intellidex

Researching Capital Markets & Financial Services

RESEARCH
REPORT

June 2015

THE VALUE OF **BEE DEALS**

A study of the total value created for beneficiaries through BEE deals conducted by the 100 largest companies on the JSE

AUTHORS:
STUART THEOBALD, CFA
ORIN TAMBO, CFA
PHIBION MAKUWERERE
COLIN ANTHONY

EXECUTIVE SUMMARY

- **Black economic empowerment deals undertaken by the JSE's 100 largest companies since 2000 have generated R317bn in total value attributable to beneficiaries.** This is value generated from deals that had matured before, or were live, as at 30 December 2014, and is net of any debt or other financial obligations attached to deals. This figure is gross of tax that may be due by beneficiaries.

- **Of this amount, R52bn (16%) is attributable to staff schemes, R196bn (62%) to strategic investment partners and R69bn (22%) to broad-based community schemes.** Strategic partners invest through investment companies that often have large, broad-based beneficiary groups as shareholders.

- **Of the total, R108bn (34%) is value created by deals that had matured up to and including 31 December 2014; and R209bn (66%) was value in deals that were still "live".** Matured deals are those where the value is no longer encumbered by any trading restriction or financial obligation, so beneficiaries are free to use that value as they want. Live deals have funding or trading restrictions ("lock-ins") and our calculations represent the net asset value of those deals as at 31 December 2014. The eventual value of live deals when they mature will be subject to market performance subsequent to our valuation date. Given that the JSE's all share index appreciated by 5% in the five months to end of May, the value of live deals will have increased since our valuations.

- **Last year was a record for the value of maturing deals, with R59.8bn of value delivered to beneficiaries in calendar 2014.**

- From an industry perspective, **the mining sector has been the largest generator of value with a total of R101bn.** It is followed by banks (R57bn) and industrials (also R57bn). Relative to overall sector market capitalisation, mining has also generated the most value, equivalent to 11.8% of market value, followed by healthcare (7.2%) and banks (6.0%).

- **The three largest deals by value created are FirstRand's R23.2bn deal, Exxaro's 2006 deal which is now worth R16.8bn and Sanlam's R14.4bn deal.** When looked at from the perspective of the percentage of market capitalisation, mining companies dominated with the top three being Exxaro (46%), Northam (34%) and Impala Platinum (28%), using market capitalisations as at end-December 2014. Anglo American's deals are estimated at R3.3bn; however if the deals it facilitated in listed subsidiaries are included, Anglo's value creation is R53.3bn (and arguably higher if other related companies are included), making it the largest BEE deal value creator of all companies.

- When the drivers of value creation are assessed, the clearest and most important determinant is the performance of the overall JSE. **On average, during the life time of individual deals, the all share index returned a compound annual return of 13.8%,** according to our calculations. This was below the 20-year average return of the all share index of 17.2%, but was sufficient to more than cover the cost of debt, which we estimate to have averaged 85% of the prime rate during the period. The underperformance relative to the all share index indicates that the timing of deals was less than optimal. The most successful deals were naturally where share price performance was very positive. There is a strong correlation between deal value created and the relative outperformance of the company's share price. Of the 10 largest deals, the relevant companies outperformed in their sectors by an average of 6%.

- Of the 50 deals in the market that have concluded, **the average deal period was seven years,** with a maximum of 12 years and a minimum of three years.
- **The longer the term of the deal, the more likely the deal was to have delivered value.** Longer lock-ins benefit from the compounding effects of returns and capital appreciation of the shares. Deals that have lasted eight years or longer delivered an average return of 4.5% of the market capitalisations of investee companies, while deals that lasted less than eight years showed a return of 3.2% of value.
- Of the 100 companies eligible for our study, **17 had undertaken no deals at all and eight had undertaken deals that were "underwater",** or valueless, because of weak share price performance. The balance of companies had deals that had delivered positive returns to beneficiaries.
- We did not determine the number of individual beneficiaries, however it is safe to say that tens of thousands of staff have benefited from staff schemes, and hundreds of thousands of beneficiaries are eligible to obtain benefits from community schemes. Most community schemes are in the form of trusts which make grants to beneficiaries. Our calculations indicate that the trusts have a total value of R69bn in assets, many of which can fund beneficiaries in perpetuity. The capital amount held in these trusts will be invested to generate an annuity stream to fund beneficiaries that should amount to more than R10bn per year.

DISCLAIMER

This report is drawn from estimates undertaken by analysts at Intellidex. We believe the methods used to determine estimates are defensible, but the nature of the exercise means that estimates can only ever be approximate and dependent on assumptions. We therefore cannot take any responsibility for the accuracy or otherwise of the information contained in this report. Intellidex provides no warranty whatsoever as to the accuracy of the data and cannot be held responsible for reliance on this data.

CONTENTS

EXECUTIVE SUMMARY 3

AKNOWLEDGEMENTS 6

1. INTRODUCTION 7

2. FEATURES OF OVERALL VALUE CREATION 12

3. TIMING OF DEALS 13

4. JSE PERFORMANCE IMPACT 13

5. VALUE CREATION PER INDUSTRY 15

6. VALUE CREATION BY BENEFICIARY TYPE 15

7. FULL LIST OF BEE DEALS BY TOP 100 JSE-LISTED COMPANIES 17

8. METHODOLOGY, DEFINITIONS AND ASSUMPTIONS 28

NOTES ON THE RESEARCH METHODS AND DEFINITIONS 28

ACKNOWLEDGEMENTS

This project benefited from the support of many people. In particular the finance and investor relations departments of most of the JSE's 100 largest companies assisted us with information and in reviewing our calculations. Many invested several hours of their time into doing so and we are very grateful for their efforts.

Special thanks go to Chia-Chao Wu at economic empowerment rating agency Empowerdex and Carel Vosloo at Rand Merchant Bank who both provided important input to help us develop our conceptual approach to the task.

We also acknowledge funding support from Laurie Dippenaar which made this project possible.

The conclusions and opinions contained in this report are solely those of the authors, as are any errors.

1. INTRODUCTION

Black economic empowerment is a national South African project aimed at helping to undo the legacy of Apartheid that is reflected in the pattern of ownership and other economic activity in the country. One element of this project has been to use the shares of JSE-listed companies to create assets in the hands of black beneficiaries. To do so, companies entered into transactions that aimed to transfer ownership of shares in those companies and, where relevant, the dividends that owners of shares receive, to black beneficiaries. Such transactions were generally funded using some form of debt or debt-like mechanism.

The ambition of this project was to determine just how much value these deals have generated. It makes no comment on other issues that are important including skills development, employment equity, enterprise development or even the pattern of ownership of the economy. This value was achieved by ensuring black beneficiaries became owners of interests in companies, but this is transitory in that those beneficiaries are naturally free to dispose of such stakes once deals mature. This project therefore has little to say about the pattern of ownership of JSE-listed companies, but for the first time calculates the quantum of asset value that black beneficiaries have acquired through such deals.

Beneficiary types

We have analysed deals in terms of three different "types" of beneficiaries: staff, strategic investors and community groups. Each of these beneficiary types has different economic considerations. Staff members are ordinary natural persons and in the case of many strategic investors and community groups, ordinary natural persons are the ultimate beneficiaries too, and receive either shares or cash at maturity of deals.

Standard investment theory tells us that the rational strategy of any investor is to diversify exposures such that risk and return are optimally balanced. BEE deals tend to deliver value that is undiversified in that exposures are narrowly focused on investee companies. We should expect, then, that beneficiaries would rebalance their investments, disposing of concentrated exposures and acquiring diversifying assets.

We should also expect that individuals will adjust their exposures according to lifecycle stage, using proceeds to settle debt and acquire assets early in their earnings cycle, but building savings later in their careers to fund retirement. Long-term savings are appropriately invested in equities such as those listed on the JSE, so the racial pattern of long-term savings in South Africa needs to normalise before we can expect to see a normal racial pattern in ownership of JSE-listed securities.

These considerations support a normative expectation that the ownership stakes that BEE deals provide are unlikely to form long-term ownership interests. BEE deals generate capital in the hands of beneficiaries that can be used in many ways, ranging from consumption to funding new business start-ups. Deals ensure improved balance sheets of black beneficiaries, creating equity value, but those balance sheets can be deployed in multiple ways as soon as deals mature. This is a desirable outcome – it would be counterproductive to lock beneficiaries into illiquid equity exposures merely to achieve black ownership, but that are otherwise economically irrational. The objective should be to generate assets that can serve an economic purpose. That is achieved by ensuring black beneficiaries are able to use those assets to pursue rational economic objectives including diversifying asset exposures and optimising life cycle consumption and investing patterns. In an economy in which there is no race-based bias to income or wealth distribution, we would expect to see no race-based bias in JSE-listed company ownership. BEE

Typical BEE deal stages:

1. A quantity of shares representing a certain percentage of a company is issued to entities controlled by the beneficiaries.
2. The market value of those shares, usually with some small discount, is set as the opening notional financing obligation.
3. The financing obligation increases each year by the funding rate, which is usually a percentage of the prime interest rate.
4. Some or all dividends received are allocated to reducing the notional financing obligation, with the balance paid to beneficiaries.
5. At expiry of the deal, usually after seven to 10 years, the remaining notional funding obligation is settled with the company buying back and cancelling shares of equivalent value at that point.
6. The remaining shares are distributed to beneficiaries. The value of these shares represents the net value of the deal at expiry.

deals should play their part in undoing the racial bias in wealth distribution, but the ownership pattern of the JSE is a result of wealth distribution patterns rather than a cause of them.

Strategic investors

While companies clearly benefit from including staff in schemes, strategic investors as a group provide a different sort of benefit. Strategic investors are selected for their ability to drive the company's strategy and competitiveness. There are various ways that this can manifest, ranging from lobbying at the political level through to guiding the development of the business. For the strategic investor, BEE deals provide an opportunity to accumulate capital and acquire actual operating businesses. Often the investment objective is different to the normal portfolio perspective of the standard investor. These strategic investors aim to directly influence the performance of companies. Our calculations indicate that strategic investors have a collective balance sheet of close to R200bn. This provides significant capital to drive the strategies of such investors, which may include acquiring concentrated exposures to companies to be able to exercise greater influence. Strategic investors are more likely to remain long-term investors after deals mature where there is a prospect of being able to generate significant value as part of a broader corporate strategy for the investor. Increasingly, strategic investors are specialising in particular sectors and focusing on having an operating influence.

Given these issues, we considered it important to complement the information available about the transformation of the South African economy by measuring the value created by BEE deals. As the above discussion should make clear, this assesses the wealth generated by such deals, but says nothing about the ownership of JSE companies. We are aware of other studies that provide insights on ownership, as well as other facets of the transformation project.

JSE performance

The headline number – R317bn – represents net balance sheet value attributable to black beneficiaries. Some of this – R208bn – is still "locked in" to deals that have yet to mature. These will mature over the next several years and the rand amount represents the value of those live deals as at the end of 2014. In some cases these are economically useful assets in that beneficiaries can hedge or use the value as security for borrowings. The performance of the JSE will affect the eventual value of these interests when they mature.

The generation of this value is a function of the performance of the share prices of the relevant companies. During the period of such deals – the earliest were in 2001 – the market has had ups and downs, though it had a strong overall rally in the few years before the end of our study period. The timing of deals was therefore a very significant driver of value creation, both when deals were entered into and when they matured. There are periods when deals, including some large ones, were valueless, but a subsequent recovery in the market saw significant value created before deals expired. Equity investing is naturally volatile, but historically the long-term returns have been better than other asset classes. The general financial form of BEE deals is to swap the returns from debt for the returns from equity. In South Africa the JSE's overall return has averaged about 17.2% over the last 20 years, while the average prime interest rate has been 13.7%. The difference between these two rates of return

KEY FIGURES

R317bn *Net value created by BEE deals by largest 100 JSE-listed companies.*

Figure 1: Concluded vs live deals

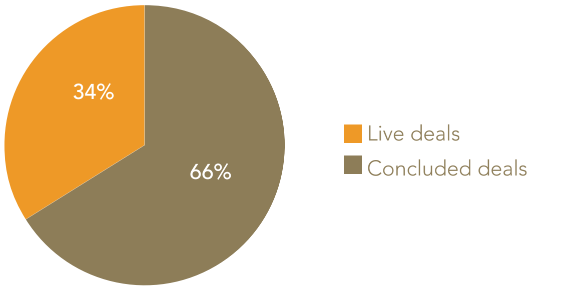
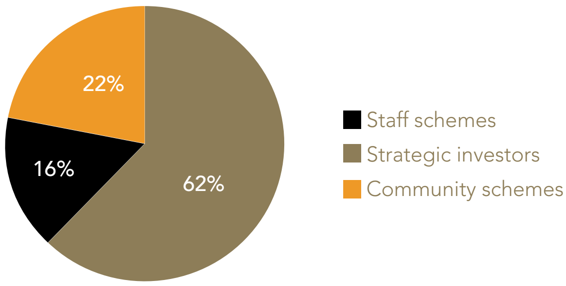


Figure 2: Value by beneficiary type



has, on average, been the source of asset creation by BEE deals.

Equity returns are volatile while debt costs are relatively stable. In any "normal" debt-to-equity swap, this volatility mismatch is a risk that has to be compensated in the form of a risk premium. The intuition is that the volatility of equity creates bankruptcy risk – large short-term downward movements in equity value can lead to significant net negative value for periods, but over time the average returns from equity normalise with a positive margin over the cost of debt. The economic cost of BEE deals is that the investee companies effectively pay this risk premium; they absorb the bankruptcy risk. BEE deals affect the overall bankruptcy risk of any company which negatively affects share prices; however BEE deals are important to companies' ability to operate successfully in South Africa so undertaking a deal can be net share price positive. It is clear also that the probability of BEE deals succeeding increases over time. The longer the BEE deal's time frame, therefore, the greater the likelihood of large returns.

CONTEXT

How much is R317bn?

Figure 3: 1.8 times the total amount of corporate income tax paid in 2014

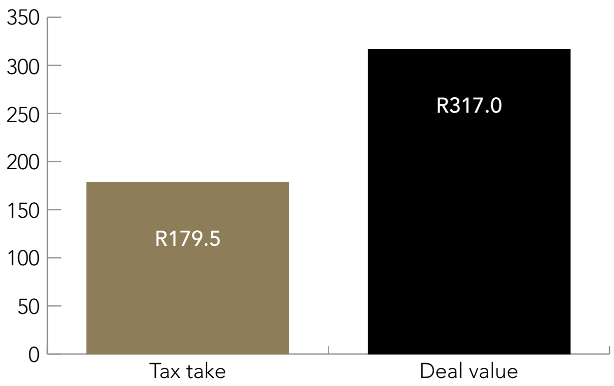
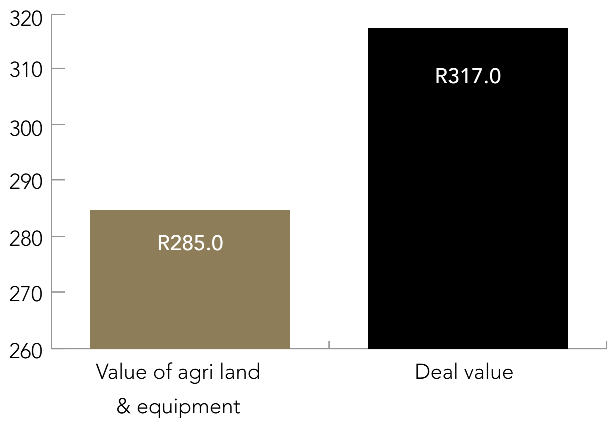


Figure 4: 1.1 times the total value of agricultural land and equipment in SA



Sources: Sars, department of agriculture, Intellidex

Deal structures

The "cost" to companies of the deals is the implied option premium in the structures. Where values have been calculated for this premium, figures in the region of 3% of the value of companies have been suggested. It might be argued that the BEE project could have instead been achieved through the simple transfer of this cost to black beneficiaries. This, however, would omit an important element to the overall project, which is to align incentives with the objective of increasing the value of JSE-listed companies. By giving beneficiaries a stake in the prosperity of companies, better outcomes may be achieved than would be the case in a simple transfer of value.

The form of deals has changed over time as financial structuring techniques have evolved, regulations have been introduced and expectations changed. The "state of the art" deals aim to deliver on a range of objectives. Deals now typically involve three different beneficiary groups: black staff, who can be incentivised and retained through their inclusion in deals; black strategic investors who can contribute to the overall companies' strategy and competeviness; and community groups who are usually broad-based constituencies that become beneficiaries of philanthropic activities, and are often affected by the companies' operations. This "typical" deal form has been influenced by different considerations regarding black empowerment, such as the broadness of value creation, but also by debates regarding the interests of corporate stakeholders globally. BEE deals have been influenced by a "stakeholder" view of capitalism, in that beneficiaries are not just typical investors, but also those who have interests in a company such as employees and communities around their places of operation. The inclusion of these stakeholders in BEE deals has been an interesting feature of transactions which aligns them with global best practice views on stakeholder capitalism.

In this report we reflect on all of these issues in analysing the value created by BEE deals. Our key findings are summarised in the executive summary at the start of this report, and we reflect more deeply on the issues that have driven value generation in what follows. We hope in this report to support ongoing debates about the structure and purpose of BEE deals. We are struck, however, by the general conclusion that BEE deals have generated a significant amount of value that will have contributed to the overall ambition of black economic empowerment. Deals have played an important role in normalising the economy, even though so much more remains to be done.

Table 1: 20 largest BEE deals (Rm)

The table below lists the 20 largest deals ranked by total value. Companies on this list may have done more than one deal, some of which may have focused on different beneficiary groups. To see valuation creation per company, see the tables beginning on page 17.

Company	Deal start date	Live/ concluded?	Staff schemes	Strategic partners	Community schemes	Total Value
FirstRand	Jun 2005	Concluded	R 5,971	R 2,594	R 14,698	R 23,262
Exxaro	Nov 2006	Live	R 1,045	R 15,788	R 0	R 16,832
Sanlam	Apr 2004	Concluded	R 0	R 7,915	R 6,476	R 14,391
Naspers	Dec 2006	Live	R 0	R 13,884	R 0	R 13,884
MTN	Nov 2010	Live	R 0	R 12,200	R 0	R 12,200
Impala Platinum	Jul 2007	Live	R 0	R 0	R 11,339	R 11,339
Standard Bank	Oct 2004	Concluded	R 4,367	R 4,359	R 2,179	R 10,905
RMH	Dec 2011	Live	R 0	R 9,878	R 0	R 9,878
SABMiller	Jun 2010	Live	R 3,882	R 4,076	R 1,747	R 9,705
Aspen	Mar 2005	Live	R 0	R 8,684	R 0	R 8,684
South32	Jul 2007	Concluded	R 0	R 7,949	R 0	R 7,949
RMI	Dec 2011	Live	R 0	R 7,096	R 0	R 7,096
Mediclinic	Jun 2005	Live	R 1,383	R 5,321	R 0	R 6,704
Anglo American Platinum	Jun 2002	Live	R 0	R 0	R 6,652	R 6,652
Old Mutual	Aug 2005	Live	R 3,716	R 1,696	R 969	R 6,381
Kumba Iron Ore	Nov 2006	Live	R 646	R 0	R 5,136	R 5,782
Nedbank	Jun 2005	Concluded	R 2,185	R 1,743	R 1,573	R 5,501
Netcare	Jun 2005	Live	R 2,547	R 1,329	R 561	R 4,437
Northam Platinum	Jan 2008	Concluded	R 0	R 3,921	R 0	R3,921
Vodacom	Oct 2008	Live	R 0	R 3,646	R 0	R3,646

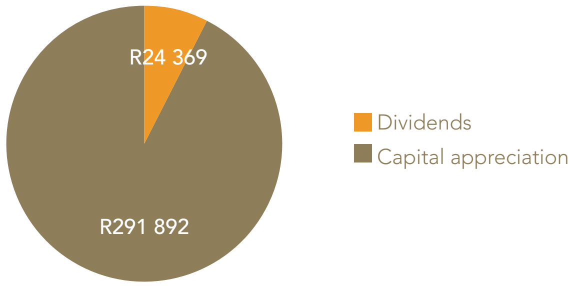
2. FEATURES OF OVERALL VALUE CREATION

The headline value creation figure of R317bn was generated from 136 deals conducted by the 100 companies studied. The average value created was R2.3bn per deal. Of the 100 companies, 17 concluded no deals and seven had deals that were "out of the money", in other words, had no net value. In one deal, the net value was negative by R300m because of a starting equity contribution. The tables at the end of this report list the key features of every deal we studied.

Dividends vs capital appreciation

Value was created from both dividend flows to beneficiaries and capital appreciation. Dividend flows were generally used in the first instance to settle any financing obligation and accrued to beneficiaries thereafter. We estimate that total dividend flows to beneficiaries was R24.4bn while capital appreciation amounted to R291.9bn (see figure 5), implying that dividend flows represented 8% of returns. The far higher contribution from capital appreciation is a function of the structure of BEE deals in that most have a net financing obligation remaining at expiry. Consequently the total value accruing to beneficiaries in such deals is in the form of capital gains only.

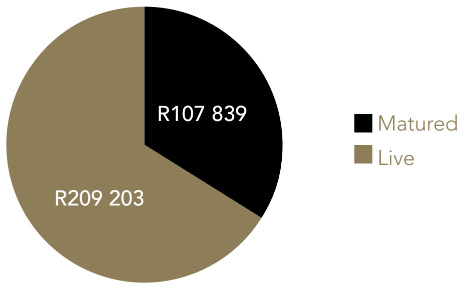
Figure 5: Dividends vs capital appreciation



Matured vs live deals

Of the 136 deals that were studied, 50 had matured as at the study end date of 30 December 2014. Matured deals had created value of R107.8bn with R209.2bn attributable to live deals at the study date (see figure 6). Live deals will see value vary according to market performance prior to their date of maturity. Live deals had an average duration of 6.8 years as at the study end date, while matured deals had an average duration of 6.7 years. This indicates that a large number of live deals are close to maturity, although we did not specifically examine maturity profiles of live deals. Generally deals have a maturity range of 10 years, with variations found as a result of corporate actions, which can trigger maturity early, or extensions of deals that have been unable to generate positive value by the time of the original expiry date.

Figure 6: Concluded vs live deals



3. TIMING OF DEALS

Of the 136 deals that we analysed, 50 had matured by the end of the study date. New deals were launched with a spike in 2005 and 2006 when 30 and 20 deals were launched respectively. The spike in activity in those years was driven by deadlines in charters for the mining and the financial industries.

Given that most deals have a seven to 10 year life span, the maturing of deals has consequently increased more recently, with 2014 seeing the greatest number mature so far – 15 deals. As of the end of the study date, 86 deals were still live. We expect many of these will mature in 2015 which will set a new record for the number of deals maturing.

Figure 7: Number of deals launched/matured per year

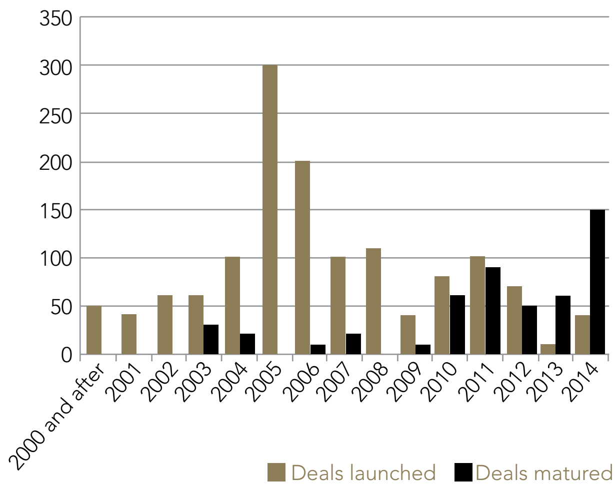
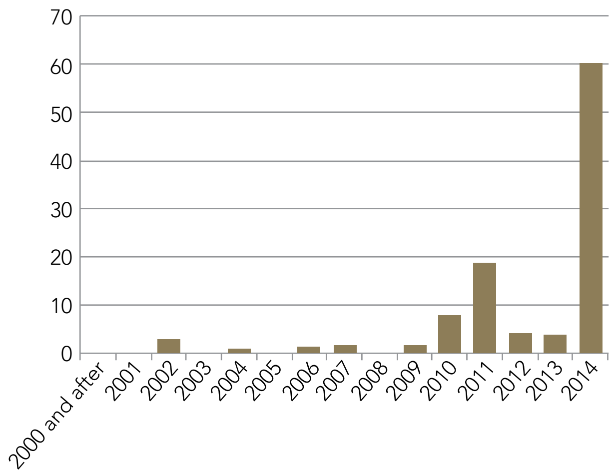


Figure 8: Value generated by maturing deals per year (Rbn)



From a value perspective, 2014 has delivered by far the most value from deals that have matured, with R59.8bn of value transferred to beneficiaries. In 2013, R3.8bn was generated from maturing deals, while in 2012, R4.3bn of value was generated from maturing deals. In 2011 a number of mining deals matured delivering a total value of R18.6bn, the second biggest year on record.

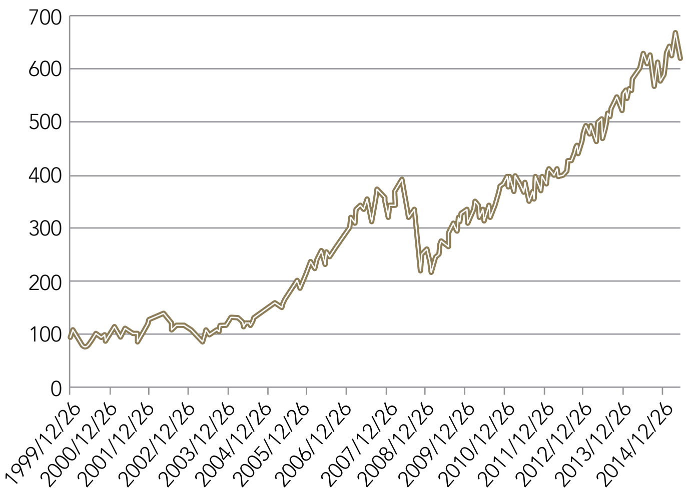
4. JSE PERFORMANCE IMPACT

The value created by most deals depends entirely on share price performance. Exceptions are where some portion of dividend flow is directed to beneficiaries before a deal expires, though such flows are not large. Consequently the performance of the company's share price is a critical determinant for investors. Our study excluded deals that expired valueless, but anecdotally it is clear that various deals were abandoned after the 2008 market decline. Our study has a survivorship bias in that we've included only deals that matured with some value or were still live at end-2014.

The period studied saw a strong performance of the JSE's all share index which increased six fold from early 2000 to the end of 2014 (see graph 1). However, this overall performance was interrupted by the strong downward

Graph 1: All share index (based to 100 at the start)

With the majority of deals struck in 2004/2005, by 2008 many deals were underwater. The subsequent strong rally of the index is the key driver of the value that deals have created.



movement in 2008 following the global financial crisis and a domestic recession. Given that many deals were struck in 2004 and 2005 (as discussed in section 3, above), this pattern meant that by late 2008 a great many deals were valueless. Many collapsed. Those which survived have since benefited by a three-fold appreciation in share prices, the main driver of overall returns to deals.

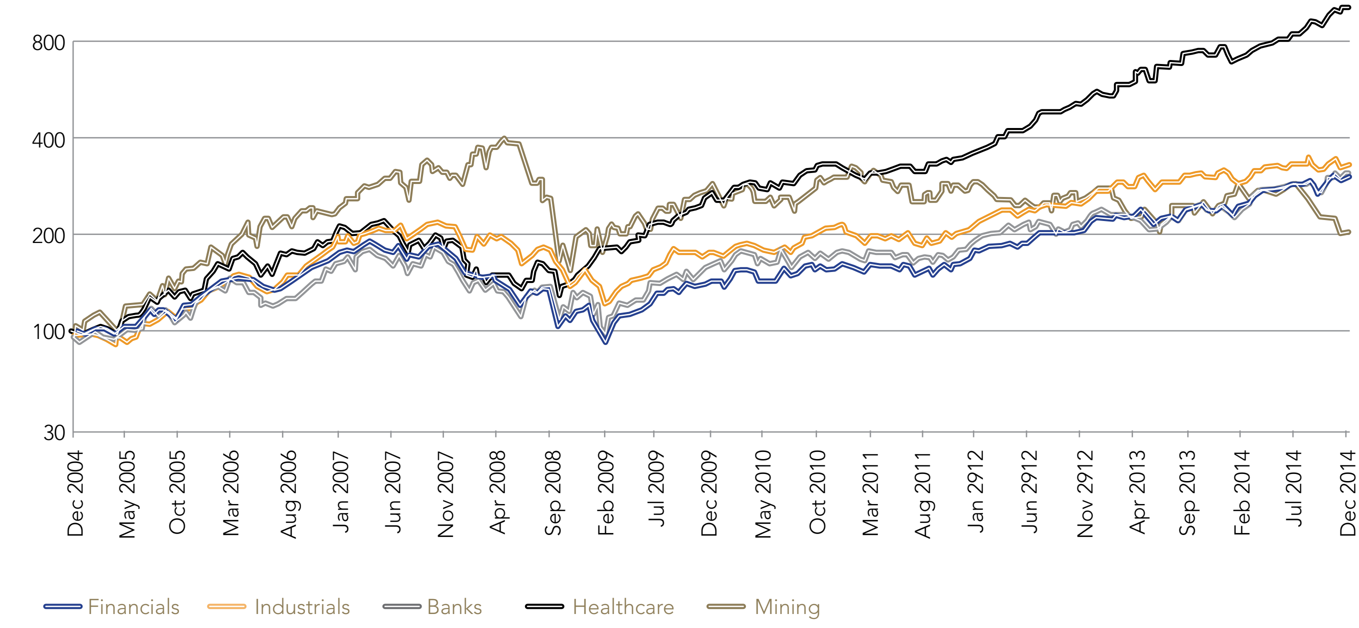
The 2008 collapse was particularly acute for the mining sector. It rallied to a high in mid-2008 and then lost two thirds of its value in just six months. It has not recovered, now trading at half its 2008 high. Given that share price performance, the value generated by the mining sector is all the more remarkable. The reason is that some deals, particularly those of Kumba Iron Ore, Harmony and Assore, were timed during periods of major share price appreciation.

Banks and other financials also benefited from good timing, once the market recovered in early 2009. Deals by Capitec (36.7% CAGR) and Investec (15.9% CAGR) were particularly well timed to match strong share price performance by those counters during the life span of their deals. Among financials, the JSE Limited (23.6%) and Coronation (38%) were strong deliverers of value.

The healthcare sector, which includes hospital groups Mediclinic, Life Healthcare and Netcare, showed the strongest share price performance.

Graph 2: Industry indices (based to 100 at the start)

The healthcare sector has been a very strong performer, but mining has been on the back foot.



5. VALUE CREATION PER INDUSTRY

BEE deals have been undertaken by all industry sectors in the South African economy. From a value-creation perspective, mining has been by far the largest generator of wealth, creating R101bn of value. That is almost twice as much as the next biggest value generator, banks, which created R57bn of value (see table 2).

Mining is also the largest value generator when considered from a proportional point of view, generating value equivalent to 11.8% of the market capitalisation of the companies in the sector. That is followed by healthcare, consisting of the hospital groups Life Healthcare, Mediclinic and Netcare, which have each undertaken substantial deals. Banks are the third-largest group proportionately, followed by financials, which are dominated by the large insurance companies.

Comparatively little value has been generated in the retail sector. This is largely because few companies have undertaken deals, though in the course of our research we were told that various companies are in the process of negotiating deals. Among those that have undertaken deals, Massmart, Spar, Woolworths, Clicks and Mr Price have generated good returns for beneficiaries. Another six companies in the sector had undertaken no deals by the time of our research date.

Table 2: Value creation per industry sector

Sector	Total value (Rm)	Value as % of mkt cap
Banks	R 57,228	6.0%
Financials	R 32,358	5.4%
Healthcare	R 14,289	7.2%
Industrial	R 56,740	2.1%
Investment companies	R 10,431	4.2%
Mining	R 100,915	11.8%
Pharmaceutical	R 9,568	5.0%
Property	R 8,872	3.9%
Retail	R 7,677	1.8%
Telecoms	R 17,246	2.7%
Travel & Leisure	R 1,636	3.6%

Industrial companies are the next lowest proportional value creator. This has largely been because of the relatively poor performance of share prices of the industrial sector. Of the 47 companies in the sector, five have not undertaken deals, the largest of which is ArcelorMittal, which negotiated but did not conclude a deal in 2011.

6. VALUE CREATION BY BENEFICIARY TYPE

The standard model for BEE deals has evolved into one where three groups of beneficiaries are included – staff, strategic investors and community groups. (The definitions of these groups are on pages 29-30.) The evolution of this deal type represents the development of insights into how deals can best deliver value to companies and the influence of the stakeholder capitalism debate that has taken place internationally. The debate over the broadness of deals has also contributed to this trend in that staff and community groups often include thousands of end-beneficiaries. Such deal structures include the full ambit of black stakeholders who become invested in the success of the investee business.

Of the 136 deals studied with positive value, 51 deals included a staff component, 93 had a strategic investor component and 43 had a community scheme. Only 14 deals included all three groups, but this does not imply that only 14 companies have benefited those groups – several companies did multiple deals, with each focused on a different type of beneficiary group. Graph 3 illustrates the trend towards including staff and community schemes. Initially deals were done entirely with specific strategic investors, usually associated with prominent black individuals. From late 2001, broad-based community groups were introduced into deals and quickly became a feature of deals done thereafter. Beginning in 2003 but accelerating rapidly through 2005, staff schemes became an important component in deals. Deals with no strategic partners were the exception. A few deals prior to 2005 included broad-based trusts only. This has become more common since, with some deals including staff only, and some have included community trusts only.

Early community schemes were set up within the mining industry with large values attributable to such schemes in deals done by Anglo American Platinum and Gold Fields. Staff schemes were driven particularly by the financial sector, which began doing deals in 2003. From mid-

2005, industrial companies also began including staff in their deals. Later deals by mining companies also began including staff, with Kumba Iron Ore standing out for the R3.4bn of value that it has generated for its staff.

Within deal structures, staff and community participation is generally funded differently to strategic partners. Staff members are often funded through a specific one-off bonus. This is tax deductible to the company though is taxable in the hands of staff. However, this mechanism means that staff schemes have very low funding costs, increasing the scope for returns.

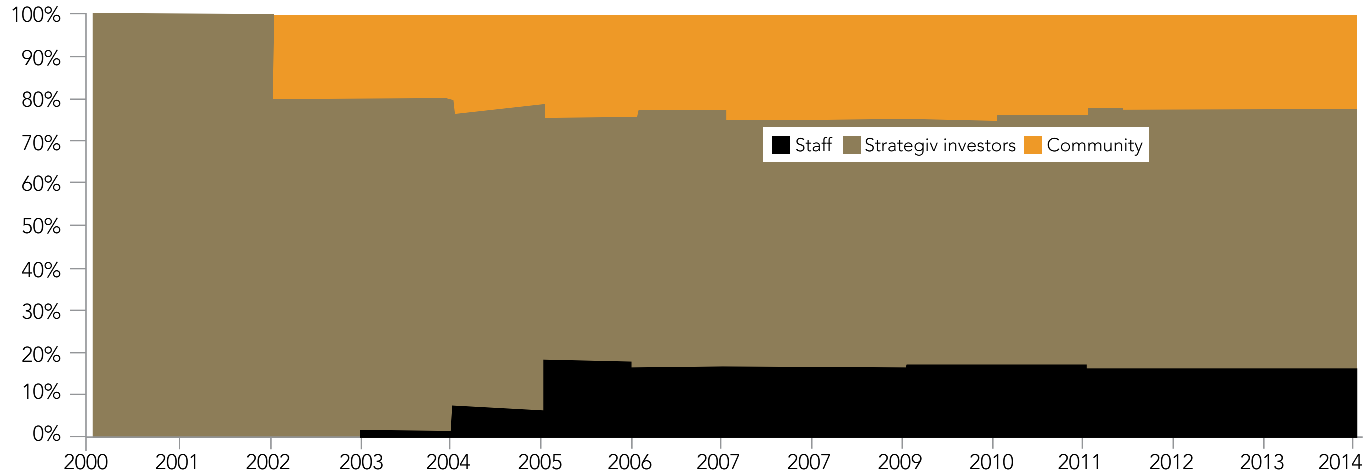
Community participation is often held through trusts. These can be funded in the first instance by a tax deductible donation by the company. Similar to staff, these structures therefore have lower funding costs and a higher probability of generating returns. Beneficiaries are usually defined as a class, rather than specific people, who can apply to receive benefits such as education and health funding. There are exceptions though – we included schemes conducted with the public within the community category. One was MTN's Zakhele scheme which saw members of the public subscribe for shares at a significant discount. Less successful was African Bank's Eyomhlaba and Hlumisa schemes which have become valueless since the collapse of the bank, leaving the subscribing public out of pocket.

Strategic investors are more likely to make some equity contribution to deals, though this is often a small percentage, usually to cover the par value of shares issued into the scheme. In some cases the equity injection has been larger, such as with Sanlam and Lonmin where multimillion-rand investments were made by strategic investors.

While the scope for future deals is unclear, the accumulation of R200bn in capital by strategic investors represents significant equity that could be put to use in future deals. Beneficiaries willing to contribute equity are likely to be preferred for such deals. This will mean that strategic investors will be absorbing more risk than in the past.

Graph 3: Beneficiary type, cumulative value by date of deal start

This illustrates how different beneficiary groups have evolved over time. It indicates the cumulative value attributable to each beneficiary type as a percentage of the total, according to the date of deal initiation. Community groups were included from 2002 and staff became an increasing part of deals from 2004.



7. FULL LIST OF BEE DEALS BY TOP 100 JSE-LISTED COMPANIES

See methodology and notes for details of research process. This spreadsheet with additional columns is available to download from www.intellidex.co.za/bee.

Company	Date of deal start	Date of valuation	Live/ concluded?	Staff schemes	Strategic partners	Community/ charity schemes	Total Value	Company input: (C)onfirmed, some (I)nput, (N)o feedback
Acucap Properties	05/09/2006	02/06/2014	Concluded		R263,886,859		R263,886,859	N
Adcock Ingram	01/04/2010	30/12/2014	Live				R0	C
AECI	07/10/2011	30/12/2014	Live	R633,650,795	R248,833,856	R192,176,565	R1,074,661,216	N
African Rainbow Minerals[1]	20/04/2005	30/12/2014	Live			R2,448,770,049	R2,448,770,049	N
Alexander Forbes	03/04/2003	03/06/2007	Concluded	R138,466,400	R164,391,972	R43,559,637	R243,539,609	C
Anglo American Platinum	03/06/2002	01/12/2014	Live			R6,651,599,540	R6,651,599,540	N
Anglo American Platinum	01/08/2000	16/05/2011	Concluded		R2,284,246,166		R2,284,246,166	N
Anglo American Platinum	01/06/2009	30/12/2014	Live		R924,845,117		R924,845,117	N
Anglo American Platinum	01/11/2006	31/12/2014	Live			R420,000,000	R420,000,000	N
Anglo American Platinum	11/06/2008	30/12/2014	Live	R392,821,512			R392,821,512	N
Anglo American Platinum	03/03/2003	30/12/2014	Concluded		R90,000,000		R90,000,000	N
Anglo American Platinum[2]				R392,821,512	R3,299,091,283	R7,071,599,540	R10,763,512,335	
Anglo American Plc	08/11/2000	09/10/2006	Concluded		R1,173,800,000		R1,173,800,000	I
Anglo American Plc	03/07/2007	30/12/2014	Live		R1,133,084,084		R1,133,084,084	I
Anglo American Plc	03/04/2006	01/12/2014	Live	R53,000,000	R835,826,417		R888,826,417	I
Anglo American Plc	01/08/2002	03/01/2012	Concluded		R72,972,973		R72,972,973	I

Company	Date of deal start	Date of valuation	Live/ concluded?	Staff schemes	Strategic partners	Community/ charity schemes	Total Value	Company input: (C)onfirmed, some (I)nput, (N)o feedback
Anglo American Plc[3]				R53,000,000	R3,215,683,474		R3,268,683,474	
AngloGold Ashanti	02/10/2006	30/12/2014	Live	R482,592,000	R74,686,666		R557,278,666	N
Arcelomittal	none						R0	C
Aspen	01/03/2005	30/12/2014	Live		R8,684,381,000		R8,684,381,000	N
Aspen	31/01/2002	31/12/2004	Concluded		R842,135,000		R842,135,000	N
Aspen	13/12/2002	24/06/2004	Concluded		R41,319,000		R41,319,000	N
Aspen					R9,567,835,000		R9,567,835,000	
Assore	10/11/2005	28/06/2011	Concluded		R2,514,339,703		R2,514,339,703	C
Assore	03/07/2006	30/12/2014	Live			R1,047,963,047	R1,047,963,047	C
Assore	11/06/2004	30/12/2014	Live		R93,047,800		R93,047,800	C
Assore	08/12/2011	30/12/2014	Live			R85,845,405	R85,845,405	C
Assore					R2,607,387,503	R1,133,808,452	R3,741,195,955	
Astral	none						R0	C
Attacq	10/11/2010	30/12/2014	Concluded			R1,489,597,010	R1,489,597,010	C
AVI	27/09/2006	29/09/2014	Live	R1,788,966,248			R1,788,966,248	N
Barclays Group Africa	01/07/2004	01/11/2012	Concluded		R2,584,500,000		R2,584,500,000	C

Company	Date of deal start	Date of valuation	Live/ concluded?	Staff schemes	Strategic partners	Community/ charity schemes	Total Value	Company input: (C)onfirmed, some (I)nput, (N)o feedback
Barloworld	22/09/2008	30/09/2013	Concluded	R308,600,000		R112,163,244	R420,763,244	C
Barloworld	21/07/2005	25/09/2012	Concluded		R125,000,000		R125,000,000	C
Barloworld	22/09/2008	30/12/2014	Live	R11,185,426			R11,185,426	C
Barloworld				R319,785,426	R125,000,000	R112,163,244	R556,948,671	
Bidvest	03/03/2003	07/04/2011	Concluded		R1,911,733,606		R1,911,733,606	C
Brait	01/10/2004	01/03/2010	Concluded		R175,020,000		R175,020,000	N
Capitec	29/06/2005	30/12/2014	Live	R72,783,000	R3,132,330,000		R3,205,113,000	C
Clicks	01/02/2011	30/12/2014	Live		R645,352,000		R645,352,000	C
Coronation	01/04/2005	28/02/2013	Concluded		R1,650,701,953		R1,650,701,953	C
Curro	04/05/2012	30/12/2014	Live		R532,232,354		R532,232,354	N
Discovery	26/09/2005	30/12/2014	Live	R589,306,000	R1,805,831,343		R2,395,137,343	C
Distell	21/09/2005	30/12/2014	Concluded	R585,000,000	R520,000,000	R195,000,000	R1,300,000,000	C
Emira	28/08/2006	30/12/2014	Live	R59,260,000	R474,080,000	R59,260,000	R592,600,000	N
Exxaro	28/11/2006	30/12/2014	Live	R1,044,594,565	R15,787,875,586		R16,832,470,151	C
Exxaro	26/09/2011	30/12/2014	Live	R312,623,510			R312,623,510	C
Exxaro[4]				R1,357,218,075	R15,787,875,586		R17,145,093,661	

Company	Date of deal start	Date of valuation	Live/ concluded?	Staff schemes	Strategic partners	Community/ charity schemes	Total Value	Company input: (C)onfirmed, some (I)nput, (N)o feedback
Famous Brands	none						R0	C
FirstRand	27/06/2005	30/12/2014	Concluded	R5,970,800,000	R2,593,740,000	R14,697,860,000	R23,262,400,000	C
Fortress	01/04/2011	01/04/2014	Concluded		R112,689,000	R104,021,000	R216,710,000	I
Fortress	17/03/2014	30/12/2014	Live			R174,808,505	R174,808,505	C
Fortress	12/12/2012	30/12/2014	Live			R35,182,249	R35,182,249	C
Fortress					R112,689,000	R314,011,754	R426,700,754	
Fountainhead Property Trust	none						R0	N
Gold Fields	15/03/2004	17/03/2009	Concluded		R1,806,000,000		R1,806,000,000	N
Gold Fields	05/10/2010	30/12/2014	Live	R759,119,475	R780,342,836	R3,719,672	R1,543,181,983	N
Gold Fields				R759,119,475	R2,586,342,836	R3,719,672	R3,349,181,983	
Grindrod	23/02/2009	30/06/2014	Concluded		R560,000,000		R560,000,000	C
Growthpoint	30/08/2005	30/12/2014	Live		R1,166,933,019		R1,166,933,019	N
Growthpoint	30/08/2005	05/03/2013	Concluded		R394,999,776		R394,999,776	N
Growthpoint	08/12/2006	10/10/2013	Concluded		R139,411,327		R139,411,327	N
Growthpoint					R1,701,344,121		R1,701,344,121	
Harmony Gold	07/09/2001	01/02/2002	Concluded		R1,200,000,000		R1,200,000,000	I

Company	Date of deal start	Date of valuation	Live/ concluded?	Staff schemes	Strategic partners	Community/ charity schemes	Total Value	Company input: (C)onfirmed, some (I)nput, (N)o feedback
Harmony Gold	01/03/2002	09/03/2010	Concluded		R200,000,000		R200,000,000	I
Harmony Gold	01/03/2001	02/04/2002	Concluded		R119,000,000		R119,000,000	I
Harmony Gold	01/06/2012	30/12/2014	Live		R100,000,000		R100,000,000	I
Harmony Gold	03/06/2013	30/12/2014	Live		R7,700,000		R7,700,000	I
Harmony Gold					R1,626,700,000		R1,626,700,000	
Harmony Gold/Anglo Platinum	01/03/2001	01/12/2014	Live		R16,370,057,811		R16,370,057,811	N
Hosken Consolidated Investments[5]	none						R0	N
Hyprop	none						R0	C
Illovo	none						R0	N
Impala Platinum	02/07/2007	30/12/2014	Live			R11,339,390,592	R11,339,390,592	C
Impala Platinum	06/09/2004	30/12/2014	Live		R1,446,120,000		R1,446,120,000	C
Impala Platinum	05/06/2006	30/12/2014	Live			R830,589,555	R830,589,555	C
Impala Platinum					R1,446,120,000	R12,169,980,147	R13,616,100,147	
Imperial Holdings	09/12/2003	30/12/2014	Live			R1,252,178,087	R1,252,178,087	C
Imperial Holdings	01/03/2004	30/12/2014	Live			R200,000,000	R200,000,000	C
Imperial Holdings						R1,452,178,087	R1,452,178,087	

Company	Date of deal start	Date of valuation	Live/ concluded?	Staff schemes	Strategic partners	Community/ charity schemes	Total Value	Company input: (C)onfirmed, some (I)nput, (N)o feedback
Investec	01/04/2003	01/08/2011	Concluded	R473,670,000	R1,418,000,000		R1,891,670,000	C
Invicta	01/06/2011	01/12/2014	Concluded				R0	N
Invicta	23/03/2007	01/06/2011	Concluded				R0	N
Invicta							R0	
Italtile	07/06/2007	30/12/2014	Live		R151,047,085	R68,084,074	R219,131,159	C
Italtile	28/05/2012	30/12/2014	Live			R172,704,000	R172,704,000	C
Italtile					R151,047,085	R240,788,074	R391,835,159	
JSE	28/06/2006	30/12/2014	Concluded		R84,158,412	R299,104,666	R383,263,078	C
KAP Industrial	none						R0	C
Kumba Iron Ore	21/11/2006	30/12/2014	Live	R646,000,000		R5,136,302,541	R5,782,302,541	C
Kumba Iron Ore	21/11/2006	17/11/2011	Concluded	R2,723,582,423			R2,723,582,423	C
Kumba Iron Ore				R3,369,582,423		R5,136,302,541	R8,505,884,964	
Lewis	none						R0	N
Liberty	01/10/2004	30/12/2014	Live	R933,188,676	R947,971,612	R458,131,679	R2,339,291,967	C
Life Healthcare	27/06/2005	30/06/2010	Concluded		R3,147,765,877		R3,147,765,877	I
Lonmin	07/06/2005	11/05/2010	Concluded		R550,000,000		R550,000,000	C

Company	Date of deal start	Date of valuation	Live/ concluded?	Staff schemes	Strategic partners	Community/ charity schemes	Total Value	Company input: (C)onfirmed, some (I)nput, (N)o feedback
Lonmin	30/06/2014	30/12/2014	Live				R0	C
Lonmin	11/05/2010	30/09/2014	Live		-R300,000,000		-R300,000,000	C
Lonmin					R250,000,000		R250,000,000	
Massmart	28/06/2005	01/10/2012	Concluded	R1,358,327,561			R1,358,327,561	C
Massmart	28/06/2005	01/10/2012	Concluded	R147,691,094			R147,691,094	N
Massmart				R1,506,018,655			R1,506,018,655	
Mediclinic	27/06/2005	30/12/2014	Live	R1,383,344,000	R5,321,094,144		R6,704,438,144	I
MMI	01/07/2005	01/03/2012	Live	R446,410,000	R2,963,110,770		R3,409,520,770	C
Mondi6	30/06/2004	30/12/2014	Live				R0	N
Mr Price	28/06/2005	03/03/2014	Live	R838,579,000			R838,579,000	C
MTN	24/11/2010	30/06/2014	Live		R12,200,343,000		R12,200,343,000	C
Murray and Roberts	19/12/2005	30/12/2014	Live	R312,289,092		R80,733,500	R393,022,593	C
Nampak	27/06/2005	30/12/2014	Live	R602,758,000	R64,629,000	R992,105,000	R1,659,492,000	N
Nampak	27/06/2005	30/12/2014	Live	R153,265,000			R153,265,000	N
Nampak				R756,023,000	R64,629,000	R992,105,000	R1,812,757,000	
Naspers	01/12/2006	30/12/2014	Live		R13,883,609,000		R13,883,609,000	C
Nedbank	27/06/2005	30/12/2014	Concluded	R2,184,621,088	R1,742,503,151	R1,573,427,324	R5,500,551,563	C
Netcare	27/06/2005	30/12/2014	Live	R2,547,365,000	R1,329,060,000	R560,500,873	R4,436,925,873	I
Northam Platinum	31/01/2008	18/07/2011	Concluded		R3,921,093,306		R3,921,093,306	N
Northam Platinum	01/08/2000	01/07/2011	Concluded		R2,284,246,166		R2,284,246,166	N

Company	Date of deal start	Date of valuation	Live/ concluded?	Staff schemes	Strategic partners	Community/ charity schemes	Total Value	Company input: (C)onfirmed, some (I)nput, (N)o feedback
Northam Platinum	31/01/2008	30/12/2014	Concluded		R1,012,220,938		R1,012,220,938	N
Northam Platinum					R7,217,560,410		R7,217,560,410	
Oceana	07/06/2005	30/12/2014	Live	R1,238,561,764	R1,184,514,627		R2,423,076,391	N
Old Mutual[7]	05/08/2005	30/12/2014	Live	R3,715,549,348	R1,696,229,050	R969,273,743	R6,381,052,141	I
Omnia	02/04/2007	30/12/2014	Live	R542,405,714			R542,405,714	N
Pick n Pay	none						R0	C
Pioneer Foods	19/01/2012	30/12/2014	Live	R43,598,904	R1,481,950,275	R810,013,445	R2,335,562,624	C
Pioneer Foods	10/06/2005	30/12/2014	Live	R817,273,223			R817,273,223	C
Pioneer Foods				R860,872,127	R1,481,950,275	R810,013,445	R3,152,835,847	
PPC	08/10/2008	30/12/2014	Live			R490,212,162	R490,212,162	N
PPC	12/07/2012	30/12/2014	Live	R91,932,528	R8,839,512		R100,772,040	N
PPC	01/10/2008	08/12/2014	Concluded				R0	N
PPC				R91,932,528	R8,839,512	R490,212,162	R590,984,202	N
RCL		26/05/2014	30/12/2014	Live	R61,930,292	R85,069,708	R147,000,000	C
Redefine Properties	14/11/2007	30/12/2014	Live		R729,391,677	R70,116,935	R799,508,613	C
Reinet	05/07/2005	01/09/2014	Live		R534,600,000		R534,600,000	N
Remgro	01/05/2003	30/12/2014	Live		R1,700,000,000		R1,700,000,000	I
Remgro	01/12/2000	03/10/2011	Concluded		R1,100,000,000		R1,100,000,000	I
Remgro	01/11/2001	30/12/2014	Live				R0	I
Remgro[8]					R2,800,000,000		R2,800,000,000	

Company	Date of deal start	Date of valuation	Live/ concluded?	Staff schemes	Strategic partners	Community/ charity schemes	Total Value	Company input: (C)onfirmed, some (I)nput, (N)o feedback
Resilient Property Fund	27/06/2006	30/12/2014	Live		R483,199,286	R1,076,483,514	R1,559,682,800	C
Resilient Property Fund	27/06/2006	31/12/2013	Concluded		R708,708,348		R708,708,348	C
Resilient Property Fund					R1,191,907,634	R1,076,483,514	R2,268,391,148	
Reunert	31/08/2006	30/12/2014	Live	R36,420,000			R36,420,000	N
RMH	12/12/2011	30/12/2014	Live		R9,878,471,214		R9,878,471,214	C
RMI	12/12/2011	30/12/2014	Live		R7,096,450,836		R7,096,450,836	C
SA Corporate Real Estate	none						R0	N
SABMiller	01/06/2010	30/12/2014	Live	R3,882,122,391	R4,076,228,510	R1,746,955,076	R9,705,305,977	N
Sanlam	01/04/2004	31/03/2014	Concluded		R7,915,280,120	R6,476,138,281	R14,391,418,401	C
Santam	03/03/2008	30/12/2014	Live	R265,000,000	R470,000,000	R254,000,000	R989,000,000	C
Sappi Ltd	01/06/2010	30/12/2014	Live	R54,041,193	R101,410,890		R155,452,083	C
Sasol	03/06/2008	30/12/2014	Live	R1,135,425,870	R1,468,999,980	R425,784,690	R3,030,210,540	C
Sasol	01/06/2006	30/12/2014	Live		R1,453,437,119		R1,453,437,119	C
Sasol	29/09/2010	30/12/2014	Live		R1,453,437,119		R1,453,437,119	C
Sasol	01/03/2002	02/07/2013	Concluded		R471,489,796		R471,489,796	C
Sasol				R1,135,425,870	R4,847,364,014	R425,784,690	R6,408,574,574	
Shoprite	none						R0	C

Company	Date of deal start	Date of valuation	Live/ concluded?	Staff schemes	Strategic partners	Community/ charity schemes	Total Value	Company input: (C)onfirmed, some (I)nput, (N)o feedback
Sibanye Gold	none						R0	N
South32/BHP Billton	02/07/2007	02/03/2010	Concluded		R7,949,000,000		R7,949,000,000	N
South32/BHP Billton	12/12/2011	01/12/2014	Live		R1,724,785,164		R1,724,785,164	N
South32/BHP Billton	01/12/2011	01/12/2014	Live	R261,265,752	R1,045,063,007		R1,306,328,759	N
South32/BHP Billton	19/07/2007	01/02/2010	Concluded		R1,074,578,990		R1,074,578,990	N
South32/BHP Billton				R261,265,752	R11,793,427,161		R12,054,692,912	
Standard Bank	04/10/2004	30/12/2014	Concluded	R4,367,282,471	R4,358,745,827	R2,179,372,859	R10,905,401,157	C
Steinhoff International	02/12/2008	30/12/2014	Live			R1,559,000,000	R1,559,000,000	C
Sun International	01/03/2005	30/12/2014	Live		R344,176,935		R344,176,935	N
Super Group	03/10/2012	30/06/2014	Live	R75,720,133	R468,619,000		R544,339,133	I
Telkom	none						R0	N
The Foschini Group	none						R0	C
The Spar Group	12/08/2009	30/12/2014	Live	R1,863,720,571			R1,863,720,571	N
Tiger Brands	20/10/2009	30/12/2014	Live	R824,058,642	R364,980,163	R2,065,596,233	R3,254,635,038	C
Tiger Brands	07/06/2005	30/12/2014	Live	R1,477,918,993		R452,532,162	R1,930,451,155	C
Tiger Brands				R2,301,977,635	R364,980,163	R2,518,128,395	R5,185,086,193	

Company	Date of deal start	Date of valuation	Live/ concluded?	Staff schemes	Strategic partners	Community/ charity schemes	Total Value	Company input: (C)onfirmed, some (I)nput, (N)o feedback
Tongaat	09/07/2007	30/12/2014	Concluded	R460,162,506			R460,162,506	C
Truworths	none						R0	N
Tsogo Sun[9]	29/06/2005	09/03/2007	Concluded		R1,291,830,000		R1,291,830,000	I
Vodacom	08/10/2008	30/12/2014	Live		R3,645,934,304		R3,645,934,304	N
Vodacom	05/01/1997	05/12/2002	Concluded		R1,400,000,000		R1,400,000,000	C
Vodacom					R5,045,934,304		R5,045,934,304	
Vukile	02/03/2006	30/12/2014	Live		R1,329,978,960		R1,329,978,960	N
WBHO	16/10/2006	30/12/2014	Live	R35,038,664	R53,644,946	R83,657,164	R172,340,774	C
Woolies	29/06/2007	30/12/2014	Live	R2,820,582,607			R2,820,582,607	N
Zeder	none						R0	C

Footnotes

1 Given that Amplats, Harmony and Assore were instrumental to the growth of ARM through joint venture deals, we attributed the value created jointly to Harmony and Amplats. There is no sensible way to allocate this value to the different entities and the value reflects several deals over time.

2 Amplats facilitated the creation of RBPlat and Atlasa Resources. We measured value for these deals based on the listing market capitalisation.

3 Only the value of BEE deals implemented through unlisted subsidiaries or listed subsidiaries which are not part of the top 100 is shown under Anglo Plc. To avoid double counting, BEE deals involving listed subsidiaries of Anglo were attributed to those listed subsidiaries. As a group, the total value of BEE deals that Anglo has facilitated is over R50bn, particularly if value is attributed to it from ARM.

4 Exxaro's 20% ownership in Kumba is not recorded under Kumba as a BEE transaction as it would have been under the BEE codes. In our view, the value created from this transaction is better reflected as attributed to Exxaro.

5 In order to avoid double counting no value was attributed to HCI. As a black empowerment investment holding company, HCI largely invests as a BEE partner and hence its value creation is captured through the BEE deals for the targets in which it invests.

6 Mondi undertook two transactions at subsidiary level, one in 2004 and one in 2005. At the time, Mondi was an unlisted subsidiary of Anglo American. The combined value of the resulting BEE assets at the time was R1.4bn which was funded by outside parties and Mondi. The funding terms were never disclosed and subsidiary financials are not disclosed by Mondi. It was therefore not possible to determine any value for the transactions.

7 Old Mutual's deal matured in May 2015 at which point the company reported total value creation of R7.2bn. Our estimate is based on the share price as at 31 December 2014.

8 Remgro has a number of significant interests in some listed companies. So to avoid double counting, those BEE deals are considered under investee companies. The only BEE deals we have attributed directly to Remgro are those for its unlisted investees.

9 We attributed deals done by Gold Reef under Tsogo Sun since it acquired Gold Reef and reverse listed in 2011. Since its reverse listing Tsogo Sun has not done a BEE deal but we are aware that it has a significant black shareholder base through Tsogo Investments, which according to our definitions did not qualify as a BEE deal.

8. METHODOLOGY, DEFINITIONS AND ASSUMPTIONS

The aim of this exercise was to calculate the total net asset value created from black economic empowerment (BEE) deals undertaken by the 100 largest companies on the JSE up to and including 31 December 2014.

The following process was used in doing so.

1. Beginning in January 2015, Intellidex analysed all publicly available information and developed estimates of the value created through companies' BEE deals. This relied substantially on announcements made on the Stock Exchange News Service, circulars to shareholders and annual reports. This provided various levels of detail though in most cases Intellidex had to make some assumptions in order to estimate value creation, generally regarding the cost of finance that was embedded in deals. While we aimed to capture each and every deal undertaken by the eligible companies, it is always possible that we missed some in our research process.

2. Intellidex's initial estimates were sent to the JSE companies concerned with a request to review the estimates and to provide missing information to improve the assumptions our estimates relied on.

3. Most companies replied with comments on our estimates, either confirming them as accurate or providing corrections and additional information to improve them. Some companies provided full information while others cited confidentiality regarding specific pieces of information. In some cases, companies provided us with information to help determine our estimates provided we kept the specific information confidential. Other companies did not respond despite repeated efforts to solicit responses. Where we had no response and/or companies would not provide some necessary pieces of information, we relied on our estimates. The table of the 100 companies indicates which companies fell into which category.

4. Intellidex's analysts reviewed all the information sent in by companies to ensure consistency in the way calculations were determined.

NOTES ON THE RESEARCH METHODS AND DEFINITIONS

1. *Top 100 companies.* The companies in the study were determined by, firstly, taking the 100 companies with the highest weighting in the JSE's Swix Index as at 31 December 2014. That list was then reviewed to remove companies with no substantial South African operations, including Richemont, British American Tobacco and several property companies with secondary listings on the JSE but no operations in SA. That left us with the 100 companies which we list in this report, which to our minds reflect the 100 largest JSE-listed companies ranked according to holdings by South African shareholders, with non-South African companies removed.

2. *Net asset value.* Our ambition in determining NAV was to calculate the value that had either accrued to beneficiaries through dividends or distributions made on the maturity of schemes, and/or the implied net value of the schemes as at 31 December 2014 if they had not matured. For the most part, calculating the value of matured schemes was relatively straightforward, while complications arose in the calculation of the value of live schemes, particularly with regard to the financial obligations that may be attached to such schemes. The assumptions made in order to do so are discussed below.

3. *Taxation.* Our ambition was to calculate value attributable to beneficiaries gross of any tax liability that may be due by the beneficiary. In other words, our aim was to determine value at the moment it becomes attributable to the beneficiary, rather than after any tax had been deducted. However, any taxes that are properly attributable to the scheme itself or the company involved, were netted off in the normal course of estimating the value of the scheme. It follows that the calculations in this report represent value attributable to beneficiaries gross of any actual or potential tax payable by them, but net of any tax that may have been paid by the scheme or company.

4. *BEE deals.* A BEE deal is one where the beneficiaries are black, as defined in the Broad-Based Black Economic Empowerment Act, and where the deal has been enabled by the company concerned. The company itself must have been a facilitator of the deal either through vendor financing or guarantees. We excluded deals where the company played no part in facilitating the deal, such as when empowerment investors bought into a company on an arm's-length

basis. One somewhat odd outcome of this approach is that companies that are themselves BEE companies in that they are already majority black-owned, often have not undertaken any BEE deals. However, such companies may have played a part in the BEE deals of other JSE-listed companies. One example is HCI, which does not count as having undertaken any BEE deal but is majority black-owned, though it has been counted as part of other deals that other companies have facilitated.

5. *Subsidiaries and double counting.* A holding company can often facilitate deals in its listed subsidiaries generating value that can be attributed both to the holding company and the subsidiaries. In order to remove double counting, we attributed value first to the subsidiary, attributing only the remaining value to the holding company. Examples where this was important include Anglo American and subsidiaries Kumba Iron Ore and Anglo American Platinum.

6. *Unlisted assets.* A number of companies conducted deals at the level of subsidiaries which are not listed. In such cases we had to estimate the value of the unlisted assets. This was typically the case in the mining sector where deals tend to be at the level of the operating mine. In doing so we used Ebitda multiples to determine a value and/or a competent persons report on the value of mineral assets.

7. *Financing obligations.* Given our ambition to determine net value, we had to determine a value for liabilities attached to deals, particularly the funding. Funding in BEE deals is typically of two sorts: actual debt injected into a vehicle for the BEE deal through loans and/or preference share funding, or notional funding where no debt is injected into the vehicle but a notional funding obligation is accumulated during the life time of the deal and settled at the end. In addition, in some cases, the beneficiaries injected equity of their own, which we deducted. In deals that had matured, the deduction of liabilities was usually straightforward. In live deals, it was considerably more complicated. Where the terms of preference share funding/debt were disclosed, we calculated the cost of funding up to 31 December 2014 and the outstanding liability, and deducted this from the asset value. In the case of notional schemes, where the escalation factors and details of the treatment of dividend flows were disclosed, we applied that information to calculate the size of the notional financing obligation as at 30 December 2014, and deducted this from the value of the assets at that date. In cases where the escalation factors and/or treatment of dividend flows were not available, we assumed that the notional funding cost was 85% of the prime rate (which was the rate used by most schemes that did disclose) and we assumed that 100% of dividends were offset against this funding obligation. We are aware that in most schemes some small proportion of dividends are paid out to beneficiaries, but often this proportion was not available. The impact of such payouts is not particularly material given that our approach still attributes any such value to the beneficiaries' balance sheet, though the compounding effect will lead to increasing mismatch between our estimated notional obligations and actual obligations over time.

8. *Effective date.* For matured schemes the effective date was that at which all outstanding conditions related to the deal expired. Usually this is the date that the final value fully accrues to the beneficiaries and is no longer encumbered by any lock-ins or other restrictions. An important consequence of this approach is that we did not include any value created post the maturation of schemes. So if a scheme matured but beneficiaries remained invested in the scheme and gained substantial further value, this did not count towards the value created through the deal itself. In our view after the deal matures, the value creation is no longer being facilitated by the company, but by the investment decisions of the beneficiary. For all deals that were still live as at the end of 2014, the effective date of the calculation was usually 31 December 2014. There were some exceptions where the availability of audited accounts made it more appropriate to use a date different to 30 December 2014, but always within a few months of that date. Such cases are listed on the table of firms.

9. *Types of beneficiaries.* The distinction between three "types" of beneficiaries has become clearer in more recent deals, which generally split beneficiaries between staff, strategic investment partners, and community schemes. In some cases the difference between types was not clear cut, such as when a strategic partner has a large broad-based community trust as beneficiaries. In general, though, the following was used to separate assets according to types of beneficiary:

9.1 *Staff schemes.* These were usually employee share ownership schemes in which black employees are beneficiaries and receive shares and dividends and have voting rights attached to the shares. Where ESOPs were general schemes with all staff participating, we took the proportion of staff who are black and used that to allocate a portion of NAV accordingly. Only ESOPs that were explicitly part of empowerment scheme were considered, leaving out general share option schemes that may be used in the companies.

9.2 *Strategic partners.* In general, these are black-owned investment companies and/or prominent black individuals. These are not necessarily narrowly based as various strategic investors have large beneficiary bases, including non-profit trusts, in their shareholding base. Usually such investors are required to provide some form of business assistance with participation tied to performance targets. Often partners take board positions in the investee companies. The type of investor is expected to actively support the strategies of the business.

9.3 *Community partners.* These types of investors are generally trusts and/or other forms of non-profit entity and tend to be the most broad-based type of beneficiary. The beneficiaries are either defined as a type, with various ways beneficiaries access benefits such as scholarships or other types of support, or specifically named beneficiaries who receive benefits. Their interests are represented by trustees of the trusts that hold the assets. Trusts may be evergreen, in that they will continue to hold assets and distribute benefits forever onward, however the effective date of valuation for our purposes is the date of maturation of the scheme and encumbrance of the assets in the hands of the trust. We also included schemes that involved customers and members of the public within the community partner type.

10. *Start date.* We took the effective start date of the schemes to be that announced by the companies concerned. Usually this date represented the date the shares in the company are issued.

11. *Options and other derivatives.* We recognise that the optionality in some schemes has value, but we decided not to try and include this value in any of our calculations. Value arises because live schemes effectively include some downside protection in that beneficiaries are protected from any loss. This protection is a form of insurance that can legitimately be seen as having a premium value. However, because our objective was to determine the present value as at 31 December for live schemes, we are effectively assessing schemes "as if" they had matured on that date. It therefore makes sense to exclude the option values as we are assuming that as at that point there was no option. In some cases, option premiums were embedded in the values and there was no way for us to remove these, though in our view none of these cases had a material value.

Intellidex (Pty) Ltd
1st Floor, Building 3, Inanda Greens Office Park
54 Weirda Road West
Sandton
2194
Tel: +27 (0)10 072 0472
Email: joburg@intellidex.co.za