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Abstract: Since the demise of apartheid in South Africa, corporations have been encouraged to participate in the governmental goal of increasing corporate ownership by the black majority population. One vehicle that has arisen to help facilitate an increase in corporate ownership has been black economic empowerment (BEE) transactions. BEE transactions are essentially private placements of equity. Firms that have taken this socially activist position of selling portions of their equity, usually at a substantial discount, to black empowerment groups have received positive media attention in the name of "good corporate citizenship."

This study investigates the market performance of these BEE transactions, specifically addressing three questions. The first question is whether BEE transactions create or destroy wealth. To address this question we use an event study methodology to calculate the cumulative abnormal returns (CARs) associated with public announcements of BEE transactions. The second question is whether specific types of BEE transactions did better or worse than others. We address this question by analyzing the cross-sectional variation in the CARs associated with public announcements of BEE transactions. The third question is whether firms that engage in BEE transactions experience negative post-announcement price performance. This last question is motivated by popular press accounts of the exploitation of black empowerment groups by white-owned South African corporations. To address this question, we test whether BEE transactions have benefited white corporate South Africa at the expense of the participating black empowerment groups.

JEL classification: G14, G15, G18, F39

Key words: black economic empowerment, corporate social responsibility, event studies, South African stock market

The Price of Corporate Social Responsibility?
The Case of Black Economic Empowerment Transactions in South Africa

1. Introduction

Few countries have undergone such drastic change in such a short period of time as South Africa during the 1990s. For example, the end of apartheid in 1993 completely altered the social, political, and economic climates of South Africa. With the assumption of power by the black majority, the new government enacted sweeping reforms. As a result, the international economic sanctions that isolated South Africa from the rest of the world were finally removed.

Such dramatic transformations created enormous opportunities and threats for South African firms. Managers faced new pressure from various sources--international forces seeking to capitalize on the unrealized potential of the South African economy, and other firms within South Africa considering new strategies to succeed in the modern competitive landscape. In addition, with the black majority now controlling the government, new political and social pressures confronted managers. Different stakeholders—shareholders, government, and society—sought objectives for the firms that often may have been at odds with one another. This dynamic environment offers an excellent opportunity to test the reaction of the financial market to certain strategic decisions, or transactions, of South African firms.

This paper investigates one specific type of strategic financial transaction entered into by several South African firms; that of Black Economic Empowerment (BEE) deals. Due to apartheid, almost all South African firms were owned by white investors and were run by white managers. In 1990, blacks occupied less than 3% of management positions (Gray and Karp, 1993). By 1995, blacks still owned less than 1% of the total market value of the Johannesburg Stock Exchange (JSE) (Cargill, 1999). That fact is even more amazing when one considers that the JSE constituted almost 90% of the entire African continent's capitalization (Emerging Stock Markets 1999 Factbook). To increase the participation of blacks in the ownership of major industrial firms, the policy of Black Economic Empowerment was introduced and encouraged by the new South African government. Black Economic Empowerment transactions involve the sale of equity stakes of firms to black investors or consortia, usually at a price

that is a substantial discount from current market price. For example, discounts of 10-15% from current market price are common. In this study, we examine the stock market (i.e., the JSE) reaction to the announcements of BEE transactions by South African firms. We seek to determine whether investors rewarded or penalized firms for entering into these BEE transactions.

Given the importance of the Black Economic Empowerment movement as a potent instrument of achieving power for the black majority in South Africa, the South African business press was diligent in reporting the BEE deals as they occurred.   In its extensive coverage, the business press suggested that BEE deals might be pursued for either economic reasons or for motivations of promoting the greater good (Cargill, 1999; Cargill, Brown, and Segal, 1996; The Economist, 1997; Haddock, 1999a; Kamm, 1994). In our study we investigate several of these economic reasons by examining certain fundamental variables relating to these BEE transactions to determine the extent of the relationship between abnormal returns and deal attributes. In particular, we use four variables to test whether certain transaction characteristics impact the CARs related to our BEE deals. These four variables are: STAKE, UNION, DISCOUNT, and VALUE. STAKE is the percentage of equity acquired in the BEE transaction by the black empowerment group. This is a measure of corporate control. UNION is a dummy equal to one if the black empowerment group is a union affiliated with the firm acquired. DISCOUNT is the percentage markdown from market of the equity purchased in the BEE transaction. And, VALUE is the amount in millions of RAND paid by the black empowerment group for the equity acquired in the BEE transaction.

Thus, in this paper we investigate two related research questions. First, what is the capital market reaction to announcements of BEE deals? And, second, what underlying transaction specific variables can help to explain these shareholder reactions? In answer to the first question, we find that significant and positive CARs of 1.8 percent on average for our five-day event window, and 1.3 percent for our three-day event window, are associated with announcement of BEE transactions. In answer to the second question, we find that only our corporate control variable is significantly correlated with our BEE transaction CARs. Our other variables related to union affiliation, equity discount, and size of transaction, were all insignificant.

In this study we also address the question of whether firms that engage in BEE transactions experience negative post-announcement price performance. This question is motivated by the serious issue raised in the popular press of whether BEE transactions have benefited white corporate South Africa at the expense of the participating black empowerment groups. Importantly, we find that firms that engage in BEE transactions do not exhibit, on average, negative post-announcement stock price performance. In fact, on average, the risk-adjusted stock returns for our sample of BEE firms were larger than the returns for the South African market index for the year immediately following their respective announcement dates. This suggests that BEE transactions have not exploited black empowerment groups for the benefit of white corporate South Africa.

The remainder of this article is organized as follows. Section two provides a discussion of the South African landscape at the end of apartheid and the Black Economic Empowerment movement in general. Section three offers a discussion of the basic characteristics of most BEE deals. In section four, we develop and present our major hypotheses. Next, in section five, we provide details of our data, methodology, and empirical results. We conclude, in section six, with a discussion of the implications of our findings.

2. South Africa at the end of apartheid

During the 70s and 80s the South African practice of apartheid, which denied black South Africans participation in both the government and the financial base of the country, prompted a number of countries around the world to impose sanctions. The South African business community was effectively excluded from international financial markets. In addition, even in countries without official apartheid-based sanctions, many international firms with financial ties to South Africa decided to leave the country (Meznar, Nigh, & Kwok, 1994) after they were soundly criticized on multiple fronts for tacitly supporting a morally corrupt system (Lamb, Wokutch, & Kumar, 1995).

The election of Nelson Mandela in 1992 signaled the end of the apartheid area, and provided an unprecedented environmental shock to the South African economy. The African National Congress

(ANC) faced tremendous challenges after the demise of apartheid and the assumption of government authority. One of the implicit promises made by the ANC was the opening of economic opportunities for the black citizens of South Africa. The ANC thus embarked on a strategy of "transformation" that emphasized African expectations and downplayed minority concerns. To enact this transformation, the ANC professed goals that embodied the redistribution of wealth (Bratton, 1998) and the creation of new jobs through a doubling of its economic growth rate to 6 percent by the year 2000 (Outlook, March 1997). In the belief that private enterprise would be the key to achieving its economic growth rate goals and modernizing the economy, the South African government enacted a privatization program coupled with an aggressive affirmative-action program for the awarding of state contracts (Gevisser, 1997).

2.1.   Economic transformation

With the fall of apartheid and the election of a majority–controlled government, many of the corporations that had withdrawn from South Africa returned with the intent of regaining lost positions. In addition, new competitors, attracted by the altered economic status of South Africa, began to establish footholds in the South African market. South African (SA) businesses were somewhat protected during apartheid, however, foreign competition intensified greatly after the fall of apartheid.

In 1995, the competitive conditions were altered further. Prior to 1995, no direct foreign investment was allowed in JSE firms, and capital was not allowed to leave the country. In 1995, the JSE opened its doors and allowed foreign membership, permitting these firms to bring money into the market and also withdraw that money. As a result, the amount of foreign direct investment in the SA economy has risen steadily during the middle of the 1990s: R5.7 billion in 1995, R8.7 billion in 1996, R15.7 billion in 1997, and R17.9 billion in 1998 (BusinessMap, 1999). Additionally, as of 1998, the JSE was the 17th largest stock market in the world (in terms of capitalization), with 88% of the African continent's capitalization (including Egypt) (Emerging Stock Markets 1999 Factbook). South African firms now have to learn to compete with an expanded set of domestic and international firms for capital, placing even greater emphasis on their ability to provide value to stockholders.

2.2   Level of black participation in the economy

The black population of South Africa was legally prevented from full participation in the

management of corporate South Africa for decades. As stated earlier, blacks occupied less than 3% of the

management positions in 1990 (Gray and Karp, 1993). Patterns of equity ownership were similarly

disproportionate for the black majority. In 1995 blacks still owned only 1% of the capitalization of the

Johannesburg Stock Exchange (Cargill, 1999). Despite the end of apartheid and the newly implemented

policies of the African National Congress, clearly the South African economy still reflected the patterns

of the past.

2.3.   Government influence and the history of BEE

The demise of apartheid provided the opportunity for South African firms to begin rectifying the

ills of the past. The Black Economic Empowerment (BEE) movement involves the sale of a firm's equity

to black empowerment groups or other black investors, thereby increasing black ownership and presence

in the South Africa economy. As mentioned earlier, in most BEE transactions the equity is sold at a

significant discount.

Black empowerment has become a central facet of the government's thrust to economic success,

including the preferential awarding of government contracts to firms with black control or black partners.

A white paper on the telecommunications industry released by the South African government in February

1996 provided the most explicit indication of the government's thinking on black empowerment policies

at that point in time. It made clear that any company desiring to benefit from the South Africa

government's investment in telecommunications must have a credible black partner as well as an

investment policy that is committed to job creation, to affirmative action and to social goals.

(BusinessMap, February 19, 1996).

Specifically, the white paper stated: "Government procurement policy is one of the mechanisms

which can be used to effectively increase the participation of disadvantaged communities. It can be used

as an incentive for businesses who undertake positive steps by allowing significant equity stakes to black

businesses, striving for gender balance, undertaking active training of its employees and implementing

programmes toward the attainment of the objectives of affirmative action." The white paper states that

"acceptable levels of equity stake held by members of disadvantaged communities" will be among the

conditions for granting and renewing licenses (BusinessMap, February 19, 1996). Government focus

likewise promoted black empowerment initiatives in other industries. Among the other early BEE

initiatives were those in the leisure and tourism sectors, initially motivated by the issuance of casino

licenses (BusinessMap, February 19, 1996). BEE deals in industrial holding, fishing and mining quickly

followed.

In 1997, major government projects began to be implemented with the requirement that private

corporations bidding for the contracts have relationships with black businesses. Even firms that were not

dependent on government business were finding it difficult to avoid empowerment pressures because by

this time black businesses had built up a strong lobby within government (BusinessMap, January 9,

1997). By the end of 1997, BusinessMap, a leading business information source in South Africa, was

recording an average of 20 empowerment transactions a month. The government had begun to add

muscle to its BEE policies, not through regulation, rather through the awarding of contracts for services or

goods or for the delivery of infrastructure in the form of public-private sector partnerships (BusinessMap,

November 26, 1997). Table 1 shows the number of empowerment deals by year as recorded by Ernst &

Young.

An important shift occurred in 1998 with an increase in the presence of new participating

coalitions, extending empowerment benefits beyond a handful of black groups (BusinessMap, November

19, 1998). The South Africa government also announced that, as national assets are privatized, ten percent

of the shares in each deal will be set aside for small black investors (McNeil, 1998). The Black

Empowerment Commission was formed in September of 1998 to assist in developing a report for the

government on the guidelines to be adopted by people engaging in black empowerment transactions.

The black empowerment movement is still in its early stages. However, the pace of black empowerment deals increased dramatically from 1995 to 1998, increasing from less than 25 deals in 1995 (In Touch, 1997) to an estimated 111 deals per year by the end of 1998 (See Table 1). By 1999, black businesspeople had taken control of 5.5 percent of the capital assets on the Johannesburg Stock Exchange, up from 1% in 1995 (Cargill, 1999).

3. Characteristics of BEE transactions

As mentioned in the previous section, BEE deals received a substantial amount of attention in the South African business press, providing detailed information about most of the transactions. The vast majority of BEE transactions occur at a discount. That is, firms sell equity stakes to black investors or consortia at a price that is well below the current market price of equity. These equity sales always represent the issuance of new equity. Thus, new equity capital is raised in these transactions. Of course, the transactions also redistribute or shift ownership and control proportions…increasing ownership for the BEE group and decreasing ownership for other groups. These BEE transactions are usually privately negotiated and arranged by well established financial institutions. Many of the black consortia involve large groups of investors or labor unions. Due to the social and economic conditions discussed above, most of these blacks do not have the capital to purchase the equity stakes on their own. Thus, most BEE deals are highly leveraged transactions, involving the creation of special financing arrangements involving financial institution participation. The BEE movement affected many industries and involved firms of different sizes. The combination of these attributes, especially the pricing and financing, suggests that the BEE movement was the product of social, political, and economic forces.

3.1   BEE transactions and the government of the New South Africa

The forces for change in the post-apartheid South Africa continued to be salient to managers in South African firms. The governmental and social pressures to rectify the ills of apartheid played a significant role in the BEE movement. Empowerment transactions served an important purpose by

symbolically representing a political and economic democracy in South Africa, bringing the blacks into full participation in the economy; the transfer of black ownership was to mirror the transfer of political power to the African National Congress (Kamm, 1994). In fact, "since the African National Congress rose to power in 1994, black ownership has been the focal point of black empowerment. Both the public and private sectors have concentrated on transferring equity to black empowerment groups" (Haddock, 1999b: 39). Black ownership provided a "psychological boost" to participating firms (Kamm, 1994).

The government's position on increasing black ownership and management in the economy was very clear. The African National Congress promised a transfer of power to the previously disadvantaged majority. Yet, most firms faced a gap between their current management and ownership structures and the structures desired by the government and society (Segal, 1997). While the government stopped short of enacting legislation, it "…has been busying itself behind the scenes on a number of other aspects of black economic empowerment (BEE)" (Cargill, Brown, and Segal, 1996). These governmental policies reflected the social and political forces that influenced the South African firms.

To address these stakeholder interests, firms participated in black empowerment deals. As Nevin pointed out: "there is a rush to be seen to be correcting the colour imbalances in the corridors of corporate power…" (Nevin, 1998: 8). The characteristics discussed above, particularly discount pricing and special financing, draw further attention to the pressure to complete these transactions. Such arrangements do not represent the "normal" process of sales of equity stakes in South Africa. Firms realized that empowerment deals were the only way to "…involve in a meaningful way those people who historically have been precluded from ownership" (cited in Haddock, 1999a). A South African researcher, Phinda Madi extends this idea of involvement further. He states that: "It moves from the premise that blacks, having been victims of previous socio-political and economic dispowerment, should now become beneficiaries of clearly enunciated programmes" (cited in Nevin, 1998). Thus, it appears that the BEE movement was fueled by non-financial stakeholder interests, forcing managers to change the firm's allocation of resources.

4. Hypotheses related to Black Economic Empowerment Transactions

When a corporation in South Africa sells a portion of the firm to a black empowerment group, it is often viewed in a very positive light. This socially activist position of the firm can be taken as a signal that the firm embraces the moral imperative to include the previously disadvantaged majority in the economic growth of the country. Thus the firm receives favorable media attention for its actions. The favorable attention can translate into increased business prospects for the firm in several ways. For firms whose business depends on government contracts, participation in a black empowerment deal ensures eligibility to bid on lucrative contracts that would not be otherwise available to the firm. Indeed, those firms who were early movers were able to garner first-mover advantage by becoming eligible for the preferential treatment promised by the government.

Secondly, firms who participate in BEE deals, again through favorable media coverage, increase their corporate reputations with the black South African citizenry. For consumer firms, this favorable corporate image represents a competitive advantage that can be easily exploited. While the per capita income of the black majority is modest, the share of black South Africans with household incomes in excess of R5,000 per month (a middle class threshold) has been increasing rapidly, at a rate that greatly outpaces income growth in the white population (Barber, 1997). Many black South Africans residing in former townships and central cities have a larger proportion of disposable income because living costs are low. Thus, even though their incomes are modest, they are fast adopters of many consumer goods and services such as cellular phones and sophisticated financial services, such as whole life insurance and unit trusts (Barber, 1997).

Perhaps equally important, the companies participating in BEE deals can benefit from the social and economic contacts of the black empowerment groups to gain access to new markets or opportunities, especially in the public sector. Many of the black empowerment groups represent influential consortia of unions, powerful business persons and former politicians and activists. These contacts may be very valuable in generating new business for the purchased firms. These activities could have a positive impact on the firm's future cash flows. And, a net increase in the firm's risk-adjusted cash flows would

have a positive influence on the firm's stock price. Thus, we hypothesize that those South African firms that participate in black empowerment deals will be rewarded by the market for their actions. We call this our positive revaluation hypothesis (Fenn and Cole, 1994).

> Hypothesis 1a: announcements of black economic empowerment deals will result in a positive revaluation of the firm's market value of equity leading to higher shareholder returns relative to the market model over the event window.

There also may be negative consequences of participating in black empowerment deals that can affect the market's perception of such actions. Skepticism of the impact of these deals has begun to appear in the press (Cargill, Brown & Segal, 1996; McNeil, 1998). The number of black empowerment groups participating in these deals has been small and there has been some criticism that these groups represent a "black elite" with few of the benefits reaching the masses (The Economist, 1997). Equally disturbing is the contention that most black empowerment deals to date have been anything but empowering. Suggestions have been made that some black empowerment groups are merely a front for white investors. However, the main concern of the equity market is whether the black empowerment deal will have a significant impact on the future cash flows of the firm(s) involved. Thus, the market may react negatively to the announcement of BEE deals if the firm's risk-adjusted cash flows are expected to decrease.

Alternatively, investors may anticipate actual black control and the replacement of white and colored South African managers with lesser-qualified black managers. Many of the new black entrepreneurs have skimpy business backgrounds but valuable political connections that enable them to become a part of BEE deals (Bergsman, 1996). Despite the emergence of a black professional class (Simon, 1998), the widely held perception is that black managerial talent is sparse. To the extent that investors fear the mismanagement of firms after the enactment of black empowerment deals will reduce risk-adjust future cash flows, investor reaction may be negative to the announcement of BEE deals.

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A third consequence of BEE deals may be an adverse reaction to the deals on the part of the minority population of South Africa that still controls the majority of the wealth in South Africa. Black South Africans, while constituting 70.9% of the population, make up only 8.1% of those living in R8,000+ households (Barber, 1997). The typical investor is the white and/or colored South African, not the black South African. It is possible that a backlash against the idea of black empowerment on the part of the newly nonfavored populous may cause an adverse market reaction to the announcement of BEE deals. This is because investors may expect net risk-adjusted future cash flows to be reduced by the backlash associated with BEE transactions.

Lastly, many of the black empowerment groups have been able to purchase their portions of the involved firms at a discount from the prevailing market price. It was a common practice for black empowerment groups to receive discounts up to as much as 20%. In most instances, a significant portion of the firm was sold at this discount. The announcement of the discounted sale of a significant portion of the firm could have a net negative impact on the equity price of the firm subsequent to the announcement. We call this our negative revaluation hypothesis (Fenn and Cole, 1994).

> Hypothesis 1b: announcements of black economic empowerment deals will result in a negative revaluation of the firm's market value of equity leading to lower shareholder returns relative to the market model over the event window.

Of course, the announcement of black empowerment deals may already be impounded in the information set available to the market. Or, they may be seen as being of no significant consequence by investors. If that is true, we would expect these announcements to have no significant effect on the market value of the firm. We call this our irrelevance hypothesis (Fenn and Cole, 1994). Or, stated as a third hypothesis:

> Hypothesis 1c: announcements of black economic empowerment deals will result in no significant revaluation of the firm's market value of equity leading to shareholder returns that are not significantly different from the market model over the event window.

4.1 Other hypotheses

After testing the above hypotheses concerning the wealth impact of BEE transactions, we next test a set of hypotheses that focus on the unbundling of the wealth impact based on characteristics specific to the individual BEE transactions. Lastly, we test hypotheses about the post-announcement performance of our sample of firms.

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Transaction Specific Characteristics

We recognize that the market reaction to the announcement of a BEE transaction may be influenced by specific characteristics associated with that transaction. We test hypotheses about the significance and sign of correlations of wealth effects and several transaction specific factors. For example, we test whether there is a significant correlation between the percentage of the firm actually acquired in the BEE transaction (percentage of voting shares) and the wealth impact of the transaction. The underlying hypothesis for this test is related to the issue of corporate control. That is, a transaction associated with the acquisition of a controlling interest, or large stake, in a firm should have a different impact relative to a transaction in which a non-controlling, or small state, is acquired. We conduct similar tests based on corresponding underlying hypotheses for factors such as: the size of the discount from market price of equity associated with the transaction, whether the black empowerment group is a major union affiliated with the acquired firm, and the size of the BEE transaction in Rand. Our hypotheses are that a larger discount may be associated with a different market impact as it may send a different signal about the ability of the black empowerment group to work with the existing management of the firm. A similar hypothesis underlies our tests for union affiliation of the black empowerment group. Additionally, we examine hypotheses about the impact of the industry of acquired firm on the market impact of the BEE announcement. Essentially, we test for an industry-effect in our sample of BEE transactions.

Post-announcement performance

The idea of a negative post-announcement stock price performance for firms involved in BEE transactions is a serious issue. Such performance could be considered by some as a sign that white corporate South Africa was using BEE transactions as a method to exploit black empowerment groups by selling them over-value shares in their firms.

We test the post-announcement stock price performance of our sample of firms by comparing the risk-adjusted performance of the portfolio of these firms to that of the Johannesburg Stock Exchange broad-based stock index.

5. Data, Methodology, and Results

5.1.   Data

We use the BusinessMap Black Empowerment Database (www.bmap.co.za) to identify the black

empowerment transactions in our analysis. This database records a wealth of information on BEE

activity. First, we identify the list of firms that were partially or fully owned by black empowerment

groups, documenting the firm that sold the shares.

Next, we search the two leading South Africa business newspapers, Business Times and Business

Day, for announcements of empowerment transactions. We exclude any deals that occurred prior to

1996, due to a lack of publicly available information prior to this date in the South Africa business press.

We also exclude any deals for which we could not find an announcement to the public in the business

press. For a subset of deals, we compared the date of the investment identified in BusinessMap with the

announcement date in the business press to test the validity of the BusinessMap database. We found no

evidence of disagreement between the two sources, lending support to the reliability of information

obtained from BusinessMap.

Several factors effectively limited the size of our dataset. The use of an event study methodology

required that the firms in our analysis be publicly traded. In addition, due to the nature of the event study,

discussed in detail below, the firms must have been publicly traded on the JSE for at least one year prior

to the empowerment deal. Thus, any firms that were listed for less than a year before the announcement

are excluded from our analysis.   In addition, the firm's daily stock price must be available through

Datastream. Finally, we investigate for possible significant confounding events during the model

estimation period, removing any firms that experienced such events. The Ernst & Young Reviews of

Merger and Acquisition Activity, published in BusinessMap, identified a potential sample of 208

empowerment deals from 1996 to 1998. However, once we impose the data filters mentioned above, we

are left with a sample of 20 empowerment deals. From tables 1 and 2 we document that our sample

represents about 10% of the number, but nearly 25% of the Rand value, of BEE transactions that occurred

during the 1996 to 1998 time period. As might be expected, with the drastic downturn in world equity markets (including the JSE) in 1999 and 2000, there were virtually no large BEE transactions after 1998. This seems reasonable considering that the typical BEE transaction involves the funding of an acquisition of equity with a debt type of instrument.

The stock prices for the firms in our sample are obtained from Datastream. We tested a sample of firm's stock prices taken from Datastream against prices obtained for the same firms from the Johannesburg Stock Exchange (JSE). There were no cases of disagreement, establishing reliability of the data.

5.2   Methodology

We test the previously described research hypotheses by applying a standard event-study methodology similar to that described in Reuer (2000). For each security i, under the assumption of multivariate normality, the market model is used to calculate abnormal return (ARi,t) for event day t as:

$$AR_{i,t} = R_{i,t} - \hat{\alpha}_i - \hat{\beta}_i R_{m,t}, \tag{1}$$

where

$R_{i,t}$ = return to firm i on day t,

$\hat{\alpha}_i$, $\hat{\beta}_i$ = market model parameter estimates, and

$R_{m,t}$ = return to the value-weighted JSE market portfolio on day t.

The market model parameter estimates for each firm are obtained using 200 trading days of daily returns data beginning 250 days before the first event.

The cumulative abnormal return (CARi,t) from event day T1 to event day T2 is computed as:

$$CAR_{T1,T2} = \sum_{t=T1}^{T2} AR_{i,t} \ .$$

(2)

We calculate the abnormal returns over a 3-day window (-1, 0, +1) and a five-day window (-2 to +2), keeping the event window as short as feasible, in accordance with Lang and Stulz (1992).

Following McWilliams and Siegel (1997), we employ the Z-statistic to determine whether the abnormal returns are statistically significant. First, we compute the standardized abnormal return to the ith firm (portfolio) on day t, SARi,t:

$$SAR_{i,t} = AR_{i,t} / \left[\sigma_{i,t} \left(1 + \frac{1}{T_i} + \frac{(R_{m,t} - \overline{R}_m)^2}{\sum_{\tau}^{T_i} (R_{m,\tau} - \overline{R}_m)^2} \right)^{1/2} \right] ,$$

(3)

where

$\sigma_{i,t}$ = standard deviation of the residuals in the market model estimation period,

T_i = number of days in the estimation period, and

$\overline{R}_m$ = mean return to the market portfolio over the estimation period.

Next, the SARi,t is then used to obtain the standardized CARi over the Ki event days:

$$SCAR_i = \left[\sum_{t=1}^{K_i} SAR_{i,t} \right] / \sqrt{K_i} .$$

(4)

Finally, the Z-statistic for firm i is computed as:

$$Z_i = SCAR_i / \left[((T_i - 2)/(T_i - 4)) \right]^{1/2} \ .$$

(5)

and for a portfolio of NP firms is computed as:

$$Z = \left[\sum_{i=1}^{N_P} SCAR_i \right] / \left[\sum_{i=1}^{N_P} ((T_i - 2)/(T_i - 4)) \right]^{1/2} .$$

(6)

We examine the individual firms' abnormal returns -- ARi,t -- for each event. If the impact of the BEE announcements is consistent with the positive revaluation hypothesis, we would expect the abnormal returns during the event window to be positive and statistically significant. If the impact of the events were consistent with the negative revaluation hypothesis, suggesting that black empowerment might be seen by the market as a costly and ineffective vehicle for change, we would expect the individual firm reactions to be significantly negative. If the impact of the events were consistent with the irrelevance hypothesis and revealed no new information or were considered irrelevant by the shareholders of the announcing firms, we would expect the abnormal returns to be statistically indistinguishable from zero. To distinguish among the positive revaluation, the negative revaluation, and the irrelevance hypotheses, we test the hypothesis H_0^1, that the abnormal returns for the announcing firms are equal to zero for each event e:

$$H_0^1 : AR_{p,e} = 0 \ or \ CAR_{p,e} = 0 .$$

In addition, we report the number of positive abnormal returns among the announcing firms, and the Z-statistic testing the hypothesis that 50% of the abnormal returns are negative. A rejection of this hypothesis would be consistent with the positive revaluation hypothesis.

5.3 Analysis of Other Hypotheses

The hypotheses focusing on the correlation of transaction specific variables and CARs are tested using regression models. The dependent variable in these univariate regression models is the previously calculated individual CARs for our sample firms. The independent variables are: (1) the percentage of equity purchased by the BEE group (a measure of the BEE group's newly obtained corporate control), (2) a dummy variable for whether the BEE group is a union, (3) the size of the discount from market for the equity in the BEE transaction, (4) a dummy variable indicating the industry of BEE participating firm, and (5) the size of the transaction in Rand.

Our post-announcement performance hypothesis is tested by comparing the risk-adjusted returns for our sample firms to the risk-adjusted returns for the JSE market index over corresponding time periods.

5.4 Robustness Checks of Results

The tests described above rely on parametric statistics, where the distribution is known or can be determined, such as through the use of the Central Limit Theorem. However, with only 20 Black Economic Empowerment transactions, our sample size may be too small to totally rely on such parametric assumptions. To determine the reliability of our results, we employ a nonparametric method, bootstrapping. We follow the guidelines proposed by Mooney and Duval (1993), Efron and Tibshirani (1993), and Stine (1990).

To determine whether our abnormal stock returns are significantly different from zero, we draw a random sample of 20 with replacement from our original sample of 20 CARs. This process is repeated 1000 times.   For each of these 1000 samples we calculate a mean CAR, or ACAR, creating a distribution of 1000 means. We then use this distribution to create a confidence interval to draw inferences.

 The bootstrap confidence interval is constructed using the bias-corrected and accelerated, or Bca, percentile method recommended by Efron and Tibshirani "for general use, especially for nonparametric problems" (Efron and Tibshirani, 1993: pg. 188). If the value "0" is included in the bootstrap confidence interval, then the ACAR is not different from zero. That is, the empowerment abnormal returns are not significantly different from zero.

Using the bootstrap for the testing of hypotheses 2 and 3 requires a slightly different procedure. We draw a random sample of 20 transactions with replacement from the original sample. We then estimate the regression models in equations (6) and (7) above, recording the values of the regression coefficients for the independent variables (the dependent variable was the CAR for each transaction). This process was repeated 1000 times, creating a distribution of the 1000 regression coefficients for each independent variable. Similar to above, we then use this distribution to create a confidence interval using

the Bca method. We then test our hypothesis using the confidence interval. If the value "0" is in the bootstrap confidence interval of the regression coefficient, then the coefficient is not significantly different from zero. The confidence intervals based on the bootstrap distribution allow us to test our hypotheses without relying on parametric assumptions.

5.5   Results

Table 3 provides the descriptive statistics and correlations for the primary transaction specific variables used in our investigation. Notice that, the mean discount for our sample of BEE transactions in 9.25 percent, with a standard deviation of just over 26 percent. And, on average, a BEE transaction involves the acquisition of about 24 percent of the firm by the black empowerment group (STAKE). The acquiring black empowerment group pays on average a little over 442 million Rand for their stake in the target firm (VALUE). And, precisely one-half of our BEE transactions involve black empowerment groups that represent unions of the respective firms selling an equity stake.

Notice from panel B of table 3 that only the variables STAKE and DISCOUNT have a correlation coefficient that is significant at the five percent level. This positive correlation between STAKE and DISCOUNT suggests that black empowerment groups that purchase a larger percentage of the equity of a BEE participating firm usually negotiate a larger discount from market on the price of the participating firm's equity.

Recall that this study focuses on three empirical questions. The first question is: How do shareholders react to announcements of major BEE deals? The second question is: Do these reactions correlate to several theoretically important variables related to the individual transactions (Other hypotheses)? And, the third question is: Do BEE announcing firms experience post-announcement negative stock price performance? This section discusses the results of our tests of these questions.

Our results addressing question number one are presented in table 4. And, our results evaluating question number two are shown in table 5. We present the results for question number three in a separate, but brief, subsection later in this section.

Notice from table 4 that the average of the 3-day CARs is about 1.3% and the average of the 5-day CARs is about 1.8%. The CARs for our study are significant at the five percent level. Specifically, in table 4, the Z statistics for the SCARs from equation (5), following McWilliams and Siegel (1997), were 1.92 (p=.027) for the 3-day event window and 1.74 (p=.041) for the 5-day window. In terms of the bootstrap confidence intervals, for both the 90% and the 95% confidence intervals, the entire interval is greater then zero. Thus, we find strong support for our hypothesis 1a. That is, announcements of BEE deals are associated with positive abnormal returns. It appears from the results of our sample that investors, on average, rewarded firms that participated in empowerment deals.

Table 5 presents selected results from our analysis of univariate regressions used to address question number two. From model number one, it is shown that the independent variable STAKE has a positive and significant coefficient for both 3-day CARs and 5-day CARs. This correlation was also supported by our nonparametric bootstrapping procedure. Model one suggests that a one standard deviation increase in STAKE would result in an increase in the 5-day CAR from its mean of 1.83 percent to about 3.29 percent. This association of an increase in the market impact of a BEE transaction announcement CAR and the size of the controlling interests purchased by the black empowerment group seems to be consistent with standard corporate control theory.

The models presented in table 5 of the other independent variables, UNION, DISCOUNT, and VALUE do not have significant coefficients associated with them. The results from our bootstrapping procedure are also consistent with insignificant coefficients for these variables. Recall that UNION is a dummy equal to one if the black empowerment group is a union affiliated with the firm acquired. DISCOUNT is the percentage markdown from the market price of equity of the firm in the BEE transaction. And, VALUE is the amount in millions of RAND paid by the black empowerment group for the equity acquired in the BEE transaction.

Industry-effects

We also tested for the possibility of industry specific wealth effects using the same univariate regression approach. We found no evidence of a significant difference in the average CARs across the

industries represented by our sample firms. Of course, this is not surprising considering that the twenty firms in our sample spanned twelve industries. In an attempt to generate more power for our univariate regression tests, we also conducted this type of analysis consolidating our firms into the four broad industry categories of financial (6 transactions), consumer services (6 transactions), manufacturing (4 transactions), and other (4 transactions). Again, no evidence of significant differences in average CARs across industry groups was found.

Like industry effects, we found that differing financing methods (debt or equity) by the black empowerment group did not significantly impact the CARs associated with the announcement of BEE transactions.

5.5.1   Post-announcement performance of BEE participating firms

An equally-weighted portfolio of our BEE firms outperformed the JSE market index by 30.76 percent over the one year period immediately after the BEE transaction announcement. This exact time period is days +3 to +250 after the announcement. We calculate the returns using the geometric average of daily returns from DataStream. Thus, from a portfolio standpoint, our sample of firms performed better than the market index (of course, comparison to a three or four factor model may be useful here. We did find similar results when we used an industry index as opposed to the broad based JSE index. Using the Sharpe ratio to risk-adjust our results leads to the same conclusion. That is, a value-weighted portfolio of our sample of firms that engage in BEE transactions outperforms both a value-weighted industry index and the broad based JSE index.

Thus, there is no evidence of negative post-announcement stock price performance for BEE transactions.

5. Conclusions

Over our sample period the South African government encouraged BEE transactions as a means of increasing corporate ownership by the Black majority population. BEE transactions are private

placements of equity with black empowerment groups by firms primarily owned by white South Africans. We find that, on average, the announcement of a BEE transaction is associated with a significant positive increase of almost two percent in the market value of equity of the announcing firm.

We also find that the positive abnormal returns associate with BEE transactions are significantly positively correlated with the proportion of the firm's equity acquired by the BEE group. For example, our univariate regression analysis suggests that black economic empowerment groups that acquired twice the average acquisition percentage of equity would likely experience an announcement abnormal return of 3.3% as opposed to the average 1.83%. Additionally, we find that the average BEE transaction is completed at a significant discount (of almost ten percent) from the market price of equity for the participating firm.

We document an average positive post-announcement risk-adjusted return for our sample of BEE transaction firms. This latter finding implies that BEE transactions have not, on average, exploited black empowerment groups to the benefit of white corporate South Africa.

Overall, we add to the literature on corporate social responsibility by examining a special type of transaction in the emerging economy of South Africa. We demonstrate that BEE transactions are associated with significant positive abnormal returns for the shareholders of the announcing firms. Thus, in the case a typical BEE transaction the price of corporate social responsibility is smaller than the benefit. That is, over our sample period, the equity market rewarded South African companies for entering into Black Economic Empowerment transactions.

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Table 1. Total Number of Black Economic Empowerment Transactions 1995 to 1996

Year	Number of Deals	Value of Dealsa
1995	25	R0.8 billion ($0.2 billion)
1996	45	R7.0 billion ($1.6 billion)
1997	52	R8.3 billion ($1.8 billion)
1998	111	R21.2 billion ($3.9 billion)

Sources: Ernst & Young Review of Merger and Acquisition Activity, BusinessMap
a US Dollar values based on the following exchange rates taken from FXHistory from Oanda
Corporation: 1995: R1 = $0.27563, 1996: R1 = $0.23401, 1997: R1 = $0.217109, 1998: R1 = $0.181988.
These exchange rates represent the annual average based on the daily exchange rates.

Table 2. Our Sample of Black Economic Empowerment Transactions 1996 to 1998

Year	Number of Deals	Value of Dealsa
1996	1	R0.2 billion ($0.04 billion)
1997	9	R3.0 billion ($0.7 billion)
1998	10	R5.9 billion ($1.1 billion)

a US Dollar values based on the following exchange rates taken from FXHistory from Oanda
Corporation: 1995: R1 = $0.27563, 1996: R1 = $0.23401, 1997: R1 = $0.217109, 1998: R1 = $0.181988.
These exchange rates represent the annual average based on the daily exchange rates.

Table 3. Descriptive Statistics and Correlations

Panel A. Descriptive Statistics

	Mean	Standard Deviation	Minimum	Maximum
DISCOUNT	9.25	26.01	-28.00	91.00
STAKE	23.70	23.82	3.00	89.30
VALUE	442.33	994.97	0.17	4300.00
UNION	0.5	N/A	0.0	1.0

Panel B. Pearson Correlation Coefficients

	DISCOUNT	STAKE	VALUE	UNION
DISCOUNT	---			
STAKE	0.52 (0.02)	---		
VALUE	-0.04 (0.87)	0.28 (0.24)	---	
UNION	-0.31 (0.19)	-0.35 (0.14)	-0.38 (0.10)	---

Notes: DISCOUNT is the percentage markdown from the market price of equity of the firm in the BEE transaction. STAKE is the percentage of equity acquired in the BEE transaction by the black empowerment group. VALUE is the amount in millions of RAND paid by the black empowerment group for the equity acquired in the BEE transaction. And, UNION is a dummy equal to one if the black empowerment group is a union affiliated with the firm acquired. P-values for respective significance levels are below the Pearson correlation coefficients.

Table 4. Percentage Returns to Announcements of Black Economic Empowerment Transactions

	3-day Event Window	5-day Event Window
Mean of CARt	1.281	1.830
Standard Deviation of CARt	3.741	5.216
Z-statistic	1.920* (p=.027)	1.743* (p=.041)
Bootstrap confidence intervals		
90% Confidence Interval	(0.092 , 0.787)†	(0.077 , 0.652) †
95% Confidence Interval	(0.022 , 0.844)*	(0.024 , 0.697)*
99% Confidence Interval	(-0.099 , 0.977)	(-0.070 , 0.812)

Notes: The Z-statistic is from McWilliams and Siegel (1997). P-values are provided under the Z-statistic coefficients. The symbol † means significant at the ten percent level or better. And, the symbol * means significant at the five percent level or better.

Table 5. Results of regression model tests of transaction specific independent variables

Model 1: $CAR_i = b_0 + b_1 STAKE_i + \varepsilon_i$

	3-day Event Window	5-day Event Window
F-statistic	6.37 (p= 0.02)	5.16 (p= 0.04)
Adjusted R-sq.	0.22	0.18
Coefficient	0.08	0.11
T-statistic	2.52	2.27
p-Value (T)	0.02	0.04

Model 2: $CAR_i = b_0 + b_1 UNION_i + \varepsilon_I$

	3-day Event Window	5-day Event Window
F-statistic	0.03 (p= 0.86)	0.66 (p= 0.43)
Adjusted R-sq.	-0.05	-0.02
Coefficient	-0.11	-0.38
T-statistic	-0.19	-0.81
p-Value(T)	0.86	0.43

Table 5. Results of regression model tests of transaction specific independent variables (continued)

Model 3: CARi = b0 + b1DISCOUNTi + εI

	3-day Event Window	5-day Event Window
F-statistic	1.72 (p= 0.21)	2.39 (p= 0.92)
Adjusted R-sq.	0.04	0.07
Coefficient	1.41	1.37
T-statistic	1.31	1.55
p-Value(T)	0.21	0.14

Model 4: CARi = b0 + b1VALUEi + εI

	3-day Event Window	5-day Event Window
F-statistic	0.00 (p= 0.95)	0.01 (p= 0.92)
Adjusted R-sq.	-0.06	-0.06
Coefficient	-0.00	-0.00
T-statistic	-0.06	-0.10
p-Value(T)	0.95	0.92

Notes: DISCOUNT is the percentage markdown from the market price of equity of the firm in the BEE transaction. STAKE is the percentage of equity acquired in the BEE transaction by the black empowerment group. VALUE is the amount in millions of RAND paid by the black empowerment group for the equity acquired in the BEE transaction. And, UNION is a dummy equal to one if the black empowerment group is a union affiliated with the firm acquired.