Shareholder and creditor protection in Australia: A leximetric analysis

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This article utilises leximetric analysis, which involves the numerical coding of the strength of legal protections, to show changes in levels of shareholder and creditor protection in Australia for the period 1970 to 2010. This form of analysis, originally developed by La Porta et al, and subsequently used by many scholars in different legal fields, allows for the production of graphs which illustrate changes to the law, reducing complexities and allowing for comparisons of shareholder and creditor protection. The data show levels of shareholder protection have increased, most notably against actions of the board of directors rather than against other shareholders. In contrast, levels of creditor protection have been relatively stable. The article explores how and why these developments in shareholder and creditor protection have occurred. The research also identifies that for most of the 40-year period of study, there was a positive correlation between shareholder and creditor protection. However, this is no longer the case for recent years and possible explanations for this finding are identified.

INTRODUCTION

This article explores the evolution in shareholder and creditor protection that has taken place in Australia over the 40 years from 1970 to 2010. It is the companion piece to a larger study recently published in the International and Comparative Law Quarterly. That article compares shareholder and creditor protection in six countries: Australia, the United Kingdom, the United States of America, France, Germany and India. It found the level of protection afforded to shareholders under Australian law was relatively high compared to the five other countries and this was also the case for the level of protection afforded to creditors. An important objective of the comparative research was to determine whether the legal origin of the country played a significant role in the later development of its corporate laws. It found that it did not.

This article has different purposes. First, it identifies developments in shareholder and creditor protection in Australia and explores how and why these developments occurred. Secondly, it examines whether there is a correlation between shareholder and creditor protection in Australia over the 40-year period. The article utilises a relatively new methodology to measure legal change – leximetric analysis – which assigns a numerical value to items relating to aspects of shareholder and creditor protection, which are then used to generate an annual index of the level of protection for each of these
two groups of corporate stakeholders. When presented in graphical form, this allows for a visual
depiction of changes in the law and comparison across countries over an extended period of time.

The article begins by providing a background to the present study, and explaining leximetric
analysis and its limitations. This is followed by an examination of shareholder protection over the
40-year period in Australia, with the same then being done for creditor protection. The relationship
between shareholder and creditor protection is next examined. The final part provides a conclusion.

**METHODOLOGY AND LIMITATIONS OF LEXIMETRIC ANALYSIS**

The changes in the level of shareholder and creditor protection are measured by the adoption of a
“leximetric” methodology, which has been adapted from the pioneering work of La Porta,
Lopez-de-Silanes, Shleifer and Vishny. This methodology has been developed, in part, to enable
scholars to compare the laws of different countries in order to answer important questions. These
include whether the legal origins of countries play a role in the subsequent development of their laws,
and if so, how. From this analysis may come normative conclusions as to whether certain legal
systems are “better” than others, and why this might be the case.

Leximetric methodology can assist other types of research. It reveals trends over time in legal
changes and allows insights into the type of regulatory style adopted. For example, it is one thing to
make statements, say, as to the improvements to creditor protection as a result of the introduction of
the voluntary administration regime in 1993. It is another entirely to see that change in the context of
other creditor rights, and in relation to the development of shareholder rights.

Leximetric methodology has been employed in a growing number of legal areas
including corporate law and labour law. It has also been used by researchers to examine issues to do
with law and financial development, and the provision of private credit.

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3 Legal origins theory posits that the underlying style of regulation that is associated with the originating country will persist over
time, despite any changes that may be made. A certain “path dependency” occurs as a result of the complementarity that exists
between legal and economic institutions. This ensures that distinct differences that are associated with the different types of legal
systems remain, despite alterations made to take account of local conditions. See further Hansmann H and Kraakman R, “The


of Shareholder, Creditor, and Worker Protection” (2009) 57 American Journal of Comparative Law 579; Siems M,
“Shareholder Protection Around the World (‘Leximetric II’)” (2008) 33 Delaware Journal of Corporate Law 111; Armour J,
Protection in Common Law Countries” (2007) 5 Journal for Institutional Comparisons 3; Siems M, “Shareholder Protection
Across Countries – Is the EU on the Right Track?” (2006) 4 Journal for Institutional Comparisons 39; Deakin S, Fagernas S,
Analysis” in Yurtoglu B and Gigler K (eds), The Economics of Corporate Governance and Mergers (Edward Elgar,

Mitchell et al, n 1; Gahan et al, n 1.

There are limitations to leximetric analysis. The score for any particular item, as well as the choice of the actual items, is necessarily a subjective choice of the person conducting the analysis. The subjective element of the analysis can be overcome by having multiple authors review the coding, as has been the case with the research for this article. A second limitation can be the difficulty of identifying what is a change in the law, particularly where that change occurs by way of judgments. If a court indicates that it is willing in some circumstances to allow a claim by a minority shareholder, but declines to do so on this occasion, is that a change to the law? What if one court agrees and another does not? And how is a law which protects one creditor cohort, at the expense of another, to be coded? Is this an increase in creditor protection or a decrease? One of the shortcomings of any consideration of creditors as a whole, quantitative or qualitative, is the inability to generalise about rights. Creditors are not a homogeneous group. The enforcement of secured creditor rights necessarily comes at the expense of unsecured creditors. Payment of priority creditors under s 556 of the Corporations Act 2001 (Cth) (Corporations Act), such as employees, further postpones the payment of creditors who rank lower.

Shareholders are also not a homogeneous group but, as explained below, the shareholder protection indices expressly capture the tension between majority and minority rights. This tension between different categories of creditors is not captured in the creditor protection index. A third limitation concerns the variable importance of different rules in contributing to an overall level of protection. For example, it might be argued that a requirement for half of all members of a board to be independent contributes more to shareholder protection than a rule that allows for every shareholder to file a claim against a resolution by the general meeting. Yet, typically, most leximetric measures weight all items for the aggregate index equally, thereby implicitly assuming that all rules are of equal importance.

Despite these limitations, leximetrics methodology provides a level of analysis beyond only a description of legal changes. Siems observes that quantitative legal research can usefully reduce the complexity of legal systems and more readily allows for comparison between countries and over time. Assigning numerical values to legal changes allows for an analysis which can simultaneously take into account dozens of variables. The charting of these variables in graphs can reveal hitherto unseen trends.

The shareholder protection index employed in this article was devised by Lele and Siems, while the creditor protection index was devised by Armour et al. Both indices, which are included as Appendices 1 and 2, were developed as part of a larger project undertaken at the Centre of Business Research at the University of Cambridge and were devised in response to widely acknowledged problems with the measures developed by La Porta et al. Most importantly, the University of Cambridge indices are more comprehensive measures of protection, and are longitudinal indices, charting the evolution of shareholder and creditor protection over the period from 1970 to 2005. The indices also adopt a functional approach to shareholder and creditor rights rather than focusing on strict legal rights. Therefore the coding includes a broad range of rules affecting shareholders and creditors. The rules include not only statutes but also judgments of courts and “self regulatory” rules such as the Australian Securities Exchange Corporate Governance Council’s Corporate Governance Index.
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**Principles and Recommendations.** This means that the focus of the article is on companies whose securities are listed on the Australian Securities Exchange.

**THE EVOLUTION OF SHAREHOLDER PROTECTION**

The index of shareholder rights consists of 60 items in total. It has been divided into two sub-indices: the first measures shareholder protection against various forms of expropriation by boards of directors and management and the second measures the protection that shareholders have against other shareholders. Each item is coded by its absence or presence, with a score between 0 and 1 (including fractions such as 0.25, 0.5 and 0.75 where appropriate) to reflect the strength of the law.

The first sub-index consists of 42 items that measure the power of shareholders in the general meeting to amend the articles of association/company constitution and approve or disapprove of mergers, divisions, increases or decreases in share capital, the sale of substantial assets of the company and the payment of dividends. The sub-index also measures whether shareholders have pre-emptive rights in relation to new share issues, are required to approve directors’ remuneration, and whether shareholders have the ability to appoint and remove directors, demand extraordinary general meetings, put items on the agenda for meetings of shareholders, appoint proxies, obtain information, and communicate with other shareholders. It also measures the division of power between the board and shareholders, the duration of directors’ appointments, the imposition of directors’ duties, the applicability of corporate governance codes, and the level of public enforcement of corporate law. Each item is given an equal weight in the aggregate index measure.

Figure 1 indicates that apart from a slight increase in 1982, shareholder protection against the board remained highly stable during the period 1970 to 1991. The level of protection during this period was moderate and sat between an aggregate score of 22 and 23, out of a maximum possible score of 42. After 1991, however, there was greater variation in the level of protection against boards of directors, with the trend being increased levels of protection over time. The level of protection stabilised from 2004 onwards at the highest point over the period examined, sitting at approximately 29 out of a maximum possible score of 42.

The periods of time that saw the greatest increase in shareholder protection against boards were 1992, 1998 and 2003. The increase in shareholder protection against boards in 1992 resulted from two changes to the law. The level of protection afforded to shareholders was strengthened by the introduction of a requirement for shareholder approval of the payment of financial benefits to directors, commonly referred to as the Corporations Act related party provisions. This requirement was introduced in response to some corporate collapses of the 1980s that had been caused by corporate insiders transferring corporate funds to themselves. In addition, the decision of the New South Wales Supreme Court in *AWA Ltd v Daniels* (1992) 10 ACLC 933 endorsed an objective standard in relation to the duty of care imposed on directors whereby directors are required to act with the degree of care that an ordinary person would exercise in like circumstances. This approach was upheld on appeal. In earlier years, a subjective approach to aspects of the duty of care was evident in the decisions of courts.

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13 *Corporations Law 1991* (Cth), s 243Q.
17 See eg *Re City Equitable Fire Insurance Co* [1925] 1 Ch 407.
The changes that occurred in 1998 were introduced by the *Company Law Review Act* of that year. Some of these changes impacted on the level of protection that shareholders had against boards and are therefore reflected in Figure 1. There was a change in the ability of shareholders to influence the amount of the dividend declared by directors\(^{18}\) and an increase in the amount of information required to be provided to shareholders in advance of a special resolution being put to the general meeting.\(^{19}\) Also in 1998 shareholders who were entitled to give the company notice of a resolution they proposed to move at the meeting were relieved of the requirement to pay for their proposals, provided that the company received the proposal in time for the scheduled meeting.\(^{20}\)

Figure 1 further indicates that a significant increase in shareholder protection against boards occurred in 2003. One aspect of shareholder protection is disclosure and the 2003 increase occurred as a result of amendments to the Listing Rules of the Australian Securities Exchange (ASX). Since 1 July 1996 listed companies had been required to disclose their main corporate governance practices.\(^{21}\) However, there was no code or other list of best practice recommendations provided for companies to comply with. Interest in corporate governance grew in the late 1990s and early 2000s as a result of corporate collapses in Australia and internationally.\(^{22}\) The ASX’s approach was questioned following the Enron collapse and other developments in the United States and internationally.

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18 *Corporations Law 1991* (Cth), s 254U(1). Prior to this amendment to the *Corporations Law*, shareholders generally had the power, given to them in the company’s constitution, to declare what dividend was to be paid based on a recommendation from the directors. Section 254U(1) provides that directors may determine that a dividend is to be payable and fix the amount, time for payment and method of payment, without reference to shareholders. Although s 254U(1) is a replaceable rule, which means that companies are free to either adopt it or not adopt it, the trend has been for companies, including public companies, to amend their constitutions to either adopt s 254U(1) or have a similar provision in their constitution that gives the directors rather than shareholders the power to decide what dividend is to be paid: Austin and Ramsay, n 15 at [18.030].

19 *Corporations Law 1991* (Cth), s 249L(c).

20 *Corporations Law 1991* (Cth), ss 249O(2) and 249P(7).


widespread belief that the ASX had fallen behind its international counterparts because it had failed to endorse best practice corporate governance recommendations.

In response, the ASX established the ASX Corporate Governance Council in August 2002 and gave it the task of developing best practice recommendations. The ASX Corporate Governance Council contained representatives from 21 interest groups including financial institutions, directors’ organisations, business interest groups and professional organisations. The first edition of the ASX Corporate Governance Council’s Principles of Good Corporate Governance and Best Practice Recommendations (ASX recommendations) was released in March 2003. The ASX Listing Rules were amended to provide that companies must disclose in their annual reports the extent to which they have followed the ASX recommendations.23 If companies choose not to comply with these recommendations they are required to disclose in their annual reports their reasons for non-compliance.

The ASX recommendations state that a majority of the board should be independent24 and that the board should establish an audit committee25 consisting of a majority of independent directors.26 The ASX recommendations provide that companies should ensure that the level of remuneration paid to directors is reasonable and sufficient, and is able to be defined in relation to corporate and individual performance.27 The introduction of the ASX recommendations in 2003 led to a significant increase in shareholder protection against boards as measured by the items utilised in this study (see Figure 1).28

Figure 1 indicates that further changes in the level of shareholder protection against boards occurred in 1982, 2000 and 2004. Increases occurred in 1982 when the percentage of shareholders required to call an extraordinary meeting of shareholders was reduced from 10% to 5%,29 and in 2004, with the introduction of the requirement that companies disclose the details of the remuneration paid to all directors and the five highest paid company executives.30 There was a small decrease in the level of shareholder protection against boards in 2000 as a result of the introduction of the statutory business judgment rule.31 This rule operates as a defence to the director’s duty of care. However, the business judgment rule has very high requirements and it appears there is only one judgment in which a director or company executive has been successful in an application to claim the benefit of the statutory business judgment rule.32

The second sub-index in the longitudinal shareholder protection index measures the protection that shareholders have against other shareholders. It contains 18 items that measure a number of matters relating to meetings of shareholders, including shareholders’ rights to vote, quorums, supermajority requirements, and cumulative voting rights. The items also measure whether

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23 Australian Securities Exchange, Listing Rule 4.10.3.
25 ASX Corporate Governance Council, n 24, Recommendation 4.2.
26 ASX Corporate Governance Council, n 24, Recommendation 4.3.
27 ASX Corporate Governance Council, n 24, Principle 9.
28 Although not part of the coding undertaken for this study, it should be noted there occurred during the 2000s the emergence of proxy advisers in Australia which have provided their clients (typically institutional investors) with advice on share voting decisions. Some of these voting decisions will relate to the ASX recommendations, such as the recommendations dealing with board structure and executive remuneration. For discussion of the role of proxy advisers in Australia, see Australian Institute of Company Directors, Institutional Share Voting and Engagement: Exploring the Links between Directors, Institutional Shareholders and Proxy Advisers (2011).
30 Corporations Act 2001 (Cth), s 300A(1B)(b).
31 Corporations Law 1991 (Cth), s 180(2).
32 Australian Securities and Investments Commission v Rich (2009) 236 FLR 1; 75 ACSR 1 at [3766].
shareholders are required to disclose major share ownership, whether minority shareholders are able to be squeezed out by majority shareholders, whether appraisal rights exist following mergers or alterations of the articles of association/company constitution, and if there is a remedy available for oppressed minority shareholders. The index also measures whether shareholder protection is mandatory (e.g., whether it is possible to exclude the duty of care owed by directors). The level of protection afforded shareholders during this period is reasonably high and sits between 11.2 and 12 out of a possible maximum score of 18.

Figure 2 indicates that apart from two small increases in 1972 and 1991 and a slight decrease in 2000, shareholder protection against other shareholders remained highly stable during the period 1970 to 2010. There was not the same sustained increase in protection against other shareholders as there was in relation to the board.

Throughout the period 1970 to 1971 shareholders could not acquire more than one-third of a company’s shares without complying with the takeover provisions and making an offer for the remaining issued shares.\(^{33}\) In 1972 the level of shareholder protection rose because the relevant percentage of shares at which the takeover provisions applied was reduced from one third to 15% of the company’s capital (it was later increased to 20%).\(^{34}\) In 1991 the trigger point for the requirement of shareholders to disclose details of their share ownership decreased from 10% to 5% of the company’s capital.\(^{35}\) The level of shareholder protection against other shareholders dropped slightly in 2000 because it became easier for majority shareholders to squeeze out minority shareholders.\(^{36}\)

**FIGURE 2** Protection against other shareholders index (18 items), 1970-2010

The data displayed in Figures 1 and 2 is aggregated in Figure 3. It provides an overall picture of shareholder protection against both boards and other shareholders during the period 1970 to 2010. Figure 3 displays all 60 items and indicates that the level of shareholder protection during the period 1970 to 1991 was fairly stable. Noticeable increases in protection occurred in 1992 and 2003. As noted previously, most of the increase in shareholder protection occurring after 1992 resulted from an increase in shareholder protection against boards, rather than an increase in shareholder protection against other shareholders.

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\(^{34}\) *Uniform Companies Act 1972* (Vic), s 180C(2).

\(^{35}\) *Corporations Law 1991* (Cth), ss 707-716.

\(^{36}\) *Corporations Act 2001* (Cth), s 664A(3).
THE EVOLUTION OF CREDITOR PROTECTION

This section presents the results of the coding of creditor protection for the period 1970 to 2010. Creditor protection is addressed by coding 44 items across three discrete sub-indices.\textsuperscript{37} The first sub-index measures control of debtor behaviour which might harm the creditors while the company is a going concern; the second measures credit contract rules which allow self-protection; and the third measures rights during insolvency (or external administration). The results reveal more stability in the level of creditor protection during the period of study when compared to the level of shareholder protection.

Restrictions on debtor activities

The first sub-index relating to creditor protection measures the extent to which rules restrict or deter debtor companies from entering into transactions that might harm creditors’ interests while the company is a going concern. It has 15 items and these include minimum capital, dividend restrictions, equitable subordination, piercing the corporate veil, transaction avoidance, directors’ liability and public enforcement.

Although Figure 4 shows an increase in the level of creditor protection with a spike during the mid-1970s, and further minor increases in the early 1990s, the debtor control rules from 1970 to 2010 were the least favourable to creditors of the three types of creditor protection rules in Australia, ranging between 8.75 and 10.5 out of a possible maximum score of 15.

For example, there has been no meaningful requirement for minimum capitalisation,\textsuperscript{38} whereby companies must maintain certain reserves to avoid automatic liquidation. La Porta et al comment that

\textsuperscript{37} Armour, Deakin, Lele and Siems, n 5.

\textsuperscript{38} The First Corporate Law Simplification Act 1995 (Cth) amended s 114 of the Corporations Law to require only one shareholder and one director for a proprietary company. While the need to have a share capital is stated, there has never been a minimum amount specified in Australia. Public companies were required to have five shareholders (and therefore generally $5 of share capital) until the Company Law Review Act 1998 (Cth).
“[minimum capitalisation] protects creditors who have few other powers by forcing an automatic liquidation before all the capital is stolen or wasted by the insiders.”\(^{39}\)

**FIGURE 4 Restrictions on debtor activities (15 items), 1970-2010**

The rules in relation to dividends in Australia changed significantly in 2010. Prior to that time, dividends could only be paid from profits, although that term was interpreted broadly. For example, dividends could be paid on gains on circulating assets\(^{40}\) and realised fixed assets.\(^{41}\) Neither capital nor revenue losses from previous years needed to be made up for a current year’s profit to justify a dividend.\(^{42}\) It was unsettled whether dividends could be paid on unrealised capital gains.\(^{43}\) However, in July 2010, the law was amended to redefine the company’s ability to pay a dividend. In its current form, s 254T of the *Corporations Act* expressly acknowledges that a dividend should not materially prejudice the company’s ability to pay its creditors.\(^{44}\) The section also applies a balance sheet test, requiring the company’s assets to exceed its liabilities. That excess of assets must be sufficient to pay the dividend.

The increase in creditor protection in 1976 is mainly attributable to the High Court of Australia’s decision in *Walker v Wimborne* (1976) 137 CLR 1. The court recognised that, as part of directors’ duty to act in the interests of the company, they have an obligation to consider the interests of creditors when a company is nearing insolvency. Developments relating to piercing the corporate veil occurred during the period of study. There is long-standing authority that courts would pierce the corporate veil

\(^{39}\) La Porta et al, n 2 (1998) at 1135.

\(^{40}\) *Re Spanish Prospecting Co Ltd* [1911] 1 Ch 92; *Marra Developments Ltd v BW Rafe Pty Ltd* [1977] 2 NSWLR 616.

\(^{41}\) *Australasian Oil Exploration v Lachberg* (1958) 101 CLR 119.

\(^{42}\) *Lee v Neuchatel Asphalte Co* (1889) 41 Ch D 1; and *Ammonia Soda Co Ltd v Chamberlain* [1918] 1 Ch 266 respectively.

\(^{43}\) *Westbury Sugar Refineries Ltd v Inland Revenue Commissioners* [1960] TR 105; *cf Dimbula Valley (Ceylon) Tea Co Ltd v Laurie* [1961] Ch 353.

\(^{44}\) *Corporations Amendment (Corporate Reporting Reform) Act 2010* (Cth), s 7, substituting a new s 254T into the *Corporations Act 2001* (Cth).
where the company had been set up as a sham or fraud.\textsuperscript{45} However, the courts generally had refused to pierce the veil on other grounds.\textsuperscript{46} This is despite criticism of the way in which the corporate veil is sometimes used being expressed obiter in cases such as \textit{Briggs v James Hardie & Co Pty Ltd (1989)} 16 NSWLR 549; 7 ACLC 841 (Rogers AJA) and \textit{Qintex Australia Finance Ltd v Schroders Australia Ltd (1991)} 9 ACLC 109 (Rogers CJ).\textsuperscript{47} However, 1992 saw the introduction, by means of legislation, of holding company liability for insolvent trading,\textsuperscript{48} which is a form of veil piercing, and this resulted in a small upward increase in the index. A further small increase came in the mid-1990s with some courts imposing liability on parent companies in limited circumstances.\textsuperscript{49}

\textbf{Creditor contract rights}

The second index measures creditor contract rules. It has 10 items and these include set-off, enforcement of contracts, the availability of security interests, and retention of title. Figure 5 represents changes in creditors’ mechanisms for self-protection outside of insolvency proceedings, either under the law or through their own contracts with the debtor. Generally, creditors may self-protect through a variety of non-possessor security interests and can appoint a receiver to enforce their claims, and this has been a stable area of the law over the survey period. The creditor contract rights index shows a high level of protection, with scores between 7 and 9 out of a possible 10.

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{figure5.png}
\caption{Creditor contract rights index (10 items), 1970-2010}
\end{figure}

\begin{itemize}
\item \textsuperscript{45} \textit{Gilford Motor Co Ltd v Horne} [1933] Ch 935; \textit{Jones v Lipman} [1962] 1 WLR 832; \textit{Creasey v Breachwood Motors Ltd} (1992) 10 ACLC 3052.
\item \textsuperscript{46} \textit{Industrial Equity Ltd v Blackburn} (1977) 137 CLR 567; \textit{Pioneer Concrete Services v Yelnah} (1986) 5 NSWLR 254; (1987) 5 ACLC 467.
\item \textsuperscript{48} \textit{Corporations Act} 2001 (Cth), s 588V.
\item \textsuperscript{49} For example, \textit{Standard Chartered Bank of Aust Ltd v Antico} (1995) 38 NSWLR 290 (liability as a shadow director); \textit{CSR Ltd v Wren} (1997) 44 NSWLR 463; and \textit{CSR Ltd v Young} [1998] Aust Torts Reports 81–468 (liability in tort based on the particular facts of the cases).
\end{itemize}
The variations are explained by changes to the law relating to retention of title clauses. The seminal decision in 1976 is that of the English Court of Appeal in Aluminium Industrie Vaassen BV v Romalpa Aluminium Ltd [1976] 1 WLR 676. The court recognised a relationship of agency giving rise to a fiduciary duty on the part of the original purchaser of goods towards its supplier, which entitled the supplier to trace the proceeds of the subsequent sale of those goods in priority over the purchaser’s secured and unsecured creditors. This decision gave rise to the nomenclature of “Romalpa clauses”.

However, subsequent Australian decisions have qualified the rights of creditors. Chattis Nominees Pty Ltd v Norman Ross Homeworks Pty Ltd (in liq) (1992) 28 NSWLR 338 held that the fiduciary relationship would not automatically be implied, and only existed where the purchaser was required to keep the proceeds of the sale separate from other funds. Otherwise, a clause in this form created an unregistered charge over the assets of the buyer, and was therefore void against an administrator or liquidator. The matter was considered again by the New South Wales Court of Appeal in Associated Alloys Pty Ltd v Metropolitan Engineering & Fabrication Pty Ltd (1998) 16 ACLC 1633 and then on appeal by the High Court of Australia in Associated Alloys Pty Ltd v ACN 001 452 106 Pty Ltd (in liq) (2000) 202 CLR 588. The High Court upheld the earlier decision but on different grounds. Where the Court of Appeal supported the notion that the retention of title clause created a charge requiring registration, the High Court acknowledged that the clause, properly drafted, could give rise to a trust and thus be enforceable in the absence of registration. However, this had the effect of discharging the debt owing by the buyer.

This situation has now been dealt with by legislation. Under the Personal Property Securities Act 2009 (Cth), a clause that purports to retain title to goods in a supply agreement may not be effective in certain circumstances. From February 2012, title automatically vests in the purchaser by reason of the operation of the statute, and the seller of goods cannot repossess by relying on title. The seller must register its security interest to protect itself and must follow the enforcement process specified in the Act, except to the extent the parties have expressly contracted out of the enforcement provisions. Clauses that use “retention of title” terminology have been superseded by clauses that use “security interest” terminology.

Creditor rights in insolvency

Figure 6 shows the third index which measures the extent to which creditor rights are protected in insolvency, and considers both liquidation and rehabilitation. It consists of 19 items, including structure (does the law provide for both liquidation and rehabilitation), trigger mechanisms, the parties in control, voting on exit, and the subordination of priorities. Again, this is generally a stable area of the law which provides strong protection to creditors when a company is insolvent, with scores between 13 and 14 out of a possible 19. The increase in the level of protection that occurred in 1993 is explained by the introduction of voluntary administration as an alternative to liquidation. Voluntary administration replaced official management as a rehabilitation mechanism, but there has

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50 Corporations Law 1991 (Cth), s 266, currently Corporations Act 2001 (Cth), s 266.
51 This decision upheld the earlier decision against the plaintiff by a single judge of the New South Wales Supreme Court: Associated Alloys Pty Ltd v Metropolitan Engineering & Fabrication Pty Ltd [1996] NSWSC 119.
52 The implementation of the Personal Property Securities Act 2009 (Cth) was repeatedly delayed due to logistical difficulties.
53 Personal Property Securities Act 2009 (Cth), s 19(5).
54 Personal Property Securities Act 2009 (Cth), s 12(2)(d).
55 Neither the High Court of Australia judgment in Sons of Gwalia Ltd (admin apptd) v Margaretic (2007) 231 CLR 160 nor the subsequent legislation to overturn this judgment (Corporations Amendment (Sons of Gwalia) Act 2010 (Cth)) are included as items in the study. The items that are included are listed in Appendix 2.
56 The Corporate Law Reform Act 1992 (Cth) introduced Pt 5.3A (which deals with voluntary administration) into the Corporations Act 2001 (Cth).
57 Companies Act 1961 (Vic), Pt IX; Companies Act 1981 (Cth), Pt XI; Corporations Law 1991 (Cth), Pt 5.3.
always been the capacity for solvent or insolvent companies to enter schemes of arrangement\textsuperscript{58} in an attempt to rescue and reorganise their affairs. The voluntary administration regime incorporated some of the recommendations of the Harmer Report,\textsuperscript{59} and in particular, allows for a stay on the claims of secured creditors in order to facilitate rehabilitation.\textsuperscript{60} While there is scope for the abuse of voluntary administration by directors using it strategically to avoid possible insolvent trading liability,\textsuperscript{61} both early and recent empirical research has found that creditors recover more from voluntary administration than from liquidations.\textsuperscript{62}

**FIGURE 6** Creditor rights in insolvency index (19 items), 1970-2010

Figure 7 combines all 44 items for creditor protection included in the three sub-indices and therefore shows the aggregate level of creditor protection for the period 1970 to 2010. The main feature of Figure 7 is the stability in the level of creditor protection over this period (apart from the increase in the mid-1970s). This is in contrast to the increase in shareholder protection that occurred during the same period (see Figure 3).

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\textsuperscript{58} Companies Act 1961 (Vic), s 181, s 273; Companies Act 1981 (Cth), Pt VIII; Corporations Law 1991 (Cth), Pt 5.1; Corporations Act 2001 (Cth), Pt 5.1.

\textsuperscript{59} Harmer Report, n 47 at [97].

\textsuperscript{60} Corporations Act 2001 (Cth), s 440B. This is in contrast to official management where the secured creditors’ rights were unaffected: Companies Act 1981 (Cth), s 333(3).


THE RELATIONSHIP BETWEEN SHAREHOLDER AND CREDITOR PROTECTION

Figure 8 provides a graphical analysis of the extent of correlation between the two indices of creditor and shareholder protection. As the two indices are not measured using the same scale, it is not possible to compare the raw values for each of the two indices: an increase in the value of the creditor protection index of 1 is not equal to the same increase in the shareholder protection index. To enable comparison it is therefore necessary to convert the indices into a common metric or standard. The standard statistical approach to doing so is to convert measures to z-scores.\(^6\) This procedure involves subtracting the mean from the index value and sub-dividing by the standard error. The z-score indicates the number of standard deviations an observation is above or below the mean, and has a mean value (\(\mu\)) of 0 and a standard deviation (\(\sigma\)) of 1, thereby creating a common metric by which movements in the two indices can be compared.

Figure 8 also reports the Pearson correlation between the two indices. The correlation between the creditor and shareholder indices over the period 1970 to 2010 was highly significant statistically (\(r = 0.487, p<0.01\)), indicating that changes in overall level of creditor and shareholder protection were positively related to one another. It will be observed from Figure 8, however, that after 2002, a sharp period of divergence commenced. When the series is analysed for these two separate periods, the strength of the correlation between the two indices strengthens (\(r = 0.562, p<0.01\)) for the period from 1975 to 2002. However, for the subsequent period through to 2010, the correlation becomes negative, although this relationship is not statistically significant. That is to say, these two forms of protection appear to move in opposite directions: as shareholder protections were strengthened, creditor protections remain unchanged before falling. This shift in the relationship between these two forms of protection requires explanation.

Figure 8 (and Figure 3) also indicate a trend of enhancing the protection of shareholders over the 40-year period of study. The legal changes that have contributed to this include additional information that must be provided to shareholders and additional rights for shareholders to approve or disapprove

of certain corporate transactions. Some of these enhanced rights have been based on recommendations of influential law reform reports by parliamentary committees and other bodies.\textsuperscript{64}

**FIGURE 8** Correlation between creditor and shareholder protection indices*

\[ z = \frac{(x - \mu)}{\sigma} \]

* This figure shows z-scores for the creditor and shareholder protection indices, where \( z \) is the index value for that year, \( \mu \) is the mean value of the index for all years, and \( \sigma \) is the standard deviation from the mean.

However, enhanced rights for shareholders have been particularly pronounced in the past eight years and this is the key reason why Figure 8 shows that, following 2002, shareholder and creditor protection moved in opposite directions. Some of the changes during this period that resulted in increased protection of shareholders include, as was noted above, the amendment by the ASX in 2003 of Listing Rule 4.10.3 to require companies to disclose in their annual reports the extent to which they have followed the ASX Corporate Governance Council’s best practice corporate governance recommendations. In the same year, the ASX Corporate Governance Council published its *Principles of Good Corporate Governance and Best Practice Recommendations*. In 2007, the Council published the second edition of the Principles under the revised title *Corporate Governance Principles and Recommendations*.

The ASX also introduced Listing Rule 12.7 in 2003 which, in its current form, requires listed companies in the S&P/ASX All Ordinaries Index (the top 500 companies) to have an audit committee. For listed companies in the S&P/ASX 300 Index, the audit committee must consist only of non-executive directors, consist of a majority of independent directors, have at least three members and be chaired by an independent director who is not the chair of the board. The ASX states that an

independent audit committee “is recognised internationally as an important feature of good corporate governance”\textsuperscript{65} and one of the functions of such a committee is to protect the interests of the company’s shareholders.

There have also been important changes regarding executive remuneration. Disclosure requirements were enhanced by the \textit{Corporate Law Economic Reform Program (Audit Reform and Corporate Disclosure) Act 2004} (Cth) and the same Act introduced the shareholder advisory vote on the remuneration report for listed companies.

These changes were, in part, a response to a series of prominent corporate collapses that occurred in Australia and other countries. The Explanatory Memorandum to the \textit{Corporate Law Economic Reform Program (Audit Reform and Corporate Disclosure) Bill 2003} (Cth) stated that

\begin{quote}
[t]here has been widespread concern about the efficacy of the audit function, including the independence of auditors, as a result of major corporate collapses in Australia and overseas, including HIH … and this has impaired the ability of shareholders and the market more generally to adequately assess the financial health of their investment.\textsuperscript{66}
\end{quote}

Enhancements to the rights of shareholder have been proposed by government as a way of improving corporate governance standards. For example, one parliamentary committee report stated:

\begin{quote}
Shareholder engagement through dialogue, disclosure and voting ensures the accountability of company boards and management, providing an important check on their power that serves to improve corporate governance standards.\textsuperscript{67}
\end{quote}

When examining the position of creditors, there is not the same extent of law reform to advance their interests. One possible explanation for the difference in the levels of legal protection given to shareholders and creditors is the persistence of the view that creditors can generally be expected to contract to protect themselves against actions that reduce the prospect of them being paid. There are two parts to this contracting: first, the interest rate on the loan that is negotiated between the creditor and the company can be expected to reflect the risks that the creditor faces; and secondly, the contract may contain restrictions on activities of the company.\textsuperscript{68} For example, there may be restrictions on the amount that the company can pay out as dividends or restrictions on the company incurring debt of a similar or higher priority.\textsuperscript{69} These types of restrictions are common in debt agreements between creditors and debtor companies.\textsuperscript{70}

Another possible explanation for the difference in the levels of legal protection given to shareholders and creditors is that if the objective is to improve corporate governance standards, because shareholders have important rights that can be exercised while the company is a going concern, unlike creditors, who have much more restricted rights, then law reform advocates focus their attention on the potential for enhanced shareholder rights rather than enhanced creditor rights. This

\textsuperscript{65} ASX Corporate Governance Council, \textit{Corporate Governance Principles and Recommendations} (2nd ed, 2007), commentary on Recommendation 4.1.

\textsuperscript{66} \textit{Corporate Law Economic Reform Program (Audit Reform and Corporate Disclosure) Bill 2003} (Cth), Explanatory Memorandum at [4.8] and [4.12]. Another indication of the link between corporate collapses and corporate law reform enhancing the rights of shareholders is that some of the reforms originated from recommendations contained in the report of the Royal Commission into the collapse of HIH Insurance: \textit{Report of the Royal Commission into the Failure of HIH Insurance} (2003).

\textsuperscript{67} Parliamentary Joint Committee on Corporations and Financial Services, n 64 at [2.2].

\textsuperscript{68} Austin and Ramsay, n 15 at [20.020].

\textsuperscript{69} Austin and Ramsay, n 15 at [20.020].

\textsuperscript{70} For an empirical study of the restrictive covenants contained in Australian trust deeds for debt offered by companies to the public, see Whittred G and Zimmer I, “Accounting Information in the Market for Debt” (1986) 26 \textit{Accounting and Finance} 19. See also Ramsay I and Sidhu B, “Accounting and Non-accounting Based Information in the Market for Debt: Evidence from Australian Private Debt Contracts” (1998) 38 \textit{Accounting and Finance} 197, who examine the terms of contracts between creditors and companies in the private debt market.
distinction can be seen in one of the reports of the Parliamentary Joint Committee on Corporations and Financial Services in which it is stated: “Shareholders own their companies, so engagement with company boards is their right.”

There have been legal reforms that enhance the protection available to creditors but the history of creditor protection reform in Australia has been one of slow and piecemeal change. Courts seem to have been wary of expanding the reach of creditors, lest the floodgates be opened and the limited liability of shareholders is undermined. Successive governments over the period have been no more enthusiastic about embracing change. A 1977 Australian Law Reform Commission report entitled *Insolvency: The Regular Payment of Debts* had dealt only with personal bankruptcy. The Harmer Report in 1988 came about as a result of a reference from Attorney-General Gareth Evans in 1983. The law of corporate insolvency had never been reviewed prior to Harmer, and it took a further five years after the Harmer Report for some of the reforms it had recommended to be implemented. Many of its recommendations were not adopted. A further government review of insolvency law took place in 2004. Its recommendations were modest and some were enacted into legislation in 2007.

There are possibly two exceptions to this picture of relative inactivity, although it can be argued these reforms are only modest extensions of the pre-existing protections available to creditors. The first reform is the pooling of assets of insolvent group companies introduced by the *Corporations Amendment (Insolvency) Act 2007* (Cth). This amendment is not captured in the items forming the creditor protection index. However, the omission of this reform has little bearing on the results of the leximetric analysis because there has always been scope for courts to order pooling of assets within corporate groups informally under various forms of external administration. Schemes of arrangement permit the assets of group companies to be pooled if approval is obtained from the required number of creditors of each of the companies involved and if the scheme is sanctioned by the court. Such a scheme binds dissenting creditors. In addition, the voluntary administration procedure introduced in 1993 permits pooling of group company assets as part of the reorganisation of the various companies under a deed of company arrangement. The court has a wide power to make orders in relation to voluntary administrations. Even liquidation proceedings have some scope for pooling. Liquidators of group companies may appoint an administrator, who can utilise the voluntary administration procedure to effect a pooling of group company assets and liabilities. A liquidator can

71 Parliamentary Joint Committee on Corporations and Financial Services, n 64 at [2.2].
73 Harmer Report, n 47.
74 Harmer Report, n 47, Terms of Reference, p xxxv and Vol 1 at [2].
75 Harmer Report, n 47 at [3].
76 Parliamentary Joint Committee on Corporations and Financial Services, n 62.
77 *Corporations Amendment (Insolvency) Act 2007* (Cth).
78 This Act introduced Div 8 into Pt 5.6 of the *Corporations Act*. The Harmer Report had recommended, at [336] and [857] (Vol 1), D13 and PR9 (Vol 2), that the New Zealand model of pooling be adopted, which allowed for contribution by solvent group companies, but this recommendation was rejected by the government.
80 *Corporations Act 2001* (Cth), Pt 5.1.
82 *Corporations Act 2001* (Cth), Pt 5.3A.
84 Section 447A of the *Corporations Act 2001* (Cth). This section was relied on by the court in *Dean-Willcocks v Soluble Solution Hydroponics Pty Ltd* (1997) 42 NSWLR 209; 24 ACSR 79.
85 *Corporations Act 2001* (Cth), s 436B.
also achieve a compromise with creditors.\textsuperscript{86} Therefore, the introduction of pooling cannot be said to have made a difference to the substantive rights of creditors or thus to the aggregate creditor protection index.

The second reform (which is also not captured in the creditor protection index) is the protection of employee entitlements. The \textit{Corporations Law Amendment (Employee Entitlements) Act 2000} (Cth) made it an offence to intentionally prevent or significantly reduce the recovery of employee entitlements.\textsuperscript{87} However, this section has never successfully been invoked to protect employee entitlements and therefore it cannot be said to have had any practical effect on their rights of recovery. In addition, the government has introduced an administrative scheme\textsuperscript{88} to pay employee entitlements, subject to various limits, upon corporate insolvency. The government is, however, subrogated\textsuperscript{89} to the rights of the employees under s 556 of the \textit{Corporations Act} and therefore this scheme, while it has a beneficial outcome for employees, does not affect the already quite disadvantageous position of unsecured creditors.

\textbf{CONCLUSION}

The authors have examined developments in shareholder and creditor protection in Australia over the 40 years from 1970 to 2010 and have explored how and why these developments occurred. The authors have also examined whether there is a correlation between shareholder and creditor protection over the 40-year period. Leximetric analysis – which is a quantitative method of measuring law and legal evolution – has been employed. The main findings of the research are that over the period of the study there has been increasing protection of shareholders, particularly since the early 1990s, and that most of this increased protection has been in relation to shareholder protection against actions of the board of directors rather than shareholder protection against other shareholders. In contrast, there is much more stability in creditor protection over the period of the study. Statistical analysis reveals that although changes in the overall level of shareholder and creditor protection are positively related to one another, in the last eight years, this correlation has broken down. Possible reasons for this were explored, including the focus by Parliament on enhancing the rights of shareholders partly as a response to corporate collapses and as a way of improving corporate governance standards.

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{86} \textit{Corporations Act 2001} (Cth), s 477(1)(c) allows a court-appointed liquidator to “make any compromise or arrangement with creditors or persons claiming to be creditors or having or alleging that they have any claim (present or future, certain or contingent, ascertained or sounding only in damages) against the company or whereby the company may be rendered liable”. According to \textit{Re Tayeh} (2005) 53 ACSR 684; [2005] NSWSC 475 at [8], all creditors must agree to be parties to the compromise. Cf \textit{Corporations Act 2001} (Cth), s 510, which deals with arrangements with creditors under either a members’ or a creditors’ voluntary winding up: “(1) An arrangement entered into between a company about to be, or in the course of being, wound up and its creditors is … (b) binding on the creditors if sanctioned by a resolution of the creditors.”
\item \textsuperscript{87} \textit{Corporations Act 2001} (Cth), s 596AB(1).
\item \textsuperscript{88} The current scheme is the General Employee Entitlements and Redundancy Scheme (GEERS).
\item \textsuperscript{89} \textit{Corporations Act 2001} (Cth), s 560.
\end{itemize}
\end{footnotesize}
## Appendix 1 Shareholder Protection Index

<table>
<thead>
<tr>
<th>Description(0)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Protection against board and management</strong></td>
</tr>
<tr>
<td><strong>1. Powers of the general meeting</strong>(b)</td>
</tr>
<tr>
<td>(1) Amendments of articles of association</td>
</tr>
<tr>
<td>(2) Mergers and divisions</td>
</tr>
<tr>
<td>(3) Capital measures</td>
</tr>
<tr>
<td>(4) De facto changes: The decisive thresholds are the sale of substantial assets of the company (e.g., if the sale of more than 50% requires approval of the general meeting it equals 1; if more than 80%, it equals 0.5; otherwise 0).</td>
</tr>
<tr>
<td>(5) Dividend distributions: Equals 1 if the general meeting can effectively influence the amount of dividend (i.e., if it decides about the annual accounts and the annual dividend, and if the board has no significant possibility of 'manipulating' the accounts); equals 0.5 if there is some participation of the general meeting; equals 0 if it is only the board that decides about the dividend.</td>
</tr>
<tr>
<td>(6) General election of board of directors</td>
</tr>
<tr>
<td>(7) Directors’ self-dealing of substantial transactions</td>
</tr>
<tr>
<td><strong>2. Agenda setting power</strong>(d)</td>
</tr>
<tr>
<td>(2) Election of directors: ditto</td>
</tr>
<tr>
<td>(3) Costs: equals 1 if shareholders do not have to pay for their proposals; equals 0 otherwise.</td>
</tr>
<tr>
<td><strong>3. Extraordinary shareholder meeting</strong>(d)</td>
</tr>
<tr>
<td>(2) Enforcement: equals 1 if shareholders can call the meeting themselves or have a right that the court will enforce it; equals 0 if the court has discretion.</td>
</tr>
<tr>
<td><strong>4. Anticipation of shareholder decision</strong></td>
</tr>
<tr>
<td>(2) Anticipation facilitated: equals 1 if postal voting or proxy solicitation with two-way voting proxy form has to be provided by the company; equals 0.5 if two-way proxy form has to be provided but not proxy solicitation; equals 0 otherwise.</td>
</tr>
<tr>
<td>(3) Costs of proxy contest: equals 1 if the costs of proxy solicitations are paid by the company or if proxies have the right to have their proposals included in the company’s proxy form; equals 0 otherwise.</td>
</tr>
</tbody>
</table>

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(0) Even where the description of the variables does not mention it specifically, intermediate scores have been given wherever necessary.

(b) For the power of the general meeting for remuneration see Variable 1101.

(d) Variables 1 2 and 3 could also be used as mechanisms for protecting minority from majority shareholders. However, this study has considered them as part of protection against directors because the directors are responsible for and decide the agenda and the calling of the shareholders’ meetings and therefore the legal rules of these variables primarily protect shareholders against directors.

See previous note.
<table>
<thead>
<tr>
<th>5. Information in the run-up to the general meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Amendments of the articles of association: equals 1 if the exact wording has to be sent in advance (‘push-system’); equals 0.5 if the shareholders have to request it (‘pull-system’); equals 0 otherwise.</td>
</tr>
<tr>
<td>(2) Mergers: Equals 1 if a special report has to be sent in advance (‘push-system’); equals 0.5 if the shareholders have to request it (‘pull-system’); equals 0 otherwise.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. Shares not blocked before general meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equals 0 if shareholders have to deposit their shares prior to the general meeting and if this has the consequence that shareholders are prevented from selling their shares for a number of days; equals 1 otherwise.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. Individual information rights</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Right to demand information (1): equals 1 if an individual shareholder or shareholders with 5% or less capital can demand information which will be answered at the general meeting; equals 0.5 if shareholders with 10% or less capital have this right; equals 0 otherwise.</td>
</tr>
<tr>
<td>(2) Right to demand information (2): equals 1 if an individual shareholder or shareholders with 5% or less capital can demand information independent of the general meeting; equals 0.5 if shareholders with 10% or less capital have this right; equals 0 otherwise.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8. Communication with other shareholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Right to access the register of shareholders and (if necessary) beneficial owners: Equals 1 if the right of inspection can be used by a single shareholder; equals 0 if there is no such right.</td>
</tr>
<tr>
<td>(2) Equals 1 if communication is not affected by proxy rules; equals 0 otherwise.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9. Board composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Division between management and control: equals 1 if there is a two-tier system or at least half of the board members are nonexecutive; equals 0.5 if at least 25% of the board members are non-executive; equals 0 otherwise.</td>
</tr>
<tr>
<td>(2) Independent board members: equals 1 if at least half of the board members must be independent; equals 0.5 if at least 25% of them must be independent or if the independence requirement is very low; equals 0 otherwise.</td>
</tr>
<tr>
<td>(3) Committees: equals 1 if companies have to install an audit and a remuneration committee with a majority of independent members; intermediate scores are possible if the requirement is partial, (for instance requires setting up of one of the committees or the independent members of the committees constitute less than a majority); equals 0 if committees are not necessary or if they are not required to have independent members.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10. No excessive remuneration for non-executive and executive directors</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) General meeting power: equals 1 if the general meeting has to approve all compensation schemes; equals 0.5 if this is limited (eg applies to stock option plans only, or if some directors are excluded); equals 0 otherwise.</td>
</tr>
<tr>
<td>(2) Annual disclosure: equals 1 if there is full and specific disclosure about the individual remuneration of each director; equals 0.75 if there is information about the individual remuneration of some directors; equals 0.5 if there is disclosure about the top 2 directors (executives); equals 0.25 if there is only disclosure about the overall remuneration; equals 0 otherwise.</td>
</tr>
<tr>
<td>(3) Substantive requirements placing limit on remuneration in order to protect shareholders: equals 1 if there is a direct regulation; equals 0 otherwise.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11. Performance-based remuneration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equals 1 if performance-based remuneration of directors and managers is fostered (eg facilitation of stock options to reward performance); equals 0 otherwise.</td>
</tr>
</tbody>
</table>

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(a) To be sure, independent board members may also be a method to protect minority shareholders against majority shareholders. This depends, however, on the definition of “independence”, which is not coded in this variable.

(b) For the involvement of boards and committees see generally Variable I.9.
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>12. Duration of director's appointment</strong></td>
<td>(1) Normal duration: equals 1 if this is one year or less; 0 if this is five years or more; equals 0.5 if this is more than 1 but less than 5 years.</td>
</tr>
<tr>
<td></td>
<td>(2) Dismissal feasible: equals 1 if there are no special requirements; equals 0 if an important or good reason is required; intermediate scores are possible if there are no special requirements but there may be financial burden for the company (eg in the form of compensation under a statute or contract or damages for breach of contract or salary under a fixed term contract).</td>
</tr>
<tr>
<td><strong>13. Directors' duties</strong></td>
<td>(1) Directors' liability – duty of care: equals 0 if there are narrow criteria which virtually exclude liability; equals 0.5 if there are some restrictions (eg, business judgment rule; gross negligence); equals 1 if there are no or little restrictions (regarding business judgment and standard of care).</td>
</tr>
<tr>
<td></td>
<td>(2) Directors' liability – duty of loyalty: equals 1 if there is a duty not to put personal interests ahead of the company; equals 0 otherwise.</td>
</tr>
<tr>
<td></td>
<td>(3) Private enforcement: equals 0 if this is typically excluded (eg, because of strict subsidiarity requirement, hurdle which is at least 10%; cost rules); equals 0.5 if there are some restrictions [eg, certain percentage of share capital (unless the hurdle is at least 10%); cost rules; demand requirement]; equals 1 otherwise.</td>
</tr>
<tr>
<td><strong>14. Shareholder supremacy</strong></td>
<td>(1) General principle: equals 1 if the board always has to give priority to shareholders' interests; equals 0 if the board has to give priority to the interests of other stakeholders; equals 0.5 in other cases.</td>
</tr>
<tr>
<td></td>
<td>(2) Takeover law: equals 1 if there is the principle of strict neutrality in case of takeovers; equals 0.5 if the principle of neutrality is subject to exceptions; equals 0 otherwise.</td>
</tr>
<tr>
<td><strong>15. Pre-emptive rights</strong></td>
<td>Equals 1 when the law grants shareholders the first opportunity to buy new issues of shares, and this right can be waived only by the general meeting; equals 0 otherwise.</td>
</tr>
<tr>
<td><strong>16. Director's disqualification</strong></td>
<td>Equals 1 if negligent conduct can lead to disqualification; 0.5 if only in specific instances of negligence directors are disqualified (eg, failure of financial reporting); equals 0 if negligent conduct itself is not necessary for disqualification.</td>
</tr>
<tr>
<td><strong>17. Corporate governance code</strong></td>
<td>Equals 1 if companies have to disclose and explain whether they comply with a corporate governance code; equals 0.5 if this is only recommended; equals 0 otherwise.</td>
</tr>
<tr>
<td><strong>18. Public enforcement of company law</strong></td>
<td>The following variables equal 0 if there is no power of public authority and 1 if public authority has power.</td>
</tr>
<tr>
<td></td>
<td>(1) Authorisation for director's self dealing of substantial transactions</td>
</tr>
<tr>
<td></td>
<td>(2) Authorisation for appointment of managers</td>
</tr>
<tr>
<td></td>
<td>(3) Power to intervene in cases of prejudice to public interest or interest of the company for instance due to &quot;mismanagement of company&quot; or in cases of oppression of shareholders</td>
</tr>
</tbody>
</table>

---

Footnotes:
- For approval of directors’ conduct by the general meeting, the supervisory board, or independent board members see Variables I 1 I and I 9; for exclusion of liability in the articles see Variable II 10.1.
- For preventive measures see eg Variable II 3.
- Usually, the directors decide about the issuance of new shares. Pre-emptive right is perceived as an important protection against directors as it prevents them from disregarding the interests of shareholders in general. Of course, in some cases this may also be a method to protect minority against majority shareholders.
- For the requirements for a waiver (eg, supermajority, good reason) see Variables II 2 and II 9.
## II. Protection against other shareholders

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Quorum</strong>&lt;sup&gt;(k)&lt;/sup&gt;</td>
<td>Equals 1 if there is a 50% quorum for the extraordinary shareholder meeting (when called for the first time); equals 0.5 if the quorum is 1/3; equals 0.25 if the quorum is 1/4. Equals 0 otherwise.</td>
</tr>
<tr>
<td><strong>2. Supermajority requirements</strong></td>
<td>Equals 1 if there are supermajority requirements (e.g., 2/3 or 3/4) for amendments of the articles of association, mergers, and voluntary liquidations; equals 0 if they do not exist at all.</td>
</tr>
</tbody>
</table>
| **3. One share – one vote**                                                | (1) Default rule: equals 1 if this principle exists as a default rule; equals 0 otherwise.  
(2) Prohibition of multiple voting rights (super voting rights): equals 1 if there is a prohibition; equals 0.5 if only companies which already have multiple voting rights can keep them; equals 0.25 if state approval is necessary; equals 0 otherwise.  
(3) Prohibition of capped voting rights (voting right ceilings): equals 1 if there is a prohibition; equals 0.5 if only companies which already have voting caps can keep them; equals 0.25 if state approval is necessary; equals 0 otherwise. |
| **4. Cumulative voting**                                                   | Equals 1 if shareholders can cast all their votes for one candidate standing for election to the board of directors or if there exists a mechanism of proportional representation in the board by which minority interests may name a proportional number of directors to the board (default or mandatory law); equals 0 otherwise. |
| **5. Voting by interested shareholders prohibited**                        | Equals 1 if a shareholder cannot vote if this vote favours him or her personally (i.e., only ‘disinterested shareholders’ can vote); equals 0 otherwise. |
| **6. No squeeze out (freeze out)**                                        | Equals 0 if a shareholder holding 90% or more can ‘squeeze out’ the minority; equals 1 otherwise. |
| **7. Right to exit**                                                      | (1) Appraisal rights: equals 1 if they exist for mergers, amendments of the articles and sales of major company assets; equals 0 if they do not exist at all.  
(2) Mandatory bid: equals 1 if there is a mandatory bid for the entirety of shares in case of purchase of 30% or 1/3 of the shares; equals 0 if there is no mandatory bid at all.  
(3) Mandatory public offer: equals 1 if there is a mandatory public offer for purchase of 10% or less of the shares; equals 0.5 if the acquirer has to make a mandatory public offer for acquiring more than 10% but less than 30% of the shares; equals 0 otherwise |
| **8. Disclosure of major share ownership**                                | Equals 1 if shareholders who acquire at least 3% of the company’s 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 |

<sup>(k)</sup> The purpose of requiring a substantial percentage of shareholders to constitute a valid quorum could be to prevent decisions of the general meeting which are not supported by a significant majority much like the supermajority requirements (see Lele P and Siems M, *Shareholder Protection: A Leximetric Approach*, Section D (1)(c)).
9. Oppressed minority

1. Substantive law: equals 0 if majority decisions of the general meeting have to be accepted by the outvoted minority; equals 1 if some kind of substantive control is possible (e.g., in cases of amendments to the articles of association, ratification of management misconduct, exclusion of the pre-emption right, related party transactions, freeze outs); equals 0.5 if this control covers only flagrant abuses of majority power.

2. Shareholder action: equals 1 if every shareholder can file a claim against a resolution by the general meeting because he or she regards it as void or voidable; equals 0.5 if there are hurdles such as a threshold of at least 10% voting rights or cost rules; equals 0 if this kind of shareholder action does not exist.

10. Shareholder protection is mandatory

1. Exclusion of directors’ duty of care (see variable I 13.1) in articles: equals 0 if possible and equals 1 otherwise.

2. Rules on duration of director’s appointment (see variable I 12.1 and 2): equals 1 if mandatory and 0 otherwise.

3. Board composition (supervisory boards, non-executive directors) (see variable I 9.1 and 2): equals 1 if mandatory and 0 otherwise.

4. Other topics: equals 1 if there is the general rule that company law is mandatory; equals 0 if company law is in general just a “model off the shelf”; equals 0.5 if there is no general rule.

Note: Variables II 10.1-3 do not code the content of the law (this is already done in Variables I 9.1-2, 12, 13.1) but only its nature, i.e., whether “mandatory” or “default”.
## APPENDIX 2 CREDITOR PROTECTION INDEX

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description and coding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Debtors control (15 variables)</td>
<td></td>
</tr>
</tbody>
</table>

| **1** Minimum capital (2 variables) | This is the amount of minimum capital, if any, required to start a firm (in Euros). It is a cardinal variable (ie the actual amount) which is then normalised.  
(a) Private companies (normalised for 25,000 = 1)  
(b) Public companies (normalised for 75,000 = 1) |

| **2** Dividend restriction (3 variables) | Are public companies subject to meaningful restriction on the payment of dividends defined by reference to legal capital?  
(a) Dividend restriction (1 = yes; 0 = no)  
(b) Share repurchase restriction (1 = yes; 0 = no)  
(c) Undervalued transactions with shareholders? (1 = yes; 0 = no) |

| **3** Equitable subordination (1 variable) | Are shareholder loans subordinated on insolvency? (0 = never; 1 = sometimes) |

| **4** Piercing corporate veil (1 variable) | Will courts pierce the corporate veil to protect creditors? (0 = never; 1 = frequently) |

| **5** Transaction avoidance in insolvency (3 variables) | (a) What is the maximum length of ‘twilight period’ for fraudulent conveyance action (assuming debtor has been fraudulent)? (Cardinal variable, which is then normalised)  
(b) What is length of ‘twilight period’ for non-fraudulent undervalued transaction with unconnected counterparty? (Cardinal variable, normalised)  
(c) Is it necessary to establish that the debtor intended to confer a preference in order for a preference action to succeed? (0 = yes, 1 = no). |

| **6** Directors’ liability with respect to creditors (3 variables) | (When) are directors required to act in creditors’ interest? (0 = no; 0.5 = subjective duty; 1 = objective duty of care)  
(a) When company is balance sheet insolvent?  
(b) When company is ‘cash flow’ insolvent?  
(c) When company is solvent? |

| **7** Public enforcement (2 variables) | Is there public enforcement of liabilities of directors/shrs in insolvency? (1 = yes, 0 = no)  
(a) Criminal sanctions  
(b) Disqualification from acting as a director |
<table>
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<th>Credit contracts (10 variables)</th>
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<td>Set-off (2 variables)</td>
<td>Insolvency set-off:</td>
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<tr>
<td></td>
<td></td>
<td>(a) Possible? (1 = yes; 0 = no)</td>
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<td></td>
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<td>(b) Mandatory? (1 = yes; 0 = no)</td>
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<tr>
<td>2</td>
<td>Enforcement (2 variables)</td>
<td>How many legal procedures (if any) must be completed in order to enforce outside insolvency proceedings? (Cardinal variable, normalised such that 0 = maximum, 1 = minimum)</td>
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<tr>
<td></td>
<td></td>
<td>(a) Unsecured creditors.</td>
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<td></td>
<td></td>
<td>(b) Secured creditors</td>
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<tr>
<td>3</td>
<td>Security interests (4 variables)</td>
<td>Are non-possessory security interests permitted over: (1 = yes, 0 = no)</td>
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<td></td>
<td>(a) Land</td>
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<td>(b) Personality</td>
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<td>(c) Receivables</td>
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<td></td>
<td></td>
<td>(d) ‘Entire undertaking’ (floating lien/charge)</td>
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<td>4</td>
<td>Retention of title (2 variables)</td>
<td>May retention of title clauses be validly asserted in insolvency proceedings? (1 = yes, 0 = no)</td>
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<tr>
<td></td>
<td></td>
<td>(a) Over original goods</td>
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<td></td>
<td></td>
<td>(b) Over proceeds of sale of original goods</td>
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<tr>
<td>III</td>
<td>Insolvency (19 variables)</td>
<td>This section distinguishes between liquidation procedures (geared to the sale of the insolvent companies’ assets, and distribution of proceeds between creditors), and rehabilitation proceedings (geared to the rescue of the company, or of its business, as a going concern). See IMF, <em>Orderly and Effective Insolvency Procedures</em> (1999) <a href="http://www.imf.org/external/pubs/ft/orderly/">http://www.imf.org/external/pubs/ft/orderly/</a></td>
</tr>
<tr>
<td>1</td>
<td>Structure (1 variable)</td>
<td>Does the law provide for both liquidation and rehabilitation outcomes? (1 = yes, 0 = no)</td>
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<td>2</td>
<td>Trigger (6 variables)</td>
<td>How are insolvency proceedings triggered?</td>
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<td></td>
<td></td>
<td>(a) Creditor initiation: May a single creditor initiate liquidation proceedings? (1 = yes, 0 = no)</td>
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<td>(b) Creditor initiation: Must cash flow or balance sheet insolvency be established? (1 = yes, 0 = no)</td>
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<td>(c) Debtor initiation: May debtor initiate rehabilitation proceedings unilaterally? (0 = yes, 1 = no or NA)</td>
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<td>(d) Debtor initiation: Must cash flow or balance sheet insolvency be established? (1 = yes or NA, 0 = no)</td>
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<td>(e) Debtor initiation: Must balance sheet insolvency be established? (1 = yes, 0 = no)</td>
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<td>(f) Role of court: Does court participate in choice between liquidation and rehabilitation proceedings? (0 = yes, 1 = no)</td>
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<td>Control in rehabilitation proceedings (1 variable)</td>
<td>Do directors remain in control for day-to-day management decisions? (0 = yes, 1 = no)</td>
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<td>4</td>
<td>Appointment of trustee (if no trustee, managers) (4 variables)</td>
<td>Which constituencies vote on appointment of trustee/appoint trustee?</td>
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<td></td>
<td></td>
<td>(a) Secured creditors (1 = yes, 0 = no)</td>
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<td></td>
<td></td>
<td>(b) Unsecured creditors (1 = yes, 0 = no)</td>
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<td></td>
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<td>(c) Shareholders (0 = yes, 1 = no)</td>
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<td>(d) Court (independently of any votes) (0 = yes, 1 = no)</td>
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<tr>
<td>5</td>
<td>Which constituencies vote on plan for exit? (4 variables)</td>
<td>Which constituencies decide/vote on plan for exit?</td>
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<tr>
<td></td>
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<td>(a) Secured creditors (1 = yes, 0 = no)</td>
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<tr>
<td>6</td>
<td>Priorities (3 variables)</td>
<td>(a) Liquidation proceedings: Secured creditors subordinated to statutory priorities? (1 = no, 0 = yes)</td>
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<td></td>
<td></td>
<td>(b) Rehabilitation proceedings: Secured creditors subordinated to statutory priorities? (1 = no, 0 = yes)</td>
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<td></td>
<td>(c) Rehabilitation proceedings: Statutory super-priority available for post-petition finance/post-petition contracts are “estate obligations”? (1 = no, 0 = yes)</td>
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