

**DISAPPEARING PARADIGMS IN SHAREHOLDER PROTECTION:
LEXIMETRIC EVIDENCE FOR 30 COUNTRIES, 1990-2013**

Centre for Business Research, University of Cambridge
Working Paper No. 467

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March 2015

This working paper forms part of the CBR Research Programme on Corporate Governance

Abstract

Scholars frequently claim that path dependency of the law, the influence of the US model of corporate governance, and the role of legal origin and the stage of legal development are key for a comparative understanding of shareholder protection. This article, however, suggests that these paradigms of comparative company law gradually seem to disappear. The basis for our assessment is an original leximetric dataset that measures the development of shareholder protection for 30 countries over the last 24 years. Using tools of descriptive statistics, time series and cluster analysis, our main findings are that all legal origins have now in average about the same level of shareholder protection, that paternalistic tools have overtaken enabling tools of protection, and that after the global financial crisis this area has become a less frequent object of law reforms.

Keywords: shareholder protection, corporate governance, company law, legal origin, leximetrics, legal transplants

JEL Codes: C38, F68, G38, K22, N20, N40, P50

Acknowledgements

We gratefully acknowledge funding from the ESRC's *Rising Powers* Programme for compiling the dataset underlying this article. We also thank the country experts for their help in collecting the information underlying the shareholder protection dataset as well as Brian Cheffins and Gerhard Schnyder for helpful comments. The final version of this paper will be published in *Journal of Corporate Law Studies*, volume 15 (2015).

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1. Introduction

Recent decades have seen a growing internationalisation in debates about company law. International organisations, such as the World Bank and the OECD, aim to promote good models of corporate governance and domestic law-makers have the aspiration to catch up with legal innovations of other countries in order to ensure the competitiveness of their companies.¹ In academia there has also been a growing trend to teach and write about company law beyond the domestic level. For example, many universities now offer modules on international, comparative or European company law, and a number of new books on comparative company law have been published in the last four years.²

Given this trend, it may be seen as a positive development that recent research in comparative company law has identified certain paradigms on which most scholars agree. It is suggested that these can be summarised as follows: first, there is the frequent view that the development of company law is path-dependent, and that therefore the core characteristics of a country's law are persistent and not subject to frequent changes or major shifts.³ Second, it is often thought that a market-oriented conception of company law has become the dominant one, in particular as we may observe an 'Americanisation' of company law in many countries of the world.⁴ Third, in order to explain the remaining differences in strength and forms of shareholder protection, many scholars claim that legal origins and the stage of economic development are the most decisive factors.⁵

However, this emergence of paradigms can also be thought of as problematic as far as they do not hold up to empirical scrutiny. It is the aim of this article to provide such an empirical assessment. For this purpose we will use an original leximetric dataset about the development of shareholder protection in 30 countries between 1990 and 2013, and assess these data with tools of descriptive statistics, time series and cluster analysis. Doing so, it will be shown that those key paradigms have weakened, or even disappeared, in recent years.

The corresponding structure of this article is as follows. In order to set the scene, Section 2 explains the previous leximetric research and the current dataset on shareholder protection. Section 3 discusses the general development of shareholder protection according to this dataset, based on the strength of protection in individual countries as well as the aggregates for each of the variables. Section 4 presents a time series analysis of this dataset and identifies possible structural changes in the shareholder protection index. Section 5 examines the strength of shareholder protection according to groups of countries, namely legal origins and stages of economic development. Section 6

uses an analysis based on differences between individual observations in order to scrutinise questions of convergence and similarities between legal systems. Based on all of these findings, the concluding Section 7 then provides a concluding assessment of the aforementioned three paradigms.

2. A Leximetric View of Shareholder Protection

The research discussed here derives from a project on Law, Finance and Development at the Centre for Business Research (CBR) in the University of Cambridge. This project had the aim to review the mechanisms by which legal institutions influence financial systems and thereby affect economic development. For this purpose, the CBR researchers constructed time-series datasets on shareholder protection (as well as creditor and worker protection)⁶ and used those data as explanatory variables in regression analysis.⁷ In addition, one of us, together with other researchers, decided to write papers limited to the analysis of the legal data, calling this approach ‘leximetric’.⁸ Thus, in these papers, the main interest is in a quantitative presentation of cross-country similarities and differences in company law and how those may be interpreted.

In detail, the initial CBR project developed two indices on shareholder protection in listed companies. The first one had 60 variables and the project members coded the laws of five countries for the years 1970 to 2005. The second index reduced the number of variables to 10, but coded 25 countries, initially for the years 1995 to 2005. The corresponding datasets have been made available on the project website, including detailed explanations of the respective legal codings.⁹

The present article is the first one to present an extension of this latter dataset, namely for 30 countries and the years 1990 to 2013. It is based on the coding of the ten variables of Table 1, below. The previous papers of the project explained the selection of the variables and the approach to coding the law in detail. While such choices do not deny the subjective element inherent in such datasets, it can be noted that they have been called ‘more sophisticated’ than alternative datasets on shareholder protection.¹⁰

Table 1: Ten-variable shareholder protection index¹¹

<i>Variables</i>	<i>Description</i>
1. Powers of the general meeting for de facto changes	If the sale of more than 50 % of the company's assets requires approval of the general meeting it equals 1; if the sale of more than 80 % of the assets requires approval it equals 0.5; otherwise 0.
2. Agenda setting power	Equals 1 if shareholders who hold 1 % or less of the capital can put an item on the agenda; equals 0.75 if there is a hurdle of more than 1 % but not more than 3 %; equals 0.5 if there is a hurdle of more than 3 % but not more than 5 %; equals 0.25 if there is a hurdle of more than 5 % but not more than 10 %; equals 0 otherwise.
3. Anticipation of shareholder decision facilitated	Equals 1 if (1) postal voting is possible or (2) proxy solicitation with two-way voting proxy form has to be provided by the company (i.e. the directors or managers); equals 0.5 if (1) postal voting is possible if provided in the articles or allowed by the directors, or (2) the company has to provide a two-way proxy form but not proxy solicitation; equals 0 otherwise.
4. Prohibition of multiple voting rights (super voting rights)	Equals 1 if there is a prohibition of multiple voting rights; equals 2/3 if only companies which already have multiple voting rights can keep them; equals 1/3 if state approval is necessary; equals 0 otherwise.

5. Independent board members	Equals 1 if at least half of the board members must be independent; equals 0.5 if 25 % of them must be independent; equals 0 otherwise
6. Feasibility of director's dismissal	<p>Equals 0 if good reason is required for the dismissal of directors; equals 0.25 if directors can always be dismissed but are always compensated for dismissal without good reason; equals 0.5 if directors are not always compensated for dismissal without good reason but they could have concluded a non-fixed-term contract with the company; equals 0.75 if in cases of dismissal without good reason directors are only compensated if compensation is specifically contractually agreed; equals 1 if there are no special requirements for dismissal and no compensation has to be paid.</p> <p>Note: If there is a statutory limit on the amount of compensation, this can lead to a higher score.</p>
7. Private enforcement of directors duties (derivative suit)	Equals 0 if this is typically excluded (e.g., because of strict subsidiarity requirement, hurdle which is at least 20 %); equals 0.5 if there are some restrictions (e.g., certain percentage of share capital; demand requirement); equals 1 if private enforcement of directors duties is readily possible.
8. Shareholder action against resolutions of the general meeting	Equals 1 if every shareholder can file a claim against a resolution by the general meeting; equals 0.5 if there is a threshold of 10 % voting rights; equals 0 if this kind of shareholder action does not exist.
9. Mandatory bid	Equals 1 if there is a mandatory public bid for the entirety of shares in case of purchase of 30 % or 1/3 of the shares; equals 0.5 if the mandatory bid is triggered at a higher percentage (such as 40 or 50 %); further, it equals 0.5 if there is a mandatory bid but the bidder is only required to buy part of the shares; equals 0 if there is no mandatory bid at all.

10. Disclosure of major share ownership	Equals 1 if shareholders who acquire at least 3 % of the companies capital have to disclose it; equals 0.75 if this concerns 5 % of the capital; equals 0.5 if this concerns 10 %; equals 0.25 if this concerns 25 %; equals 0 otherwise
<i>Note</i> on shading: we classified as ‘enabling’ forms of shareholder protection, variables 2, 3, 6, 7, and 8, and as ‘paternalistic’ forms (here highlighted), variables 1, 4, 5, 9 and 10. See the subsequent text for details.	

In the present article we analyse the 10 variables * 30 [countries] * 24 [years] = 7,200 variables of the new dataset. As with the previous datasets, detailed explanations of the respective legal codings will be made available on the CBR project website.

The original contributions of this article are as follows: first, it is based on a considerably richer dataset than previous ones. Compared to the first set of papers¹² which analysed the data for five countries, the coverage of 30 countries enables us to identify any possible differences between groups of countries (say, common and civil law countries) in a more reliable way. The countries in our sample¹³ also provide a good mix of developed and developing countries from different parts of the world. Compared to the second set of papers, we have increased the length of the time-series from 11 to 24 years;¹⁴ thus, identifying time trends can be achieved more fully. The period from 1990 to 2013 is also interesting to examine as it includes events such as the transition to a market economy and the accession to the EU in some countries, as well the ‘dot-com bubble’ and the global financial crisis.

Second, the present article is the first one that disaggregates the overall index into two subsets ‘enabling’ and ‘paternalistic’ forms of shareholder protection (see Table 1 with *Note*). Therefore, this refers to the *substantive* direction of forms of shareholder protection, not the *formal* difference between default and mandatory rules.¹⁵ With ‘enabling’ we mean legal tools that provide shareholders with certain powers, grant them certain rights, or entitle shareholders to certain actions, but it is up to the shareholders to decide whether or not to make use of those – for example, the right to appoint a proxy or the ability to file a derivative claim. By contrast, ‘paternalistic’ forms of shareholder protection have the aim to protect shareholders in all circumstances; for example, when a law-maker decides that it is up to the general meeting to take certain decisions or to prescribe that some board members need to be independent, it takes the paternalistic view that it knows what is best for shareholders.

Third, this article uses some leximetric tools which go beyond those used previously. Both in the previous papers and the present one we show charts with aggregates of variables. These can be revealing, for example, in order to track changes in shareholder protection over time or in order to examine the relevance of country classifications. Yet, this article also uses more sophisticated methods. For instance, in order to identify major shifts in a time series, we employ tests of change-point detection.¹⁶ In addition, an analysis of country pairs according to differences between individual variables is used in order to identify clusters of countries based on network analysis.¹⁷ Thus, such tools provide an innovation for the growing field of quantitative comparative research in company law.

Fourth, as explained in the introduction, this article is focussed on the question of whether established paradigms in comparative company law are still valid. This explicit research question is a distinct one of the present leximetric paper. It is also an important question to be asked since the last twenty years have seen the apparent emergence of such paradigms, yet, often based on merely anecdotal evidence.

3. General Development of Shareholder Protection

3.1 Comparing Countries, Now and Then

To start with, it is helpful to examine how shareholder protection developed from 1990 to 2013. Figure 1, below, shows the aggregates of all ten variables of the shareholder protection index for each of the countries in the initial and final year of our sample.¹⁸ Shareholder protection in 1990 is plotted as vertical columns, and shareholder protection in 2013 is plotted as a line. Comparing 1990 and 2013, one can first observe that every single country in our sample has raised its scoring in the last 13 years, with the average increase in the shareholder protection scores being 3.09 on a 10-point scale. It is notable that in 1990, the lowest score of countries with a company law was 0.5 (Slovenia),¹⁹ while in 2013, it was 4.38 (Pakistan).

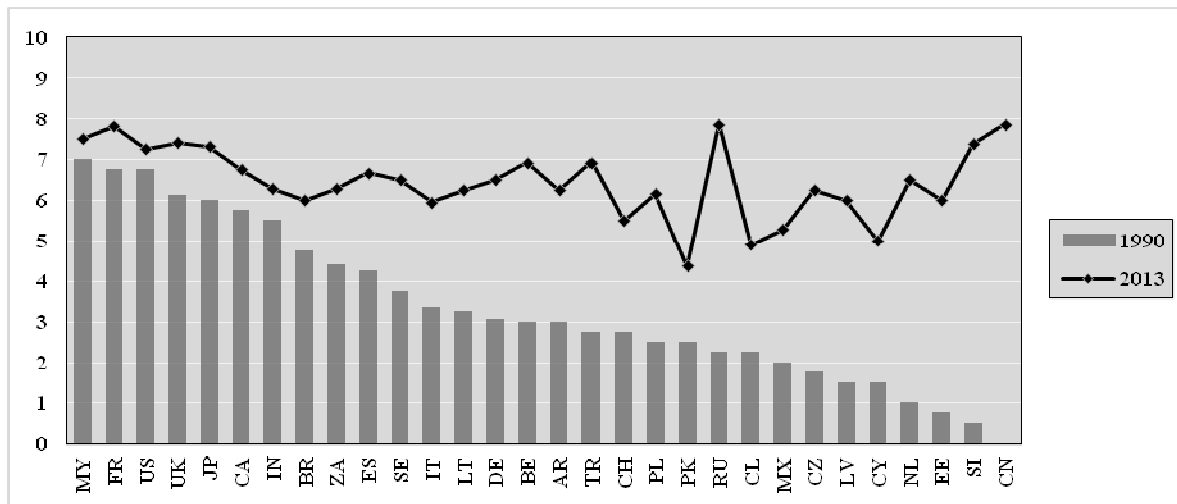


Fig. 1 Shareholder Protection in 30 Countries in 1990 and 2013

The magnitude of the increase differs, however, as does the overall ‘ranking’ of the countries. The five countries with the biggest increase in shareholder protection over the 24-year period of study are China (+7.85), Slovenia (+6.88), Russia (+5.6), the Netherlands (+5.5) and Estonia (+5.25). On the other hand, the top countries in 1990, i.e. Malaysia, France, the US, the UK and Japan, have only slightly increased by 0.93 on average. Furthermore, only three countries, i.e. China, Russia and France, have managed to rise higher than a score of 7.5 in 2013. This possibly suggests that more shareholder protection is not necessarily ‘better’ and company law should strive for ‘optimum’ and not ‘maximum’ shareholder protection, ie it should aim to balance between the different groups that play a role in the governance of companies.²⁰ With the tools used in this article, however, we cannot provide a normative assessment of the distinction between maximum and optimum shareholder protection because it would be a matter for regression analysis to determine what level of shareholder protection is indeed most conducive for a country’s development.²¹

The overall ‘ranking’ of the countries has also changed. From the top five countries of 1990 only France, Malaysia and the UK are also at the top in 2013, while the two most shareholder-protective countries in 2013 are China and Russia, which both have a score of 7.85. The jump in the Chinese score is mainly attributed to the adoption of the Chinese Company Law 2005 which introduced some Western standards of shareholder protection, such as a shareholder vote to approve large asset sales (Variable 1), a 3% threshold for setting an agenda item for the general meeting (Variable 2), a ‘without cause’ removal of the management board (Variable 6), and a general derivative action that can be raised by 1% of shareholders (Variable 7).²² The increase in the Russian score, mainly due to the introduction of the Joint Stock Company Law of 1995 and the Russian Corporate Governance Code of 2002, also indicates the

influence of Western standards on developing (and transition) economies.²³ Similarly, Turkey has revised its Commercial Code in 2011 to catch up with the developed world. Significant progress has also been made by many of the countries of the Eastern Europe, especially the Czech Republic, Estonia, Latvia and Slovenia, driven in part by harmonisation with European law.²⁴

This rapid movement towards more shareholder protection in most of the transition and developing economies studied combined with the more incremental rise in the levels of shareholder protection in more developed countries led to some transition systems today having higher levels of shareholder rights protection than some of the most developed market economies, such as Germany and Switzerland. In particular, it can be seen that the frequent company reforms in transition and developing countries tend to add new forms of shareholder protection to existing ones: thus, in the terminology of institutional research, our findings show that law reform and institutional change often do not lead to ‘replacement’ (or ‘displacement’) but to the ‘layering’ of rules from various backgrounds.²⁵

However, higher scores in the shareholder protection index do not necessarily imply that shareholders are more protected unless enforcement mechanisms are also in place. Theory suggests that ‘law in books’ and ‘law in action’ diverge, sometimes considerably.²⁶ Thus it is revealing to display the relation between the level of shareholder protection (horizontal axis) and enforcement mechanisms (vertical axis) plotted in Figure 2. To measure the degree of enforcement we use the World of Bank ‘rule of law’ ranking.²⁷ Each of the countries in our sample is plotted with a diamond marker in 1996 and with a rectangular marker in 2012.²⁸

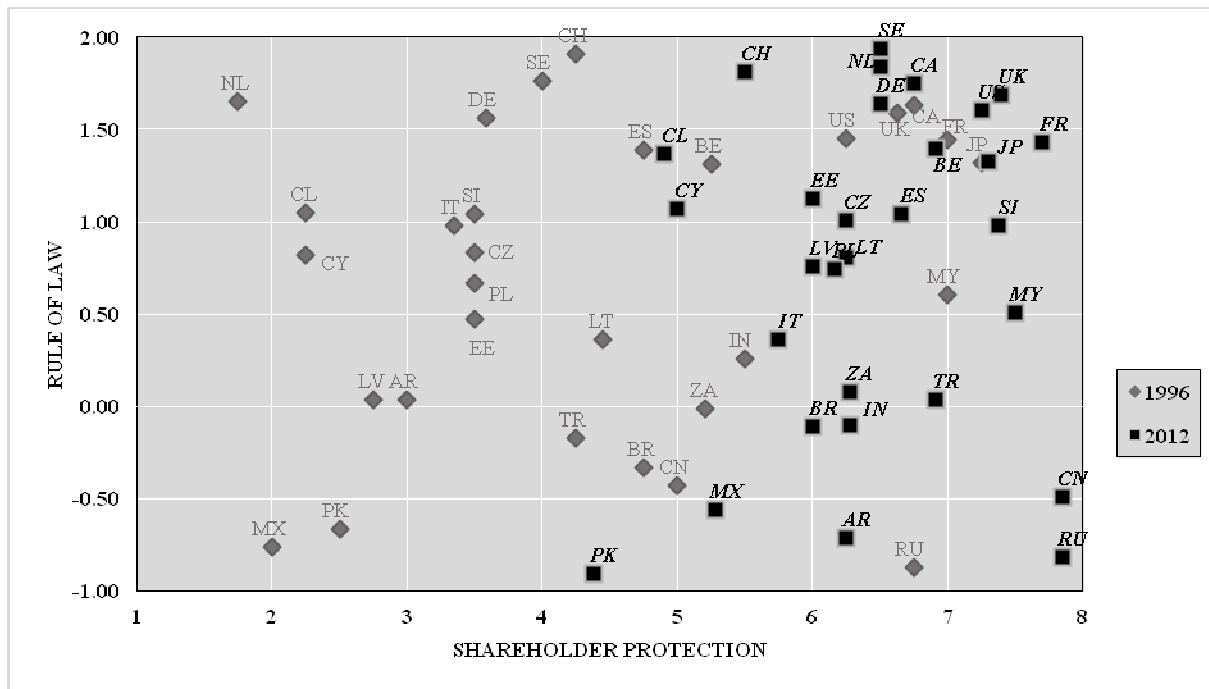


Fig. 2 Relationship between Shareholder Protection and Law Enforcement

Figure 2 shows that developed countries have higher levels of legal enforcement than transition countries both in 1996 and 2012. The most surprising aspect of the substantial variation in law enforcement is that the high levels of formal shareholder protection achieved in many transition economies in the 2010s are not mirrored in improvements in the enforcement intensity. Although some transition countries, such as Latvia, Estonia and Lithuania, made some progress, others remained almost unchanged or even got worse. Notably, the levels of legal effectiveness of China and Russia, the two countries with the highest scoring in the shareholder protection index in 2012, remained poor throughout the period of study. We also find that there is no positive correlation between the levels of shareholder protection and the rule of law neither in 1996 nor in 2012.²⁹ This evidence confirms previous research that formal legal change is not always sufficient to catalyse improvement in law-in-action.³⁰ A likely explanation for this gap between law-in-books and law-in-action is that copying legal rules is easier than implementing them in the absence of effective judiciary, trustworthy legal and administrative infrastructure, and efficient political and economic institutions.³¹

3.2 Development of Different Tools of Shareholder Protection

So far we have considered the level of shareholder protection in particular points in time for each of the sample jurisdictions. In this section, as well as the subsequent one, we expand our analysis by making use of the longitudinal nature of the shareholder protection index and study variations of shareholder

protection across time. Figure 3 plots each of the ten variables in the index³² between 1990 and 2013.

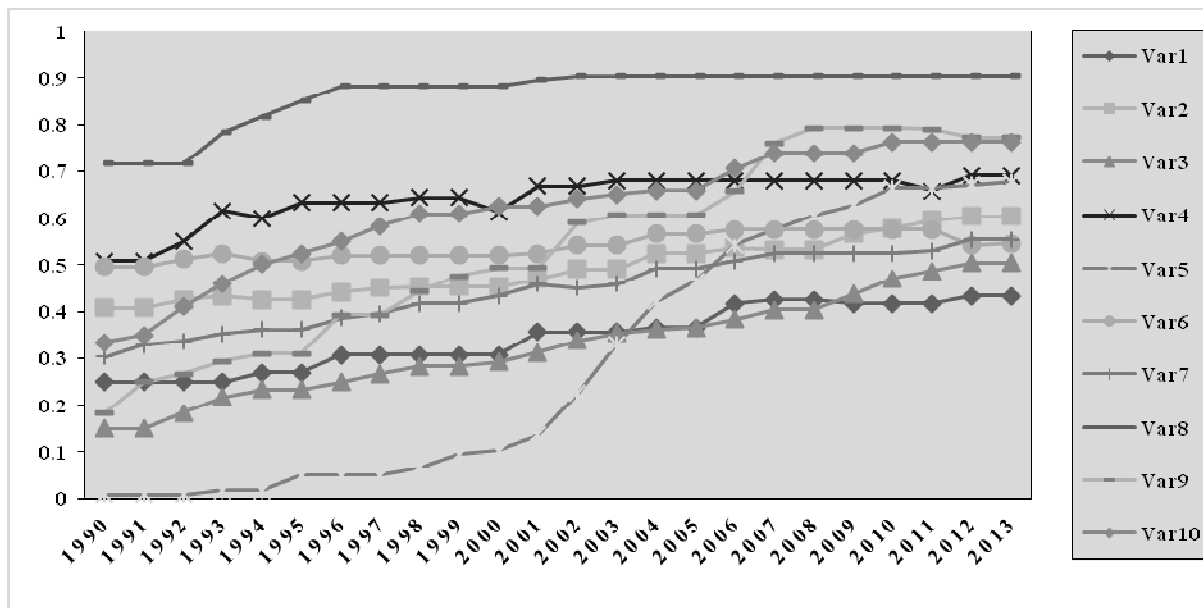


Fig. 3 Shareholder Protection Development across 10 Variables

The ten curves in Figure 3 demonstrate some common features. First of all, in general, all of them exhibit an upward movement, which means that on average the value of every single variable in the index increased over time. The extent of change differs, however, from one variable to another. Notably, Variable 5, which codes the law on independent directors, underwent the most significant increase of all. While in 1990 all the countries but the United States³³ had the score 0 for Variable 5, by 2013 every single sample jurisdiction had required at least one independent director to sit on corporate boards.³⁴ The idea of directors' independence has been emphasised since the mid-1990s when policy makers started to advocate independent directors as a way of providing a more effective check on management, while in the post-Enron era codes of corporate governance have spread quickly throughout the world aiming, among others, at enhancing the role of independent directors.³⁵

The values of variables 9 (mandatory bid) and 10 (disclosure of major share ownership) have also increased significantly during the sample period.³⁶ It is noteworthy that both rules have been subject to European harmonisation. Regarding Variable 9, the 13th Directive on takeover bids, adopted in 2004 provides under Article 5 that if a person – acting individually or in concert with other persons – acquires control over a company, he/she is obliged to make a full takeover bid for all the remaining voting securities of this company and offer the same terms to all shareholders (mandatory bid rule).³⁷ Several EU Member States, in our sample, Belgium, Cyprus, Latvia, the Netherlands, introduced a mandatory bid obligation implementing the Takeover Directive,³⁸ while Lithuania and Spain lowered the threshold for mandatory bids to one-third and 30%, respectively, after the adoption of the Takeover Directive.³⁹

As for Variable 10, the 2004 Transparency Directive, which superseded the 1998 Large Holdings Directive, tightened up the disclosure rules for significant holdings and set the disclosure threshold at 5%.⁴⁰ However, all of the EU Member States in our sample except Estonia had their disclosure threshold set at 5% before the implementation of the Transparency Directive in 2007. This could suggest that changes in the ownership disclosure rules of EU Member States do not merely reflect European Union harmonisation efforts.⁴¹

In contrast to Variables 5, 9 and 10 which underwent significant change since 1990, Variable 6 (feasibility of director's dismissal) has remained, on average, almost unchanged between 1990 and 2013.⁴² Variables 1 (powers of the general meeting for de facto changes) and 4 (prohibition of multiple voting rights) also remained relatively unchanged over the 24-year period of study,⁴³ while Variable 8 (shareholder action against the general meeting), which displays the highest scores throughout the 24-year period of study, did not change at all after 2002.⁴⁴

4. Shareholder Protection Time Series Analysis

4.1 Overall Shareholder Protection

Despite differences in the magnitude and pace of increase among the ten variables of the shareholder protection index, the overall level of legal protection afforded by law to shareholders in our sample countries has been increasing since 1990. This is also evident in the left panel of Figure 4, below, which graphically displays the aggregate of the ten shareholder protection variables between 1990 and 2013.⁴⁵ This trend challenges the view that the development of company law is path-dependent in so far as we provide evidence that substantial differences in legal shareholder protection are fading away over the last three decades.

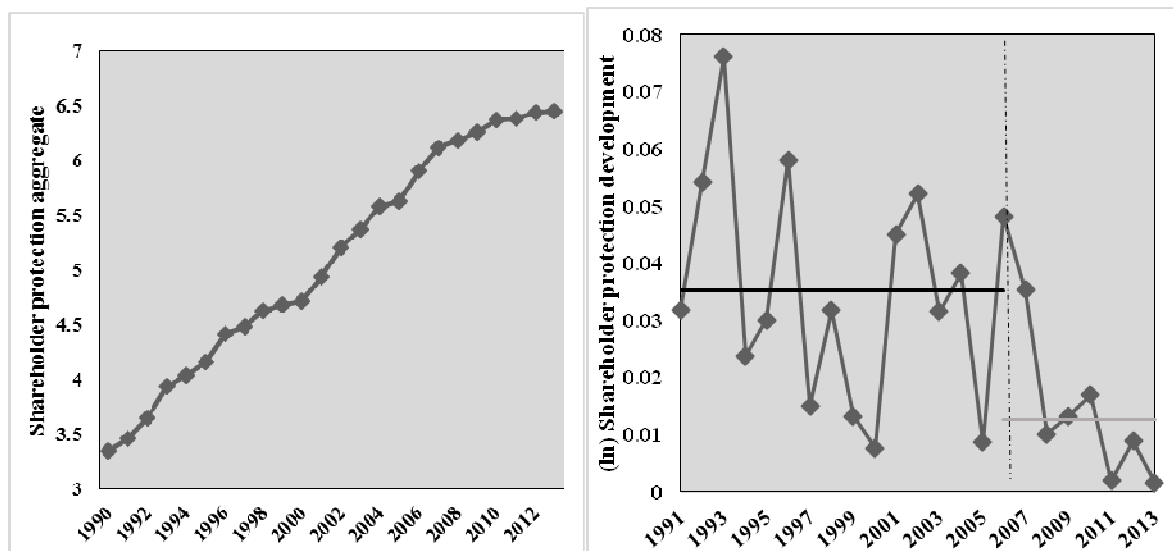


Fig. 4 Shareholder protection aggregate (left) and first difference of (ln) shareholder protection (right)

The literature on institutions often discusses the dichotomy of institutional development. For example, it is said that such development is characterised ‘by relatively long periods of path-dependent institutional stability and reproduction that are punctuated occasionally by brief phases of institutional flux’,⁴⁶ that there are the views that emphasise either the ‘dynamic of endogenously generated change’ or the ‘responses to external shocks’,⁴⁷ and positions that focus on either ‘the deliberate creation of institutions through the political process’ or ‘the spontaneous emergence of institutions through evolutionary processes’.⁴⁸

The time dimension of the shareholder protection dataset enables a closer scrutiny of its institutional development. In particular, it can be examined whether there are any specific turning points, also known as ‘structural breaks’ or ‘change-points’, in the development of shareholder protection over the 24-year period of study.⁴⁹ It can then be possible to link such a turning point to a particular exogenous event that is likely to be responsible for this change.⁵⁰ For instance, there has been a considerable debate on the relation between shareholder protection and the financial crisis of 2008.⁵¹ Shareholder proponents claim that the financial crisis was at least in part a result of inadequate management accountability to shareholders and advocate that increased shareholder power will ensure better monitoring of management performance and thereby improve firm value.⁵² Shareholder empowerment opponents, however, suggest that more shareholder power did not prevent excessive risk-taking, especially by banks, in advance of the financial crisis.⁵³

Change-point detection in time series has received considerable attention in various fields including statistics, finance, marketing and economic history.⁵⁴ A classical test for mean change detection is the so-called Chow test. This test in effect uses an F-test to determine whether the mean of the sample remains stable between the two segments split by the change-point. The method, however, requires that the change-point is known to the user.

To eliminate the linear trend (left panel of Figure 4, above), we analyse the first differences of the natural logarithm (ln) of the shareholder protection data, which we denote by $X_t = \ln(sp_t) - \ln(sp_{t-1})$, where sp is the shareholder protection series. The series X_t is plotted in the right panel of Figure 4 and has a length of $T=23$. In unreported results, we run the Chow test for change-points in the mean and for every possible year in the data set X_t . The highest F-statistic (11.237) was obtained for $t=17$ (i.e. year 2007) and the low p-value (0.0003) indicates that the change-point is statistically significant.

For robustness we also apply a CUSUM statistic in the mean of the series X_t , as an alternative method to detect a change-point in a time series.⁵⁵ The advantage of this method is that no *a priori* knowledge about the possible location of the change point is required. A CUSUM statistic is a cumulative sum of terms and the highest value (in absolute terms) of the CUSUM statistic indicates that a possible change-point exists.⁵⁶ The first step of the procedure is to find the most likely location b for a change-point. We locate such a point among $b \in \{1, \dots, T - 1\}$ as the one which maximises the following:

$$Y_{LT}^p = factor \cdot |(\text{mean of the sample from } T=1 \text{ up to } b) - (\text{mean of the sample from } b+1 \text{ up to } T=23)|.^{57}$$

When the procedure described above was applied to X_t , it returned $b=17$ (2007) as a change-point, in the sense that it represented the maximum difference of the mean of X_t . For robustness, we also conducted a t-test for differences in the means of the two segments, $X_{1991-2006}$ (segment 1) and $X_{2007-2013}$ (segment 2).⁵⁸ The means of the two segments are graphically displayed in the right panel of Figure 4 by the two horizontal lines. The t-test confirms that the mean of the shareholder protection development (X_t) between 2007 and 2013 is lower than that between 1991 and 2006 (p-value=0.002).

Both the Chow test and the CUSUM-type change point detection show evidence of a shift in the shareholder protection in 2007, in the sense that 2007 represents the end point of a segment over which the mean of the shareholder protection time series was constant. The vertical line in the right panel of Figure 4 displays the change-point as estimated by the two tests.

The statistical analysis indicates that although the shareholder protection time series follows an increasing trend throughout the period of study, 2007 represents a change-point after which the development of shareholder protection decelerates. Putting these findings into the perspective of the financial crisis, it is evident that despite intensified calls for strengthening minority shareholder rights, and several legislative measures followed in turn,⁵⁹ the overall level of shareholder protection did not dramatically change in the years following the crisis. One possible explanation could be that already by 2007 shareholder protection had jumped to an ‘optimum level’ and, therefore, little change took place afterwards.⁶⁰ A related explanation comes from Brian Cheffins who suggests that with the possible exception of large firms in the financial sector, corporate governance did not fail during the 2008 financial crisis.⁶¹ Even though the corporate governance mechanisms in place, among which minority shareholder protection and the associated shareholder activism, did not prevent the crisis from happening, strengthening shareholder powers does not guarantee that shareholders will use the powers made available to them to prevent a future crisis. Accordingly, the main focus of post-crisis policy reform therefore switched to other topics, such as the corporate governance of banks, the risks of innovative financial instruments, the role of securitisation (e.g. mortgage and asset-backed securities), and the rules on bail-outs/-ins.

4.2 Enabling vs. Paternalistic Protection

Another type of comparison involves disaggregating the overall index into the enabling and paternalistic forms of shareholder protection.⁶² It can be seen in Figure 5, below, that both forms of shareholder protection have increased, albeit at different rates: thus, in terms of the literature on institutional change,⁶³ we observe a ‘layering’ of multiple forms of shareholder protection, not a replacement of one type of shareholder protection by another one.

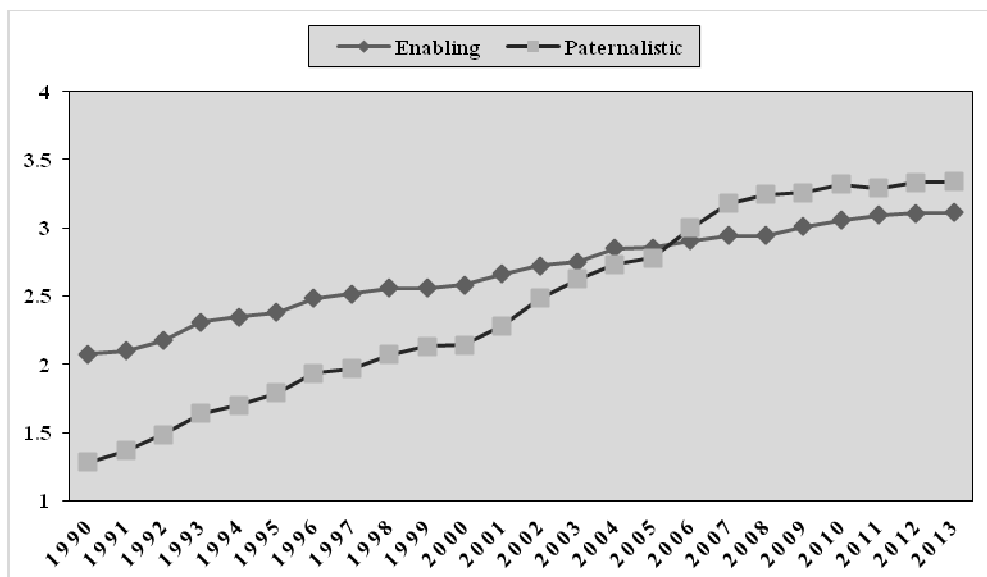


Fig. 5 Enabling and Paternalistic Shareholder Protection

A striking pattern that emerges is that paternalistic shareholder protection has increased considerably, whereas enabling shareholder protection has not changed much. The increase in the paternalistic form of shareholder protection is mainly attributed to Variables 5, 9 and 10 whose values, as we have seen above, underwent the most significant increase between 1990 and 2013.⁶⁴ Considering the thirty countries, all of them are more paternalistic in 2013 than in 1990, and for 25 of them the increase in the paternalistic variables is larger than the respective increase in the enabling ones.⁶⁵

This result may be unexpected if one assumes that (i) the enabling variant is typical for the US model of corporate law and (ii) that there has been US influence on other countries' company law in recent years. With respect to the first aspect of this reasoning, it is important to note that the two categories of shareholder protection introduced by the present article distinguish according to the substantive direction of forms of shareholder protection,⁶⁶ not the formal nature of those rules.⁶⁷ The debate about the formal nature of rules of company law relates to the well-known distinction between the US model that is associated with of the view of the company as a mere 'nexus of contracts'⁶⁸ and the continental European model with an emphasis on the statutorily fixed nature of the company with the company being regarded as an 'institution', 'fiction' or 'real person'.⁶⁹ But, in substantive terms too, it is possible that US corporate law is different from other legal systems.

Indeed, our data confirm this first aspect: the US has high aggregates for the enabling variables, between 4 and 4.25 (compare with the average shareholder protection in the left panel of Figure 4), while the aggregates for the

paternalistic variables are only between 2.25 and 3. This may therefore reflect that, in substance, US corporate law is relatively ‘business friendly’ because it does not impose many hurdles on companies and their directors.⁷⁰ By contrast, US securities law tends to be more paternalistic. Some of these rules address topics that in other countries would be part of company law, for example the rules on independent directors.⁷¹ Moreover, if one considered not only shareholder protection but the law as it applies to companies more generally, recent federal laws (eg, the 2002 Sarbanes Oxley and 2010 Dodd-Frank Acts) may show that ‘legal paternalism’ can be a prominent feature of US business law.⁷²

The second aspect about the ‘Americanisation’ of the law is one of the paradigms this article aims to scrutinise.⁷³ Here, the shareholder protection data point to a different direction since the US preference for enabling variables is contrary to the trend shown in Figure 5. It may also be plausible that the paternalistic form of shareholder protection has seen a larger increase in most countries. In a recent monograph Marc Moore explains that the conventional US model in which private preferences are the key consideration for company law rules is a too narrow in today’s world.⁷⁴ Since all legal systems have to accept that the effectiveness of private ordering at the individual firm level has its inherent limitations, state interventionism is ‘inevitable’. Moore relates this to the normative view that company laws should be ‘coercive and socially-determinative, aimed at eliciting direct change in the behavioural patterns and relative resources of key corporate participants in line with ... society’.⁷⁵ Our empirical results can be interpreted as a confirmation of this position, namely that law makers indeed take the view that it is acceptable to get actively involved in prescribing some rules that matter for a sound company law. In particular this may be the case as far as they feel the need to intervene after abuses of power in corporate governance, such as in the transition economies of Eastern Europe in the 1990s.⁷⁶ It may also find a more general confirmation in the view that today we very much live in an age of ‘regulatory capitalism’;⁷⁷ thus, even capitalist societies have a tendency to increase the use of regulatory law in recent decades.

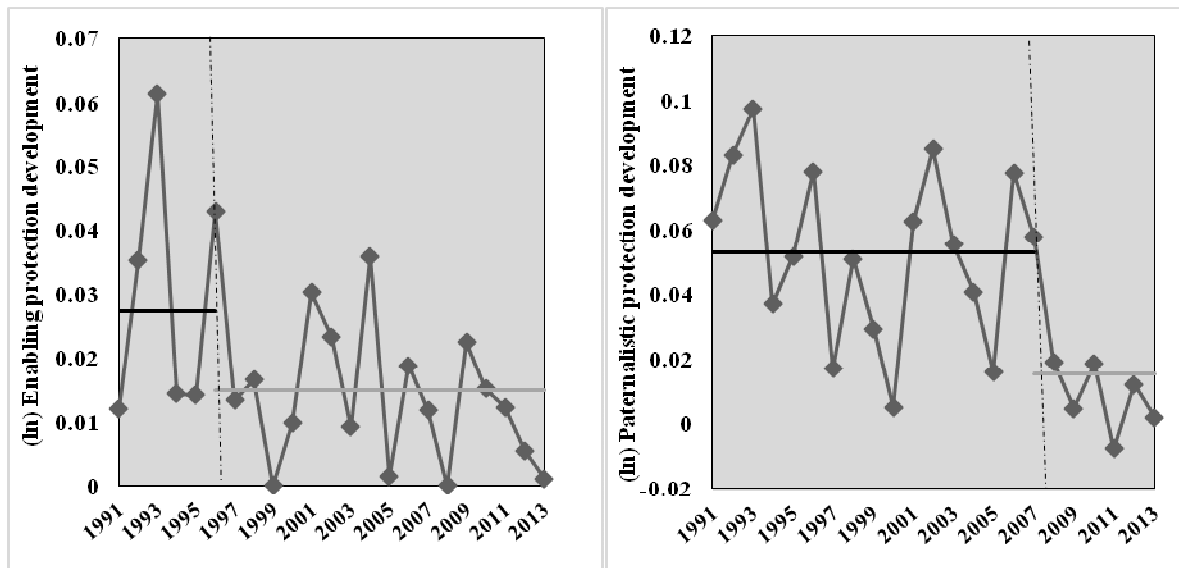


Fig. 6 First difference of (ln) enabling shareholder protection (left) and first difference of (ln) paternalistic shareholder protection (right)

The results of Figure 5 should also be read in conjunction with Figure 6 which displays graphically the results of the change-point analysis for the first differences of the natural logarithm (ln) of enabling (left panel) and paternalistic (right panel) forms of shareholder protection. To detect change-points in the mean of the two time series of interest we perform both the Chow test and the CUSUM method.⁷⁸ For enabling shareholder protection, both tests reveal a change-point in 1996 which is displayed as a vertical line in the left panel of Figure 6.⁷⁹ Taken these findings together with the moderate increasing trend of enabling shareholder protection since 1990 (Figure 5), it can be suggested that the 2000s was mostly a period of stability for the development of the enabling shareholder protection. It is therefore questionable whether an ‘Americanisation’ of company law has taken place in the last decade. For paternalistic shareholder protection we find a change-point in 2007 displayed as a vertical line in the right panel of Figure 6.⁸⁰ This finding together with the growth of paternalistic shareholder protection in the 2000s (Figure 5) demonstrates that recent developments focused on paternalistic rather than enabling tools of shareholder protection and this resulted in company law being more paternalistic rather than enabling today.

Another way to analyse the possible influence of particular models of company law is to scrutinise the relevance (if any) of legal origins and other group differences between countries. This will be done in the following section.

5. Development According to Groups of Countries

5.1 *Legal Origin and Shareholder Protection*

For the last two decades, four financial economists, Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer, Robert Vishny, often referred to by the initials of their surnames as LLSV, and an array of co-authors and independent scholars drew on the work of prominent traditional comparatists to group countries into legal traditions or origins,⁸¹ and documented pervasive correlations between cross-country differences in legal origin, on the one hand, and investor (shareholder and creditor) protection, regulation of labour markets, government ownership of banks, entry regulations, firm valuation, and numerous other spheres of economic activity, on the other.⁸² In their seminal ‘Law and Finance’ article LLSV classified forty-nine countries into two broad legal origins or legal families – common law (English legal origin) and civil law (French, German and Scandinavian legal origin) – and argued that shareholder protection varies systematically across countries, with English legal origin countries providing more shareholder protection than countries with civil law origin, in particular French legal origin, do.⁸³ Subsequent studies conducted by three of the LLSV authors (LLS) and Simeon Djankov include an additional sub-category of Socialist legal origin within civil law.⁸⁴

Adopting the LLS/Djankov’s classification, we group our sample countries into four legal origins: English, French, German and Socialist.⁸⁵ Of our sample of 30 countries, there are eight English common law countries (Canada, Cyprus, India, Malaysia, Pakistan, South Africa, the UK and the US), ten French civil law countries (Argentina, Belgium, Brazil, Chile, France, Italy, Mexico, the Netherlands, Spain and Turkey) and four German civil law countries (Germany, Japan, Sweden⁸⁶ and Switzerland). We also retain the category of Socialist law which emerged from the Soviet Union and was spread to former Soviet Republics (Estonia, Latvia, Lithuania and Russia) and Eastern European countries (Czech Republic, Poland and Slovenia), while it was also imitated by other countries, such as China.

Figure 7, below, presents the shareholder protection of our sample countries by reference to the legal origin of English, French, German and Socialist law. First of all, each of the legal families has a higher score in the general level of shareholder protection over time. However, despite the general rising trend of shareholder protection, there are certain differences in the pattern of change between the four legal families. In particular, while the English-origin systems exhibited a greater general level of shareholder protection than civil-origin systems over the period 1990-2000, civil-origin systems showed a remarkable

increase over the same period and after 2000 they started to catch up with the common law counterparts.

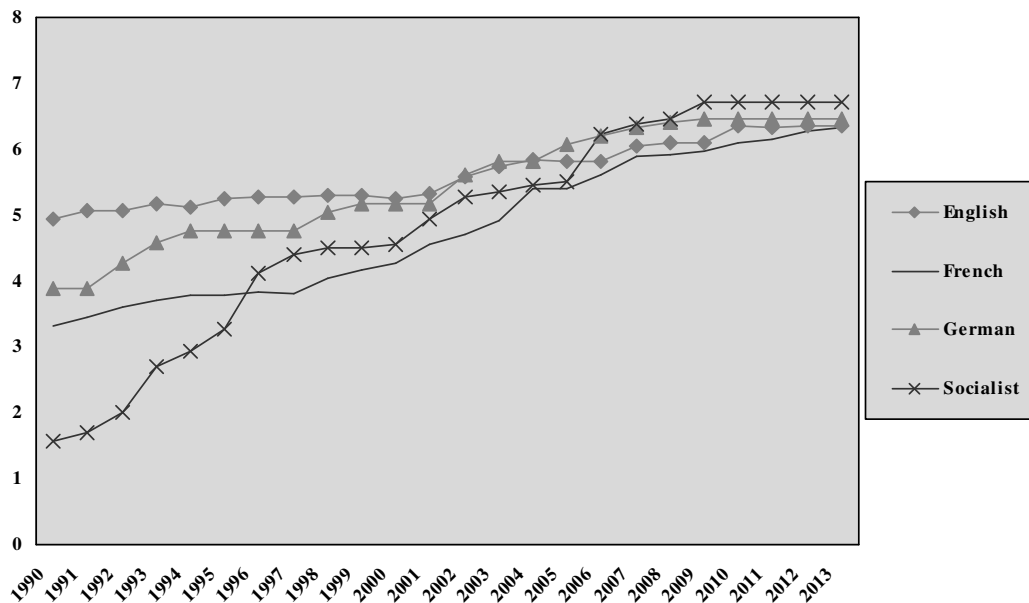


Fig. 7 Shareholder Protection by Legal Origin

A considerable increase in shareholder protection is particularly marked in countries with Socialist legal origin. Indeed, in 1990, Socialist legal-origin countries had the lowest aggregate value of the shareholder protection index (1.562), while in 2013 they scored the highest of all four legal families (6.717).⁸⁷ The very low scores in the shareholder protection index of this legal family in the early 1990s is attributed to the lack of fully-fledged company laws in many Socialist countries. For instance, the People’s Republic of China did not have any formal national company law until 1992.⁸⁸ The other Socialist countries have also made substantial efforts to strengthen shareholder protection since the inception of economic liberalisation in the mid-1990s introducing company law reforms and adopting Western standards of company law. For the Socialist countries which are now members of the European Union (Czech Republic, Estonia, Latvia, Lithuania, Poland and Slovenia) the rise in the level of shareholder protection is also part of the European harmonisation process.⁸⁹

Socialist legal origin countries might offer greater shareholder protection on paper since 2006 than English legal origin countries do, but formal legal change towards more shareholder protective rules does not necessarily imply ‘better’ shareholder protection. First of all, it should be remembered that the efficacy of shareholder protection rules is not a function only of their substantive content, but also of their enforcement. Indeed, there is no positive correlation between the levels of formal shareholder protection as measured by the shareholder protection index and legal effectiveness as measured by the rule of law.⁹⁰

However, when we focus on Socialist-legal origin countries, we do find a negative and statistically significant correlation between the rule of law and the level of shareholder protection.⁹¹ Thus, it may be argued that formal shareholder protection and enforcement operate as substitute mechanisms in Socialist countries: countries that lack an efficient judicial enforcement and non-legal enforcement resources (for example, self-regulatory institutions) may develop strong formal shareholder protection laws in order to provide at least some safeguard of owners' rights.⁹² Alternatively, it can be suggested that, due to their weaknesses in terms of 'rule of law', these countries feel the need to signal to foreign investors that they have decent shareholder protection, even if this is more a form of 'window dressing'.⁹³

It is also noteworthy that even if we group the shareholder protection variables into enabling and paternalistic forms of shareholder protection the overall picture does not change much. English-legal origin countries used to offer more enabling and paternalistic shareholder protection in the 1990s, but this has changed now. There has been a fairly constant increase in enabling shareholder protection throughout the period of study and all legal families now score more than 3 points on its 5-point scale.⁹⁴ As for paternalistic shareholder protection, Socialist countries scored the highest of all legal families since 2006.⁹⁵

What do these findings tell us about the legal origins theory? First and foremost, it can be seen that the belonging to a particular legal origin does not prevent strengthening shareholder protection, especially in civil law countries. In fact, all three civil law families had a faster rate of increase than the English common law one over the 24-year period of study.⁹⁶ These results are also suggestive of a convergence around common law standards which have been associated with 'best practice' in corporate governance, most notably the OECD Principles of Corporate Governance. For instance, Variable 5 (independent board membership), which was diffused in the world by international standards of best practice, such as the OECD Principles of 2004, underwent the most rapid increase of all.⁹⁷ Yet English common law countries had a higher average score in respect of Variable 5 over the period 1990-2013. This is not an unexpected finding since from the standpoint of the legal origins theory we should expect the diffusion of legal rules and norms to be more extensive between countries of the same legal family.⁹⁸ But any legal origin effect had only a limited impact, especially until the early 1990s, and did not prevent civil legal origin systems from undergoing a rapid movement towards many features of the common-law model. The division into different legal origins or families may, therefore, no longer be a meaningful criterion of differentiation between different shareholder protection systems.

5.2 Economic Development and Shareholder Protection

The previous section casts doubt on one of the main claims of the legal origins hypothesis, namely that the quality of laws governing shareholder protection differs systematically according to the legal origin. The second and related claim is that law matters to economic development, in the sense that there is a positive relationship between shareholder protection and economic development.⁹⁹ To examine this claim we divide the sample by whether a country is developed or developing based on the IMF's classification.¹⁰⁰ Of the total 30 countries fifteen are in the developed country category (Belgium, Canada, Cyprus, Czech Republic, France, Germany, Italy, Japan, the Netherlands, Slovenia, Spain, Sweden, Switzerland, the UK and the US), while the remaining are categorised as developing countries (Argentina, Brazil, Chile, China, Estonia, India, Latvia, Lithuania, Malaysia, Mexico, Pakistan, Poland, Russia, South Africa and Turkey).

Figure 8 shows the aggregate of enabling and paternalistic tools of shareholder protection in developed and developing countries. Enabling shareholder protection is plotted as vertical columns and paternalistic shareholder protection is plotted as lines. Developed and developing countries are displayed in dark and light shades of grey colour, respectively.

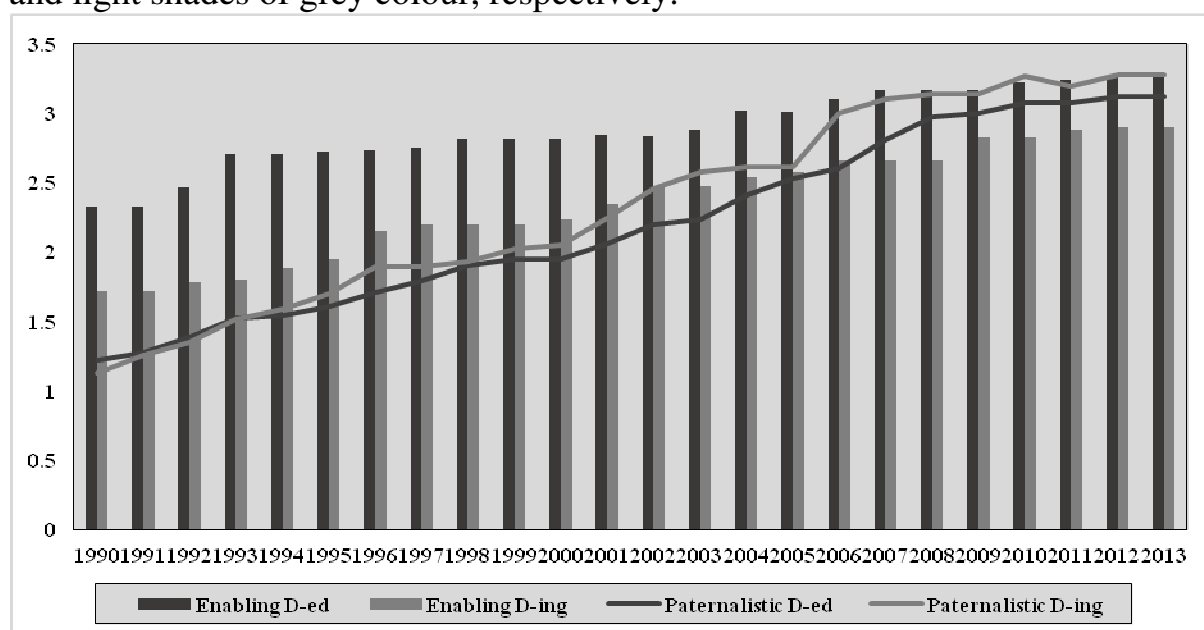


Fig. 8 Shareholder Protection by Economic Development (IMF 2010)

In relation to enabling tools of shareholder protection, developing countries have lower scores throughout the 24-year period of study than developed countries do. This should not be surprising because developed countries tend to have more sophisticated institutions, both legal ones (such as competent courts and supervisory authorities) and non-legal ones (such as professional investors, specialised auditors, lawyers, consultants and financial press) that can steer a

‘proper’ application of enabling forms of shareholder protection. Another explanation may derive from the ‘law matters’ hypothesis.¹⁰¹ From this standpoint, developed countries might perform better than developing countries in enabling shareholder protection because their advanced legal system promotes financial sector development. However, the causality relationship between economic development and shareholder protection may also run in reverse direction, and economic development may precede legal development rather than vice versa.¹⁰²

Notably the difference in enabling shareholder protection between the two groups of countries decreased over time, as developing countries gradually enacted more and more enabling forms of protection.¹⁰³ A greater increase, however, is discernible in relation to the level of paternalistic shareholder protection in developing countries. In particular, although both (developed and developing) paternalistic curves show a remarkable increase over the period of study,¹⁰⁴ developing countries have overtaken developed ones since the mid-1990s. There are several plateaus and steps in the developing countries’ paternalistic line and there are points in time where the two groups had similar levels of paternalistic shareholder protection. Nevertheless, developing countries clearly had more paternalistic protection than developed countries for most of the studied period. The jump in the developing countries score indicates the influence of the ‘strong state’ in economic development. This may be in line with the ‘Beijing consensus’ view of economic development and the diffusion of the model of authoritarian capitalism as an alternative to neoliberal ideas of Western economies among developing countries.¹⁰⁵

It is also interesting to examine how the tension between enabling and paternalistic forms of shareholder protection evolved over time within the developed and developing countries groups. For developed countries, we observe greater levels of enabling shareholder protection throughout the study period. For developing countries, by contrast, the level of paternalistic shareholder protection has overcome enabling shareholder protection since 2002. This finding is consistent with the claim that for corporate law to play a facilitative function it must be combined with other legal, market and cultural control mechanisms which are often absent in developing countries. Or, to put it in the words of Bernard Black and Reinier Kraakman,

‘[t]he assumptions that support the enabling model are clearly inapposite in emerging economies, where informational asymmetries are severe, markets are far less efficient, contracting costs are high because standard practices have not yet developed, enforcement of contracts is problematic because of weak courts, market participants are less experienced, reputable

intermediaries are unavailable or prohibitively expensive, and the economy itself is likely to be in flux'.¹⁰⁶

These contextual features might explain why developing countries seem to favour a paternalistic model of shareholder protection since the early 2000s. A greater level of paternalistic protection might also compensate for the low probability of enforcement in these countries.¹⁰⁷

Despite the greater paternalistic protection afforded by developing countries since the early 1990s, we find that shareholder protection at the aggregate level is less in developing countries throughout the period of study. Yet the difference in shareholder protection between the two groups decreased over time and developing countries have been catching up with their developed counterparts mainly due to the increase of paternalistic protection in these countries. It is notable that from 1990 to 2013 the aggregate shareholder protection in developing countries increased from 2.844 to 6.207 on a 10-point scale compared to an increase from 3.571 to 6.378 in developed countries.

Overall, the findings presented in this section suggest that, as with the legal origins claims, the state of economic development is of little relevance for today's company laws. Rather, as economic conditions come closer together,¹⁰⁸ the law on shareholder protection also becomes more similar, at least as far as the positive law is concerned.

6. Analysis Based on Differences between Individual Observations

6.1 Convergence or Divergence in Shareholder Protection

Up-to-now this article analysed the data as a measure of the strength of shareholder protection, be it as the aggregate of all ten variables or as the sub-aggregates of enabling and paternalistic forms of shareholder protection. But there is also another way to make sense of our dataset. The following is based on the thinking that if, for example, two countries have an aggregate score of five out ten variables, their underlying laws may be very different since different variables may have led to the same score.

Therefore, to highlight the precise differences between countries, it is necessary to calculate for each variable whether there is a difference between the two countries, and then aggregate those differences.¹⁰⁹ Given the time dimension of our dataset, it is then possible to trace whether and how over the last 24 years such differences have evolved. For example, this may show how far there has been convergence or divergence of the formal legal rules (in this subsection),¹¹⁰

and how far countries that had similar laws in 1990 are still similar in 2013 (see the subsequent one).

If one examines how different each of the thirty countries is from the other 29 countries of our dataset, this leads to $(30 \times 29) / 2 = 435$ country pairs, ie time series. As it would not be feasible to display all of those graphs, Figure 9, below, focuses on five times series. The first four deal with the difference between all countries, ie the average value for each variable, and the respective variables in French, German, UK and US law. France, Germany and the UK (or England) are often seen as the three ‘origin’ countries that have influenced the laws of other countries of the world. In particular, there is the aforementioned ‘law and finance’ view that French, German and English legal origins are the main building blocks of most legal systems of the world.¹¹¹ In addition, it is interesting to examine how the differences from US law have evolved because it is sometimes said that there has been a significant ‘Americanisation’ of other countries’ laws in recent years.¹¹² Finally, the figure displays the development for ‘all countries’, ie the general trend of whether there has been convergence or divergence of the law.

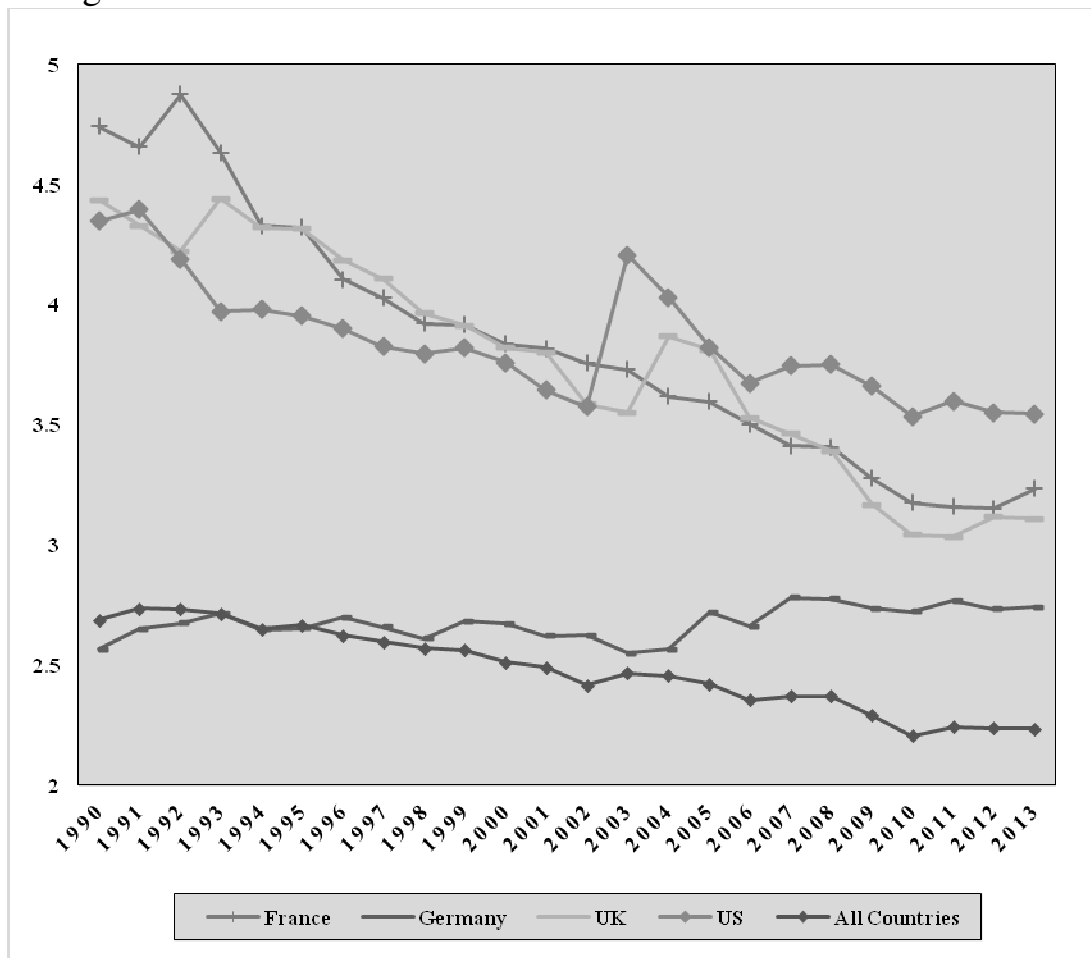


Fig. 9 Convergence or Divergence in Shareholder Protection

The general trend line shows that there has been convergence of the legal rules on shareholder protection: the average difference of all country-pairs has dropped from a maximum of 2.74 in the early 1990s to 2.23 now. This may not be seen as considerable change; yet, it is interesting to note that this trend has been gradual and steady throughout the time series, without any change-points, eg, with the dot-com bubble, the accession of new member states to the EU or the global financial crisis.¹¹³ Overall, this confirms previous research which, using more limited time series, found that countries have, generally speaking, converged in the law on shareholder protection. This research also explained that the most likely driving forces for such a development are the transplantation of certain ‘fashionable’ concepts of company law, for example, the need to provide independent directors or to disclose major shareholder ownership.¹¹⁴

Throughout the period, German law was more similar to the rest of the countries than French, UK and US law though there has been a slight divergence in recent years. The initial similarity can be explained by the relatively low levels of shareholder protection in Germany in the early 1990s which were similar to most of the other countries but different from French, UK and US law.¹¹⁵ The subsequent German reforms were then also replicated in many of those other countries, for example, in the transition economies of Eastern Europe.¹¹⁶

In Figure 9, France, the UK and the US have been in a tight battle. Initially, the US was a bit closer to the other countries but this changed in 2003 – to be precise due to the requirement of the NYSE listing rules that half of the board members shall be independent.¹¹⁷ This was followed by some convergence since some of the other countries also introduced or strengthened the law on independent directors¹¹⁸ But, overall, the comparison of the time trends does not indicate that the US-model of corporate law has won the day. Conversely, countries have more steadily converged to the laws of the UK and France. As these two graphs are fairly similar, it is not possible to say whether, in this respect, there has been a global trend towards the common law or the civil law approach in company law.

We have also conducted further analyses distinguishing between groups of countries and variables. First, it may be thought that the convergence could predominantly be the result of EU harmonisation. Thus, we distinguished between non-EU and EU countries (based on the current membership) and this showed that the convergence was indeed mainly due to the latter countries. Examining the data more closely, we also found that it is mainly the 2004 accession countries that have determined this trend. However, the time trend already started in the early 1990s and there is no apparent change point in 2004

in Figure 9: thus, while two of our variables are related to EU law,¹¹⁹ overall, it is the more general law reforms of transition economies, and not EU harmonisation, that have been the main driving force for this convergence of the law.

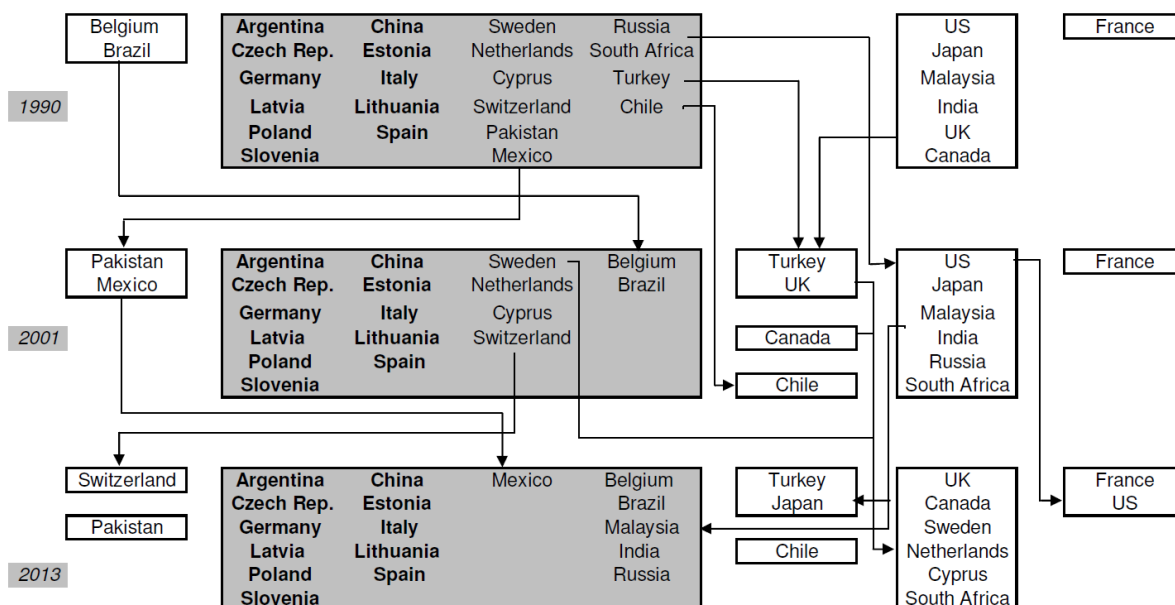
Second, we return to the distinction between enabling and paternalistic variables. At the aggregate level, the main trend has been that legal systems have increased the use paternalistic forms of shareholder protection while enabling forms have stayed relatively stable.¹²⁰ However, if we consider the change at the level of differences for each variable and country-pair, it is the enabling variables that account for the convergence of the law.¹²¹ The likely explanation is that, with respect to these variables, there is indeed a consensus emerging.¹²² By contrast, the introduction of paternalistic forms of shareholder protection is more contentious: thus, while there is a common trend, details have remained more diverse.

6.2 Re-examining the Composition of Groups

The previous section of this article examined the relevance of categories such as legal origins and stages of economic development.¹²³ An alternative approach is to start without such *a priori* categories in order to find out whether particular countries seem to belong together. A popular way of identifying such groups are cluster analyses which can be defined as:

‘(...) multivariate procedures that divide a data-set into a number of subgroups (clusters). In general, they refer to measures of similarity or dissimilarity between observations with respect to a set of variables. These are then grouped into clusters of low within-cluster variance and high variance between clusters. In particular, this can be achieved by successively increasing the tolerated level of within-cluster dissimilarity.’¹²⁴

In the present case, the 435 country pairs¹²⁵ can be regarded as a valued network that shows the difference between each pair.¹²⁶ With the help of a network analysis program,¹²⁷ it is then possible to calculate ‘optimisation clusters’. This refers to a formal method that ‘optimises a cost function which measures the total distance or similarity within classes for a proximity matrix’.¹²⁸ The user has to determine in advance how many clusters shall be created. In the present case, this has been done for various numbers for the years 1990, 2001 and 2013. The results with the highest explanatory power (R^2) are presented in Figure 10.



Explanatory powers (R^2): 0.504 (1990); 0.340 (2001); 0.347 (2013)

Fig. 10 Clusters in 1990, 2001 and 2013

The chart shows that in all three years there is one large cluster of mainly civil law countries. Some common law countries occasionally join this cluster (eg, Pakistan in 1990, India and Malaysia in 2013) and gradually this cluster has become a bit smaller (from 21 to 17 members). The countries that have remained in this cluster (in bold) are all civil law countries.

In 1990 the smaller cluster may also be interpreted along legal-family lines as it has mainly common law countries, as well as Japan which in company law has also been influenced by US corporate law.¹²⁹ But, this changed in the subsequent years: there have been frequent variations in memberships and groups do not appear to be very persistent. In 2001, we have three smaller mixed common-civil law clusters. Two of these clusters are also mixed in terms of developed and developing countries. In 2013, these groups have changed again but not in line with the common and civil law categories. It may be possible to observe some distinction between stages of economic development, eg, with France and the US in one cluster. Yet, overall, these categories do not seem to be very intuitive. Moreover, it can be seen that the explanatory power of the clusters (R^2) has dropped as compared to 1990.

The main explanation for this development is that, in today's world, rules of shareholder protection are not necessarily different any more just because countries are from different legal families and continents.¹³⁰ This is also in line with previous CBR research which found that, in recent years, legal transplants and other forms of influence (say, through the OECD or the World Bank) tend

to break up the established divisions between groups of countries in company law.¹³¹

It is also suggested that this result is consistent with the general trend towards legal convergence. In the political science literature it is sometimes suggested that the development is towards ‘polarisation’ or ‘dual convergence’, meaning that groups of countries will share similar models.¹³² But, at least for the question of shareholder protection, our results show the reverse trend: initially, there may have been some justification to talk about countries belonging to distinct groups, but now – together with the overall trend towards convergence – these group differences have faded away.

7. Conclusion

This article has used an original leximetric dataset in order to scrutinise three key paradigms of comparative company law. The first paradigm, suggested in the introduction, was that company law may be path-dependent, and that therefore the core characteristics of a country’s law may be persistent and not subject to frequent changes or major shifts. It speaks against this statement that all countries of our study have engaged in reforms strengthening various tools of shareholder protection.¹³³ Some of our specific results may support the view of remaining path-dependencies, namely that, since 2007, changes in shareholder protection have become less frequent, and that there are still some differences between developed and developing countries.¹³⁴ But the other specific findings of this article speak against the strong influence of path dependencies: in the 24 years, paternalistic tools have overtaken enabling tools of shareholder protection and the discrepancy between legal origins has faded away, both at the aggregate level and if one examines the differences between each variable for each country pair.¹³⁵

The second paradigm was that a market-oriented conception of company law may have become the dominant one, in particular as we may observe an ‘Americanisation’ of the law in many countries of the world. It may be regarded as a confirmation of this statement that, according to our findings, the requirement of independent directors has indeed spread from the US to other parts of the world.¹³⁶ However, in our taxonomy this requirement is not an ‘enabling’ but a ‘paternalistic’ form of shareholder protection,¹³⁷ and therefore not a typical feature of a market-oriented company law. More generally we also do not find that a ‘US-style’ company law has won the day. In contrast to any such expectations, the data show that there is the trend towards paternalistic forms of shareholder protection, that civil law countries have now laws with as strong shareholder protection as common law countries, and that US law is fairly untypical as compared to the laws of the other countries.¹³⁸

The third paradigm, mentioned in the introduction, claimed that, in order to explain the remaining differences in strength and forms of shareholder protection, legal origins and the stage of economic development are likely to be the most decisive factors. The general trend shows, however, that all legal systems have strengthened both enabling and paternalistic tools of shareholder protection regardless of legal origin and stage of economic development.¹³⁹ More specifically, the group-based analyses have demonstrated that all legal origins have now in average about the same level of shareholder protection, and that both developed and developing countries follow the same trend in terms of stronger reliance on paternalistic tools of shareholder protection.¹⁴⁰ Furthermore, clustering the countries, it can be seen that, since the 2000s, groups of similar countries do not necessarily share the same legal origin and stage of development.¹⁴¹

Reflecting on the wider implications of our findings, we could see that in company law certain ‘fads and fashions’¹⁴² have spread around the world since the early 1990s. But it is also revealing that we found a change-point in both the aggregate and paternalistic shareholder protection time series in 2007 being the result of the fact that reforms in shareholder protection have become less frequent in recent years. Thus, it seems to be the case that, following the global financial crisis, policy makers have now turned their main attention to other matters of business law, notably banking, securities and financial law. A further important general finding concerns the transition and developing countries of our study. While these countries have not been immune from the aforementioned dynamics, they have also followed a distinct trajectory as far as they rely more on paternalistic forms of shareholder protection than developed countries. This shows that, despite global trends, law-makers can be able to deviate from influential models in company law.

Notes

¹ There is a wide literature on these issues: see eg, A Dignam and M Galanis, *The Globalization of Corporate Governance* Farnham: Ashgate 2009; D Milman, *National Corporate Law in a Globalised Market: The UK Experience in Perspective* Cheltenham: Edward Elgar 2009; AR Pinto, 'Globalization and the Study of Comparative Corporate Governance' (2005) 23 *Wisconsin International Law Journal* 477.

² AM Fleckner and KJ Hopt (eds), *Comparative Corporate Governance: A Functional and International Analysis* Cambridge: Cambridge University Press 2013; M Siems and D Cabrelli (eds), *Comparative Company Law – A Case-Based Approach* Oxford Hart 2013; R Bohinc, *Comparative Company Law: An Overview on US and Some EU Countries' Company Legislation on Corporate Governance* Berlin: VDM 2011; A Cahn and DC Donald, *Comparative Company Law* Cambridge: Cambridge University Press 2010.

³ Eg, LA Bebchuk and MJ Roe, 'A Theory of Path Dependence in Corporate Ownership and Governance' (1999) 52 *Stanford Law Review* 127; MJ Roe, 'Corporate Law's Limits' (2002) 31 *Journal of Legal Studies* 233; DM Branson, 'The Very Uncertain Prospect of 'Global' Convergence in Corporate Governance' (2001) 34 *Cornell International Law Journal* 321.

⁴ Eg, H Hansmann and R Kraakman, 'The End of History for Corporate Law' (2001) 88 *Georgetown Law Journal* 439; BR Cheffins and RS Thomas, 'The Globalization (Americanization?) of Executive Pay' (2004) 1 *Berkeley Business Law Journal* 233; E Greene and P-M Boury, 'Post-Sarbanes-Oxley Corporate Governance in Europe and the USA: Americanisation or Convergence?' (2003) 1 *International Journal of Disclosure and Governance* 21.

⁵ Eg, R La Porta, F Lopez-de-Silanes, A Shleifer and R Vishny, 'Law and Finance' (1998) 106 *Journal of Political Economy* 1113 (hereinafter Law and Finance); R La Porta, F Lopez-de-Silanes and A Shleifer, 'The Economic Consequences of Legal Origins' (2008) 46 *Journal of Economic Literature* 285 (hereinafter Legal Origins); K Pistor, 'Patterns of Legal Change: Shareholder Protection and Creditor Rights in Transition Economies' (2000) 1 *European Business Organization Law Review* 59.

⁶ For papers discussing the relationship between those datasets: J Armour, S Deakin, P Lele and M Siems, 'How Do Legal Rules Evolve? Evidence from a Cross-Country Comparison of Shareholder, Creditor, and Worker Protection' (2009) 57 *American Journal of Comparative Law* 579 (hereinafter How Do Legal Rules Evolve); J Armour, S Deakin, V Mollica and M Siems, 'Law and Financial Development: What We are Learning from Time-Series Evidence' (2009) *BYU Law Review* 1435 (hereinafter Law and Financial Development); M Siems, 'Convergence in Corporate Governance: A Leximetric Approach' (2010) 45 *The Journal of Corporation Law* 729; M Siems, 'The Web of Creditor and Shareholder Protection: A Comparative Legal Network Analysis' (2010) 27 *Arizona Journal of International and Comparative Law* 747.

⁷ Eg, J Armour, S Deakin, P Sarkar, M Siems and A Singh, 'Shareholder Protection and Stock Market Development: An Empirical Test of the Legal Origins Hypothesis' (2009) 6 *Journal of Empirical Legal Studies* 359; D Katelouzou, *Hedge Fund Activism, Corporate Governance and Corporate Law: An Empirical Analysis Across Twenty-Five Countries*, PhD Thesis, University of Cambridge, 2013. See also M Siems and S Deakin, 'Comparative Law and Finance: Past, Present and Future Research' (2010) 166 *Journal of Institutional and Theoretical Economics* 120.

⁸ P Lele and M Siems, 'Shareholder Protection: A Leximetric Approach' (2007) 7 *Journal of Corporate Law Studies* 17. This term was first used in RD Cooter and T Ginsburg, 'Leximetrics: Why the Same Laws are Longer in Some Countries than Others' (2003), available at <http://ssrn.com/abstract=456520>.

⁹ See <http://www.cbr.cam.ac.uk/research/research-projects/completed-projects/law-finance-development/> (previously: <http://www.cbr.cam.ac.uk/research/projects/project2-20.htm>).

¹⁰ AM Paces, 'How Does Corporate Law Matter? 'Law and Finance' and Beyond', in *Does Law Matter? On Law and Economic Growth* (Michael Faure and Jan Smits eds, Antwerp: Intersentia, 2011) 297 at 304.

¹¹ Source: <http://www.cbr.cam.ac.uk/research/projects/project2-20output.htm> and M Siems, 'Shareholder Protection Around the World ('Leximetric II')' (2008) 33 *Delaware Journal of Corporate Law* 111, 116-9.

¹² This distinction refers to the difference between the first and the second shareholder protection index, see text accompanying n 9.

¹³ The latter formal distinction is frequently discussed in the company law literature. See references and further explanations *infra* n 67-69 and accompanying text.

¹⁴ Note that the coding was done between May and November 2013. Thus, the 2013 data reflect slightly different points in time for different countries.

¹⁵ See also *infra* Section 4.2.

¹⁶ See *infra* section 4.

¹⁷ See *infra* section 6.

¹⁸ In this article we use the following abbreviations: AR (Argentina), BE (Belgium), BR (Brazil), CA (Canada), CH (Switzerland), CL (Chile), CN (China), CY (Cyprus), CZ (Czech Republic), DE (Germany), EE (Estonia), ES (Spain), FR (France), IN (India), IT (Italy), JP (Japan), LV (Latvia), LT (Lithuania), MX (Mexico), MY (Malaysia), NL (Netherlands), PK (Pakistan), PL (Poland), RU (Russia), SE (Sweden), SI (Slovenia), TR (Turkey), UK (United Kingdom), US (United States) and ZA (South Africa).

¹⁹ This coded the law for Yugoslavia. As Figure 1 shows, China had a score of 0 in 1990 but this was due to the fact that prior to the Opinion for Joint-Stock Companies of the State Restructuring Commission from 15 May 1992, China did not have a general company law but only some local company laws in the special administrative regions (SARs). The Law of the People's Republic of China on Industrial Enterprises Owned by the Whole People 1988 was not a company law in a modern sense (eg, it did not have shareholders as outside investors).

²⁰ Lele and Siems, *supra* n 8, 34. The role of different groups of stakeholders is also a prominent feature of M Blair and L Stout, 'A Team Production Theory of Corporate Law' (1999) 85 *Virginia Law Review* 248.

²¹ For such research see, eg, *supra* n 5 and 7.

²² For a comparative analysis of those development see also M Siems *Convergence in Shareholder Law* Cambridge: Cambridge University Press 2008, at 94, 158, 165 and 217.

²³ K Pistor, M Raiser and S Gelfer, ‘Law and Finance in Transition Economies’ (2000) 8 *Economics of Transition* 325 at 327. Given its choice of countries, the present article distinguishes between developed and developing countries, with the latter including transition economies. See also *infra*, section 5.

²⁴ This concerns variables 9 and 10. See further *infra*, section 3.2.

²⁵ See, eg, K Thelen, ‘Institutional Change in Advanced Political’, (2009) 47 *British Journal of Industrial Relations* 471; J Mahoney and K Thelen ‘A Theory of Gradual Institutional Change’, in *Explaining Institutional Change: Ambiguity, Agency, and Power* (J. Mahoney and Thelen, K. eds. New York: Cambridge University Press 2010) 1.

²⁶ R Pound, ‘Law in Books and Law in Action’ (1910) 44 *American Law Review* 12; JL Halpérin, ‘Law in Books and Law in Action: The Problem of Legal Change’ (2011) 64 *Maine Law Review* 1.

²⁷ The World Bank Governance Indicators, available at <http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=worldwide-governance-indicators>. Rule of law measures ‘the extent to which agents have confidence in and abide by the rules of society, in particular the quality of contract enforcement, the police, and the courts, as well as the likelihood of crime and violence’.

²⁸ We examined these two years since these are the earliest and latest year for which both datasets are available.

²⁹ The Pearson correlation coefficient between the shareholder protection index and the rule of law is 0.173 in 1996 and 0.131 in 2012, and not statistically significant.

³⁰ Pistor and others, *supra* n 23, 344.

³¹ See eg B Black, R Kraakman and A Tarassova, ‘Russian privatization and corporate governance: what went wrong?’ (2000) 52 *Stanford Law Review* 1731; D Berkowitz, K Pistor and JF Richard, ‘Economic development, legality, and the transplant effect’ (2003) 47 *European Economic Review* 165.

³² See *supra*, section 2. The precise data will also be made publicly available on the website, cited *supra* n 9.

³³ For the United States, see New York Stock Exchange (NYSE) Manual B-23 (1966): at least two independent directors.

³⁴ See Article 15 of Decree 677/2001 and General Resolution 400/2002 by the Securities and Exchange Commission (for Argentina); 2009 Belgian Corporate Governance Code, Article 8.8; 1999 Code of Best Practice of Corporate Governance, revised in 2001, 2004 and 2009, item 2,12 (item 2.16 in the 2009 version) (for Brazil)); Toronto Stock Exchange Manual sec. 472(2); Corporate Governance Act 2009 (for Chile); 2001 Opinion issued by the China Securities Regulatory Commission and Company Law 2005, Article 123; 2002 Cypriot Corporate Governance Code, Article A.2; 2001 Czech Corporate Governance Code, Chapter IV; 2006 Estonian Corporate Governance Recommendations, sec. 3.3.2; 2003 French Corporate Governance Principles no. 8.2 [now 9.2]; 2002 German Corporate Governance Code No. 5.4.2; 1998 Voluntary Code: The Confederation of Indian Industries, Recommendation 2; 1999 Preda Code (revised in 2002 and 2011) Article 3 and 2004 Civil Code Art. 2384 c.c. and Art. 2409 (for Italy)); Companies Act Article 400(3) and Tokyo Stock Exchange Listing regulations (2009), Rule 436-2 (for Japan); 2005 Principles of Corporate Governance, s 8.6 (2010 revised version s 7.6) (for Latvia); 2003 Lithuanian Corporate Governance Code, Principle III; Malaysian Code on Corporate Governance, Part II and 2001 and 2001 Kuala Lumpur Stock Exchange (KLSE) (now the Bursa Malaysia since 2004) 3.04; Code of Best Corporate Governance Practices (1999) pg.7 and 2005 Stock Market Act Article 24 (for Mexico); Tabaksblat code (2004) sec III.2.1 (for the Netherlands); Code of Corporate Governance 2002 revised in 2012 (for Pakistan); The Code of Best Practice for Public Companies 2002 (and 2005 as amended) at pt.17 (for Poland); 2002 Russian Corporate Governance Code, sec 2.2 of Chapter 3 and Decree of the Federal Commission for Securities Market No. 03-1169/r of 18 June 2003; 2005 (and 2007) Slovenian Corporate Governance Code, sec 3.3.1, 2009 Corporate Governance Code and Company Law (ZGD-1); Johannesburg Stock Exchange (JSE) Listing Requirements, Rule 3.84 and King III report (2009) (for South Africa); Aldama Report (2003) 2.1.c, Companies Act 2010 Article 538 and Unified Code of Corporate Governance (for Spain); Swedish Code of 2004, 3.2.4; 2002 Code of Best Practice issued by *Economie Suisse*, sec IIb § 12 (for Switzerland); 2003 Turkish Corporate Governance Code 3.3 (for Turkey); Code of Best Practice 1992, s. 2.2 and Combined Code 2003, A.3.2 (currently UK Corporate Governance Code of 2012, B.1) (for the UK); Listed Company manual of the New York Stock Exchange (NYSE Manual) B-23 (1966) and 2002 NYSE Manual § 303A.01.

³⁵ See eg RV Aguilera, 'Corporate Governance and Director Accountability: an Institutional Comparative Perspective' (2005) 16 *British Journal of Management* S39.

³⁶ Between 1990 and 2013, Variables 9 and 10 increased by 0.59 and 0.43 on a 1-point scale, respectively.

³⁷ Article 5 of Directive 2004/25/EC on takeover bids Of [2004] OJ L142/12.

³⁸ See for Belgium, Article 5 of the Law of 1 April 2007 on public takeovers (Loi relative aux offres publiques d'acquisition); for Cyprus, Law 41[I]/2007, Article 13; for Latvia, Law of the Financial Instrument Market 2004 (in effect since 13 July 2006), Article 66; and, for the Netherlands, Financial Supervision Act, sec.5:70(1).

³⁹ See, for Lithuania Law on Securities Market, Article 31 (amended in 2007); and, for Spain, Article 60 et seq. Stock Market Act 1998, Royal Decree 1066/2007 and Note 8/2008 issued by the National Securities and Exchange Commission.

⁴⁰ Article 9 of Directive 2004/109/EC on the harmonisation of transparency requirements in relation to information about issuers whose securities are admitted to trading on a regulated market and amending Directive 2001/34/EG Of [2004] OJL 390/38.

⁴¹ MC Schouten and MM Siems, 'The Evolution of Ownership Disclosure Rules' (2010) 10 *Journal of Corporate Law Studies* 451, at 463-4.

⁴² Variable 6 increased by 0.05 on a 1-point scale over the 24-year period of study.

⁴³ Between 1990 and 2013, both Variables 1 and 4 increased by 0.183 on a 1-point scale.

⁴⁴ Variable 8 has an average score of 0.904 on a 1-point scale between 2002 and 2013.

⁴⁵ Note that, in order to show this change most clearly, the y-axis of Figure 4 displays the values from 3 to 7. See also L Epstein and AD Martin, *An Introduction to Empirical Legal Research* Oxford: OUP 2014 at 253-4 (explaining why there are good reasons not always to start scales at zero).

⁴⁶ G Capoccia and RD Kelemen, 'The Study of Critical Junctures Theory, Narrative, and Counterfactuals in Historical Institutionalism' (2007) 59 *World Politics* 341.

⁴⁷ PA Hall and K Thelen, 'Institutional Change in Varieties of Capitalism' (2009) 7 *Socio-Economic Review* 7, 16.

⁴⁸ C Kingston and G Caballero, 'Comparing Theories of Institutional Change' (2009) 5 *Journal of Institutional Economics* 151.

⁴⁹ It is noteworthy that detecting a change-point in a time series is different from identifying a 'critical juncture', a concept that has been introduced by the literature on institutional change. Whereas a change-point in a time-series can be understood as the time location at which the parameter(s) of the data generating process change abruptly, a critical juncture refers to 'relatively short periods of time during which there is a substantially heightened probability that agents' choices will affect the outcome of interest'. See Cappocia and Keleman, *supra* n 46, 348. It is also important to note that a change-point divides a time series into two segments with each segment having exactly or approximately constant parameter values.

⁵⁰ This is different from regression analysis that would, based on a priori reasoning, specify a particular year and then test whether there was a significant effect for this year.

⁵¹ See, eg J Mukwiri and M Siems, 'The Financial Crisis: A Reason to Improve Shareholder Protection in the EU?' (2014) 41 *Journal of Law and Society* 51; A Dignam, 'The Future of Shareholder Democracy in the Shadow of the Financial Crisis' (2013) 36 *Seattle University Law Review* 639; A Reisberg, 'Shareholder Value after the Financial Crisis: A Dawn of a New Era?' (2013) 10 *International Corporate Rescue* 143.

⁵² See, eg LA Bebchuk, 'The Myth that Insulating Boards Serves Long-Term Value' (2013) 113 *Columbia Law Review* 1637.

⁵³ See, eg BW Bratton and WL Wachter, 'The Case Against Shareholder Empowerment' (2010) 158 *University of Pennsylvania Law Review* 653; D Ferreira, D Kershaw, T Kirchmaier and E-P Schuster, 'Shareholder Empowerment and Bank Bailouts' (2012), ECGI Finance Working Paper No 345/2013; Asian Finance Association (AsFA) 2013 Conference, available at <http://ssrn.com/abstract=2170392>.

⁵⁴ For a review of the econometric literature on change-points see BE Hansen, ‘The New Econometrics of Structural Change: Dating Breaks in U.S. Labor Productivity’ (2001) 15 *The Journal of Economic Perspectives* 117. For a recent review of change-point detection methods, see KK Korkas and P Fryzlewicz, ‘Multiple Change-point Detection for Non-stationary Time Series Using Wild Binary Segmentation’ (2014) Joint Statistical Meetings (JSM) 2013, available at http://personal.lse.ac.uk/KORKAS/WBS_LSW.pdf.

⁵⁵ For an application in economic history, see O Christodoulaki, H Cho and P Fryzlewicz, ‘A Reflection of History: Fluctuations in Greek Sovereign Risk between 1914 and 1929’ (2012) 16 *European Review of Economic History* 550 (detecting change-points in the variance and not in the mean of the time series of interest).

⁵⁶ Due to the small sample size (T=23), we do not consider multiple change points in X_t . Hence, we do not rule out the possibility of multiple change points.

⁵⁷ Or, in a more mathematical way

$$Y_{1,T}^b = \sqrt{\frac{(T-b) \cdot b}{T}} \left| \frac{1}{b} \sum_{t=1}^b X_t - \frac{1}{T-b} \sum_{t=b+1}^T X_t \right|$$

where $Y_{1,T}^b$ is interpreted as the difference between the means of Y_t over the two segments $\{1, \dots, b\}$ and $\{b+1, \dots, T\}$, adjusted by a multiplicative factor of the form $\sqrt{\frac{(T-b) \cdot b}{T}}$.

⁵⁸ The shareholder protection time series does not have autocorrelation, in which case there is no concern raised with regards the t-test which assumes independent variables.

⁵⁹ In the US, for instance, the Delaware General Corporation Law and the Model Business Corporation Act were amended to allow corporations to provide for majority (rather than plurality) voting with the election of directors. See eg SM Bainbridge *Corporate Governance after the Financial Crisis* New York: Oxford University Press 2012, at 216-220.

⁶⁰ See *supra*, section 3.1.

⁶¹ BR Cheffins, ‘Did Corporate Governance ‘Fail’ During the 2008 Stock Market Meltdown? The Case of the S&P 500’ (2009) 65 *Business Lawyer* 1.

⁶² See *supra*, section 2.

⁶³ See the references *supra* n 25.

⁶⁴ See *supra*, section 3.2.

⁶⁵ The exceptions are Belgium, Brazil, Japan, Malaysia, and the US.

⁶⁶ See *supra*, section 2.

⁶⁷ For those see, eg. R Kraakman and others, *The Anatomy of Corporate Law: A Comparative and Functional Approach* 2nd edn Oxford: Oxford University Press 2009 at 19-27 (for the discussion about ‘law versus contract’ in corporate law); BR Cheffins, *Company Law: Theory, Structure, and Operation* Oxford: Oxford University Press 1997 at 31-46 (distinguishing between permissive, presumptive and mandatory rules).

⁶⁸ This view goes back to EF Fama, ‘Agency Problems and the Theory of the Firm’ (1980) 88 *Journal of Political Economy* 288; FH Easterbrook and DR Fischel, *The Economic Structure of Corporate Law* Cambridge MA: Harvard University Press 1996.

⁶⁹ For those conceptions see, eg, NHD Foster, ‘Company Law Theory in Comparative Perspective: England and France’, (2000) 48 *American Journal of Comparative Law* 573; Siems, *supra* n 22, 47.

⁷⁰ This is often related to the role of regulatory competition in US corporate law, see eg R Romano, *The Genius of American Corporate Law* Washington, DC: AEI Press, 1993, at 39-40.

⁷¹ In the shareholder protection index, the US aggregate of paternalistic variables considers the high US score in variable 5 on independent directors (since 2003 half of the board members have to independent according to NYSE Manual, § 303A.01 approved by the SEC, SR-NYSE-2002-33 and SR-NASD-2002-141, 68 Fed. Reg. 64154).

⁷² To be sure, this is also heavily criticised: eg, R Romano, ‘The Sarbanes-Oxley Act and the Making of Quack Corporate Governance’ (2005) 114 *Yale Law Journal* 1521; SM Bainbridge, ‘Dodd-Frank: Quack Federal Corporate Governance Round II’ (2010-11) 95 *Minnesota Law Review* 1779. More generally see RegData, available <http://regdata.org>, said to be ‘an innovative new way of measuring the size and scope of US federal regulation’.

⁷³ See *supra*, section 1.

⁷⁴ MT Moore, *Corporate Governance in the Shadow of the State* Oxford: Hart 2013. See also MT Moore, 'Private Ordering and Public Policy: The Paradoxical Foundations of Corporate Contractarianism', (2014) 34 *Oxford Journal of Legal Studies* 693 (discussing UK corporate governance).

⁷⁵ *Ibid*, 4.

⁷⁶ See Black and others, *supra* n 31. See also *supra*, section 5.

⁷⁷ See, eg J Braithwaite, *Regulatory Capitalism: How It Works, Ideas for Making It Work Better*. Cheltenham: Elgar 2008; D Levi-Faur, 'Varieties of Regulatory Capitalism: Getting the Most Out of the Comparative Method' (2006) 19 *Governance* 367.

⁷⁸ See *supra*, section 4.1.

⁷⁹ In unreported results we run the Chow test for change-points in the mean and for every possible year in the enabling shareholder protection data set. The highest F-statistic (6.898) was obtained for 1996 and the p-value (0.015) indicates that the change-point is statistically significant. The CUSUM-type change point-detection also returned 1996 as the only change-point.

⁸⁰ After performing the Chow test in the mean and for every possible year in the paternalistic shareholder protection data set, the highest F-statistic (16.149) was obtained for 2007 (p-value=0.001). Similarly, the CUSUM-type change point-detection returned 2008 as the only change-point.

⁸¹ R David and JEC Brierley, *Major Legal Systems in the World Today: an Introduction to the Comparative Study of Law*, London: Stevens and Sons 1985; TH Reynolds and AA Flores, *A Foreign Law Current Sources of Codes and Basic Legislation in Jurisdictions of the World*, Littleton, Colo.: Rothman 1989; K Zweigert and H Kötz, *Introduction to Comparative Law*, Oxford: Oxford University Press 1998.

⁸² For a review of the economic literature, see La Porta and others, *Legal Origins*, *supra* n 5, 286.

⁸³ La Porta and others, Law and Finance, *supra* n 5, 1117-9 and 1133-4. A corresponding finding is S Djankov, R La Porta, F Lopez-de-Silanes and A Shleifer, 'The Law and Economics of Self-Dealing' (2008) 88 *Journal of Financial Economics* 430 (reconsidering the initial LLSV index as well as using another index for a director's self-dealing transaction).

⁸⁴ See, eg R La Porta, F Lopez-de-Silanes and A Shleifer, 'Government Ownership of Banks' (2002) 57 *Journal of Finance* 265; S Djankov, R La Porta, F Lopez-de-Silanes and A Shleifer, 'Courts' (2003) 118 *Quarterly Journal of Economics* 453. On the category of socialist law, see also La Porta and others, Legal Origins, *supra* n 5, 288.

⁸⁵ It is important to emphasise that the classification of our sample countries to four legal families is only used for comparing our results with the LLSV's studies. For an analysis of the shortcomings of the legal origins/families distinction, see eg M Siems, 'Legal Origins: Reconciling Law & Finance and Comparative Law' (2007) 52 *McGill Law Journal* 55, 62-70. More generally see also S Deakin and K Pistor (eds), *Legal Origin Theory* Cheltenham: Edward Elgar 2012.

⁸⁶ Although Sweden was treated by LLSV as part of the Scandinavian civil law tradition, we choose not to keep the Scandinavian legal origin as a separate legal family (with one member) for present purposes and we categorise Sweden as a German-origin system. See similarly Armour and others, Law and Financial Development, *supra* n 6, 1473, fn 119.

⁸⁷ It is noteworthy that all of the three countries with the biggest increase in shareholder protection over the period 1990-2013, ie China, Slovenia and Russia, belong to the category of Socialist legal origin. See *supra* section 3.1.

⁸⁸ See *supra* n 19 and accompanying text.

⁸⁹ See *supra*, section 3.1 and 3.2. But see also *infra*, section 6.

⁹⁰ See *supra*, section 3.1.

⁹¹ The Pearson correlation coefficient between the shareholder protection index and the rule of law in Socialist legal origin countries is -0.933 (p-value=0.01) in 1996 and -0.820 (p-value=0.05) in 2012.

⁹² See also *infra*, section 5.2 (text accompanying endnotes 106 and 107).

⁹³ We are grateful to Gerhard Schnyder for this suggestion.

⁹⁴ In 2013, the enabling shareholder protection in English-, French-, German- and Socialist-legal origin countries had a score of 3.238, 3.008, 3.313 and 3.016 on a 5-point-scale, respectively.

⁹⁵ In 2013, Socialist-legal origin countries had a score of 3.701 (on a 5-point scale) in terms of paternalistic shareholder protection, whilst English, French- and German-legal origin countries scored 3.116, 3.309 and 3.138 respectively.

⁹⁶ Between 1990 and 2013, the aggregate value of the shareholder protection index in English-, French-, German- and Socialist-legal origin countries increased by 1.412, 3.007, 2.555 and 5.154 on a 10-point scale, respectively.

⁹⁷ See *supra*, section 3.2. The recommendation to have a sufficient number of independent directors is in Section VI.E.1. of the OECD Principles of Corporate Governance 2004.

⁹⁸ See Armour and others, *supra* n 7, 363-4.

⁹⁹ This is mainly said to happen through improvements of financial development, say, stimulation of external finance through stock markets, eg in La Porta and others, *Law and Finance*, *supra* n 5. For further discussion see M Faure and J Smits (eds), *Does Law Matter? On Law and Economic Growth* Cambridge: Intersentia 2001.

¹⁰⁰ IMF, *World Economic Outlook* (2010), available at www.imf.org/external/pubs/ft/weo/2010/01/ (with the terminology ‘advanced’ and ‘emerging’).

It is noteworthy that from 1993 to 2004 the IMF used an additional grouping of ‘countries in transition’ to capture countries the economies of which were in ‘a transitional state ... from a centrally administered system to one based on market principles’. Seven countries in our sample, four former Soviet Republics (Estonia, Latvia, Lithuania and Russia) and three Eastern European countries (Czech Republic, Poland and Slovenia), fall in this category between 1993 and 2004. However, in 2004, on the occasion of the accession of several Eastern European countries into the European Union, the transition countries group was dropped. For a detailed account of different development taxonomies, see L Nylsen, ‘Classifications of Countries Based on Their Level of Development: How it is Done and How it Could be Done’ (2010) IMF Working Paper WP/11/31, available at www.imf.org/external/pubs/ft/wp/2011/wp1131.pdf.

¹⁰¹ See *supra* n 99.

¹⁰² On a succinct summary of this causality problem, see Siems, *supra* n 22, 231-3. See also the references to the institutional change literature *supra* n 46-48.

¹⁰³ The average difference in the scores of enabling shareholder protection between developed and developing countries was reduced from 0.615 to 0.358 (on a 5-point scale) from 1990 to 2013.

¹⁰⁴ On the general increase of paternalistic shareholder protection in our sample countries during the period of study, see *supra* section 4.2.

¹⁰⁵ Eg T Ambrosio, 'The Rise of the 'China Model' and 'Beijing Consensus': Evidence of Authoritarian Diffusion?' (2012) 18 *Contemporary Politics* 381.

¹⁰⁶ B Black and R Kraakman, 'A Self-Enforcing Model of Corporate Law' (1996) 109 *Harvard Law Review* 1911, 1924.

¹⁰⁷ *Ibid*, 1916.

¹⁰⁸ For empirical studies showing economic globalisation see, eg, A Dreher, N Gaston and P Martens, *Measuring Globalisation – Gauging its Consequences* New York: Springer 2008 (with data available at <http://globalization.kof.ethz.ch>); A McGrew, 'The Logics of Economic Globalisation' in *Global Political Economy* 3rd edn (John Ravenhill ed., Oxford: OUP 2011) 275 at 279-291 (data on trade, finance, production, and labour migration); E Prasad, K Rogoff, S-J Wei and MA Kose, 'Effects of Financial Globalization on Developing Countries: Some Empirical Evidence', IMF Working Paper 2003, available at <http://www.imf.org/external/np/res/docs/2003/031703.pdf>.

¹⁰⁹ For this approach see also Siems, *supra* n 11; Lele and Siems, *supra* n 8, 37.

¹¹⁰ This 'formal convergence' may be distinguished from 'functional convergence', namely where the mere strength of shareholder protection (ie the aggregate) becomes more similar. See Armour and others, How Do Legal Rules Evolve, *supra* n 6, 620.

¹¹¹ See *supra*, section 5.1.

¹¹² See *supra*, section 1, as well as section 4.2 (for the enabling features of US law).

¹¹³ In results, not reported here, we conducted a Chow test and a CUSUM statistic in the mean of the time series of the development for ‘all countries’ (see *supra* section 4.), not finding a change-point in this time series.

¹¹⁴ See the references in *supra* nn 6-8.

¹¹⁵ The aggregate values for 1990 are: Germany 3.08, France 6.75, US 6.75, UK 6.125.

¹¹⁶ This mainly concerns the variables on independent directors, derivative actions, mandatory bid and ownership disclosure (5, 7, 9 and 10).

¹¹⁷ NYSE Manual, § 303A.01. This coincided with the Sarbanes-Oxley Act 2002

¹¹⁸ See variable 5 in Fig. 3 as well n 34 in *supra* section 3.2.

¹¹⁹ See *supra*, section 3.2.

¹²⁰ See *supra*, section 4.2.

¹²¹ The precise numbers are: the average difference for the five paternalistic variables dropped from 1.38 to 1.29, and the one for the five enabling variables from 1.29 to 0.96.

¹²² Eg, in 2013, variable 8 has the value ‘1’ in 25 of the 30 countries; no legal system scores ‘0’ for variable 2, and only one of them does for variable 6; see also Note to Table 1 above for the classification of variables.

¹²³ See also *supra*, section 5.

¹²⁴ M Graff, ‘Law and Finance: Common Law and Civil Law Countries Compared: an Empirical Critique’ (2008) 75 *Economica* 60 at 72.

¹²⁵ See *supra*, section 6.1.

¹²⁶ Such an approach of pairs (or dyads) is also used in political science and international relations: eg, T Sommerer and others, ‘The pair approach: what causes convergence of environmental policies?’, in K Holzinger and others (eds), *Environmental Policy Convergence in Europe*, Cambridge: Cambridge University Press, 2008, 144-95. For the idea of a ‘comparative legal network analysis’ see Siems, *supra* n 6 (web of creditor and shareholder protection).

¹²⁷ UCINET, available at <https://sites.google.com/site/ucinetsoftware/home>.

¹²⁸ Definition at <http://www.analytictech.com/ucinet/help/2cvtid.htm>.

¹²⁹ See generally Daniel Kelemen and Eric C. Sibbitt, ‘The Americanization of Japanese Law’ (2002) 23 *University of Pennsylvania Journal of International Economic Law* 269.

¹³⁰ Similar the findings at the aggregate level. See *supra* section 5.1.

¹³¹ References in *supra* nn 6-8. See also *supra*, section 5.

¹³² C Hay, ‘Globalization’s Impact on States’, in J Ravenhill (ed), *Global Political Economy*, 3rd edn., Oxford: Oxford University Press 2011, 312-44 at 320; C Hay, ‘Common Trajectories, Variable Paces, Divergent Outcomes? Models of European Capitalism Under Conditions of Complex Economic Interdependence’ (2004) 11 *Review of International Political Economy* 231.

¹³³ See *supra* section 3.

¹³⁴ See *supra* sections 4.1 and 5.2.

¹³⁵ See *supra* sections 4.2, 5.1 and 6.

¹³⁶ See *supra* section 3.2.

¹³⁷ See *supra* section 2.

¹³⁸ See *supra* sections 4.2, 5.2 and 6.

¹³⁹ See *supra* section 3.

¹⁴⁰ See *supra* section 5.

¹⁴¹ See *supra* section 6.2.

¹⁴² BR Cheffins, 'The Trajectory of (Corporate Law) Scholarship' (2004) 63 *Cambridge Law Journal* 456.

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