



An Examination of Stock Market Reactions to U.S. Corporate Divestitures in South Africa

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Abstract

Intensified international support of the anti-Apartheid movement in South Africa has permeated the investment community in recent years, as evidenced by the substantial fiduciary disinvestment of firms with South African business interests. The purpose of this study is to determine the shareholder wealth effects of U.S. corporate divestments in South Africa. Three hypotheses of shareholder wealth effects are developed and tested. The evidence indicates that shareholders of firms that divest South Africa assets experience negative abnormal stock returns. This evidence is more pronounced for firms that divested after 1985 when social and political pressures to divest were at their peak. Although the time period of this analysis coincides with the emergence of majority rule in South Africa, and thus of a potential declining value of divestiture in the future, our analysis points to a way of evaluating the social costs and benefits of stock divestiture as a tool of corporate social responsibility.

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I. Introduction

Divestiture activity by U.S. corporations in South Africa began in 1978. Spurred in part by (1) mounting social and political pressures on public pension funds to restrict or eliminate investments in companies doing business in South Africa and (2) enactment of U.S. Comprehensive Anti-Apartheid Act of November, 1986, the magnitude of South African divestments increased sharply between 1986 and 1988. According to the Investor Responsibility Research Center (IRRC), the number of U.S. publicly traded firms with operations in South Africa fell from 274 in 1978 to 175 in 1988. The list of companies that ceased operation in South Africa include well known names such as Exxon, Xerox, Coca-Cola, General Motors, Honeywell, and Citicorp.

Previous studies by Rudd (1979), Wagner, Emkin, and Dixon (1984), Ennis and Parkhill (1986), Ezrati (1986), and Grossman and Sharpe (1986) have examined the impact of U.S. corporate divestitures from South Africa on pension fund portfolios. The methodology employed by these studies generally involves construction of two different investment portfolios: one without a divestment policy, and the other, a South Africa Free (SAF) portfolio. While the findings are mixed, they essentially indicate that avoidance of South Africa related stocks does not improve the returns of an investor who has previously made an optimal set of investment decisions. It should be noted however, that these studies were conducted before the surge in corporate withdrawals from South Africa after the 1986 Act. The goal of this study is to assess the impact of South Africa Divestitures on shareholder wealth. Our research differs from previous studies in terms of data base, time period covered, and empirical methodology.

II. Determinants of South Africa Divestments

A U.S. company's decision to leave South Africa may be influenced by several factors including (a) the deteriorating economic and political climate in that country, (b) local government sanctions and consumer boycotts, (c) International sanctions and pressures from African nations, and (d) social interest considerations.

(a) Deteriorating Economic and Political Climate in South Africa

During the gold boom of the late 1970s, returns on capital in South Africa were among the best in the world; although some companies pulled out then, most multinationals remained. A few companies' South African subsidiaries operated in the red ink during the last few years of presence; Ford Motors had to shut down a plant in 1985 due to losses. The growing political unrest in South Africa and lower confidence in economic prospects most likely contributed to an increase in the risk of doing business there.

(b) Local Government Sanctions and Consumer Boycotts in the U.S.

Some companies disclosed publicly that their divestiture was motivated by concerns about losing customers and investors. Restrictions on procurements and product boycotts are expected to have negatively impacted some of these companies and may have been a real factor in rethinking their strategies toward South Africa. In 1987, over 50 cities and counties banned purchases of products from companies that do business with South Africa. Flour Corporation was denied bidding on a multi-million dollar construction contract by Los Angeles Convention and Exhibition Center Authority. Xerox was reported to have lost sales to local governments in U.S because of its South African presence. Other companies were boycotted by consumer activists and church groups.

(c) International Sanctions and Pressures from African Nations

In reaction to the apartheid policies of South African government, a number of countries imposed trade sanctions against the Pretoria government. The majority of African countries which do not have diplomatic relations with South Africa have passed laws banning the sale or purchase of products of companies which do business in South Africa. Actually, many U.S. multinational corporations have on occasion, lost lucrative contracts from some African nations because of their ties to South Africa. Thus, withdrawal from South Africa may be beneficial to U.S. multinationals seeking to establish operations or business ties with African Nations.

(d) Social Interest Hypothesis

The increasing presence of socially responsible investors in the market place have caused many companies to believe that they can benefit society in ways other than the production of an economically feasible good or service. A socially responsible firm may not invest funds in politically sensitive areas of the world, or fail to provide for worker safety. Benefits may accrue to such a firm indirectly as socially responsible investors purchase it's securities. Gains can accrue to society in the form of less time away from work due to an accident, fewer toxic landfills, and less national ethnic or race unrest.

Moreover, opposition to South Africa's racial policies, prompted numerous activists, religious groups and even the United Auto Workers to demand laws that would require public pension funds to divest firms with operations in South Africa. A number of states enacted such laws. Between 1984 and 1986, 19 states, 63 cities, and 114 colleges and universities divested South Africa related stocks from their portfolios (Brown, 1986) to protest South Africa's apartheid policy. In 1986 alone, portfolios having \$117 billion in assets adopted SAF policy (Ring, 1986).

III. Hypotheses

U.S. corporate divestitures in South Africa involve the sale of assets to another firm or a group of buyers (usually South African Nationals). In general, let:

$A(s)$ = the value of the assets as an ongoing operation to the seller,

$A(b)$ = the value of the same assets to the buyer,

S = the share value of the seller prior to the divestiture,

S' = the share value of the seller following the divestiture, and

P = the market value of the assets.

If the market for real assets is perfect in equilibrium, it follows that $A(s) = A(b) = P$. As a result, $S = S'$ and the seller's shareholders will see no increase or decrease in their wealth position. In this case, the divestiture merely "repackages" the seller's assets. Given that the divestiture under such conditions leads to no change in shareholder wealth, its announcement contains no significant information for the financial markets. Therefore, no significant price movements should occur around the announcement date. On the other hand, if the divestiture has real economic value (either positive or negative), the divestiture announcement is significant information to the financial markets. As a result, significant price movements in the common stock of the seller should be observed around the announcement date.

In this study we argue that U.S. corporate divestitures in South Africa has real economic value. We propose the following three competing hypotheses:

Hypothesis 1: Divestment of South Africa assets will have a positive effect on shareholder wealth, as it will result in lifting of boycott against firms' stock and products.

U.S. corporate divestitures in South Africa are not voluntary. Examination of Table 1 leads us to believe that between 1979 and 1985 (prior to the passage of the 1986 U.S. Comprehensive Anti-Apartheid Act), there was less pressure on companies to divest their South Africa assets. However, between 1986 and 1988, 46 of the 63 firms in our sample withdrew from South Africa. We believe that the pressure to divest after passage of the Act was so great that firms were willing to spin-off their South African operations at a loss or to the highest bidder. Accordingly, we develop the second hypothesis:

Hypothesis 2: Divestment of South Africa assets will have a negative effect on shareholder wealth, as those assets are sold much below their fair market value.

The degree of market reaction to divestiture announcement may depend on the size of the divestiture relative to the size (total assets) of the divesting firm. In other words, the smaller the relative size of the divestiture, the smaller $S' - S$ will be, and thus the smaller the market's reaction to the divestiture announcement.

Hypothesis 3: Shareholder wealth effects of South Africa divestments are positively related to the size of assets divested.

IV. Data

The initial sample includes 75 U.S. corporations that announced plans to divest their South African operations between January 1979 and December 1988. The announcement dates were identified through a search of the *Dow Jones News Retrieval Service*, *Wall Street Journal Index*, and *New York Times Index*. To be included in the analysis sample, the initial sample of 75 firms were subject to the following criteria: (1) the firm's stock prices had to be publicly reported at least 70 days preceding and 10 days following the divestiture announcement date; (2) firms subject to multiple announcements within the analysis period were omitted from the sample; and (3) the sale of assets and withdrawal must have actually been completed. As a result, 12 firms were eliminated. The remaining 63 firms constitute our analysis sample. Daily stock returns data are collected from the *Center for Research in Securities Prices* (CRSP) data tapes published by the University of Chicago.

Table 1

**Distribution of Sample Firms Divesting
South Africa Assets Between 1979-1988**

<u>Year</u>	<u>Sample</u>
1979	1
1980	1
1981	1
1982	2
1983	2
1984	3
1985	7
1986	15
1987	21
<u>1988</u>	<u>10</u>
Total	63

V. Methodology

Over a long period of time, many factors may influence a stockholders' return on an investment. Therefore, the portfolio discovery techniques used by studies cited in Section I above are unsuitable with respect to the analysis of impact of a corporate decision on shareholder wealth. Event-time methodology initiated by Fama, Fisher, Jensen, and Roll (1969) is more appropriate for discerning the influence of a particular event on shareholder wealth. Assuming capital markets are semi-strong form efficient, new information should be reflected in the prices of a firm's securities. The hypotheses proposed in this study are tested with respect to market efficiency.

The day of announcement of divestment is classified as day zero in event-time methodology. For each firm, daily abnormal returns are computed over the examination period $t = (-10, +10)$, which is defined as the 21-day interval extending from 10 days prior to the announcement to 10 days after the announcement. Positive abnormal returns (favorable market reaction) suggest that the actual return is more than it would have been in the absence of any market reaction. On the other hand, negative abnormal returns (unfavorable market reaction) implies that the actual return was less than it would have been in the absence of any market reaction. Abnormal returns are computed as:

$$AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt}) \quad (1)$$

where AR_{it} is the abnormal return for firm i on day t , R_{it} is the return for firm i on day t , R_{mt} is the return on the value weighted market index on day t , and α_i and β_i are market model coefficients. For each firm i , market model coefficients are estimated using daily returns for the estimation interval defined as the 60-day period beginning 70 days prior to the announcement date and running through the 11th day prior to the announcement $t=(-70, -11)$. For each day $t=(-10, +10)$ portfolio average abnormal returns are obtained as:

$$AAR_t = (1/N) \sum_{i=0}^N AR_{it} \quad (2)$$

where N is the number of firms in the sample. Cumulative Average Abnormal Returns (CAAR) were also obtained by summing the AAR over the examination period. In the absence of abnormal performance, the expected values of AAR and CAAR are zero. Test statistics for AAR and CAAR are based on the average standardized abnormal return (ASAR_t) and the average standardized cumulative abnormal returns (ASCAR_t) respectively, where:

$$ASAR_t = (1/N) \sum_{i=1}^N [AR_{it}/S_{it}] \quad (3)$$

and

$$ASCAR_{a,b} = \sum_{t=a}^b ASAR_t \quad (4)$$

and S_{it} is the square root of firm i 's estimated forecast variance, given by:

$$S_{it} = S_i^2 \left[\frac{1}{L_i} + \frac{(R_{mt} - R_m)^2}{L_i} \right] \frac{1}{2}$$

$$+ \sum_{k=1}^{k=L_i} \frac{(R_{mk} - R_m)^2}{L_i}$$

where S_i^2 = Residual variance for firm i from the market model regression,

L_i = Number of observations for firm i in the comparison period,

R_{mt} = Market return for day t of the event period,

R_m = Mean market return for the comparison period,

R_{mk} = Market return for day k of the comparison period.

Assuming cross sectional independence, $ASAR_t$ approaches a normal distribution with mean zero and variance $1/N$. The statistics Z_t and $Z_{a,b}$ are unit normal and are used to test the null hypothesis that $ASAR_t$ and $ASCAR_{a,b}$ equal zero, where:

$$Z_t = \sqrt{N} * ASAR_t \quad (5)$$

and

$$Z_{a,b} = \frac{\sqrt{N}}{[\sqrt{b - a + 1}]} \sum_{t=a}^b ASAR_t \quad (6)$$

VI. Results

Test of Hypothesis 1

The first hypothesis is tested in two stages. First, shareholder wealth effects of South Africa divestments are assessed by examining average abnormal returns (AAR) and proportion of positive abnormal returns (%AR>0) for all 63 firms in the sample over

period $t=(-10, +10)$. These results are given in Table 2, Panel A. AAR for day $t=0$ (announcement date) is -1.01% and is significant at the 5% level. However, 79% of the firms experienced a negative AARs on day $t=0$.

The evidence in Table 1, Panel A refutes our first hypothesis. The decision by corporations to divest their South Africa assets has a negative effect on shareholder wealth. We reasoned that the negative AARs may be due to the fact that a majority of firms in the sample withdrew after 1986 under unfavorable conditions. This reasoning is explored further as we examine the results obtained from testing the second hypothesis later.

In the second stage, we test the first hypothesis directly to see whether divestment of South Africa assets will have positive stockholder wealth effect as sanctions on investing in those firms' stocks by mutual funds and other institutional investors are lifted. The test involves examining the institutional stock holdings and volume for the firms in our sample before and after the announcement of divestment. The number of institutional holdings, number of shares held by institutional investors, and the volume of trading for six months before and six months subsequent to the event were collected from *Standard and Poor's Stock Guide*.

Table 2
Abnormal Returns to Firms Withdrawing from South Africa

t	Panel A			Panel B		
	Full Sample (63 Firms)			Restricted Sample (46 Firms)		
	N	AAR(%)	% AR>0	N	AAR (%)	%AR>0
-10	63	-0.17	41	46	-0.27	28
-9	63	-0.10	47	46	-0.46	27
-8	63	-0.22	41	46	-0.37	29
-7	63	-0.09	39	46	0.35	39
-6	63	-0.31	27	46	-0.16	36
-5	63	0.11	52	46	-0.39	35
-4	63	-0.20	39	46	0.41	60
-3	63	0.11	48	46	1.49**	51
-2	63	0.19	53	46	-0.73	41
-1	63	-0.14	49	46	0.81*	49
0	63	-1.01**	21	46	-1.28**	20
1	63	-0.08	46	46	0.31	43
2	63	0.10	55	46	-0.34	38
3	63	0.19	39	46	-0.18	36
4	63	-0.03	47	46	0.17	49
5	63	-0.31	39	46	-0.26	60
6	63	-0.28	48	46	-0.39	25
7	63	-0.27	33	46	-0.19	37
8	63	-0.18	56	46	0.28	61
9	63	0.40	44	46	0.13	39
10	63	0.11	37	46	0.36	45

* and ** represent significance at the 10% and 5% levels respectively.

In order to test the difference in holdings and trading volume before and after divestment announcement, we first take the average of each of these three variables for each of the twelve months for the whole sample as a group. We then compute the mean and the standard deviation of each of these variables for pre- and post-announcement periods separately. Finally, a test statistic for the difference of the means is calculated. The results are reported in Table 3.

As shown in table 3, all three variables show an increase in the postperiod from the

pre-period level. The number of companies with institutional holdings, the number of shares held institutionally as well as the volume of trading, all increased significantly in the post-announcement period (at the 5% level or better). The increase in institutional holdings and volume pressure could imply that there was an increase in stock prices due to these factors. These results also suggest that the negative economic impact of divestiture is actually greater than evidenced in the event methodology.

Table 3
Average and Standard Deviation of Institutional Holdings
and Trading Volume in the Pre-and Post-Announcement Periods

Variable	Pre-Announcement		Post-Announcement		t statistic
	Average	Std Dev	Average	Std Dev	
Institutional Holdings:					
#of companies	435.82	1.72	656.90	6.02	5.76*
#of shares (000s)	61,113.31	30,246.11	70,179.68	501.16	5.01*
Volume of trading (in 00s)	88,775.63	4,291.18	110,642.12	8112.03	2.89*

* Statistically significant at 5% or better.

Test of Hypothesis 2

To test the second hypothesis, AARs are estimated using a restricted sample of 46 firms that withdrew from South Africa after 1985. We reasoned that the first wave of departures (before 1985) occurred under more favorable conditions and hence we would expect this subsample of companies to have the advantage of selling on highly favorable terms. For example, the South Africa Reserve Bank temporarily eased conditions for repatriating funds in 1983.

The second wave of departures (after passage of the 1986 Comprehensive Anti-Apartheid Act) occurred during tremendous social and political pressures to divest and hence subsidiaries may have been sold at "fire sale" prices. Most companies divested their assets in four main ways: selling to another company, usually South African; buyouts by company's managers; putting its shares in a trust for the benefit of employees; or simply shutting down the business. Because of the different economic conditions under which the second wave of divestitures occurred, the wealth effect of firms divesting after 1985 is expected to be significantly negative as those assets are sold much below

their fair market value.

AARs and proportion of positive abnormal returns for the 46 firms in the restricted sample are shown in Table 2, Panel B. Exactly as predicted, we find that AAR for day $t=0$ for the sample of firms that left South Africa after 1985 is equal to -1.28% and is statistically significant at the 5% level. Significant AARs are also registered on each of the three days before the announcement. This may suggest that insiders with knowledge of the event did seek to profit by trading prior to the divestiture announcement; or it may suggest that the market anticipated the news before it was announced. We also observe negative AARs for 80% of the firms in the sample at day $t=0$. These results are therefore consistent with our second hypothesis.

Test of Hypothesis 3

To test the third hypothesis, we divided the sample into two subsamples of "large" and "small" divestitures. Divestitures are classified as "large" if the ratio of the divesting firm's South African assets as a percentage of total exceeds 1 percent and vice versa. There are 20 "large" divestitures and 43 "small" divestitures. Data on size of foreign investments in South Africa were obtained from *Directory of U.S and Canadian Investments in South Africa and Namibia* published by the Investor Research and Responsibility Center (1988).

Table 4
Abnormal Returns to Firms Withdrawing from South Africa
 ("Small" Versus "Large" Divestitures)

t	Panel A Small Divestitures Sample (43 Firms)			Panel B Large Divestitures Sample (20 Firms)		
	N	AAR(%)	% AR>0	N	AAR (%)	%AR>0
-10	43	-0.11	56	20	-1.23	54
-9	43	-0.10	48	20	-0.56	41
-8	43	-0.21	41	20	-0.75	41
-7	43	-0.08	37	20	0.35	41
-6	43	-0.20	27	20	-0.06	39
-5	43	0.01	49	20	-0.43	31
-4	43	-0.11	44	20	0.08	60
-3	43	0.02	51	20	0.29	31
-2	43	0.11	45	20	-0.40	43
-1	43	-0.12	48	20	-0.47*	48
0	43	-0.28	48	20	-0.89**	29
1	43	-0.12	45	20	0.10	52
2	43	0.11	34	20	-0.34	33
3	43	0.16	49	20	-0.28	38
4	43	-0.03	55	20	0.17	48
5	43	-0.21	33	20	-0.02	52
6	43	-0.21	48	20	-0.32	36
7	43	-0.10	37	20	-0.50	29
8	43	-0.18	54	20	0.13	59
9	43	0.39	39	20	0.22	37
10	43	0.04	50	20	0.30	48

* and ** represent significance at the 10% and 5% levels respectively.

Separate AARs were obtained for each group as shown in Table 4. Panel A list the results for the sample of small divestitures while results of the large divestitures sample are listed in Panel B. These results show that shareholders of large divesting firms experienced significant and negative average abnormal returns (AARs) of -0.47% and -0.89% on days t=-1 and t=0 respectively. On day t=0, 71% of the firms in the large

sample earned negative abnormal returns. Although shareholders of firms in the small divestitures sample earned negative abnormal returns on the announcement day, the results are not significant. In other words, there is a positive relationship between the size of assets divested and shareholder wealth effects of South Africa divestments. These results are consistent with our third hypothesis.

VII. Conclusion

The findings of this study indicate that divestment of South African assets has a negative effect on stockholder wealth for the firms involved. However, we also find that when the sample is restricted to firms that withdrew after 1985 during the period of mounting divestment pressures, the negative wealth effects are more pronounced. When the sample is divided into large versus small divestitures, we find that shareholders of large divestitures experienced significant negative AARs while shareholders of small divestitures did not. Overall, the findings suggest that the pressure to sell assets in South Africa at inopportune time could be the primary cause of the observed negative shareholder wealth effects.

Since 1989 the political scene in South Africa has changed considerably with the release of Nelson Mandela. Although many U.S. corporations still do business in South Africa, capital budgeting decisions must be continuously monitored because of changes in the investment climate. If a firm divests profitable investment projects, the net present value of the unrealized cash flows will be lost. Also, if South Africa investment projects are profitable, the decision to divest should manifest itself in a lower stock price. The corporate interest hypothesis suggests that managers seeking to maximize shareholder wealth will not divest South African interests if these projects are economically profitable.

On the other hand, A company can benefit society in ways other than the production of an economically feasible good or service. The social interest hypothesis suggests that benefits can accrue to a firm as a result of the firm's decision to divest its South African holdings.

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