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Cash-Based Related Party Transactions in New Economy Firms

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Abstract

Purpose of this paper: This paper investigates associations between related party transactions (RPTs) and governance and performance factors of new economy firms.

Approach: Previous research has examined the related party transactions of large U.S. firms. In contrast, we focus on smaller, newly listed Australian firms. Referred to as 'commitments test entities' (CTE), these firms are distinguished by the unique Australian Securities Exchange listing requirements applying to them, and associated additional (quarterly cash flow) reporting requirements.

Findings: While strong corporate governance characteristics may be expected to constrain the amounts of payments and loans to related parties, we find only weak evidence to support that proposition. The results show that financial condition dominates the decision to engage in RPTs and suggest that external monitoring (associated both with larger firm size and the quarterly reporting phase) are a more effective restraint on the magnitude of RPTs for these high-risk CTE firms.

Research implications: The findings are generally consistent with the 'conflict of interest view' proposed by Gordon *et al.* (2004a, 2004b), suggesting related party transactions do not serve shareholders' interests.

Practical implications: The findings suggest that external monitoring may be a more effective control over RPTs than internal corporate governance mechanisms in this institutional context of small 'cashbox' firms. Since RPTs may not be in the best interests of

	shareholders, extending mandatory RPT disclosures to all periodic cash flow reports warrants further consideration by regulators.
What is value of paper?	This study contributes to the limited research on the effects and implications of related party transactions.

Keywords: Related party transactions; Corporate governance; New economy firms; Commitments test entities; Quarterly cash flow reports

JEL classification: M40

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1.   Introduction

Global corporate scandals have focused regulators' attention towards corporate governance as a means of improving accountability. Related party transactions (RPTs) have been linked to several of Australia's largest corporate collapses (Institutional Analysis, 2002) and have recently become subject to scrutiny as part of approaches designed to improve governance standards. While accounting standards recognise that RPTs may have the potential to distort financial reports and should be properly disclosed, they have generally regarded these transactions as "a normal feature of commerce and business" (AASB 124, para. 5) and have not attempted to restrict or discourage them. However, stringent corporate governance measures introduced in the U.S. have now prohibited most related party loans between companies and their senior management.

Recent empirical studies in the U.S. have examined RPTs within large firms to determine the nature and consequences of these transactions. Gordon *et al.* (2004b) and Kohlbeck and Mayhew (2004) have found that RPTs are associated with weaker corporate governance characteristics and poor market performance. They conclude that RPTs are a conflict of interest between management and shareholders rather than efficient, value-adding transactions. While these studies have investigated RPTs within large U.S. firms, no known studies of RPTs have yet been conducted in Australia or have examined smaller-sized firms.

The objective of this study is to investigate factors associated with RPTs within a sample of smaller, newly listed companies in Australia. Referred to as 'commitments test entities' (CTEs), the firms examined are distinguished by the manner in which they have listed on the Australian Securities Exchange (ASX) and the additional reporting requirements they must adhere to. CTEs are generally 'new economy' firms with developing businesses (ASX, 2002) and are not required to have a history of profitability. As a condition of their admission, the ASX requires them to provide the market with quarterly cash flow reports for at least the first eight quarters after listing. A unique feature of this quarterly report is the requirement to disclose cash outflows for related party payments and loans to directors and related entities. Analysing these transactions within CTEs allows this study some important distinctions from prior research and takes advantage of the unique prescribed format disclosures made within the quarterly cash flow report.

Using a large sample of quarterly reports that include the majority of CTEs that listed between 2000 and 2005, we find support for the 'conflict of interest view' proposed by Gordon *et al.* (2004a), suggesting RPTs do not serve shareholders' interests. Like Gordon *et al.* (2004b) and Kohlbeck and Mayhew (2004) in relation to large U.S. firms, we find that internal monitoring mechanisms in the form of independent directors constrain the amounts of RPTs within CTEs. However, other well-accepted indicators of good corporate governance used in prior research are not associated with RPTs. Instead, external monitoring (associated both with larger firm size and the quarterly reporting phase) appears to be a more effective restraint on the magnitude of related party transactions (RPTs) within CTEs. We also observe that a number of CTE performance factors (including return on assets) are negatively associated with RPTs which further supports the conflict interest argument rather than the efficient transactions argument.

The remainder of this paper is organised as follows. Section 2 provides a background on RPTs and reviews the prior literature. Section 3 describes CTEs and their reporting requirements. In Section 4 the factors expected to be associated with related party transactions are discussed. The research design is described in Section 5, with results of statistical tests and analyses presented in Section 6, followed by the conclusion in Section 7.

2.   Related party transactions and prior research

AASB 124 *Related Party Disclosures* defines RPTs as "a transfer of resources, services or obligations between related parties, regardless of whether a price is charged" (para. 9). Related parties include shareholders, directors, key management personnel, subsidiaries (and/or parent companies), and associates of these parties (AASB 124, para. 9). Gordon *et al.* (2004a, pp. 1-2) identify that RPTs are commonly "complex business transactions between a firm and its own managers, directors, principal owners or affiliates".

Australian, U.S. and international accounting standards require disclosure of RPTs as part of periodic reporting.[1] These transactions are of primary concern because, by their nature, they may not be conducted on an arm's-length basis and may not be based on normal commercial terms (AASB 124, para. 6). While RPTs may have the potential to distort a firm's reported financial performance and position (and hence require closer scrutiny), they are nevertheless "a normal feature of commerce and business" as firms conduct business through subsidiaries, joint ventures and associates (AASB 124, para. 5). In addition to the disclosure requirements of accounting standards, RPTs have now become subject of closer regulatory scrutiny.

In response to several large corporate collapses, the U.S. adopted prescriptive corporate governance rules with the introduction of the Sarbanes-Oxley Act of 2002. Despite being credited with quickly improving corporate governance standards in the U.S. (Chhaochharia and Grinstein, 2007)[2], this rules-based approach has been heavily criticised for the haste in which it was introduced and the high compliance costs it has imposed upon companies, particularly those that are smaller or developing (see for example, Romano, 2004; Chhaochharia and Grinstein, 2007; Linck, Netter and Yang, 2006).

Australia has taken a different approach to improving governance, developing a 'best practice' framework rather than detailed rules (Hamilton, 2004, p. 4). The Australian Securities Exchange (ASX) introduced the 'Principles of Good Corporate Governance' in 2003, addressing issues such as board structure, financial reporting, ethics and remuneration policies. Although it is not mandatory for Australian listed entities to comply with these principles, they must provide reasons for any departure (ASX Listing Rule 4.10.3). The flexibility of this approach is favoured by market participants and supported by the OECD (Hamilton, 2004).

The corporate governance regimes in Australia and the U.S. differ on the subject of RPTs. The Sarbanes-Oxley legislation now prohibits most related party loans to executives and directors in the U.S., while in Australia there is no equivalent guidance. In fact, there is no reference to RPTs in the ASX Principles of Good Corporate Governance. The U.S. regulatory approach implies that RPTs (particularly those involving loans to management) are not in shareholders' best interests and, therefore, should be prohibited.

Empirical studies in the U.S. generally support the contention that RPTs conflict with shareholders' interests. Gordon *et al.* (2004b) analysed the RPTs of 112 public companies in the U.S. in 2000 and 2001 (prior to the introduction of Sarbanes-Oxley). They propose two alternative perspectives on the nature and effects of RPTs: (1) they are a conflict of interest between management and shareholders (and hence increase agency costs); and (2) RPTs are efficient transactions that fulfil a firm's economic needs. Gordon *et al.* (2004b) find that

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[1] AASB 124 *Related Party Disclosures* is the Australian equivalent to the international accounting standard, IAS 24 *Related Party Disclosures*. The relevant U.S. accounting standard is FASB Statement No. 57 *Related Party Disclosures*.
[2] See also 'US companies rise to top of corporate governance table', Financial Times, 7/9/04, page 23.

related party transactions are widespread, but are less common in firms with stronger corporate governance characteristics. They also identify a negative relation between firms' market performance and the number and magnitude of related party transactions. This association is particularly strong in the case of related party loans, lending support to the Sarbanes-Oxley prohibition. Overall, they conclude that the conflict of interest hypothesis holds and that RPTs generally, and loans to executives in particular, represent a conflict of interest that are detrimental to shareholders' interests.

Similar to Gordon *et al.* (2004b), Kohlbeck and Mayhew (2004) examined whether the RPTs of 1,261 US companies in the S&P 1500 Index are an agency cost, or a method of efficient contracting. They also find that RPTs are associated with a lower returns on assets and weaker corporate governance. Moreover, where cash-based remuneration of directors and executives is low (for example, where share options are issued in place of higher cash salaries), related party loans are more frequent. Related party loans may therefore be used as a substitute form of compensation for less liquid remuneration. Kohlbeck and Mayhew (2004, p.6) show that RPTs "are more likely to occur when management has the ability and the incentives to engage in them" and hence, impose agency costs on shareholders.

3.   Related party disclosures in CTE quarterly cash flow reports

The limited prior research on related party transactions has focused on the impact of RPTs on large companies in the U.S. This study builds on that literature by analysing such transactions with respect to a subset of smaller, newly-listed companies in Australia where the potential for value-destroying RPTs is greater than for most other listed entities. Referred to as 'commitments test entities' (CTEs), these firms are distinguished from other ASX-listed companies by different admission rules under which they listed, and additional special reporting requirements.

In 1999, the ASX relaxed its admission rules[3] to allow entities holding more than fifty per cent of their tangible assets in cash (or equivalents) to list, providing they make 'commitments' to eventually reduce this proportion to less than half. This concession "facilitated the admission of smaller entities with developing businesses based on new technology or other intellectual property assets" (ASX, 2002, p. 2). The general profitability requirement which applies to other entities previously prevented many of these firms from listing (Fargher and Woo, 2002). The ASX draws parallels between such new and emerging companies to mining exploration companies (ASX, 2002), presumably because of higher risks and governance concerns associated with CTEs (Gallery, Gallery and Sidhu, 2004). Unlike the U.S. and the U.K., Australia does not have a separate exchange for smaller, developing companies.[4] Nor does the ASX distinguish CTEs from all other listed entities by separate categorisation, or other means of clearly 'flagging' they are entities that were admitted under 'special' rules and are subject to additional ASX reporting requirements.

Klein and Mohanram (2005) show that firms entering the market via less stringent NASDAQ listing rules (particularly when a history of profitability is not required) are generally poor-performing and more risky. Parallels can be drawn between the changes to the NASDAQ listing rules in the U.S. in the late 1990s and amendments made to the ASX listing rules to admit CTEs. Both the NASDAQ and the ASX experienced a surge in new listings coinciding with the 'dot-com boom' and the changes made to their admission rules. A significant

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[3] In particular, ASX Listing Rule 1.3.2(b).
[4] For example, NASDAQ in the U.S. and AIM in the U.K. both cater for smaller listings than the New York Stock Exchange and the London Stock Exchange, respectively.

proportion of these companies would not have been permitted to list under the earlier, more conservative rules (Fargher and Woo, 2002; Klein and Mohanram, 2005).

As a condition of their admission, CTEs are required to provide quarterly cash flow (QCF) reports to the ASX for at least the first eight quarters after listing (ASX Listing Rule 4.7B). This additional reporting requirement was introduced because established periodic reporting is considered to be insufficiently frequent to meet the market's information needs (ASX, 2002) and it is intended to mitigate the increased risks to investors exposed to these entities. Apart from mining exploration companies, CTEs are the only entities in Australia that must provide any form of quarterly reports as part of their routine periodic reporting regime.

The format of QCF reports is prescribed by Appendix 4C of the ASX Listing Rules, and comprises a pro-forma cash flow statement with some limited 'note' disclosures. This report, which is not required to be audited or reviewed by the auditor, must be lodged within one month of the end of the relevant quarter. CTEs must continue to lodge QCF reports until the ASX determines that they have reached "sufficient maturity", which is usually signalled by four consecutive quarters of positive cash flows from operations (ASX, 2002).

The content of the 4C quarterly cash flow report differs in a number of ways from the requirements of AASB 107 *Cash Flow Statements*[5], which prescribes the content of cash flow statements in annual financial reports. First, although the general categories of cash flows are the same (i.e., cash flows from operating, investing and financing activities), the items within those categories are generally more detailed in the 4C report. For example, where AASB 107 requires just an aggregated amount for payments to suppliers and employees, the 4C Report requires separate line items showing payments for staff costs, advertising and marketing, research and development, leased assets and other working capital payments. Second, because there are no quarterly income statements accompanying the quarterly cash flow reports, there is no reconciliation of operating cash flows and profit that is otherwise required in annual financial reports under AASB 107 (para. Aus20.1). Finally, the 4C report stipulates other 'supplementary' disclosures that are not required by AASB 107, including cash outflows to certain related parties. [6]

The related party transactions that must be disclosed in the 4C Report relate to cash payments to "directors of the entity and associates of the directors" and "related entities of the entity and associates of the related entities". Two types of disclosures are required: (1) payments to related parties that are included as payments to employees and suppliers in cash flows from operations; and (2) loans to related parties included in investing cash flows. However the implied definition of related parties in the 4C Report is somewhat narrower than that in AASB 124, encompassing directors and related entities but not senior executives or other key management personnel.[7] The ASX Listing Rules and Guidance Notes do not provide a rationale for requiring these unique disclosures, but it would seem that their purpose is to give an indication of the governance environment of the reporting entity during the early start-up stage when cash burn is significant and the potential for cash mismanagement is high. These quarterly disclosure requirements provide us with a unique opportunity to examine factors associated with the usage of RPTs in smaller, recently listed entities.

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[5] AASB 107 *Cash Flow Statements* is equivalent to the international accounting standard, IAS 7 *Cash Flow Statements*.
[6] Other required disclosures are details of non-cash financing and investing activities, and a description of acquisitions and disposals of business entities.
[7] This difference makes it difficult to reconcile the related party disclosures in 4C Reports and the disclosures made in annual financial reports.

4. Factors associated with related party transactions in CTEs

The conflict of interest hypothesis posits that RPTs are a form of agency costs where agents (managers and directors) exploit RPTs for their own private gain at the expense of shareholders' interests, and accordingly, RPTs are value-destroying. The alternative hypothesis is that RPTs are efficient transactions that fulfil a firm's economic needs, for example, where they take advantage of the superior knowledge and skills of related parties and/or involve a price advantage for the firm. According to this hypothesis, RPTs are benign or potentially value-enhancing. (Gordon *et al*., 2004a, 2004b; Kohlbeck and Mayhew, 2004)

If the conflict of interest hypothesis is the dominating hypothesis, then mechanisms that reduce agency costs such as effective internal and external monitoring mechanisms and measures of firm performance are likely to be negatively associated with the usage of RPTs. In contrast, if the efficient transaction hypothesis is the dominant hypothesis, then internal and external monitoring mechanisms and measures of firm performance are likely to be positively associated with the usage of RPTs.

Prior U.S. research generally finds support for the conflict of interest hypothesis. We therefore base our expectations on this hypothesis in the following discussion of internal and external monitoring and firm performance factors. Findings opposite to our expectations are likely to support the efficient transactions hypothesis.

4.1 Internal monitoring mechanisms and related party transactions

Of the numerous governance mechanism examined in prior research, three internal governance factors are particularly relevant in the governance of CTEs: (1) proportion of independent members on the board of directors; (2) the presence of an independent chairman; and (3) the presence of an audit committee.

Prior research has extensively investigated the composition of the board of directors and the significance of independence as a governance mechanism. The ASX's Principles of Good Corporate Governance recommend that a majority of the board should be comprised of independent directors (Recommendation 2.1). Independent boards have been found to be more effective monitors of the financial reporting process and increasing the credibility of published results (Klein, 2002; Peasnell, Pope and Young, 2005; Rosenstein and Wyatt, 1990). Dechow, Sloan and Sweeney (1996) and Davidson *et al*. (2005) also find that boards dominated by management (i.e., less independent) are associated with instances of earnings management.

Gordon *et al*. (2004b, p.10)) argue that the monitoring function for RPTs "naturally falls under the board's responsibilities". Consistent with this claim, they find evidence of a positive association between the amount of related party payments to executives and the proportion of executive directors on the governing board, suggesting that, consistent with the conflict of interest hypothesis, firms with more independent boards have smaller amounts of RPTs. We similarly expect that higher proportions of independent directors on CTE boards will mitigate the amounts paid to related parties, and without such a constraint, the RPT amounts will be higher.

The presence of an independent chairman of the board of directors is another key internal monitoring mechanism and is indicative of good corporate governance. Prior studies have shown that when the roles of chairman and chief executive are segregated, internal control is stronger and the board performs its key functions (such as evaluating the chief executive's

performance) more effectively (Jensen, 1993). Indeed, Goyal and Park (2002) find that a dual chairman/chief executive role weakens the board's monitoring function. Gordon *et al.* (2004b) find that firms with a chairman who is also the chief executive officer have relatively more RPTs. Likewise we expect that the amounts of RPTs would be minimised in CTEs with an independent chairman of the board.

An audit committee is seen as an efficient device for monitoring of the integrity of financial reporting (ASX, 2003, p. 29). While the ASX's Principles of Good Corporate Governance recommend that all companies establish an audit committee, only the top 500 companies in Australia are under obligation to do so (Recommendation 4.2; ASX Listing Rule 12.7). The earnings management literature suggests that the absence of an audit committee is associated with more opportunistic behaviour (Dechow *et al.*, 1996); however, the overall effectiveness of the committee (in preventing earnings manipulation) is a function of its independence and meeting frequency (Davidson *et al.*, 2005; Xie, Davidson and DaDalt, 2003). With respect to RPTs, Gordon *et al*. (2004b) note that some firms require independent members of the audit committee to approve RPTs. If a firm does not have an audit committee then such monitoring cannot occur. [8] Hence, assuming that audit committees are effective (on average), we expect that the presence of an audit committee will provide a higher level of scrutiny over RPTs, thereby minimising the amounts of such transactions.

4.2 External monitoring mechanisms and related party transactions

Common external mechanisms shown to induce positive behavioural outcomes include the engagement of a high quality auditor, and monitoring by creditors, information and financial intermediaries, and the media (Gillan, 2006).

With respect to the monitoring role of auditors, DeAngelo (1981) argues that larger audit firms are responsible for better quality audits because they have fewer incentives to behave opportunistically and more concern for their broader reputation. Audits by larger firms have been found to exhibit a higher earnings response coefficient, suggesting a higher level of credibility (Teoh and Wong, 1993). Consistent with Willenborg (1999), Ferguson and Matolcsy (2003) suggest that the benefits of audit quality may be more pronounced in smaller companies because of the greater likelihood of information asymmetry. We expect that audit quality, as an effective monitoring mechanism, will constrain the amounts of RPTs within CTEs.

Apart from external auditors, the individual influence on CTEs of other external monitors is difficult to measure as few CTEs are followed by financial analysts, creditors are rare due to low levels of debt among CTEs, and most institutional investors do not have substantial shareholdings in CTEs. As an alternative we use firm size as a proxy for these other external monitoring factors. Consistent with the arguments of Gordon *et al*. (2004b) and Kohlbeck and Mayhew (2004) with respect to external monitors, we expect that the external scrutiny of larger firms constrains both the incidence and magnitude of RPTs. Similarly, we expect that companies in the ASX top 500 are likely to be subject to greater external scrutiny and therefore limit their RPTs.

As another proxy for external monitoring, we use the 4C reporting history. The reporting history is of particular interest because CTEs are likely to be under greatest scrutiny during the first eight quarters (the mandatory initial reporting period) and could be expected to be

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[8] Many CTEs fall outside the top 500 companies by market capitalisation. They are therefore not required to have an audit committee (ASX Listing Rule 12.7).

striving to achieve positive operating cash flows so that the ASX permits them to cease quarterly cash flow reporting. As such, they would generally be more conscious of cash outflows in the first eight quarters and therefore seek to minimise RPTs during that period.

4.3 Financial performance and related party transactions

Gordon *et al.* (2004b), Kohlbeck and Mayhew (2004) find a negative association between various market measures of performance and RPTs, which they argue supports the conflict of interest hypothesis. Similarly we expect that performance-related factors relevant to CTEs will be negatively associated with RPTs usage. We use four measures of firm performance: return on assets (ROA), research and development (R&D) expenditure, financial slack and the CTE reporting threshold test.

We select ROA as our first measure of firm performance because it is a common measure of financial performance and it is not as volatile as market measures of CTE performance. Research and development (R&D) expenditure is used as our second measure of firm performance because many CTEs have large expenditure on R&D activities. As an indicator of firm performance, R&D expenditure has been found to generate excess returns, and is associated with higher market value (Lev and Sougiannis, 1996; Chan, Lakonishok and Sougiannis, 2001; Asthana and Zhang, 2006). RPTs may restrict the funds available to undertake beneficial R&D activities.

The financial slack available to CTEs may also affect the amount of RPTs. High cash balances and unused financing facilities may induce managers to act for their private gain rather than in the best interests of shareholders (Easterbrook, 1984; Jensen, 1986; Myers and Rajan, 1998). Another important consideration is the amount spent on operating and investing items after RPTs in terms of whether RPTs are a substitute for other outflows, or whether the magnitude of these transactions is independently determined.

Whether firms have ceased Appendix 4C reporting and the reasons for doing so provides a further indicator of performance. CTEs that have ceased reporting because they have met the ASX's threshold requirement of four consecutive quarterly cash flow reports with positive operating cash flows signals that these firm has been successful in consistently producing positive cash flows from operations. In contrast, CTEs that continue to produce negative operating cash flows or which have ceased reporting because of suspension or delisting can be consider as unsuccessful firms.

5.   Research design

5.1   Sample and data sources

The sample used in this study is based on the dataset of Gallery *et al.* (2004). This database contains the population of quarterly cash flow reports issued by firms subject to 4C Reporting since Listing Rule 4.7B was introduced on 31 March 2000. In total, Gallery *et al.* (2004) identify 331 companies that have lodged Appendix 4C quarterly cash flow reports between March 2000 and December 2003. That database has been extended to December 2005 and this study draws on that extended dataset.

In selecting the sample, firms which were 4C reporting but are not technically CTEs (i.e. not admitted under Listing Rule 1.3.2(a) or (b)) were eliminated.[9] Firms for which there are one or more missing 4C reports in the firm's reporting sequence are also excluded. In the tests we control for whether the firm has successfully reached the minimum eight-quarter threshold and ceased 4C-reporting, and accordingly eliminate firms that have reported for fewer than eight quarters. The final sample comprises 224 CTEs that have lodged a total of 3827 QCF reports between March 2000 and December 2005.

All quarterly cash flow data used in testing were obtained from the Appendix 4C Reports of the Gallery *et al.* (2004) and extended database. Related party payments and related party loans are disclosed in the 4C Report at Items 1.24 and 1.25, respectively. The governance characteristics (board independence, auditor, audit committee and chairman) were sourced from each firm's annual financial report, obtained through Aspect Huntley's FinAnalysis database. FinAnalysis was also used to obtain half and full-year financial reports from which data on assets and income were sourced. Market data (including market capitalisation and market capitalisation rank) were drawn from the Share Price and Price Relatives (SPPR) database maintained by the Centre for Research in Finance, University of New South Wales.

5.2   Regression Models

To test associations between related party transactions and the factors identified in Section 4, two regression models are estimated, with related party payments (*RPP*) entering the first model and related party loans (*RPL*) entering the second model.

Regression Model 1 is specified as:

$$RPP_{it} = \alpha_0 + \alpha_1 INDIR_{it} + \alpha_2 CHAIR_{it} + \alpha_3 AUDC_{it} + \alpha_4 AUD_{it} + \alpha_5 MCAP_{it} + \alpha_6 TOP500_{it}$$
$$+ \alpha_7 QTR8_{it} + \alpha_8 ROA_{it} + \alpha_9 RD_{it} + \alpha_{10} FINSLACK_{it} + \alpha_{11} CFOO_{it} + \alpha_{12} SUCC8_{it} + \alpha_{13} ORIG_{it} + \varepsilon_{it}$$

$$(1)$$

The dependent variable *RPP* is the dollar amount of related party payments that is included in operating cash flow payments to staff and suppliers. *RPP* is measured as related party payments for the quarter deflated by average total assets for the relevant half year. Average total assets is calculated using the relevant half-year balances as this information is not disclosed quarterly.

The three internal monitoring variables are: *INDIR* measured as the proportion of non-executive (independent) directors on the board; *CHAIR* coded one (1) where the chairman of the board is a non-executive director (independent) and zero (0) otherwise; and *AUDC* coded one (1) where the firm has an audit committee and zero (0) otherwise.

The next set of variables represent the external monitoring factors. *AUD* is coded one (1) where a Big-4 auditor is engaged and zero (0) otherwise. *MCAP* proxies for firm size and is measured as the natural logarithm of market capitalisation on the last trading day of the relevant quarter. Firm size can be measured by total assets, total sales or market capitalisation (Foster, 1986). Because CTEs are generally developing companies with no history of profitability, a sales measure is difficult to interpret. Measuring the size of CTEs by total

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[9] Under Listing Rule 4.7B(d), the ASX has discretion, on a case by case basis, to require non-CTE firms to lodge 4C QCF reports "where quarterly reporting is considered to be warranted to supplement the entity's continuous disclosure in relation [to] its financial position" (ASX, 2002, p. 4). This requirement is principally to facilitate close monitoring of firms that are encountering operating issues such as liquidity problems.

assets is problematic because this information is only available half-yearly whereas RPT disclosures are made quarterly. Market capitalisation is therefore considered to be the best proxy for size for this sample of firms. *TOP500* represents whether the CTE was in the top 500 of ASX-listed firms, as measured by market capitalisation at the end of the relevant quarter, with firms in the top 500 coded one (1), otherwise zero (0). *QTR8* indicates the reporting phase and is coded zero (0) if the QCF report is in the first eight quarters of the firm's reporting sequence, and one (1) otherwise.

The final set of test variables are the performance-related factors. *ROA* is return on assets and is measured as net profit for the relevant half-year divided by average total assets. *RD* measures cash outflows relating to research and development expenditures and is deflated by average total assets. *FINSLACK* is the sum of ending cash balance and unused financing facilities for each quarter, deflated by average total assets. *CFOO* is spending on items other than related party payments, and is measured as total operating cash outflows less related party payments, deflated by average total assets. *SUCC* is coded one (1) where a firm has met the ASX's threshold of four consecutive quarters of positive operating cash flows, or has otherwise been permitted to cease 4C reporting (quarterly cash flows) by the ASX, and zero (0) otherwise.

Finally, whether a company originally listed as a CTE (i.e. an IPO), or was previously listed and has converted to a CTE[10] may also be associated with RPTs. There may be differences in the corporate governance and economic characteristics of these firms, and in turn, the amount of RPTs entered into. *ORIG* is therefore included as a control variable and is coded one (1) where firms were already ASX-listed and then changed their activities and were readmitted as CTEs; firms that are coded zero (0) are those originally listed as CTEs.

In regression Model 2 the dependent variable is loans to related parties (*RPL*).

$$RPL_{it} = \alpha_0 + \alpha_1 INDIR_{it} + \alpha_2 CHAIR_{it} + \alpha_3 AUDC_{it} + \alpha_4 AUD_{it} + \alpha_5 MCAP_{it} + \alpha_6 TOP500_{it}$$
$$+ \alpha_7 QTR8_{it} + \alpha_8 ROA_{it} + \alpha_9 RD_{it} + \alpha_{10} FINSLACK_{it} + \alpha_{11} CFIO_{it} + \alpha_{12} SUCC8_{it} + \alpha_{13} ORIG_{it} + \varepsilon_{it}$$

$$(2)$$

RPL is measured as loans to related parties, deflated by average total assets. The independent variables are the same as for Model 1, except for *CFIO*, which is cash expenditures on investing activities, other than loans to related parties.

Pooled cross-sectional time-series data can potentially be serially correlated, which would violate the independent observations assumption of regression analysis (Greene, 2000). Lagrange Multiplier Tests confirmed that the classical regression model should not be used and therefore a random effects model is employed in regression analyses. Also, the two dependent variables are censored in that significant proportions of the observations have no related party payments or loans, and thus have a value of zero.[11] "Conventional regression methods fail to account for the qualitative difference between *limit* (zero) observations and *nonlimit* (continuous) observations" (Greene, 2000, p.906). Accordingly, the Tobit model is applied in the regression analysis.

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[10] If a listed entity makes a significant change to the nature or scale of its activities the ASX has the discretion, under Listing Rule 11.1.3, to treat it as if it were 'reapplying' for admission. This would include the application of Listing Rule 1.3.2(b), which relates to entities with more than half of their tangible assets in cash (CTEs).

[11] Of the total observations, 355 (9.3%) in Model 1 and 3710 (88.9%) in Model 2, have a value of zero.

6.   Results

The distribution of sample firms across the 24-quarter study period is presented in Table 1. The number of new CTEs was highest in March 2000 with 59 firms listing, however this steadily declined to zero new firms listing in September 2003. Numbers have since increased however, with 104 CTEs listing between March 2004 and December 2005 (untabulated). Interestingly, of the 59 CTEs that began reporting in March 2000, 30 were continuing to report as at December 2005, which is well beyond the initial eight-quarter monitoring period.

[TABLE 1 HERE]

Table 2 provides a distribution of sample firms by the Global Industry Classification Standard (GICS). Health care (24.1 per cent) and information technology (28.1 per cent) are the dominant sectors, representing just over half of all of the firms examined. This is consistent with the 'new economy' activities of many of the CTEs.

[TABLE 2 HERE]

5.1   Descriptive statistics

Table 3 provides descriptive statistics for the raw data and Table 4 presents the deflated variables used in statistical testing.[12] Table 3, Panel A shows that the mean (median) market capitalisation of CTEs is \$31.6 million (\$9.2 million), indicating that CTEs are generally smaller firms. However 72 companies (8.04 per cent) were in the ASX top 500 companies for at least one quarter (Table 4, Panel B).

[TABLES 3 & 4 HERE]

The frequencies shown in Panel B of Table 3 indicate that related party payments (RPPs) are ubiquitous with almost all firms (99.1 per cent) reporting such payments in at least one quarter, with a mean (median) value of \$149,000 (\$89,000). Related party loans are less common, although still reasonably widespread, with 53 companies (23.7 per cent) disclosing such loans; the median value is \$52,000.

The descriptive statistics for the internal monitoring factors in Table 4 show that, on average, the boards of CTEs are independent with a mean proportion of 57.5 per cent of non-executive directors, most of the CTEs (59.8 per cent) have an audit committee and two-thirds have an independent chairman. For the external monitoring factors, the statistics show that fewer than half of the CTEs (41.5 per cent) engage a Big-4 auditor, perhaps reflecting the high proportion of smaller firms, which are likely to fall outside the Big-4 firms' target client base. In relation to performance factors, the statistics reveal generally poor profitability among CTEs with mean (median) negative 20 per cent (negative 13 per cent) return on assets. Only 46 of the 224 CTEs (20.5 per cent) achieved the ASX's threshold to cease 4C reporting, indicating that CTEs generally struggle to generate positive operating cash flows. The difficulty of meeting this threshold is further demonstrated by each firm, on average, lodging 17 quarterly cash flow reports, which is well beyond the minimum eight-quarter reporting period.

Table 5 presents the correlation matrix of variables included in regression tests, with Pearson (Spearman) correlation coefficients and *p*-values shown above (below) the diagonal. There

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[12] Extreme observations were winsorised by no more than five percent of the total sample (see Tabachnick and Fidell, 2007).

are no significantly high correlations among the independent variables, indicating that multicollinearity is not likely to be a threat to the interpretation of the subsequent analysis.

[TABLE 5 HERE]

6.2 Regression results

The results of multivariate tests are shown in Table 6.[13] Regression Model (1) tests for associations between related party payments (RPPs) and internal and external monitoring factors, and firm performance factors. For the internal monitoring factors, the significant negative coefficient for *INDIR* ($t = 1.79$, $p < 0.05$) suggests that the higher the proportion of independent directors on the board, the smaller the amounts of payments to related parties. Thus it would appear that non-executive directors constrain payments to related parties. None of the coefficients for the other two internal monitoring factors (the presence of an audit committee and independent chairman) is significant. Thus, these other commonly accepted indicators of good governance practices do not appear to constrain RPPs in CTEs.

[TABLE 6 HERE]

For the external monitoring factors, the results in Table 6 reveal that auditor quality (*AUD*) has no significant influence on the RPTs. However, larger firms have relatively smaller amounts of RPPs, with the coefficient for *MCAP* negative and significant ($t = -7.97$, $p < 0.01$). This result is consistent with larger firms being subject to greater external monitoring through their increased scrutiny by analysts, institutional investors, creditors and the media. The coefficient for QTR8 is also positive and significant ($t = 4.27$, $p < 0.01$), indicating that firms spent smaller amounts on RPPs in the first eight quarters of 4C reporting. During the initial mandatory reporting period there is likely to be greater ASX and other external scrutiny over the quarterly cash flow reports, and firms are likely to be striving to achieve the positive operating cash flows to be allowed to cease reporting. In contrast, firms that have failed to meet this target during the first eight quarters subsequently spend greater amounts on RPPs in periods beyond the initial eight quarters.

With respect to the performance factors, the Table 6 results show that, contrary to expectations, the coefficients for *CFOO* ($t = 5.22$, $p < 0.01$) and *RD* ($t = 5.07$, $p < 0.01$) are significantly positive, implying that CTEs with higher amounts of payments to related parties also spend higher amounts on other operating activities and research and development. This finding is consistent with the efficient transaction hypothesis in that RPPs could be interpreted as being part of legitimate cash outflows for productive activities. However, results for most other performance variables provide support for the conflict of interest hypothesis. The coefficient for *ROA* ($t = -8.22$, $p < 0.01$) indicates that firms with low profitability have greater amounts of RPPs. CTEs with greater holdings of cash and access to financing facilities (*FINSLACK*) have larger amounts of RPPs ($t = 9.41$, $p < 0.01$). This could be of concern given that CTEs, by their nature, have considerable cash assets.

A further indicator of firm performance for this sample of CTEs is whether the firm achieved four consecutive quarters of positive cash flows from operations and the ASX permitted the firm to cease quarterly cash flow (4C) reporting. The significant negative coefficient for *SUCC* ($t = -1.76$, $p < 0.05$) shows those firms that were successful in reaching the ASX's threshold to cease 4C reporting had smaller amounts of related party payments. Consistent with the findings of Gordon *et al.* (2004b) and Kohlbeck and Mayhew (2004), these results

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[13] Unadjusted *t*-statistics are reported, as results of White's (1980) test indicate the regression results are not affected by heteroscedasticity.

provide further evidence that poorer performing firms have greater amounts of RPPs and that such transactions are a conflict of interest rather than efficient, value-adding transactions.

Regression Model (2) tests for associations between related party loans (*RPL*) and the same factors tested in Model (1), except the cash investing outflows variable (*CFIO*) replaces the operating cash outflows variable (*CFOO*). Results presented in Table 6 show that none of internal monitoring factors and only one of the external governance factors (*TOP500*) is significant in the expected direction. While the negative coefficient for *TOP500* (t = -1.71, p < 0.05) indicates that firms under greater scrutiny by analysts and the media are less likely to have related party loans, a similar result is not evident for CTEs in their first eight reporting quarters (*QTR8*). With respect to the performance variables, the negative coefficient for *RD* (t = -2.78, p < 0.01) implies that in the presence of related party loans, CTEs spend less on research and development activities, possibly forgoing opportunities that could generate positive cash flows in the future. Interestingly, the coefficient for *FINSLACK* is significantly negative (t = -2.48, p < 0.05), indicating that firms with related party loans have lower cash reserves and other financing facilities available to them; thus related party loans have a negative impact on the firm's cash position. Generally the results for related party loans are consistent but weaker than those reported for related party payments. The small number of firms with related party loans and the small amounts associated with each transactions have possibly contributed to the weaker findings for these transactions relative to related paper payments.

7.   Conclusion

This paper investigates associations between related party transactions and three set of factors found to be associated with related party transactions in prior literature: internal and external corporate monitoring mechanisms, and firm performance. While previous research has examined the RPTs of large U.S. companies, our study focuses on smaller, newly listed Australian companies. The general characteristics of these firms, and their unique reporting requirements, provide an interesting setting in which to examine factors associated with RPTs.

Quarterly cash flow reports of 224 smaller, new economy companies over the 24 quarters between March 2000 and December 2005 (comprising a total of 3827 observations) were examined. It was expected that strong internal and external monitoring mechanisms would constrain the amounts of payments and loans to related parties.

Overall, our findings indicate that, apart from board independence, other well-accepted indicators of good internal corporate governance do not constrain the amounts of related party transactions within the population of CTEs. Instead, external monitoring mechanisms are found to be the more important influences. Greater external monitoring, associated both with larger firm size and the initial eight-quarter reporting period, appears to be a most effective restraint on the magnitude of related party transactions within CTEs. Furthermore, the findings of associations between greater amounts of RPTs and lower returns on assets and failure to achieve positive operating cash flows necessary to be permitted to cease quarterly cash flow reporting, demonstrates that RPTs are associated with poor performance. These findings are generally support the conclusion of Gordon *et al.* (2004b) and Kohlbeck and Mayhew (2004) that RPTs are not economically efficient and conflict with shareholders' interests.

These findings have a number of important implications for both regulators and market participants. First, the general absence of associations with factors that are widely accepted as

indicative of good internal governance suggests that such governance characteristics are not effective in constraining related party transactions in the context of smaller, cashbox companies. Our results suggest that external monitoring may be a more effective control over RPTs than internal corporate governance mechanisms in this institutional context. Second, the significance of firm performance variables implies that the financial condition of a firm dominates the decision to engage in RPTs for smaller, high risk firms like CTEs. Finally, the requirement that commitments test entities disclose related party transactions as line items in quarterly cash flow reports represents relevant information for users to monitor transactions that may not be in the best interests of shareholders. Extending such disclosures to all periodic cash flow reports warrants further consideration by regulators.

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Table 1
Distribution of test sample CTE firm-quarter observations by report number and quarterly date

Report No.	1 Mar 00	2 Jun 00	3 Sep 00	4 Dec 00	5 Mar 01	6 Jun 01	7 Sep 01	8 Dec 01	9 Mar 02	10 Jun 02	11 Sep 02	12 Dec 02	13 Mar 03	14 Jun 03	15 Sep 03	16 Dec 03	17 Mar 04	18 Jun 04	19 Sep 04	20 Dec 04	21 Mar 05	22 Jun 05	23 Sep 05	24 Dec 05	Total
1	59	33	25	19	20	6	13	7	7	13	2	5	3	2	0	10									224
2		59	33	25	19	20	6	13	7	7	13	2	5	3	2	0	10								224
3			59	33	25	19	20	6	13	7	7	13	2	5	3	2	0	10							224
4				59	33	25	19	20	6	13	7	7	13	2	5	3	2	0	10						224
5					59	33	25	19	20	6	13	7	7	13	2	5	3	2	0	10					224
6						59	33	25	19	20	6	13	7	7	13	2	5	3	2	0	10				224
7							59	33	25	19	19	6	13	7	7	13	2	5	3	2	0	10			223
8								59	33	25	19	19	6	13	7	7	13	2	3	3	2	0	10		221
9									54	33	23	19	17	6	12	7	7	11	2	3	1	2	0	10	207
10										53	31	22	18	17	6	12	6	7	10	1	2	1	2	0	188
11											52	28	21	16	17	6	12	6	7	10	1	2	1	2	181
12												52	27	20	15	16	6	12	6	7	9	1	2	1	174
13													49	27	20	14	16	5	12	6	7	9	1	2	168
14														46	25	19	14	16	5	12	6	7	8	1	159
15															42	25	18	14	14	5	12	6	7	8	151
16																39	25	16	13	12	5	12	6	7	135
17																	39	25	16	12	12	5	12	6	127
18																		38	24	15	12	12	5	12	118
19																			37	25	15	12	12	5	106
20																				35	23	14	12	12	96
21																					33	22	14	12	81
22																						31	22	14	67
23																							31	20	51
24																								30	30
Total	59	92	117	136	156	162	175	182	184	196	192	193	188	184	176	180	178	172	164	158	150	146	145	142	3827

Note: Shaded cells represent observations for firms with less than eight quarterly cash flow reports which have been omitted from the analysis.

Table 2
Distribution of sample firms by industry

GICS* industry classification	Quarterly observations		Firms	
	n	%	*n*	%
Consumer Discretionary	531	13.9	30	13.4
Consumer Staples	93	2.4	6	2.7
Financials	365	9.5	25	11.2
Health Care	937	24.5	54	24.1
Industrials	348	9.1	22	9.8
Information Technology	1157	30.2	63	28.1
Materials	116	3.0	8	3.6
Telecommunications Services	201	5.3	11	4.9
Utilities	79	2.1	5	2.2
Total	3827	100.0	224	100.0

* Global Industry Classification Standard

Table 3
Descriptive statistics for sample firms

Panel A: All firm-year observations	*n*	Mean $000	Median $000	SD $000	Minimum $000	Maximum $000
Related party payments	3827	136	82	484	0	19,957
– for firms with related party payments	3480	149	89	505	1	19,957
Related party loans	3827	89	0	4,703	0	290,164
– for firms with related party loans	119	2,858	52	26,630	4	290,164
Related party transactions	3827	224	83	4,725	0	290,164
– for firms with related party transactions	3495	246	90	4,944	1	290,164
Market capitalisation	3827	31,612	9,166	129,629	106	4,058,218
Total assets	3827	23,491	8,974	115,882	13	3,607,628
Financial slack	3827	5,854	2,072	22,243	-3,775	597,445
Research and development outflows	3827	174	0	927	0	34,935
Half-year profit	3827	-2,415	-877	16,642	-485,985	345,248
Number of 4C Reports per firm	224	17	18	5	8	24

Panel B: Frequencies of related party transactions	0		1	
n = 224	*n*	%	*n*	%
Related party payments	2	0.9	222	99.1
Related party loans	171	76.3	53	23.7
Related party transactions	1	0.4	223	99.6

Table 4
Test variables

Panel A: Continuous variables	n = 3827	Mean	Median	SD	Minimum	Maximum
RPP		0.0156	0.0087	0.0197	0.0000	0.1000
RPL		0.0006	0.0000	0.0060	-0.0007	0.1000
INDIR		0.5745	0.6000	0.1936	0.0000	1.0000
MCAP		9.2295	9.1200	1.3181	4.6600	15.2200
ROA		-0.2003	-0.1302	0.2709	-1.0000	0.5000
RD		0.0135	0.0000	0.0385	0.0000	0.5000
FINSLACK		0.3954	0.3079	0.3347	0.0000	1.5000
CFOO		0.2212	0.1464	0.2264	0.0000	1.0000
CFIO		0.0354	0.0067	0.0902	0.0000	1.0000

Panel B: Dichotomous variables	n = 224	Frequencies				
		0			1	
		n	%		n	%
CHAIR		72	32.1		152	67.9
AUDC		90	40.2		134	59.8
AUD		131	58.5		93	41.5
TOP500		199	88.8		25	11.2
SUCC		178	79.5		46	20.5
ORIG		160	71.4		64	28.6

RPP is related party payments in the quarter deflated by average total assets†; RPL is related party loans deflated by average total assets; INDIR is the proportion of non-executive directors on the board of each firm; MCAP is the natural logarithm of market capitalisation measured at the last trading day of the relevant quarter; ROA is the net profit for the relevant half-year divided by average total assets; RD is cash outflows relating to research and development expenditure deflated by average total assets; FINSLACK is the sum of the ending cash balance at the end of the quarter and any financing facilities available deflated by average total assets; CFOO is total operating cash outflows less related party payments deflated by average total assets; CFIO cash outflows from investing activities less related party loans deflated by average total assets; CHAIR is coded one for firms with an independent chairman and zero otherwise; AUDC is coded one for firms with an audit committee and zero otherwise; AUD is coded one for firms with a Big-4 auditor and zero otherwise; TOP500 is coded one where a firm is in the Top 500 companies on the ASX in the relevant quarter (as measured by market capitalisation) and zero otherwise; QTR8 is coded zero where the 4C Report is lodged in the first eight quarters and one otherwise; SUCC is coded one where a firm has stopped reporting because it has met the ASX's requirement for positive operating cash flows, and zero otherwise; ORIG is coded one for firms which were ASX-listed prior to admission as a CTE (i.e. changed activities) and zero otherwise.

†Average total assets is calculated using the relevant half-year balances.

Table 5
Pearson correlation coefficients and p-values above the diagonal and Spearman correlation coefficients and p-values below the diagonal

Test variables	RPP	RPL	INDIR	CHAIR	AUDC	AUD	MCAP	TOP500	QTR8	ROA	RD	FINSLACK	CFOO	CFIO	SUCC	ORIG
RPP	1.0000	0.0253	-0.0314	0.0482	-0.0229	-0.0273	-0.2916	-0.1535	0.0770	-0.2822	0.0891	0.2342	0.1234	0.0305	-0.1222	-0.0260
		0.1181	0.0518	0.0029	0.1568	0.0919	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0593	0.0000	0.1075
RPL	-0.0710	1.0000	-0.0055	0.0094	0.0030	-0.0072	-0.0106	-0.0118	-0.0355	0.0011	-0.0266	-0.0179	-0.0079	0.0612	-0.0077	-0.0026
	0.0000		0.7316	0.5621	0.8515	0.6554	0.5124	0.4637	0.0280	0.9446	0.0994	0.2673	0.6236	0.0002	0.6343	0.8729
INDIR	-0.0617	0.0154	1.0000	0.4061	0.2287	0.1218	0.0895	0.0272	-0.0089	0.0128	0.0809	0.1730	0.0583	-0.0062	-0.0094	-0.3168
	0.0001	0.3416		0.0000	0.0000	0.0000	0.0000	0.0919	0.5814	0.4302	0.0000	0.0000	0.0003	0.7024	0.5591	0.0000
CHAIR	0.0094	-0.0055	0.3656	1.0000	0.1703	-0.0514	-0.0015	-0.0235	-0.0383	0.0056	0.0375	0.0045	0.1349	0.0053	0.0840	-0.3838
	0.5631	0.7348	0.0000		0.0000	0.0015	0.9266	0.1469	0.0179	0.7309	0.0205	0.7809	0.0000	0.7452	0.0000	0.0000
AUDC	-0.0643	-0.0071	0.1875	0.1703	1.0000	0.0915	0.1286	0.0786	-0.0401	-0.0127	0.0477	0.0001	0.1052	0.0435	0.1627	-0.0231
	0.0001	0.6613	0.0000	0.0000		0.0000	0.0000	0.0000	0.0130	0.4307	0.0032	0.9961	0.0000	0.0071	0.0000	0.1523
AUD	-0.0345	-0.0064	0.1188	-0.0514	0.0915	1.0000	0.2645	0.1725	-0.0142	0.0541	0.0807	0.0987	-0.0893	0.0269	0.1011	-0.0272
	0.0330	0.6912	0.0000	0.0015	0.0000		0.0000	0.0000	0.3813	0.0008	0.0000	0.0000	0.0000	0.0967	0.0000	0.0926
MCAP	-0.3199	0.0047	0.0852	-0.0070	0.1163	0.2574	1.0000	0.6208	-0.0052	0.2033	0.1141	-0.0875	-0.0777	0.0776	0.2446	-0.0698
	0.0000	0.7734	0.0000	0.6655	0.0000	0.0000		0.0000	0.7465	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
TOP500	-0.1883	-0.0182	0.0238	-0.0235	0.0786	0.1725	0.5146	1.0000	-0.0351	0.1390	0.0377	-0.0244	-0.0372	0.0496	0.2036	-0.0487
	0.0000	0.2593	0.1416	0.1469	0.0000	0.0000	0.0000		0.0300	0.0000	0.0197	0.1316	0.0214	0.0021	0.0000	0.0026
QTR8	0.0846	-0.0607	-0.0078	-0.0383	-0.0401	-0.0142	0.0052	-0.0351	1.0000	0.0083	0.0717	-0.0648	0.1518	-0.0582	-0.1560	0.0425
	0.0000	0.0002	0.6292	0.0179	0.0130	0.3813	0.7472	0.0300		0.6065	0.0000	0.0001	0.0000	0.0003	0.0000	0.0086
ROA	-0.3101	0.0116	0.0348	0.0266	0.0356	0.0555	0.2325	0.1556	0.0156	1.0000	-0.1058	-0.1913	-0.1194	0.0483	0.1862	-0.0695
	0.0000	0.4732	0.0311	0.1002	0.0276	0.0006	0.0000	0.0000	0.3342		0.0000	0.0000	0.0000	0.0028	0.0000	0.0000
RD	0.0992	-0.0717	0.1371	0.0017	0.0176	0.0534	0.2433	0.1124	0.0191	-0.1440	1.0000	0.1274	0.0808	-0.0756	-0.0970	-0.0432
	0.0000	0.0000	0.0000	0.9151	0.2759	0.0010	0.0000	0.0000	0.2383	0.0000		0.0000	0.0000	0.0000	0.0000	0.0076
FINSLACK	0.3003	-0.0426	0.1577	-0.0041	-0.0010	0.1225	-0.0500	0.0068	-0.0657	-0.1911	0.1392	1.0000	0.0064	-0.0665	-0.0705	-0.1472
	0.0000	0.0083	0.0000	0.8000	0.9529	0.0000	0.0020	0.6755	0.0000	0.0000	0.0000		0.6939	0.0000	0.0000	0.0000
CFOO	0.1811	-0.0043	0.0278	0.1666	0.1561	-0.0636	-0.0469	-0.0301	0.1509	-0.0901	-0.0555	0.0492	1.0000	-0.0193	0.1022	-0.1047
	0.0000	0.7900	0.0854	0.0000	0.0000	0.0001	0.0037	0.0622	0.0000	0.0000	0.0006	0.0023		0.2320	0.0000	0.0000
CFIO	-0.0553	0.0649	-0.0377	0.0016	0.0745	0.0524	0.1834	0.1295	-0.1343	0.0834	-0.1672	-0.0593	0.0892	1.0000	0.0409	-0.0197
	0.0006	0.0001	0.0196	0.9210	0.0000	0.0012	0.0000	0.0000	0.0000	0.0000	0.0000	0.0002	0.0000		0.0114	0.2231
SUCC	-0.1646	0.0041	-0.0077	0.0840	0.1627	0.1011	0.2233	0.2036	-0.1560	0.2393	-0.1527	-0.0439	0.1356	0.1429	1.0000	-0.1003
	0.0000	0.8001	0.6359	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0066	0.0000		0.0000
ORIG	-0.0331	0.0278	-0.3037	-0.3838	-0.0231	-0.0272	-0.0523	-0.0487	0.0425	-0.0779	-0.0704	-0.1674	-0.1580	-0.0430	-0.1003	1.0000
	0.0404	0.0858	0.0000	0.0000	0.1523	0.0926	0.0012	0.0026	0.0086	0.0000	0.0000	0.0000	0.0000	0.0000	0.0078	0.0000

Table 6
Tobit regressions of related party payments and loans

Model 1:

$$RPP_{it} = \alpha_0 + \alpha_1 INDIR_{it} + \alpha_2 CHAIR_{it} + \alpha_3 AUDC_{it} + \alpha_4 AUD_{it} + \alpha_5 MCAP_{it} + \alpha_6 TOP500_{it}$$
$$+ \alpha_7 QTR8_{it} + \alpha_8 ROA_{it} + \alpha_9 RD_{it} + \alpha_{10} FINSLACK_{it} + \alpha_{11} CFOO_{it} + \alpha_{12} SUCC8_{it} + \alpha_{13} ORIG_{it} + \varepsilon_{it}$$

Model 2:

$$RPL_{it} = \alpha_0 + \alpha_1 INDIR_{it} + \alpha_2 CHAIR_{it} + \alpha_3 AUDC_{it} + \alpha_4 AUD_{it} + \alpha_5 MCAP_{it} + \alpha_6 TOP500_{it}$$
$$+ \alpha_7 QTR8_{it} + \alpha_8 ROA_{it} + \alpha_9 RD_{it} + \alpha_{10} FINSLACK_{it} + \alpha_{11} CFIO_{it} + \alpha_{12} SUCC8_{it} + \alpha_{13} ORIG_{it} + \varepsilon_{it}$$

Variables	Pred sign	Model 1 (RPP) Coefficient t-statistic	Model 2 (RPL) Coefficient t-statistic
Intercept		0.0338	-0.1241
		7.8700 **	-4.9600 **
INDIR	-	-0.0083	0.0166
		-1.7900 *	1.2400
CHAIR	-	0.0030	-0.0031
		1.5400	-0.5600
AUDC	-	-0.0009	-0.0030
		-0.5100	-0.6200
AUD	-	0.0014	-0.0012
		0.8400	-0.2400
MCAP	-	-0.0028	0.0035
		-7.9700 **	1.4600
TOP500	-	0.0012	-0.0186
		0.9300	-1.7100 *
QTR8	+	0.0025	-0.0168
		4.2700 **	-3.4600 **
ROA	-	-0.0096	-0.0076
		-8.2200 **	-0.8700
RD	-	0.0444	-0.5533
		5.0700 **	-2.7800 **
FINSLACK	+	0.0111	-0.0213
		9.4100 **	-2.4800 *
CFOO	-	0.0095	
		5.2200 **	
CFIO	-		0.0530 **
			3.0300
SUCC	-	-0.0037	-0.0057
		-1.7600 *	-0.8200
ORIG	?	-0.0005	0.0017
		-0.2400	0.3300
n		3827	3827
Chi-square		401.47	35.80
p-value		0.0000	0.0006

See Table 4 for variable definitions.
  * p-value significant < 0.05 (one-tailed)
 ** p-value significant < 0.01 (one-tailed)