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Voluntary Corporate Governance Disclosures by Post-Apartheid South African Corporations

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Abstract

Purpose – This paper investigates as to whether post-Apartheid South African (SA) listed corporations voluntarily comply with and disclose recommended good corporate governance (CG) practices and, if so, the major factors that influence such voluntary CG disclosure behaviour.

Design/methodology/approach – We construct a broad voluntary CG disclosure index containing 50 CG provisions from the 2002 King Report using a sample of 169 SA listed corporations from 2002 to 2006. We also conduct regression analysis to identify the main drivers of voluntary CG disclosure.

Findings – Our results suggest that while compliance with, and disclosure of, good CG practices varies substantially among the sampled companies, CG standards have generally improved over the five-year period examined. We also find that block ownership is negatively associated with voluntary CG disclosure, while board size, audit firm size, cross-listing, the presence of a CG committee, government ownership and institutional ownership are positively related to voluntary CG disclosure.

Practical implications – Our findings have important implications for policy-makers and regulators. Evidence of improving CG standards implies that efforts by various stakeholders at improving CG standards in SA companies have had some positive impact on CG practices of SA firms. However, the substantial variation in the levels of compliance implies that enforcement may need to be strengthened further.

Originality/value – There is a dearth of evidence on the level of compliance with the King Report. Our study fills this gap by providing evidence for the first time on the level of compliance achieved, as well as contributing generally to the literature on compliance with codes of good governance and voluntary disclosure.

Keywords: Voluntary disclosure, Corporate governance, Affirmative action, King Report, South Africa

Article type: Research paper

1. Introduction

Recent decades have witnessed a proliferating interest in corporate governance (CG) (Collett and Hrasky, 2005; Filatotchev and Boyd, 2009), following well-publicised cases of major corporate scandals and failures in developed countries, which were attributed mainly to poor CG practices (Cadbury Report, 1992; Deutsche Bank, 2002). Interest in CG was particularly heightened by the 1997/1998 Asian economic crisis, which demonstrated that macro-economic difficulties could be worsened by systematic CG failures in developing countries (King Report, 2002; Haniffa and Hudaib, 2006), resulting in a relative explosion globally in the issuance of codes of good CG that generally seek to improve the way in which corporations are governed by encouraging greater transparency, accountability and responsibility (Cadbury Report, 1992; King Report, 2002; Aguilera and Cuervo-Cazurra, 2009; Cicon *et al.*, 2010).

However, the ability of CG codes to achieve good governance depends on the extent to which companies are willing to engage in effective voluntary compliance and disclosure (Core, 2001; Healy and Palepu, 2001). Despite the increasing number of CG codes in developing countries (Aguilera and Cuervo-Cazurra, 2009), existing studies examining the levels of compliance with CG codes are disproportionately concentrated in a few developed countries (Conyon, 1994; Conyon and Mallin, 1997; Pellens *et al.*, 2001; Bebenroth, 2005; Cromme, 2005; Werder *et al.*, 2005; MacNeil and Li, 2006; Pass, 2006; Hegazy and Hegazy, 2010). Arguably, in developing countries with different institutional settings and CG structures (Aguilera and Cuervo-Cazurra, 2009; West, 2009), voluntary compliance with CG codes can be expected to differ from what has been reported in developed countries. Thus, an examination of voluntary CG disclosures in developing

countries, where there is limited empirical evidence, is crucial in providing a more complete understanding of corporate voluntary compliance and disclosure behaviour.

In this paper, we examine voluntary CG disclosures in South Africa (SA). In line with global developments, SA has experienced significant CG reforms, which can be specifically dated back to the collapse of Apartheid in 1994. In fact, SA was the first developing country to introduce a code of good governance in the form of the 1994 and 2002 King Reports (Aguilera and Cuervo-Cazurra, 2009). As will be discussed further, and distinct from those of other Anglo-American countries, the King Reports explicitly require firms to go beyond the financial and regulatory aspects of CG by taking into account the interests of a wide range of stakeholders, such as local communities, employees and customers (King Report, 2002; West, 2009). Similar to other Anglo-American countries, the King Reports adopt a UK-style 'comply or explain' compliance and disclosure regime. However, critical concerns (Kakabadse and Korac-Kakabadse, 2002; Andreasson, 2010) have been raised as to whether a voluntary compliance and disclosure regime can be effective in improving governance practices, given the nature of its corporate context.

Briefly, the post-Apartheid SA corporate setting is uniquely characterised by concentrated ownership, weak enforcement of corporate regulations, high levels of institutional ownership and weaker shareholder activism, as well as distinctive features relating to the greater need to meet affirmative action and stakeholder CG provisions, such as black economic empowerment and with regard to HIV/Aids (Bar *et al.*, 1995; Armstrong *et al.*, 2006; Ntim, 2009). In particular, concentrated ownership renders the market for corporate control weak (Haniffa and Hudaib, 2006), which can impact

negatively on the willingness of corporations to engage in voluntary compliance and disclosure, and thereby limits the ability of a voluntary code to improve CG standards.

Despite the relative uniqueness of the SA context and the voluntary nature of the King Reports, there is a clear dearth of empirical studies analysing the level of compliance achieved (Okeahalam, 2004; Mangena and Chamisa, 2008). For example, the Institute of International Finance (IIF) 2007 Report assessing CG implementation and practices in emerging markets indicates that while SA appears to have a sound and well-developed CG framework in the form of the King Code, no study has been done to ascertain the actual levels of compliance among listed firms. Specifically, the IIF Report on SA states that "... to date, no study has been conducted to assess the level of compliance with corporate governance-related requirements among listed companies or to verify the reasons for non-compliance" (IIF, 2007, p. 1).

However, there are a limited number of prior cross-country disclosure studies whose samples include a number of SA listed firms that need to be acknowledged. Firer and Meth (1986) examine the information requirements of SA investment analysts and compare them with their UK counterparts. Using a disclosure index of 49 voluntary items for 36 listed SA firms from 1979 to 1983, they report low levels of voluntary disclosure among SA firms in comparison with their UK counterparts. Similarly, using the Standard & Poor's CG disclosure index and a sample of 354 firms from 19 emerging markets, including 12 non-financial SA firms from 1998 to 2000, Patel *et al.* (2002) investigate the level of transparency and disclosure among listed firms in different emerging markets. Their results suggest that Asian emerging markets and SA have significantly higher transparency and disclosure practices compared with their Latin American, Eastern

European, and Middle Eastern counterparts. Further, Khan (2009) uses a 2006 cross-sectional sample of 200 firms from 41 countries that have cross-listed on the New York Stock Exchange (NYSE), including 4 SA firms to, investigate the level of compliance with three mandatory disclosure requirements on their websites: disclosure on the differences between NYSE CG rules and national ones, information on the audit committee, and the disclosure of the audit committee charter. The findings of the study indicate that there is a gap between the minimum NYSE's disclosure requirements for foreign firms and what is actually disclosed on the websites in relation to CG disclosure.

The current study differs from existing ones in a number of ways. First, while our study seeks to specifically examine the levels of compliance with recent CG disclosure policy reforms in the form of the 2002 King Report among SA listed firms, existing ones are either general international comparison disclosure (in the case of Firer and Smith 1986) or CG disclosure (in the case of Patel *et al.* 2002 and Khan 2009) studies, which are differently focused. Second, and apart from differences in focus, the samples used by existing cross-country studies are discernibly smaller in comparison to the size of the current sample, which arguably limits the generalisation of their findings for SA listed firms. Finally, our study investigates voluntary CG disclosures over the 2002 to 2006 period, which is more recent compared with the periods examined by existing cross-country studies and therefore, the current investigation can also be considered as an extension to prior studies.

Given this background, the main purpose of this paper is to investigate whether and to what extent post-Apartheid SA listed corporations voluntarily comply with and disclose recommended good practices and, if so, the major SA context-specific, as well as

general factors influencing such voluntary CG disclosure behaviour. In doing so, we make a number of distinct contributions to the extant literature. First, using CG data extracted directly from annual reports, we provide for the first time detailed evidence on the level of compliance with the 2002 King Report (King II) by constructing a broad CG compliance and disclosure index containing 50 CG provisions using a sample of 169 SA listed corporations from 2002 to 2006. Distinctively, but in line with the CG provisions of King II, our broad compliance and disclosure index includes conventional CG mechanisms, such as those relating to board and directors, as well as SA context-specific affirmative action and stakeholder provisions. Second, we provide evidence on the main factors driving the level of voluntary compliance and disclosure of good CG practices among SA listed corporations. This can improve our understanding of the major factors that influence the level of voluntary compliance and disclosure of CG practices in a major developing country in which various stakeholders, such as the government, the Institute of Directors and the Johannesburg Securities Exchange (JSE) Ltd take a keen interest in CG, affirmative action and stakeholder issues.

Our analysis of the factors influencing voluntary CG compliance and disclosure suggests that ownership and other CG variables are generally significant in explaining variations in voluntary CG disclosure. Specifically, our results suggest that an increase in block ownership significantly reduces voluntary CG disclosure, implying substitutability between block ownership and CG disclosure, as a managerial monitoring mechanism. In contrast, we find that companies with larger boards, a big-four auditor, higher government ownership, a CG committee and higher institutional ownership, disclose considerably more; an indication that these variables are complementary to voluntary CG

disclosure. Our results are generally robust to whether we use a weighted or an unweighted index of CG disclosure and whether or not we control for firm fixed-effects.

The remainder of the paper is structured as follows. The next section provides an overview of the institutional framework of CG in South Africa. The following sections review the prior literature and hypotheses development, describe the data and research methodology, and report empirical and robustness results, while the conclusion contains a summary and a brief discussion of policy implications.

2. The institutional framework for corporate governance in South Africa

Corporate governance in SA was formally institutionalised by the publication of the first King Report (King I) in 1994 (Armstrong *et al.*, 2006; West, 2009). The publication of King I coincided with the collapse of Apartheid, the historic release of Nelson Mandela from prison and the subsequent assumption to power by the black dominated African National Congress (ANC). The recommendations of King I were heavily informed by those of the UK's Cadbury Report of 1992 (Mangena and Chamisa, 2008). For example, and in line with the Cadbury Report, King I adopted an Anglo-American style unitary board of directors, consisting of executive and non-executive directors (NEDs), who are primarily accountable to shareholders with a voluntary ('comply or explain') compliance and disclosure regime.

King I was replaced in 2002 with a second King Report (King II) following important international and domestic developments. Internationally, new codes of CG, which promulgated new CG standards, such as the UK's 1998 Combined Code, had been introduced. Domestically, and most importantly, under the new neo-liberal economic

policy of encouraging growth, employment and redistribution (GEAR strategy), the ruling ANC passed a number of affirmative action and stakeholder laws on black economic empowerment and HIV/Aids (see Section 4 of the Appendix). These were aimed at addressing historical socio-economic racial inequalities and needed to be incorporated into the governance of mainstream SA corporations. As a consequence, a major distinguishing feature of King II, compared with other Anglo-American CG Codes, is that it adopted the ‘inclusive’ approach (West, 2009; Andreasson, 2010) to compliance, that maintains and strengthens the Anglo-American (*shareholding*) features (see Sections 1 to 3 of the Appendix), while also incorporating substantial SA context-specific affirmative action and stakeholder demands (*stakeholding*). While these features make the South African CG model a hybrid and unique among other Anglo-American countries (West, 2009; Andreasson, 2010), critical concerns have been expressed as to whether, given the uniqueness of the SA corporate setting, a voluntary compliance and disclosure regime like King II can be effective in raising CG standards in SA. As such, we seek to empirically examine the level of compliance with King II, as well as investigate the major factors influencing voluntary compliance and disclosure of good CG practices among post-Apartheid SA listed corporations.

3. Prior literature and hypotheses development

Prior literature (Cooke, 1992; Owusu-Ansah, 1998; Haniffa and Cooke, 2002; Patel *et al.*, 2002; Collett and Hraskey, 2005; Cheng and Courtenay, 2006) has identified a number of variables that can influence corporate disclosure. We draw from this literature, as well as the SA corporate setting, to identify factors that are likely to influence the level

of voluntary compliance and disclosure of good CG practices. Specifically, we examine ownership structure variables, including block, government and institutional ownerships, as well as other CG variables, namely board size, cross-listing, audit firm size and the presence of a CG committee. As previously explained, these variables, especially block ownerships by large companies and government, are pervasive in SA and therefore considered to be specific to the SA corporate context.

3.1 Ownership structure variables

Greater managerial monitoring and lesser information asymmetry associated with block ownership can be expected to reduce agency costs and improve firm value (Jensen and Meckling, 1976), and thus a reduced need for corporate disclosure. By contrast, diffused ownership requires greater monitoring, which can be reduced through increased corporate disclosure (Enk and Mak, 2003). Consistent with the results of Patel *et al.* (2002) for a cross-country sample of 354 firms from 19 emerging markets, including 12 non-financial SA listed firms, Barako *et al.* (2006) report a negative association between block ownership and voluntary disclosure for a sample of 43 Kenyan listed firms, while Mangena and Chamisa (2008) find that incidences of listing suspension in a sample of 81 SA firms is higher in corporations with greater block ownership. Corporate ownership in SA has historically been dominated by a small set of very large companies built around highly complicated cross-holdings and tall pyramids (Barr *et al.*, 1995; Okeahalam, 2004) and, as such, block ownership is more likely to influence voluntary CG disclosure. Therefore, our first hypothesis is that:

H1: There is a statistically significant negative association between block ownership and the level of voluntary compliance and disclosure of good CG practices.

Due to their larger ownership stakes, institutional shareholders have extra motivation to monitor corporate disclosure and thus, more information will be voluntarily disclosed by managers to meet the expectations of large institutional shareholders (Barako *et al.*, 2006). Haniffa and Cooke (2002) and Barako *et al.* (2006) report a positive association between institutional ownership and corporate disclosure in samples of 167 Malaysian and 43 Kenyan listed firms, respectively. Within the SA context, institutional ownership is likely to be a relevant driver of corporate disclosure because the use of pyramidal structures means that institutional ownership is intrinsically pervasive (Barr *et al.*, 1995; Okeahalam, 2004). King II also encourages greater activism by institutional shareholders to improve CG and disclosure practices in SA firms and, thus, our second hypothesis is that:

H2: There is a statistically significant positive association between institutional ownership and the level of voluntary compliance and disclosure of good CG practices.

Corporations with greater government ownership can have access to resources, such as finance and contracts that can increase performance (Malherbe and Segal, 2003; Haniffa and Hudaib, 2006). However, associated political interference and conflict of interests between shareholders and government will require greater levels of corporate disclosure (Eng and Mak, 2003). The empirical literature relating to the association between government ownership and corporate disclosure is limited, although Eng and Mak (2003) report that government ownership impacts positively on voluntary disclosure. The SA government holds significant ownership stakes in large public and private corporations through the Public Investment Commission (PIC) with keen interest in CG, affirmative action and stakeholder issues and, hence, our third hypothesis is that:

H3: There is a statistically significant positive association between government ownership and the level of voluntary compliance and disclosure of good CG practices.

3.2 Other corporate governance variables

Greater managerial monitoring power associated with larger boards can impact positively on disclosure and performance (Haniffa and Hudaib, 2006). By contrast, Jensen (1993) argues that larger boards are associated with poor communication and monitoring, which can have a negative effect on disclosure and performance. Ho and Williams (2003) report no link between board size and performance in a sample of 84 SA corporations, while Mangena and Chamisa (2008) indicate that board size has no impact on incidences of listing suspensions using a sample of 81 SA firms. King II does not specify the exact number of directors that should form a board, but sets out a general principle that every board must consider whether its size makes it effective, indicating that it considers board size as an important CG mechanism. Given the mixed theoretical and empirical literature, however, our fourth hypothesis is that:

H4: There is a statistically significant association between board size and the level of voluntary compliance and disclosure of good CG practices.

Previous studies (Meek *et al.*, 1995; Haniffa and Cooke, 2002) suggest that corporations that cross-list on foreign stock markets tend to have better CG and disclosures practices, as they are subjected to additional accounting, governance and disclosure requirements. Meek *et al.* (1995) and Collett and Hrasky (2005) find that cross-listing impacts positively on corporate disclosure. Similarly, an opinion-based survey conducted by the Deutsche Bank (2002) among analysts in emerging markets,

including SA, suggests that cross-listed firms tend to have better CG and disclosure standards than their non-cross-listed counterparts. Hence, our fifth hypothesis is that:

H5: There is a statistically significant positive association between cross-listing and the level of voluntary compliance and disclosure of good CG practices.

Audit firm size has been suggested to have a positive influence on corporate disclosure (Owusu-Ansah, 1998; Eng and Mak, 2003) and audit quality (DeAngelo, 1981). This is because larger audit firms have greater financial strength, experience, expertise, information and knowledge (DeAngelo, 1981; Haniffa and Cooke, 2002), which improves their independence and ability to limit opportunistic activities of managers, and a number of studies have reported a positive association between audit firm size and corporate disclosure (Owusu-Ansah, 1998; Eng and Mak, 2003). Also, King II recognises external auditors as one of the key stakeholders in ensuring that SA firms voluntarily comply with its CG provisions. Therefore, our sixth hypothesis is that:

H6: There is a statistically significant positive association between audit firm size and the level of voluntary compliance and disclosure of good CG practices.

King II does not require SA corporations to establish CG committees to continuously monitor compliance with its CG requirements. However, it is expected that companies that voluntarily set up CG committees to specifically monitor their compliance are more likely to engage in good CG practices and disclose more than those that do not have CG committees (Core, 2001; Ntim, 2009). The association between the presence of a CG committee and corporate disclosure is under-researched, and this makes it a fertile area for investigation, especially in SA where there is a clear dearth of voluntary CG disclosure studies. Thus, our final hypothesis is that:

H7: There is a statistically significant positive association between the presence of a CG committee and the level of voluntary compliance and disclosure of good CG practices.

4. Data and research methodology

4.1 Data: sample selection, sources, and description

The sample for the study is drawn from all 291 non-financial companies[1] listed on the JSE Ltd as at the end of 2006 and Table I contains a summary of the sample selection procedure. Panel A of Table I contains the industrial composition of all non-financial companies that were listed on the JSE, while Panel B of Table I contains the final sampled companies with full data.

Insert Table I about here

The CG disclosures were extracted from the sampled companies' annual reports collected from the *Perfect Information Database*, while the accounting variables were obtained from *DataStream*. We set two criteria for company selection in our final sample: the availability of a company's full five-year annual reports from 2002 to 2006 inclusive and the availability of a firm's corresponding accounting data for the same period. The criteria were set for several reasons. First, and following prior studies (Eng and Mak, 2003; Barako *et al.*, 2006; Henry, 2008), the criteria helped in meeting the requirements for a balanced panel data analysis. Gujarati (2003) suggests that there are advantages for using panel data, involving both cross-sectional and time-series observations, more degrees of freedom and less multi-collinearity among variables. Second, examination of five-year data with both cross-sectional and time-series properties may help in determining whether the observed cross-sectional link between voluntary CG disclosure and its drivers also holds over time. Third, the sample begins in 2002 because data

coverage in the *Perfect Information Database/DataStream* on SA listed companies is very low prior to 2002 and crucially because King II came into operation in 2002. The sample ends in 2006 because it is the most recent year for which data was available. As presented in *Panel B* of Table I, the full data required is obtained for a total of 169 out of the 291 companies[2] for the five firm-years and 8 industries in our analysis.

4.2 Research methodology: definition of variables and model specification

Fundamental to our analysis is the construction of a general index, *SACGDI*, which is employed as a voluntary CG compliance and disclosure index. The *SACGDI* contains 50 CG provisions based on the five broad sections of King II covering: (1) boards, directors and ownership, (2) accounting and auditing, (3) risk management, internal audit and control, (4) integrated sustainability reporting, and (5) compliance and enforcement. The detailed provisions are contained in the Appendix. The *SACGDI* is constructed by awarding a value of ‘1’ if any of the 50 CG provisions of King II is disclosed in an annual report and zero otherwise[3]. With this scheme, a company’s total disclosure score in a particular firm-year can vary between zero (0%) to fifty (100%), with higher index levels indicating better compliance and disclosure.

Even though this simple dichotomous weighting scheme may be unable to capture the relative significance of the various CG provisions (Marston and Shrikes, 1991; Beattie *et al.*, 2004; Barako *et al.*, 2006), we adopt it for a number of reasons. First, given the lack of a rigorously developed theoretical framework on which weights could be correctly assigned to different CG provisions, using an unweighted coding scheme avoids a situation whereby our disclosure index is excessively biased towards a particular set of

CG provisions (Marston and Shrides, 1991; Botosan, 1997; Owusu-Ansah, 1998). Second, the findings of prior studies indicate that the use of weighted and unweighted indices tend to give similar results (Owusu-Ansah, 1998; Barako *et al.*, 2006). Finally, dichotomously scoring disclosures in annual reports is supported by a rigorously established theoretical and empirical literature (Marston and Shrides, 1991; Meek *et al.*, 1995; Collett and Hrasky, 2005; Beattie and Thomson, 2007; Tsamenyi *et al.*, 2007; Henry, 2008).

To reduce potential omitted variables bias, we include a number of control variables, as detailed below. Unlike the ownership and CG proxies, these variables are common across different studies and, as such, considered to be a general test of the determinants of voluntary CG disclosures. Table II presents summary definitions of all variables employed, including the dependent (*SACGDI*), independent (specific) and control (general) variables.

Insert Table II about here

Due to greater agency problems (Jensen and Meckling, 1976) and higher political costs (Meek *et al.*, 1995; Tsamenyi *et al.*, 2007), larger firms can be expected to voluntarily disclose more. Similarly, highly geared firms can be anticipated to disclose more to assure their creditors of the likelihood of honouring their debts (Haniffa and Cooke, 2002), while firms with higher investment and growth opportunities have greater need for external funds and, thus, can be expected to engage in higher disclosure to reduce information asymmetry (Eng and Mak, 2003; Collett and Hrasky, 2005). Further, managers of profitable companies may disclose more to justify higher compensation (Haniffa and Cooke, 2002; Barako *et al.*, 2006) and, as such, we expect firm size (*LNTA*), gearing (*GEAR*), profitability (*ROA*), growth (*GROWTH*), and capital expenditure

(*CAPEX*) to relate positively to the *SACGDI*. Finally, following prior research (Cooke, 1992; Barako *et al.*, 2006; Henry, 2008), we predict that the *SACGDI* will vary across different industries and financial years and, thus, we introduce year (2002 to 2006) and industry dummies for the five remaining industries[4]. Assuming that all relationships are linear, our main OLS regression equation to be estimated is specified as:

$$SACGDI_{it} = \alpha_0 + \beta_1 BLKOWN_{it} + \beta_2 GOVOWN_{it} + \beta_3 INSOWN_{it} + \beta_4 BSIZE_{it} + \beta_5 CROSLIST_{it} + \beta_6 BIG4_{it} + \beta_7 CGCOM_{it} + \sum_{i=1}^n \beta_i CONTROLS_{it} + \varepsilon_{it} \quad (1)$$

where:

<i>SACGDI</i>	- South African corporate governance disclosure index
α_0	- Constant term.
<i>BLKOWN</i>	- Block ownership
<i>GOVOWN</i>	- Government ownership
<i>INSOWN</i>	- Institutional ownership
<i>BSIZE</i>	- Board size
<i>CROSLIST</i>	- Cross-listing
<i>BIG4</i>	- Audit firm size
<i>CGCOM</i>	- Presence of a corporate governance committee
<i>CONTROLS</i>	- Control variables for growth (<i>GROWTH</i>), capital expenditure (<i>CAPEX</i>), gearing (<i>GEAR</i>), firm size (<i>LNTA</i>), profitability (<i>ROA</i>), industry and year dummies.
ε	- Error term.

We discuss the empirical results, including descriptive statistics and regression analyses in the following section.

5. Empirical results

5.1 Empirical results: descriptive statistics and univariate regression analysis

Summary descriptive statistics of all variables included in our analysis are contained in Table III. All the variables generally exhibit wide spreads. For example, block ownership ranges from a minimum of 10% to a maximum of 92% with a mean of 62%[5]. Consistent with the findings of previous studies (Deutsche Bank, 2002; Ho and Williams, 2003), board size is between 4 and 18 with a median of 10 board members. The figures for audit firm size, cross-listing, government and institutional ownerships, as well as the control variables indicate substantial variation in our sample, hence minimising possibilities of sample selection bias. Crucially, there is also substantial degree of dispersion in the distribution of the *SACGDI*, ranging from a minimum of 6% (3 out of 50 items disclosed) to a maximum of 98% (49 out of 50) with the average company complying with 61% of the 50 CG provisions examined.

Insert Table III about here

To examine the levels of improvement in compliance, as well as ascertaining the CG provisions that contribute most to the degree of variation observed in the aggregate levels of compliance with the *SACGDI*, we investigate the levels of compliance among the sampled companies with the individual CG provisions that constitute the *SACGDI*. Table IV reports the percentage levels of compliance with the CG provisions for the pooled sample, as well as for each of the five firm-years. Row 3 of Table IV reports aggregate levels of compliance, while Row 4 does similarly for the individual CG provisions.

Consistent with the results of past studies (Patel *et al.*, 2002; Barako *et al.*, 2006; Henry, 2008), the findings in Row 3 indicate that compliance with the CG provisions generally improves over time, with the aggregate compliance levels increasing from 47%

in 2002 to 69% in 2006. The results in Row 4 show that there are substantial variations in the levels of compliance with the individual CG provisions among the sampled companies, ranging from 100% (perfect compliance) in the case of the existence of the office of a company secretary to 0% (complete non-compliance) with respect to the contribution to the development of financial journalism. The perfect compliance with the office of company secretary is consistent with the provisions of the 1973 Companies Act and the 2007 JSE Listings Rules. Both regulations mandate every company to maintain a well-resourced office of a company secretary to ensure that the board functions effectively. The complete non-compliance with contribution to the development of financial journalism supports suggestions that due to financial and manpower constraints, enforcement of corporate regulations is weak (Deutsche Bank, 2002; IIF, 2007).

For eight (16%) provisions, such as the disclosure of company risks, compliance levels are comparatively high, with 90% or more of the sampled companies complying with these provisions. By contrast, for 11 (22%) provisions, such as having an independent board chairperson, compliance levels are relatively low, with 40% or less of the sampled firms complying with these provisions. For the 29 remaining provisions, compliance levels are intermediate, ranging between 46% and 86%. Overall, the main evidence that emerges from examining the full sample of companies is that despite the expectation that the introduction of King II would speed-up convergence of CG standards (Malherbe and Segal, 2003; Armstrong *et al.*, 2006), CG practices among SA listed corporations still vary substantially. While this is consistent with the variation in compliance levels reported by past studies (Deutsche Bank, 2002; Aguilera and Cuervo-Cazurra, 2009), it demonstrates that a high degree of heterogeneity exists when it comes

to the importance that SA listed companies attach to CG. Evidence of improving CG standards among the sampled companies, however, implies that contrary to general concerns (Kakabadse and Korac-Kakabadse, 2002; West, 2009), the current voluntary compliance regime has had some positive impact on CG practices of SA listed firms.

Insert Table IV about here

All our hypotheses are tested by ordinary least squares (OLS), requiring an initial investigation of multicollinearity, autocorrelation, normality, homoscedasticity and linearity. Table V contains the correlation matrix for all variables employed in our analysis to test for multicollinearity. For robust results, both the Pearson's parametric and Spearman's non-parametric coefficients are reported and, noticeably, the magnitude and direction of both coefficients are very similar, suggesting that no serious non-normality problems exist. Both indicate further that correlations among the variables are fairly low, implying that there are no major multicollinearity problems. We additionally examined (for brevity not reported here, but available on request) scatter plots for *P-P* and *Q-Q*, studentised residuals, Cook's distances and Durbin-Watson statistics for homoscedasticity, linearity, normality and autocorrelation, respectively, with the tests indicating no serious violation of these OLS assumptions.

Insert Table V about here

Table V suggests statistically significant links between the *SACGDI* and the explanatory variables, and also between the *SACGDI* and the control variables. Consistent with our predictions, audit firm size, board size, cross-listing, government ownership and institutional ownership are significantly and positively related to the *SACGDI*, while block ownership is significantly and negatively associated with the

SACGDI. With respect to the control (general) variables, the results indicate that larger and profitable firms disclose significantly more, as hypothesised. However, evidence that firms with higher investment and gearing disclose significantly less, as well as evidence of no significant link between growth firms and voluntary CG disclosure, is not consistent with our hypotheses.

5.2 Empirical results: OLS (multivariate) regression analysis

Table VI reports the results of regression analysis of the determinants of voluntary CG disclosure. Columns 3 and 4 present the results of a pooled[6] OLS regression of the *SACGDI* on the determinants and control variables. Generally, the results indicate that the SA context-specific factors, including ownership characteristics and the other CG variables, are significant in explaining voluntary CG disclosures. For example, the coefficient on block ownership is significant and negative, implying that companies with block ownership disclose less and providing support to theoretical suggestions that block ownership reduces agency problems by acting as a substitute for good CG practices (Jensen and Meckling, 1976). This also supports *H1* and the results of previous studies, which suggest that block ownership impacts negatively on disclosure (Patel *et al.*, 2002; Barako *et al.*, 2006; Mangena and Chamsia, 2008), but is inconsistent with the findings of those that report a positive link between block ownership and disclosure (Haniffa and Cooke, 2002; Eng and Mak, 2003; Tsamenyi *et al.*, 2007).

The coefficients on government ownership, institutional ownership, audit firm size, board size, the presence of a CG committee and cross-listing are positive and significant, at least at the 10% level, indicating that *H2* to *H7* are supported. The positive association between government ownership and voluntary CG disclosure is consistent

with the findings of Eng and Mak (2003), as well as the broader objectives of government investments. Through the PIC, the SA government holds significant ownership stakes in major corporations with keen interest in positively influencing CG, affirmative action and stakeholder issues. Evidence that cross-listed firms engage in higher disclosure provides support to the findings of past studies (Deutsche Bank, 2002; Collett and Hrasky, 2005), as well as the view that cross-listed firms will invariably be expected to disclose more due to the additional CG and disclosure requirements that they have to comply with. The significant positive relationship between board size and voluntary CG disclosure rejects the findings of Ho and Williams (2003) and Mangena and Chamisa (2008), while evidence that audit firm size impacts positively on disclosure is consistent with the results of previous studies (Owusu-Ansah, 1998; Eng and Mak, 2003; Tsamenyi *et al.*, 2007).

Insert Table VI about here

Generally, the coefficients on the control (general) variables in columns 3 and 4 of Table VI exhibit the hypothesised signs. For example, and consistent with the findings of previous studies (Cooke, 1989; 1992; Meek *et al.*, 1995), firm size and profitability are significant and positively related to voluntary CG disclosure. In line with the results of previous studies (Barako *et al.*, 2006; Henry, 2008), voluntary CG disclosure significantly differs across different industries and years, and noticeably, disclosure is significantly less in 2002 and basic materials, but significantly more in consumers services (highest significant coefficient) and 2006 compared with the other years and industries, respectively. However, the negative and insignificant coefficients on capital expenditure and growth, as well as the insignificant coefficient on gearing again reject

our hypotheses, but provide support for the results of Eng and Mak (2003) and Haniffa and Cooke (2002) who find no link between these variables and voluntary disclosure.

5.3 Robustness analyses

We conduct additional analyses to examine the robustness of our results. As previously explained, all 50 provisions constituting the *SACGDI* are equally weighted, but the number of provisions varies across the five sections, resulting in different weights being assigned to each section: board, directors, and ownership (54%); accounting and auditing (12%); risk management, internal audit and control (10%); integrated sustainability reporting (18%); and compliance and enforcement (6%). To check whether our findings are sensitive to the weighting of the five sections, we construct an alternative *SACGDI*, defined as *Weighted-SACGDI*, in which each section is awarded equal weight of 20%. Our results presented in columns 5 and 6 of Table VI differ slightly in that government ownership and the presence of a CG committee are now insignificant, but the general conclusions remain unaltered.

Additionally, variations in the opportunities and difficulties that corporations encounter differ over time, implying that voluntary CG disclosure behaviour may be jointly determined by unobserved firm-level characteristics (Henry, 2008), which simple OLS regression may fail to identify. Hence, given the panel nature of our dataset, we estimate a fixed-effects model to control for possible unobserved firm-specific heterogeneity. This involves re-estimating equation (1), with the introduction of 168 dummies to represent the 169 sampled firms. Our fixed-effects results contained in columns 7 and 8 of Table VI remain essentially unchanged, suggesting that our results are not sensitive to potential unobserved firm-specific heterogeneity.

6. Summary and conclusion

South Africa (SA) has pursued close to two decades of corporate governance (CG) reforms in the form of the 1994 (King I) and 2002 (King II) King Reports, notably adopting the UK-style voluntary ('comply or explain') compliance regime. However, the SA corporate context is characterised by concentrated ownership, greater need to meet affirmative action and stakeholder CG provisions, weak enforcement of corporate regulations and high levels of institutional ownership, but weaker shareholder activism, raising critical concerns as to whether a voluntary compliance regime will be effective in improving CG standards. The purpose of this paper, therefore, is to examine whether and to what extent SA listed companies voluntarily comply with King II, and if so, the major SA context-specific, as well as general factors influencing such voluntary compliance and disclosure behaviour. We use a sample of 169 SA firms from 2002 to 2006 and 50 CG provisions based on King II for our analysis.

First, analysis of the levels of compliance with the constructed voluntary compliance and disclosure index generally indicates that, despite the expectation that the introduction of King II would speed-up convergence of CG standards, CG practices among SA listed corporations still vary substantially. At the aggregate levels, the scores range from a minimum of 6% to a maximum of 98% with the average sampled company complying with 61% of the 50 CG provisions analysed, as well as the mean CG score increasing from 47% in 2002 to 69% in 2006. While this is consistent with the variation in compliance levels reported by past studies, it demonstrates that a high degree of heterogeneity exists when it comes to the importance that SA listed companies attach to

CG. However, despite concerns as to whether a voluntary CG regime will be effective given the uniqueness of the SA corporate context, the scores suggest that compliance levels and CG standards among the sampled companies have generally improved over the five-year period examined.

Second, our analysis of the SA context-specific factors driving voluntary compliance and disclosure suggests that ownership characteristics and other CG variables are generally significant in explaining variations in disclosure. Specifically, our results indicate that an increase in block ownership significantly reduces voluntary CG disclosure, implying substitutability between block ownership and CG disclosure, as a managerial monitoring mechanism. In contrast, we find that companies with a larger board size, higher government ownership, higher institutional ownership, a big-four auditor and a CG committee, disclose significantly more; an indication that these variables are complementary to voluntary CG disclosure. With respect to the general factors, the results show that larger and profitable companies, as well as firms in the consumer services sector, disclose more. CG disclosure scores are also significantly higher in 2006 than in 2002. However, we do not find any evidence that highly geared and high growth firms disclose significantly more or less than their counterparts. Our results are generally robust whether we use a weighted or an unweighted index and whether or not we control for firm-level fixed-effects.

Third, our findings have important implications for policy-makers and regulators. Evidence of increasing compliance with King II implies that efforts by various stakeholders, notably the SA Institute of Directors and the JSE Ltd, at improving CG standards in SA companies have had some positive effect on CG practices of SA firms.

However, the substantial variation in the levels of compliance with important provisions, such as having an independent board chairperson, suggests that enforcement may need to be strengthened further. In this regard, setting up a ‘compliance and enforcement committee’ to continuously monitor compliance levels among listed companies may be a step in the right direction.

Finally, while our findings are important and robust, some caveats are considered appropriate. We employ a dichotomous scheme which considers every CG disclosure as equally important. Whilst results based on our unweighted and weighted indices are generally the same, future studies may improve their analysis by constructing weighted and un-weighted CG disclosure indices. Also, due to data limitations, our analysis is restricted to seven factors that can influence voluntary CG disclosure. As data availability improves, future studies may need to investigate how other potential determinants, such as foreign ownership and the number of analysts, affect voluntary CG disclosure.

Notes

1. As the regulatory framework and capital structure of financials and utilities differ from non-financials, as well as following past research (Owusu-Ansah, 1998; Haniffa and Cooke, 2002), these industries, with a total of 111 listed companies, were excluded, leaving eight industries and 291 listed corporations to be sampled.
2. As Panel *B* of Table I indicates, for 94 of the remaining 122 companies, two or more years’ accounting data and annual reports were not available in the *DataStream/Perfect Information Database*. For the other 28 companies, both accounting data and annual reports were missing.
3. Since ordinal coding is appropriate when measuring corporate disclosures in which reasonable differences in the degree of disclosures can be expected (Marston and Shrivs, 1991; Botosan, 1997; Beattie *et al.*, 2004; Beattie and Thomson, 2007), we adopt binary coding. As can be seen from the Appendix, with the exception of the nine provisions contained in the integrated sustainability reporting section (Section 4 of the Appendix), where some level of judgement is involved, the remaining provisions involve a straightforward present (‘1’) or absent (‘0’) disclosures. For example, the board chairperson is either independent (‘1’) or not (‘0’), a firm has split the positions of chairperson and CEO (‘1’) or not (‘0’), and so on. This leaves limited avenues to qualitatively discriminate among disclosure levels, such as meaningfully differentiating between firms that provide a quantification of the information disclosed or not, and thus using ordinal coding is inappropriate. With respect to the integrated sustainability reporting provisions, a firm only receives a value of ‘1’ if its narratives are explicit as to the specific steps taken and the

- results achieved during a financial year as recommended by King II. All other disclosures, including those that seek to explain why a firm has been unable to comply with a particular provision in its annual report receive a value of '0'.
4. For lack of sufficient number of observations in three industries, namely health care, oil & gas, and telecommunications industries with three, one and three listed firms, respectively, observations from these industries were merged with the closest remaining five major industries. As a result (see Panel *B* of Table I), the three health care firms were added to the consumer services industry, the one oil & gas firm was included in the basic materials industry, while the three telecommunications companies were included in the technology firms.
 5. To minimise the effects of outliers, we winsorise all the variables at the conventional 1% and 99% levels. However, the whole regression analysis was first run with the outliers included, and the results were essentially the same. The main rationale for winsorising is to minimise potentially serious violations of the OLS assumptions.
 6. To make sure that the residuals of a given firm may not be correlated across different years (time-series dependence) or firms (cross-sectional dependence) within our five-year panel (Gujarati, 2003), and following Petersen (2009), we apply the empirically robust Clustered Standard Errors technique to estimate the coefficients, in addition to estimating a firm-level fixed-effects model to minimise potential residual dependence.

Appendix. Full list of the South African corporate governance disclosure index provisions based on King II

Section 1: *Board, directors and ownership*

1. Whether the roles of chairperson and CEO/MD are split.
2. Whether the chairperson of the board is an independent non-executive director.
3. Whether the board is composed by a majority of non-executive directors (NEDs).
4. Whether the board meets at least four times in a year.
5. Whether individual directors' meetings record is disclosed.
6. Whether directors are clearly classified into executive, NED, and independent.
7. Whether chairperson's performance and effectiveness is evaluated and disclosed.
8. Whether CEO/MD's performance and effectiveness is appraised and disclosed.
9. Whether the board's performance and effectiveness is evaluated and disclosed.
10. Whether the board subcommittees' performance and effectiveness is evaluated.
11. Whether directors' biography, experience and responsibilities are disclosed.
12. Whether a policy that prohibits directors, officers and employees (insider) share dealings around the release of price sensitive information is disclosed.
13. The existence of the office of company secretary.
14. Whether a nomination committee has been established.
15. Whether the nomination committee consists of a majority independent NEDs.
16. Whether the chairperson of the nomination committee is an independent NED.
17. Whether the membership of the nomination committee is disclosed.
18. Whether the nomination committee's members' meetings attendance record is disclosed.
19. Whether a remuneration committee has been established.
20. Whether the remuneration committee is constituted entirely by independent NEDs.
21. Whether the chairperson of the remuneration committee is an independent NED.
22. Whether the membership of the remuneration committee is disclosed.
23. Whether the remuneration committee's members' meetings attendance record is disclosed.
24. Whether directors' remuneration, interests, and share options are disclosed.
25. Whether director remuneration philosophy and procedure is disclosed.
26. Whether directors' have access to free independent professional legal advice.
27. Whether share ownership by all insiders, including management, employees, directors and officers is less than 50% of the total company shareholdings.

Section 2: *Accounting and auditing*

28. Whether an audit committee has been established.
29. Whether the audit committee is constituted by at least 2 independent NEDs with significant professional financial training and experience.
30. Whether the chairperson of the audit committee is an independent NED.
31. Whether the membership of the audit committee is disclosed.
32. Whether the audit committee's members' meetings attendance record is disclosed.
33. Whether a board statement on the going-concern status of the firm is disclosed.

Section 3: Risk management, internal audit and control

34. Whether a risk management committee has been established.
35. Whether the risk committee's members' meetings attendance record is disclosed.
36. Whether a narrative on both actual and potential future systematic and non-systematic risks is disclosed.
37. Whether a narrative on existing internal control systems (including internal audit) is disclosed.
38. Whether a narrative on how current and future assessed company risks will be managed is disclosed.

Section 4: Integrated sustainability reporting (Non-financial information)

39. Whether a narrative on how a firm is actually complying with and implementing the broad-based black economic empowerment and empowerment of women laws, including black equity ownership, preferential procurement, enterprise development, and executive management control is disclosed.
40. Whether a narrative on how a firm is actually complying with and implementing employment equity laws in terms of gender, age, ethnicity and disabilities is disclosed.
41. Whether a narrative on how a firm is addressing the threat posed by HIV/Aids pandemic in South Africa is disclosed.
42. Whether a narrative on the actual measures taken by a firm to address occupational health and safety of its employees is disclosed.
43. Whether a narrative on how a firm is actually complying with and implementing rules and regulations on the environment is disclosed.
44. Whether a narrative on the existence of a code of ethics is disclosed.
45. Whether a firm's board is formed by at least 1 white and 1 non-white (board diversity on the basis of ethnicity) person.
46. Whether a firm's board is formed by at least 1 male and 1 female (board diversity on the basis of gender) person.
47. Whether a narrative on the actual community support and other corporate social investments or responsibilities is disclosed.

Section 5: Encouraging voluntary compliance and enforcement

48. Whether a positive statement on the compliance or non-compliance with the corporate governance provisions of King II is disclosed.
49. Whether a narrative on how a firm is contributing towards the development of financial journalism is disclosed.
50. Whether a narrative on what a firm is doing to encourage shareholder activism, like having investor relations department and proxy voting is disclosed.

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Table I. Summary of the sample selection procedure

<i>Panel A: Industrial composition of firms listed on the JSE available to be sampled as at 31/12/2006</i>		<i>No. in each industry</i>	<i>Percentage of sample</i>
Industrials		81	27.8
Basic materials		67	23.0
Consumer services		62	21.3
Consumer goods		36	12.4
Technology		31	10.7
Health care		7	2.4
Telecommunications		4	1.4
Oil and gas		<u>3</u>	<u>1.0</u>
<i>Total firms available to be sampled</i>		<i>291</i>	<i>100.0</i>
Less: Firms with no year's data available	28		
Firms with some years' data missing	<u>94</u>	<u>122</u>	<u>41.9</u>
<i>Total sampled firms with full data</i>		<i>169</i>	<i>58.1</i>
<i>Panel B: Industrial composition of sampled firms with full data</i>		<i>No. in each industry</i>	<i>Percentage of sample</i>
Industrials		51	30.2
Consumer services		35	20.7
Basic materials		33	19.5
Consumer goods		24	14.2
Technology		19	11.2
Health care		3	1.8
Telecommunications		3	1.8
Oil and gas		<u>1</u>	<u>0.6</u>
<i>Total sampled firms with full data</i>		<i>169</i>	<i>100.0</i>

Source: The Johannesburg Securities Exchange (JSE) Ltd.

Table II. Summary of variables

Dependent variable	
SACGDI	Corporate governance (CG) compliance and disclosure index containing 50 provisions from King II that takes a value of 1 if each of the 50 CG provisions is disclosed, 0 otherwise; scaled to a value between 0% and 100%.

Independent variables	
BLKOWN	Percentage of shares held by shareholders with at least 5% of the total company shareholdings.
INSOWN	Percentage of shares held by institutional shareholders.
GOVOWN	1, if government ownership is greater than 5%, 0 otherwise.
BSIZE	Natural log of the total number of directors on the board of a company.
BIG4	1, if a firm is audited by a big-four audit firm (PricewaterhouseCoopers, Deloitte & Touché, Ernst & Young, and KPMG), 0 otherwise.
CROSLIST	1, if a firm is cross-listed on a foreign stock market, 0 otherwise.
CGCOM	1, if a firm has set up a corporate governance committee, 0 otherwise.

Control variables	
ROA (%)	Ratio of operating profit (wc01250) to total assets (wc02999).
CAPEX (%)	Ratio of total capital expenditure (wc04601) to total assets (wc02999).
GEAR (%)	Ratio of total debt (wc03255) to market value (mv) of equity.
GROWT (%)	Current year's sales (wc01001) minus last year's sales to last year's sales.
INDUSTRY	Dummies for each of the 5 main industries: basic material + oil gas; consumer goods, consumer services + health care; industrials; and technology + telecommunications firms.
LNTA	Natural log of total assets (wc02999).
YEAR	Dummies for each of the five years from 2002 to 2006 inclusive.

Notes: The codes in parentheses refer to DataStream codes for the respective accounting and market variables used in the analysis.

Table III. Summary descriptive statistics of all variables for all (845) firm years

Variable	Mean	Median	Std. dev.	Maximum	Minimum
SACGDI	0.61	0.64	0.19	0.98	0.06
Return on assets	0.11	0.12	0.14	0.38	-0.19
Board size	9.75	10.00	3.67	18.00	4.00
Block ownership	0.62	0.65	0.18	0.92	0.10
Institutional ownership	0.74	0.82	0.23	0.98	0.09
Government ownership	0.38	0.00	0.49	1.00	0.00
Growth	0.12	0.14	0.26	0.89	-0.44
Capital expenditure	0.13	0.08	0.15	0.66	0.07
Gearing	0.32	0.19	0.31	0.78	0.01
Firm size	5.86	6.02	0.48	7.83	4.24
CG committee	0.32	0.00	0.47	1.00	0.00
Audit firm size	0.73	1.00	0.44	1.00	0.00
Cross-listing	0.22	0.00	0.41	1.00	0.00

Notes: Table II above provides the full definitions of all the variables used.

Table IV. The levels of compliance with the corporate governance (CG) provisions of King II among the sampled companies

CG provisions of the <i>SACGDI</i>	Compliance levels among companies(%)					
	<i>All</i>	2002	2003	2004	2005	2006
Aggregate mean scores of the <i>SACGDI</i>	61	47	58	64	66	69
Individual CG provisions of the <i>SACGDI</i>	<i>All</i>	2002	2003	2004	2005	2006
<i>1. Board, directors and ownership:</i>						
Role duality	74	61	64	77	83	86
Board composition	63	55	61	67	65	66
Board chairperson	32	17	25	34	42	44
Frequency of board meetings	78	65	75	82	84	84
Individual directors meetings attendance	68	36	65	76	78	83
Disclosure of directors' biography	97	94	96	98	98	98
Disclosure of director classification	73	49	70	78	84	84
Appraisal of chair performance & effect.	12	04	08	12	16	19
Appraisal of CEO/MD perf. & effectiveness	11	03	10	13	12	15
Evaluation of board perf. & effectiveness	26	10	24	31	31	33
Evaluat. of board subcom. Perf. & effect.	15	05	12	14	18	25
Director/officer dealings & securities	69	55	65	72	74	77
Office of the company secretary	100	100	100	100	100	100
Existence of nomination committee	47	26	42	52	54	60
Composition of nomination committee	28	10	26	30	35	38
Chairperson of nomination committee	29	10	23	32	38	43
Disclosure of nom. com. Membership	46	23	41	51	54	59
Nom. com. members' meetings attendance	32	09	25	36	43	46
Existence of remuneration committee	91	85	90	91	92	95
Composition of remuneration committee	17	10	14	17	21	24
Chairperson of remuneration committee	47	29	39	53	55	61
Disclosure of rem. committee membership	84	76	81	85	86	93
Rem. com. members' meetings attendance	49	18	40	57	63	67
Directors' rem., interests & share options	98	93	99	99	99	99
Philosophy & procedure of director rem.	37	28	36	39	40	40
Director access to free legal advice	79	71	79	81	82	82
Internal ownership	55	60	58	52	51	56
<i>2. Accounting and auditing:</i>						
Existence of audit committee	91	87	88	90	93	95
Composition of audit committee	47	28	41	51	52	61
Chairperson of audit committee	49	26	48	55	56	60
Disclosure of audit com. membership	86	79	84	86	87	94
Audit com. members' meetings attendance	54	21	49	63	68	71
Narrative on the 'going-concern	98	97	98	98	99	99
<i>3. Risk Management, internal audit and control:</i>						
Disclosure of company risks	97	96	95	97	98	98
Disclosure of policy on risks management	82	74	81	84	85	88
Disclosure policy on internal control system	90	89	87	89	91	94
Existence of risk management committee	61	40	59	66	67	73
Risk mgt. com. Members' metngs. Attendance	41	10	35	47	54	57

Continuation: **Table IV**

Individual CG provisions of the <i>SACGDI</i>	Compliance levels among companies(%)					
	<i>All</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>
<i>4. Integrated sustainability reporting:</i>						
Black economic empowerment practices	67	51	60	71	77	84
HIV/AIDS policies and practices	62	45	59	66	70	70
Health and safety policies and practices	54	36	42	59	64	68
Employment equity policies and practices	83	80	80	84	83	86
Good environmental policies and practices	59	47	53	62	67	68
Corporate social Investment policies/practices	63	54	63	62	67	69
Disclosure of company code of ethics	85	76	83	85	89	90
Board diversity on the basis of ethnicity	76	69	73	76	78	86
Board diversity on the basis of gender	50	39	45	51	55	60
<i>5. Voluntary compliance & enforcement:</i>						
Contribution to devt. of financial Journalism	0	0	0	0	0	0
Encouraging shareholder activism	52	37	47	55	57	62
Compliance/non-compliance with King II	98	96	97	99	99	98

Notes: This Table reports both the aggregate and individual levels of compliance with the 50 corporate governance (CG) provisions from the 2002 King Report (King II). Column 2 of the table reports compliance levels (%) for all five firm-years for the 169 sampled companies, while Columns 3 to 7 report compliance levels for each of the five firm-years investigated.

Table V. Correlation matrix of all variables for all (845) firm years

Variable	ROA	SACGDI	GOVOWN	BSIZE	BLKOWN	INSOWN	GROWTH	CAPEX	LNTA	GEAR	BIG4	CROSLIST	CGCOM
ROA		.310***	.170***	.166***	-.023	.167***	.241**	-.197***	.130***	-.289***	.108***	.163***	.173***
SACGDI	.318***		.387***	.503***	-.171***	.298***	.049	-.123***	.585***	-.090**	.395***	.405***	.439***
GOVOWN	.167***	.363***		.389***	-.179***	.216***	.104**	-.032	.445***	-.035	.298***	.375***	.366***
BSIZE	.170***	.575***	.377***		-.098**	.298***	.095**	.065	.520***	.080*	.387***	.379***	.309***
BLKOWN	-.045	-.184***	-.159***	-.067		.410***	.022	.055	-.138***	.024	-.012	-.031	-.111***
INSOWN	.091**	.289***	.220***	.278***	.370***		.069	-.069	.276***	-.046	.109***	.256***	.244***
GROWTH	.085*	-.004	.079**	.090**	.028	.053		-.044	.128***	-.098**	.012	-.018	.026
CAPEX	-.081*	-.116***	-.113***	-.078*	.049	-.082**	-.058		.089**	.412***	.075*	.050	-.008
LNTA	.251***	.565***	.416***	.497***	-.182***	.256***	.129***	-.036		.103**	.430***	.428***	.398***
GEAR	-.150***	.063	-.147***	-.076*	.045	-.078**	-.068*	.392***	-.042		-.036	-.045	.064
BIG4	.133***	.395***	.295***	.368***	-.059	.109**	.020	-.014	.423***	-.075*		.248***	.277***
CROSLIST	.176***	.377***	.371***	.369***	-.041	.177***	-.010	-.104**	.418***	-.102**	.248***		.439***
CGCOM	.185***	.425***	.364***	.310***	-.108**	.239***	.044	-.088**	.370***	-.135***	.277***	.439***	

Notes: The bottom left half of the table contains Pearson's parametric correlation coefficients, whereas the upper right half of the table shows Spearman's non-parametric correlation coefficients. ***, ** and * indicate that correlation is significant at the 1%, 5% and 10% level, respectively. Variables are defined as follows: Return on assets (*ROA*), the South African corporate governance disclosure index (*SACGDI*), government ownership (*GOVOWN*), board size (*BSIZE*), block ownership (*BLKOWN*), institutional ownership (*INSOWN*), growth (*GROWTH*), capital expenditure (*CAPEX*), firm size (*LNTA*), gearing (*GEAR*), audit firm size (*BIG4*), cross-listing (*CROSLIST*), and the presence of a corporate governance committee (*CGCOM*). Table II above fully defines all the variables used.

Table VI. Regression analysis of the determinants of voluntary corporate governance disclosures

Independent Variables	Predicted sign	SACGDI		Weighted-SACGDI		Fixed effects model	
		Coefficients	<i>P</i> -values	Coefficients	<i>P</i> -values	Coefficients	<i>P</i> -values
<i>Ownership variables</i>							
Block ownership	-	-0.197	(.000) ^{***}	-0.123	(.000) ^{***}	-0.206	(.000) ^{***}
Government ownership	+	0.123	(.043) ^{**}	0.080	(.154)	0.385	(.000) ^{***}
Institutional ownership	+	0.150	(.028) ^{**}	0.216	(.000) ^{***}	0.103	(.091) [*]
<i>Other explanatory variables</i>							
Audit firm size	+	0.148	(.056) [*]	0.112	(.084) [*]	0.260	(.000) ^{***}
Board size	-/+	0.537	(.000) ^{***}	0.386	(.041) ^{**}	0.215	(.052) [*]
CG committee	+	0.659	(.002) ^{***}	0.023	(.136)	0.286	(.034) ^{**}
Cross-listing	+	0.104	(.067) [*]	0.440	(.000) ^{***}	0.350	(.026) ^{**}
<i>Control variables</i>							
Capital expenditure	+	-0.032	(.149)	-0.052	(.127)	-0.025	(.218)
Firm size	+	0.740	(.000) ^{***}	0.536	(.000) ^{***}	0.480	(.000) ^{***}
Gearing	+	0.012	(.424)	0.030	(.316)	0.010	(.483)
Growth	+	-0.038	(.356)	-0.024	(.405)	-0.013	(.495)
Profitability (Return on assets)	+	0.569	(.000) ^{***}	0.371	(.000) ^{***}	0.347	(.000) ^{***}
Basic materials		-0.065	(.596)	-0.082	(.458)	-0.039	(.637)
Consumer services		0.577	(.000) ^{***}	0.546	(.000) ^{***}	0.469	(.000) ^{***}
Industrials		0.385	(.037) ^{**}	0.432	(.015) ^{**}	0.398	(.036) ^{**}
Technology		0.327	(.041) ^{**}	0.269	(.046) ^{**}	0.185	(.058) [*]
2002		-0.718	(.000) ^{***}	-0.705	(.000) ^{***}	-0.684	(.000) ^{***}
2004		0.520	(.028) ^{**}	0.364	(.039) ^{**}	0.253	(.047) ^{**}
2005		0.763	(.000) ^{***}	0.685	(.000) ^{***}	0.479	(.000) ^{***}
2006		0.941	(.000) ^{***}	0.896	(.000) ^{***}	0.762	(.000) ^{***}
Constant		-0.150	(.354)	-0.128	(.431)	-0.180	(.317)
Standard error			0.698		0.673		0.620
Durbin-Watson statistics			2.082		2.114		2.201
<i>F</i> -value			6.540 ^{***}		7.839 ^{***}		9.714 ^{***}
Adjusted <i>R</i> ²			0.451		0.432		0.498
Number of observations			845		845		845

Notes: Coefficients are in front of parenthesis. ***, ** and * indicate significance at the 1%, 5% and 10% level, respectively. The consumer goods industry and year 2003 are captured by the constant term. Table II above fully defines all the variables used.