

SUSTAINABILITY OF FUNDING MODELS USED IN BLACK ECONOMIC EMPOWERMENT TRANSACTIONS IN THE SOUTH AFRICAN MINING SECTOR



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DECLARATION

I declare that this research report is my own, unaided work. It is being submitted for the Degree of Master of Science to the University of the Witwatersrand, Johannesburg. It has not been submitted before for any other degree or examination to any other University. I have read the University Policy on Plagiarism and hereby confirm that no plagiarism exists in this report. I also confirm that there is no copying nor is there any copyright infringement. I willingly submit to any investigation in this regard by the School of Mining Engineering and I undertake to abide by the decision of any such investigation.

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ABSTRACT

The purpose of this research is to identify and outline the sustainable funding models for BEE transactions in the South African mining industry. It is proposed that from the early 2000s to 2014 the sustainability of BEE funding models was driven by regulatory pressure. In the absence of regulatory pressure, there would be a need to develop alternative funding models.

The study uses a quantitative research methodology by examining the frequency of use of various funding models, the impact of regulatory interventions and use of various funding sources on the sustainability of funding models, regression analysis and significance testing.

The research results show that the percentage of third party finance in funding structures has a negative correlation with the success of BEE transactions. Vendor finance shows a positive correlation with the sustainability of transactions, more so above 60% in the funding structures. Equity finance has a positive impact on the success of transactions from as low as 20% in the funding structures.

An ideal funding structure would consist of the following funding sources:

- Third party: Vendor: Equity = 40%: 20%: 40%, in the case of a BEE company that has equity available and
- Third party: Vendor = <40%: > 60%, where no equity is available to BEE entrepreneurs.

In the absence of BEE laws third party finance will dominate funding of empowerment transactions. Funding models based on third party finance must rely more on cash flow based payments rather than dividend payments to service debt.

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LIST OF ABBREVIATIONS

ANC	African National Congress
BEE	Black Economic Empowerment
BBBEE	Broad Based Black Economic Empowerment
COM	Chamber of Mines
Companies Act	Companies Act, 1973 (Act No. 61 of 1973)
DMR	Department of Mineral Resources
FTSE	The Financial Times Stock Exchange 100 stock index
HDSAs	Historically Disadvantaged South Africans
JSE	Johannesburg Stock Exchange
LBOs	Leverage Buy Outs
Mining Charter	The Broad-Based Socio-Economic Empowerment Charter for the South African Mining and Minerals Industry
MPRDA	Minerals and Petroleum Resources Development Act, Act No. 28 of 2002
Native Land Act	Natives Land Act, 1913 (subsequently renamed Bantu Land Act, 1913 and Black Land Act, 1913; Act No. 27 of 1913)
New Companies Act	Companies Act, 2008 (Act No. 71 of 2008)
PMG	Parliamentary Monitoring Group

SPVs

Special Purpose Vehicles

DEFINITIONS

A Class Shares: Shares that carry 100% voting rights with no immediate economic benefit to the shareholder. They were typically held by BEE investors in a Special Purpose Vehicle (SPV).

B Class Shares: Low voting shares with 100% of economic 'participation'. Typically no immediate economic benefit will flow to the BEE Company until the B class shares have been redeemed. They are typically held by corporate investors or financiers in SPVs.

Structured Finance: The use of different forms of debt, equity and derivative instruments to tailor make funding to suit both the empowerment partner and parent company's needs. In this report Structured Financed Transactions are transactions that were financed through a mixture of two or more of the following funding mechanisms: vendor finance, third party finance, equity finance and preference share instruments.

Success Rate of a Funding Mechanism: Success rate is the ratio of the number of sustainable transactions consisting of a given funding mechanism to the total number of transactions consisting of that funding mechanism above a given percentage of the said funding mechanism within the funding structure. For example, the success rate of Equity Finance (EF) above 10% in the funding structure is calculated as follows:

$$\begin{aligned} & \text{Success Rate of EF above 10\%} \\ &= \frac{\text{No. of Sustainable Transactions with EF} > 10\%}{\text{Total transactions with EF} > 10\%} \end{aligned}$$

Sustainable Transaction: A Black Economic Empowerment (BEE) transaction which has resulted in a BEE company effectively owning the same number of shares that it initially acquired from a parent mining company, or if the shareholding has reduced, the balance of shares were sold

by a BEE company profitably. Where effective shareholding could not be established, sustainability was recognized based on total BEE shareholding reported by either the parent or BEE mining company at the time of the research. Transactions in which the parent mining company intervened to prevent the collapse of the BEE deal were classified as unsustainable.

Tier I or Major Mining Company: A major producer that generates its cash flow from the production and sale of the commodity it is mining.

Mid-Tier Mining Company: It is typically an exploration company that has decided to be a producer, primarily on the mineral deposits it has discovered. The company could hold a number of mining operations and projects.

Junior Mining Company: Junior mining companies focus exclusively on exploration and discovery of new economic deposits. They derive their income from issue of new shares. They could be considered as venture capital companies as they rely mostly on capital markets to fund exploration activities.

CHAPTER 1: INTRODUCTION

1.1. BACKGROUND

1.1.1. Exclusion of Historically Disadvantaged South Africans (HDSAs) from Ownership of Minerals

Before 1913, ownership of mineral rights lied predominantly with the state. The first move towards state ownership of minerals happened in 1813. Then, the Cradock Proclamation of 1813 reserved the right to mine precious stones, gold and silver for the government of the Cape Colony (Cawood & Minnitt, 1998). As various provinces were established across the country through the 1836 Great Trek, respective governments clung to the principle of 'state ownership of mineral rights'. This principle was consolidated in the Union of South Africa through the Land Settlement Act of 1912, which reserved ownership of all minerals for the state (Cawood & Minnitt, 1998).

Under the common law, which emanated from the Roman Dutch legal system, a landowner owned everything above and below the land, including minerals. The Native Land Act 27 of 1913 facilitated the transfer of land ownership from black South Africans to white South Africans during the apartheid era. The consequence of the promulgation of the aforementioned Act was the transfer of 87% of land ownership to white South Africans (Mogoeng, 2013); therefore, landlessness lead to automatic exclusion of HDSAs from ownership of mineral rights in the country (Mogoeng, 2013). As a result, they had no access to entrepreneurial activities within the mining sector.

In 1917 the ownership of minerals, except the right to mine gold, silver and precious stones, was privatized (Cawood & Minnitt, 1998). Since then numerous pieces of legislation, governing the rights to own and mine minerals, were promulgated and repealed. Notably, the Minerals Act 50 of

1991, which was promulgated in 1992, provided for exclusive ownership of minerals by private persons. A common weakness in all the mineral laws that were passed and abolished between 1913 and 1992 was their failure to address the fundamental exclusion of HDSAs from ownership of land and minerals.

1.1.2. Changes in the Minerals and Mining Policy

In the early 1990s, as South Africa was moving towards transformation in the political regime, changes in the mineral laws aimed primarily at redressing the injustices of the past began to surface. Significant strides happened post 1994, after the African National Congress (ANC) was voted into government. These changes were informed by the Freedom Charter of 1955. Noteworthy in the Freedom Charter is item number 3, which states that “the people shall share in the country's wealth”. Specific to the mining industry is the declaration that “the mineral wealth beneath the soil shall be transferred to the ownership of the people as a whole” (Congress of the People, 1955).

The enforcement of the declarations contained in the Freedom Charter was part of the discussions in the ANC's readiness to govern conference, which was held in 1992. In 1995, the ANC government initiated the formulation of a policy document that would allow it to transfer ownership of minerals to the people of South Africa. Stakeholders (National Union of Mine workers, Chamber of Mines and Government of National Unity) submitted proposals. These were captured in a discussion document that was compiled in November 1995 (Rocha, 2013).

A draft green paper on minerals and mining policy was delivered to government in 1998. In the same year public comments were incorporated into the green paper and it was submitted to cabinet. The white paper on minerals and mining policy for South Africa was approved by cabinet in October 1998 (Rocha, 2013). This made way for the drafting of the Minerals

and Petroleum Resources Development Act, which happened between 1999 and 2002. Cabinet approved the bill for introduction into parliament in early 2002. The bill was approved by parliament in June 2002 and the Minerals and Petroleum Resources Development Act, Act No. 28 of 2002 (MPRDA) came into operation on the 1st of May 2004 (Rocha, 2013).

Section 3.(1) of the MPRDA states that “mineral and petroleum resources are the common heritage of all the people of South Africa”. Under the MPRDA, the state is the custodian of the minerals. This policy of state custodianship over minerals empowers the minister of mineral resources to enforce the principle of equitable access to minerals, thus giving all South Africans equal opportunity to meaningfully participate in economic activities within the mining sector. Additionally, the MPRDA specifically focuses on redressing the negative effects of the apartheid laws (MPRDA Section 100). The Mining Charter is the regulatory tool used for this purpose.

1.1.3. The Mining Charter and Empowerment Performance

In 2004, the Broad-Based Socio-Economic Empowerment Charter for the South African Mining and Minerals Industry (Mining Charter) was promulgated in terms of section 100 of the Minerals and Petroleum Resources Development Act (MPRDA), Act No. 28 of 2002 (Republic of South Africa, 2002). The Mining Charter set targets for 9 elements of transformation in the South African mining industry. These include the element of ownership, which seeks to effect transformation in the area of ownership of mining businesses within South Africa. Two targets, which are 15% and 26% transfer of ownership to Historically Disadvantaged South Africans (HDSAs) by 2009 and 2014 respectively, were set.

As a result of the requirements of the ownership element of the Mining Charter, the number of black economic empowerment transactions in the South African mining sector increased (Figure 1.1). However, some

empowerment deals failed at a later stage, mainly as a result of unsustainable funding models (Vernon, 2010).

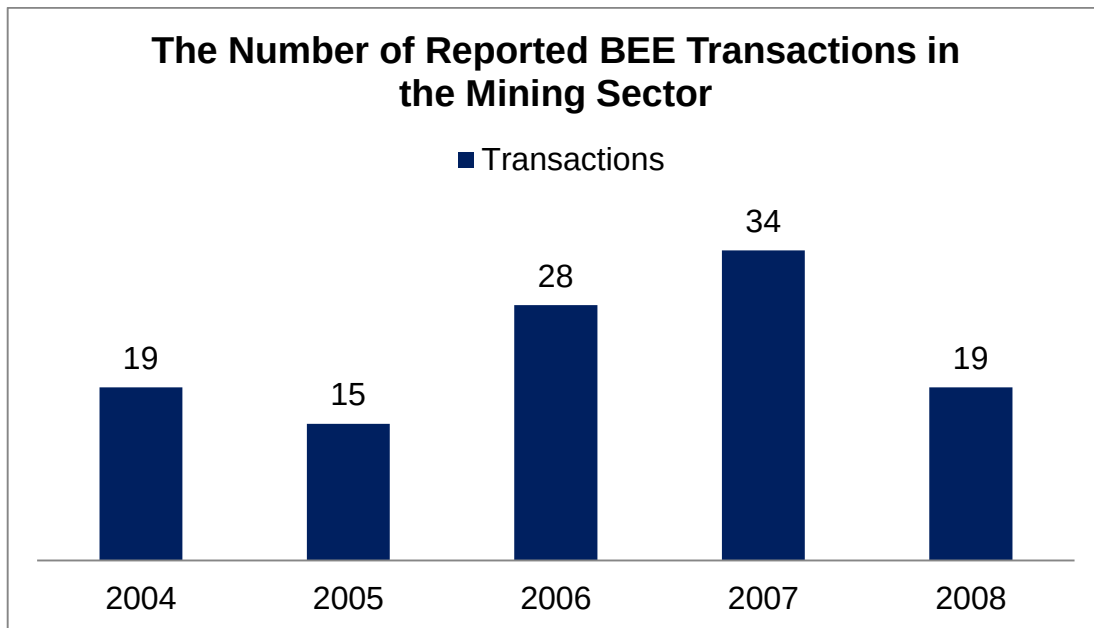


Figure 1.1: Increase in the number of empowerment transactions after the promulgation of the Mining Charter (Source: Empowerdex, 2009, p4).

In 2009, the DMR conducted a review to assess the level of compliance of mining companies with the elements of the Mining Charter. The report of the assessment indicated that there was slow progress in the implementation of the element of ownership. According to the DMR, mining companies had, on average, achieved 8.9% transfer of ownership to HDSAs against a target of 15% (DMR, 2009). However, the mining businesses – represented by the Chamber of Mines (COM) – argued that the mining industry had achieved over 15% transfer of ownership to HDSAs. The COM indicated that majority of its members had already achieved the 26% transfer of ownership required by the element of ownership of the Mining Charter (PMG, 2013).

In 2014, the DMR began a second assessment of mining companies' compliance with the Mining Charter. According to Anthony (2013, cited in

Mail&Guardian, 2013), most industry experts expected the mining companies to meet the 26% ownership target. Although some shares contributing towards the 26% could still be encumbered (Hawes, 2013 cited in Mail&Guardian, 2013), the success of the transactions associated with encumbered shares would result in a better performance by the mining industry.

33 of the 35 mining companies considered in this research already comply with the 26% ownership target (Figure 1.2). Thus confirming experts' expectations mentioned above.

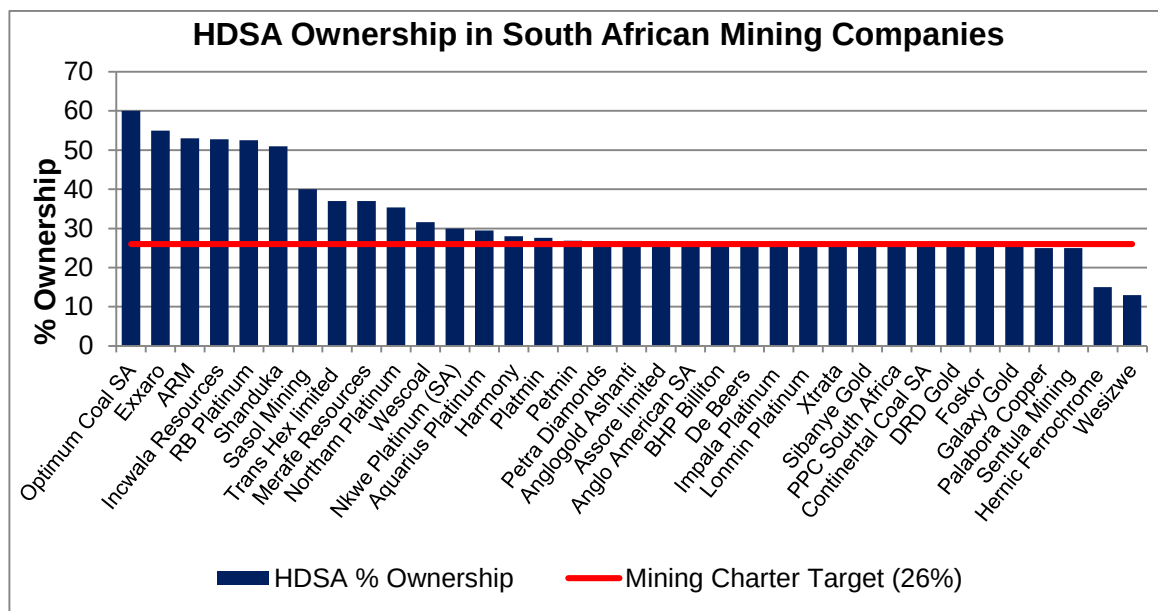


Figure 1.2: % HDSA ownership in South African mining companies

Source: individual mining companies' websites and annual reports (as of March 2014)

It is unclear what direction the government will take in terms of BEE legislation post the 2014 Mining Charter compliance assessment. Nevertheless, as more mining companies achieve the ownership targets set by the current Mining Charter and any amendments that may be made post

the above mentioned assessment, one can expect empowerment transactions to be driven less by legislative pressure and more by business fundamentals; although legal pressure may be prolonged by government's reluctance to uphold the principle of 'once empowered, always empowered'.

Legal factors that impact the current funding structures or models used in BEE transactions may become irrelevant. Hence a question of whether the empowerment funding models that were used since the inception of BEE to 2014 will remain sustainable in a different regulatory environment. Circumstances will be different and the playfield of obtaining funding may be 'level', therefore HDSA companies may not have the 'competitive advantage' provided by regulatory pressure.

It is thus necessary to study the historical performance of various funding methods and understand how sustainable they would be going forward. This will assist entrepreneurs and other relevant stakeholders involved in the setting up of BEE transactions to structure deals in ways that would enhance sustainability.

1.2. IMPORTANCE OF THE STUDY

The purpose of this study is to identify and outline the sustainable funding model(s) for Black Economic Empowerment (BEE) transactions in the South African mining sector.

The aim of the project is to compile a report that could assist stakeholders in mining empowerment deals to conclude transactions that would result in sustainable mining businesses, and hence contribute to the growth of the South African mining sector and the economy at large.

It is proposed that from the 2000s to 2014 empowerment deals were driven, largely by regulatory pressure. Mining companies were compelled by the Mining Charter to transfer 26% of ownership to HDSAs; failing which punitive

measures, such as non-renewal of mining license and withdrawal of prospecting or mining licenses (DMR, 2010a), could occur.

It could be expected that once mining companies comply with the 26% HDSA ownership requirement, regulatory pressure will diminish. If the regulatory pressure doesn't change immediately after the 2014 assessment, it will happen at some point in the future as BEE is not infinite. Therefore, it is necessary to research how BEE funding models can be kept sustainable in a different regulatory environment.

Growing shareholder demand for increased value add and greater capital contribution by BEE partners may add a layer of complexity to the question of how BEE deals can be made more sustainable. Also, the trend of shareholders requiring greater value add and capital contribution suggests that in the absence of regulatory pressure 'empowerment funding' could take a different direction, hence the need for this research.

Review of literature indicates that some research work was carried out in the area of financing of BEE deals in South Africa. However, researches conducted focused on the factors that influence the structure of the deals, efficiency of the funding models, the use of innovative funding models and mechanisms of various funding structure etc., but no research looked at the sustainability of empowerment deals in an environment where legal factors have minimal influence on financial models used. This project seeks to advance research in the area of BEE funding in the mining industry a step further by investigating the sustainability of funding models used in empowerment transactions when there is no regulatory pressure.

Most of the research conducted in the past relied solely on data collected through interviews with various industry experts (qualitative approach). While such approach has resulted in the publication of documents that have advanced the current knowledge and enhanced the experts' understanding of

empowerment funding models, it has the potential of introducing bias and subjectivity to the data collected, and thereby results in erroneous conclusions being made. Research based on quantitative analysis of statistical data of the performance of various funding models is limited, as there was no data to conduct such studies when early research was done.

This research will further contribute towards understanding of various funding models by analysing how companies that were empowered using various models have performed over time. The use of actual performance data will provide the opportunity to test conclusions that were drawn by researchers who relied exclusively on qualitative research methodology.

1.3. PROBLEM STATEMENT

This research will address the following questions:

- How sustainable are current BEE funding models? Will the current models remain sustainable in a relaxed regulatory environment or in the absence of legislation compelling parent companies to empower BEE partners?
- How can various stakeholders ensure that funding models used in BEE transactions are sustainable post the BEE legislation era?
- What are the funding models that will work in the absence of regulatory pressure?

1.4. RESEARCH OBJECTIVES

The aim of the research is to investigate funding structures or models that would be suitable in the presence or absence of regulatory pressure to support BEE imperatives and to provide quantitative studies that can be used to test hypothesis often quoted in popular press. Emphasis will be put on models that will be sustainable if there is no black economic empowerment law. The following objectives will be fulfilled:

- Frequency analysis to identify funding methods that were preferred from the inception of BEE to 2014
- Quantifying the impact of change in the regulatory environment on the use and successes of various funding methods
- Quantifying the impact of various funding methods on the success of BEE funding structures
- Investigating the existence of correlation between funding methods and the sustainability of transactions
- Test the statistical significance of established relationships
- Elaborate on the implications of established results on the future of BEE funding in the mining sector.

1.5. SUPPORTED OBSERVATIONS

Some Black Economic Empowerment transactions were concluded before the promulgation of the mining charter. The Black Economic Empowerment commission recommended the drafting of the Black Economic Empowerment Act in September 2000 (Rocha, 2013). The BEE Act became effective in 2003 and, specific to the mining industry, the mining charter was subsequently promulgated in 2004. Therefore, in the early 1990s to 2004, the mining industry took a proactive and innovative approach towards Black Economic Empowerment.

During that period empowerment transactions were not characterised by regulatory pressure; although the mining sector was anticipating regulatory change and a shift in government policy towards de-racialization of the economy. Also, it was in the best interest of business to ensure that the business environment was kept stable during the political transition period. Central to meeting this objective was making businesses, including in the mining industry, accommodative towards South Africans who were previously disadvantaged.

Hence the following observations, which form part of factors that influence the flexibility of empowerment funding models, will be tested:

SUPPORTED OBSERVATIONS	
1	Due to the attainment of stipulated Mining Charter targets and higher degree of certainty in the policy direction, the mining companies will be less likely to initiate empowerment transactions post the BEE legislation
2	As a result, funding of empowerment transactions will become more difficult when there is no regulatory pressure forcing mining companies to provide vendor finance
3	While the volume of empowerment transactions will decrease, concluded transactions will be more sustainable as they will be based on business fundamentals rather than regulatory pressure
4	Government funding institutions will have to play an increasingly bigger role to make funding of empowerment transactions more sustainable

Table 1.1: Supported observations

1.6. LIMITATION OF THE STUDY

Numerous researchers have highlighted that there's no 'one size fits all' approach to funding of empowerment transactions. The models identified and investigated will not provide a guarantee of success upon their use without a prior thorough assessment of their suitability to specific transactions.

Detailed information on funding of BEE transactions is not easily obtainable in the public domain, especially for companies that are not listed. This resulted in the use of a relatively small sample size, which in turn influenced research results.

CHAPTER 2: LITERATURE REVIEW

2.1. INTRODUCTION

2.1.1. MECHANISMS OF FINANCING ACQUISITIONS: OVERVIEW

The funding of BEE transactions falls mainly within the field of Acquisition Finance. So this section of the report focuses on providing a broad overview of the mechanisms of financing acquisitions. The adaptation of the concepts of acquisition finance to mining BEE transactions is subsequently discussed in section 2.2 – 2.5.

Acquisition of enterprises (full or partial) can be financed in three ways: through cash payment, share exchange or a combination of the two (Firer et al, 2012). The funding method used in a transaction depends on the cash flow strength of the acquiring and target firm, their levels of gearing, ability to access alternative forms of funding, the economic climate, strategies being pursued by both companies and the perceived impact of the selected funding method(s) on the post-acquisition value of the acquiring firm.

2.1.1.1. MECHANISMS BASED ON CASH PAYMENT

In the case of cash payment, the purchasing enterprise can use internal cash resources, or it can obtain cash by borrowing money from either private or public lenders. Alternatively, cash could be raised by issuing shares to new or existing shareholders. Other mechanisms of raising cash are mainly hybrids of debt and equity (Welch, 2009).

a. Finance Based on Internal Cash Resources

An acquiring company must have surplus cash resources in order to use internal funding. Typically, the surplus cash would have been accumulated through retained earnings (Borghgraef, 2014).

The challenge with this funding method is that companies do not always have excess cash. If it is available, it may not be sufficient to cover all funding requirements on large transactions. Therefore, internal funding is often used in hybrid funding structures with other supplementary funding methods.

The advantages of using internal funding are:

- Limited information disclosure which minimizes the possibility of reevaluation of the acquiring company's value post-acquisition
- Low risk of defaulting on debt

b. Borrowing

Borrowing should ideally be used if the target company has many assets, a positive cash flow and a strong profit margin (Brown, 2011). These may be required by the lender as security. Low levels of gearing in both the target and acquiring company are preferable as they signal capacity to acquire additional debt and are associated with good credit ratings. If the purchaser has a good credit scores, the process of negotiating favorable loan terms becomes relatively easy. So it is crucial for the purchasing company to demonstrate strong cash flow, manageable debt to equity ratio and strategic capital deployment (Ernst & Young, 2012).

It is sometimes tempting for companies that carry large acquisitions to use high levels of debt due to tax benefits. However, this may cause the acquisition to fail if the economy declines. CBIZ (2008) advises acquiring companies to consider the following factors in order to guard against an eventuality of a default:

- Interest coverage ratio: This is the ratio of earnings before interest and taxes (EBIT) to interest charges. It indicates the number of times interests are covered by earnings. Lenders look at this ratio to ascertain whether the borrower can afford additional debt. Sometimes

the loan agreement stipulates a minimum ratio that a firm should keep (CBIZ, 2008).

- Debt coverage ratio: It is the ratio of free cash flow (net operating profit) to interest plus principal amount. It reflects the company's ability to repay the principal amount. A ratio of 2:1 is preferable. The loan contract may specify a particular level of liquidity that the borrower must keep, failing which a default could be declared and the firm may be forced into bankruptcy (Welch, 2009).

Financing acquisition through borrowing has the following challenges:

- Returns from the target company must exceed the interest charges.
- The gearing ratio of the purchasing enterprise will increase and it will be perceived as a riskier investment.
- Shareholders may require a higher PE ratio as a result of a higher risk.

The advantage is that:

- Interest payments may be tax deductible.

c. Mezzanine Finance

Mezzanine finance is a hybrid of debt and equity. The debt component of the finance is normally provided by banks. It could be either senior and (or) subordinated debt (Brown, 2011). The equity component is usually in the form of preferred shares. The advantage of using preferred shares is that the buyer doesn't lose control of the enterprise. Mezzanine finance is explained in details in section 2.3.2.3.

d. Asset-based Finance

According to Brown (2011), "asset-based loans are revolving loans secured by the available collateral, such as inventory, accounts receivable, equipment

and fixed assets.” Asset-based lenders prioritize collateral over gearing and quality of earnings. A loan amount of between 65 percent and 80 percent of the assets can be obtained. The maximum loan amount established by the institution can only be exceeded through renegotiation of the loan agreement (CBIZ, 2008).

The disadvantage of asset-based lending is high interest charges. Lenders can charge between 12 percent and 28 percent interests.

e. Share Issue

Several factors must be considered before selling shares to raise capital. If shares are issued to new shareholders, managers of the acquiring company must consider the trading value of the company's share. If the purchasing company's shares are believed to be trading at a price that is significantly below its value, new shares should not be issued as this would result in a loss. It's ideal to issue stock to raise money if the share price is overvalued (New York University, n.d).

Dilution of existing shareholders' shares, market and book values of shares must also be considered as it can destroy value (Firer et al, 2012).

If shares are issued to existing shareholders (through Rights Issue), their earnings could be diluted if the price earnings ratio (PE Ratio) of the target company is lower than that of the purchasing enterprise. This challenge could be exacerbated by high transaction costs, which may dilute return on capital even if the PE ratios of the two enterprises are the same (Palmer, 2012).

Shares could be sold to private equity firms, venture capitalists and angel investors, depending on the amount of capital the buyer wishes to raise.

f. Vendor Finance

The use of vendor or seller finance increases when there is scarce liquidity in the financial markets or when the economy is sluggish. During a difficult economic environment, lenders modify their lending criteria, thus restricting the available credit and flow of capital to entrepreneurs (Brown, 2011). Sellers sometimes bridge the resultant funding gap, especially if the success of the transaction adds significant value to the seller.

Sellers may also have to finance the sale when the target business does not look attractive to traditional lenders (Cooper, 1998).

In a typical transaction, an acquiring company makes a down payment agreed upon and the seller provides a promissory note, effectively backing the loan using the assets being sold as primary collateral (CBIZ, 1998). The seller note could last from 5 to 7 years (Cooper, 1998). Sellers can finance up to 70% of the sale price. Interest rates of 8% to 10% are common in vendor financed transactions.

Advantages of vendor finance to the acquiring business are:

- It indicates to the buyer that the seller has confidence in the future of the business.
- Sellers are likely to maintain business goodwill if they have a stake in the business over the transition period.

The Vendor benefits from the following:

- Better price for the business and speedier sale. Seller financed sales can result in a selling price that is 15% higher than the price in cash based sales (Handelsman, 2012).
- Tax savings and increased profitability. Capital gains tax can be stretched over a number of years if the transaction is seller financed.

If the acquirer cannot make payments the seller can declare the loan in default and the acquired business could revert back to the seller.

2.1.1.2. SHARE EXCHANGE

Share exchange is normally used when the purchasing enterprise doesn't have sufficient free cash flow to use internal funding and it wants to avoid debt financing and the associated interest charges and gearing implications. Shares in the target company are obtained by issuing shares of the purchasing enterprise to the target company's shareholders. This process normally works when both parties believe that the shares of the other enterprise are more valuable than those of their own company (Palmer, 2012).

The two firms must agree on the ratio of exchange, which is usually determined by two factors (Firer et al, 2012):

1. The market values of the two companies and the anticipated benefits of the acquisition. Shareholders of the target company get a better ratio if there are more perceived benefits.
2. Earnings per share (EPS). Dilution of earnings could occur in either entity. If the EPS of the purchasing company is lower than that of the target company, the target company's earnings will be diluted after the acquisition. It's preferable for the target company to have higher EPS as the purchasing company will benefit from improved earnings post the acquisition.

The advantage of share exchange to the acquiring firm comes from locking in shareholders of the target company, provided they are not allowed to sell their new shares for a given period. They may assist in generating wealth for the purchasing enterprise (Palmer, 2012).

The advantage to the target company may emanate from tax savings as capital gains tax may be deferred on the exchanged shares (New York University, n.d). If there is mispricing on either company's shares, the ratio of shares exchanged could be skewed, thus causing the firm whose share are correctly priced to lose value.

2.1.1.3. HYBRID STUCTURES

a. Deferred Purchase

This mechanism is often used to reduce the risk associated with the purchase of the new enterprise. By deferring the purchase or defining some earnout structure based on the performance of the target company, the vendors get locked in for a given period (Palmer, 2012). Thus, the risks that may have been overlooked during the due diligence stage can still be ironed out during the 'lock in' period. The buyer also benefits from lower employee turnover as a result of retaining skills from the target company for a given period. Additionally, this payment arrangement could potentially lower the purchase price if the buyer agrees to an earnout structures that promises future benefits to the seller (CBIZ, 2008).

2.1.2. FUNDING OF BEE TRANSACTIONS: OVERVIEW

Since the inception of democracy in the early 1990s various researchers studied BEE funding. Issues such as the impact of lack of access to capital, lack of entrepreneurial track record, business experience, collateral and inadequate pool of financial capital in the public and private sectors to fund empowerment transactions have been looked at (Phillips, 2004).

To date, the sustainability of BEE transactions has been highlighted as one of the major challenges faced by both BEE and parent mining companies. The efficiency of funding models that were used in the early days of BEE transactions (1992-2003) – such as Special Purpose Vehicles (SPVs) and equity participation – was questioned; and various authors indicated that the models were not effective (Nhlapo, 2008; Phillips, 2004; Ramathe, 2009; Ngwenya, 2007).

In the early days of BEE (1992-2003), third party funding was popular due to the practical and legal challenges that were experienced with the use of vendor and self-funding methods. Self-funding could not be used as HDSAs lacked the capital to acquire assets. Vendor financing could not be used due to the legal restrictions that emanated from section 38 of the companies act (Table 2.1). From 2004 to 2013, more flexible funding models e.g. derivatives or options, Leverage Buy Outs (LBOs) and Vendor finance were introduced in order to make BEE transactions more sustainable (Nhlapo, 2008). However, insufficient 'black capital' resulting in 100% borrowing by HDSAs in some cases still caused some transactions to fail due to high levels of gearing. Furthermore, the complexity of innovative funding structures increased the risk of noncompliance with the tax and company legislation (Ramathe, 2009). Up till now, funding of empowerment deals through banks remain expensive as banks still perceive BEE transactions as highly risky, hence higher interest charges on loans given to BEE investors.

Ramaphosa at el (2007) noted that most BEE transactions were financed using structured finance due to lack of capital on the side of BEE investors. At the time of conducting this research the situation was still the same as HDSA entrepreneurs still lacked sufficient capital to acquire assets without the assistance of vendors and third party funders. Structured finance is the use of different forms of debt, equity and derivative instruments to tailor make funding to suit both the empowerment partner and parent company's needs.

This section of the project looks at funding models that were used since the start of BEE in the South African mining industry to 2014. Models that were used prior to the promulgation of BEE legislation in the mining industry are examined; thereafter models that were used during the period of BEE legislation are looked at. The sustainability of various funding models through different market conditions and legal regimes is reviewed. Significant, regulatory and economic events that will be referred to in this section of the report are shown in table 2.1.

BEE Time-line Diagram																												
Legislative Regime	BEE Regulation		None								MPRDA		MPRDA and Mining Charter															
	BEE Funding		Companies Act, 1973 (Act No. 61 of 1973) (CA)															ACA		Companies Act, 2008 (Act No. 71 of 2008)								
DMR Assessments																					1st						2nd	
Economic Climate									AFC	Recovery from the AFC		Commodity Boom					GFC	Slow Recovery from the GFC										
Dominant Funding Mechanisms			Third Party Funding, SPVs, Preference Share Instruments, Equity Participation												Third Party, Equity, Vendor Facilitation				Vendor Finance, Equity									
Year			1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014			

Table 2.1: Time-line diagram showing dates of noteworthy events in the mining BEE environment

ABBREVIATIONS:

AFA: Asian Financial Crisis, GFC: Global Financial Crisis, ACA: Amended Companies Act

2.2. FUNDING OF EMPOWERMENT TRANSACTIONS PRIOR TO THE PROMULGATION OF BEE LEGISLATION

2.2.1. Special Purpose Vehicles

A Special Purpose Vehicle (SPV) is a hybrid structure that uses both cash based and share exchange payment methods. It is a special company created for the sole purpose of acquiring shares in a parent company (Nhlapo, 2008). This funding model entails the acquisition of ordinary shares from a parent company by a SPV, which in turn obtains funding from a financial institution (Bowman Gilfillan, 2001). In SPVs, the BEE Partner gets voting rights in a parent company whereas the financier owns the shares (Phillips, 2004). The BEE Partner issues preference shares of the SPV to the financier, while the BEE Partner holds 100% of ordinary shares in the SPV (Bowman Gilfillan, 2001).

The preference shares owned by the financier can be bought back in three to five years. Before the preference shares are redeemed, the financier is entitled to dividends from the SPV. The dividends are normally expressed as a percentage of a prime lending rate, and it normally varies between 60-65% of the prime lending rate (Van der Nest, 2004). Dividends received by the SPV from the parent company must be sufficient to cover the preference shares dividends to the financier as well as to buy back the preference shares at the end of the term specified by the financier (Nhlapo, 2008).

Phillips (2004) indicated that dividends paid from a parent company to the SPV must be sufficient to cover the debt preference hurdle rate set by the financier; failing which the balance to the hurdle rate is added to the loan thus increasing the debt burden of the HDSA entrepreneurs. This could result in dilution or total loss of HDSA ownership in a parent company. Figure 2.1 below indicates the general structure of SPVs that were used in BEE transactions.

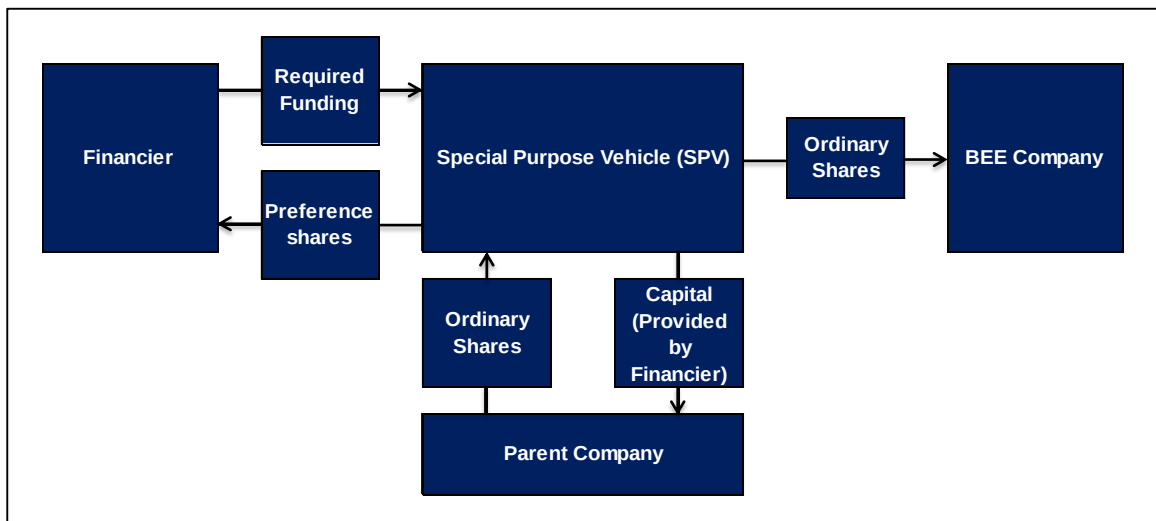


Figure 2.1: Generic Structure of Special Purpose Vehicles

Variations of SPVs were frequently deployed by BEE companies, parent companies and financiers. These are (Nhlapo, 2008 p25):

2.2.1.1. Equity Participation

In this variation the BEE partner owns 100% A class shares in the SPV. The Corporate investor is given 100% B class shares (Nhlapo, 2008). Conditions attached to both the A class and B class shares may differ from SPV to SPV, however, a common objective among all SPV structures is to arrange classes of shares in a way that gives majority voting rights to the BEE partner. Shares in the parent company are owned by the corporate investor until the BEE partner has redeemed the B class shares.

2.2.1.2. Equity Participation at a Discount

In this variation a portion of the B class shares are sold to the BEE partner at a discount (Nhlapo, 2008), therefore the corporate investor or financier doesn't own 100% B class shares. The portion of B class shares acquired at a discount allows the BEE partner to own some shares in the parent company from the onset.

2.2.1.3. Put Options Granted by Existing Shareholders

The financier provides a loan that is used to acquire share in the parent company through a special purpose vehicle. The BEE partner owns 100% ordinary shares in the SPV, while the financier owns the 100% preference shares. The loan extended to the BEE partner is guaranteed by a put option against shareholders in the parent company. In the event that the BEE partner is unable to redeem the preference shares owned by the financier, such shares can be sold by the financier to the investors in a parent company as per 'put option' agreement.

2.2.1.4. Asset Securitisation

In this variation the BEE partner uses the cash generating assets it has acquired to raise funds (Levitt, 2004). The cash generating assets are grouped together under a special purpose vehicle, which issues shares to the financier. The shares are paid back by the cash generated by the assets grouped under the special purpose vehicle. The assets backing the securities issued to investors are therefore separated from the parent company.

2.2.1.5. The use of N-Ordinary Shares

N-Ordinary shares are the same as ordinary shares, except that they give shareholders minimal or zero voting rights (JSE, 2014). N-Ordinary shares often trade at a discount to ordinary shares. Although they are likely to cost less, they pay out the same dividends as ordinary shares (JSE, 2014). By issuing N-Ordinary shares, owners of parent companies could have HDSA partners without losing the control of the company (Van Der Nest, 2004). N-Ordinary shares are preferred by investors who want to benefit from dividend income but are not interested in voting rights or having control in the parent company. Other than dividend income, N-Ordinary shares also provide the benefit of capital gain.

2.2.1.6. Revenue Stripping

This variation enables the vendor to acquire all or part of the BEE partner's share of production or dividend stream (Molapo, 2008).

2.3. FUNDING OF EMPOWERMENT TRANSACTIONS SINCE THE PROMULGATION OF BEE LEGISLATION

In the early 2000s, the sustainability of funding models that were used in earlier BEE transactions came under scrutiny. Various stakeholders searched for more sustainable BEE funding models, with a view to have funding structures that would demonstrate sustainability from the onset (Ramathe, 2009).

The promulgation of BEE legislation in mining, particularly the Mining Charter, resulted in an increase in the number of empowerment transactions (Empowerdex, 2009, p4). As a result, demand for capital to finance BEE transactions grew. Third party financiers and government funding institutions could not provide adequate capital to meet the demand (Phillips, 2004); hence parent mining companies took the initiative to assist BEE companies with 'in-house' funding or facilitation of capital raising.

The Mining Charter set clear HDSA ownership targets for mining companies to achieve, failing which parent mining companies would subject their businesses to substantial risk. The enforcement of the Mining Charter's element of ownership by government provided additional motivation for parent mining companies to play a role in the funding of BEE transactions, particularly for the purchase of the parent company's own shares.

On the side of government, there was an acknowledgement of the limitations posed by the Companies Act on the achievement of the ownership transformation objective; subsequently, the government made necessary amendment to Section 38 of the Companies Act to enable funding of empowerment transactions by vendors (M'Paradzi, 2006).

The 2008/2009 financial or liquidity crisis resulted in a credit crunch in the local and international financial institutions. As a result, South African banks tightened their credit policies (Daniels, 2010) thus also making it harder for

BEE companies to access credit. A combination of these and other factors resulted in a change in the method of funding BEE transactions.

As opposed to models that were used before the promulgation of BEE laws, which relied mostly on dividends to pay preference shares dividends to financiers and to redeem such preference shares, the models used post BEE legislation relied on cash flow from both dividends and operating assets of parent companies (Ramathe, 2009). Also, BEE companies that grew capital from the first wave of BEE transactions had the capital already available to contribute sufficient cash to make transactions more sustainable, or even make straight purchases.

Funding mechanisms that were used after the promulgation of BEE legislation in the mining sector were derived from options or derivatives, third party finance, vendor finance and convertible debt. In most instances hybrid instruments combining some or all of the above mentioned mechanisms were used. These are discussed below:

2.3.1. Derivatives (Options)

Options can be classified as neither debt nor equity as they derive their value from underlying assets, which are often in the form of other securities such as ordinary or preference shares (Obi, n.d). They are simply contracts, between the option writers and option holders, which specifically deal with underlying assets.

In funding models that use options or derivatives, a BEE partner gets a call option, which is a right but not an obligation to buy shares in a parent company at an agreed future date and at a strike price, that is, the fixed price agreed on when the option was acquired. If the share price is higher than the strike price on the maturity date of the option, the BEE Company gets to benefit as it acquires the shares at a discount. If the share price is less than

the strike price the BEE partner or investor may choose not to exercise the call option as a loss would be made.

According to Bowman Gilfillan (2001), typically, redeemable preference shares were issued to a BEE partner at the onset of the transaction. Each redeemable preference share had a call option attached to it. A BEE partner could receive the call option attached to shares as a grant from the parent company. The option could be linked to a performance criterion, which the BEE partner had to satisfy if the option was to remain valid (Woolley, 2005). If the call option got exercised the funding required by the BEE partner would be based on the strike price.

In some instances, a parent company granted an equity stake to the BEE partner with an option for the parent company to buy back the equity stake at a maturity date if the BEE partner could not afford to pay for the shares (Ramaphosa et al, 2007). This allowed the BEE partner to have voting rights and economic participation from the onset.

Disadvantages of options are:

- Having a call option is not the same as owning shares in an underlying asset, therefore an investor holding an option may not have economic benefits until the option is exercised (Ramaphosa et al, 2007)
- Share options could have restrictions on voting rights until the option is exercised
- The BEE partner may be limited to buying shares under option (Woolley, 2005).

The advantage of options is:

- They offer the flexibility and the opportunity to benefit from the movement of the parent company's share price.

2.3.2. Third Party Finance

Third party funding consists mostly of debt funding. It is provided by commercial and investment banks, investment institutions such as Old Mutual and Sanlam, private equity firms, venture capital companies and special institutions such as Industrial Development Corporation (IDC), National Empowerment Fund (NEF) and Khula Enterprise Fund (Correia et al, 2011).

The challenges with third party funding provided by commercial banks, investment banks and investment institutions are the high interest rates and transaction costs (Nhlapo, 2008). This is attributed to the lack of collateral to back the funding provided by the concerned institutions. Furthermore, some BEE companies lack the expertise and experience in the businesses they are acquiring. Mothomogolo (2012) noted that South African banks in particular take a very conservative approach towards funding of BEE transactions in the mining sector. As a result, government established some institutions to fund transactions perceived to be risky by banks (IDC and NEF for example).

A company that uses third party funding must ensure that the asset(s) it is acquiring generate sufficient income to pay the loan interests and the capital amount. In addition to servicing the loan obligation, the income generated by the asset(s) must cover working costs and surplus capital for reinvestment and growth (Ramaphosa et al, 2007).

Third party finance may take a form of angel finance, which entails the extension of loan to a BEE partner that lacks collateral to back the funding (Ramaphosa et al, 2007). In angel finance, the financier obtains a large equity stake in the business and reduces the stake as the BEE partner pays back the loan (Ramaphosa et al, 2007).

Other forms of third party funding are discussed below:

2.3.2.1. Leveraged Buy Outs (LBOs)

Leveraged buy outs involve the use of financial leverage to complete the acquisition of a target company or portion of the company (Olsen, 2002). LBOs are normally structured with a combination of debt and equity; however, the debt component of capital is pushed significantly high to lower the cost of capital to an affordable level for the company acquiring assets, in this case a BEE partner. The high level of debt in the funding structure also allows the BEE company to acquire large assets without contributing a great deal of capital, which the BEE company may not have. Debts to equity ratios of up to 9:1 are typical in LBOs. In principle, a company or assets of a company acquired through LBO pay for themselves (Olsen, 2002), hence the usefulness of this funding method in BEE transactions.

If a BEE partner uses LBO to acquire assets from a parent company, the cash flow that will be generated from the acquired assets is used as collateral against the funding obtained from a third party financier. Targeted assets can also be used as collateral even before the assets are wholly owned by the BEE partner. This arrangement reduces the cost of capital to the BEE partner as the financier has access to assets and cash flow (Nhlapo, 2008). The cost of capital is furthermore lowered by the deductible tax in the debt component of the funding structure.

The downside risk to LBOs is that a BEE company may be 'over levered', which results in large interest payments, thus limiting growth or even causing the company to default on its debt. Unforeseen events such as recession or change in regulatory environment can result in the BEE company struggling to make scheduled interest payments, thus leading to technical default (Olsen, 2002). If default occurs, equity ownership in the acquired assets may flow from the BEE Investor to the financier or debt funder.

2.3.2.2. Preference Shares

In this model the financier offers funding to the BEE company in exchange for preference shares in the BEE company, thus the preference shares are used as security. In the event that the BEE company defaults on the loan, the preference shares are converted to ordinary shares (Nhlapo, 2008). Dividends from the parent company to the BEE partner are used to pay preference shares dividends to the financier and to redeem the preference shares. This arrangement is similar to the one used in SPVs, except that in this case no SPV is setup. The financier owns preference shares of the BEE company instead of the SPV's preference shares.

2.3.2.3. Mezzanine Financing

Mezzanine finance is a mixture of debt and equity funding. It is subordinate to senior debt but senior to pure equity (Silbernagel and Vaitkunas, n.d). If this method of funding is used in a BEE transaction, a mezzanine funder extends debt to a BEE company with a right to convert debt to equity stake if the loan is not paid back on time or paid fully (Paul and Tierney, 2010). Alternatively, Mezzanine funding can be debt with high yielding coupon rates (Gevers and Boynton, n.d). This type of funding often requires little due diligence on the part of the lender and can be extended to entrepreneurs who have little or no collateral. As a result mezzanine finance is quick to obtain but it is relatively expensive compared to senior debt provided by banks and private equity investors (Ramathe, 2009). Companies that invest in Mezzanine debt often require returns of 20% or more (Paul and Tierney, 2010).

It is treated like equity on a company's balance sheet, therefore a company that has Mezzanine debt can still obtain pure debt funding without appearing to have excessive gearing. Since mezzanine debt is viewed as equity, having a mezzanine funder could help a BEE company secure loan funding from banks with relative ease as banks consider mezzanine funders as reputable partners to companies that they lend capital (Silbernagel and Vaitkunas, n.d).

Figure 2.2 below indicates priority of mezzanine debt compared to other forms of debt. 3 categories of mezzanine debt are indicated.

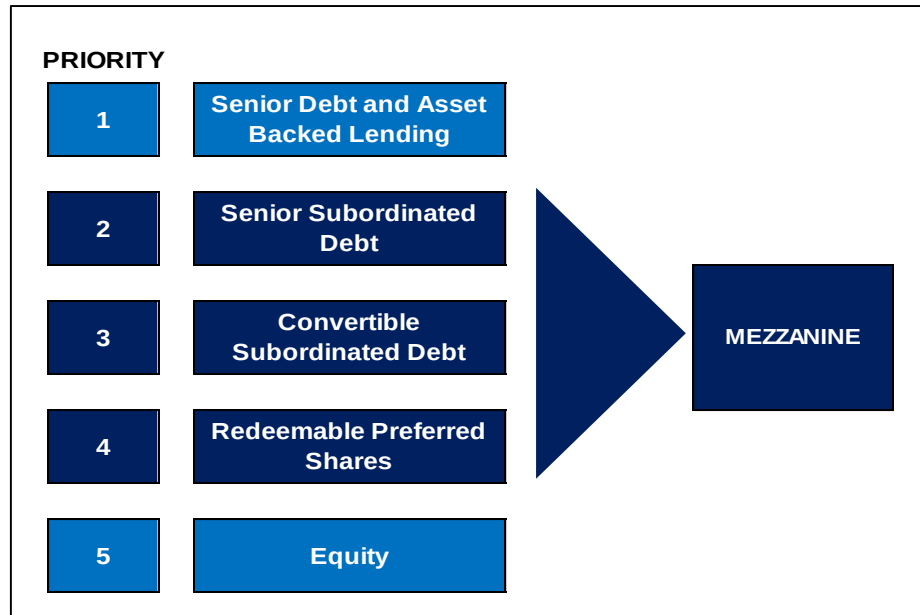


Figure 2.2: Priority of mezzanine debt compared to other types of funding

Source: Silbernagel and Vaitkunas, n.d, p2

A blend of debt and equity in the mezzanine structures provides both the lender and the BEE company with the flexibility to manage their respective risk and return profiles. Its structure can be tailor made to suit the needs of both the BEE partner as well as the target mining company's cash flow profiles (Ramathe, 2009). It is a dynamic funding model, normally used when there are reasonable growth prospects and cash flow generation by acquired assets. A typical mezzanine transaction is five to eight years, with possibilities of the funder exiting the transaction early (Silbernagel and Vaitkunas, n.d).

2.3.3. Vendor Finance

Vendor financing is when funding of an empowerment transaction is provided by the parent mining company (Ramaphosa et al, 2007). This method of funding allows the BEE Company to receive assets before it has the money

to pay for such assets. It was not popular prior to the amendment of Section 38 of the Companies Act, which precluded any company from financing the purchase of its own shares (M'Paradzi, 2006).

The use of vendor financing gained momentum subsequent to numerous deal failures that were caused by the use of SPVs. Ramathe (2009) highlighted vendor financing as being critical to the success of the second wave of BEE transactions. Vendor finance or facilitation can take various forms including:

- Provision of loan guarantees by vendors to third party funders on behalf of BEE partners.
- Vendors selling shares to BEE companies at a discount, thus reducing the overall costs associated with the BEE transactions. Some deals have been transacted at discounts of up to 40% to the market price (Molapo, 2008). Access to funding becomes relatively easy when a BEE company obtains shares at a discount.
- Agreeing on a set dividend payment plan subject to availability of profits and cash in order to enable the BEE investor to service debt (Ramathe, 2009)
- Earn-out structures i.e. Where the BEE investor's acquisition of equity is tied to achievement of certain performance measures in the target company (Ramathe, 2009). This method of facilitating BEE funding reduces dilution of shares to existing shareholders and requires minimal cash injection upfront (Woolley, 2005)
- Deferred share instruments: In this method of vendor facilitation, the BEE partner becomes a holder of ordinary shares with voting rights in the parent company; however the BEE partner does not receive dividends until it demonstrates value addition. In some instances, dividends are deferred until the value of deferred dividends is equal to the amount the BEE partner would have paid to acquire the ordinary shares (Bowman Gilfillan, 2001). Performance of the BEE partner

could be linked to a threshold in cash flow generation, beyond which dividends will be paid.

Vendor facilitation in any of the above mentioned forms results in the BEE partner obtaining cheaper financing because financiers moderate risk due to commitment from the parent company. Such commitment offers some form of security (Nhlapo, 2008). Vendors commit to making deals work because they assume some risk, furthermore, failure of a BEE deal results in a loss of BEE ownership accreditation to the vendor (Ramathe, 2009). The level of commitment by parent companies has been demonstrated by rescue packages that were provided by some vendors to their BEE partners when they were struggling to service their debt obligations.

2.3.4. Convertible Debt or Convertible Debentures

Convertible debentures are used to fund BEE transactions when interest rates are high since convertible debentures are cheaper than non-convertible bonds (Levitt, 2004). Convertible debentures can be changed into a specified number of ordinary shares subject to terms and conditions that were agreed on when the funding was obtained. The conversion feature in this funding model makes it cheaper as it provides the funder with the opportunity of converting the bond to ordinary shares should the funder choose to exercise the option (Gitman, 2000).

If this funding mechanism is use, the BEE partner pays a fixed interest or coupon rate (indicated as CR% in figure 2.4) to the debenture holder until the maturity date of the debenture is reached. Upon maturity of the debenture a principal amount is paid to the lender. Alternatively, the debenture holder can choose to exercise the option of acquiring shares instead of receiving the principle amount.

If the share price is greater than the conversion price on the date of maturity, the debenture holder could exercise the option to acquire shares as the value

of the shares to be acquired would exceed the principal amount owed; therefore the share would be acquired at a discount. If the share price is less than the conversion price the holder of the debenture will request the payment of the principal debt owed (See illustration in figure 2.4). If the BEE partner fails to pay the interests or the principal debt, the lender can force the BEE partner into liquidation and recover the money owed from the sale of the assets (Molapo, 2008).

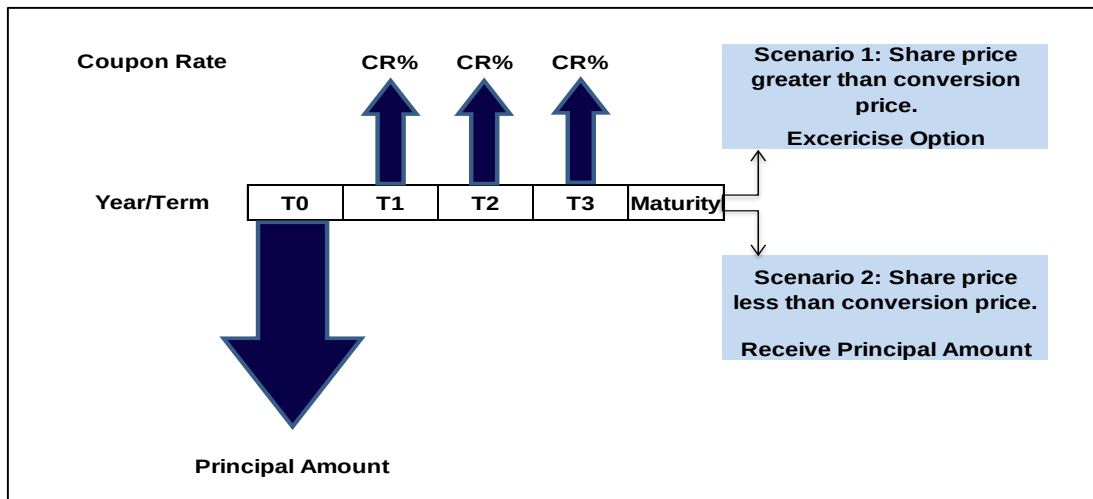


Figure 2.4: Illustration of convertible bond funding using a 3 year European convertible bond.

Source: Southern African Treasurer - Risk Management (Martin and Bhyat, n.d, p32)

2.3.5. Build Own Transfer or Build Own Operate

An asset belonging to a parent mining company is legally owned and run by a BEE partner for a specified duration, after which the asset is transferred back to the parent company (Levitt, 2004).

2.4. FUNDING MODELS THAT FAILED WITH THE CHANGING MARKET AND REGULATORY ENVIRONMENT

The 1998 and 2008 crises in the financial markets resulted in the loss of value in mining companies' stocks and reduced liquidity in the financial markets. Consequently, some weaknesses in various BEE funding mechanisms were exposed. The funding models that were used prior to the promulgation of the BEE legislation in the mining industry were tested by the Asian financial crisis of 1998.

Funding models that were used after the promulgation of BEE legislation were tested by the global financial crisis (GFC) of 2008. This crisis caused share prices of mining companies to fall by 60-80%, leaving 90% of BEE Companies 'out of the money' (Mondi, 2009 cited in Mining Weekly, 2009) (Figure 2.5).

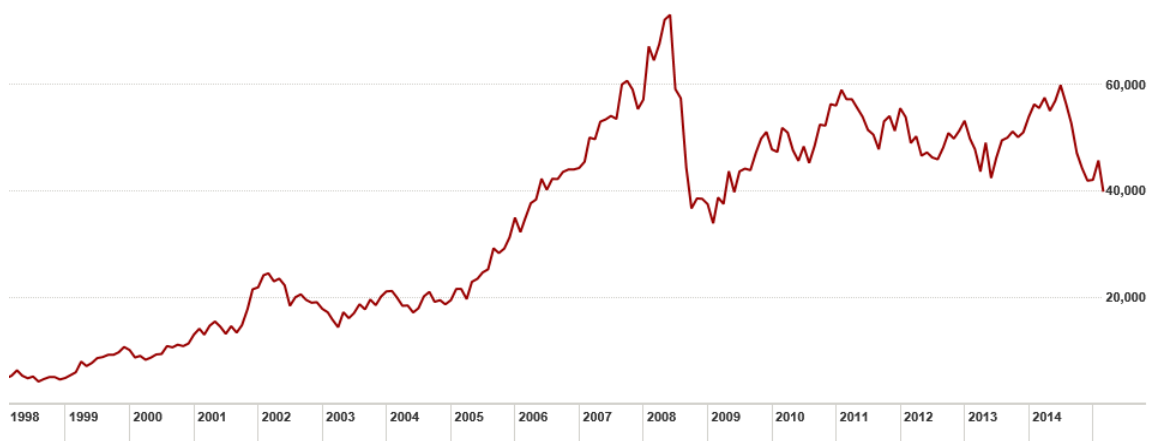


Figure 2.5: Value drop in the FTSE/JSE Resources 20 index due to the 1998 and 2008 financial crises

Source: Financial Times, 2014

In addition to the abovementioned financial crises, regulatory changes that came in 2004, 2007 and 2008 within the mining industry also resulted in notable modifications in the BEE funding landscape. Enforcement of BEE legislation resulted in early BEE funding models falling out of favour as the main driver of BEE transactions changed from anticipation of political change to compliance with regulatory requirements. Changes in the laws that govern the funding of acquisition of shares created flexibility, thus causing rigid funding structures to be shunned. Funding mechanisms that failed as a result of the financial crises and regulatory changes are discussed below.

2.4.1. Special Purpose Vehicles

Special purpose vehicles were not successful in the early days of BEE. This was due to the manner in which SPVs were structured and unfavourable market conditions (Bowman Gilfillan, 2001). SPVs work when the market is bullish, but fail when there is an economic down turn. They succeed if parent companies' shares were obtained at a discount and thereafter grow exponentially (Phillips, 2004); hence they lack the flexibility to stay sustainable in different market conditions. According to BusinessMap (1999 cited in Phillips, 2004, p86) SPVs have higher risk due to:

- Lack of liquidity and flexibility within the SPV structures
- Longer investment term
- Loss of voting control

These models were implemented at before tax interest rates of up to 18% (Vernon, 2010) due to the apparent high risk that was associated with BEE companies then; hence they failed to effect desired change in the transfer of ownership to HDSAs. According to Barnes (2013, Cited in BusinessDay Live, 2013), the average dividend yield over the past 20 (1993-2013) years was 3.8%-4%, and the prime overdraft rate was above 15% for most of that time.

This indicates that dividends would not be sufficient to cover loan interests associated with SPVs. Thus, SPVs proved to be unsustainable as they relied on dividend payments and share price appreciation to succeed.

The 1998 Asian crisis was characterised by high interest rates and declining dividends thus leading to the collapse of SPV funded transactions. Assets that were acquired by BEE companies were subsequently relinquished to financiers as BEE investors failed to redeem preference shares (Van der Nest, 2004).

The 2008 financial crisis also exposed further weaknesses in the SPV funding models. The collapse of the financial markets left many BEE companies heavily indebted (Jacks, 2010).

SPVs allowed HDSA investors to obtain equity in parent companies without assuming any downside risk (Phillips, 2004). As a result, many BEE investors did not have the necessary commitment to make the transactions successful (Bowman Gilfillan, 2001). Rather, their focus was split across a number of transactions, with the consequence that there was little interest in taking part in the operations of respective businesses.

In 2009, the DMR attributed mining companies' failure to achieve the ownership target set by the mining charter partly to the use of SPVs (DMR, 2009). Due to the structure of SPVs, mining assets that were intended to be transferred to HDSAs were tied up in loan agreements (DMR, 2009). The DMR (2009) stated that the majority of BEE deals had negative net value due to high interest rates on loans and lower than expected dividend flows.

2.4.2 Third Party Funding with Recourse

Third party loans that are provided with onerous terms compromise the sustainability of BEE transactions from the onset. Nihapo (2008) and

Engelbrecht (2007) rated third party funding low in terms of the preference of use and sustainability of BEE transactions (Figure 2.6 and 2.7).

2.5. FUNDING MODELS THAT REMAINED SUSTAINABLE REGARDLESS OF MARKET AND REGULATORY CHANGES

2.5.1. Vendor Finance

The sustainability of vendor finance emanated from the fact that, while it was costly to the vendors, it was considerably cheap to the BEE partners due to low interest rates and discounts offered when assets were acquired by HDSA companies. Furthermore, it provided more flexibility and often had funding terms that were less burdensome as vendors would benefit from the success of the transactions.

It gained attractiveness after the Asian crisis, which exposed severe weaknesses in funding models that were used then. It was further supported by the amendment of the companies act.

BEE funding models, such as SPVs and funding models with lock-in structures came under severe scrutiny post the 2008 financial crisis. Vendor finance however, was still identified as a viable alternative to BEE funding models that failed (Ernst & Young, 2010). According to the Ernst & Young BEE report (2010), “Fully vendor-financed deals may navigate the harsh economic cycles better than those with third-party financing”.

A survey conducted by Nlhapo (2008) indicated that vendor finance was the most preferred method of funding BEE transactions in 2008. See figure 2.6 below.

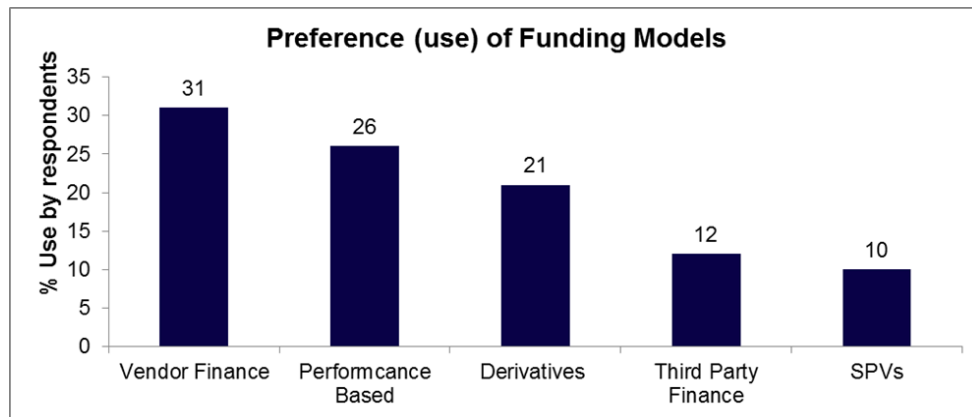


Figure 2.6: Preference of BEE funding models according to a survey conducted by Nlhapo (2008), p51.

Engelbrecht (2007) noted that there is a constant tension between the sustainability of a BEE transaction and the cost of such transaction to a vendor. He indicated that, as a general rule, the lower the cost of a transaction to a vendor the lower the certainty of its financial outcome and its sustainability (Figure 2.7). Therefore, vendor finance has been key to improving the sustainability of BEE transactions. It effectively protects the BEE companies from exposure to the financial markets. In this way success is more often possible.

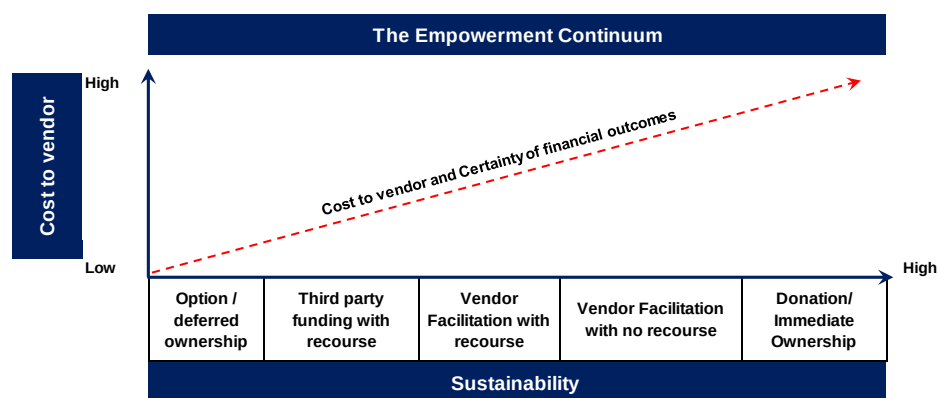


Figure 2.7: Relationship between the type of funding and sustainability of a BEE transaction (Source: Engelbrecht, 2007).

2.5.2. Leverage Buyouts

According to Bravura (Cited in BusinessDay, 2010) BEE leveraged buyout model is a more sustainable method of implementing BEE ownership transactions than SPVs. Bravura argues that LBOs are sustainable because the value of the company is reduced to a nominal amount with the result that the black participants do not need to raise external finance for the transaction (BusinessDay, 2010). Since LBOs can be 100% vendor facilitated, an LBO financed transaction does not put unnecessary strain on the balance sheet of the vendor company, while also facilitating the debt-free empowerment of a BEE entity (Vernon, 2010 cited in BusinessDay, 2010).

2.6. CONTRIBUTION OF THE REGULATORY FRAMEWORK TO THE SUCCESSES AND FAILURES OF BEE FUNDING MODELS

Two regulatory interventions in the mining industry can be noted to have caused significant changes to the BEE landscape. First was the promulgation of the Minerals and Petroleum Resources Development Act (MPRDA) in 2002 and subsequently the Mining Charter in 2004. The Mining Charter provides the legal framework to prescribe, monitor and enforce the BEE objectives.

Second was the amendment of the Companies Act. The amendment of section 38 of the Companies Act no. 61 of 1973 provided a broader pool from which BEE companies could access funding. The Amended Companies Act created an enabling environment for parent mining companies to play a bigger role in terms of facilitating the acquisition of their shares by BEE companies.

2.6.1. The Mining Charter

Before the promulgation of the Mining Charter, black economic empowerment in the mining sector was 'voluntary' and uncoordinated. Mining companies were not compelled to participate in BEE. The Mining Charter therefore provided a legal framework for government to enforce transformation. As a result of the requirements of the ownership element of the mining charter, the number of empowerment transactions in the South African mining sector increased.

Vendor finance, which was identified as the sustainable method of funding BEE transactions, became increasingly popular after the mining charter was promulgated.

2.6.2. The Companies Act

Section 38.(1) of the COMPANIES ACT NO. 61 OF 1973 hindered progress in the implementation of the Mining Charter as it prevented parent mining companies from financing the acquisition of or subscription for their own shares. Section 38 (1) of the Companies Act states that:

“No company shall give, whether directly or indirectly, and whether by means of a loan, guarantee, the provision of security or otherwise, any financial assistance for the purpose of or in connection with a purchase or subscription made or to be made by any person of or for any shares of the company, or where the company is a subsidiary company, of its holding company.”

As a result, complex funding structures in the form of SPVs were designed to work around this provision of the act; and still, possibilities of contravening the act existed. In the event that a contravention would occur, the BEE transaction could be deemed void and directors of the company could face prosecution (M'Paradzi, 2006). Thus, not only was section 38.(1) a hindrance to the implementation of the Mining Charter, but it also exposed parent mining companies to financial and legal risks. The biggest impact of this section of the Companies Act was the widespread use and subsequent failures of SPVs prior to 2008.

The aforementioned impact was discussed in details in section 2.2.1 and 2.4.1. Deferred shares instruments were also used to avoid contravention of section 38.(1) of the Companies Act (M'Paradzi, 2006).

On 14 December 2007 the amendment of section 38.(1) of the Companies Act No. 61 of 1973 took effect, hence giving permission to parent companies to offer financial assistance for the acquisition of or subscription for their shares (Bowman Gilfillan, 2001).

The New Companies Act NO. 71 OF 2008 was promulgated in April 2009. This Act replaced the whole of Companies Act No. 61 of 1973. Section 44.(2) of the New Companies Act has replaced section 38.(1) of the Companies Act No. 61 of 1973, which regulated the financial assistance to purchase shares of a company or holding company. Section 44.(2) of the New Companies Act states that:

“Except to the extent that the memorandum of incorporation of a company provides otherwise, the board may authorise the company to provide financial assistance by way of a loan, guarantee, the provision of security or otherwise to any person for the purpose of, or in connection with, the subscription of any option, or any securities, issued or to be issued by the company or a related or inter-related company, or for the purchase of any securities of the company or a related or inter-related company, subject to subsections (3) and (4).”

This provision of the New Companies Act has from 2009 removed vendor funding restrictions that were caused by section 38.(1) of the 1973 Companies Act. Parent companies can now provide financial assistance and other forms of vendor facilitation to their BEE partners. It's no longer necessary to use complex funding structures such as SPVs to avoid contravention of the Companies Act. In addition to removing funding restrictions, the New Companies Act provides greater flexibility to structuring of BEE transactions (Bluechip Journal, 2012).

The flexibility of structuring a BEE transaction, and the degree to which a parent company can offer financial assistance can only be limited by the parent company's memorandum of incorporation (see section 44.(2) of the Companies Act No. 71 of 2008). The new act allows for any number of classes of shares to be issued with any set of preferences, rights and limitations. According to Kruger (2012, cited in Bluechip Journal, 2012), the

flexibility comes from the lack of definition or specific provision for preference shares, as opposed to ordinary or equity shares.

2.7. CONCLUSION OF LITERATURE REVIEW

Prior to the promulgation of BEE legislation in the mining sector, a combination of third party funding and SPV structures was the preferred mechanism of financing BEE transactions. After the mining charter was promulgated in 2004, innovative funding structures emerged as mining companies sought various alternative ways of complying with the mining charter's element of ownership. This was because Section 38(1) of the companies act constrained the funding of BEE transactions as it limited the extent to which vendors could finance the acquisition of their own shares. This section of the Companies Act was amended in December 2007 and later replaced by section 44.(2) of the Companies Act 71 of 2008. This change in the regulatory framework resulted in the subsequent widespread use of vendor funding and other vendor facilitation mechanisms.

The 1998 Asian crisis exposed underlying weaknesses in funding methods that were used prior to the promulgation of the BEE legislation. SPVs and third party funding with onerous loan terms caused failure of BEE transactions as market conditions turned for the worst.

The 2008 financial crisis further exposed that SPVs and third party funding with onerous terms were not sustainable. Vendor finance, however, proved to be sustainable even in unfavourable market conditions as vendors carry more risk and thus protect the BEE partners against adverse market situations. The sustainability of vendor finance increases with the increasing cost to the vendors.

Due to the regulatory and market factors discussed in this literature review chapter and objectives discussed in chapter 1, this study will therefore focuses on 3 time periods:

- Prior 2004
- 2004 to 2007 and
- 2008 to 2012.

CHAPTER 3: RESEARCH METHODOLOGY AND DATA COLLECTION

3.1. RESEARCH METHODOLOGY

This research was designed to rely predominantly on the collection and analysis of quantitative data. The collection of accurate data necessitated detailed case studies of the transactions, so, the case study method was used as an integral part of the research.

At the time of conducting this research there existed a number of research reports on the subject of BEE funding; however, almost all research had followed the qualitative research approach. Interviews were conducted with respondents, alternatively, questionnaires were sent to respondents to capture descriptive data. The collected data was then analysed qualitatively to determine the effectiveness of BEE transactions and associated funding models. The quantitative research and analysis method was avoided often due to the unwillingness of mining corporations to disclose important deal structure and funding information (Molapo, 2008). Also, in the early days of BEE, there was no adequate data to support quantitative research.

Without undermining practical constraints highlighted by other researchers as mentioned above, this research takes a different approach by focusing more on the quantitative methods. The importance of this work is that an effort is made to make a quantitative assessment.

A quantitative approach will eliminate bias which may be inherent in the responses provided by respondents in qualitative research. Furthermore, this research method offers the advantage of projecting the results forward. Therefore, the results of the analysis could be used in future to pre-empt the sustainability of BEE transactions before the transactions are concluded (provided sufficient information is obtained to guarantee a high level of statistical confidence on the results).

Quantitative analysis of BEE funding models comprises regression analysis, hypothesis testing and trend analysis. Regression analysis examines the existence of correlation between various funding mechanisms and the successes or failures of BEE transactions. Hypothesis testing considers the significance of correlation, if such correlation exists. Trend analysis examines the performance of different funding methods throughout the three BEE eras or regulatory regimes highlighted in Chapter 2.

3.2. DATA COLLECTION

3.2.1. Sampling Design

As the research seeks to establish the sustainability of funding methods used in BEE transactions in the entire South African mining industry, it is important that the study becomes representative. The representativeness of the research in turn depends on the size of the data/sample used in the study. But, it would be costly and time consuming to acquire all information available on mining BEE transactions. Accordingly, a few transactions would be sampled and analysed. These transactions would constitute a sample population that should be representative of the population of all BEE transactions in the mining industry. This would permit inferences to be made regarding the behaviour of the entire population. For the sample population to be representative the following conditions have to be satisfied:

- The sample population must be of the correct size
- Transactions collected as part of the sample population must be collected randomly

The manner in which the above mentioned conditions were satisfied in the data collection process is discussed below:

3.2.1.1. Correct Sample Size:

The correct sample size was calculated using the sample size formula as specified by Godden (2004).

$$n = \frac{[(z^2 * p * q) + ME^2]}{[ME^2 + (z^2 * p * q)/N]}$$

Where n is the size of the sample.

z = Z value corresponding to the desired confidence level of the results obtained in the analysis. A confidence level of 80% was chosen. That is, if different sample populations were gathered repetitively, 80% of the time the same results would be obtained. The Z value corresponding to 80% confidence level = 1.28.

p = the percentage picking a point. In this study a P value of 50%, which represents a worst case scenario, would be used. Considering a population of transactions, the assumption here is that 50% of the transactions would be sustainable and the other 50% unsustainable (similar to a qualitative survey that requires respondents to respond with a “yes” or “no” answer; 50% of the respondents would say yes and 50% would say no).

q = (p-1)

ME (Margin of Error) = Confidence interval expressed as a decimal. In this study a confidence interval of 10% was used, which is acceptable considering that the models derived from the study will not be used for forecasting purposes.

N = Population size (total number of BEE transaction in the South African mining industry). The total number of mining BEE transactions that occurred since the inception of BEE to 2012 could not be obtained from the DMR. A

population of 351 BEE transactions was estimated based on the following calculation:

Empowerdex provided the actual number of transactions that were concluded from 2004-2008; 115 transactions occurred. The highest number of transactions (34) occurred in 2007, which is the peak of the recent commodity boom cycle (Figure 1.1). It was assumed that not more than 34 transactions occurred each year from 2009 to 2012. This is a fair assumption since the number of transactions decreased during the financial crisis period and the effects of the crisis were still felt post 2009. So the maximum number of transactions from 2009 to 2012 was estimated to be 136 (34 x 4). It was assumed that an average of 10 transactions per year occurred between 1994 and 2004 as BEE had not yet picked up momentum. This gives a total of 100 transactions for the period of 1994 to 2003. The total number of transactions was thus estimated as:

Number of transactions = 1994 to 2003 transactions + 2004 to 2008 transaction + 2009 to 2012 transactions

$$= 100 + 115 + 136 = 351$$

The minimum number of samples required for the study was calculated as follows:

$$n = \frac{[(z^2 * p * q) + ME^2]}{[ME^2 + (z^2 * p * q)/N]}$$

$$n = [(1.28^2 * 0.5 * 0.5) + 0.1^2] / [0.1^2 + (1.28^2 * 0.5 * 0.5)/351]$$

$$= [0.4196]/[0.0112]$$

$$= 38$$

Thus for the purpose of this study 38 samples will constitute the correct sample size. These samples will be divided into the three critical periods as discussed in Chapter 2 (before 2004, 2004-2007 and 2008-2012).

The parameters chosen above for the calculation of the sample size mean that one would be 80% sure that the results of the analysis are correct $\pm 10\%$ (confidence interval). This level of confidence and the confidence intervals are appropriate for the objectives of this research as stated in chapter 1.4. Also refer to chapter 4.6.1 for further details on the appropriateness of 80% confidence level for this research.

3.2.1.2. Transactions Included in the Sample must be Chosen Randomly

Random sampling is necessary for external validity (Fox et al, 2009). If the transactions are not chosen randomly the results of the analysis cannot be applied to the entire population (BEE transactions in the South African mining industry). In this research standard random sampling techniques such as simple and stratified sampling could not be used due to the difficulty of accessing information directly from mining enterprises or the market.

Nevertheless, the selection of transactions was random as all transactions, for which the relevant information was fully available in the public domain, had a fair chance of being included in the sample population.

The research used information that was freely available in the public domain. Thus, the only bias would emanate from the fact that transactions that were kept confidential by respective enterprises would not have the chance of being sampled.

3.2.2. Data Collection Method

Two approaches were used for data collection. First, data was collected from sources available in the public domain. This data is both primary and secondary data as some of it was collected from research conducted by other

researchers and reporters, and the rest was collected from websites of relevant mining companies. Parallel to that process, attempt was made to collect primary data directly from selected mining companies making use of questionnaires. However, this attempt was not successful.

3.2.2.1. Data Collected from Sources Available in the Public Domain

Data was collected predominantly using the internet from websites of reporters, mining companies, SENS documents, research publications and other public databases. A total of 118 transactions were considered (Appendix 1). These transactions were randomly selected based on the information available in the public domain.

The majority of transactions considered (46%) happened between 2004 and 2007 (Table 3.1). This coincides with the period in which commodity prices were booming. There was a large number of transactions then, as mining companies and BEE entrepreneurs were optimistic about the future of the mining businesses. There was money available to fund the transactions as well. See appendix 1-4 for details of BEE transactions used in the study.

	Before 2004	2004 to 2007	2008 to 2012	Total	Percentage of Total
Adequate information available	10	23	17	50	42%
Partial information available	3	4	3	10	8%
No information on funding structure	19	27	12	58	49%
Total	32	54	32	118	100%
Percentage of Total	27%	46%	27%		

Table 3.1: Summary of data collection

Information on the details of the transactions (sources of funding and structures of the transactions) was very limited in the public domain. Of the 118 transactions considered, 42% of the transactions (50) had adequate details available (appendix 2 to appendix 4). However, according to Godden

(2004) sample size formula, 50 samples would be adequate to cover a population of 500 samples and provide a confidence level of 85%, which is higher than the desired 80% confidence level for this research. Hence 50 samples are adequate for this research.

9% of the transactions had partial information available and 49% of the transactions had no information on funding sources or structures available. Figure 3.2 and 3.3 indicate the breakdown of the transactions in terms of the availability of information.

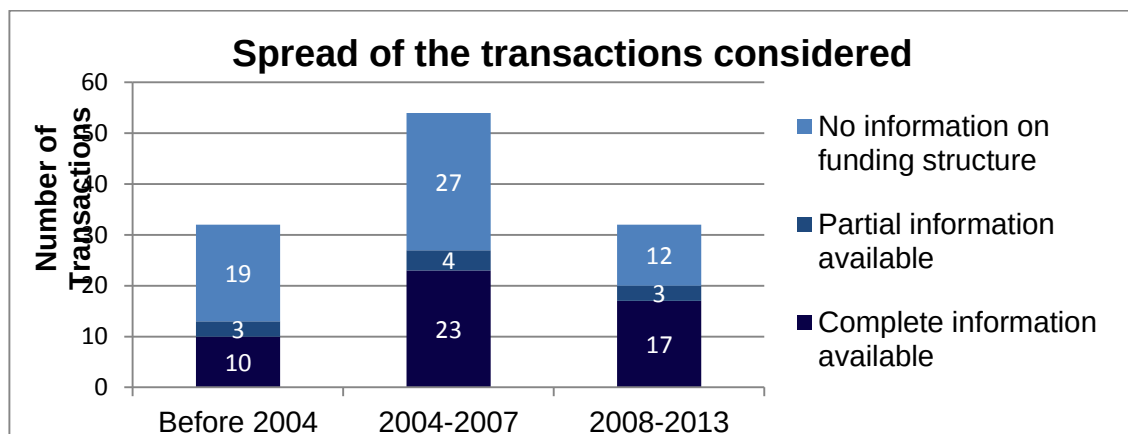


Figure 3.2: Spread of Mining BEE transactions

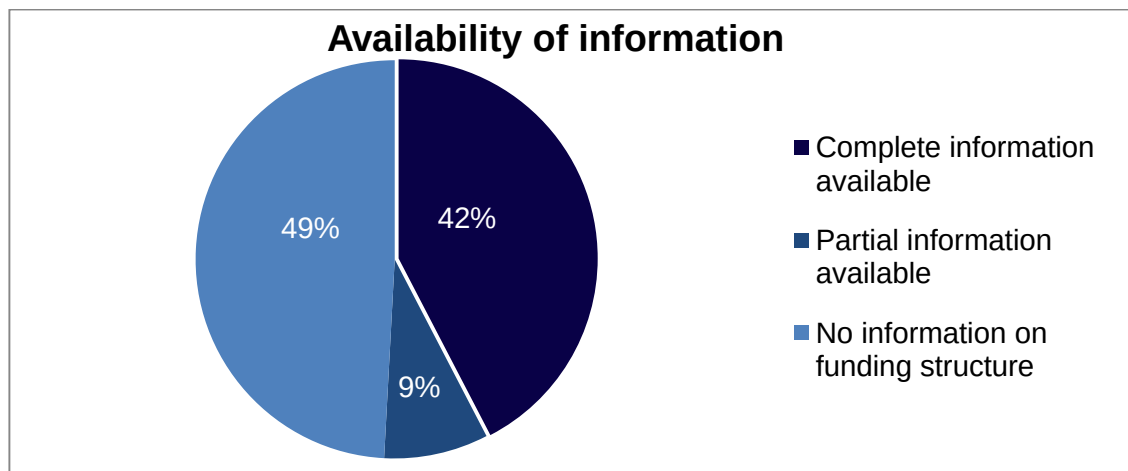


Figure 3.3: Breakdown of transactions in terms of availability of information

3.2.2.2. Data Collected from Mining Companies using Questionnaires

Transactions considered included a range of parent and BEE mining companies, from major producers to junior mining companies. A questionnaire was sent to respective companies, DMR and COM to acquire information. There was no adequate response from the abovementioned parties. A copy of the questionnaire is shown in appendix 5.

CHAPTER 4: ANALYSIS AND DISCUSSION OF RESULTS

4.1. INTRODUCTION

Funding models consist of two elements – namely, sources of funding and structures of funding. The data that was gathered consisted mainly of information regarding sources of funding. There were insufficient details regarding the structures of transactions. As a result the analysis focuses on sources of funding (Figure 4.1).

Preference share instruments were used in a number of transactions; so this mechanism of funding was included in the analysis. As preference share instruments were used largely in conjunction with third party financing, the two were linked in the analysis of results.

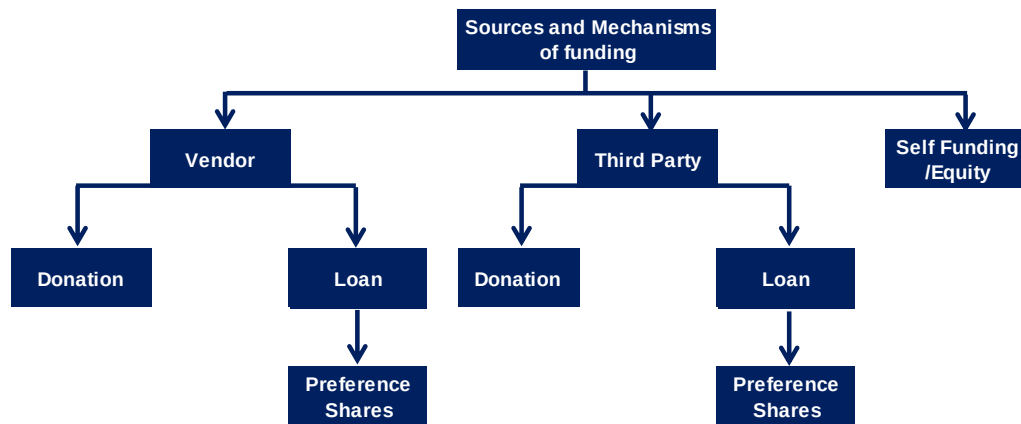


Figure 4.1: Sources and mechanisms of funding used in BEE transactions

The analysis focuses on the frequency of use of the funding methods, the impact of changes in the regulatory environment on the successes and failures of BEE transactions, the influence of the sizes of various sources of funding on the success of funding structures, regression analysis and significance testing. These are discussed in turn below.

4.2. FREQUENCY OF USE OF VARIOUS FUNDING METHODS

A frequency analysis was done to highlight funding methods that were favourable during the periods under study.

All funding sources and mechanisms were used for a combined total of 77 times in the sample population. On average, Vendor finance was the most favoured method of funding BEE transactions from 1992 to 2012 with a total frequency of 28 transactions, constituting 36%. However, only 2 transactions in the data consisted of vendor finance before 2004. The highest percentage use occurred in the 2008 – 2012 era with a 52% frequency of use.

	Vendor	Third Party Loan	Equity (self)	Preference shares
Before 2004	18%	64%	9%	9%
2004-2007	32%	27%	29%	12%
2008-2012	52%	16%	24%	8%
Total	36%	29%	25%	10%

Table 4.2.1: Frequency of use summary table

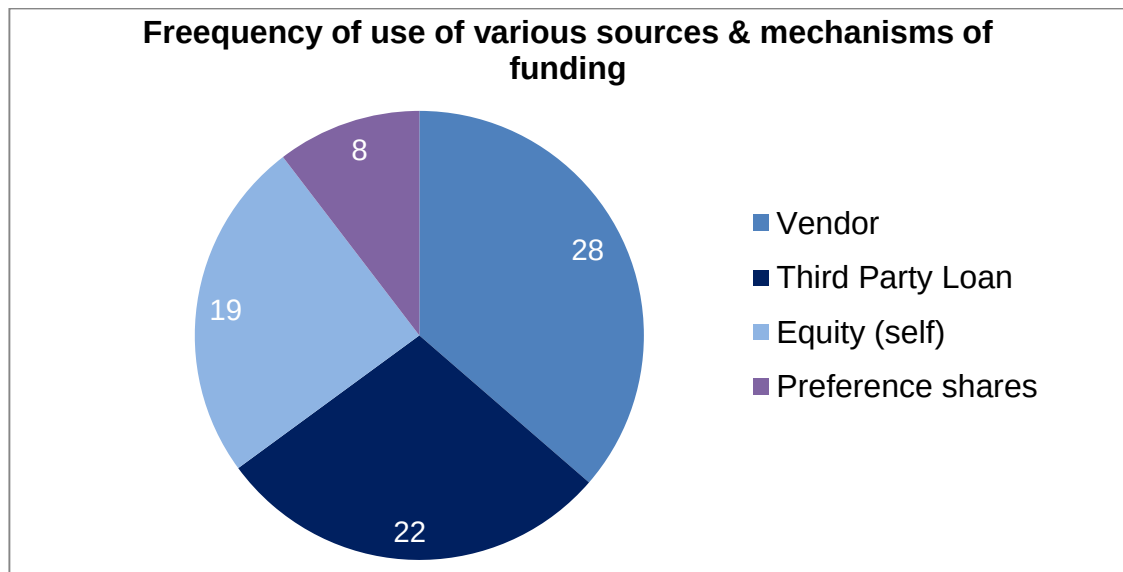


Figure 4.2.1: Frequency of use (2004-2012)

Third party funding was the second most predominant funding method. It was used largely in the early days of BEE and its frequency of use decreased over time. Equity and preference shares were used the least frequent at total percentage frequencies of 25% and 10% respectively.

The effect of regulatory change (promulgation of Mining Charter, amendment of Companies Act and promulgation of New Companies Act) on the use of vendor finance can be observed on table 4.2.1. There has been a steady increase in the frequency of vendor finance throughout the three periods. This indicates that vendor finance is very reliant on regulatory intervention.

The frequency of third party funding decreased steadily over the three periods. This is attributed to the increase in the use of both vendor and equity funding, which were influenced by the regulatory intervention and favourable economic climate before 2008. The established trends show that solutions to practical challenges that were experienced with the use of vendor and equity finance in the early days of BEE were found and implemented.

4.3. IMPACT OF CHANGE IN THE REGULATORY ENVIRONMENT ON THE SUCCESS OF BEE TRANSACTIONS

4.3.1. Trend of Various Funding Methods through Regulatory Regimes

There was a steep increase in the total value of BEE transactions concluded after 2004 (Figure 4.3.1). This can be attributed to two key factors. The first one is the introduction of the Mining Charter, which was promulgated in 2004. After BEE law was legislated, transformation of the mining industry was no longer left to the discretion of mining enterprises; rather, it was made a legal requirement with clearly defined consequences for enterprises that would fail to comply. Thus the introduction of a legal framework within which mining BEE dealings would be conducted added an impetus in the BEE landscape. Second, the global mining industry was going through a high commodity price cycle so there was liquidity available to support BEE activities.

Prior to 2004, 89% of BEE deals' funding by value came from third party financiers. The contribution of third party funding dropped to 27% in the period of 2004 – 2007. A further 10% drop in the amount of third party funding used occurred in the period of 2008 – 2012. Third party funding was predominant in the early days of BEE (Prior 2004) for two reasons:

- Insufficient capital on the part of BEE entrepreneurs to enable them to contribute significant equity when acquiring shares from parent mining companies.
- Vendor finance was not widely used due to legal constraints. Also, BEE legislation had not been promulgated yet. As such, the requirements and implications of failing to comply with the BEE legislation were not clear to mining companies; hence their reluctance to contribute money for the acquisition of their own shares.

This trend of third party funding is consistent with observations made by other researchers as discussed in the literature review chapter.

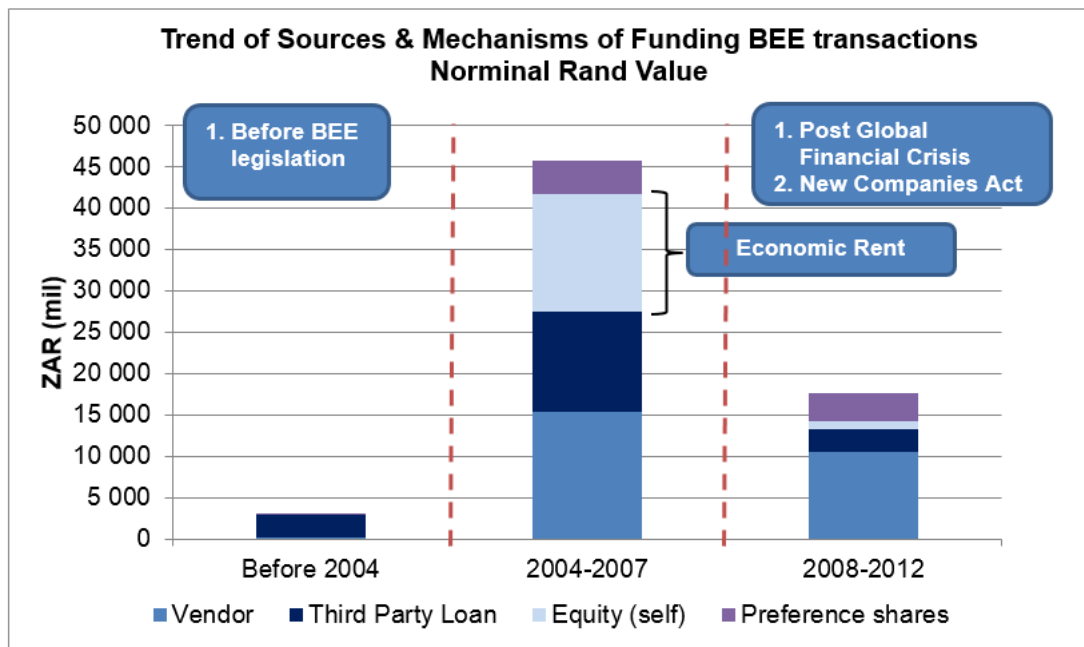


Figure 4.3.1: Trend of sources and mechanisms of funding BEE transactions

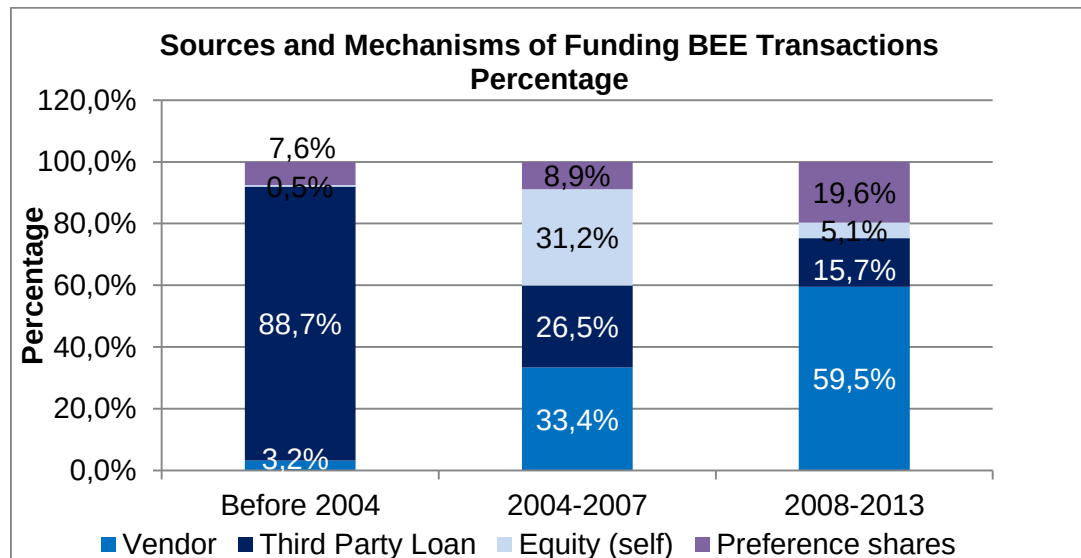


Figure 4.3.2: Trend of sources and mechanisms of funding BEE transactions
(% of total value)

Vendor finance accounted for only 3.2% of funding of BEE transactions prior to 2004 (Figure 4.3.2). During the period of 2004 to 2007, it increased to 33.4%. This period coincides with the amendment of the COMPANIES ACT

NO. 61 OF 1973 which allowed mining companies to fund the acquisition of their own shares. Vendor finance further increased to 59.5% of transactions by Rand value in the period of 2008-2012. This increase is line with expectations as the period of 2008-2012 was fully exposed to the new COMPANIES ACT NO. 71 OF 2008 as opposed to the 2004 – 2007 period; this period was only exposed to the amended companies act in the latter year. From 2008-2012 there were no restrictions associated with the use of vendor finance.

The 2008-2012 period is post the global financial crisis; therefore equity and third party finance dried up in this period. As a result parent mining companies had to provide vendor finance to BEE companies. This period is also closer to the 2014 Mining Charter compliance review by the DMR; hence the initiative by mining companies to align their compliance to the 26% BEE ownership target.

There was almost no equity funding (0.5% of transactions funding by rand value) in BEE transactions prior to 2004 as BEE entrepreneurs lacked the capital to self-fund acquisition of shares from parent mining companies. Equity funding increased to 31%, its highest contribution to BEE finance, in the period of 2004-2007. During that period BEE entrepreneurs gained profits due to the commodity prices boom that started in the early 2000s. As a results money generated from sharp increases in share prices of mining enterprises and economic rent was used to acquire new assets. The Anglo Platinum_Mvelaphada Resources and African Rainbow Minerals_Xtrata BEE deals, which happened in 2007 and 2006 respectively, are a case in point. The two transactions were valued at R4 billion and R785 million respectively. The funding structure of Anglo Platinum_Mvelaphada Resources deal consisted of 38% equity, whereas the African Rainbow Minerals_Xtrata deal consisted of 49% equity or self-funding.

In the case of Mvelaphanda Resources, the profit earned from the sale of Goldfields shares – which were acquired in 2004 – was used to acquire shares in Northam Platinum and the Booysendal project. African Rainbow Minerals (ARM) used profits from the gold assets that were acquired from AngloGold Ashanti in 1998.

The use of preference shares increased marginally from 7.6% prior 2004 to 8.9% in the period of 2004 – 2007. The highest percentage of 20% occurred in the period of 2008 – 2012. Preference shares were generally used in conjunction with third party finance, thus it was expected that preference share instruments would show a declining trend from 2004 to 2012 as this is the case with third party finance. However, the opposite is a case. This is due to two transactions that were concluded between Anglo Platinum, Anoorag and Wesizwe Platinum in the period of 2008 – 2012. The two transactions accounted for a total preference shares amount of R3.5 billion.

Table 4.3.1 below gives a breakdown of the contribution of various funding methods (R million) in financing of BEE transactions from 1992 to 2012.

Sources & Mechanisms of Funding (R mil)	Vendor	Third Party Loan	Equity (self)	Preference shares	Total
Before 2004	100	2,744	15	234	3,093
2004-2007	15,300	12,119	14,297	4,068	45,784
2008-2013	10,499	2,766	907	3,462	17,633
Total	25,899	17,629	15,219	7,764	66,510

Table 4.3.1: Amount of various sources/mechanisms of funding in BEE transactions included in the study (1992 – 2012)

4.3.2. Impact of Observed Trends on Sustainability of Transactions

In order to examine the influence of various sources and mechanisms of funding on the successes or failures of BEE transactions the following was done:

- The number of transactions were split into the 3 periods highlighted above
- Percentages of successful or sustainable transactions were calculated for each period
- The calculated percentages were compared to the trends of various funding sources as shown in figure 4.3.1 and 4.3.2.

On average, 76% of BEE transactions concluded between 1992 and 2012 were successful (Figure 4.3.3). Sustainable transactions increased from 70% to 78.3% from the first BEE era (prior to 2004) to the second one (2004-2007). Therefore, the promulgation of the Mining Charter, which occurred in 2004, did not necessarily result in a significantly higher number of successful transactions as much as it caused a spike in the volume of transactions (Figure 4.3.1). The 8.3% increase in the proportion of successful transactions could partially be attributed to the reduction of third party funding from 88.7% to 26.5%, the increase of both equity and vendor finance as shown in figure 4.3.2 and the more favourable commodity cycle. Notwithstanding, the rapid increase in the proportion of vendor finance can be attributed partly to the promulgation of the Mining Charter.

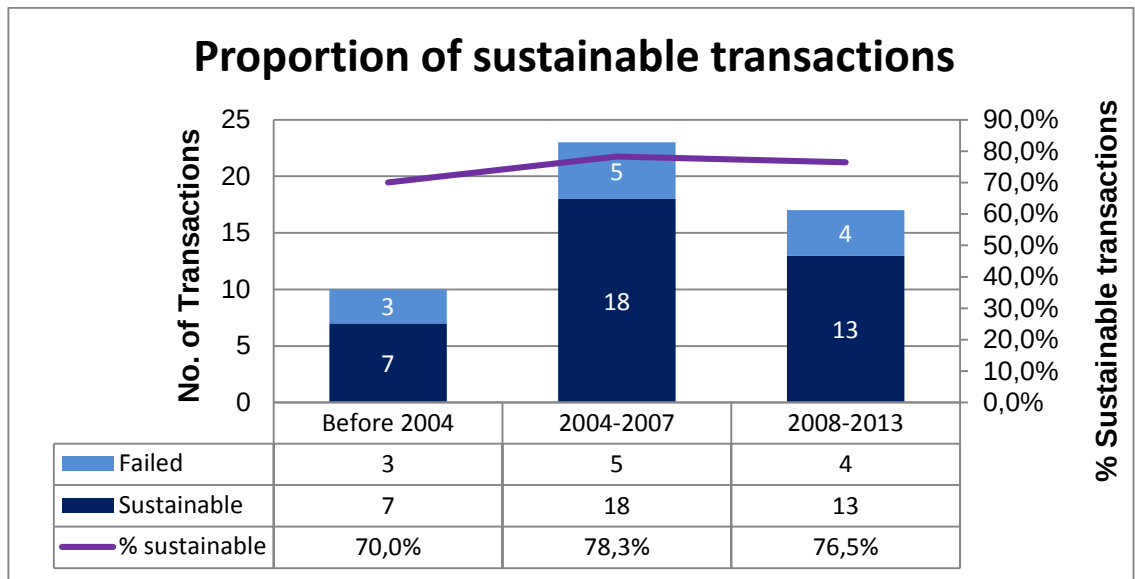


Figure 4.3.3: Percentage of sustainable transactions from 2004 – 2012

There was a slight reduction (1.8 percentage points) in the number of successful transactions from the second to the third period although the percentage of vendor finance increased by 26% in the same period. It was also expected that the reduction of third party finance during the same period will result in a higher percentage of successful BEE transactions as the reduction of third party finance minimises exposure of BEE companies to the market. This is however not the case. The drop in the number of successful transactions could have been worse in the 2008-2012 period due to the financial crisis. However, the decline of third party finance and increase of vendor finance minimized the impact of the financial crisis.

Although the above analysis highlights important trends in the use of funding methods and the percentage of successful transactions, it doesn't adequately address the relationship between the success of transactions and funding methods used. As a result an alternative approach, which looks at the influence of funding sources within hybrid funding structures on the success of such hybrid structures, was considered.

4.4. IMPACT OF VARIOUS SOURCES OF FUNDING ON THE SUCCESS OF FUNDING STRUCTURES

47% of transactions analysed were funded using structured finance, indicating that this form of funding was used extensively in mining BEE deals. For this reason, it became necessary to analyse the impact of various mechanisms of funding on the success of funding structures and their resultant impact on the success of BEE transactions. Also, this analysis would highlight trends that are not obvious in section 4.3.2 analysis as it isolates individual funding mechanisms and evaluates their success rates at different percentages within hybrid funding structures.

Two scenarios were investigated. First, the analysis was done on the total data set, including transactions that had not used structured funding. Second, the analysis was done on data consisting of transactions that were funded using structured finance only to amplify trends of individual mechanisms.

Figure 4.4.1 shows the results of the first scenario, which does not depict a clear picture as the trends are weakened by the inclusion of transactions that did not make use of structured finance. Figure 4.4.2 shows the results of the second scenario.

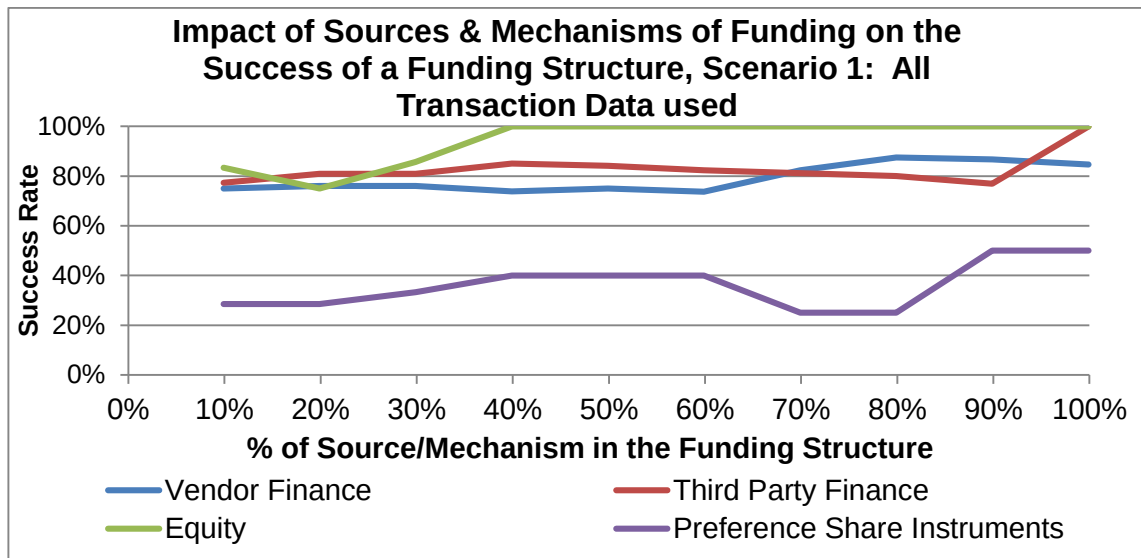


Figure 4.4.1: How proportions of various sources of funding in a structure impacts the success of a funding structure

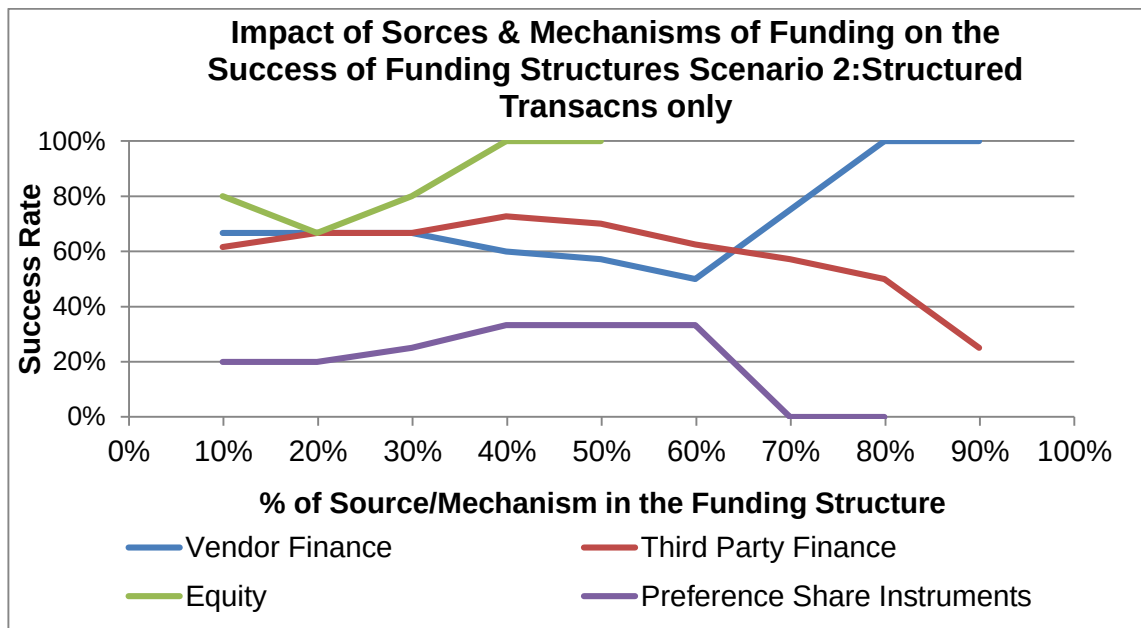


Figure 4.4.2: Impact of the percentage of source or mechanism of funding in a funding structure on the success of a transaction

The following trends can be observed:

4.4.1. Equity

The success rate increases as the proportion of equity in the funding structures increases, indicating that BEE deals that had high proportion of equity in their funding structures were in comparison more successful than the ones that had low proportion of equity. This observation is consistent with conclusions drawn by other researchers. Important to note is that at 40% the success rate of equity finance reaches 100%. That is, all transactions that used more than 40% of the BEE shareholders money were successful. This can be attributed to the increased commitment on the BEE shareholders part as their investment amount in transactions increased. Also, self-funding lowers interest payments that must be made to financiers, thus increasing liquidity that flows directly to the BEE enterprise.

The equity graph plots at a higher success rate than other sources and mechanisms of funding. Therefore, equity finance has a more positive impact than other sources of funding on a transaction even when the proportion of equity finance and other funding methods are equal within the funding structure. The equity graph stops at 50% proportion as there were no 'structured finance' transactions that consisted of more than 58% of equity in their funding structure.

There were two transactions that consisted of 100% equity. In the first transaction, Royal Bafokeng Nation acquired 13.4% of Impala platinum. In the second transaction, Waterberg Portion Property Investments acquired 31.4% of Wescoal. Both transactions were considered sustainable. The two transactions are indicated on figure 4.4.3, which shows all the transactions that contained equity finance in their funding structures. The percentage of equity in those transactions and an indication of whether they were sustainable are shown.

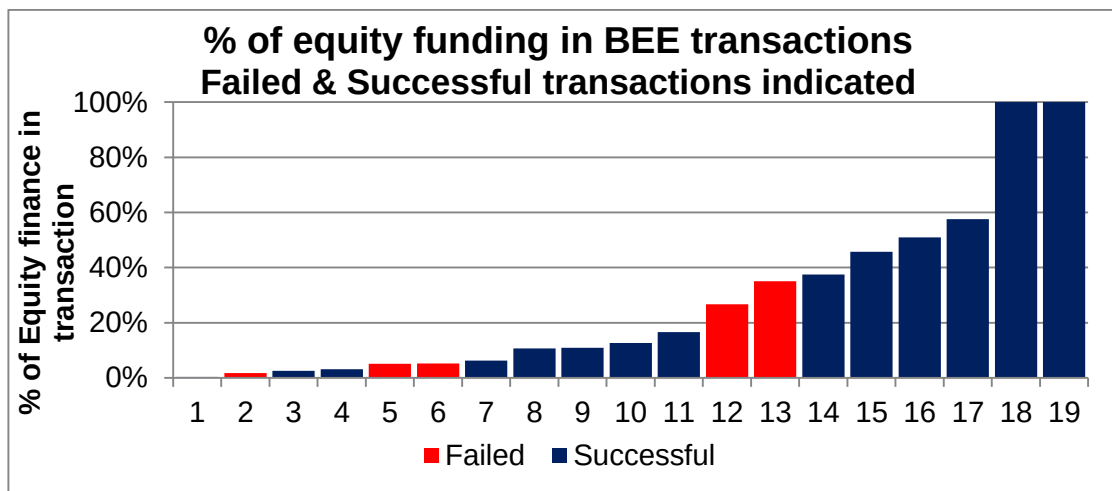


Figure 4.4.3: Transactions that contained equity finance

4.4.2. Third Party Finance

From 0 to 40% in the funding structure the success rate of third party finance increases slightly. Thereafter the success rate drops rapidly at third party funding of more than 40%. This form of funding consists mostly of debt; therefore, high levels of gearing increases the cost of funding, thus reducing liquidity and making transactions vulnerable to changes in market conditions. That could in turn make the BEE transactions unsustainable. Also, debt extended to BEE entrepreneurs was relatively expensive, further contributing to the unsustainability of BEE deals. Third party funding was also used in the early days of BEE with SPV models which, as highlighted in the literature review chapter, relied on the bull market and share price appreciation to succeed.

4.4.3. Vendor Finance

The success rate of vendor finance is unexpectedly lower than that of third party finance from a proportion of 30 to 60% in the funding structure. This indicates that transactions that had less than 60% vendor finance were not necessarily more successful than those that had the same level of third party finance in their structures. Only after 60% does vendor finance's success rate

increase rapidly. Therefore, vendor finance made a material difference to the success of BEE transactions where such vendor finance was a lot higher than third party funding. Failure of vendor finance to impact transactions positively at levels lower than 60% indicates that the influence of vendor finance was diluted by high levels of debt funding in transactions where debt funding was a lot higher than other sources of funding. This trend could also explain why a large increase in the use of vendor finance did not result in a correspondingly higher number of successful transactions in the 2004 – 2007 and 2008 to 2012 eras (see section 4.3.2). Engelbrecht (2007), in his empowerment continuum model, indicated that vendor financed transactions were sustainable at a significantly higher and costly levels of funding to the vendors (Figure 2.7). The above finding supports that observation. See chapter 2.5.1.

4.4.4. Preference Share Instruments

The success rate of preference share instruments is significantly lower than that of other sources of funding; 33% at most within transactions that used hybrid funding structures. This funding mechanism is associated with SPVs which contributed to the demise of many BEE transactions. This finding thus confirms results concluded by other researchers regarding the performance of preference share instruments in SPVs. Figure 4.4.4 below shows transactions that consisted of preference share instruments.

Two transactions were financed through 100% share instruments. In one transaction Wesizwe Platinum, in which Bakubung-ba-Ratheo community bought 33% shareholding in 2004, acquired Anglo Platinum Limited's entire 37% stake in the Western Bushveld Joint Venture (WBJV) at a cost of R1.1 billion in 2008.

The second transaction consists of the acquisition of 0.5% stake in AngloGold Ashanti by Izingwe Holdings at a cost of R350 thousand. The transaction was

considered successful as Izingwe Holdings sold the shares in 2012 for a value of R14 million.

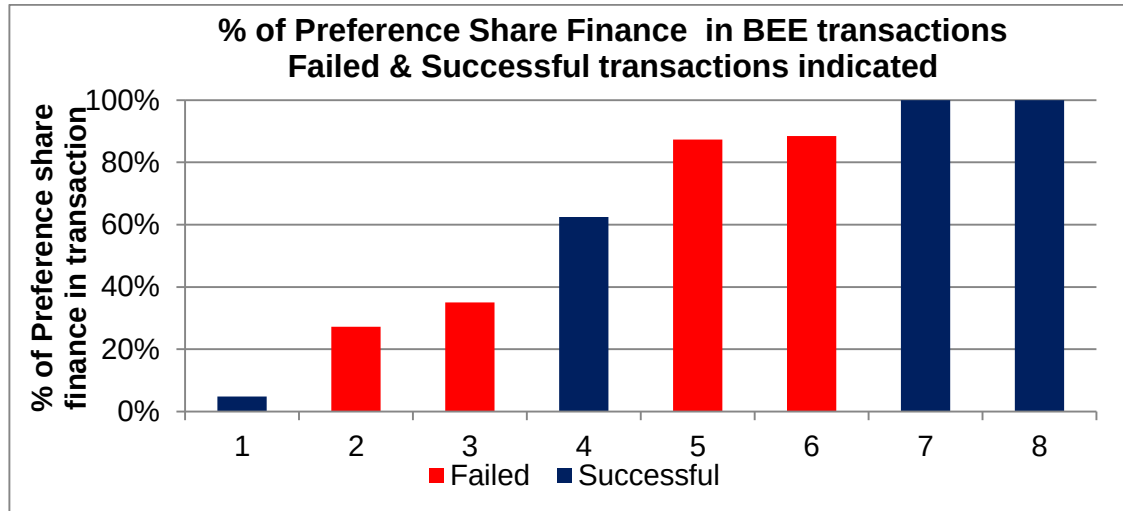


Figure 4.4.4: Transactions that contained preference share finance

Based on the above analysis, an ideal BEE transaction that is funded using structured finance would consist of the following funding ratios:

1. **Third party: Vendor : Equity = 40: 20: 40** – Below 40% of third party finance the success rate of third party finance is similar to that of vendor finance. Also, below 40%, third party finance does not show a negative influence on the success of transactions. At 40% equity the success rate of transactions is 100%. In this scenario the success of a transaction is driven primarily by high level of self-funding. An example of this composition is the transaction between De Beers and Petra Diamonds Cullinan Consortium (“PDCC”) in which the consortium acquired Cullinan Mine and Centenary-Cut (C-Cut) project. The transaction had 54% third party finance and 46% equity finance. There was no vendor finance in the transaction but self-funding was high enough to offset the negative impact of third party funding, hence the sustainability of the transaction.

2. **Third party: Vendor = <40% : > 60%** – In this scenario high level of vendor finance protects the BEE company against market risk. The AngloAmerican Coal_Inyosi Consortium transaction is a case in point. AngloAmerica Coal provided vendor finance amounting to R6.9 billion to finance Inyosi Consortium's 27% ownership in Kriel Colliery and the four projects – Elders, Zondagsfontein, New Largo and Heidelberg.

Another example is Sasol_Ixia Coal transaction in which Ixia Coal acquired 20% in Sasol's mining subsidiary. The transaction was financed using 58% vendor finance and 40% third party finance. These transactions were considered sustainable.

Overall, the impact of funding methods as discussed above is consistent with reviewed literature.

4.5. USE OF REGRESSION ANALYSIS TO ESTABLISH CORRELATION BETWEEN SOURCES OR MECHANISMS OF FUNDING AND THE SUCCESS OF TRANSACTIONS

Is there a meaningful correlation between various sources or mechanisms of funding and the sustainability or success of BEE transactions as discussed above? This section of the analysis answers the aforementioned question by testing the existence of possible correlation and further examining if the various correlations are statistically significant. Regression analysis will be used for this purpose.

Although regression analysis can be used for the purpose of developing forecasting models; in this study it will be used solely for the purpose of examining the existence of relationships and testing their statistical significance. Specifically, to what extent do sources and mechanisms of funding explain the successes or failures of BEE transactions, hence their sustainability? Therefore, the results of this regression analysis cannot be used to predict the success of a transaction based on the value (monetary) or percentage of a particular source or mechanism of funding in a transaction.

The analysis was carried out as follows:

The data was grouped into calendar years in which the transactions occurred; that is, all transactions that happened in the same calendar year were grouped together. A period of a year was considered representative based on the size of the sample population. Amounts of the respective sources or mechanisms of funding were added for all transactions falling within the same year. The percentage of successful transactions was also calculated for each group/calendar year using the ratio of successful transactions to the total number of transactions.

Before the analysis was done the data was cleaned by removing every year that had zero and one transaction. This means that data from 1995 to 2000 and 2011 to 2012 was removed. The calculated data is tabulated in table 4.5.1.

Year	Vendor Finance	Third Party	Equity	Preference Share	Total Value	No. Transactions	Successful Transactions	% of Successful Transactions
1995	0	326	0	0	326	1	1	100%
1998	66	0	0	0	66	1	1	100%
2000	0	459	0	0	459	1	1	100%
2002	0	264	0	0	264	3	3	100%
2003	34	1,695	15	234	1,978	3	1	33%
2004	3,068	5,289	76	1,552	9,985	5	2	40%
2005	89	333	38	0	460	4	4	100%
2006	5,175	6,498	2,023	15	13,711	10	7	70%
2007	6,968	0	12,161	2,500	21,629	4	4	100%
2008	617	1,728	545	1,162	4,051	6	3	50%
2009	5,033	300	15	2,300	7,648	5	4	80%
2010	4,459	738	347	0	5,544	4	4	100%
2011	371	0	0	0	371	1	1	100%
2012	20	0	0	0	20	1	1	100%
*Removed Data					#Used Data			

Table 4.5.1: Data arrangement for regression analysis

The tabulated results were then used to draw scatter plots from which the regression analysis and hypothesis testing were carried out using Microsoft Excel data analysis tools.

A linear relationship, between rand value or percentages of sources and mechanisms of funding used in transactions and the percentage of successful BEE transactions within a year, was assumed.

Amounts or percentages of sources and mechanisms of funding in transactions were defined as independent variables (X) and the percentage of successful transactions was classified as a dependent variable (Y). There

was no sufficient data to determine the statistical distribution that the % of successful transactions and the percentage of a funding method in a transaction follow. In order to carry out the analysis, a normal distribution was assumed. The validity of this assumption can only be tested if there is sufficient data to model the respective statistical distributions.

The results of the analysis for various methods of funding are discussed below.

4.5.1. Vendor Finance

There is a positive correlation between the value of vendor finance in transactions and their percentage of success. This indicates that BEE transactions were more successful in years that had higher values of vendor finance. The R^2 value (square of the correlation between the dependent and independent variables) is higher in the regression model that was developed using percentage of vendor finance in a transactions rather than the value of transactions (see figure 4.5.2).

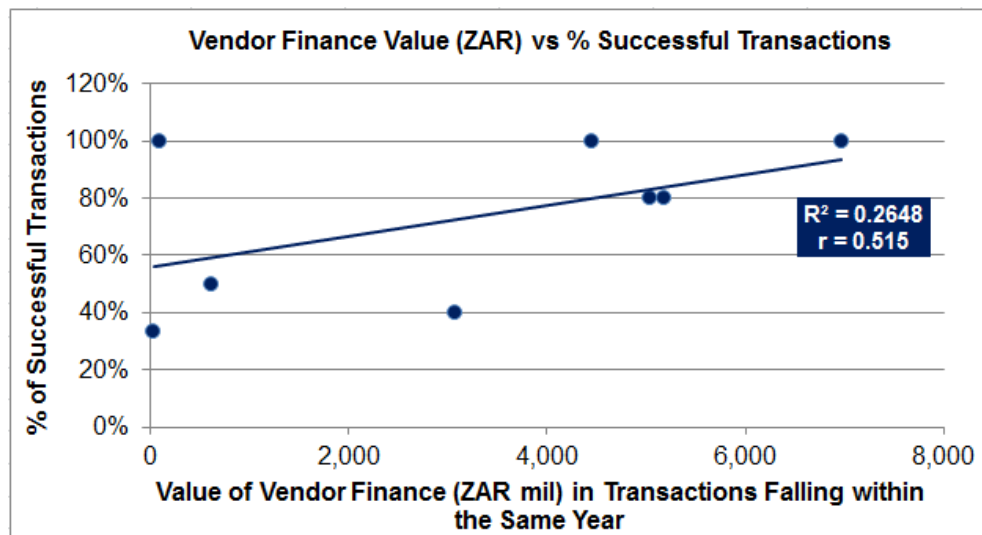


Figure 4.5.1: Regression analysis of vendor finance value in transactions vs the success of such transactions

The results on both regression plots are consistent with the results highlighted under the analysis of funding structures.

The R^2 value of 31.6% (in figure 4.5.2) is comparatively low, indicating that the use of vendor finance in transactions can only explain approximately 32% of their successes or failures. This was expected as the success of a BEE transaction depends not only on the source or mechanism of funding used, but also on many other factors that are not the scope of this research. E.g. failure of BEE transactions that were concluded by JCI in 2004 – with OnlyFunt – happened more as a result of fraudulent trading of shares rather than the funding models that were used to fund the transactions.

Some BEE transactions failed as a result of lack of cooperation and commitment among members of BEE consortiums or groups. The transaction that was concluded by Wesizwe Platinum and Bakubung-ba-Ratheo community is a typical example. Bakubung-ba-Ratheo community acquired 33% shareholding in Wesizwe Platinum in 2004. In 2007 Bakubung-ba-Ratheo sold a portion of shareholding in Wesizwe Platinum in order to buy shares in other companies to diversify the organisation's investment. Value was destroyed in the process of reinvesting the earnings from the sale of shares due to disagreements amongst community members. This resulted in a drop from 33% to 9% shareholding in Wesizwe and no significant shareholding by the group elsewhere. The challenge faced by Wesizwe Platinum is that it may not be considered fully compliant with the Mining Charter depending on the application of once empowered always empowered principle.

Increasing the size of the data set used in the analysis may improve the R^2 value of 31.6%, but it's not expected to improve by a significant number as other factors play a role in determining the success or failure of transactions.

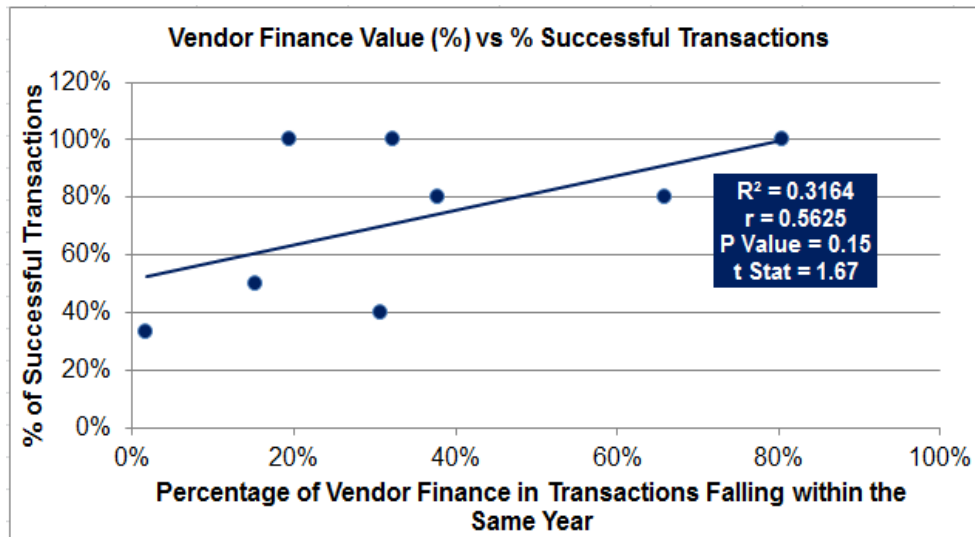


Figure 4.5.2: Regression analysis of the percentage of vendor finance in transactions vs the success of such transactions

4.5.2. Third Party Finance

Figure 4.5.3 and 4.5.4 indicate results of the third party finance value and percentage in transactions plotted against the % of successful transactions. Both scatter plots show a negative correlation between the value and percentage of third party finance and the success of transactions. This confirms that the amount of third party finance in transactions does influence them; the higher the value of third party funding the lower the sustainability of a transaction. This relationship is more prominent at third party funding of greater 40% in a transaction as shown in figure 4.4.2.

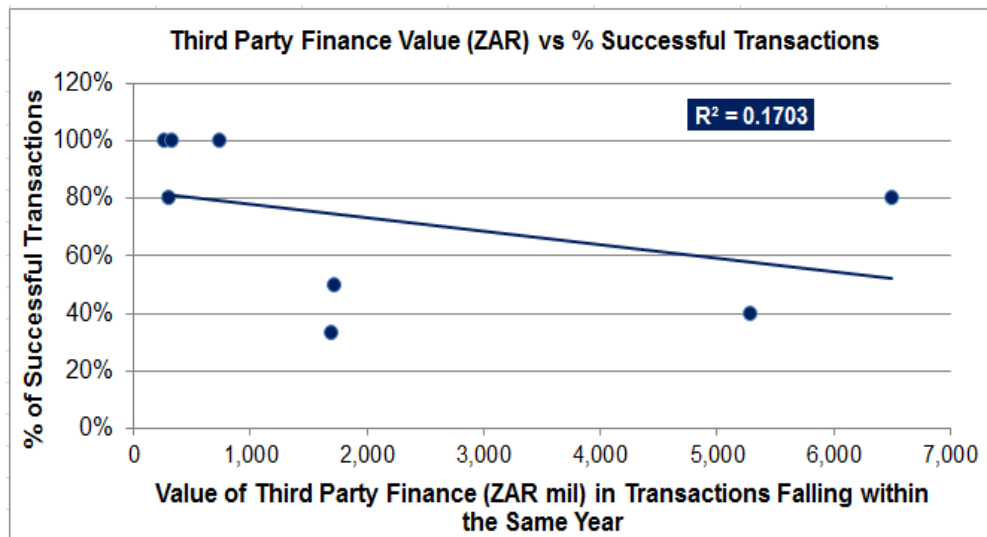


Figure 4.5.3: Regression analysis of third party finance value in transactions vs the success of such transactions

The R^2 values of both plots are low, 17% and 1.2% for the third party value and percentage plots respectively. This also indicates that this funding method explains a small percentage of the success or failure of BEE transactions; 17% at most.

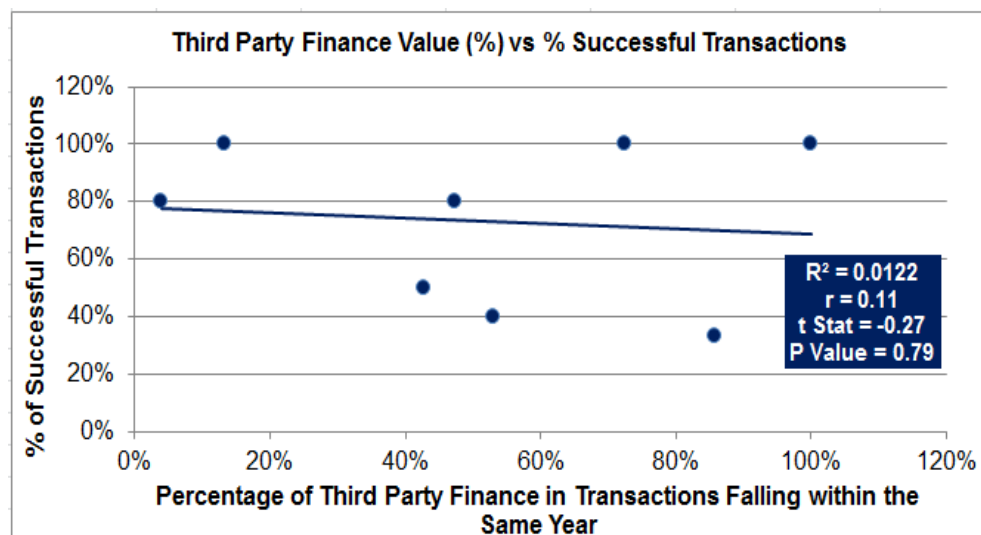


Figure 4.5.4: Regression analysis of third party finance percentage in transactions vs the success of such transactions

4.5.3. Equity Finance

Figure 4.5.5 and 4.5.6 below indicate an increase in the success of BEE transactions as the value and percentage of equity in BEE transactions increase. This observation is consistent with expectations and is aligned with the conclusions drawn by other researchers. Both R^2 values are relatively low, 17% and 21% for the value and percentage plots respectively. Thus equity finance also explains, at most, 21% of the success or failure of BEE transactions.

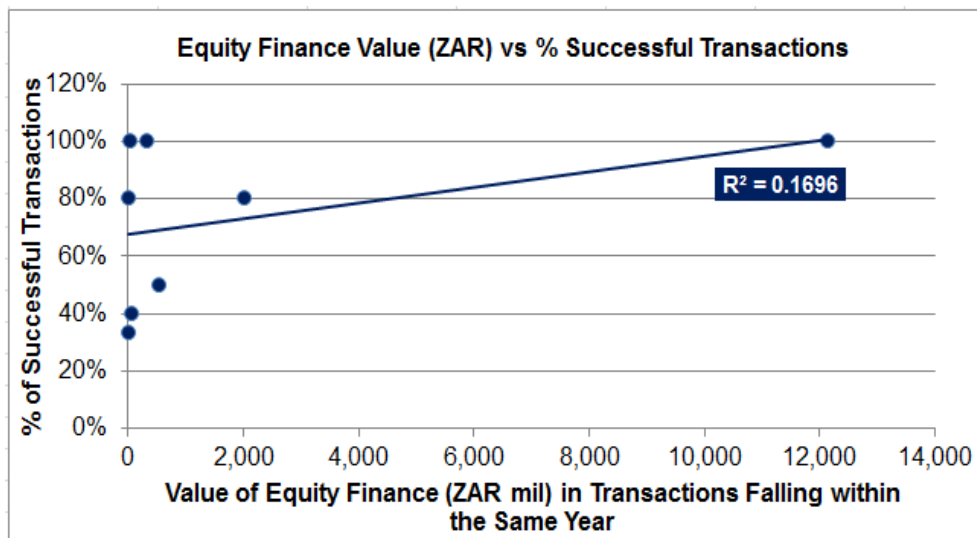


Figure 4.5.5: Regression analysis of equity finance value in transactions vs the success of such transactions

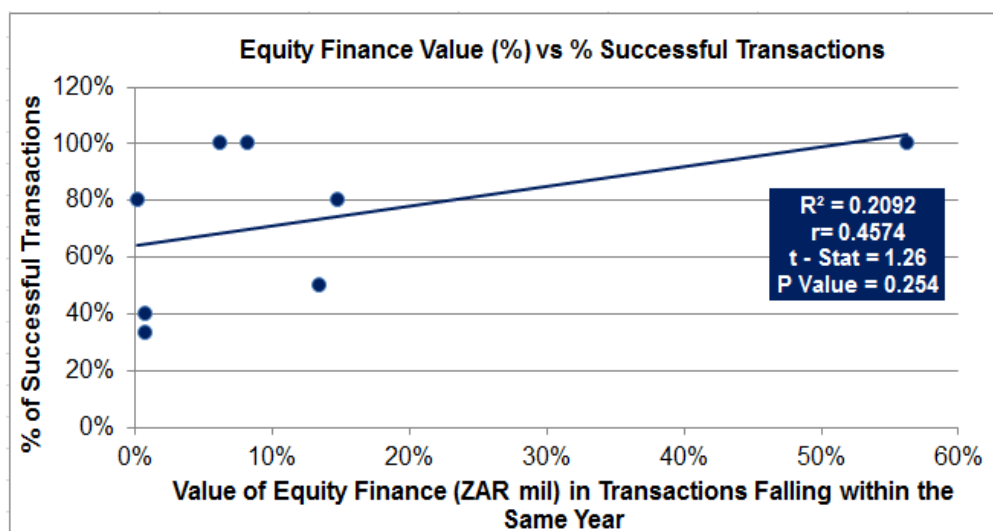


Figure 4.5.6: Regression analysis of equity finance percentage in transactions & the success of such transactions

4.5.4. Preference Share Instruments

Unlike the 3 methods of funding discussed above, preference share instruments are not sources of funding, but mechanisms and have often been used with third party funding in SPV structures. The two plots, preference share value and percentage plots, show different correlations. The value plot shows a positive correlation while the percentage plot shows a negative correlation. See figure 4.5.7 and 4.5.8.

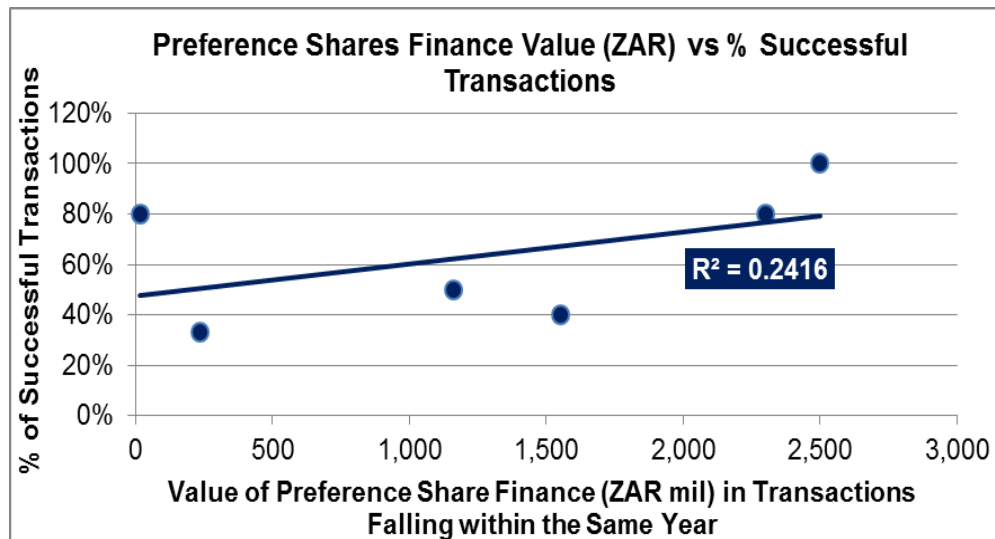


Figure 4.5.7: Regression analysis of preference share finance value in transactions & the success of such transactions

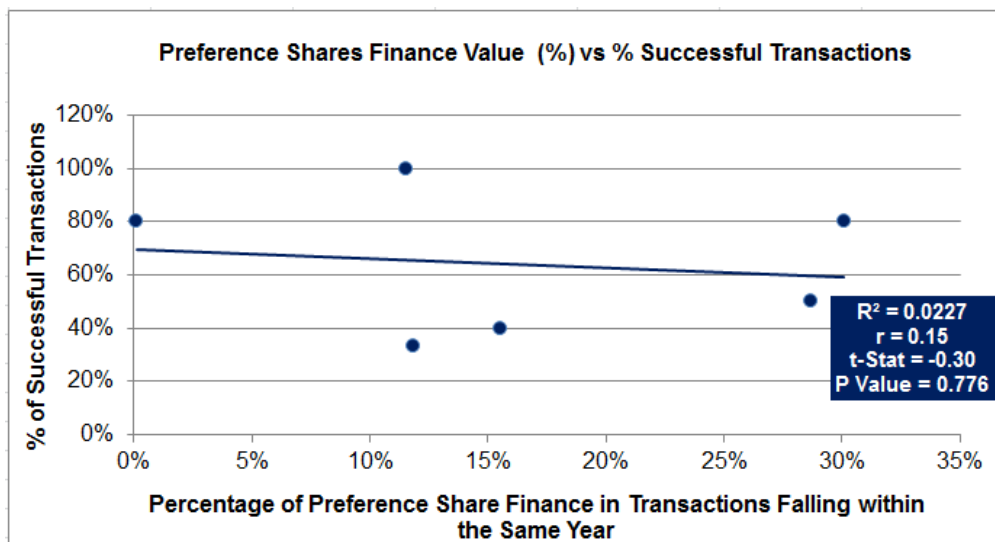


Figure 4.5.8: Regression analysis of preference share finance percentage in transactions vs the success of such transactions

As preference shares instruments were used with third party funding in SPV structures one would expect a negative correlation between the percentage of these instruments in funding structures of transactions and the success of such transactions. Thus, figure 4.5.8 could be considered to be more representative of

the relationship, more so because it looks at the percentages of applicable values in a transaction.

4.6. TESTING THE SIGNIFICANCE OF ESTABLISHED RELATIONSHIPS USING HYPOTHESIS TESTING

Relationships established above may be real or they may be occurring by chance. Hypothesis testing was used to test whether the relationships discussed above are coincidental, and if not, how statistically significant are they. Details of the hypothesis testing are outlined below.

4.6.1. Details of the Hypothesis Testing: Assumptions and Inputs

The null hypothesis (H_0): There is no correlation between the various sources and mechanisms of funding and the success or sustainability of BEE transactions being funded using such sources or mechanisms. Thus, in a linear relationship represented by:

$Y = B_0 + B_1X$, where Y is the success rate (%) of transactions, B_0 is a constant and B_1 is a slope or regression coefficient and X is the percentage of a source or mechanism of funding in a transaction, the null hypothesis can be represented as $H_0: B_1 = 0$.

The alternative hypothesis (H_a): There is correlation between the various sources and mechanisms of funding and the success of BEE transactions being funded using such sources or mechanisms. $H_a: B_1 \neq 0$.

Level of significance (α): The level of significance is normally set at 5% in hypothesis testing, however a grey area of 15-20% could also be acknowledged. At a 20% critical value, there would be reason enough to doubt the validity of the null hypothesis; however the null hypothesis would, if results suggest that it should be rejected, not be rejected altogether due to lack of sufficient evidence (Explorable, 2015). The significance level in this test will be set at a 20% level due to the sample size used and the unique objectives of performing this analysis. Additional reasons for the use of 20% significance level are:

- The models being tested would be used solely for the purpose of examining the existence of correlation between the sources and mechanisms of funding and the success of transactions
- Regression models emanating from the analysis would not be used for any forecasting or prediction purposes
- Although the sample size used is adequate, it is not high enough to suite the use of a lower level of significance
- Consequences associated with the use of a high critical value are tolerable

At this significance level, the researcher is willing to accept a 20% probability that the null hypothesis could be rejected when it should have been accepted (type I error would occur). This corresponds with the 80% confidence level specified when the correct sample size for the research was calculated (see chapter 3.2.1).

Test statistic: The linear regression t-test will be applied to the data. The following information was required to perform the test for each funding method:

- Standard error of the slope
- The slope of the regression line
- The t-score test statistic
- The P value of the test statistic: The P value was used in conjunction with the significance level or critical value. If the P-Value was less than the significance level of 20%, the null hypothesis was rejected; if the P-Value was higher than the specified significance level the null hypothesis was accepted.

The above mentioned parameters were calculated for all funding sources and mechanisms. The results are summarised in table 4.6.1 below.

Source/Mechanism	Standard Error of Slope	Slope of Regression	t-score test statistic	P Value	Significance Level	Accept /Reject H ₀
Vendor Finance	0.36	0.6	1.67	0.15	20%/0.2	Reject
Third Party Finance	0.34	-0.1	-0.27	0.79	20%/0.2	Accept
Equity	0.55	0.7	1.26	0.25	20%/0.2	Accept
Preference Shares	1.15	-0.4	-0.30	0.78	20%/0.2	Accept

Table 4.6.1: Summary of hypothesis testing parameters for various funding methods

The calculated parameters were used to conclude the hypothesis testing as discussed below.

4.6.2. Discussion of Hypothesis Testing

4.6.2.1. Vendor Finance

The P value was calculated to be 0.15. Thus at 95% confidence level the null hypothesis, which states that there is no correlation between vendor finance and the success of BEE transactions, can be accepted. However, at 80% confidence level, the null hypothesis can be rejected, implying that there is a relationship between the percentage of vendor finance used in BEE transactions and their success. As mentioned above, the objective of this analysis is not to develop a prediction or forecasting model, but to merely test the existence of a correlation. 80% confidence level is considered adequate for this purpose. Although the null hypothesis is rejected, at this level of confidence it cannot be totally rejected due to a lack of sufficient evidence.

4.6.2.2. Third Party Finance

The P value of 79% suggests that the correlation indicated on figure 4.5.4 is mostly coincidental. The Null hypothesis can only be rejected at 21% confidence level. This confidence level is significantly low, even for the purpose of this research. It can thus be concluded that the relationship between the percentage of third party finance in transactions and the success of such transactions is statistically insignificant.

4.6.2.3. Equity Finance

P value of 25% shows that the correlation between the success of BEE transactions and Equity finance can be said to exist with 75% confidence level. At 80% confidence level the null hypothesis is accepted. Based on the available information, the relationship indicated in figure 4.5.6 occurs by chance.

4.6.2.4. Preference Shares

The P value of 78% indicates that a relationship between the percentage of preference share instruments in transactions and the success of such transactions can be said to exist with 22% confidence level, which is low even for the purpose of this research. This low level of confidence is similar to the one calculated for third party finance (21%). The null hypothesis is accepted.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1. DISCUSSIONS

The Native Land Act 27 of 1913 resulted in the automatic exclusion of Historically Disadvantaged South Africans from ownership of minerals or mining rights and thus denied them access to entrepreneurship opportunities within the mining sector. Numerous changes to South Africa's mineral policies between 1913 and 1992 failed to address this unfair exclusion of HDSAs from sharing in the country's mineral wealth, especially in the area of meaningful economic participation.

This changed when the democratic dispensation was introduced. In the early 1990s the ANC began the process of restructuring the country, including effecting changes in mineral policies. Achieved changes were informed by the freedom charter, which states that "the mineral wealth beneath the soil shall be transferred to the ownership of the people as a whole". The process of reforming mineral policies culminated in the promulgation of the Minerals and Petroleum Resources Development Act, Act No. 28 of 2002 (MPRDA) and the Mining Charter in 2002 and 2004 respectively. These documents paved a way for HDSAs to participate in ownership of mining businesses. In particular, the Mining Charter compelled parent mining companies to transfer 26% of ownership to HDSAs by 2014.

BEE activities increased as a result of the formalisation of mining BEE laws (Mining Charter). However, some concluded BEE transactions were unsustainable leading to the 2009 impact assessment by the DMR. Over the various BEE eras, stakeholders speculated on issues that caused transactions to fail. Funding models of BEE transactions were singled out as one of the major contributors. Various researchers conducted research to study funding models, though such research was predominantly qualitative.

In terms of the literature review conducted, vendor financing has been the preferred method of funding BEE transactions in mining. The use of vendor financing increased post 2007, after the amendment of the Companies Act No. 61 OF 1973 and subsequent promulgation of the New Companies Act No. 71 OF 2008. Vendor finance was underlined by most researchers as the sustainable funding model, even though it is costly to parent mining companies.

Prior to the amendment of the Companies Act, third party funding was the predominant funding model. A combination of third party debt and complex SPV funding structures led to the demise of many BEE transactions. SPVs require a bull market and share price appreciation to succeed, whereas third party funding in general failed as a result of unsustainable interest rates. Their weaknesses were exposed by the Asian crisis of 1998 and the 2008 global financial crisis. Such weaknesses prompted changes to the Companies Act as discussed above.

This research sought to establish funding models that have been sustainable since the inception of BEE to 2014. Furthermore, the research aimed at highlighting models that would remain sustainable going forward, particularly in the absence of regulatory pressure. These objectives were fulfilled by quantitatively analysing the frequency of use of various funding sources and mechanisms, quantifying the impact of regulatory and economic changes on the use and success of BEE funding models, establishing the existence of correlation between sources and mechanisms of funding and the success of BEE transactions, testing for statistical significance in the relationships established and elaborating on the impact of established results on the sustainability of BEE transactions.

The research confirmed that vendor finance was the most preferred method of funding BEE transactions, followed by third party funding. From 1992 –

2012 vendor finance and third party finance were used 36% and 29% of the time respectively. Equity funding was used 25% of the time, while preference share instruments had a frequency of use of 10%.

The promulgation of the Mining Charter in 2004 resulted in a sharp increase in the number of BEE transactions concluded. The number of transactions concluded, particularly between 2004 and 2007, was further boosted by a favourable economic climate that was experienced from the early 2000s. The adaptation of the Companies Act to BEE funding requirements enabled parent mining companies to provide vendor finance and facilitation to BEE enterprises. As such, third party funding decreased from 89% of BEE deals' funding by value prior to 2004 to 27% in the 2004 – 2007 period. During the same period, vendor finance increased from 3.2% to 33.4% of the total value of BEE funding. It increased further from 33.4% to 59.5% in the period of 2008 – 2012. Equity funding increased from 0.5% to 31% from the first to the second BEE era.

Contrary to expectations, the sharp increase in the proportion of both vendor and equity finance in BEE transactions funding did not result in a correspondingly sharp increase in the sustainability of BEE transactions. The percentage of successful BEE transactions increased marginally from 70% prior to 2004 to 78% in the 2004 – 2007 period. There was a slight drop to 76.5% from the 2004 – 2007 to the 2008 – 2012 era, while the proportion of vendor and equity finance increased in the same period. A large proportion of third party finance in individual transactions, specifically at proportions of greater than 40%, still resulted in failure of transactions although the value of vendor and equity finance had increased. Based on the above discussion, it can thus be concluded that:

- The promulgation of the mining charter resulted in a steep increase in the number of BEE transactions concluded, but it did not necessarily

translate into a significant improvement in the percentage of successful transactions.

- The amendment and subsequent promulgation of the new companies act caused the proportion of vendor finance in transactions funding to grow significantly; however, this did not result in a correspondingly higher number of successful BEE transactions
- Overall, changes in the regulatory environment caused a spike in the number of BEE transactions and vendor finance and facilitation, but it did not directly influence the sustainability of BEE transactions to a greater extent.

The impact of funding methods on the success of BEE transactions is more prominent in transactions that were financed using structured finance. Within those transactions, the success rate of BEE deals increases with increasing contribution of equity and vendor finance. The impact of equity finance is significant from proportions as low as 20% in the funding structure. This may be caused by higher commitment levels on the part of BEE investors once they have committed equity to the transactions. Vendor finance on the other hand resulted in improvement in the success rate of transactions from a proportion of 60% in the transactions. This finding is consistent with the results shown by Engelbrecht (2007), who indicated that sustainable transactions have come at a higher cost to parent mining companies.

The success rate of transactions decreases with increasing proportion of third party finance and the use of preference share instruments. Both of them were used in conjunction with SPVs that resulted in the failure of BEE transactions in the early days of BEE.

Based on the analysis conducted, an ideal structured financed transaction would have the following proportions of the various funding methods:

- **Third party: Vendor: Equity = 40: 20: 40.** In this funding structure third party finance is chosen at 40%, which is at a level that still shows a positive influence on the success rate of transactions. Beyond 40%, third party finance impacts the success rate of transactions negatively. This ideal level of third party finance would optimise return on equity invested while keeping third party finance at a level that does not make the transaction vulnerable. Equity finance of 40% would be ideal as, at 40% equity finance has a success rate of 100%. The high level of equity finance in the funding structure enhances the sustainability of the transaction. Vendor finance is kept minimal, at 20%, as it does not have a significant influence on the success rate of transactions when it is less than 60% in the funding structure.

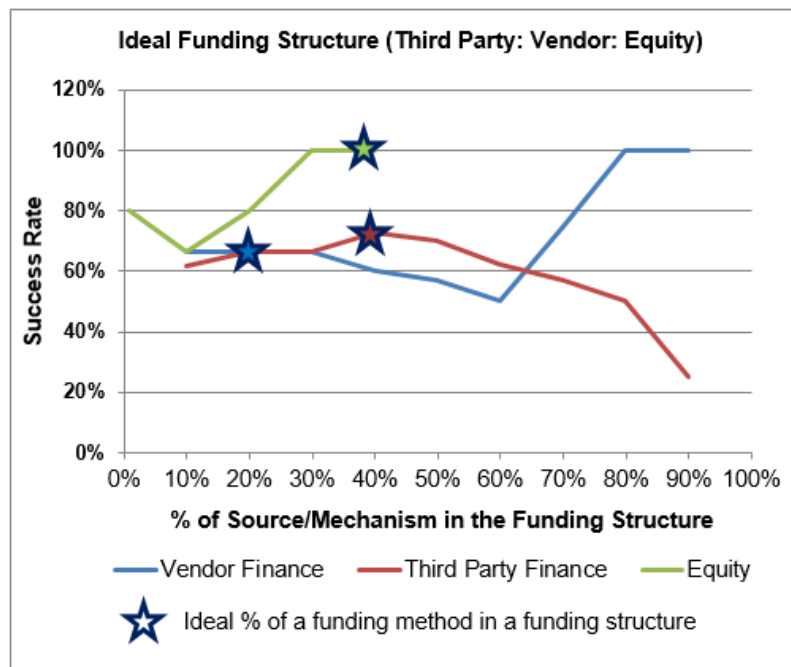


Figure 5.1: Proposed funding structure (a)

Where no equity is available the ideal funding structure would be:

- **Third party: Vendor = <40%: > 60%.** In this funding structure third party finance must be kept below 40%, which is at a level that still

shows a positive influence on the success rate of transactions. Vendor finance should ideally exceed 60%, which is the level at which it has a positive impact on the success rate of transactions.

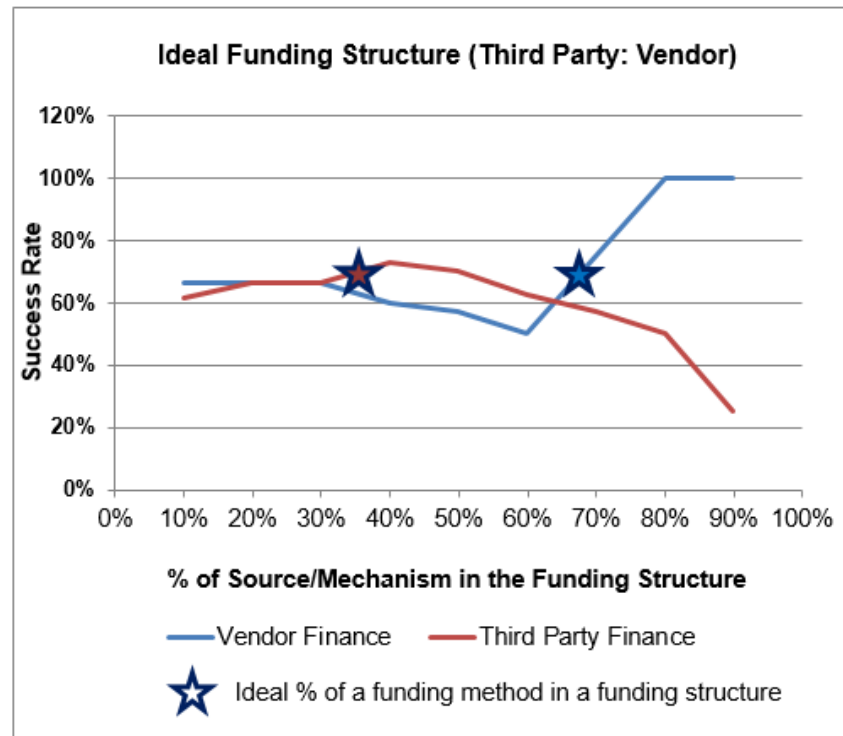


Figure 5.1: Proposed funding structure (b)

It was shown through regression analysis that some correlation exists between the funding method(s) used and the success of BEE transactions. In terms of the established relationships, funding methods can explain, at most, 32% of the successes or failures of BEE transactions. This means that other external factors, which are not the scope of this research, also explain a significant part of the successes or failures of transactions. E.g. failure of BEE transactions that were concluded by JCI in 2004 – with OrlyFunt – happened more as a result of fraudulent trading of shares rather than the funding models that were used to fund the transactions. Some BEE transactions failed as a result of lack of cooperation and commitment among members of BEE consortiums or groups.

Of the correlations established between funding methods and the success of transactions, only the relationship of vendor finance can be said to be statistically significant at a critical value of 20%. Equity finance can be considered reasonably significant at a confidence level of 75%. In the case of third party funding and preference share instruments, the relationships can be considered to be coincidental.

Both vendor finance and equity finance show a positive correlation with the success of BEE transactions. As their percentage increase in the funding structure so does the sustainability of a transactions. Although third party and preference share funding show a negative correlation, it would be incorrect to suggest that transactions would fail if they are used as their relationships were found to be statistically insignificant. Table 5.1 summarises the research findings.

	Frequency of (1994-2012)	Impact of change in legislation	Impact on success rate of transactions	Correlation with success of BEE transactions	Statistical significance of correlation	Sustainability	Remarks
Vendor	36%	Positive	Positive > 60% in funding structure	Positive	Significant	Sustainable, More defined > 60% in transaction	Vendor finance is sustainable, but costly to vendors. Its frequency of use will decrease in a relaxed regulatory environment.
Third Party	29%	Negative	Negative > 40% in funding structure	Negative	Coincidental	Sustainable < 40% in transaction	Third party finance is sustainable, provided that it is kept minimal in the transaction structure & interest rates are low. Its frequency of use will increase if vendor finance dries up.
Equity (Self-funding)	25%	Positive	Positive	Positive	Significant at 75% confidence level. Coincidental > 75% confidence level	Sustainable	Self-funding is sustainable as it encourages BEE investors to be more involved in the acquired business. It increases earnings that flow to BEE investors by minimising interest payments. The risk of default is minimized.
Preference Share Instruments	10%	Positive	Inconclusive	Inconclusive	Coincidental	Inconclusive	There was no sufficient data to obtain conclusive results.

Table 5.1: Summary of research findings

It can thus be concluded that vendor finance will continue to be a sustainable funding method going forward. The concern though is that its application was

brought about by regulatory intervention. In the absence of this regulatory pressure, mining companies may be reluctant to extend vendor funding to HDSAs as the provision of vendor finance would not be linked to mitigation of parent companies' business risk (non-renewal of mining licenses or not being granted a license at all). This will impact the sustainability of transactions negatively. It is crucial that HDSA entrepreneurs grow their capital pool as equity funding will make transactions sustainable even in difficult economic climates. The use of third party funding must ideally be kept below 40% in transaction structures.

It is also evident that the sample size used in the analysis (50 transactions) doesn't provide adequate information to draw conclusions with a high level of confidence. 50 transactions only give 85% confidence level. This was highlighted in chapter 3, and mention was made that the parameters chosen in the calculation of the sample size mean that one would be 80% sure that the results of the analysis are correct $\pm 10\%$ (confidence interval). While this is adequate for this research, further benefit could be derived from a study conducted using a larger sample size.

5.2. RECOMMENDATIONS

Based on the research conducted and while BEE laws are in place, the recommended funding models are:

- Third party: Vendor: Equity = 40%: 20%: 40%, in the case of a BEE company that has equity available and
- Third party: Vendor = <40%: > 60%, where no equity is available to BEE entrepreneurs

In the absence of BEE laws prior to 2004, third party finance was the dominant method of financing BEE transactions (see chapter 4.2 and 4.3); therefore, it can be expected that third party finance will again dominate the funding of transactions in a relaxed regulatory environment. Thus in the absence of BEE laws third party finance must be provided at loan terms that are less onerous to HDSA investors. This can be achieved by:

- Ensuring that government funding institutions have greater capacity to provide affordable funding to a broader pool of entrepreneurs.
- Extending a favourable tax regime to new BEE companies within the first few years of their establishment to boost their cash flow and ability to service debt.
- Creating an environment that encourages parent mining companies to provide vendor facilitation in a form of guarantees as this will moderate risk and result in the provision of funding with favourable terms to HDSA investors.
- Structuring third party funded BEE deals in ways that rely less on dividend payment and more on cash flow generated by assets to service debt.

Unavailability of information has been a notable disadvantage in this research. This has resulted in the study being concluded at a confidence level of 80%. Also, the trends observed in the research could be clearer with the availability and use of a larger sample size. A sample size of 184 transactions will result in a confidence level of 95% at a 5% margin of error.

The nonexistence of statistical significance in the correlation of the percentage of successful transactions and the use of third party and preference share instruments could be partially attributed to lack of information. It is the opinion of the author of this report that a sample size suggested above would show statistically significant correlations for third party finance and preference share instruments. Thus a similar quantitative study could be conducted using a larger sample. In order for the sample size to be increased the DMR, individual mining enterprises and the COM must assist the researchers with information.

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APPENDIXES

Appendix 1: BEE Transactions that were considered in the Study

Appendix 1: BEE transactions that were considered in the study				
Parent Company	BEE Company	Asset Sold/acquired	Transaction Year	
1 BHP Billiton	Eyesizwe Coal	Maita & Gika Colliery	2000	
2 Anglo Coal	Eyesizwe Coal	New Cydenstone & Amdor	1999	
3 BHP Billiton/Anglo Coal	Kuyasa Mining	Chirima	2002	
4 AngloGold Ashanti	ARM	6 Shafts in Orlow, 6 shafts and a plant in Welkom	1998	
5 AngloGold Ashanti	ARMGold and Harmony	Shaft 2 in Orlow, Bambanani, Jael, Mafabeng and Tshepo	2001	
6 Anglo Platinum	Antler and various communities	Modikwa Platinum Project 50:50 JV (50% of Modikwa project)	2001	
7 Anglo Platinum	Royal Bafokeng Residents	Robeking Reservoir Platinum Mine	2002	
8 Anglo Platinum/Lorditas	Mela, Bapo ba Mogale	JV Pandora Joint Venture	2002	
9 Anglo American/Northern	Melagrande	22.5% of Northern platinum	2000	
10 Aquarius Platinum	Savannah Resources Consortium	25.5% of Aquarius Platinum South Africa	2003	
11 Trans Hex limited	Mela Holdings	3.8% of shareholding in Trans Hex limited	2001	
12 Trans Hex limited	Mela Holdings	Forward purchase of 5 million Trans Hex shares	2002	
13 DRD Gold	Khomo Bathong Holdings	50% in DRD Gold's Crown Gold Recoveries	2002	
14 DRD Gold	Khomo Bathong Holdings	3% equity stake in DRD	2002	
15 Capricorn	Antler	20% in Spooking platinum project	2005	
16 Meral Resources, SA Chrome	Royal Bafokeng nation	25.4% of Meral resources, formerly known as SA chrome	1999	
17 Ingwe Colliery/BHP Billiton	Kuyasa Mining	Khwezi Colliery	1995	
18 Ingwe Colliery/BHP Billiton	Endaweni Resources		2002	
19 Anglo Coal	Lennox Mining and Exploration	Kwenzu-Natal coal reserves, an estimated 104-million saleable tons	2002	
20 Aurux/ARM	Sinela mining limited	20% of Iscor	2001	
21 Perini	Dark Capital (Pty) Ltd		2004	
22 Petra Diamonds	Sediberg Mining (Pty) Ltd	20% of Sediberg mine	2004	
23 Handgill & Exploration (RAE)	Equitant		2003	
24 Handgill & Exploration (RAE)	Handgill	11.7 million shares in Western Areas accounting for the bulk of Anglo American's 18% stake	2004	
25 Handgill & Exploration (RAE)	Marshall Resources	20% stake in Mimico	2003	
26 Handgill & Exploration (RAE)	Philadelp Mining	17% interest in rand gold and exploration	2003	
27 AngloGold Mining Limited (Aurim)	AngloGold Mining Limited (Aurim)	17.25% stake in AngloGold Mining Limited (Aurim)	2003	
28 AngloGold Mining Limited (Aurim)	African Rainbow Minerals Gold limited	17.25% stake in AngloGold Mining Limited (Aurim)	2003	
29 Great Basin gold	Tranter Mining		2002	
30 AngloGold Ashanti	Antler	Pragad and Jael in a 50:50 JV	2002	
31 DRD Gold	Crown Gold Recoveries JV (60% Khomo Bathong/40% DRD)	East Rand Proprietary mines	2002	
32 Anglo Platinum	ARM Mining	Participation in Modikwa project	2001	
33 BHP Billiton	Endaweni Mining	Endaweni Anthracite Colliery (14%) and 26% by BEE consortium	2005	
34 BHP Billiton	Siyanda Resources & AKA Resource Holdings	Akcofontein Mine	2007	
35 BHP Billiton/Samancor Manganese	Ntshondro Mining	9% in Hotazel Manganese Mines	2007	
36 AngloGold Ashanti	Equinox Holdings	1.5% of AngloGold Ashanti	2006	
37 Anglo American	Equinox	52.1% of Equinox	2006	
38 Anglo Coal	Equity Consortium	27% of Anglo Inyolet Coal	2007	
39 AEL	Trust Consortium, Later Merged with Kagiso Trust to become K114	21.1% of AEL	2004	
40 Mela	Kagiso Platinum Ventures	4% Platinum partnership	2005	
41 Anglo Platinum	Siyanda Chroma Investments	Chromite recovery plant	2006	
42 Anglo Platinum	Sibonisi Ba Kgafela	Union Mine, Magaladibosho, Roodoland projects	2006	
43 Anglo Platinum	Melagrande	22.5% of Northern platinum + 50% interest in Bioyondal project	2007	
44 Anglo Platinum	Nqazana Consortium	Disposal in October 2005 of the rights on the property Elandskroon 4403Q	2005	
45 Impala Platinum	Royal Bafokeng Nation	13.4% of Impala Platinum	2007	
46 Impala Platinum	Cubana platinum	7.5% of manula mine	2006	
47 Impala Platinum	Manula Platinum Trust	7.5% of manula mine	2006	
48 Impala Platinum	Mogosi Mining	20% in Leascope project	2006	
49 African Platinum (Aplats)/Impala Platinum	Balwena ba Mogosi community trust	10% shareholding in western platinum and eastern platinum (18% of borplats)	2004	
50 Impala Platinum & Lennox	Ikwalala	20% of Kumba Iron Ore	2006	
51 Anglo American (PLC)	Mela Gold, Subsidiary of Mela Resources	10% of GFI South Africa	2004	
52 Gold Fields	Merger of Kumba Resources and Eyesizwe	Eyesizwe Coal	2006	
53 Exxaro	ARM and Atrita	51% of ARM coal	2005	
54 LMA and Atrita	Manga Investment Holdings	44% of Rustenburg Minerals Development Company	2004	
55 Assore limited	Manga Investment Holdings	20% in Dominion Uranium project & Bonanza gold project	2005	
56 Uranium One	Manga Investment Holdings	2.2% of shareholding in Trans Hex limited	2004	
57 Trans Hex limited	Mela Holdings	10% of Mela Holdings	2006	
58 Melagrande Resources	Atlatlan Resources	10% of Melagrande Resources & 31% of its voting rights	2007	
59 DRD Gold	Khomo Bathong Holdings	2% of DRD	2005	
60 DRD Gold	Khomo Bathong Holdings	2% of DRD	2005	
61 Bapfats, later bought by Escoplast	Cubana Consortium	20% of Bapfats, which was later acquired by Escoplast	2005	
62 Escoplast	Union Head Platinum	50.50 JV in Mafabeng platinum project	2004	
63 Eastern Platinum Ltd	Mogosi Mining	Share holding increased to 19% of Bayston	2006	
64 Platinum	BEE parties	5.8% of Bayston	2007	
65 Great Basin Gold	Deben Group	20% of Great Basin Gold, the Burnstone project	2007	
66 WESCOL	Waterford Portion Property Investments	31.36% of WESCOL	2007	
67 Kocim & Averg	Afrim	85% of Afrim	2007	
68 Heine	Kuyasa Resources, Mmakau Mining and Kgare Resources	10% stake in the company	2007	
69 Astoria Alloys	Balwena ba Mogosi traditional community	26 percent stake in its Rhovan vanadium business	2007	
70 Albas	Balwena Ba Mogosi community	Partnership on Leascope project	2006	
71 Albas Gold	Albas Based Consortium (mainly workers and communities)	20% of its gold assets	2006	
72 Metorex	Shanduka Coal	Wakefield coal operations	2006	
73 Sasol	Thwamane	20% shareholding in Sasol's South African liquid fuels business	2006	
74 New Platinum	Blue Nightingale	30% interest in its South African subsidiary	2006	
75 Samancor Chrome	Batho Barena Consortium	20% of Kemas South Africa	2006	
76 De Beers	Ponahato Holdings	20% of De Beers South Africa	2006	
77 Samancor Manganese	Siyanda-Harwell Resources	50.11% of the Denso-Meda Ferroalloy Business, Debeers 30% and NEF 20%	2006	
78 Sasol Ltd (SOL Mining)	Eyesizwe Coal	30% of Igoda Coal	2006	
79 JCI	OnlyFurt	Portfolio of Black Economic Empowerment ("BEE") joint ventures and various mineral rights	2004	
80 First Gold	OnlyFurt	74% share in Mimico Limited, 55.1% share capital of Free State Development and Investment Corporation	2004	
81 PPC	Nicola	50% stake in Atlatlan	2004	
82 AHC/Ore	Springlake Holding	South African Coal Assets of AHC/Ore	2005	
83 Assore limited	Shanduka Resources (31.8%)	11.8 % interest in Assore	2005	
84 Assore limited	Bokamoso Trust (3.26%)	3.26 % interest in Assore	2005	
85 Sishen Iron Ore	Sishen Iron Ore Community Trust	3% ordinary shares in the Sishen Iron Ore Company (SIOC)	2006	
86 BHP Billiton	Cyanum Coal Holdings	Cyanum Colliery	2003	
87 BHP Billiton/Richards Bay Minerals	Blue Horizon Investments & ESCOPS	24% in Richards Bay Minerals, 2% by employees	2009	
88 Anglo Platinum	Amorog	51% of Letsova Holdings	2009	
89 Anglo Platinum	Amorog	Anglo Platinum's entire 37% stake in the Western Bushveld Joint Venture	2008	
90 Lennox Platinum	Shanduka	50.03% interest in Ikwalala	2010	
91 BHP Energy Coal South Africa	Optimum Coal South Africa, was acquired by Glencor	Optimum Collieries and 9.5% of Richards Bay Coal terminal	2008	
92 Senela Mining/Siyanda Coal	Optimum Coal South Africa, was acquired by Glencor	13.2% of the Kribonbrenen mines	2008	
93 Senela Mining/Siyanda Coal	Optimum Coal South Africa, was acquired by Glencor	21.8% of the Kribonbrenen mines	2009	
94 Senela Mining/Siyanda Coal	Optimum Coal South Africa, was acquired by Glencor	49.9% of the Kribonbrenen mines	2010	
95 Coal of Africa Limited (CoAL)	Equity Investments	50 mil CoAL options representing 10.85% of company shares	2005	
96 Platinum	Mogosi Platinum (Pty) Limited	10% of shares in Vengorog mining company	2006	
97 Metorex	Medu Capital	12% of shares in Vengorog mining company	2009	
98 PPC	Strategic Black Partners (1.75%) and Sabal Investment Trust (0.325%)	2.08 (1.75%+0.325%) of PPC	2012	
99 Coal of Africa Limited (CoAL)	Rotho Investment Proprietary Limited ("Rotho")	20% stake in Keynote Trading & Investment 108 Proprietary Limited ("Keynote"), now called Mbevu/ashu	2012	
100 Continental Coal Limited (South Africa)	Makau Investments (Pty) Limited	20% interest in Continental Coal Limited	2008	
101 Continental Coal Limited (South Africa)	Sishen Iron Ore Company Community Trust (SIOC)	20% interest in Continental Coal Limited	2011	
102 Galaxy Gold Mining Limited (Galaxy Gold)	Some Mphahlela DAMES & Bataung Gold	17.8% of Galaxy Gold Reels (Pty) limited	2011	
103 Assore limited	Bokamoso Trust	10.81% of Assore limited	2009	
104 DC and Fokker	Merim Consortium	11% of Fokker	2009	
105 DC and Fokker	2 SPVs (Staff and Communities)	11% of Fokker	2009	
106 Palabora Mining Company	BEE/Co	20% of Palabora Copper (Proprietary) Limited ("PC")	2010	
107 Handgill Silver & Vanadium	Amorog/Wellness	23% interest in the Napocis mine	2009	
108 Perini	Dark Capital (Pty) Ltd		2004	
109 Gold Fields	Invictus and South Deep Community Trust	10% holding in South Deep	2010	
110 PPC	Phu (1.52%), Nicola (1.82%), Portland Consortium (1.82%) and Capital Edge (1.51%)	7.07 of PPC	2008	
111 Wesizwe	Micamber	6% of Wesizwe	2011	
112 Petra Diamonds	BEE Groupings	20% of Finch mine	2011	
113 De Beers	Petra Diamonds/Cullinan Consortium (PDCC)	Cullinan Mine and Cullinarav-Cul (C-Cul) project	2008	
114 Petra Diamonds/Cullinan Consortium	Thembekoni Mining Investments (14%), employee share trust (22%)	20% of cullinan mine	2008	
115 Sasol	Consortium of Black Investors	20% in its mining subsidiary	2010	
116 Etha Uranium	Consortium of Black Investors	20% of Etha Uranium	2010	
117 ROCKWELL Diamonds	African Vanguard Resources (AVR)	20% of HC Van Wyk Diamond Group ("VWDOG") and Savendrift Mine (Pty) Ltd	2008	

Legend
Adequate information available
Information is available in
No information on funding source or structure

Appendix 2: 1994 - 2003 Data

Parent Company	BEE Company	Asset Sold/Acquired	Transaction Value (m)	Funding Model (Rm)				Transaction Year	Sustainability	Remark	
				Vendor	Third Party Loan	Equity (Self)	Preference shares				
Successful Yes/no											
1	AngloGold Ashanti	ARM	6 Shafts in Orkney, 6 shafts and a plant in Welkom	66	66	0	0	0	1998	Yes	ARM paid R7mil for the Free State Assets, the balance of the R28mil was waived by AngloGold. No details on the funding, but indications that Banks refused to fund the Transaction and the CEO of AngloGold (Bobby Godsell) helped. This could be classified as some form of vendor facilitation. Also, part of the transaction involved a tribute agreement over the longer life No 2 shaft in terms of which ARM would mine No 2 shaft, with 60% revenue, net of costs and capital expenditure, accruing to AngloGold
2	Anglo American/Norham	Mvelaphanda	22.5% of Norham platinum	459	0	459	0	0	2000	Yes	Obtained 17.5% shares from Anglo @ a discount of R408mil. Standard corporate and Merchant bank provided the financing for the transaction
3	Aquarius Platinum	Savannah Resources Consortium (Savannah Platinum, Chuma Platinum and Malibongwe Platinum)	29.5% of Aquarius Platinum South Africa	860	0	845	15	0	2003	No	SavCon, whose members are Savannah Platinum, Chuma Platinum, Malibongwe Platinum and the Savannah Resources Community Trust, made a R15-million equity contribution towards funding the deal. The consortium secured a further R400-million from the Industrial Development Corporation, R245-million from the Development Bank of Southern Africa and R200-million from the Public Investment Commissioners (PIC). Shareholding was reported to have dropped to 9% in 2012. Shares were sold to service debt obligations and to pay tax. Aquarius (2013 AR) had to intervene to prevent further loss of shares
4	DRD Gold	Khumo Bathong Holdings	60% in DRD Gold's Crown Gold Recoveries	105.5	0	105.5	0	0	2002	Yes	The Industrial Development Corporation (IDC) has agreed to provide KBH with the required funding. Debt was restructured in 2005 to a vendor finance to give Khumo Bathong Holdings additional shares in DRDgold.
5	DRD Gold	Khumo Bathong Holdings	3% equity stake in DRD	68.04	0	68.04	0	0	2002	Yes	In respect of the equity stake in DRD, DRD will issue to KBH 4 794 889 new DRD ordinary shares at R14.19 per share. This represents a 10% discount to the 30-day trade weighted average price per DRD share on the JSE at the close of trade on 18 January. The Industrial Development Corporation (IDC) has agreed to provide KBH with the required funding. Debt was restructured in 2005 to a vendor finance to give Khumo Bathong Holdings additional shares in DRDgold.
6	Ingwe Colliery/BHP Billiton	Kuyasa Mining	Ikhwezi Colliery	326.4	0	326	0	0	1995	Yes	Funding obtained from Commonwealth Development Corporation, debt was repaid within a year. The first contract was an enabling arrangement which provided for limited bridging funding and technical assistance including managerial input, geological assistance, mining layout plans and environmental management capacity. Ingwe financed the Environmental Management Programme Report and the purchase of the farmstead on which the present operation is situated on behalf of Kuyasa, with a per tonne mined payback arrangement. The right to exploit the minerals on the Ikhwezi lease would remain vested in Ingwe; however, Kuyasa were required to pay a royalty to Ingwe for their use. However the Kuyasa team went ahead with plans for development and production expecting that finance would eventually materialize. Negotiations with contractor Basil Read led to an arrangement whereby the contractor agreed to begin work and await payment until the first coal was produced and sold. Though there was funding provided by the CDC, there was significant vendor facilitation. The value of the deal was not disclosed so it was estimated using the value of BHP and also deal in 2000 by multiplying the deal value (R48 mil) by the 2000 exchange rate of 6.8
7	Anglo Coal	Leeuw Mining and Exploration	Kwazulu-Natal coal reserves, comprising an estimated 104-million saleable tons	Value of assets not disclosed					2002	No	Was in financial distress after the anthracite market collapsed due to the financial crisis in 2009. Was rescued and acquired by Keaton Energy Holdings Limited in 2012. Funding included preference share funding by Anglo Khula & IDC and Loans by Nedbank and IDC (page 9).
8	Randgold & Exploration (R&E)	Phikoloso Mining	17% interest in rand gold and exploration	268	34	0	0	234	2003	No, the assessments found that the gold pro quo for R&E issuing R260 million worth of shares into the Phikoloso deal were valuable shareholdings commensurate with the	Randgold & Exploration is to issue 8.8 million new ordinary shares, valued at some R268 million, to Phikoloso Mining which in return will transfer its mining-related assets to Randgold & Exploration. Among the assets Randgold & Exploration will acquire through this process are holdings in Anglo Platinum, Harmony Gold and Afrimex Lease, as well as a participation in Kabusha Mining and Finance, which owns 23 million shares in Afrimex Lease. Based on the market price of the respective companies on the last trading date, such holdings have an aggregate market value of R235 million. Based on the aggregate market value of the portfolio of R235 million and the purchase consideration of R268 million illustrated above, goodwill of R34 million would have arisen on the transaction.34 (Goodwill, donation) and 235 (through swap of assets)
9	Anglovaal Mining Limited (Avmin)	Harmony	17.25% stake in Anglovaal Mining Limited (Avmin)	843.5	0	850	0	0	2003	Yes	Based on R43.50 per share, the transaction was valued at R1 687 million and was paid for in cash. On 8 May 2003, Harmony Gold entered into a term loan agreement with Nedbank Limited for R850 million. The purpose of this term loan agreement was to fund the acquisition of 17.25% of Anglovaal Mining Limited.
10		Crown Gold Recoveries JV (60% Khumo Bathong/40% DRD)	East Rand Proprietary mines	90	0	90	0	0	2002	Yes	The Crown JV (60% Khumo Bathong/40% DRD) is in negotiation with the Industrial Development Corporation on loan finance for the purchase. The initial transaction was restructured in 2006, resulting in KBH owning 15% in DRDGold SA, in 2007 Khumo Batho had 26% shares in Crown gold while DRD had 74%. Re-structuring of the transaction was vendor financed.

Appendix 3: 2004-2007 Data

Parent Company	BEE Company	Asset Sold/Acquired	Funding Model (Rm)				Transaction Year	Sustainability Successful Yes/no	Remark
			Vendor	Third Party Loan	Equity (net)	Shares			
1 AngloGold Ashanti	Izingwe Holdings	15% of AngloGold Ashanti	0	0	0	0.35	2006	Yes	The transaction was re-structured in a similar manner to the loan shares issued in terms of the Bokamoso ESOP. 48532 shares were sold in 2006 for a value of R14m. Transaction was re-structured in 2011 as AGA board realised that limited value would accrue to BEE shareholders when the shares vested. As the transaction was restructured, the initial transaction could be classified as unsustainable. Izingwe Holdings will acquire approximately 1,400,000 AngloGold Ashanti loan shares (BEE share) of approximately R60.56 million.
2 Anglo American	Exxaro	52.1% of Exxaro	2800	4200	1400	0	2006	Yes	
3 Anglo Coal	Inyosi Consortium	27% of Anglo Inyosi Coal (Kriel Colliery and the four projects – Elders, Zondagsfontein, New Largo and Heidelberg)	6968	0	25	0	2007	Yes	R6.9 billion Vendor finance was provided @2% interest by Anglo American. Anglo Coal provided vendor finance of R68 million.
4 AEL	Tiso Consortium, Later Merged with Kagiso Trust to become KTH	26.1% of AEL	0	376	25.1	0	2004	Yes	Vendor underwrote R200m of the loan and extended interest free loan to Community Development Trust (CDT)
5 Anglo Platinum	Mvelaphanda	22.5% of Northern platinum + 50% interest in Booyendal project	0	0	1500	2500	2007	Yes	The 50% interest in Booyendal was later converted to Northern shares, hence 63% Mvela in Northern. Mvelaphanda sold shares in Northern in order to satisfy JSE listing requirements. R2.25b from sale of shares to ENRHC was used to pay off all debt. Mvela was acquired by Northern in order to resolve the pyramid structure.
6 Impala Platinum	Royal Bafokeng Nation	13.4% of Impala Platinum	0	0	10600	0	2007	Yes	RBN used the R19.6 bn royalty settlement to acquire shares in Impala Platinum
7 Impala Platinum	Tubatse platinum	7.5% of manula mine	0	158	0	0	2006	Yes	Implats will provide a full guarantee for the Marula Community Trust debt and will also guarantee Tubatse Platinum's debt until December 2014. Tubatse Platinum and Marula Community Trust together with Implats, which will fully guarantee the R316m up to end-2014, are in talks with two financial institutions to raise the debt. Vendor facilitation through loan guarantees
8 Impala Platinum	Marula Platinum Trust	7.5% of manula mine	0	158	0	0	2006	Yes	Implats will provide a full guarantee for the Marula Community Trust debt and will also guarantee Tubatse Platinum's debt until December 2014. Tubatse Platinum and Marula Community Trust together with Implats, which will fully guarantee the R316m up to end-2014, are in talks with two financial institutions to raise the debt. Vendor facilitation through loan guarantees
9 Impala Platinum & Lonmin	Incwala	18% shareholding in western platinum and eastern platinum (18% of lonplats)	1614.37908	1,224	0	1,062	2004	No	Impala provided vendor finance of R618m, which was partly secured by Lonmin; transaction failed due to poor platinum price in the 2008/2009 financial crisis. Lonmin bailed out Incwala by extending a R304m loan for shanduka to buy Previous BEE shareholders.
10 Gold Fields	Mvela Gold, Subsidiary of Mvela Resources	15% of GFI South Africa	450	3689	0	0	2004	Yes	11m Gold Fields shares sold at a profit in 2009 to repay the loan, leaving Mvela with additional R1.3 blt to invest in Northern. Sustainability of Transaction due to high share price.
11 ARM and Xstrata	ARM	51% of ARM coal	385.56	0	400	0	2006	Yes	Xstrata is providing all the finance for the joint venture and Goedgevoonden. We're going to use that money to buy 20% of the operations that are currently there - but there's also another loan coming in from Xstrata for another R756 million (\$122.3 million). With that we then buy 51% of Goedgevoonden which then forms ARM Coal being the current operations and the new mine.
12 DRD Gold	Khumo Bathong Holdings	15% of DRD	36	0	0	0	2005	Yes	Proprietary Mines Limited (EPML) for 15% of DRD GOLD's wholly owned Sytyronitzich Gold Mining Company Limited. The effect would be the ownership by KGH of 15% of all of DRD GOLD's South African operations. DRD GOLD intends to facilitate the BEE transaction through vendor financing. The transaction has been vendor financed by the conversion of an existing loan to KGH
13 DRD Gold	Khumo Bathong Holdings	9% of DRD	4.3	0	0	0	2006	Yes	DRD GOLD will vendor finance the transaction on condition that the terms of the vendor finance are determined by independent experts Ernst and Young to be
14 WESCOAL	Waterberg Portion Property Investments	31.36% of WESCOAL	0	0	35.5	0	2007	Yes	"First and foremost, the BEE partners funded their own stake.", Sipho Ncofo (money web), The issue price represents a premium of 26.2%
15 Sasol	Tshwarisoano	25% shareholding in Sasol's South African liquid-fuels business	0	1292	158	0	2006	Yes	Debt to purchasing consideration transaction and support for transaction's financing requirements, which amount to about R1.1 billion; Standard Bank is the sole provider of domestic funding of just under R1.3 billion, which has allowed the flexibility to provide a highly customised solution. Ordinary shareholders injected R310 million in equity and the remaining R1.146 million was externally funded through
16 Samancor Chrome (Kermas South Africa/Kermas-Ehlobo)	Batho Barana Consortium (Samancor's employees (8.6%), Sibilo Investments (6.2%), comprising local communities, and Nankia Investments (4.2%), which consisted of women in mining)	28% of Kermas South Africa	1950	0	0	0	2006	No	Ironically, in a letter dated June 12, Kermas SA notified the shareholders in the consortium that the empowerment transaction had been cancelled and that the shares would be "re-allocated". Transaction was cancelled due to disputes. Kermas indicated that shares would be re-allocated
17 Samancor Manganese	Siyanika-Inkwali Resources	50.1% of the Dense-Media Ferroillicon Business, Debeers 30% and NEF 20%	35	225	40	15	2006	Yes	Siyanika-Inkwali Resources brought the dense-media ferroillicon business in association with diamond miner De Beers and the National Empowerment Fund Trust (NEFT), which is a division of the Department of Trade and Industry.
18 Sasol Ltd (SOL) (Mining)	Eyesizwe Coal	35% of Igoda Coal	0	465	25	0	2006	No	Eyesizwe Coal, which will provide R25-million in equity, will own 35% of the empowerment venture, while Sasol Mining holds the remaining 65% and will provide R46-million in equity. The balance will be provided in the form of loans. Vendor facilitation was provided by Sasol. Exxaro quite the deal in 2009 citing tough market conditions.
19 JCI	OrlyFunt	portfolio of Black Economic Empowerment ("BEE") joint venture investments and various mineral rights (includes non-mining assets)	908.6	0	0	490.4	2004	No	OrlyFunt will owe JCI R909.6 million on loan account, which loan account will be secured by a pledge of the JCI assets, will be interest free and will be repayable within three years from the future cash flows or proceeds of the disposal of the JCI assets. Components of the transaction did not materialise. Deal failed due to its original structure and had to be restructured.
20 Rand Gold	OrlyFunt	74% interest in the share capital of Mnrivco Limited and 55.1% interest in the share capital of Free State Development and Investment Corporation and various other mineral right interests (includes non-mining assets)	94.1	0	50.8	0	2004	No	In exchange for an entitlement to 8.4% of the issued ordinary share capital of OrlyFunt, in addition, OrlyFunt will owe Randgold R94.1 million on loan account, which loan account will be secured by a pledge of the Randgold assets, will be interest free and will be repayable within three years from the realisation of value from the Randgold assets. Components of the transaction did not materialise. Deal failed due to its original structure and had to be restructured.
21 AfrOre	Springlake Holding (NAMF) and consortium of BEE parties Umsobomvu and Motjop Resources and management)	South African Coal Assets of AfrOre (Springlake Colliery, the Somkeke exploration tenements and Baobab exploration project in the Limpopo province)	28	0	38	0	2005	Yes	The balance of the purchase consideration of R24-million is financed by way of a vendor loan, which will soon be replaced by a draw-down facility from the Industrial Development Corporation (IDC). The BEE parties are also expected to contribute R4-million in cash towards the total purchase price. Potemkin acquired 100% of Springlake Holdings for R108m in 2005.
22 Assore limited	Shanduka Resources (11.8%)	11.8 % interest in Assore	0	279.89	0	0	2005	Yes	Standard Bank will provide preference share funding in both the Shanduka transaction and the Community transaction in order to allow Shanduka BEECo and Community BEECo to acquire the Assore shares. Shanduka group looks to have made a profit off up R2.3m on the disposal of its 11.8% black economic empowerment (BEE) stake in iron ore and base metals group Assore. Profit made as a result of soaring share price due to Commodity price boom
23 Assore limited	Bokamoso Trust (3.26%)	3.26 % interest in Assore	25	52.67	0	0	2005	Yes	Standard Bank will provide preference share funding in both the Shanduka transaction and the Community transaction in order to allow Shanduka BEECo and Community BEECo to acquire the Assore shares. Assore has provided a further R25 million vendor financing to the Community Trust to purchase the 3.26% equity interest in Assore.

Appendix 4: 2008-2012 Data

Parent Company	BEE Company	Asset Sold/acquired	Transaction Value (mil)	Funding Model (Rmil)					Transaction on Year	Sustainability Successful Yes/no	Remark
				Vendor	Third Party	Equity (self)	Shares	Structure used			
1 Anglo Platinum	Anoorag	51% of Lebowa Holdco (Boikgantsho, Kwanda, Ga-Phasha and Lebowa Platinum mines), changed to Bokoni platinum mine in 2009	R2600	0	300	0	2300		2009	No	According to the Anglo Platinum website, in 2012 Anglo Platinum and Aletsa agreed in principle to the restructuring recapitalisation and refinancing of the transaction. Initiatives would be needed to 'optimise' Aletsa's finances. Ownership structure still the same though.
2 Anglo Platinum	Wesizwe	Anglo Platinum Limited's entire 37% stake in the Western Bushveld Joint Venture (WBJV), (100% of Bakubung and 26% of Maseve 1 and 3)	R1162	0	0	0	1162		2008	Yes	Wesizwe will pay Anglo Platinum an amount of R1.162 billion in the form of 211,850,125 new shares in Wesizwe.
3 Lonmin Platinum	Shanduka	50.03% interest in Incwala	R2800	2500	0	300	0		2010	Yes	R2.5bn in a five-year vendor loan finance package was obtained from Lonmin
4 Coal of Africa Limited (CoAL)	Rothe Investment Proprietary Limited ("Rothe")	26% stake in Keynote Trading & Investment 108 Proprietary Limited ("Keynote"), now called MbeuYashu	0.26% of \$75mil = 19.5	19.5	0	0	0		2012	Yes	BEE ownership structure for Chapudi Project Coal of Africa Limited. CoAL bears the funding risk for the acquisition of the Chapudi Coal Project from the Vendors for US\$75 million and the initial costs up to bankable feasibility study on the Chapudi Coal Project.
5 Continental Coal Limited (South Africa)	Masawu Investments (Pty) Limited	26% Interest in Continental Coal Limited	R215	215	0	0	0		2008	No	26% interest was acquired by Sishen Iron Ore Community trust in 2011. It (SIOC) will assume the ZAR215 million intercompany loan that has accrued between CCL and Masawu since October 2008
6 Assore limited	Bokamoso Trust	10.81% of Assore limited	R2100	2100	0	0	0	Preference shares	2009	Yes	The deal, which was facilitated through Assore vendor finance, involved the Bokamoso Trust, whose beneficiaries included the communities in and around Assore's operations. The transaction, which was still subject to the fulfilment of various conditions, would be facilitated through preference share funding, as well as a portion of interest-free funding, without any recourse to third-party finance.
7 IDC and Foskor	Manyoro Consortium	15% of Foskor	R9500x15% = R1425	1425	0	0	0		2009	Yes	To ensure that all interested parties from all parts of South Africa were able to participate, the IDC ran a competitive bidding process and has provided a fully vendor-financed funding package for all parties.
8 IDC and Foskor	2 SPVs (Staff and Communities)	11% of Foskor	R9500x11% = 1045	1045	0	0	0		2009	Yes	To ensure that all interested parties from all parts of South Africa were able to participate, the IDC ran a competitive bidding process and has provided a fully vendor-financed funding package for all parties.
9 Highveld Steel & Vanadium	Umntho weSizwe	23% interest in the Mapochs mine	R540*(23/26) = R478	463	0	15	0	Dividends used to repay	2009	Yes	Umntho is making a R15m upfront cash payment; the balance owed to Highveld will be paid through dividends it receives from Highveld shares owned by Umntho.
10 Gold Fields	Invictus and South Deep Community Trust	10% holding in South Deep	R825	825	0	0	0		2010	Yes	BEE Co issued Gold Fields shares at almost 99.5% discount
11 PPC	Peu (1.82%), Nozala (1.82%), Portland Consortium (1.82%) and Capital Edge (1.51%).	7.07 of PPC	R1250	0	1184.6	65.4	0		2008	No	Transaction funded by a credit sale structure underwritten by Standard Bank of South Africa. PPC CEO Ketso Gordhan said last month the existing deal was "under water and badly structured", and was costly to the company. Transaction was re-structured, involving the re-classification of debt to equity
12 Petra Diamonds	Petra Diamonds Employee Trust 5% and Senakha Diamonds Investments (Pty) Ltd 21% (Sedibeng Mining (Pty) Ltd 17%, Lexshell 844 Investments (Pty) Ltd 2%, Namoiise Mining (Pty) Ltd 2%)	26% of Finch mine	R 370.50	370.5	0	0	0		2011	Yes	Petra will loan BEE partners their 26% of the consideration for Finisch (R370.5m), with interest at commercial rates. The Loan will be repaid from cashflow from the mine.
13 De Beers	Petra Diamonds Cullinan Consortium ("PDCC"), Whose empowerment partner is Thembinkosi Mining Investments (14%), employee share trust (12%), Other Shareholders: Petra (37%), Al Rajhi Holdings (73%).	Cullinan Mine and Centenary-Cut (C-Cut) project	R1000	0	543	457	0	SPV	2008	Yes (re-check)	
14 Petra Diamonds Cullinan Consortium ("PDCC")	Thembinkosi Mining Investments (14%), employee share trust (12%)	26% of cullinan mine	26% of R1400 = R340	340	0	0	0	SPV	2008	Yes	The PDCC BEE partners' 26% interest in Cullinan has been funded by Petra/Al Rajhi. The BEE partners' share of the Cullinan funding is to be repaid from the BEE share of future cash flows from the mine, after servicing interest at appropriate interest rates. The BEE partners can arrange independent financing to repay the Al Rajhi/Petra loan.
15 Sasol	Ixla Coal	20% in its mining subsidiary	R1845	1060	738	47	0		2010	Yes	The transaction is financed through equity (R47 million) and a combination of third party funding and Sasol facilitation. It is currently envisaged that approximately 46% of the transaction will be funded through third party debt; however this is dependent on market conditions prevailing at the time. 11 October 2007
16 Shiva Uranium	Consortium of Black Investors (consortium included Mabengela Investments, headed by Duzane Zuma - son of incumbent South African President Jacob Zuma - the MK War Veterans Women's Group, the MK War Veterans, a local community trust and an employee trust.)	26% of Shiva Uranium	74	74	0	0	0		2010	Yes	He added that a consortium of black investors had acquired 26% of Shiva from Oakbay Resources and Energy, through a vendor-funded transaction.
17 ROCKWELL Diamonds	African Vanguard Resources (AVR)	26% of HC Van Wyk Diamond Group ("VWDG") and Saxendrift Mine (Pty) Ltd	84	61.6	0	22.5	0		2008	No	As part of the vendor - financed BEE deal concluded in 2008, AVR paid an amount of \$2.3m to acquire a 26% interest - but a balance of \$7.8m remained outstanding following a crash in the diamond market. 10% holding in Rockwell at group level

Appendix 5: Example of BEE Questionnaire that was sent to the DMR

Annex 5 - Example of BEE Questionnaire that was sent to the DMR																
Parent Company		BEE Company	Description of the transaction	Asset Sold/acquired	Ownership/Share Acquired (%)	Effective Ownership (%)	Transaction Year	Value of Acquisition/Transaction (Rm)	Source of Funding (Rm)			Structure of the Transaction	Was (s) the transaction sustainable?	Remark on what made the transaction sustainable or caused it to fail		
									Vendor (s)	Underwriter (s)	Donator (s)	Self-fund	Third party (s)	Preference share instruments	SPV, Leveraged buyout, Divestiture, Instruments etc.	Yes/no
1	BHP Billiton	Emmifox Coal, Merged with Kumba Iron Ore in 2006 to become Esscor	Maids & Glass Colliery				2006									
2	Anglo Coal	Emmifox Coal, Merged with Kumba Iron Ore in 2006 to become Esscor	New Caledonia & Amel				2006									
3	BHP Billiton Iron Ore	Emmifox Mining					2006									
4	BHP Billiton	Outback Australia Colliery (75%) and 20% by BEE consortium	Koornfontein Mine				2007									
5	BHP Billiton	Shamela Resources & AGCA Resource Holdings	Optimum Colliery				2007									
6	BHP Billiton	Optimum Coal Holdings	Optimum Colliery				2007									
7	BHP Billiton/Emmifox Management	Emmifox Mining	Pha-Matungu Management Mine				2007									
8	BHP Billiton/Emmifox Top, Merg	Emmifox Resources & EROD's	50% in Richards Bay Minerals, 20% in Langens				2007									
9	Anglo Platinum	Atteridge	51% of Lofoten Mines (Bhagwanpur, Keweenaw, Ca Phacat and Lofoten Platinum mines), changed to Lofoten assets in 2006				2006									
10	AngloGold Ashanti	Atteridge	60% in Lofoten, 40% in Lofoten and Lofoten				1999									
11	AngloGold Ashanti	Atteridge and Harmony	50% in Lofoten, 40% in Lofoten and Lofoten				2003									
12	AngloGold Ashanti	Atteridge and Harmony	50% in Lofoten, 40% in Lofoten and Lofoten				2003									
13	Anglo American	Esscor	52.2% of Esscor				2007									
14	Anglo Coal	Ngweni Coal	17% of Ngweni Iron Ore (BEE Colliery and the four projects - Elton, Doodladig, New Largo and Helderberg)				2007									
15	Anglo Platinum	Two Consortiums, Later Merged with Anglo to become Kiba	50.7% of Kiba				2007									
16	Anglo Platinum	Anglo and Anglo Platinum	50.7% of Kiba				2007									
17	Anglo Platinum	Shamela Resources	Shamela Platinum Mines				2007									
18	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
19	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
20	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
21	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
22	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
23	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
24	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
25	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
26	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
27	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
28	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
29	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
30	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
31	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
32	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
33	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
34	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
35	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
36	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
37	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
38	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
39	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
40	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
41	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
42	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
43	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
44	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
45	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
46	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
47	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
48	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
49	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
50	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
51	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
52	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
53	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
54	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
55	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
56	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
57	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
58	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
59	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
60	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
61	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
62	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
63	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
64	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
65	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
66	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
67	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
68	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
69	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
70	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
71	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
72	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
73	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
74	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
75	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
76	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
77	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
78	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
79	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
80	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
81	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
82	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
83	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
84	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
85	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
86	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
87	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
88	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
89	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
90	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
91	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
92	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
93	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
94	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
95	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
96	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
97	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
98	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
99	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									
100	Anglo Platinum	Anglo Platinum	Anglo Platinum				2007									

