LLVS (1998: 1139) claim that the data support their view in that it "is not the case that some legal families protect shareholders and others protect creditors." However, at the same time they add that "one possible exception is that German-civil-law countries are protective of secured creditors, though generally not of shareholders." Moreover, as can be seen from their table 4 (reproduced below), the "United States is actually one of the most anticreditor common-law countries" (p. 1138). We add that in terms of their data, LLSV are understating the "anticreditor" orientation of the US; it actually ranks lower on their creditor rights index than any of the four legal origin family group means, and only Columbia, Mexico, Peru, the Philippines and France score worse.

In other words, the predictions of the finance and law theory do not hold for the German origin country group, which does better than predicted, and the herald of property rights and investor protection, the US, finds itself in a group of developing laggards from Latin America, the crony capitalist Philippines and France. I find it hard to attribute much internal consistency to a theory which can produce these contradictions without questioning its premises.

To be sure, subsequent proponents of the law and finance view have been more irritated about this than LLSV.⁷ Specifically, it is conceded that other exogenous variables – e.g. religion and culture⁸ – are better than legal origin in predicting creditor rights. Hence, empirically, it seems that the explanatory domain of the law and finance theory is covering the share- rather than the credit market. Unfortunately, the generalisations with respect to shareholder protection are built on dubious statistical aggregations and selections from contradictory indicators; and without a theoretical argument to account for the admitted flaws in explaining creditor protection, not much remains. Before proceeding, let us look at the preferred creditor rights indicators.

Reorganisation: One if the reorganisation procedure imposes restrictions, such as creditors' consent, to file for reorganisation. It equals zero for countries without such restrictions.

No automatic stay: One if the reorganisation procedure does not impose an automatic stay on the assets of the firm upon filing the reorganisation petition; zero if otherwise

Secured first: One if secured creditors are ranked first in the distribution of the proceeds that result from the disposition of the assets of a bankrupt firm. Equals zero if non-secured creditors, such as the government and workers, are given absolute priority.

No management stay: One if an official appointed by the court, or by the creditors, is responsible for the operation of the business during reorganization. Equivalently, this variable equals one if the debtor does not keep the administration of its property pending the resolution of the reorganization process, and zero otherwise.

Creditor Rights: Index formed by adding the previous four dummy variables; range: 0–4.

Legal reserve: Minimum percentage of total share capital mandated by Corporate Law to avoid dissolution of an existing firm, zero for countries without such restriction.

⁷ See BECK and LEVINE (2003: 17 ff).

⁸ We note in passing that the recent finance and law literature has been quite selective in addressing sceptical views. While it gives some room to competing approaches that stress religion (STULZ and WILLIAMSON 2003) or climate (ACEMOGLU ET AL. 2001, 2002), contradictory evidence based on alternative views of economic history (e.g. FOHLIN 2000) and socio-psychological cross-country characteristics (e.g. LICHT ET AL. 2001) are generally ignored.

TABLE 4
CREDITOR RIGHTS AROUND THE WORLD

Country	No Automatic Stay on Assets	Secured Creditors First Paid	Restrictions for Going into Reorganization	Management Does Not Stay in Reorganization	Creditor Rights	Legal Reserve Required as a Percentage of Capital
A. Creditor Rights (1 = Creditor Protection Is the Law)						
Australia	0	1	0	0	1	.00
Canada	0	1	0	0	1	.00
Hong Kong	1	1	1	1	4	.00
India	1	1	1	1	4	.00
Ireland	0	1	0	0	1	.00
Israel	1	1	1	1	4	.00
Kenya	1	1	1	1	4	.00
Malaysia	1	1	1	1	4	.00
New Zealand	1	0	1	1	3	.00
Nigeria	1	1	1	1	4	.00
Pakistan	1	1	1	1	4	.00
Singapore	1	1	1	1	4	.00
South Africa	0	1	1	1	3	.00
Sri Lanka	1	0	1	1	3	.00
Thailand	1	1	0	1	3	.10
United Kingdom	1	1	1	1	4	.00
United States	0	1	0	0	1	.00
Zimbabwe	1	1	1	1	4	.00
English-origin average	.72	.89	.72	.78	3.11	.01
Argentina	0	1	0	0	1	.20
Belgium	1	1	0	0	2	.10
Brazil	0	0	1	0	1	.20
Chile	0	1	1	0	2	.20
Colombia	0	0	0	0	0	.50
Ecuador	1	1	1	1	4	.50
Egypt	1	1	1	1	4	.50
France	0	0	0	0	0	.10
Greece	0	0	0	1	1	.33
Indonesia	1	1	1	1	4	.00

Italy	0	1	1	0	2	.20
Jordan	na	na	na	na	na	.25
Mexico	0	0	0	0	0	.20
Netherlands	0	1	1	0	2	.00
Peru	0	0	0	0	0	.20
Philippines	0	0	0	0	0	.00
Portugal	0	1	0	0	1	.20
Spain	1	1	0	0	2	.20
Turkey	0	1	1	0	2	.20
Uruguay	0	1	0	1	2	.20
Venezuela	na	1	na	na	na	.10
French-origin average	.26	.65	.42	.26	1.58	.21
Austria	1	1	1	0	3	.10
Germany	1	1	1	0	3	.10
Japan	0	1	0	1	2	.25
South Korea	1	1	0	1	3	.50
Switzerland	0	1	0	0	1	.50
Taiwan	1	1	0	0	2	1.00
German-origin average	.67	1.00	.33	-.33	2.33	.41
Denmark	1	1	1	0	3	.25
Finland	0	1	0	0	1	.00
Norway	0	1	1	0	2	.20
Sweden	0	1	1	0	2	.20
Scandinavian-origin average	.25	1.00	.75	.00	2.00	.16
Sample average	.49	.81	.55	.45	2.30	.15

B. Tests of Means (*t*-Statistics)

Common vs. civil law	2.65*	1.04	1.86***	4.13*	3.61*	-4.82*
English vs. French origin	3.06*	1.75**	1.89***	3.55*	3.61*	-5.75*
English vs. German origin	.25	-1.46	1.74***	2.10**	1.43	-5.21*
English vs. Scandinavian origin	1.83***	-1.46	-.11	7.71*	1.71***	-5.90*
French vs. German origin	-1.85***	-3.20*	.37	-.32	-1.29	-2.14**
French vs. Scandinavian origin	.05	-3.20*	-1.18	2.54**	-.60	.59
German vs. Scandinavian origin	1.27	.00	-1.26	1.58	.63	1.37

* Significant at the 1 percent level.

** Significant at the 5 percent level.

*** Significant at the 10 percent level.

This creditor rights indicator set appears plausible. It avoids the difficulties encountered with the shareholder rights indicators, in particular their focus on corporate control exercised by small shareholders as well as the aggregation problem. All indicators are concerned with how well creditors are protected in the case of bankruptcy, which is the major concern for outside creditors who are entitled to fixed claims otherwise. We note that these indicators are explicitly tailored with reference to arm's length finance and hence not suited to an environment where relationship banking is the dominant form of credit, but since the legal protection of outsiders is the cornerstone of the finance and law view, this seems justifiable.

Moreover, as was the case of the shareholder right indicators, there is a "remedial" variable, in this case a legal reserve requirement.

Given that the law and finance literature devotes less attention to the creditor index than to the shareholder index, we shall do likewise and keep the detailed analysis of these indicators for a future paper. We shall however include them into our next step of analysis, which will refer to the LLSV indicator set with an alternative statistical device.

In particular, we refer to the original LLSV indicators of creditor and shareholder rights, but not to the indices, and submit them to a cluster analysis where we impose a two cluster solution which divides the countries of the sample into two groups according to their overall similarity in the pattern they show on the indicators. Since the finance and law view holds that the legal legacy is responsible for today's corporate and business codes, the two clusters should be (largely) identical with the two major legal families. This is a testable prediction. Let us see what the data say.

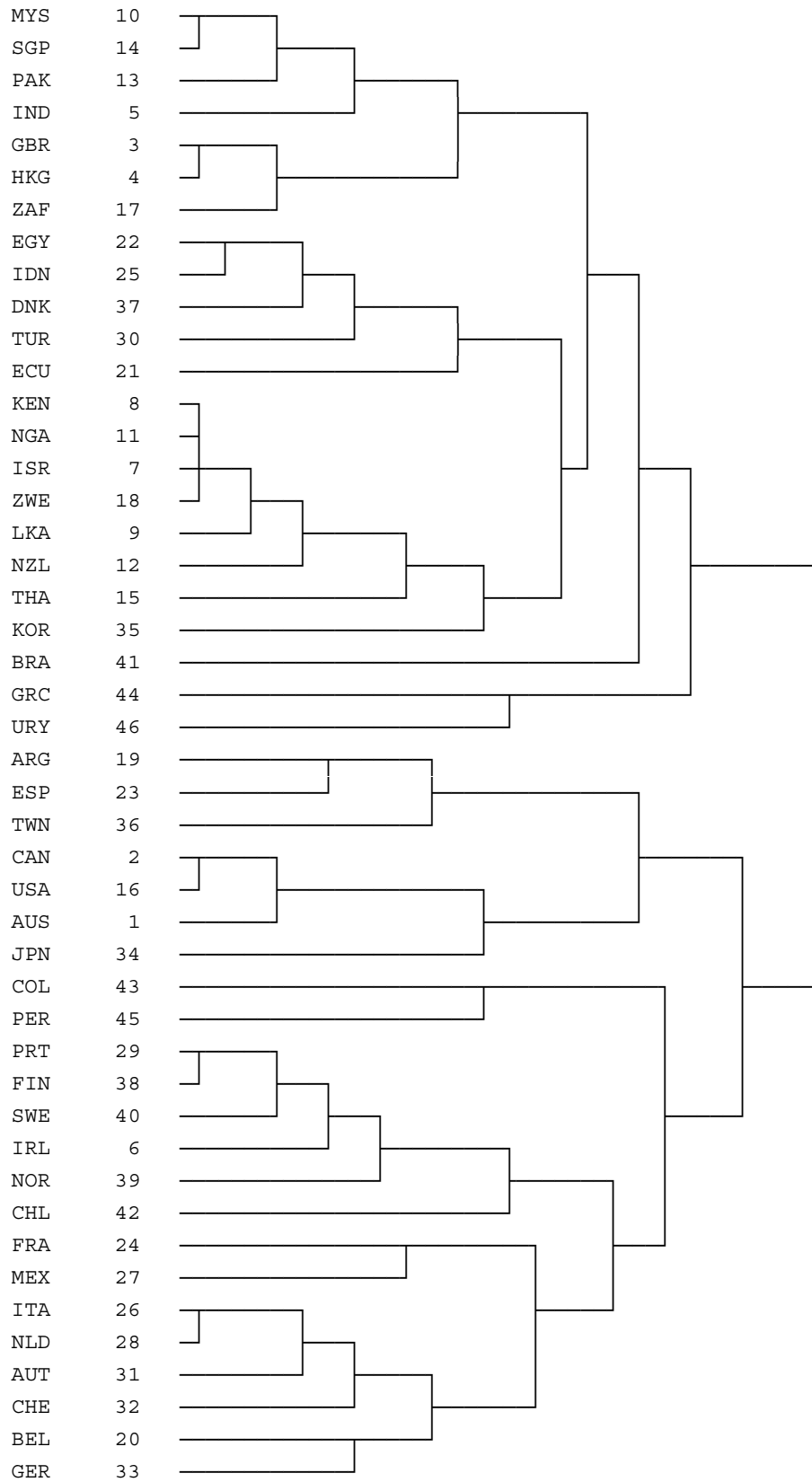
The dendogrammes (see below) shows the allocation of the countries to the clusters. Interestingly, for both indicator sets, many of the lower level clusters are intuitively making sense. Moreover, at the highest level, the (nonparametric) correlation between the two clusters and the two main legal families is significant, but moderate (0.45) for the extended indicator set. For the smaller indicator set comprising the "hard core" of the law and finance and theory, the shareholder protection indicators, the correlation increases to 0.76.

This is an interesting result. It supports the idea that the legal tradition has pronounced effects with respect to shareholder protection, but it makes less difference in how a country will handle creditor rights. Moreover, while a critical look at the indicators revealed that there is not much evidence that common law countries protect financial investors *better* than civil law countries, the cluster analyses support the view that investors are treated *differently*. In other words, while our findings make us very sceptical with respect to the alleged *supremacy* of a common law tradition in protecting investors, they show convincing evidence that the legal tradition makes a *difference*.

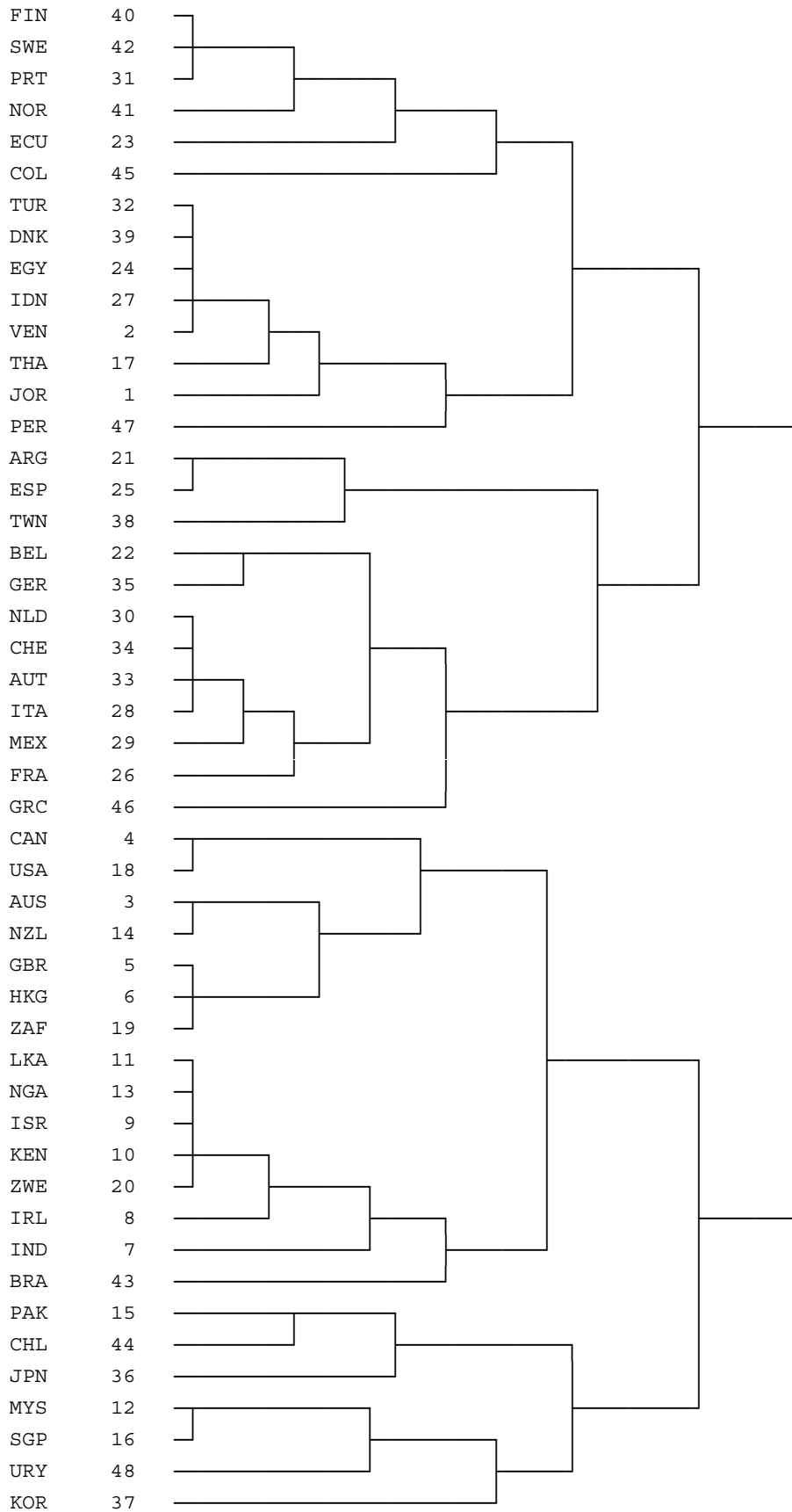
Accordingly, the idea to combine the analysis of corporate finance with the study of law is indeed fruitful, albeit not exactly along the lines suggested by the mainstream of this literature. In line with this, HACKETHAL and SCHMIDT (1999) argue that financial systems consist of various interdependent elements and hence should be analysed from a *systemic* perspective, where coherency of the system is more important than specific characteristics. In particular, with banks dominating the financial sector, insider controlled corporate governance and firm-specific human capital are constituting a long-term orientated and gradualist environment, whereas stronger reliance on the capital market is better suited for outsider controlled corporate governance and "big leap" strategies.⁹

⁹ This point is elaborated on a more general level by the "varieties of capitalism" literature (e.g. DA RIN 1997, MAYER 1998, PEROTTI and VON THADDEN 2003), which apart from the financial system focuses on a wider range of institutions including the educational system, the labour markets and the type of innovations which these systems are most likely to support.

Dendrogramme 1: Hierarchical Cluster Analysis, 2 Clusters from 13 investor rights indicators



Dendrogramme 2: Hierarchical Cluster Analysis from 8 shareholder rights indicators



3 Summary

This "law and finance theory" is an ambitious and fascinating attempt to combine insights from the theory of corporate finance, institutional economics, legal and economic history as well as the recent studies on the determinants of economic growth into an encompassing theory, thereby filling important gaps of our understanding of the ultimate causes and linkages underlying modern economic development. It argues that the legal system, which today's countries inherited from the past, is crucial in the way it is favouring – or hampering – financial development.

The major conclusion of this literature is that the common law system generally provided the more favourable basis for financial development and economic growth, and on the other hand, the French branch of the civil law tradition is the least favourable in this respect. Our analysis of the indicators underlying these conclusions showed numerous problems that cast serious doubt on the soundness of the empirical basis generally referred to in this literature. However, our analyses support the idea that the legal tradition has pronounced effects with respect to shareholder protection. In particular, while a critical look at the indicators revealed that there is not much evidence that common law countries protect financial investors *better* than civil law countries, we found support for the view that investors are treated *differently*.

This opens various promising routes for future research. Specifically, future research on law and finance might benefit from a *systemic* perspective, where coherency of the system is more important than specific characteristics.

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5 Appendix: Data Description

We refer to these data in the last available vintage (revised October 28, 2003). The basic distinction is between British, French, German, Scandinavian and Socialist origin of the legal system, as in the seminal contribution of LA PORTA ET AL. (1998). The only country that is not classified along these lines is Taiwan. In order to make our analyses comparable with the literature, we allocate Taiwan to the German origin group. Moreover, we define common law countries as British origin and the encompassing group of civil law countries comprising French, German and Scandinavian law. Data are averages over the period 1980–95, unless otherwise noted. Specifically, we refer to the following indicators:

One share-one vote	One	Equals one if the Company Law or Commercial Code of the country requires that ordinary shares carry one vote per share, and zero otherwise. Equivalently, this variables equals one if the law prohibits the existence of both multiple-voting and non-voting ordinary shares and does not allow firms to set a maximum number of votes per shareholders irrespective of the number of shares she owns, and zero otherwise.
Proxy by mail	Proxy	Equals one if the Company Law or Commercial Code allows shareholders to mail their proxy vote to the firm, and zero otherwise
Shares not blocked	Blocked	Equals one if the Company Law or Commercial Code does not allow firms to require that shareholders deposit their shares prior to a General Shareholder Meeting thus preventing them from selling those shares for a number of says, and zero otherwise.
Cumulative voting	Cumvote	Equals one if the Company Law or Commercial Code allows shareholders to cast all of their votes for one candidate standing for election to the board of directors (cumulative voting) or if the Company Law or Commercial Code allows a mechanism of proportional representation in the board by which minority interests may name a proportional number of directors to the board, and zero otherwise.
Oppressed minority	Minor	Equals one if the Company Law or Commercial Code grants minority shareholders either a judicial venue to challenge the decisions of management or of the assembly or the right to step out of the company by requiring the company to purchase their shares when they object to certain fundamental changes, such as mergers, assets dispositions and changes in the articles of incorporation. The variable equals zero otherwise. Minority shareholders are defined as those shareholders who own 10 percent of share capital or less.
Pre-emptive rights	Preemptn	Equals one if the Company Law or Commercial Code grants shareholders the first opportunity to buy new issues of stock and this right can only be waived by a shareholder vote, and zero otherwise.
Extraordinary meeting	Esmreq	It is the minimum percentage of ownership of share capital that entitles a shareholder to call for an Extraordinary Shareholders' Meeting. It ranges from one to 33 percent.

Anti-director rights	Srights	An index aggregating the shareholder rights. The index is formed by adding 1 if: (1) the country allows the shareholders to mail their proxy to the firm; (2) shareholders are not required to deposit their shares prior to the General Shareholders' Meeting; (3) cumulative voting or proportional representation of minorities in the board of directors is allowed; (4) an oppressed minorities mechanism is in place; (5) the minimum percentage of share capital that entitles a shareholder to call for an Extraordinary Shareholders' Meeting is less than or equal to 10 percent (the sample median); or (6) shareholders have pre-emptive rights that can only be waived by a shareholders' vote. The index ranges from 1 to 6.
Mandatory dividend	Mandiv	Equals the percentage of net income that the Company Law or Commercial Code requires firms to distribute as dividends among ordinary shareholders. It takes a value of zero for countries without such a restriction.
Reorganization	Reorg	Equals one if the reorganization procedure imposes restrictions, such as creditors' consent, to file for reorganization. It equals zero for countries without such restrictions.
No automatic stay	Autostay	Equals one if the reorganization procedure does not impose an automatic stay on the assets of the firm upon filing the reorganization petition. It equals zero if such restriction does exist in the law.
Secured first	Secured1	Equals one if secured creditors are ranked first in the distribution of the proceeds that result from the disposition of the assets of a bankrupt firm. Equals zero if non-secured creditors, such as the government and workers, are given absolute priority.
No management stay	Manages	Equals one if an official appointed by the court, or by the creditors, is responsible for the operation of the business during reorganization. Equivalently, this variable equals one if the debtor does not keep the administration of its property pending the resolution of the reorganization process, and zero otherwise.
Creditor Rights	Crighs	An index aggregating different creditor rights. The index is formed by adding 1 if: (1) the country imposes restrictions, such as creditors' consent, to file for reorganization; (2) secured creditors are able to gain possession of their security once the reorganization petition has been approved (no automatic stay); (3) secured creditors are ranked first in the distribution of the proceeds that result from the disposition of assets of a bankrupt firm; and (4) the debtor does not retain the administration of its property pending the resolution of the reorganization. The index ranges from 0 to 4.
Legal reserve	Reserve	It is the minimum percentage of total share capital mandated by Corporate Law to avoid the dissolution of an existing firm. It takes a value of zero for countries without such restriction.
British origin	Legor_uk	British legal origin
French origin	Legor_fr	French legal origin
German origin	Legor_ge	German legal origin
Scandinavian origin	Legor_sc	Scandinavian legal origin
Communist origin	Legor_so	Socialist legal origin