



Corporate social responsibility and tax aggressiveness: a test of legitimacy theory

CSR and tax aggressiveness

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Roman Lanis

University of Technology, Sydney, Australia, and

Grant Richardson

University of Adelaide, Adelaide, Australia

Abstract

Purpose – The purpose of this paper is to empirically test legitimacy theory by comparing the corporate social responsibility (CSR) disclosures of tax aggressive corporations with those of non-tax aggressive corporations in Australia.

Design/methodology/approach – A unique sample of 20 Australian corporations accused by the Australian Taxation Office of engaging in tax aggressive activities during the 2001-2006 period was hand-collected. These 20 tax aggressive corporations were then matched with 20 non-tax aggressive corporations (based on industry classification, corporation size and time period). This process generated a choice-based sample of 40 corporations for empirical analysis. Using content analysis techniques, financial accounting data were gathered from the Aspect-Huntley database and CSR disclosures were individually measured for each corporation in the sample. Various statistical techniques were then used (e.g. paired sample statistics, Pearson correlation analysis and ordinary least squares regression analysis) to test legitimacy theory.

Findings – Overall, the empirical results consistently show a positive and statistically significant association between corporate tax aggressiveness and CSR disclosure, thereby confirming legitimacy theory in the context of corporate tax aggressiveness.

Originality/value – The paper provides empirical evidence in support of legitimacy theory as an explanation for why specific corporations disclose more CSR-related information than others. Additionally, to the best of the authors' knowledge, the paper is one of the first to document an empirical association between corporate tax aggressiveness and CSR in the literature.

Keywords Corporate social responsibility, Disclosure, Legitimacy theory, Tax aggressiveness, Social responsibility, Taxes, Australia

Paper type Research paper

1. Introduction

From a policy perspective, the subject of corporate tax aggressiveness is, as Andreoni *et al.* (1998, p. 818) noted, “a problem as old as taxes themselves ... and is thus of obvious importance to nations around the world.” Managerial actions designed to minimize corporate taxes by means of tax aggressive activities are becoming an increasingly common feature of the corporate environment worldwide[1]. Such tax aggressiveness has both significant costs and benefits. In keeping with Braithwaite (2005), we define corporate tax aggressiveness in our Australian study as a scheme or arrangement put in place with the sole or dominant purpose of avoiding tax which is not within the spirit of the law. This definition is consistent with the Australian tax legislation as prescribed in Part IVA of the *Income Tax Assessment Act (1936)*. Examples of tax aggressive activities include the shifting of income or profits to



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offshore tax havens, and the claiming of excessive tax deductions and tax losses to which a corporation is not entitled.

From a societal standpoint, if a corporation establishes a scheme whose sole or dominant purpose is to avoid tax, then it is generally deemed not to be paying its “fair share” of tax[2] to the government to ensure the financing of public goods (Freedman, 2003; Landolf, 2006; Williams, 2007; Friese *et al.*, 2008)[3]. The resulting shortfall in corporate tax revenue generates hostility, reputational damage to the corporation among its various stakeholders and, at worst, the possible cessation of business operations (Landolf, 2006; Erle, 2008; Hartnett, 2008). It also produces a significant and potentially irrecoverable loss to society as a whole (Slemrod, 2004; Williams, 2007). Thus, tax aggressiveness is regarded as socially irresponsible (Christensen and Murphy, 2004; Erle, 2008; Schön, 2008). As an issue of major public concern, tax aggressiveness is a strategy that is incompatible with community expectations of corporations (Christensen and Murphy, 2004; Sikka, 2010).

In fact, public concern that corporations have aggressively avoided paying their fair share of taxes has prompted the Australian Tax Office (ATO) to initiate several major tax compliance programs in recent years (ATO, 2009). The ATO has emphasized in these programs that there is a significant risk of revenue erosion due to tax aggressive dealings by large corporations (ATO, 2009). A recurrent example of a large well-known Australian corporation that has attracted a great deal of public concern and resentment regarding its tax aggressive activities is News Corporation Ltd. The Economist (1999) reported that in the four years to June 30, 1998, News Corporation and its subsidiaries paid only AUD\$325M in corporate taxes worldwide, although its consolidated pre-tax profit in the same period was AUD \$5.40B, for an average effective tax rate of approximately 6 percent. The United States (US) Government Accountability Office (GAO, 2008) also found that News Corporation Ltd. had more offshore subsidiaries than almost any other firm operating in the USA. According to the GAO (2008), of the company’s 782 foreign subsidiaries, 152 were located in tax havens (among which the British Virgin Islands and the Cayman Islands were the most frequently represented) as part of the company’s aggressive efforts to reduce its tax liabilities.

Several researchers (e.g. Trotman, 1979; Trotman and Bradley, 1981; Guthrie and Parker, 1989; Deegan and Gordon, 1996; Wilmshurst and Frost, 2000; Deegan *et al.*, 2002) have found that corporate policies and actions that raise public concern because they fall below community expectations can contribute to the de-legitimization of a corporation. Moreover, as Gray *et al.* (1995) noted, corporations usually seek to legitimize and sustain relationships in the broader social and political environment in which they operate, and, without such legitimacy, they would not survive, irrespective of how well they may perform financially. Lindblom (1994, p. 18, cited in Gray *et al.*, 1995) defined organizational legitimacy as “a status, which exists when an entity’s value system is congruent with the value system of the larger social system of which an entity is a part. When a disparity, actual or potential exists between the two value systems there is a threat to the entity’s legitimacy.” Likewise, the relationship among individuals, organizations and society is often viewed as a “social contract” (Deegan and Rankin, 1996; Brown and Deegan, 1998).

Corporations constantly try to ensure that they operate within the bounds and norms of society (Deegan, 2002). In this context, Bowman and Haire (1976, p. 13) defined corporate social responsibility (CSR) broadly as “including the concern for the

impact of all of the corporation's activities on the total welfare of society." Legitimacy theory indicates that when there is a discrepancy between corporate actions and societal expectations, management employs such disclosure media as annual reports in order to help to alleviate community concerns or, more accurately, what they perceive to be community concerns (Hurst, 1970; Lindblom, 1994, cited in Gray *et al.*, 1995). The inclusion of CSR information in these reports is intended to alleviate public concern and show that the corporation is meeting community and societal expectations (Deegan *et al.*, 2002).

A number of accounting studies have attempted to empirically test the link between CSR disclosure and the public concern arising from corporate behavior that is inconsistent with community expectations, as posited by legitimacy theory. Guthrie and Parker (1989) were the first to make such an attempt as a test of legitimacy theory, although, as their results failed to show an empirical link between such public concern and CSR disclosures, they concluded that legitimacy theory is not the primary explanation for these disclosures. Deegan and Rankin (1996) found that corporations increase their reporting of favorable environmental information surrounding periods of increased media attention toward environmental prosecutions, concluding that this finding is consistent with a legitimating motive. Brown and Deegan (1998) observed that higher levels of media attention (as an indicator of public concern) were significantly associated with more environmental disclosures in annual reports, and Deegan *et al.* (2002) reported a similar finding. Overall, the various tests of legitimacy theory in the accounting literature have produced somewhat inconsistent results. For example, while Brown and Deegan (1998) and Deegan *et al.* (2002) both confirmed legitimacy theory as an explanation for increased levels of environmental CSR disclosures, Wilmshurst and Frost (2000) found only limited support for the theory as an explanatory link between the influential factors in the managerial decision process and actual environmental disclosures.

The purpose of this study is to test legitimacy theory empirically by comparing the CSR disclosures of tax aggressive corporations with those of non-tax aggressive corporations in Australia. It is quite clear from the ATO (2009) and the general tax literature (see, e.g. Christensen and Murphy, 2004; Landolf, 2006; Erle, 2008; Hartnett, 2008; Sikka, 2010) that corporate tax aggressiveness is a significant factor in arousing public concern over corporations and is, by definition, a policy that is inconsistent with general societal expectations. This provides us with a solid foundation to test legitimacy theory. Therefore, we test the proposition that tax aggressive corporations disclose additional CSR information in their annual reports to alleviate potential public concern over the negative community impact of corporate tax aggressiveness, and to demonstrate that they are meeting community expectations in other ways which mitigate that negative impact.

The next section of the paper presents the theoretical basis for our research which links tax aggressiveness to CSR disclosure in the context of legitimacy theory. This section also reviews relevant literature and develops our hypothesis. This is followed by discussions of the sample selection process, research design and empirical results. Finally, the article concludes with a discussion of our major findings, contributions, limitations and suggestions for future research.

2. Theory and hypothesis development

2.1 Tax aggressiveness: social irresponsibility and public concern

Corporate taxes can be associated with public concern only if the payment of these taxes has society-wide implications as opposed to being just an operating cost of the corporation. If not, then the objective of minimizing the amount of corporate tax paid would be an understandable one and would involve few ethical, community or other stakeholder considerations on the part of the corporation (Avi-Yonah, 2008). However, the payment of corporate taxes does have community and societal implications because corporate taxes play an important role in funding the provision of public goods (Freedman, 2003; Landolf, 2006; Freise *et al.*, 2008; Landolf and Symons, 2008; Sikka, 2010), such as education, national defense, public health care and law enforcement. Whether a corporation pays its fair share of tax therefore has a significant impact on the society in which it operates, and raises significant public concern (Christensen and Murphy, 2004; Landolf, 2006; Williams, 2007; ATO, 2009; Sikka, 2010).

A corporation may be able to minimize the tax it pays and remain within the spirit of the law, but deliberately engaging in strategic tax behavior with the sole purpose of minimizing tax is generally considered to be illegitimate (Avi-Yonah, 2008; Landolf and Symons, 2008). It is also considered the socially responsible course to take steps to curb the damaging effects of corporate tax aggressiveness on the economic well-being of society (Williams, 2007)[4].

In being passive towards taxation, a corporation can gain legitimacy within society and maintain a good standing with the tax authority by not only complying with the tax law, but also adhering to its underlying spirit (Christensen and Murphy, 2004; Ostay, 2004; Landolf, 2006; Rose, 2007; Williams, 2007). In Australia, schemes or arrangements that a corporation establishes with the sole or dominant purpose of avoiding tax are considered not to comply with the spirit of the law. Hence, under the Australian tax legislation, the ATO has the power to cancel any tax benefits obtained from such a scheme or arrangement, to impose additional tax and to levy significant tax penalties on the corporation in question (Gilders *et al.*, 2004).

There have been several relatively recent cases of large well-known publicly listed Australian corporations being subject to major ATO actions because of tax aggressiveness (see, e.g. Fitzpatrick, 2003; Killaly, 2009; D'Ascenzo, 2010). According to the ATO, these actions were necessary because such corporate behavior can severely undermine the integrity and community confidence in the equity and fairness of the tax system. The case examples we briefly consider here are BHP Ltd., James Hardie Ltd. and News Corporation Ltd.

In terms of BHP Ltd., the ATO issued amended assessments against several of its subsidiaries (primarily BHP Billiton Finance Ltd.) for the financial years 1999 to 2002. These amended assessments were related to the deductibility of AUD\$1.22B in bad debts arising from the funding of subsidiaries engaged in the Beenup, Boodarie Iron and Hartley mining projects. In November 2007 and March 2008, the ATO also issued further amended assessments disallowing the capital allowance expenditure that BHP Ltd. had claimed regarding plant and equipment for the Boodarie Iron project that had been funded by a loan from BHP Billiton Finance Ltd. The amount in dispute for the expenditure claim was AUD\$662M. BHP Ltd. lodged objections against the amended assessments, but these were disallowed by the ATO.

Building materials company James Hardie Ltd. is planning to appeal against a Federal Court of Australia ruling that it owes back taxes, interest and penalties of approximately AUD\$387.70M related to its 1998 inter-company corporate restructuring. The planned appeal comes after the firm lost its AUD\$387.70M capital gains tax suit against the ATO in an earlier appeal to the Federal Court, which handed down its decision on September 1, 2010, ruling in favor of the ATO. The Federal Court ruled that the corporation's subsidiaries (principally RCI Ltd.) had entered into a blatant tax avoidance scheme when the corporate group was restructured in 1998. Regardless of the outcome of its appeal, James Hardie Ltd. has indicated that it is likely to book a charge in its financial accounts of around AUD\$387.70M for the restructuring.

With regard to News Corporation Ltd., the ATO claimed that the company had contrived to avoid corporate tax by generating a AUD\$1.50B capital loss. The Tax Commissioner has filed an appeal against the Administrative Appeals Tribunal's (AAT) September 2009 decision that the AUD\$1.50B capital loss resulting from the company's global restructuring four years earlier was legitimate and not a scheme to cut its tax bill by AUD\$500M. The ATO has asked the Federal Court to overturn the AAT decision and to replace it with a ruling that the complex restructuring, dubbed a "flip and spin"[5] by News Corporation Ltd., was engineered to produce a capital loss to be used for tax savings in future years. News Corporation needed to transfer News Australia's 70 percent stake in the group's major US holding company, News Publishing, to a US subsidiary. The court heard that News Corporation Ltd. had structured the transfer in such a way so as to avoid triggering a tax bill of as much as AUD\$21B on capital gains made in Australia, the USA and the UK. The ATO argued that this scheme comprised a circular series of steps that all took place on the same day (i.e. June 8, 2005). It began with the off-market buyback of shares in one News Australia subsidiary, paid for with a AUD\$39B promissory note, and ended several steps later with the sale of the same shares at a loss of AUD\$4B, which was later reduced to AUD\$1.50B.

Corporate tax aggressiveness is thus considered by the public to constitute a socially irresponsible and illegitimate activity[6]. Accordingly, such tax aggressiveness is of major concern to the public, which could ultimately deprive the corporation of its legitimacy to exist in the fullness of time.

2.2. Social responsibility disclosure

CSR disclosure has attracted a great deal of accounting research over the past two decades (see, e.g. Guthrie and Parker, 1989; Patten, 1992; Deegan and Gordon, 1996; Deegan and Rankin, 1996; Hackston and Milne, 1996; Brown and Deegan, 1998; Wilmshurst and Frost, 2000; Deegan *et al.*, 2002). Gray *et al.* (1987, p. 4) define CSR disclosure as "the process of providing information designed to discharge social accountability. Typically this act would... be undertaken by the accountable organisation and thus might include information in the annual report, special publications or even socially oriented advertising." Drawing on this definition of CSR disclosure, several theories have been advanced in the literature to explain why a corporation would voluntarily disclose CSR-related information in its annual report. Indeed, Deegan's (2002) review of CSR-related accounting research shows the theory development surrounding CSR disclosure to be generally fragmented and simplistic in

nature. Moreover, such disclosure is normally associated in the literature with “systems-oriented theories,” such as legitimacy, political economy and stakeholder theories (see, e.g. Wilmshurst and Frost, 2000; Campbell *et al.*, 2002; Deegan *et al.*, 2002). As a component of systems-oriented theories, the socio-political context has been identified as an important determinant of a corporation’s decision to disclose CSR-related information (Roberts, 1992; Williams, 1999).

2.3 The socio-political context

The socio-political context refers to the combined effects of systems-oriented theories, which, as defined by Gray *et al.* (1996, p. 45), take “a systems oriented view of the organisation and society... which permits us to focus on the role of information and disclosure in the relationship(s) between organisations, the State, individuals and groups.” The basic assumption of this definition is that a corporation is influenced by the society in which it operates and, in turn, influences that society. CSR disclosure is viewed as a means by which the management of a corporation can interact with the broader society to influence its perceptions (Deegan, 2002).

Several theories have developed from the “systems” perspective, such as legitimacy, political economy and stakeholder theories. Legitimacy and stakeholder theories both suggest that a corporation seeks to legitimize and sustain its relationship in the broader social and political environment in which it operates (Gray *et al.*, 1995), although there is considerable difference between the two theories in the approach they take to the analysis of the role played by corporate disclosure in the relationship between a corporation and society. This difference initially created a lot of confusion in the systems perspective (Arnold, 1990; Guthrie and Parker, 1990). Gray *et al.* (1995) suggested that the differences to which Guthrie and Parker (1990) and Arnold (1990) referred were differences in the levels of resolution of perception rather than arguments for and against competing theories *per se*. Essentially, the argument proposed by Gray *et al.* (1995) was that there are broad fundamental assumptions about the political economy that form the basis of convergence into detailed specific branches including legitimacy and stakeholder theories.

Systems theories have now evolved to a stage where there is a degree of precision about the parameters of each theory within the general grouping. Multiple groups of “relevant publics” or “stakeholders” influence a corporation within the context of the social, political and economic frameworks denoted by the political economy, and each theory also addresses a different level of resolution of perception (Gray *et al.*, 1995). One such level is addressed by both legitimacy and stakeholder theories which are seen as overlapping (Deegan, 2002). Both assume the existence of an implicit social contract between the corporation and society, the terms of which are derived from the expectations of a number of groups within that society (Roberts, 1992; Deegan, 2002).

Also common to both theories is the idea that a corporation seeks legitimacy for its existence from these various reference groups within society, although they have unequal degrees of power and influence over the corporation. There are several ways by which a corporation can gain legitimacy. One is to conduct its operations in a socially responsible manner, as determined by the aforesaid reference groups, and later to discharge its obligation to disclose the nature of its activities in this arena (Gray *et al.*, 1995)[7]. The greater the power and influence of any one or all of these groups, the greater a corporation’s willingness to legitimate its activities.

Roberts (1992) claimed that as shareholders, creditors and governments are all corporate stakeholders, the variation in their relative power to influence a corporation determines the latter's CSR disclosure practices. Taking a different perspective, Newson and Deegan (2002) focused on one of the relevant publics (the "global society") that may influence the CSR disclosure practices of a multinational corporation. They theorized that since a multinational corporation is part of the global social system, its relevant publics are global in nature rather than restricted to the citizens of their home countries, so their ideals about CSR should correspond to global concerns. Overall, both legitimacy and stakeholder theories deal with the relationship (or social contract) between a corporation and specific groups in a society. Moreover, Gray *et al.* (1995) assert that legitimacy and stakeholder theories can be regarded as two overlapping views on CSR that fall within the framework of assumptions on the political economy. In other words, the combination of legitimacy, stakeholder and political economy theory results in a focus on the interaction between a corporation and various groups (e.g. relevant publics or stakeholders) within a given socio-political environment.

2.4 CSR disclosure as a means of legitimization

Legitimacy theory advocates claim that to discharge its social responsibility, a corporation (via management) provides CSR information as part of its dialogue with society (Gray *et al.*, 1995). Even if a corporation is complying with societal expectations, its legitimacy may be threatened if it fails to make disclosures that convincingly demonstrate compliance (Newson and Deegan, 2002). Hence, managers need to show that they are complying with the social contract by disclosing information in line with society's expectations[8]. However, the exact terms of that contract, or exactly what CSR entails, cannot be known with precision. Rather, managers usually have different perceptions of these terms and will thus vary in their disclosure of CSR information in annual reports. Gray *et al.* (1996) argued that the legal requirements governing a corporation provide the explicit terms of the social contract, whereas non-legislated societal expectations provide its implicit terms. In a more recent study, Bebbington *et al.* (2008) claim that CSR disclosure denotes both an outcome of and part of reputation risk management (RRM) processes. Specifically, to enhance the reputation of a corporation it is necessary for it to show to society via CSR disclosure that it is complying and managing the environmental, social and ethical aspects of its existence. Thus, Bebbington *et al.* (2008) find parallels between legitimacy theory and RRM explanations about the level of CSR disclosure. However, any more discussion of RRM in relation to legitimacy theory is beyond the scope of our study.

When a corporation breaches the social contract as a result of policymaking that does not meet societal expectations, it attracts community concern over its activities. The earliest studies to analyze CSR disclosures were those of Trotman (1979), Trotman and Bradley (1981), and Kelly (1981), none of whom specifically tested legitimacy theory as the major explanatory factor in such disclosures. Hogner (1982) was one of the first to examine legitimacy theory as an explanatory factor for CSR disclosure in his investigation of US Steel's annual reports over an approximately 80-year period covering most of the twentieth century. He concluded that such disclosures were made in response to societal factors and were thus related to legitimacy theory, although his results were inconclusive.

Guthrie and Parker (1989) tested legitimacy theory by examining a large Australian mining firm, BHP Ltd. They studied the corporation's annual reports over a period of approximately 100 years (going back to 1885), arguing that annual reports constitute the one medium of communication with outside parties over which management has complete editorial control. Guthrie and Parker (1989) examined all major events and issues relating to BHP Ltd. that would be of public concern and, according to legitimacy theory, require the firm to disclose additional CSR information to satisfy community expectations. However, their analysis failed to confirm legitimacy theory as the primary explanation for CSR disclosure because the variation in BHP Ltd.'s CSR disclosure was inconsistent with events that would tend to raise public concern.

Patten (1992) investigated legitimacy theory based on the effects of the *Exxon Valdez* oil spill on the environmental disclosures in the annual reports of 21 petroleum corporations other than Exxon. He found a significant increase in the number of such disclosures among the sample corporations, thereby providing some important evidence in support of legitimacy theory.

Deegan and Gordon (1996) analyzed environmental disclosures between 1980 and 1991 in a sample of Australian corporations, concluding that the extent of corporate environmental disclosure appeared to be positively associated with environmental lobby groups' concern over corporate environmental performance. This finding provides some evidence that the concerns of particular groups within society may lead to an increase in corporate environmental disclosures.

Deegan and Rankin (1996) examined corporations that had been prosecuted successfully by the Environmental Protection Authority in Australia. They found total CSR disclosures to be greater in the year of prosecution, which is consistent with legitimacy theory's supposition that corporations increase their disclosure of CSR information in periods of heightened public concern due to prosecutions. It appears that the prosecuted corporations increased their disclosures to offset the perception that they were not fulfilling their societal obligations.

Wilmshurst and Frost (2000) argued that existing research did not provide consistent support for legitimacy theory. So, they further tested the theory by relating management's perception of the information needs of report users, tempered by the ability of certain factors to influence the well-being of the corporation, to the level of environmental disclosure observed in those reports. They found limited support for legitimacy theory as an explanatory link between the influential factors they identified in the managerial decision process and actual environmental disclosure.

Brown and Deegan (1998) adopted media agenda-setting theory as a proxy for public concern and related it to environmental disclosures in annual reports. In line with legitimacy theory, as employed within the context of their study, they found that management tends to increase the level of environmental disclosure if it perceives the legitimacy of the corporation to be threatened because of public concern over the environmental implications of its activities. This type of corporate behavior is consistent with the findings reported by Hogner (1982), Patten (1992), Deegan and Gordon (1996), and Deegan and Rankin (1996).

Deegan *et al.* (2002) attempted to replicate Guthrie and Parker's (1989) research by analyzing the annual reports of BHP Ltd. They concluded that there was an association between community concern over particular social and environmental issues (such as

human resources practices) and the CSR disclosures in the annual reports, thereby providing further support for legitimacy theory.

In summary, while additional evidence in support of legitimacy theory has appeared in the accounting literature since it was first proposed, a great deal of skepticism remains concerning its validity in explaining CSR disclosures. Of particular concern is that most of the research carried out to date to test legitimacy theory has concentrated on environmental issues that cause public apprehension. However, there are several other issues likely to be at least as important to society as the environment. For example, corporate tax aggressiveness has increased considerably over the past 20 years, and such aggressiveness has a significant negative impact on society as it severely affects the government's ability to provide public goods. Indeed, corporate tax aggressiveness has not gone unnoticed by the Australian public (or the citizens of other countries such as the UK[9] and the USA[10]), with frequent media reports about the phenomenon arousing significant public concern (see, e.g. Owens, 2007; Landolf and Symons, 2008; D'Ascenzo, 2010).

Recently, a growing tide of public anger has enveloped Australia's Big-4 banks[11] in the wake of media reports that the country's major banks had managed to reduce their proportion of corporate tax in the 2010 financial year significantly, with some, including Westpac Ltd, paying only a fraction of the overall corporate tax rate of 30 percent (Johnston and Grattan, 2010). According to Westpac Ltd's full-year financial results, its net profit for the 2010 financial year was AUD\$6.3B, a AUD\$2.9B (or 84 percent) increase over the previous year, and yet its effective tax rate declined from 42 percent for the 2009 financial year to just 20 percent for the 2010 financial year (Westpac Banking Corporation Ltd, 2011). Such an egregious example of corporate tax behavior can damage public confidence in the general equity and fairness of the tax system (see, e.g. Fitzpatrick, 2003; Christensen and Murphy, 2004; D'Ascenzo, 2010).

When the tax authority deems a corporation to be overtly tax aggressive, the corporation may react to such disapproval by acting in accordance with legitimacy theory and disclosing additional CSR information. Nevertheless, this additional information is unlikely to be limited to the environment *per se*, as the consequences of corporate tax aggressiveness span a much wider spectrum of CSR activities, including community involvement, charity work, human resources and political contributions.

The implication of legitimacy theory here is that a corporation's disclosure of CSR information depends on its tax aggressiveness, with reference to the role played by information and disclosure in the relationships among organizations, government, individuals and specific groups in society (Gray *et al.*, 1996). A corporation that is blatantly tax aggressive creates significant public concern because it is perceived as failing to meet societal expectations that it is paying its fair share of tax (Christensen and Murphy, 2004; Landolf, 2006; Williams, 2007; Landolf and Symons, 2008; ATO, 2009). Legitimacy theory further suggests that a tax aggressive corporation will disclose additional information related to its CSR activities in a variety of areas in an attempt to alleviate such public concern, to show that it is fulfilling its obligations to the community or to alter societal expectations about its activities (see, e.g. Deegan *et al.*, 2002). Accordingly, we propose the following hypothesis as a test of legitimacy theory:

- H1. All else being equal, a tax aggressive corporation will disclose a greater amount of CSR information than a non-tax aggressive corporation.

3. Sample description

The sample used to test our hypothesis comprises 40 corporations listed on the Australian Stock Exchange (ASX). Of these 40 corporations, 20 are considered to be tax aggressive, as they were accused of such aggressiveness by the ATO during the 2001-2006 period[12]. Each of these tax aggressive corporations was systematically matched with a non-tax aggressive counterpart to produce a choice-based sample of 20 tax aggressive and 20 non-tax aggressive corporations.

3.1 Tax aggressive corporation sample formation

The tax aggressive sample comprises firms involved in cases of tax aggressiveness during the 2001-2006 period. We included a corporation in this sample if we could confirm that an ATO tax audit investigation had revealed an instance of tax aggressiveness that subsequently led the ATO to issue it with an amended tax assessment increasing the amount of income tax payable.

We initially employed the corporate announcement search option on the ASX web site to conduct an exhaustive electronic search for cases of accused tax aggressiveness by publicly listed corporations between 2001 and 2006 using the word strings “tax aggressiveness,” “tax avoidance,” “tax evasion,” “tax shelter” and “amended tax assessment.” Once we had identified a potential tax aggression case via this process, we read its corporate announcement thoroughly and retained only those corporations for which the ATO had issued an amended tax assessment by reason of tax aggressive activities.

The same process was repeated on the ATO web site, utilizing its legal database to carry out a thorough electronic search for case judgments during the study period that were related to instances of tax aggressiveness involving the ATO and publicly listed corporations that were not reported on the ASX web site. We employed the same word strings “tax aggressiveness,” “tax avoidance,” “tax evasion,” “tax shelter,” and “amended tax assessment” to identify potential tax aggressive cases, and then read each such case carefully, retaining only those corporations for which the ATO had issued an amended tax assessment due to tax aggressiveness[13].

Overall, this search of the ASX and ATO web sites produced a sample of 23 tax aggressive corporations for further analysis. Although, at first glance the total number of corporations in our tax aggressive sample appears to be relatively small, it is satisfactory given the study’s sampling timeframe of five years. In their study of corporate debt policy and tax aggressiveness in the USA, Graham and Tucker (2006) were able to uncover only 43 cases of publicly listed corporations accused of tax aggressiveness during the 1975-2000 period, which represents a sampling time horizon of 25 years.

Table I shows that 21 tax aggressive corporations were identified through the searches undertaken on the ASX web site and an additional two through those carried out on the ATO web site. Three of these corporations were discarded from the sample because:

- the firm in question was a foreign corporation listed on the ASX and its tax aggressiveness involved an abuse of foreign tax laws rather than Australian tax laws (one corporation); or
- it had been delisted from the ASX (two corporations).

Therefore, our final sample of tax aggressive corporations included 20 firms. Finally, Table II reports the year and number of tax aggressiveness cases detected over the 2001-2006 period. In most years, the number of tax aggressiveness cases uncovered by the ATO was approximately two to three cases per year, however in the 2002 year, the number of cases increased to eight because of increased tax audits and legal actions instituted by the ATO.

The different types of tax aggressive activities detected in our sample of tax aggressive corporations, together with the specific amounts of corporate tax in dispute with the ATO, are reported in Table III. The most common type of activity is the excessive use of corporate debt to minimize taxable income by over-claiming tax deductions for interest expenses (accounting for a total of AUD\$464.20M tax in dispute). Other frequently occurring types include the overuse of tax losses (accounting for AUD\$379M tax in dispute), capital gains tax reductions in corporate restructuring (AUD\$222M), the over-claiming of tax deductions for rent and lease costs (AUD\$40M), and the use of sale and leaseback transactions (AUD\$48.70M). Less common types

| | |
|---|-----|
| Number of tax aggressive corporations identified on the ASX web site | 21 |
| Add: Number of tax aggressive corporations identified on the ATO web site | 2 |
| Sub-total | 23 |
| Less: | |
| Foreign corporations listed on the ASX | (1) |
| Corporations delisted from the ASX | (2) |
| Total number of tax aggressive corporations included in the sample | 20 |

Table I.
Reconciliation of the tax aggressive corporations in the sample

| | | |
|---------|---------|----------|
| 2001: 2 | 2003: 2 | 2005: 3 |
| 2002: 8 | 2004: 3 | 2006: 2 |
| | | Total 20 |

Table II.
Year and number of tax aggressiveness cases detected over the 2001-2006 sample period

| Type of tax aggressiveness | Frequency (#) | Relative frequency (%) | Amount of tax in dispute (AUD\$M) |
|--|---------------|------------------------|-----------------------------------|
| Deductibility of interest expenses | 6 | 30 | 464.20 |
| Transfer of tax losses | 2 | 10 | 379 |
| Corporate restructurings – capital gains tax | 2 | 10 | 222 |
| Deductibility of rent and lease costs | 2 | 10 | 40 |
| Sale and leaseback transactions | 2 | 10 | 48.70 |
| Claiming capital gains tax losses | 1 | 5 | 45 |
| Deductibility of R&D expenses | 1 | 5 | 3.20 |
| Exemption of offshore income | 1 | 5 | 0.20 |
| Forward sale of shares and share warrants | 1 | 5 | 40.70 |
| Security lending and equity swaps | 1 | 5 | 262 |
| Trading stock manipulation | 1 | 5 | 9.70 |
| Total | 20 | 100 | 1,514.70 |

Table III.
Types of tax aggressive activities pursued by the sample corporations

involve the use of capital gains tax losses (accounting for a total of AUD\$45M tax in dispute), the over-claiming of tax deductions for R&D expenses (AUD\$3.20M), falsely obtaining an income tax exemption for offshore income (AUD\$0.20M), the forward sale of shares and share warrants to reduce taxable income (AUD\$40.70M), security lending and equity swaps (AUD\$40.7M) and trading stock manipulation (AUD\$9.70M). A common feature of the majority of tax aggressive activities reported in Table III is that they effectively generate tax deductions (e.g. interest, tax loss and R&D deductions) that the corporation can use to offset assessable income, thereby reducing its taxable income and amount of corporate tax payable.

3.2 Matched corporation sample formation

To form our matched sample, we examined all of the corporations listed on the ASX. Non-tax aggressive corporations were identified on the basis of their similarity to the tax aggressive corporations in terms of:

- industry classification;
- corporation size; and
- time in keeping with previous research (see, e.g. Kaplan and Reishus, 1990; Beasley, 1996; Gerety and Lehn, 1997; Uzun *et al.*, 2004).

More specifically, we identified non-tax aggressive corporations in the same four-digit General Industry Classification Standard (GICS) industry as a given tax aggressive corporation in the year before the tax aggressive activity took place (year $t-1$). Among these same-industry corporations, we considered matched corporations to be those with a market value of common stock that was ± 30 percent of the common stock of a corresponding tax aggressive corporation in year $t-1$ [14].

The matching process generated a single match for most of the tax aggressiveness sample and in two cases several matches within ± 30 percent of the market value of common stock of a corresponding tax aggressive corporation. Thus, for a given tax aggressive corporation, we selected the corporation that was closest in market value of common stock to the tax aggressive corporation to generate one match per tax aggressive corporation. By so doing, we prevented our empirical analysis from being overshadowed by cases for which our matching process happened to identify several matches (see, e.g. Graham and Tucker, 2006). The end result was a matched sample that is similar in scope to the tax aggressive corporation sample.

Table IV provides the matching statistics for the tax aggressive and non-tax aggressive corporations. All of the financial statement data were obtained from the Aspect-Huntley financial database. Overall analysis of the matching statistics reported in Table IV reveals that, on average, the tax aggressive corporations have greater total assets, sales and market value than their non-tax aggressive counterparts. However, we also find that, on average, these corporations have lower effective tax rates (i.e. pay less corporate income tax) than the non-tax aggressive corporations although the two groups are almost equally profitable (based on return on assets). Finally, comparison of the means (paired t -tests) and medians (Wilcoxon matched-pair sign rank test) reveals no statistically significant differences between the two types of firms in terms of total assets, total sales, market value of common stock, effective tax rates and return on assets.

| Variable | Tax aggressive corporations | | | Non-tax aggressive corporations | | | Tax aggressive and non-tax aggressive corporations | |
|------------------------------|-----------------------------|--------|-----------|---------------------------------|--------|-----------|--|---------|
| | Mean | Median | Std. Dev. | Mean | Median | Std. Dev. | t-value | z-value |
| Total assets (\$M) | 4,886 | 3,283 | 17,492 | 3,498 | 3,082 | 18,301 | 0.21 | 0.82 |
| Total sales (\$M) | 4,226 | 873 | 7,560 | 3,494 | 1,581 | 7,651 | -0.29 | -0.30 |
| Market value of equity (\$M) | 5,184 | 2,023 | 15,238 | 4,679 | 1,574 | 12,805 | 0.12 | 0.82 |
| Effective tax rate (%) | 6 | 17 | 16 | 20 | 25 | 11 | -0.90 | -0.08 |
| Return on assets (%) | 7 | 5 | 6 | 8 | 8 | 9 | -0.40 | -0.78 |

Notes: All of the financial statement data are taken from the Aspect-Huntley financial database; The effective tax rate is measured as income tax expense divided by book income; Return on assets is measured as pre-tax income divided by total assets; Paired *t*-tests (Wilcoxon matched-pair sign rank tests) for means (medians) were carried out to determine whether tax aggressive and non-tax aggressive corporations differ significantly in terms of total assets, total sales, market value of equity, effective tax rates or return on assets. No statistically significant differences were found at the $p < 0.10$ (two-tailed) level of statistical significance

Table IV. Matching statistics and paired-sample statistics for the tax aggressive and non-tax aggressive corporations

4. Research design

Our research design includes several statistical techniques to test our hypothesis. First, we used paired-sample statistics (i.e. paired *t*-tests and Wilcoxon matched-pair sign rank tests) to compare the tax aggressive corporation and non-tax aggressive corporation sub-samples. Second, we carried out Pearson pairwise correlation analysis to determine whether there was a significant positive association between tax aggressiveness and CSR disclosure levels. Finally, we performed ordinary least squares (OLS) regression analysis to test our hypothesis in a multivariate framework to control for other factors that could be associated with CSR disclosure.

4.1 Dependent variable

The dependent variable for our empirical tests is the level of CSR disclosure in the annual reports of our matched-sample corporations[15]. Specifically, we adopted content analysis[16] to gauge the level of CSR disclosure in the annual reports of our matched-sample corporations because it is a well-established method that has long been used in the social responsibility literature (see, e.g. Ernst & Ernst, 1978; Abbott and Monsen, 1979; Guthrie and Mathews, 1985; Guthrie and Parker, 1990; Hackston and Milne, 1996).

Adopting the Hackston and Milne (1996) research approach, we developed an interrogation instrument, checklist and relevant decision rules[17]. The instrument categories were constructed in keeping with Hackston and Milne (1996) and with earlier research carried out by Ernst & Ernst (1978), Guthrie and Parker (1990), and Gray *et al.* (1995). The disclosure themes included in our study are represented by the environment, energy, products/consumers, community, employee/human resources and general/other[18].

We employed the number of sentences as our primary measurement unit for each CSR disclosure theme to overcome the problems associated with using the number of words (see, e.g. Hackston and Milne, 1996). Sentences are also more likely to provide

reliable measures of inter-rater coding than words (Hackston and Milne, 1996). Moreover, we made no attempt to standardize annual report length because, according to Hackston and Milne (1996), there is no constraint on the number of pages that a corporation can include in its annual report if it considers additional disclosure to be necessary.

We followed the same pre-testing procedure as that advocated by Hackston and Milne (1996), namely, three pre-test rounds were performed by the two authors and one additional academic staff member. With each stage, the views of each reviewer about what constituted a CSR-related disclosure became more consistent. This process also helped in the formulation of our decision rules. Finally, we also employed the content analytic reliability measures developed by Scott (1955) and Krippendorff (1980) at the end of the pre-testing procedure. These measures indicated high levels of inter-coder agreement (and thus reliability) in line with the benchmarks adopted by Hackston and Milne (1996) in their research, thus paving the way for further content analysis to be carried out by one coder in the course of this study.

4.2 Independent variable

Our independent variable is denoted by the dummy variable tax aggressiveness (TAG), which takes a value of 1 if the corporation had been accused of tax aggressiveness by the ATO, resulting in the issue of an amended tax assessment, and 0 otherwise. The data used to construct the TAG variable were collected from the ASX and ATO web sites, as outlined in the foregoing section on our sampling procedure.

4.3 Control variables

We include several control variables from the CSR disclosure literature in our OLS regression model to control for other effects. They include corporation size, leverage, capital intensity, the market-to-book ratio and return on assets. Data for these control variables were collected from the Aspect-Huntley financial database.

For corporation size (SIZE), previous research (see, e.g. Patten, 1992, 2002; Hackston and Milne, 1996; Clarkson *et al.*, 2008; Cho *et al.*, 2010) shows that it is positively associated with CSR disclosure. Specifically, due to their higher visibility, larger corporations are likely to disclose more extensive CSR information in the annual report than smaller corporations (Cho *et al.*, 2010). We measure SIZE as the natural log of total assets.

Leverage (LEV) is included in our study as a control variable because managers typically disclose more CSR information as leverage increases in a corporation to reduce the level of information asymmetry (Clarkson *et al.*, 2008). Managers disclose more information as a consequence of additional scrutiny from financial institutions (Leftwich *et al.*, 1981), and also to lower a corporation's cost of capital (Jensen and Meckling, 1976; Healy and Palepu, 2001; Francis *et al.*, 2008). LEV is measured as long-term debt divided by total assets.

We include capital intensity (CAPINT) in our study as a control variable given that previous research (see, e.g. Magness, 2006; Clarkson *et al.*, 2008; Aerts and Cormier, 2009) shows that physical plant and equipment makes a corporation much more visible to the public and to the community at large. Thus, capital intensive corporations disclose more CSR information than non-capital intensive corporations (Aerts and

Cormier, 2009). We measure CAPINT as net property, plant and equipment divided by total assets.

The market-to-book ratio (MKTBK) is incorporated in our study to control for corporate growth. In particular, growth corporations have greater information asymmetry between management and investors and agency costs (see, e.g. Smith and Watts, 1992; Gaver and Gaver, 1993). Consequently, growth corporations are expected to disclose more CSR information than non-growth corporations. MKTBK is measured as the market value of equity divided by the book value of equity.

Finally, for return on assets (ROA), previous research (see, e.g. Cormier and Magnan, 1999, 2003; Murray *et al.*, 2006) finds a positive association between a corporation's level of disclosure and its financial performance. Indeed, a corporation with better quality earnings performance tends to have a higher propensity to disclose its "good news" to financial markets (Lang and Lundholm, 1996). We measure ROA as pre-tax income divided by total assets.

4.4 Regression model

To test our prediction in *H1* that a tax aggressive corporation will disclose a greater amount of CSR information than a non-tax aggressive corporation, we estimated the following OLS regression model:

$$TCSR_i = \alpha_0 + \beta_1 TAG_i + \beta_2 SIZE_i + \beta_3 LEV_i + \beta_4 CAPINT_i + \beta_5 MKTBK_i + \beta_6 ROA_i + \varepsilon_i \quad (1)$$

Where:

- i* = corporations 1 through 40.
- TCSR = the total number of CSR sentences disclosed in the annual report.
- TAG = a dummy variable that takes a value of 1 if the corporation was accused of tax aggressiveness by the ATO, and 0 otherwise.
- SIZE = the natural logarithm of total assets.
- LEV = long-term debt divided by total assets.
- CAPINT = net property, plant and equipment divided by total assets.
- MKTBK = the market value of equity divided by the book value of equity.
- ROA = pre-tax income divided by total assets.
- ε = the error term.

5. Empirical results

5.1 Descriptive statistics

The descriptive statistics are reported in Table V. The dependent variable, TCSR, has a mean (median) of 67.60 (51.50) and a range of 0 to 322. TAG, the independent variable, has a mean (median) of 0.50 (0.50) and a range of 0 to 1. The statistics for the control variables are as follows. SIZE has a mean (median) of 21.99 (21.85) and a range of 17.73 to 21.85, LEV has a mean (median) of 0.19 (0.15) and a range of 0 to 0.64, CAPINT has a

| Variable | N | Mean | Std. Dev. | Minimum | Median | Maximum |
|----------|----|-------|-----------|---------|--------|---------|
| TCSR | 40 | 67.60 | 66.87 | 0 | 51.50 | 322 |
| TAG | 40 | 0.50 | 0.51 | 0 | 0.50 | 1 |
| SIZE | 40 | 21.99 | 2.42 | 17.73 | 21.85 | 26.74 |
| LEV | 40 | 0.19 | 0.17 | 0 | 0.15 | 0.64 |
| CAPINT | 40 | 0.25 | 0.24 | 0 | 0.21 | 0.72 |
| MKTBK | 40 | 2.11 | 2.26 | 0.01 | 1.49 | 8.10 |
| ROA | 40 | 0.07 | 0.08 | -0.16 | 0.06 | 0.21 |

Notes: *Variable definitions:* TCSR = the total number of CSR sentences disclosed in the annual report; TAG = a dummy variable that takes a value of 1 if the ATO accused a corporation of tax aggressiveness, and 0 otherwise; SIZE = the natural logarithm of total assets; LEV = long-term debt divided by total assets; CAPINT = net property, plant and equipment divided by total assets; MKTBK = the market value of equity divided by the book value of equity; and ROA = pre-tax income divided by total assets

Table V.
Descriptive statistics

mean (median) of 0.25 (0.21) and a range of 0 to 0.72, MKTBK has a mean (median) of 2.11 (1.49) and a range of 0.01 to 8.10, and ROA has a mean (median) of 0.07 (0.06) and a range of -0.16 to 0.21. Overall, we find a reasonable level of consistency between the means and medians of all variables, reflecting normality of distributions.

5.2 Paired-sample statistics

We report our paired-sample statistics (with two-tailed *p*-values) for the tax aggressive corporations versus the non-tax aggressive corporations in Table VI. For TCSR, we find that the mean and median are significantly larger for the tax aggressive corporations than for non-tax aggressive corporations ($p < 0.10$), thus offering some initial support for *H1* in terms of legitimacy theory. We observe that tax aggressive

| | N | Tax aggressive corporations | Mean Non-tax aggressive corporations | <i>t</i> -value | Tax aggressive corporations | Median Non-tax aggressive corporations | <i>z</i> -value |
|--------|----|-----------------------------|--------------------------------------|-----------------|-----------------------------|--|-----------------|
| TCSR | 40 | 77.50 | 57.70 | -1.44* | 81 | 44 | -1.31* |
| SIZE | 40 | 22.12 | 21.86 | -0.36 | 21.88 | 21.84 | -0.78 |
| LEV | 40 | 0.18 | 0.19 | -0.15 | 0.16 | 0.14 | -0.24 |
| CAPINT | 40 | 0.23 | 0.28 | -0.60 | 0.17 | 0.19 | -0.71 |
| MKTBK | 40 | 2.70 | 1.52 | -1.85** | 1.49 | 1.40 | -1.34* |
| ROA | 40 | 0.07 | 0.08 | -0.40 | 0.05 | 0.07 | -0.78 |

Notes: * and ** indicate that the paired *t*-test (Wilcoxon matched-pair sign rank test) results for the means (medians) of the tax aggressive and non-tax aggressive corporation sub-samples are significantly different at the 10 percent and 5 percent levels (two-tailed *p*-values), respectively. *Variable definitions:* TCSR = the total number of CSR sentences disclosed in the annual report; TAG = a dummy variable that takes a value of 1 if the ATO accused a corporation of tax aggressiveness, and 0 otherwise; SIZE = the natural logarithm of total assets; LEV = long-term debt divided by total assets; CAPINT = net property, plant and equipment divided by total assets; MKTBK = the market value of equity divided by the book value of equity; and ROA = pre-tax income divided by total assets

Table VI.
Paired-sample statistics

corporations are more likely to include a greater number of social responsibility disclosures in their annual reports than non-tax aggressive corporations. For the control variables, we find a significantly larger mean and median for the tax aggressive corporations relative to non-tax aggressive corporations for MKTBK ($p < 0.05$ for the paired t -test and $p < 0.10$ for the Wilcoxon matched-pair sign rank test). However, the means and medians for the other control variables (SIZE, LEV, CAPINT and ROA) are not significant.

5.3 Correlation results

Table VII presents the Pearson pairwise correlation results. We find that TAG is significantly positively associated with TCSR ($p < 0.05$), as expected. This result shows that the higher a corporation's level of tax aggressiveness, the greater its number of social responsibility disclosures that it makes in its annual report, therefore providing some additional support for *H1*. We also find several significant correlations between TCSR and the control variables as follows:

- a significantly positive correlation between TCSR and SIZE ($p < 0.01$); and
- a significantly negative correlation between TAG and MKTBK ($p < 0.10$).

Finally, Table VII indicates only moderate levels of collinearity between the explanatory variables in our study (see, e.g. Hair *et al.*, 2006).

5.4 Regression results

The OLS regression results used to test our prediction in *H1* that tax aggressive corporations exhibit greater CSR disclosure are reported in Table VIII. The regression coefficient for TAG is positive and significant ($p < 0.05$), which provides further support for *H1* and is consistent with some research testing legitimacy theory, particularly that in the area of environmental disclosures (see, e.g. Patten, 1992; Deegan and Gordon, 1996; Deegan and Rankin, 1996; Brown and Deegan, 1998; Wilmshurst and Frost, 2000; Deegan *et al.*, 2002). Nevertheless, our study is one of the first to

| | TCSR | TAG | SIZE | LEV | CAPINT | MKTBK | ROA |
|--------|---------|-------|---------|---------|---------|---------|-----|
| TCSR | 1 | | | | | | |
| TAG | 0.28** | 1 | | | | | |
| SIZE | 0.62*** | 0.08 | 1 | | | | |
| LEV | -0.20 | -0.01 | -0.12 | 1 | | | |
| CAPINT | 0.03 | -0.03 | -0.19 | 0.35** | 1 | | |
| MKTBK | -0.22* | -0.10 | -0.39** | 0.51*** | 0.64*** | 1 | |
| ROA | 0.09 | -0.15 | -0.20 | 0.38** | 0.50*** | 0.67*** | 1 |

Notes: *, **, and *** indicate significance at the 0.10, 0.05, and 0.01 levels, respectively. The p -values are one-tailed for directional hypotheses and two-tailed otherwise. *Variable definitions:* TCSR = the total number of CSR sentences disclosed in the annual report; TAG = a dummy variable that takes a value of 1 if the ATO accused a corporation of tax aggressiveness, and 0 otherwise; SIZE = the natural logarithm of total assets; LEV = long-term debt divided by total assets; CAPINT = net property, plant and equipment divided by total assets; MKTBK = the market value of equity divided by the book value of equity; and ROA = pre-tax income divided by total assets

Table VII.
Pearson pairwise correlation results

| Variable | Predicted sign | Coefficient | Standard error ^a | t-statistic |
|-----------------------------|----------------|-------------|-----------------------------|-------------|
| Intercept | ? | 303.046 | 89.480 | 3.39*** |
| TAG | + | 0.208 | 16.467 | 1.67** |
| SIZE | + | 0.581 | 4.127 | 3.90*** |
| LEV | + | 0.317 | 57.832 | 2.21** |
| CAPINT | + | 0.287 | 58.460 | 1.35* |
| MKTBK | + | 0.301 | 6.609 | 1.35* |
| ROA | + | -0.190 | 158.924 | -1.05 |
| Adjusted R ² (%) | 30.53 | | | |
| F-value | 6.40 | | | |
| Probability > F | 0.001 | | | |
| N | 40 | | | |

Notes: ^a Standard errors are corrected using the White (1980) procedure; *, **, and *** indicate significance at the 0.10, 0.05 and 0.01 levels, respectively. The *p*-values are one-tailed for directional hypotheses and two-tailed otherwise. *Variable definitions:* TCSR = the total number of CSR sentences disclosed in the annual report; TAG = a dummy variable that takes a value of 1 if the ATO accused a corporation of tax aggressiveness, and 0 otherwise; SIZE = the natural logarithm of total assets; LEV = long-term debt divided by total assets; CAPINT = net property, plant and equipment divided by total assets; MKTBK = the market value of equity divided by the book value of equity; and ROA = pre-tax income divided by total assets

Table VIII.
OLS regression results

provide evidence of a direct link between corporate tax aggressiveness and CSR disclosure. In so doing, we also provide support for legitimacy theory.

Table VIII also shows that some of the regression coefficients for the control variables are significant. SIZE is positive and significant ($p < 0.01$) as expected. Due to their higher visibility, larger corporations tend to disclose more extensive CSR information in the annual report than smaller corporations (Cho *et al.*, 2010). The regression coefficient for LEV is also positive and significant ($p < 0.05$) as expected. It appears that managers disclose more CSR information to:

- reduce the level of information asymmetry (Clarkson *et al.*, 2008);
- allow for additional scrutiny from financial institutions (Leftwich *et al.*, 1981); and
- lower a corporation's cost of capital (Jensen and Meckling, 1976).

The regression coefficient for CAPINT is also positive and significant ($p < 0.10$), in line with expectations, suggesting that physical plant and equipment makes a corporation more visible to the public and to the community in general (Magness, 2006). We also observe a positive and significant regression coefficient for MKTBK ($p < 0.10$) as expected. It seems that growth corporations have greater information asymmetry between management and investors and agency costs, so growth corporations are expected to disclose more CSR information than non-growth corporations (Smith and Watts, 1992). Finally, the regression coefficient for ROA is not significant.

5.5 Robustness checks

We performed several robustness checks to evaluate the reliability of the OLS regression results presented in Table VIII. First, we entered the control variables

consecutively into the regression model and obtained similar results for TAG. Second, we dropped the control variables from the regression model, and our results for TAG were unchanged. Third, we computed variance inflation factors (VIFs) when estimating our regression model to test for signs of multi-collinearity between the explanatory variables. As no VIF exceeded five, we concluded that multi-collinearity was not a major concern in our study (Hair *et al.*, 2006). Finally, to deal with potential outlier problems, we re-estimated our regression model after excluding a few outliers based on the method recommended by Neter *et al.* (1996), and the results in terms of the predicted sign and statistical significance of TAG remained similar to those reported in Table VIII. Overall, our OLS regression results are reliable.

6. Conclusion

This study empirically tests legitimacy theory by comparing the CSR disclosures of tax aggressive corporations with those of non-tax aggressive corporations in Australia. Given a choice-based sample of 40 corporations, our study used paired-sample statistics, Pearson correlation analysis and OLS regression analysis to test our proposition that tax aggressive corporations have greater CSR disclosures to alleviate potential public concerns arising from the negative impact of their tax aggressiveness on the community, and to show that they are meeting community expectations in other ways. Overall, our results consistently show a positive and statistically significant association between tax aggressiveness and CSR disclosure, thus confirming legitimacy theory in the context of corporate tax aggressiveness.

On the whole, this study helps to answer the recent call issued by Sikka (2010, p. 155) for research into the taxation aspects of CSR because tax revenues can make a significant difference to the quality of life of millions of people. In so doing, it extends the accounting literature on the topic of CSR and legitimacy theory using tax aggressiveness as an issue of public concern, a corporate policy outcome that is directly linked to the general welfare of society. Our research provides a novel test of legitimacy theory and provides a plausible explanation as to why some corporations disclose more CSR information than others. To the best of our knowledge, this study is one of the first to document an empirical association between tax aggressiveness and CSR. Moreover, our results are consistent with the ATO Commissioner Michael D'Ascenzo's view that there is a heightened public awareness of tax as an important part of CSR since the global financial crisis. Thus, corporate tax issues are increasingly in the public domain (D'Ascenzo, 2010, p. 3). Finally, this study furnishes additional evidence in support of an emerging research paradigm in the area of CSR and tax aggressiveness.

This study is subject to a number of limitations. First, our sample is drawn from publicly listed Australian corporations. Due to a lack of data availability, it was not possible to include unlisted corporations in our sample. Second, the total number of tax aggressive corporations in our sample is relatively small, although it appears to be adequate given the sampling timeframe of five years (see, e.g. Graham and Tucker, 2006). Third, as we identified our tax aggressiveness corporations via the ASX and ATO web sites, our sample may not be wholly representative of the total population of tax aggressiveness cases which could limit the implications of our findings. Fourth, the method by which we identified non-tax-aggressive corporations may have led to one or more cases of misclassification if a corporation classified as a non-tax-aggressive

corporation had engaged in tax aggressive activities yet to be detected. However, the possibility of such misclassification was reduced by searching the ASX and ATO web sites for the extended period (1998-2010) to confirm that there were no reported cases of tax aggressive activities for any of the non-tax aggressive corporations in our matched sample.

Future research could examine several important issues. First, our empirical results indicate that together with corporate tax aggressiveness, firm size is positively associated with CSR disclosure in the multivariate analysis. While firm size is consistently found to be a significant variable in many areas of accounting research, legitimacy theory studies tend to overlook firm size in the research design. Future research could thus be directed towards considering legitimacy theory in the context of firm size and CSR disclosure. Second, we also propose that future research on legitimacy theory could employ cross-sectional sampling techniques and multivariate analysis to provide more rigorous testing of legitimacy theory. Third, more detailed analysis could be carried out to determine which particular types of CSR disclosure are more closely related to a corporation's tax policy and why. Fourth, we also suggest that legitimacy theory could be tested using legitimacy strategies other than those related to CSR disclosure (see, e.g. Lindblom, 1994). Finally, the role of corporate ethics in driving CSR activities and corporate tax policy could also be investigated further.

Notes

1. See, e.g. the widely reported cases of serious corporate tax aggressive practices of Dynegy, Enron, GlaxoSmithKline, Google, Parmalat, Sibneft, Tyco, WorldCom and Yukos.
2. In the USA, according to the Citizens for Tax Justice (CTJ) the public want corporations to pay more corporate taxes. A Gallup Poll asked respondents for several years whether corporations payed their "fair share," "too much" or "too little" corporate taxes. Between 2004 and 2009 (the only years for which public data were available) 67 to 73 percent of respondents said that corporations pay "too little" corporate taxes (CTJ, 2011).
3. According to ATO (2009) estimates, corporations usually pay around 36 percent of the country's total tax collections.
4. In fact, Williams (2007) suggests that eliminating such tax aggressiveness should have a stabilizing impact on society to the extent that doing so: inhibits the growth of a two-strata society in which some pay tax and others do not; encourages respect for the rule of law; and contributes to the higher standards of customer service and employee care typically associated with a legitimate economy.
5. In the lead-up to the relocation of the ultimate holding company to the USA, the move was referred to by News Corporation executives as the "flip," with the "post-flip reorganization" whereby News Publishing and News Corporation U.K. were elevated to the U.S. parent constituting the "spin."
6. This view is also consistent with the position of ATO Commissioner Michael D'Ascenzo that tax should feature among the array of issues that a corporation must consider as part of fulfilling its CSR and, further, that the public recognizes corporate taxation to be an essential part of CSR, suggesting that the issues surrounding tax compliance are increasingly in the public domain (D'Ascenzo, 2010, p. 3).
7. The literature outlines several methods by which a corporation can gain legitimacy. For instance, it can attempt through communication to alter the prevailing definition of social legitimacy, steering it toward conformance with the corporation's present practices, output

and values. It can also employ corporate communication to identify itself with symbols, values or institutions that have a strong base of legitimacy (Dowling and Pfeffer, 1975).

8. Dowling and Pfeffer (1975) and Lindblom (1994) elaborated on a number of the strategies that organizations employ to maintain or create congruence between the social values implied by their operations and those embraced by society, all of which require disclosure, but may not be genuine attempts at social responsibility.
9. In the UK, recent public concern about Barclays Bank PLC paying only UK£113M tax on corporate profits of UK£11.6B for the 2009 year (i.e. an effective tax rate of around 1 percent) caused vast public protests at 35 branches of Barclays Bank PLC. The common view shared by many of the protestors was that Barclays Bank PLC was exploiting the public and using economies of scale and clever accounting laws to get away with not paying their fair share of corporate taxes (McVeigh and Clark, 2011).
10. In the USA, public concern regarding the large amount of tax loopholes available to corporations that enabled them to significantly avoid paying their fair share of corporate taxes culminated in the Tax Reform Act of 1986, which was the most significant piece of tax legislation enacted in the USA since the income tax was converted to a mass tax during the Second World War (Pechman, 1987; Auerbach and Slemrod, 1997; CTJ, 2011).
11. The Big-4 banks include the Australia and New Zealand Banking Group Ltd., the Commonwealth Bank of Australia Ltd., the National Australia Bank Ltd. and Westpac Ltd.
12. We chose 2001-2006 as our sample period because corporate governance disclosures were not mandatory for corporations listed on the ASX before 2001, and the most recent corporate governance data (e.g. board of director composition) available at the time of study were for 2006.
13. As a check of our search results for tax aggressive corporations, we searched each corporation included on the ASX 500 list individually on the ASX and ATO web sites during the 2001-2006 period to ensure that no potential cases of tax aggressiveness were overlooked in our sample, but this procedure yielded no additional cases. We thus consider our sample to be broadly representative of tax aggressive publicly listed corporations in Australia.
14. Although our comparison sample's cut-off point of ± 30 percent appears to be large, it is consistent with Beasley (1996). Additionally, most of the tax aggressive and non-tax aggressive corporations in our sample are similar within a range of ± 20 percent. As the mean market value of common stock of the tax aggressive corporations in our sample is AUD\$5,184M, the market capitalization of a matched corporation may range from AUD\$3,628M to AUD\$6,739. Similar to Beasley (1996), there is no reason to believe that such a range has a significant impact on our empirical results.
15. The primary source of information that we used to gauge the level of CSR disclosure for our sample corporations is the annual report, which is the most widely publicly available report containing CSR information in Australia. The annual reports were collected from the Australian Stock Exchange (ASX) web site and the Connect 4 database. As part of the CSR gathering process and in consistency with the Gray *et al.* (1987) definition of CSR disclosure, we also collected any other publicly available report, using corporate web sites or by directly contacting the sample corporations, that was related to a corporation's CSR activities and was not part of the annual report, including the CSR report, environmental report, sustainability report and any other similarly titled reports. Therefore, we are confident that we objectively assessed CSR disclosure for our sample corporations in all publicly available corporate reports published either electronically on a corporate web site or in hardcopy format.
16. More specifically, content analysis is a technique used to codify a text into various groups (or categories), depending on the criteria selected (Weber, 1988).

17. The interrogation instrument, checklist and decision rules are available from the authors on request.
18. The checklist of items included within each dimension was developed in line with previous research (see, e.g. Ng, 1985; Ernst & Ernst, 1978; Hackston and Milne, 1996). The decision rules associated with these items were also based on previous research (see, e.g. Gray *et al.*, 1995; Hackston and Milne, 1996).

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Corresponding author

Roman Lanis can be contacted at: Roman.Lanis@UTS.EDU.AU

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