Journal of Economic and Financial Sciences
ISSN: (Online) 2312-2803, (Print) 1995-7076

Alignment of executive long-term remuneration and company key performance indicators: An exploratory study

Authors:
Lize-Mari van Wyk[1]
Nicolene Wesson[1]

Affiliations:
[1]Business School, Stellenbosch University, Cape Town, South Africa

Corresponding author:
Nicolene Wesson,
nwesson@sun.ac.za

Dates:
Received: 06 Mar. 2020
Accepted: 18 Nov. 2020
Published: 22 Feb. 2021

How to cite this article:
Van Wyk, L-M. & Wesson, N., 2021, 'Alignment of executive long-term remuneration and company key performance indicators: An exploratory study', *Journal of Economic and Financial Sciences* 14(1), a564. https://doi.org/10.4102/jef.v14i1.564

Copyright:
© 2021. The Authors. Licensee: AOSIS. This work is licensed under the Creative Commons Attribution License.

Read online:

Scan this QR code with your smart phone or mobile device to read online.

Orientation: Executive remuneration remains a controversial topic. A major concern is the perceived misalignment of executive remuneration with company performance. Key performance indicators (KPIs) represent the strategic focus areas that drive a company's performance. Aligning executive remuneration, especially the long-term incentives (LTIs), with KPIs is, therefore, paramount in attaining company performance objectives.

Research purpose: This study assessed the alignment of chief executive officer (CEO) LTI objectives and company KPIs for mining companies listed on the Johannesburg Stock Exchange (JSE).

Motivation for the study: Prior research focused mainly on the relationship between short-term executive remuneration and company performance. The present study provides insights into the composition of CEO remuneration and whether CEO LTI objectives are aligned with company strategy.

Research approach/design and method: The sample comprised 34 mining companies for the period 2010–2016. A standardised methodology was applied to measure LTIs and statistical techniques (descriptive statistics and a ratings analysis) were applied to assess the alignment between CEO LTI objectives and company KPIs.

Main findings: Chief executive officer remuneration showed an increasing trend, with LTIs contributing more towards total CEO remuneration towards the end of the research period. A weak to moderate alignment was found between CEO LTI objectives and company KPIs.

Practical/managerial implications: Improved, transparent governance is required to address the opaque disclosure on the alignment between company KPIs and the objectives of CEO LTIs.

Contribution/value-add: The study demonstrated that annual (and integrated) report disclosures generally do not clearly describe company strategy (reflected by KPIs) nor is the link between KPIs and CEO LTI objectives always evident. Stakeholders thus may well question whether CEO remuneration is aligned to attaining sustainable company performance.

Keywords: long-term incentives; key performance indicators; company performance; executive remuneration; mining industry.

Introduction

Setting

There is a growing sense of disquiet amongst shareholders, as well as the general public, about executive remuneration models, which are not being aligned with company performance objectives. With excessive executive remuneration often paid to executives of poorly performing companies, it is questioned whether executive remuneration packages are designed to incentivise enhanced company performance. It is, however, acknowledged that executive remuneration can be justified if company performance objectives – as embodied in disclosed key performance indicators (KPIs) – integrate company strategy and reward (Topazio 2008). Executive remuneration, especially long-term incentives (LTIs) is, therefore, viewed as necessary and beneficial in aligning the interests of shareholders and executives (Scholtz & Smit 2012), but alignment between LTIs and the long-term strategy of the company is required to achieve the desired effect (Zalewska 2016).

Long-term incentives, such as share options and performance shares, are increasingly applied in executive remuneration packages (Steenkamp & Wesson 2018) and the value realised from LTIs often exceeds the remuneration earned from guaranteed packages and other benefits (Massie, Collier & Crotty 2014). The recognition and disclosure rules pertaining to LTIs, however, lead to stakeholders generally only learning about the extent and nature of LTIs when they are realised (in cash or shares) (Steenkamp et al. 2019). Owing to potentially large amounts spent on executive LTIs, it is important that executive LTIs are governed effectively (Steenkamp et al. 2019). Governance includes the appropriate design of executive LTI packages and transparent disclosure on the link between company strategy and executive LTI scheme objectives.

An increased focus on corporate governance worldwide, including greater transparency in respect of the nature and quantum of executive remuneration, has led to new regulations and governance policies (Bussin 2018). Globally, corporate governance and disclosure requirements are governed by various acts and codes, which include the *Sarbanes-Oxley Act* (United States of America Government 2002), *Dodd-Frank Act* (United States of America Government 2010) and Corporate Governance Code (United Kingdom Government 2010). An improvement in corporate governance requirements could strengthen the link between executive remuneration and the company's performance (Scholtz & Smit 2012) and is to the advantage of shareholders (Farmer, Archbold & Alexandrou 2013). Corporate governance compliance might, however, merely be a 'tick box' exercise – without reflecting what the actual ethos and strategy of the company is (Naudé et al. 2018). The introduction of the integrated report in 2010 has, however, contributed to integrated thinking and stakeholder value creation becoming the corporate norm (Druckman 2016) – therefore allowing for transparant disclosures within integrated reports on actual company strategy and the value creation process (International Integrated Reporting Council 2013).

The aim of the present study is to assess the alignment between chief executive officer (CEO) LTI objectives and company strategy (as per disclosed company KPIs) in the South African mining industry. South Africa is perceived to have sophisticated governance structures, with the Johannesburg Stock Exchange (JSE) rated first in the world in terms of regulation of securities exchanges for the period 2013–2014 (Johannesburg Stock Exchange 2019); the King Report on governance considered as 'the world standard on corporate governance' (Roman 2019) and many South African companies being at the forefront of adopting integrated reporting (Druckman 2016). South Africa has also received the top ranking on integrated reporting quality in a recent international study on the G20 countries (Eccles, Krzus & Solano 2019). The South African economy, however, faces the challenges of a high unemployment rate, slow economic growth and one of the highest inequity rates in the world (The World Bank Group 2019). Although corporate governance models are usually developed with assumptions that are consistent with developed countries (Jabbouri 2016; Lagoarde-Segot 2013), South Africa provides a unique setting of a developing country with a dual economy and perceived high levels of corporate governance. Establishing a link between CEO remuneration objectives and company KPIs is of paramount importance in the South African context, to ensure that CEO behaviour will inform sustainable value creation.

The mining industry remains of specific interest in the South African context. Although a downward trend after the industry peak in 1970 is evident (represented by a 21% contribution to gross domestic product in 1970 as opposed to a contribution of 6% in 2016), the industry continues to make a valuable contribution to the economy of South Africa, most notably in terms of foreign exchange earnings and employment (KPMG 2015; South African Institute of Race Relations 2019). The South African mining industry has one of the richest non-oil resources in the world and its reserves of platinum group metals and coal could last for hundreds of years (IRR 2019). The gradual decline in the industry is mainly attributed to the unstable mining policy environment, but the promulgation of the new Mining Charter in September 2018 is seen as paving the way for restoring investor confidence in the industry (IRR 2019). Income inequality is, however, specifically evident within the mining industry and has led to social unrest in recent times (PricewaterhouseCoopers 2013a). Studying the alignment between CEO LTI objectives and company KPIs within the mining sector is, therefore, specifically relevant in the South African context.

To the authors' knowledge, no study has yet empirically tested the alignment between CEO LTI objectives and company KPIs. Literature shows mixed results on the relationship between CEO remuneration and historic company performance in South Africa (Bussin 2018; Bussin & Modau 2015; Deysel & Kruger 2015; Scholtz & Smit 2012; Shaw 2011; Smit 2016; Theku 2014; Van Blerck 2012; Urson 2016). Most studies, however, did not include LTIs when testing the relationship between CEO remuneration and company performance, mainly owing to the difficulty in measuring LTIs (Steenkamp & Wesson 2018). Only Bussin (2018) and Smit (2016) studied executive remuneration in the South African mining industry. Bussin (2018) reported a moderate to strong relationship between CEO remuneration and company performance in the mining industry for the period 2009–2013, whilst Smit (2016) found no significant relationship for the period 2002–2014. Both studies excluded LTI remuneration and applied only historic company performance variables as their company performance measure.

The present study will contribute to 'pay for performance' literature by measuring LTIs (by applying a standardised methodology) and assessing the alignment between CEO LTI objectives and company KPIs in the South African

mining industry. Awareness of the alignment of CEO LTI scheme objectives with that of the company strategy would serve the purpose of informing stakeholders about whether CEOs are motivated to enhance company performance. Regulatory bodies and remuneration committees will benefit from the insights derived from the present study to assess whether increased governance is required to ensure that executive remuneration is aligned with company strategy.

Research objective

The main objective of this study was to assess the alignment between CEO LTI objectives and KPIs in the South African mining industry for the period 2010–2016. To address the main objective of the study, three secondary research objectives were developed, namely:

- to compare the remuneration structure of JSE-listed companies in the South African mining industry, focusing on short-term incentives (STIs) and LTIs
- to identify the KPIs set by JSE-listed companies in the South African mining industry
- to describe the alignment between the CEOs' LTI scheme objectives and the KPIs of the companies in the South African mining industry.

Owing to the CEO being primarily responsible to implement the KPIs in a manner that will ensure that the company's goals and objectives are achieved, this study used CEO remuneration as a proxy for executive remuneration. In line with the exploratory nature of the study, the secondary research objectives firstly provided the context for LTIs (by measuring LTIs and comparing the trend in CEO STIs and LTIs over time); secondly identified KPI disclosure practices over time and thirdly assessed whether there was alignment between disclosed KPIs and CEO LTI objectives.

Literature review

Underlying theories on executive remuneration

Chief executive officers are appointed to look after the interests of company shareholders (Jensen & Meckling 1976) and to manage the company on their behalf (Berle & Means 1991). The interests of management often diverge from that of the company's shareholders (Berle & Means 1991) and it is likely that the CEO will not always act in the best interest of shareholders (Jensen & Meckling 1976). The principal-agent theory suggests that CEO remuneration is a way to align the interests of management (or agent) more closely to those of the shareholders (or principal) by rewarding the CEO for superior company performance (Jensen & Meckling 1976).

In contrast with the principal-agent theory, the managerial power theory recognises that CEOs' remuneration may be affected by the influence that they have over the company board of directors (Bebchuk & Fried 2006). The managerial power theory postulates that executive managers have the power to influence the design and structure of their remuneration (Schneider 2013). Managerial influence over the design of remuneration arrangements has led to significant misrepresentations and rent extraction from the company and indirectly from its shareholders (Bebchuk & Fried 2004, 2006). In this context, 'rent' refers to the benefit received in excess of what would have been received under true arm's-length contracting.

Optimal contracting theory can be applied by companies by incentivising CEOs to eliminate rent extraction behaviour (Bussin 2018). Effective remuneration contracts link CEO remuneration with company performance by way of implementing strong incentives for CEOs to entice them to operate in the best interest of the shareholders, allowing both parties to maximise their own personal gain (Edmans & Gabaix 2009; Shaw & Zhang 2010).

The principal-agent conflict is further exacerbated by the difference in individuals' risk exposure and the misalignment of their risk appetite. Chief executive officers are usually employed to run the company with a pragmatic view, free from the emotional burden resulting from investor risk (Bussin 2015). Principals rely on agents to increase the value of the investment. However, agents devote company profits to advancing company activities, which will increase their own prosperity (Lazonick 2014).

Other theories that are also related to executive remuneration are the tournament theory, the stewardship theory and the stakeholder theory. The tournament theory postulates that the executive has 'won the tournament' in respect of the job-level attained in the company, with companies often benchmarking their executives' remuneration against their peers (Steyn 2015). The stewardship theory proposes that executives see themselves as stewards of the company – they, therefore, have the natural desire to act in the best interest of the company, without requiring incentives to align their interest with those of the shareholders (Sun, Zhao & Yang 2010).

A theory of specific relevance for the present study is the stakeholder theory. This theory postulates that the company exists not only for the exclusive benefit of its shareholders but also to generate shared value for other interested parties such as employees, customers, suppliers and communities. The stakeholder-centric model necessitates a shift to a business model that incorporates KPIs linked to the concepts of the interconnected company, taking into account the larger role that a company plays in society (PwC 2016a). In the stakeholder-centric model, CEOs (as the agent) are successful and will be financially rewarded when the company's performance is aligned with these KPIs, which take into account more than merely maximising profits at any cost.

Chief executive officer remuneration composition

In general, CEO remuneration comprises a guaranteed package, as well as STIs and LTIs. Guaranteed packages usually include a salary, medical benefits, various allowances

and company pension fund contributions. Short-term incentives are paid annually and generally include an annual cash bonus. Long-term incentives usually form a significant part of a CEO's remuneration and may be granted in the form of equity-based or cash-based incentives (Steenkamp & Wesson 2018; Steyn 2015).

Over the past few decades, equity-based remuneration has been used to increase company value by aligning the interest and objectives of management with the interest and long-term objectives of the shareholder (Mavrodinov 2012). Long-term remuneration is often used by companies to remunerate employees without diverting cash from operations (Mavrodinov 2012) or is used as a retention method (Massie et al. 2014; Park & Sturman 2012; Samsa & Scheidt 2003).

Historically, equity-based incentive schemes were implemented where there was direct employee control of a business, for example in a cooperative society or employee partnership (Samsa & Scheidt 2003). Companies later recognised the significant advantages of employee participation in equity and consequently incentive schemes were developed to include both management and other employees. Equity-based remuneration in the form of incentive schemes is strongly supported (Bebchuk & Fried 2006), which in principle can provide executives with the desirable incentives. Unfortunately, the conventional design of option schemes can allow CEOs to reap substantial rewards even when their performance was average or even poor. These share options enable CEOs to gain, unmerited, from any increase in the nominal share price above the grant date market price.

Predominantly two types of LTI schemes exist, namely appreciation schemes (e.g. share options, share appreciation rights and deferred delivery schemes) and full quantum schemes (e.g. restricted schemes, performance schemes and deferred bonus schemes) (Mavrodinov 2012; Steenkamp & Wesson 2018). The main distinction is that appreciation schemes only remunerate for increases in the share price, whilst full quantum schemes remunerate by offering ownership of the shares, resulting in CEOs sharing in the positive and negative movement of the share price (Mavrodinov 2012; Steenkamp & Wesson 2018). It has been observed that share options and share appreciation rights are being replaced by restricted shares, bonus shares and performance shares – which better align with the interests of shareholders and are more likely to obviate extreme payouts (PwC 2016a; Steenkamp & Wesson 2018).

Before 2005, the accounting rules in most developed countries prescribed the approach of dealing only with the disclosure of equity-based payments in financial statements. In 2005, the International Financial Reporting Standard 2 (IFRS 2): Share-based Payments (International Accounting Standards Board 2008) was issued by the International Accounting Standards Board (and adopted in South Africa) and required that equity-based payments be expensed in the income statement for all financial periods beginning on or after 01 January 2005. In terms of IFRS 2 (IASB 2008), the fair value of equity-settled instruments with vesting conditions is calculated on the grant date and expensed in the income statement over the vesting period. The fair value is not re-measured at each reporting date for instruments that vest over more than one reporting period. On the contrary, the recognition of cash-settled instruments entails that the fair value of the liability is re-measured at each reporting date (during the vesting period) and the adjustment to fair value expensed in the income statement at each reporting date. International Financial Reporting Standard 2 also does not require a company to disclose the gain or loss realised on equity-based payments between the vesting date and the exercise date in the financial statements.

In terms of the *Companies Act*, chapter 2, part C, section 30(4), (5) and (6) (Republic of South Africa 2008), all companies are required to disclose the remuneration paid to executives in their annual financial statements. The act does not require detailed disclosure of executive LTIs on a 'per director' basis. Furthermore, the act also does not require the disclosure of the link between executive remuneration and the financial performance of a company (PwC 2009).

As from 2002 King II (Institute of Directors in Southern Africa 2002:61), however, prescribed 'per director' disclosure of director remuneration 'giving details of earnings, share options, restraint payments and all other benefits', whilst King III (IoDSA 2009) extended the requirements pertaining to directors' remuneration by also prescribing that disclosure of the fair value of instruments held at the reporting date and the value received on the exercise of instruments during the year could be regarded as 'best practice'.

King IV (IoDSA 2016) was released on 01 November 2016 and is effective in respect of financial years starting on or after 01 April 2017. The main objective of this report is to ensure transparency (PwC 2016b). Principle 14 of King IV (IoDSA 2016) stipulates that:

> [*T*]he governing body should ensure that the organisation remunerates fairly, responsibly and transparently so as to promote the achievement of strategic objectives and positive outcomes in the short, medium and long-term. (p. 64)

The notable changes in King IV (IoDSA 2016) include the recommendation of disclosure by means of a remuneration report and the reference to more detailed disclosure requirements, specifically to STIs and LTIs. Disclosure requirements include that LTIs should be reflected at fair value in the remuneration report. Furthermore, details of LTIs granted but not yet paid or vested in respect of each executive member of the governing body and prescribed officer, as well as the cash value of all awards made under deferred short-term and LTIs to executives that were settled during the reporting period, should also be disclosed (IoDSA 2016). King IV (IoDSA 2016) further requires that there should be a link between executive remuneration, value

creation and KPIs within the economic, environmental and social context (Deloitte 2017). King IV, however, does not explicitly stipulate the disclosure necessary to illustrate the link between executive remuneration and company KPIs.

In terms of an amendment to the JSE Listings Requirements in May 2017, all JSE-listed companies must apply the latest King Code principles (JSE 2017). The 'apply and explain' approach of King IV, as opposed to the 'apply or explain' approach of King II and III, will contribute towards improved disclosure on executive remuneration.

Company key performance indicators

Measuring success is no longer confined to a mere set of financial metrics to keep investors and the broader stakeholders satisfied. In an annual global survey, PwC (2016a) found that 86% of CEOs are already responding to changing stakeholder expectations by taking responsibility for impacts beyond financial responsibility.

One of the key challenges confronting CEOs of large firms is 'incorporating sustainability' (Mascarenhas 2009:248). Investors are, therefore, taking a long-term view and recognise that wider social aspects drive long-term value creation (Mascarenhas 2009). In a survey by PwC (2016b), which included more than 1400 CEOs in 83 countries, 84% of the CEOs responded that it was expected of them to address broader stakeholder needs and 76% noted that business success was more than just making a financial profit. Approximately 52% of the CEOs stated that creating value for broader stakeholders drove profitability (PwC 2016b). Chief executive officers, therefore, played a vital role in managing company resources within the triple-bottom-line context, and hence included financial, social and environmental considerations.

The creation of value is at the heart of 'integrated thinking' and explains the interconnections between non-financial metrics and key financial metrics – a process known as integrated reporting. The aim of the integrated report is to align relevant information about the company's strategy, governance systems and performance and future projections in a way that reflects the economic, environmental and social impact on the environment in which the company operates (Atkins & Maroun 2015; Churet & Eccles 2014; PwC 2013b). The International Integrated Reporting Framework (IIRF) published by the International Integrated Reporting Council (IIRC) (2013) states that all companies depend on various forms of capital for their success. The six capitals identified are: financial capital, manufacturing capital, intellectual capital, human capital, social and relationship capital and natural capital.

The capitals represent stores of value that increase, decrease or transform through the activities and outputs of the company (Ernst & Young 2013). The primary role of these capitals is to serve as a guideline to companies to ensure that all forms of capital that are used or affected by the company are considered. For the purpose of the present study, the financial capital is specifically relevant and is defined as the funds available to a company to use in the production of goods and the provision of services, with these funds being obtained from various financing sources (IIRC 2013). Although integrated reporting was previously not mandatory in terms of the JSE Listings Requirements (with chapter 9 of King III not being mandatory) (JSE 2013), it is now a requirement for JSE-listed companies to apply King IV to all integrated reports produced on or after 01 October 2017 (Wolff 2017).

Corporate reporting is an ever-evolving field as most companies continually endeavour to improve communication with their stakeholders. One of the ways in which this is done is through the annual integrated report (PwC 2013b). Increased pressure is exerted on company boards to explain how they are developing long-term sustainable businesses, as well as how the company performs against these set, long-term goals (PwC 2015). Key performance indicators are a measurable value that explain how effective a company is in achieving its key business objectives. Identifying the right performance indicators – those key indicators that inform strategy – is key to measuring the success of the company's strategy (Crabtree & DeBusk 2008; PwC 2015). Quantitative indicators of performance such as KPIs can assist in increasing comparability and, in most instances, are particularly helpful in expressing and reporting against targets. When measuring company performance, typical financial capital measures include KPIs such as return on investment (ROI), return on total assets, earnings before interest, tax, depreciation and amortisation (EBITDA), net profit after tax and sales growth – and are generally considered to be effective indicators of a company's profitability (Fang, Xiangjing & Xue 2013; Franquelli & Vannoni 2000).

Relationship between chief executive officer remuneration and company performance indicators

Criticism has been meted out to companies and their remuneration committees for increasing CEO remuneration whilst companies are not performing well. It is widely suggested that there is a weak relationship between CEO remuneration and company performance (Ozkan 2007). This implies that CEOs receive their remuneration regardless of whether the company has achieved its KPIs.

Recent South African studies focused on the relationship between CEO remuneration and company performance, covering companies listed on the JSE Alternative Exchange, the mining sector, the consumer goods and consumer services sub-sector on the JSE, the financial services industry and the banking industry, as well as the Top 40 and Top 100 JSE-listed companies. In 6 of the 10 studies reviewed, a positive, moderate to strong relationship was found between executive remuneration and company performance (Bussin 2018; Deysel & Kruger 2015; Scholtz & Smit 2012; Shaw 2011; Theku 2014; Van Blerck 2012). In the other four studies,

a weak relationship or no relationship was noted (Bussin & Modau 2015; Smit 2016; Steyn 2015; Urson 2016). Two of the studies, Bussin (2018) and Smit (2016), were performed on the mining industry. All the studies reviewed focused only on STIs, except for Steyn (2015), excluded the relationship between LTIs and company strategy and focused only on historical company performance.

Pay-performance sensitivity has been studied in various countries over different time frames. Many of the reviewed global studies included LTIs (Core, Holthausen & Larcker 1999; Farmer et al. 2013; Ozkan 2011) when testing the relationship between executive remuneration and company performance. These studies covered companies listed on the London Stock Exchange, the New York Stock Exchange, the American Stock Exchange, the Nasdaq Stock Market and the Spanish Stock Exchange, as well as companies in the American property-liability insurance industry and non-financial companies in the United Kingdom. Balafas and Florackis (2014) and Cooper, Gulen and Rau (2016) reported a negative relationship between CEO remuneration and company performance, whilst Crespi-Cladera and Gispert (2003), Ozkan (2011), Fang et al. (2013) and Farmer et al. (2013) reported a positive link. The strength of the relationship reported in these studies varied from insignificant to significant.

Since the introduction of the integrated reporting framework in 2013, an increased trend in the quality of disclosure around executive remuneration has been observed in integrated reports (PwC 2013b). During 2013, PwC (2013b) performed a survey on the Top 40 JSE-listed companies and found (based on the assessment of the questions posed in its survey) that 65% of integrated reports showed meaningful alignment between the companies' KPIs and their remuneration policies, whilst a slight improvement (67% alignment) was noted in 2015 when an identical survey was performed (PwC 2015). Details on the survey questions were, however, not available to enable an assessment of the extent of LTIs covered in the survey questions.

With South Africa being at the forefront of integrating reporting, various South African studies have been performed to assess the relationship between the quality of integrated reporting disclosures (as a measure of corporate governance) and company performance. Although prior studies did not assess the quality of the disclosures on the link between CEO remuneration objectives and company performance, the general consensus is that an increase in integrated reporting quality (IRC) is not necessarily associated with improved company performance (Mans-Kemp & Van der Lugt 2020). It is suggested that companies (especially their investors) with high IRC are generally not rewarded in financial terms and that there is a possibility that companies with a high level of IRC may still fail to effectively link sustainability performance with financial performance. Mans-Kemp and Van der Lugt (2020) suggested that future research on IRC should rather focus on the quality of reporting (and not the mere quantity and compliance with core elements of integrated reporting) by applying the IIRC (2013) principles, such as strategic focus. The present study, therefore, incorporated these recommendations by assessing the quality of disclosures on the alignment between KPIs and CEO LTI objectives – therefore assessing the strategic focus and integrated thinking applied in executive remuneration practices. Although it is acknowledged that IRC does not necessarily influence the financial performance of the company, the selection of the appropriate KPIs is regarded as key in measuring the success of the company's strategy (Crabtree & DeBusk 2008; PwC 2015).

Research design

Research approach

The research took the form of a desktop study and was archival in nature. Both quantitative and qualitative secondary data were used. This study had a clear approach and a systematic process was followed to gather the required information from the annual financial statements, integrated reports and the IRESS financial database.

Research method

Population and sampling

The study was based on a 7-year period from 2010 to 2016. The period excludes the global financial crisis of 2008/2009; commencing in 2010, the year in which the concept of integrated reporting was introduced (Deloitte Global Services Limited 2017); and ending in 2016, the year before the new King IV report was effective. The population included all primary JSE-listed mining companies listed during 2010–2016. Delisted companies were included in the study to address survivorship bias, provided that they were listed for at least 3 years during the target period of the study.

The population of companies were identified by scrutinising the quarterly Profile's Stock Exchange Handbooks (Profile Group 2011, 2012, 2014, 2015, 2016). During the period 2010–2016, 37 mining companies had their primary listing on the JSE. Of the 37 companies, the remuneration data for the CEOs of three companies were unavailable for at least 3 years – and these three companies were, therefore, excluded from this study. The final sample of 34 companies can be observed in Table 1-A1.

The final sample of 34 companies was applied in addressing the first secondary research objective (on the trend analysis of the remuneration structure). In respect of the second secondary research objective (on identifying the KPIs), only 3 years (namely 2014–2016) were reviewed. With the IIRF released in 2013 and accepted in South Africa as from 2014 and the Ernst & Young Excellence in Integrated Reporting Awards commencing in 2013 (Mans-Kemp & Van der Lugt 2020), the present study applied the 2014 year as starting date owing to integrated reporting practices assumed to have been established in South Africa in 2014. There were 28 companies (of the original sample of 34 companies) that met the requirements relevant for testing the second secondary

research objective. In respect of the third secondary objective (on assessing the alignment of CEO's LTI objectives and company KPIs), the analysis was performed for the 2016 financial year only. Literature states that LTI schemes are generally granted over a vesting period of between 3 to 5 years, which implies that the relationship was tested for 3 to 5 years by only testing plans effective in the 2016 financial year. Companies that had no LTI scheme in 2016, as well as companies not listed in 2016, were excluded from the sample when testing the third secondary research objective. There were 18 companies (of the original sample of 34 companies) that met the requirements relevant for testing the third secondary research objective. The companies included in the testing of each of the secondary research objectives are listed in Table 1-A1.

Subsequent to finalising the sample companies, the CEOs of each company during the specified period were identified by scrutinising the relevant annual financial statement or integrated report. From Table 1-A1, it can be observed that the 34 companies (included in the final sample) were represented by 58 individual CEOs in a total of 202 company years. On average, a company had 1.71 CEOs over the 7-year period (from 2010 to 2016) and the average tenure of a CEO varied between 3 and 4 years.

Data collection

The IRESS financial database was used as the primary source for the collection of CEO remuneration data, with companies' annual financial statements and integrated reports (on the respective companies' websites) also being consulted to obtain comprehensive data on CEO remuneration and KPIs. Although other communication channels, like company websites, are increasingly used by companies to communicate with stakeholders, website communication is often not dated (as opposed to annual and integrated reporting disclosures being dated) (Nel 2019). Archival studies, as is the case with the present study, rely on information being available to stakeholders on a specific date (or during a specific time period) and, therefore, the website communications were not incorporated as a data source in the present study.

The remuneration data per CEO were extracted from IRESS (product: Director Search) and calculated by the authors, as summarised in Table 1. Remuneration data for only one CEO per company per annum were collected. In the event of a CEO resigning during the period under review, remuneration data of only the resigning director were captured – mainly owing to the fact that the identification of CEO remuneration was difficult when the newly appointed CEO was a former director of the company. The standard methodology referred to in Table 1 was needed to measure the LTIs per CEO for LTIs that were granted per annum and for LTIs held at year-end – as these values were not disclosed in annual reports, integrated reports or in IRESS (nor are they required in terms of IFRS).

Long-term incentives granted (ALLOCATED) in the year were measured by multiplying the number of LTI shares granted during the year with the difference between the share price at year-end and the strike price stipulated in the LTI contract. The LTI scheme balance (BALANCE) (namely LTIs granted, but not yet exercised at year-end) was calculated by multiplying the closing number of LTI shares not yet exercised by the difference between the share price at year-end and the strike price stipulated in the LTI contract. These calculated values therefore, respectively, represent the fair value of remuneration received by each CEO during the year and the potential remuneration that the CEO might (in respect of balance of unexercised LTI shares) receive in future. The methodology was consistently applied across all LTI scheme types, except for deferred bonus plans which are generally granted at a nil strike price – hence only the share price at year-end was applied when calculating the deemed value. Although methods like the Black-Scholes and binomial pricing models are generally applied to value LTI schemes on grant date (IASB 2008), all variables pertaining to these models were not publicly available to allow the application thereof in this study. It was also not the purpose of this study to value LTI schemes on grant date, but rather to measure the remuneration earned from LTIs over the lifetime of the LTI scheme. The methodology applied in the present study is similar to the disclosures proposed by King IV on LTI remuneration received and receivable per reporting period.

TABLE 1: Components of chief executive officer's remuneration.

CEO remuneration measurement variable	Description and data source
Total guaranteed pay (TGP)	Basic salary + benefits (retirement, medical, motor and other), as disclosed in IRESS
Short-term incentives (STI)	Bonuses + other benefits + once-off payments, as disclosed in IRESS
Gains on share options exercised (GAIN)	Gains realised by the CEO on share options exercised during the year, as disclosed in IRESS
Deemed value of LTI shares granted under the LTI scheme during the year (ALLOCATED)	Value calculated by authors, by applying standard method
Deemed value of LTI scheme balance (LTI shares granted, but not yet exercised under the LTI scheme) (BALANCE)	Value calculated by authors, by applying standard method
Short-term remuneration	TGP+STI
Long-term remuneration: total annual	GAIN+ALLOCATED
Long-term remuneration: total	GAIN+BALANCE
Total annual remuneration	TGP+STI+GAIN+ALLOCATED
Total remuneration	TGP+STI+GAIN+BALANCE

CEO, chief executive officer; LTI, long-term incentive.

Negative LTI values were not recorded, in other words, if the strike price exceeded the share price at year-end the value of the LTI was recorded as zero, as it was unlikely that the LTI would be exercised at a loss. In the event of a newly appointed CEO who had an opening balance for any type of LTI scheme, except for a deferred bonus plan, the average share price of the preceding year was used as the strike price for the opening balance LTI scheme. The strike price of the LTIs was obtained from IRESS (product: Director Search) and the average and year-end share prices were obtained from IRESS (product: Price Data).

In assessing the KPIs of a company, the present study applied the financial capital, as identified in the IIRF, as a proxy for

company performance objectives. Financial capital is the capital that is most evidently linked to the research question posed in this study. Information on company KPIs, focusing on financial capital, was obtained from the companies' integrated report disclosures. Disclosures on company strategy and the capitals used as inputs in the value creation process were specifically scrutinised to identify the KPIs of a financial nature.

The remuneration report in the annual financial statement or integrated report was used to obtain detailed information on the performance objectives set for LTI schemes to allow for the assessment of the alignment with KPIs (as per the third secondary research objective).

Problems encountered during data collection

The disclosure around company KPIs in the integrated report was in some instances limited, especially in respect of the years before 2014. A few companies merely noted that the performance of the company was in line with the company's objective. Other companies scattered the information across the integrated report, making it challenging to identify the KPIs of these companies.

A few instances (22 of the 202 company-year observations) were encountered where the strike price of an LTI scheme was not available on IRESS or in the annual (or integrated) report. In these cases, a deemed strike price (equal to the average share price for the year in which the LTI was granted) was allocated to the LTI scheme option – as strike prices are commonly set equal to the share price on grant date (Mavrodinov 2012).

Data analysis

In order to address the first secondary objective of this study (on the trend in remuneration structure), the following elements and combination of elements of total CEO remuneration were analysed:

- TGP
- TGP+STI (or short-term remuneration)
- TGP+STI+GAIN
- TGP+STI+GAIN+ALLOCATED (or total annual remuneration)
- TGP+STI+GAIN+BALANCE (or total remuneration).

Descriptive statistics were performed and the trends in CEO remuneration were compared with the mining index over the 7-year period. The JSE mining index data were exported from IRESS (product: Price Data). The remuneration data were not adjusted for inflation and, in the case of percentage changes, the nominal growth percentage and compound annual growth rate (CAGR) were used to explain an increase or decrease in numbers.

In order to address the second secondary objective (on identifying the company KPIs) of this study, the KPIs focusing on financial capital of the companies were summarised and reviewed for common trends over the target period of the study.

A ratings analysis (Table 2) was applied to address the third secondary objective (on assessing the alignment of LTI scheme objectives and company KPIs) of this study. The link between CEO LTI objectives and company key performance objectives was ascertained based on a five-point Likert scale. The weightings of 25%, 50% and 75% were calculated based on the number of financial capital-related key performance objectives set by each company.

Table 3 represents a practical example of the assessment of the alignment between disclosed KPIs and CEO LTI objectives in respect of one of the sampled companies. The example company set six financial capital KPIs and four of these company objectives were aligned with the CEO LTI scheme objectives. It, therefore, resulted in an alignment of 67% (or two-thirds) of the company KPIs and CEO LTI scheme objectives and a score (rating) of 4 (> 50% but ≤ 75%) was awarded.

Ethical consideration

The present study adhered to ethical standards and procedures and ethical clearance was obtained from the Departmental Ethics Screening Committee of the University of Stellenbosch Business School (reference number USB-2017-0929-632).

TABLE 2: Ratings analysis.

Rating	Ratings criteria
1	There is no disclosure in the annual financial statement or integrated report with regard to CEO LTI objectives and/or company KPIs focusing on financial capital
2	≤ 25% of the CEO's LTI objectives and company KPIs focusing on financial capital are aligned
3	> 25% but ≤ 50% of the CEO's LTI objectives and company KPIs focusing on financial capital are aligned
4	> 50% but ≤ 75% of the CEO's LTI objectives and company KPIs focusing on financial capital are aligned
5	> 75% of the CEO's LTI objectives and company KPIs focusing on financial capital are aligned

CEO, chief executive officer; LTI, long-term incentive; KPI, key performance indicator.

TABLE 3: Example of assessment of alignment between key performance indicators and long-term incentive scheme objective.

Financial capital KPI	LTI scheme objective	Aligned
1. Maintain focus on cost and capital discipline to deliver competitive all-in sustaining costs and all-in cost	Operational performance – measured through all-in sustaining cost, project delivery and asset optimisation	Yes
2. Further enhance margins and cash flow through continuing focus on self-help measures and efficiency improvements, and further benefiting from weaker currency and oil prices	-	Yes
3. Decrease the expenditure at a specific mine site by reducing holding the holdings, whilst investigating alternative options	-	No
4. Decrease expenditure in a specific country, whilst maintaining optionality and moving projects in that country up the value curve	Future optionality (measured by mineral resource, ore reserve and the delivery of the specific country's ore reserve)	Yes
5. Continue to target sustainable cash generation	Normalised cash return on equity, which will be measured based on the free cash flow generated by the group and the group's share of joint ventures and associates cash flows	Yes
6. Reduce the annual interest bill and further deleverage the balance sheet	-	No

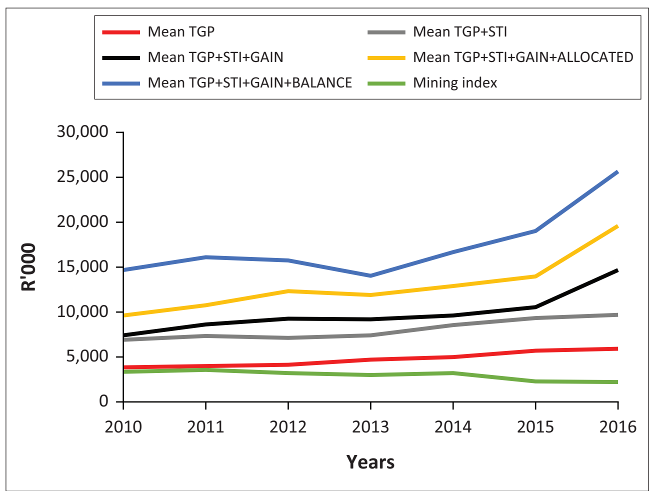
KPI, key performance indicator; LTI, long-term incentive.

Results

Remuneration structure of Johannesburg Stock Exchange-listed mining companies

In addressing the first secondary research objective, descriptive statistics were performed on CEO remuneration, and the composition of CEO remuneration based on total annual remuneration (TGP+STI+GAIN+ALLOCATED) and total remunerations (TGP+STI+GAIN+BALANCE) were analysed to assess the trends over the 2010–2016 period. Detailed descriptive statistics on the CEO remuneration categories are included in Table 2-A1.

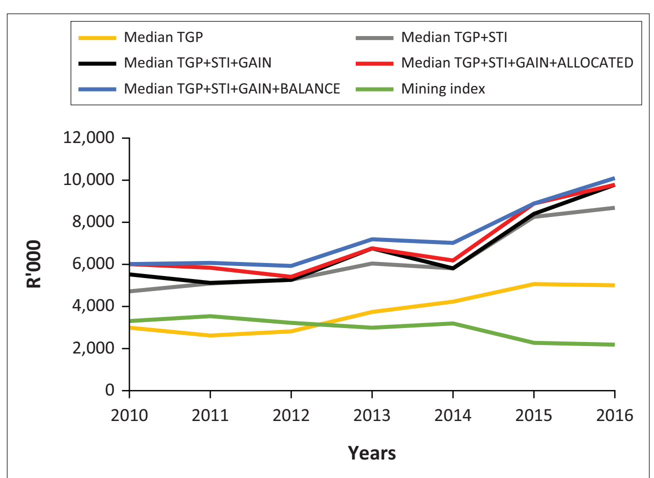
Figures 1 and 2, respectively, represent the mean and median CEO remuneration categories (based on nominal values) for CEOs of the 34 mining companies, compared with the mining index (comprising all mining companies listed on the JSE), for the period 2010–2016. As expected, TGP grew consistently over the period as it seldom decreases over time, regardless of the market condition. The mean TGP gradually increased, resulting in a 53% nominal increase and a 7% CAGR over the period, whilst the median TGP increased by 68% and a 9% CAGR. The short-term incentive (STI) is viewed as an important component of remuneration as the perception exists that this should be closely linked to the performance of the company (Smit 2016). The TGP+STI (or short-term remuneration) mean (nominal: 40%; CAGR: 6%) and median (nominal: 85%; CAGR: 11%) increased over the period. During 2015, a number of companies paid a form of bonus to their CEOs. The top six bonuses paid in 2015 were between R6.17 million and R14.23 million and were paid to the CEOs of Anglogold Ashanti Ltd, Assore Ltd, Petmin Ltd, Gold Fields Ltd, Sibanye Gold Ltd and Wescoal Holdings Ltd. The higher increase of the median in comparison to the mean TGP+STI indicates that the rand value of STI increased per company and was not the result of only a few STI outliers noted over the 7-year period.



Note: See Table 1 for remuneration categories (TGP, STI, GAIN, BALANCE and ALLOCATED) definitions.

TGP, total guaranteed pay; STI, short-term incentive.

FIGURE 1: Chief executive officer's remuneration: Mean (R'000).



Note: See Table 1 for remuneration categories (TGP, STI, GAIN, BALANCE and ALLOCATED) definitions.

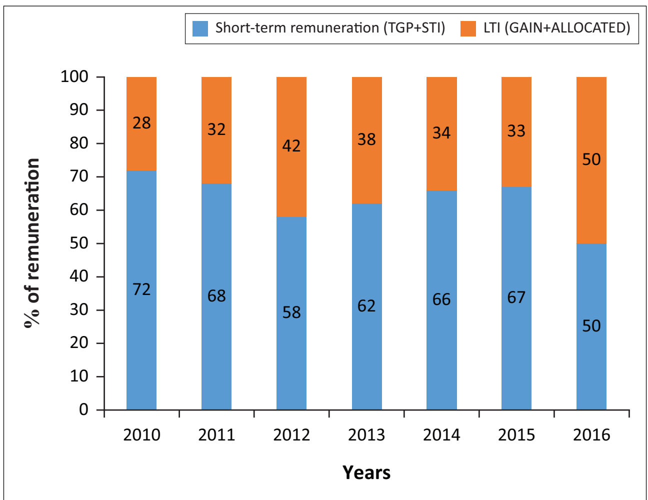
TGP, total guaranteed pay; STI, short-term incentive.

FIGURE 2: Chief executive officer's remuneration: Median (R'000).

The TGP+STI+GAINS mean increased gradually from 2010 to 2015 and increased significantly in 2016 – mainly owing to Sibanye Gold's CEO exercising a portion of his share options. This was also the largest recorded gain on LTI schemes exercised over the 7-year period. The TGP+STI+GAIN+ALLOCATED (or total annual remuneration) median and mean increased steadily from 2010 to 2016. The higher percentage increase of the mean in comparison to the median indicates the effect of a few outliers (e.g. not only did the CEO of Sibanye Gold Ltd. exercise a portion of his share options in 2016, but the company also granted him a further 1 186 314 options in 2016). The continued increase of the TGP+STI+GAIN+BALANCE (or total remuneration) mean and median over the period could be as a result of more LTI schemes being granted to CEOs each year and CEOs not exercising their LTIs. The decline in the mining industry's performance might explain the CEOs' decisions to hold on to LTIs in anticipation of a possible upturn in the performance of the mining industry.

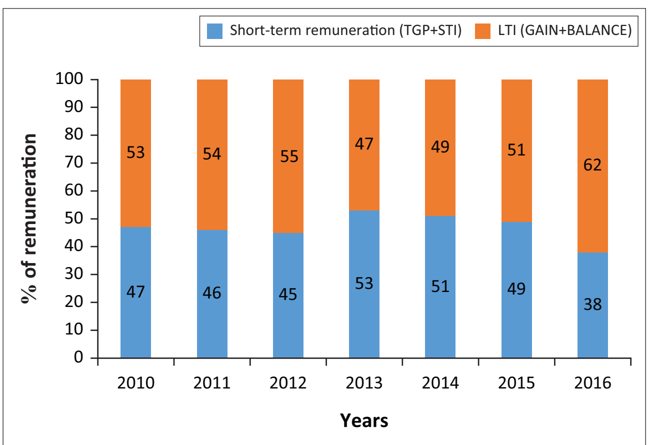
The mining index fluctuated between years but, in general, decreased over the 7-year period as opposed to all CEO remuneration categories (Figures 1 and 2) showing an increased trend over the 7-year period.

Figure 3 indicates the change in the structure between short-term remuneration (TGP+STI) and long-term remuneration (GAIN+ALLOCATED) as a percentage of total annual remuneration (TGP+STI+GAIN+ALLOCATED) for the 34 mining companies for the period 2010–2016. For the first 3 years analysed (2010–2012), a gradual shift away from short-term remuneration is noted. For the period 2013 to 2015, short-term remuneration increased as a percentage of total remuneration and decreased significantly to 50% of total remuneration in 2016. Evidence, therefore, suggests that LTIs exercised and new LTIs granted became a more prevalent remuneration practice in 2016.



TGP, total guaranteed pay; STI, short-term incentive; LTI, long-term incentive.

FIGURE 3: Breakdown of annual remuneration.



TGP, total guaranteed pay; STI, short-term incentive; LTI, long-term incentive.

FIGURE 4: Breakdown of total remuneration.

Figure 4 indicates the change in the structure between short-term remuneration (TGP+STI) and long-term remuneration (GAIN+BALANCE) as a percentage of total remuneration (TGP+STI+GAIN+BALANCE) for the 34 mining companies for the period 2010–2016. The short-term remuneration in the first 6 years from 2010 to 2015 contributed between 45% and 53% of total remuneration. The picture changed significantly in 2016 with short-term remuneration only contributing 38% of total remuneration and long-term remuneration the remaining 62%. When compared with Figure 3, it is therefore evident that not only were many LTIs granted and exercised in 2016 (Figure 3), but many LTIs were also still held (not yet exercised) at the end of the companies' 2016 reporting periods.

The results of the analysis of the remuneration structure of JSE-listed mining companies (first secondary research objective) suggest that companies were, therefore, increasingly incentivising CEOs with long-term remuneration. Whilst the performance of the mining industry (represented by the mining index) has deteriorated during the target period, the increased use of LTIs may indicate that companies are focusing on long-term goals when incentivising executives. This, therefore, raises the question as to whether these LTI schemes are aligned with company performance objectives to allow for the effective execution of company strategy and value.

Key performance indicators focusing on financial capital applied by Johannesburg Stock Exchange-listed mining companies

When analysing the KPIs focusing on financial capital (second secondary research objective) over the 2014–2016 period, it was found that the number of KPIs set by some companies increased over the target period (2014–2016) and that, in some instances, the objectives became more defined over time – which may explain the increase in the number of KPIs per company. These observed trends could also be indicative of improved compliance with integrated reporting. The overall theme of the companies' KPIs, however, remained the same over the 3-year period, which indicates that KPIs seemed to be set for the medium to long term.

The disclosure with regard to the set KPIs were, however, not consistent amongst the companies. Each company disclosed the KPIs in a different format and in different parts of the integrated report. In many cases, the KPIs were disclosed, but a measurable goal and the performance against these set goals (or KPIs) were not disclosed. A limited number of companies provided comprehensive and transparent disclosure in respect of the KPIs set, measurable goals, the performance or results for the year and the KPIs set for the following year.

The five most featured financial capital-related KPIs set by companies over the 3-year period (2014–2016) made reference to the following:

- control the cost of the company and maximise margins with the aim to generate cash
- focus on/target sustainable cash generation
- deliver sustainable return for shareholders and stakeholders
- increase the dividend per share
- focus on cost and capital discipline.

A few companies set KPIs that related to de-leveraging (reduce liabilities) the balance sheet, seeking favourable merger and acquisition opportunities, increasing the company's share price in comparison to peers and returning to profitability. A list of KPIs disclosed by the sampled companies is included in Table 3-A1.

Most companies applied a number of financial ratios as measurable goals and they often reported the results in the integrated report as part of their annual overview or highlights. These ratios ranged from net debt to headline earnings, total capital expenditure and dividend yield. The results of these ratios mainly entailed a comparison against the prior year, with a percentage increase or decrease being disclosed. In some instances, the companies explicitly referred to specific

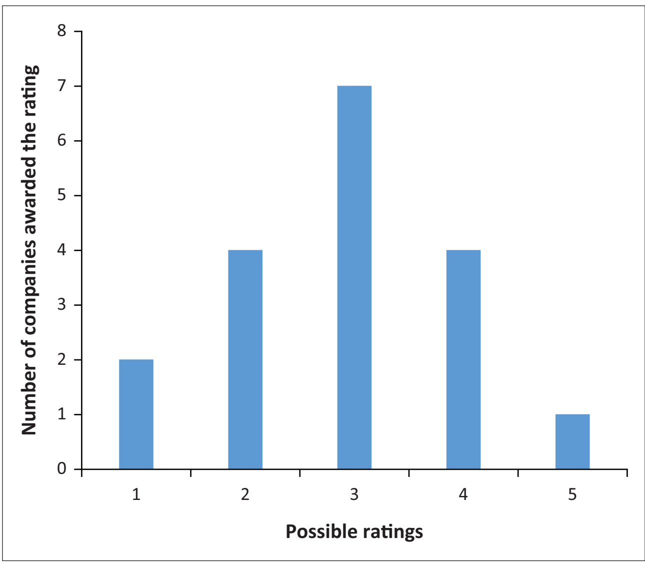
financial ratios as part of the key performance objectives or KPIs. These financial ratios were: headline earnings per share (HEPS), earnings per share (EPS), EBITDA, return on capital employed (ROCE), dividend per share and net debt to equity.

Pass (2003) argued that incentive schemes should incorporate both total shareholder return (TSR) and EPS targets. Dividend per share is one of the components of TSR and delivering sustainable returns for shareholders is in essence TSR. During the period 2014–2016 companies, therefore, frequently incorporated TSR, whilst occasionally incorporating EPS and HEPS, in their KPIs – which may indicate that some alignment between executive LTIs and company KPIs may be evident in the South African mining industry.

Alignment between long-term incentive scheme objectives and key performance indicators of Johannesburg Stock Exchange-listed mining companies

When assessing the alignment between CEOs' LTI objectives and companies' KPIs (third secondary objective) for the 2016 reporting period, a weak to moderate alignment was found (Figure 5). The scores were spread over all five ratings. The mode and median were 3 and the mean was 2.89.

Royal Bafokeng Platinum Ltd was the only company to score a 5 rating as all the objectives set for the LTI scheme were aligned with the company's financial capital KPIs set for 2016. The integrated report of the company was transparent and clearly defined the set key performance objectives and how well the company performed against these goals. Northam Platinum Ltd was close to scoring a 5 rating as 75% of the company's financial capital KPIs formed part of the company's LTI scheme objectives. Three other companies (Anglo Gold Ashanti Ltd, Gold Fields Ltd and Sibanye Gold Ltd) also received a 4 rating.



Note: The possible ratings relate to the ratings analysis described in Table 2, namely 1 for no disclosures on KPIs and CEO LTI objectives and ratings 2 to 5 representing increased levels of alignment between KPIs and CEO LTI objectives (with a rating of 2 representing an alignment lower or equal to 25%, 3 representing alignment between 25% to 50%, 4 representing alignment between 50% to 75% and 5 representing a higher than 75% alignment).

FIGURE 5: Analysis of score per ratings category.

DRD Gold Ltd and Trans Hex Group Ltd scored a 1 rating. DRD Gold Ltd made reference in its 2016 remuneration report to the fact that the objective of its LTI scheme was to drive the company's long-term strategy and align the participants' interests with those of the shareholders. However, no reference was made to specific objectives set for the LTI schemes. Trans Hex Ltd, in contrast, made specific reference in its remuneration policy to the objectives set for the CEO; however, the company's KPIs were not clearly disclosed in the 2016 integrated report.

The reported results align with the survey studies (PwC 2013b, 2015) on the Top 40 JSE-listed companies, where respondents indicated that, in 2013 and 2015, respectively, 65% and 67% of integrated reports showed a meaningful alignment between companies' KPIs and remuneration policies. These studies (PwC 2013b, 2015), however, do not provide details on the survey questions to allow for adequate comparison, especially on whether the tested remuneration policies included short-term or long-term remuneration policies or both.

Conclusion

This study assessed the alignment between company KPIs and CEO LTI objectives in the mining industry. Evidence of alignment will suggest that companies integrate reward and strategy in their KPIs and that CEOs are, therefore, incentivised to pursue company strategy. In South Africa, characterised by high rates of unemployment and income inequality, it is specifically relevant to assess whether LTIs are linked to the delivery of company strategy and value.

Prior studies on companies listed in the mining sector of the JSE have indicated a moderate to weak or non-significant relationship between STI executive remuneration and company performance (based on historical financial information). The aim of the present study was, however, not to assess the relationship between LTI executive remuneration and company performance, but to assess the alignment between LTI executive remuneration objectives and company strategy. The methodology applied in the present study was based on the premise that the principle of 'integrated thinking' (which is applied in integrated reporting) would inform alignment between company strategy and reward and that this alignment should be evident in disclosures to allow stakeholders to assess whether CEOs are incentivised for effective execution of company strategy and value creation.

A sample of 34 mining companies listed on the JSE for the period 2010–2016 were studied. The IRESS financial database and disclosures in annual and integrated reports were used to collect CEO remuneration and KPI data and a standard method was applied to measure LTIs granted but not yet exercised.

When analysing the trend in the composition of CEO remuneration, it was found that on average short-term and long-term CEO remuneration continued to increase over the 7-year period, despite the decrease in the mining index over the same period. However, towards the end of the period analysed, a slight shift to a more long-term focused remuneration structure was observed – which may point towards companies increasing their focus towards attaining long-term performance goals, provided that the objectives of the LTIs are aligned to company performance objectives.

In line with expectation, it was found that the company KPIs (reflected by financial capital KPIs) became more defined towards 2016, as a result of better compliance with the integrated reporting framework. It was, however, observed that only a limited number of companies provided detailed, transparent disclosures on their KPIs; their measurable goals and targets; the performance for the past year and the KPIs set for the following year. Disclosed KPIs mainly referred to delivering sustainable returns to the shareholders and stakeholders, controlling spending with the aim to maximise margins and generate cash, and focusing on sustainable cash generation.

However, when assessing the alignment of CEOs' LTI scheme objectives and the KPIs of the companies in the South African mining industry for the 2016 financial year, a weak to moderate alignment between disclosed company KPIs and the objectives set for CEO LTI schemes was reported.

The study, therefore, concludes that the observed disclosure practices in the South African mining industry do not provide the necessary confirmation to stakeholders that company strategy (as per disclosed financial KPIs) and CEO LTI objectives are effectively aligned. In line with the 'integrated thinking' concept, evidence may therefore point towards a misalignment between strategy and reward, resulting in CEOs being incentivised irrespective of the effective execution of company strategy and value creation. The limited evidence on detailed and transparent disclosures on company KPIs may also indicate that company strategy is not clearly defined, therefore hampering the measurement of company performance.

The results of this study will benefit stakeholders (including shareholders, remuneration committees and regulators) in providing empirical evidence on the composition of CEO remuneration and the assessed alignment between CEO LTI objectives and company strategy. The increased use of LTIs to incentivise CEOs and the weak to moderate alignment reported call on stakeholder intervention (as suggested in the 'Practical implications and recommendations' section) to improve transparency on the alignment between CEO LTI objectives and company strategy.

Practical implications and recommendations

The results of this study suggest that the sense of disquiet felt about CEO remuneration in the mining industry may well be justified. Current LTI remuneration policies do not necessarily incentivise CEOs in the mining industry to execute strategy effectively and create value. With the observed deteriorating performance in the mining industry, stakeholders should insist on improved alignment between executive remuneration and company KPIs to ensure sustainable wealth creation in the mining industry.

Improved corporate governance requirements could strengthen the link between executive remuneration and company performance (Scholtz & Smit 2012). It is, therefore, recommended that remuneration committees ensure that company KPIs are incorporated in the objectives of CEOs' LTIs. Although improved, transparent disclosure on executive remuneration is one of the key themes of King IV (IoDSA 2016), effective as from April 2017, the code does not explicitly stipulate the disclosure necessary to illustrate the link between executive remuneration and company KPIs. Regulators are, therefore, urged to provide guidance to King IV to allow for transparent and comparable information to stakeholders on whether executives' LTIs are linked to company KPIs.

Although integrated reporting has been applied in South Africa for almost a decade, inconsistent and non-existing disclosures on company strategy and wealth creation are still evident in the 2016 integrated reports. It is, therefore, also recommended that corporate governance codes and frameworks should be amended to require more detailed disclosure (whilst also providing examples of compliance) with regard to the capitals, company's KPIs and the interrelationship between capitals, strategy and value creation.

Limitations of the study and future research

The present study focused only on the South African mining industry over a limited period (2010–2016) and the results may, therefore, not be extrapolatable to other industries or countries or time periods. It is acknowledged that the use of the financial capital (and not also the other five capitals, namely manufacturing, intellectual, human, social and relationship, and natural capital) as a proxy for company KPIs may have affected the results on the observed alignment between company KPIs and CEO LTI objectives.

Future studies should expand on the industries and the period covered, and include more capitals (than only the financial capital) when assessing the alignment between CEO LTI scheme objectives and company KPIs. Future studies can also incorporate various communication channels, such as company website communication, to assess whether these communication channels provide more relevant disclosures on KPIs when compared with annual and integrated report disclosures.

Acknowledgements

Competing interests

The authors have declared that no competing interests exist.

Authors' contributions

L.-M.V.W. was responsible for data gathering and data analysis, whilst N.W. was responsible for the research design and supervision. Both authors contributed towards report writing.

Funding information

This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

Data availability statement

Data sharing is not applicable to this article as publicly available information was used to compile the database for this study.

Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

References

Atkins, J. & Maroun, W., 2015, 'Integrated reporting in South Africa in 2012: Perspectives from South African institutional investors', *Meditari Accountancy Research* 23(2), 197–221. https://doi.org/10.1108/MEDAR-07-2014-0047

Balafas, N. & Florackis, C., 2014, 'CEO compensation and future shareholder returns: Evidence from the London Stock Exchange', *Journal of Empirical Finance* 27(1), 97–115. https://doi.org/10.1016/j.jempfin.2013.10.011

Bebchuk, L.A. & Fried, J.M., 2004, *Pay without performance: The unfulfilled promise of executive compensation*, Harvard University Press, Cambridge, MA. https://doi.org/10.5465/amp.2006.19873407

Bebchuk, L.A. & Fried, J.M., 2006, 'Pay without performance: Overview of the issues', *The Academy of Management Perspectives* 20(1), 5–24.

Berle, A.A. & Means, B.B.C., 1991, *The modern corporation and private property*, Transaction Publishers, Piscataway, NJ.

Bussin, M., 2015, 'CEO pay-performance sensitivity in the South African context', *South African Journal of Economic and Management Sciences* 18(2), 232–244. https://doi.org/10.4102/sajems.v18i2.838

Bussin, M., 2018, 'Chief executive officer compensation sensitivity in the South African mining industry', *Acta Commercii* 18(1), 1–13. https://doi.org/10.4102/sajhrm.v13i1.668

Bussin, M. & Modau, M.F., 2015, 'The relationship between CEO remuneration and financial performance in South Africa between 2006 and 2012', *South African Journal of Human Resource Management* 13(1), 1–18. https://doi.org/10.4102/sajhrm.v13i1.668

Churet, C. & Eccles, R.G., 2014, 'Integrated reporting, quality of management, and financial performance', *Journal of Applied Corporate Finance* 26(1), 56–64.

Cooper, M.J., Gulen, H. & Rau, P.R., 2016, 'Performance for pay? The relationship between CEO incentive compensation and future stock price performance', viewed 29 April 2017, from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1572085.

Core, J.E., Holthausen, R.W. & Larcker, D.F., 1999, 'Corporate governance, chief executive officer compensation, and firm performance', *Journal of Economics* 51(3), 371–406. https://doi.org/10.1016/S0304-405X(98)00058-0

Crabtree, A.D. & DeBusk, G.K., 2008, 'The effects of adopting the balanced scorecard on shareholder returns', *Advances in Accounting* 24(1), 8–15. https://doi.org/10.1016/j.adiac.2008.05.016

Crespi-Cladera, R. & Gispert, C., 2003, 'Total board compensation governance and performance of Spanish listed companies', *Labour* 17(1), 103–126. https://doi.org/10.1111/1467-9914.00224

Deloitte, 2017, *Remuneration governance*, Cape Town, viewed 14 October 2017, from https://www2.deloitte.com/za/en/pages/africa-centre-for-corporate-governance/articles/kingiv_remuneration_governance.html.

Deloitte Global Services Limited, 2017, *International Integrated Reporting Council (IIRC)*, viewed 16 November 2018, from https://www.iasplus.com/en/resources/sustainability/iirc.

Deysel, B. & Kruger, J., 2015, 'The relationship between South African CEO compensation and company performance in the banking industry', *Southern African Business Review* 19(1), 137–169. https://doi.org/10.25159/1998-8125/5837

Druckman, P., 2016, 'Integrated reporting – Gaining global momentum', viewed 09 February 2017, from http://www.ey.com/za/en/issues/ey-integrated-reporting-hot-topics-paul-druckman.

Eccles, R.G., Krzuz, M.P. & Solano, C.A., 2019, 'Comparative analysis of integrated reporting in ten countries', *Social Science Research Network*, viewed 05 November 2020, from SSRN: https://ssrn.com/abstract=3345590 or https://doi.org/10.2139/ssrn.3345590.

Edmans, A. & Gabaix, X., 2009, 'Is CEO pay really inefficient? A survey of new optimal contracting theories', *European Financial Management* 15(3), 486–496. https://doi.org/10.1111/j.1468-036X.2009.00500.x

Ernst & Young, 2013, *The concept of 'capital' in integrated reporting*, Johannesburg, viewed 06 August 2017, from http://www.ey.com/Publication/vwLUAssets/ey-capital-in-integrated-reporting/$FILE/ey-capital-in-integrated-reporting.pdf.

Fang, S., Xiangjing, W. & Xue, H., 2013, 'CEO compensation and firm performance: Evidence from the US property and liability insurance industry', *Review of Accounting and Finance* 12(3), 252–267. https://doi.org/10.1108/RAF-Jan-2012-0006

Farmer, M., Archbold, S. & Alexandrou, G., 2013, 'CEO compensation and relative company performance evaluation', *Compensation and Benefits Review* 45(2), 88–96. https://doi.org/10.1177/0886368713492116

Franquelli, G. & Vannoni, D., 2000, 'Multidimensional performance in telecommunications, regulation and competition: Analysing the European major players', *Information Economics and Policy* 12(1), 27–46. https://doi.org/10.1016/S0167-6245(99)00023-2

Institute of Directors in Southern Africa (IoDSA), 2002, *King II report*, viewed 05 March 2017, from https://ecgi.global/code/king-report-corporate-governance-south-africa-2002-king-ii-report.

Institute of Directors in Southern Africa (IoDSA), 2009, *King III report*, viewed 05 March 2017, from https://cdn.ymaws.com/www.iodsa.co.za/resource/resmgr/king_iii/King_Report_on_Governance_fo.pdf.

Institute of Directors in Southern Africa (IoDSA), 2016, *King IV report*, viewed 05 March 2017, from https://cdn.ymaws.com/www.iodsa.co.za/resource/collection/684B68A7-B768-465C-8214-E3A007F15A5A/IoDSA_King_IV_Report_-_WebVersion.pdf.

International Accounting Standards Board (IASB), 2008, *International Financial Reporting Standards (IFRS) including International Accounting Standards (IAS) and interpretations approved as at 30 November 2008*, International Accounting Standards Board, London.

International Integrated Reporting Council (IIRC), 2013, *The international integrated reporting framework*, International Integrated Reporting Committee of South Africa, Johannesburg.

Jabbouri, I., 2016, 'Determinants of corporate dividend policy in emerging markets: Evidence from MENA stock markets', *Research in International Business and Finance* 37(C), 283–298. https://doi.org/10.1016/j.ribaf.2016.01.018

Jensen, M.C. & Meckling, W.H., 1976, 'Theory of the firm: Managerial behaviour, agency costs and ownership structure', *Journal of Financial Economics* 3(4), 305–360. https://doi.org/10.1016/0304-405X(76)90026-X

Johannesburg Stock Exchange (JSE), 2013, *JSE listing requirements*, JSE, Johannesburg.

Johannesburg Stock Exchange (JSE), 2017, *JSE listing requirements*, JSE, Johannesburg.

Johannesburg Stock Exchange (JSE), 2019, *History and company overview – Johannesburg stock exchange*, viewed 04 July 2019, from https://jse.co.za/about-history-company-overview.

KPMG, 2015, *The role of mining in the South African economy*, viewed 08 February 2017, from https://www.sablog.kpmg.co.za/2013/12/role-mining-south-african-economy/.

Lagoarde-Segot, T., 2013, 'Firms and markets behaviours in emerging markets', *Research in International Business Finance* 27(1), 145–146. https://doi.org/10.1016/j.ribaf.2012.04.005

Lazonick, W., 2014, 'Profits without prosperity', *Harvard Business Review* 92(9), 46–55.

Mans-Kemp, N. & Van der Lugt, C.T., 2020, 'Linking integrated reporting quality with sustainability performance and financial performance in South Africa', *South African Journal of Economic and Management Sciences* 23(1), a3527. https://doi.org/10.4102/sajems.v23i1.3572

Mascarenhas, B., 2009, 'The emerging CEO agenda', *Journal of International Management* 15(3), 245–250. https://doi.org/10.1016/j.intman.2009.02.002

Massie, K., Collier, D. & Crotty, A., 2014, *Executive salaries in South Africa: Who should have a say on pay?*, Jacana Media, Auckland Park.

Mavrodinov, N., 2012, 'The changing landscape of long-term share-based compensation in South Africa', Unpublished Master's research report, University of Cape Town, Cape Town.

Naudé, P., Hamilton, B., Ungerer, R., Malan, D. & De Klerk, M., 2018, 'Business perspectives on the Steinhoff saga', *USB Management Review*, University of Stellenbosch Business School, Bellville.

Nel, G., 2019, 'Referring integrated annual report readers to corporate websites', *Management Dynamics* 28(3), 16–29.

Ozkan, N., 2007, 'Do corporate governance mechanisms influence CEO compensation? An empirical investigation of UK companies', *Journal of Multinational Financial Management* 17(5), 349–364. https://doi.org/10.1016/j.mulfin.2006.08.002

Ozkan, N., 2011, 'CEO compensation and firm performance: An empirical investigation of UK panel data', *European Financial Management* 17(2), 260–285. https://doi.org/10.1111/j.1468-036X.2009.00511.x

Park, S. & Sturman, M.C., 2012, 'How and what you pay matters: The relative effectiveness of merit pay, bonuses and long-term incentives on future job performance', *Compensation & Benefit Review* 44(2), 80–85. https://doi.org/10.1177/0886368712450391

Pass, C., 2003, 'Long-term incentive schemes, executive remuneration and corporate performance: An empirical study', *Corporate Governance* 3(4), 18–27. https://doi.org/10.1108/14720700310497087

PricewaterhouseCoopers (PwC), 2009, *King III – Chapter 14: Remuneration of directors and senior executives*, viewed 11 February 2017, from http://www.pwc.co.za/en/king3/remuneration-of-directors-and-senior-executives.html.

PricewaterhouseCoopers (PwC), 2013a, *Executive directors' remuneration: Practice and trends*, 5th edn., viewed 15 June 2017, from https://www.pwc.co.za/en/assets/pdf/executive-directors-report-2013.pdf.

PricewaterhouseCoopers (PwC), 2013b, *The value creation journey: A survey of JSE top-40 companies' integrated reports*, viewed 27 April 2017, from https://www.pwc.co.za/en/assets/pdf/integrated-reporting-august-2013.pdf.

PricewaterhouseCoopers (PwC), 2015, *Integrated reporting: Where to next?*, viewed 28 April 2017, from http://www.pwc.co.za/en/assets/pdf/integrated-reporting-survey-2015.pdf.

PricewaterhouseCoopers (PwC), 2016a, *Executive directors: Practices and remuneration trends report*, viewed 20 February 2017, from https://www.pwc.co.za/en/assets/pdf/executive-directors-report-2016.pdf.

PricewaterhouseCoopers (PwC), 2016b, *King IV: An outcomes-based corporate governance code fit for a changing world*, viewed 05 March 2017, from https://www.pwc.co.za/en/assets/pdf/king-iv-steering-point.pdf.

Profile Group, 2011, *Profile's stock exchange handbook*, Profile Media, Johannesburg.

Profile Group, 2012, *Profile's stock exchange handbook*, Profile Media, Johannesburg.

Profile Group, 2014, *Profile's stock exchange handbook*, Profile Media, Johannesburg.

Profile Group, 2015, *Profile's stock exchange handbook*, Profile Media, Johannesburg.

Profile Group, 2016, *Profile's stock exchange handbook*, Profile Media, Johannesburg.

Republic of South Africa, 2008, *Companies Act 71 of 2008*, Government Printer, Pretoria.

Roman, A., 2019, 'King III report: How South Africa revolutionised corporate governance', viewed 12 November 2019, from https://www.azeusconvene.com/articles/south-africa-revolutionize-corporate-governance.

Samsa, M.K. & Scheidt, K.S., 2003, *International employee equity plans participating beyond boards*, Kluwer, The Hague.

Schneider, P.J., 2013, 'The managerial power theory of executive compensation', *Journal of Financial Service Professionals* 67(3), 16–31.

Scholtz, H. & Smit, A., 2012, 'Executive remuneration and company performance for South African companies listed on the alternative exchange (AltX)', *South African Business Review* 16(1), 22–38.

Shaw, K.W. & Zhang, H.H., 2010, 'Is CEO cash compensation punished for poor firm performance?', *The Accounting Review* 85(3), 1065–1093. https://doi.org/10.2308/accr.2010.85.3.1065

Shaw, P., 2011, 'CEO pay-performance sensitivity in South African financial services companies', Unpublished MBA research report, University of Pretoria, Hatfield.

Smit, N., 2016, 'The relationship between CEO remuneration and the performance of JSE listed companies in the South African mining industry', Unpublished MBA research report, University of Stellenbosch Business School, Bellville.

South African Institute of Race Relations (IRR), 2019, 'Why mining still matters. The socio-economic importance of the mining industry', viewed 12 November 2020, from irr.org.za/reports/occasional-reports/why-mining-still-matters.

Steenkamp, G., Dippenaar, M., Fourie, C. & Franken, D., 2019, 'Share-based remuneration: Per-director disclosure practices of selected listed South African companies', *Journal of Economic and Financial Sciences* 12(1), 46–70. https://doi.org/10.4102/jef.v12i1.400

Steenkamp, G. & Wesson, N., 2018, 'Share-based incentives for South African CEOs: Trends 2002–2015', *South African Journal of Accounting Research* 32(1), 46–70. https://doi.org/10.1080/10291954.2017.1409869

Steyn, G.F., 2015, 'The relationship between CEO compensation and future share returns in South Africa', Unpublished Master's research report, University of the Western Cape, Bellville, Cape Town.

Sun, S.L., Zhao, X. & Yang, H., 2010, 'Executive compensation in Asia: A critical review and outlook', *Asia Pacific Journal of Management* 27(4), 775–802. https://doi.org/10.1007/s10490-010-9207-7

Theku, M., 2014, 'CEO compensation sensitivity to performance in the South African mining industry', Unpublished MBA research report, University of Pretoria, Hatfield.

The World Bank Group, 2019, *The World Bank in South Africa*, viewed 15 August 2019, from https://www.worldbank.org/en/country/southafrica/overview.

Topazio, N., 2008, 'Executive remuneration', *Financial Management* 3, 40–42.

United Kingdom Government, 2010, *UK corporate governance code of 2010*, Financial Reporting Council, London.

United States of America Government, 2002, *Sarbanes-Oxley Act of 2002*, US Congress, Washington.

United States of America Government, 2010, *Dodd–Frank Wall Street Reform and Consumer Protection Act of 2010*, US Congress, Washington, DC.

Urson, M., 2016, 'CEO pay ratios and company performance: A study of JSE-listed consumer goods and services companies', Unpublished Master's research report, University of Cape Town, Cape Town.

Van Blerck, T.G., 2012, 'The relationship between executive remuneration at financial institutions and economic value added', Unpublished MBA research report, University of Pretoria, Hatfield.

Wolff, J., 2017, 'What the JSE listings requirements say about integrated reporting', viewed 14 October 2017, from http://www.corporatecontent.co.za/articles/2017/06/26/what-the-jse-listings-requirements-say-about-integrated-reporting/.

Zalewska, A., 2016, 'A new look at regulating banker's remuneration', *Corporate Governance: An International Review* 24(3), 322–333. https://doi.org/10.1111/corg.12149

Appendix starts on the next page →

Appendix 1

TABLE 1-A1: Final sample of mining companies.

No.	Company name	Number of years listed	Number of CEOs during the period	Companies included in second secondary research objective	Companies included in third secondary research objective
1	Anglo American Platinum Ltd	7	2	1	1
2	Anglo Gold Ashanti Ltd	7	2	1	1
3	African Rainbow Minerals Ltd	7	2	1	1
4	Assore Ltd	7	1	1	-
5	Bauba Platinum Ltd	7	4	1	-
6	Buildmax Ltd	7	1	1	-
7	DRD Gold Ltd	7	1	1	1
8	Exxaro Resources Ltd	7	1	1	1
9	Gold Fields Ltd	7	1	1	1
10	Goliath Gold Mining Ltd	5	3	-	-
11	Harmony Gold Mining Company Ltd	7	1	1	1
12	Impala Platinum Holdings Ltd	7	2	1	1
13	Infrasors Holdings Ltd	5	1	1	-
14	JCI Ltd	3	1	-	-
15	Keaton Energy Holdings Ltd	7	1	1	1
16	Merafe Resources Ltd	7	2	1	1
17	Middle East Diamond Resources Ltd	3	1	1	-
18	Miranda Mineral Holdings Ltd	4	3	-	-
19	Northam Platinum Ltd	7	2	1	1
20	Pan African Resources Plc	7	3	1	1
21	Petmin Ltd	7	1	1	-
22	Randgold and Exploration Company Ltd	7	1	1	-
23	Royal Bafokeng Platinum Ltd	7	1	1	1
24	Sentula Holdings Ltd	7	1	1	1
25	Sephaku Holdings Ltd	3	1	-	-
26	Sibanye Gold Ltd	4	1	1	1
27	Simmer and Jack Mines Ltd	3	3	-	-
28	South African Coal Mining Ltd	6	4	1	-
29	Tharisa Plc	3	1	1	1
30	Trans Hex Group Ltd	7	1	1	1
31	Village Main Reef Ltd	5	1	1	-
32	Wesizwe Platinum Ltd	7	3	1	-
33	Wescoal Holdings Ltd	7	2	1	1
34	Witwatersrand Consolidated Gold Resources Ltd	3	2	-	-
	Total	**202**	**58**	**28**	**18**

CEO, chief executive officer.

TABLE 2-A1: Descriptive statistics on chief executive officer's remuneration categories.

Variables	2010	2011	2012	2013	2014	2015	2016
	R'000	R'000	R'000	R'000	R'000	R'000	R'000
TGP							
Median	2983	2620	2819	3724	4233	5046	4998
Mean	3867	4010	4101	4720	4966	5723	5921
Standard deviation	3142	3267	3604	3609	3598	3642	3821
Minimum	0	0	0	0	0	969	900
Maximum	13 536	14 889	16 920	17 212	16 119	16 698	15 783
TGP+STI							
Median	4700	5078	5250	6042	5817	8252	8686
Mean	6926	7340	7135	7386	8550	9338	9703
Standard deviation	6526	7755	6405	5329	7375	6427	6792
Minimum	120	0	0	0	0	969	900
Maximum	25 994	37 698	21 955	20 363	33 682	24 333	26 891
TGP+STI+GAIN							
Median	5520	5122	5250	6754	5817	8397	9769
Mean	7405	8604	9222	9197	9625	10 552	14 702
Standard deviation	6712	10 441	11 312	8674	10 527	8450	20 691
Minimum	120	0	0	0	0	969	900
Maximum	25 994	56498	45 332	38 420	53 685	35 915	104 727
TGP+STI+GAIN+ Allocated							
Median	5996	5850	5400	6754	6191	8873	9769
Mean	9615	10 775	12 317	11 870	12 871	13 928	19 559
Standard deviation	10 529	13 905	16 650	11 815	13 545	13 484	28 001
Minimum	120	0	0	0	0	969	900
Maximum	47 822	58 504	72 701	39 087	59 191	59 614	134 848
TGP+STI+GAIN+ Balance							
Median	5996	6052	5925	7187	7013	8873	10 100
Mean	14 655	16 111	15 745	13 997	16 641	18 999	25 673
Standard deviation	20 325	25 113	24 541	15 153	19 152	23 953	36 332
Minimum	120	0	0	0	0	969	900
Maximum	80 554	116 505	114 599	57 459	66 809	96 217	140 817

TGP, total guaranteed pay; STI, short-term incentive; GAIN, Gains on share options exercised.

BOX 1-A1: Key performance indicators disclosed by sampled companies.

Contain the increase in operating costs, especially fixed cost and optimising volumes
Maintain focus on cost and capital discipline to deliver competitive all-in sustaining costs and all-in cost
Further enhance margins and cash flow through continuing focus on self-help measures and efficiency improvements and further benefiting from weaker currency and oil prices
Continue to target sustainable cash generation
Reduce the annual interest bill and further deleverage the balance sheet
Deliver financial returns to shareholders, investors and other providers of capital
Return to profitability and focus on cash flow
Focus on cost
The generation of free cash flow remains our key financial objective. It enables us to distribute value to all our stakeholders, including our employees and shareholders. We continue to invest in R&D to help us increase recoveries and are excited about the prospects of growing our capacity and life of mine into the future
Control costs and maximise margins to enable the business to generate cash
Debt-reduction: Continue to use cash generation to pay off net debt
Sustainable free cash flow margin: Meet production and cost guidance
Improved investor and analyst confidence: Position share price above the median of our peer group
Create sustained value by producing safe, profitable ounces and by improving our margins. Cash generated will be used to advance the business objective: Reduce debt, pay dividends to shareholders and fund development of Company X and make cash-generative acquisitions
Shareholder and investor return
Reinvestment of profits
Contribution to tax revenues and economic growth for the country
Improve profitability at operations
Improve group headline earnings per share (HEPS)
Improve group cash generation
Cost containment measured on an all-in sustaining cost basis and total cash cost
Maintain attractive dividend payments
Achieve superior growth and returns for shareholders
Continuously evaluate asset performance to ensure superior returns through investment and divestment
Ensure sustainable organic growth in cash-producing assets
Maintain dividend policy of paying 20% of HEPS
Maintain a debt to equity ratio below 30%
Acquire and develop cash-producing assets at a price ensuring a long-term return well in excess of capital cost
Ongoing review of the company’s cost base related to the adopted strategy
Reviewing and investigating opportunities to expand and maximise wealth creation for stakeholders
Settlement of outstanding senior group debt
Investment in performing businesses
Returning to profitability
Commitment to paying industry-leading dividends underpins and informs our strategy
Offering equity and raising development capital at competitive rates
Efficient expenditure of development capital
Building shareholder value