# SHAREHOLDER VALUE CREATORS IN THE BUILDING MATERIALS SECTOR OF THE NIGERIAN STOCK EXCHANGE 2000-2009 

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#### Abstract

In this paper, shareholder value creators for the companies included in the Building Materials sector of the Nigerian Stock Exchange (NSE) in the period 2000-2009 was defined and quantified. The shareholder value created by each of the six active companies included in the Building Materials sector of the Nigerian Stock Exchange (NSE) was quantified for every year in the period 2000-2009. To achieve this objective, the annual reports and accounts of the relevant subject firms as well as the official reports from the Nigerian Stock Exchange and Central Bank of Nigeria were engaged to extract the data set for the study. The study discovered that Benue Cement Company Plc is the top shareholder value creator in the sector with N6.30 per share, followed by West African Portland Cement Company Plc with N4.23, Nigerian Wire Industries Plc with N3.27, Cement Company of Northern Nigeria Plc N11.05, and Ashaka Cement Company Plc N0.74 per share, while the Nigerian Ropes is a majorly shareholder value destroyer. It is also interesting to note that no year went by without the appearances of the shareholder value creators as well as the shareholder value destroyers.


Keywords: shareholder value creation, shareholder value added, shareholder actual return, shareholder required return to equity, Equity market value.

## 1. Introduction

In the investment arena every investor invests to enhance future value of the investment. And the major purpose of investment is to generate periodic income and capital appreciation with passage of time. Investors on financial asset such as equity expect dividend income and capital appreciation from the ordinary shares of which the sum of the two gives the actual total shareholder return to equity. Majority of Nigerian capital market investors avoid investments that relate to Building Materials sector mainly because of the heavy reliance on importation of the production inputs in the country and the ever changing import regulations by each government in power. The question is does such avoidance connotes poor shareholder value creation from companies that operate in the sector? What actually is the shareholder return and shareholder value creation from these companies? Are they shareholder value creators or shareholder value destroyers? The urge and the need to find out the level of shareholder value creation in these companies necessitated the need for this study. Consequently therefore, the objective of the study is to discover the shareholder value creation capacity of the companies stocks. The outcome of the study will be very useful to investors as to whether to change their minds and adjust their investment portfolio towards Building Materials companies or to maintain their stay-off stance against the sector.

## Literature Review

## 2. Literature Review

Allen(2003), Grullon et al (2002), Grullon and Michaely(2002), Lintner(1956), La Porta (2000), Gordon (1959:272287) argued that investors prefer the early resolution of uncertainty and are willing to pay a higher price for the stock that offers the greatest current dividends, all other things held constant. He reasoned that future dividends are more uncertain and more risky than current dividends to the extent that investors will be affected by the earnings retention rate and dividend payout rate. The end point of his argument is that the market value of a share depends upon the magnitude and timing of cash dividends receivable over the share holding period and the market price realizable upon the disposal of the share. The Gordon's model observes the following assumptions when suggesting that a company that pays a high dividend is less risky than a company that pays a low dividend: investors are risky averse, the firm is all-equity financed, no external finance is available hence retained earnings are used to finance expansion, internal rate of return, $r$ of the firm is constant, cost of capital or discount rate k is constant, that is the model ignores the uncertainty surrounding $t$ he distant dividends, which should be discounted at a higher rate, the firm and its earnings stream are perpetual, corporate taxes do not exist, the growth rate, $g=r b$ is constant forever with constant retention ratio(b), cost of capital must be greater than the growth rate $g=r b<k$. Therefore from the above analysis,

Gordon states that the market price of a share is a function of the present value of estimated cash dividend streams and the market price upon disposal of the share.
Walter (1956:29-41) argued that the decision to pay dividends depends on the profitability of investment opportunities available to the firm. Khoury (1983) argued that dividends are no longer an active decision variable but rather a residual sum. Walter (1963:280-291) argued that the choice of dividend policies almost always affect the value of the firm. His works show the relationship between the firm's internal rate of return (r) and its cost of capital (k) in determining the dividend policy that will maximize the wealth of shareholders, based on the following assumptions: the firm is all-equity financed, no external finance is available hence retained earnings are used to finance expansion, internal rate of return, $r$ is constant, cost of capital of the firm is constant, all earnings are either distributed as dividends or reinvested internally immediately, the earnings stream are constant forever for determining a given value, the dividends are constant forever for determining a given value, the firm has perpetual life. Walter posits that the market price per share is the sum of the present values of the perpetual streams of constant dividends and capital gains. In summary, Walter suggests the following options. 1. When $r>k$, all earnings should be retained and plough back. 2. When $\mathrm{r}=\mathrm{k}$, dividend or retention policy is irrelevant. 3. When $\mathrm{r}<\mathrm{k}$, distribute all earnings as dividends to shareholders.
Walter's model is criticized on the following grounds: 1. external financing is excluded even when there is need for it for optimum investment which will maximize the wealth of the shareholders. 2. The Walter's model disregards the relationship between cost of capital and risk. It kept cost of capital constant but a firm's cost of capital changes directly with the firm's risk and can never be constant.
The Bird-In-The-Hand Argument was put forward by Kirshman (1933:737) and supported by Benartzi et al (1997), Bernheim and Adam(1995), Bhattacharya(1979), Brav et al (2005). He argues that of two stocks with identical earnings record and prospects, the one paying a larger dividend than the other would undoubtedly command a higher price merely because stockholders prefer present to future values. Myopic vision plays a part on the price-making process. Stockholders often act upon the principle that a bird in the hand is worth two in the bush and for this reason are willing to pay a premium for the stock with the higher dividend rate, just as they discount the one with the lower rate.
Graham and Dodd (1934:327) followed suit by stating that "the typical investor would most certainly prefer to have his dividend today and let tomorrow take care of itself. No instances are on record in which the withholding of dividends for the sake of future profits has been hailed with such enthusiasm as to advance the price of the stock. The direct opposite has invariably been true. Pandey (1999:755) emphasized that "given two companies in the same general position and with the same earning power, the one paying the larger dividend will always sell at a higher price. Gordon (1962) said that uncertainty increases with futurity, that is, the further one looks into future, the more uncertain dividends become. Thus, distant dividends would be discounted at a higher rate than near dividends. Here it is assumed that the market value of a company's shares depends on the size of dividends paid, the growth rate in dividends and the shareholders required rate of return. It should be understood that the growth rate in dividends depends on how much money is reinvested in the company hence the rate of earnings retention.
When dividend is declared there is normally a drop in the ex-dividend price of a share since the company must finance the dividend payment out of earnings, there will be fewer funds available for reinvestment. Therefore there will be a reduction in future earnings and dividends. If the size of the dividend does not affect the shareholders' view of risk and if the company does not obtain new funds from other sources, the expected fall in the ex-dividend value of the share should be equal to the amount of the current dividend. This is because the future dividends which would have been earned by retaining the current dividend when discounted at the shareholders' cost of capital to a present market value would have the same value as the current dividend. This is based on the assumption that investments would earn a return equal to the shareholder's cost of capital. In support of this argument, Easterbrook(1984), and Porterfield (1959:56-61) suggested that a dividend should be paid if $V_{1}+D_{0} \geq V_{0}$ or $D_{0} \geq V_{o}-V_{1}$ where $V_{o}=$ Market value per share before declaration of dividends, $\mathrm{V}_{1}=$ Market value per share after declaration of dividends, $\mathrm{D}_{\mathrm{o}}=$ Dividend per share declared. This means that a dividend is justifiable provided that it exceeds the fall in share price as a result of the dividend declaration. It follows that the size of a current dividend should be increased until the marginal increment in dividend equals the consequent marginal decline in the ex-dividend value of the firm.
Furthermore, since the purpose of dividend policy is to maximize the wealth of shareholder it is important to consider whether it would be better to pay dividend now subject to tax on income or to retain earnings so as to increase the capital gain on shares which will be subject to capital gains tax when the shareholder eventually sells his shares. When dividends ( $D$ ) are paid, income to shareholders is $D\left(1-t_{w}\right)$, where $D \quad=$ Amount of Dividend to a shareholder, $\mathrm{t}_{\mathrm{w}}=$ Withholding tax rate on dividends. When earnings are retained so as to achieve capital gain, the
income to shareholders is $\left(P_{1}-P_{0}\right)\left(1-t_{c}\right)$, where $P_{1}=$ Future value of the share with capital gain, $P_{o}=$ Current value of the share without capital gain, $\mathrm{t}_{\mathrm{c}}=$ Capital gains tax rate. Shareholders would prefer reinvestment of earnings if large after-tax capital gains were obtainable, that is, $\left(\mathrm{P}_{1}-\mathrm{P}_{\mathrm{o}}\right)\left(1-\mathrm{t}_{\mathrm{C}}\right)>\mathrm{D}\left(1-\mathrm{t}_{\mathrm{w}}\right)$. However attempt should be made to maximize the sum of $\left(\mathrm{P}_{1}-\mathrm{P}_{\mathrm{O}}\right)\left(1-\mathrm{t}_{\mathrm{C}}\right)+\mathrm{D}\left(1-\mathrm{t}_{\mathrm{w}}\right)$.
Modigliani and Miller (1961:411-433) provided the most articulated arguments on the irrelevance of dividend in October 1961 and supported by Fama and Harvey(1968), Miller and Modigliani(1961), Miller and Rock(1985), Miller and Scholes(1982). The M-M hypothesis of dividend irrelevance argued that under a perfect market, tax-free, flotation cost-free and hitch-free share sales situations shareholders are indifferent between dividends and capital gains and the value of a company is determined solely by the earning power of its assets and investments. They argued that if a company with investment opportunities decides to pay a dividend so that retained earnings are insufficient to finance all the investments; obtaining additional funds from outside sources at no transaction costs will make up the shortfall in funds. They are of the view that the consequent loss of value in the existing shares as a result of obtaining outside finance instead of using retained earnings is exactly equal to the amount of the dividend paid. This hypothesis is based on the following assumptions: perfect capital market where investors act rationally and have access to perfect information, no flotation costs on securities issued by companies and no transaction costs on securities sold by shareholders, a world of no taxes, risk of uncertainty does not exist as investors are perfectly certain on the future investments, profits and dividends of the company. Also one discount rate is appropriate for all securities and all time period. That is, if internal rate of return (r) equals to cost of capital (k) the company maintains a fixed investment policy.

According to Fernandez et al(2011) to obtain the created shareholder value, we must first define the increase of equity market value, the shareholder value added, the shareholder return, and the required return to equity. The equity market value of a listed company is the company's market value, that is, each share's price multiplied by the number of shares. The increase of equity market value in one year is the equity market value at the end of that year less the equity market value at the end of the previous year. Shareholder value added is the term used for the difference between the wealth held by the shareholders at the end of a given year and the wealth they held the previous year. The shareholder value added is equals to Increase in equity market value plus Dividends paid during the year plus other payments to shareholders (share buybacks....) less Outlays for capital increases less Conversion of convertible debentures. The shareholder return is the Shareholder value added in one year, divided by the equity market value at the beginning of the year. The required return to equity is the sum of the interest rate of long-term Treasury bonds plus a quantity that is usually called the company's risk premium and which depends on its risk. That is, the required return to equity is return of long-term treasury bonds plus risk premium(that is, $R_{e}=R_{f}+\beta\left[R_{m}-R_{f}\right]$ ). In their words, a company creates value for the shareholders when the shareholder return exceeds the share cost (the required return to equity). In other words, a company creates value in one year when it outperforms expectations. Therefore, Created shareholder value is equals to equity market value multiplied by (Shareholder return minus required return to equity). Alternatively, it can be computed as Created shareholder value equals to shareholder value added less (equity market value multiplied by required return to equity).

In summary, Increase of equity market value in one year $=$ Equity market value ${ }_{t}$ - equity market value $e_{t-1}$. Shareholder value added in one year $=$ Increase in equity market value + Dividends paid during the year + Share Repurchases - Outlays for capital increases - Conversion of convertible debentures. Created shareholder value ${ }_{t}=$ shareholder value added ${ }_{t}$ - (equity market value ${ }_{t-1} \mathrm{x}$ required return to equity). How the above arguments reflect on shareholder value in Nigeria setting is of major concern to the researcher and no similar study has been carried out with respect to firms quoted in the Nigerian Stock Exchange.

## 3. Research Methodology

The aim of this work is to quantify the shareholder value created by the five active companies that were listed in the Building Materials sector of the Nigerian Stock Exchange (NSE) in the period 2000-2009. To achieve this aim, the equity market value per share was computed from the NSE Daily Official list from January-December 2000-2009. The dividend per share (DPS) were adopted from the company's annual reports and accounts from 2000-2009 and confirmed from the regulatory agencies such as Securities and Exchange Commission (SEC) and the Nigerian Stock Exchange (NSE). Thereafter, the created shareholder value was obtained from the Fernandez et al (2011) model, the created shareholder value equals to equity market value multiplied by (Shareholder return minus required return to equity).

### 4.0 Results and Discussions

Table 1: Sectoral Shareholder return, Shareholder value added and Created shareholder value

| 1. Ashaka | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | $2000-2009$ | Ave |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Shareholder return \% | $\mathbf{2 8 . 0 1}$ | $\mathbf{9 7 . 0 7}$ | $\mathbf{5 1 . 1 2}$ | $\mathbf{- 1 3 . 5 1}$ | $\mathbf{5 8 . 5 8}$ | $\mathbf{3 8 . 5 9}$ | $\mathbf{6 1 . 0 6}$ | $\mathbf{4 8 . 0 9}$ | $\mathbf{- 3 8 . 7 1}$ | $\mathbf{- 6 9 . 2 4}$ | $\mathbf{2 6 1 1}$ | $\mathbf{2 6 . 1 1}$ |
| Equity Market value (K) | 717 | 1338 | 1962 | 1526 | 2135 | 2727 | 4242 | 6282 | 3820 | 1175 | 25924 |  |
| Increase in Equity market value(K) | 110 | 621 | 624 | -436 | 609 | 592 | 1515 | 2040 | -2462 | -2645 | 598 |  |
| Shareholder value added(K) | 170 | 696 | 684 | -265 | 894 | 824 | 1665 | 2040 | -2432 | -2645 | 1631 | 60 |
| $\mathrm{R}_{\mathrm{f}}(\%)$ | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 8.58 | 6.05 | 110.4 | 11.04 |
| Required return to equity $(\mathrm{Ke}) \%$ | 55.67 | -3.69 | 14.27 | 26.94 | 49.62 | -13.02 | 24.45 | 84.71 | 8.35 | -106.04 | 141.26 | 14.13 |
| Risk premium $\left[\beta\left(\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}\right)\right] \%$ | 43.67 | -16.64 | -4.61 | 11.92 | 35.41 | -20.02 | 15.65 | 77.80 | -0.23 | $(112.09)$ | 30.86 | 3.09 |
| Shareholder value creation $(\mathrm{k})$ | $\mathbf{( 1 9 8 )}$ | $\mathbf{1 3 4 8}$ | $\mathbf{7 2 3}$ | $\mathbf{( 6 1 7 )}$ | $\mathbf{1 9 1}$ | $\mathbf{1 4 0 7}$ | $\mathbf{1 5 5 3}$ | $\mathbf{- 2 3 0 0}$ | $\mathbf{- 1 7 9 8}$ | $\mathbf{4 3 2}$ | $\mathbf{7 4 1}$ | $\mathbf{7 4}$ |


| 2. Benue | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | $2000-2009$ | Ave |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Shareholder return \% | $\mathbf{7 1 . 3 2}$ | $\mathbf{7 . 6 9}$ | $\mathbf{0 . 6 3}$ | $\mathbf{- 0 . 4 2}$ | $\mathbf{1 . 6 8}$ | $\mathbf{2 2 . 4 7}$ | $\mathbf{1 8 3 . 5 0}$ | $\mathbf{1 9 8 . 9 9}$ | $\mathbf{- 1 2 . 4 9}$ | $\mathbf{- 1 9 . 8 8}$ | $\mathbf{4 5 3 4 9}$ | $\mathbf{4 5 . 3 5}$ |
| Equity Market value (K) | 442 | 476 | 479 | 477 | 485 | 594 | 1684 | 5035 | 4406 | 3330 | 17408 |  |
| Increase in Equity market value(K) | 184 | 34 | 3 | -2 | 8 | 109 | 1090 | 3351 | -629 | -1076 | 3072 | 307 |
| Shareholder value added(K) | 184 | 34 | 3 | -2 | 8 | 109 | 1090 | 3351 | -629 | $\mathbf{- 8 7 6}$ | 3272 | 327 |
| $\mathrm{R}_{\mathrm{f}}(\%)$ | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 8.58 | 6.05 | 110.4 | 11.04 |
| Required return to equity $(\mathrm{Ke}) \%$ | 55.36 | 8.89 | 18.88 | 16.40 | -10.16 | 3.28 | 68.97 | 118.06 | 8.28 | -54.26 | 233.70 | 23.37 |
| Risk premium [ $\left.\beta\left(\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}\right)\right] \%$ | 43.36 | -4.06 | 0 | 1.38 | -24.37 | -3.72 | 60.17 | 111.15 | -0.30 | -60.31 | 123.30 | 12.33 |
| Shareholder value creation $(\mathrm{k})$ | 71 | -6 | -87 | -80 | 57 | 114 | 1929 | 4075 | $\mathbf{- 9 1 5}$ | 1145 | $\mathbf{6 3 0 3}$ | $\mathbf{6 3 0}$ |


| 3. CCNN | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2000-2009 | Ave |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Shareholder return \% | -6.93 | 27.91 | 109.09 | -18.26 | 25.32 | 26.77 | 49.45 | 107.49 | -28.51 | -31.68 | 267.51 | 26.75 |
| Equity Market value (K) | 215 | 275 | 575 | 470 | 579 | 724 | 1082 | 2245 | 1515 | 945 | 8625 | 863 |
| Increase in Equity market value(K) | -16 | 60 | 300 | -105 | 109 | 145 | 358 | 1163 | -730 | -570 | 714 | 71 |
| Shareholder value added(K) | -16 | 60 | 300 | -105 | 109 | 145 | 358 | 1163 | -640 | -480 | 894 | 89 |
| $\mathrm{R}_{\mathrm{f}}$ (\%) | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 8.58 | 6.05 | 110.4 | 11.04 |
| Required return to equity ( Ke )\% | 8.70 | 13.36 | 20.67 | 10.87 | 105.73 | -8.59 | 54.35 | 25.22 | 8.23 | -12.84 | 225.70 | 22.57 |
| Risk premium $\left[\beta\left(\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}\right)\right] \%$ | -3.30 | 0.41 | 1.79 | -4.15 | 91.52 | -15.59 | 45.55 | 18.31 | -0.35 | -18.89 | 115.30 | 11.53 |
| Shareholder value creation (k) | -34 | 40 | 508 | -137 | -466 | 256 | -53 | 1847 | -557 | -178 | 1226 | 123 |


| 4. Nigerian Ropes | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | $2000-2009$ | Ave |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Shareholder return $\%$ | $\mathbf{- 1 . 6 6}$ | $\mathbf{7 . 8 7}$ | $\mathbf{8 . 3 3}$ | $\mathbf{0 . 9 6}$ | $\mathbf{- 5 . 7 1}$ | $\mathbf{- 2 0 . 7 1}$ | $\mathbf{4 1 . 0 8}$ | $\mathbf{5 8 . 6 4}$ | $\mathbf{4 5 . 9 3}$ | $\mathbf{- 4 8 . 4 3}$ | $\mathbf{8 6 . 3 0}$ | $\mathbf{8 . 6 3}$ |
| Equity Market value (K) | 178 | 192 | 208 | 210 | 198 | 157 | 214 | 332 | 477 | 246 | 2412 |  |
| Increase in Equity market value(K) | -3 | 14 | 16 | 2 | -12 | -41 | 57 | 118 | 145 | -231 | 65 | 241 |
| Shareholder value added(K) | -3 | 14 | 16 | 2 | -12 | -41 | $\mathbf{6 4 . 5}$ | $\mathbf{1 2 5 . 5}$ | $\mathbf{1 5 2 . 5}$ | $\mathbf{- 2 3 1}$ | 87.5 | 9 |
| $\mathrm{R}_{\mathrm{f}}(\%)$ | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 8.58 | 6.05 | 110.4 |  |
| Required return to equity $(\mathrm{Ke}) \%$ | 10.11 | 19.44 | 18.95 | 15.02 | 15.59 | 7.00 | 41.52 | 26.52 | 8.65 | 6.05 | 168.85 |  |
| Risk premium [ $\left.\beta\left(\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}\right)\right] \%$ | $\mathbf{- 1 . 8 9}$ | 6.49 | 0.07 | 0 | 1.38 | 0 | 32.72 | 19.61 | 0.07 | 0 | 11.04 |  |
| Shareholder value creation $(\mathrm{k})$ | $\mathbf{- 2 1}$ | $\mathbf{- 2 2}$ | $\mathbf{- 2 2}$ | $\mathbf{- 3 0}$ | $\mathbf{- 4 2}$ | $\mathbf{- 4 4}$ | $\mathbf{- 1}$ | $\mathbf{1 0 7}$ | $\mathbf{1 7 8}$ | $\mathbf{- 1 3 4}$ | $\mathbf{- 3 1}$ |  |


| 5. Nigerian Wire | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | $2000-2009$ | Ave |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Shareholder return $\%$ | $\mathbf{5 . 3 6}$ | $\mathbf{9 . 8 0}$ | $-\mathbf{4 . 7 1}$ | $\mathbf{- 7 . 0 0}$ | $\mathbf{- 0 . 8 8}$ | $\mathbf{0}$ | $\mathbf{0}$ | $\mathbf{0}$ | $\mathbf{3 4 9 . 5 5}$ | $\mathbf{5 . 1 6}$ | $\mathbf{3 5 7 . 2 8}$ | $\mathbf{3 5 . 7 3}$ |
| Equity Market value $(\mathrm{K})$ | 255 | 255 | 243 | 226 | 224 | 224 | 224 | 224 | 1007 | 1059 | 3941 | 394 |
| Increase in Equity market value $(\mathrm{K})$ | 6 | 0 | -12 | -17 | -2 | 0 | 0 | 0 | 783 | 52 | 810 | 81 |
| Shareholder value added $(\mathrm{K})$ | 26 | 25 | -12 | -17 | -2 | 0 | 0 | 0 | 783 | 52 | 810 | 81 |
| $\mathrm{R}_{\mathrm{f}}(\%)$ | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 8.58 | 6.05 | 110.4 | 11.04 |
| Required return to equity $(\mathrm{Ke}) \%$ | 12.00 | 12.95 | 19.36 | 16.40 | 14.21 | 7.00 | 8.80 | 6.91 | 8.20 | -0.04 | 105.79 | 10.58 |
| Risk premium $\left[\beta\left(\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}\right)\right] \%$ | 0 | 0 | 0.48 | 1.38 | 0 | 0 | 0 | 0 | -0.38 | -6.09 | -4.61 | -0.46 |
| Shareholder value creation $(\mathrm{k})$ | $\mathbf{- 1 7}$ | $\mathbf{- 8}$ | $\mathbf{- 5 8}$ | $\mathbf{- 5 3}$ | $\mathbf{- 3 4}$ | $\mathbf{- 1 6}$ | $\mathbf{- 2 0}$ | $\mathbf{- 1 5}$ | $\mathbf{3 4 3 7}$ | $\mathbf{5 5}$ | $\mathbf{3 2 7 1}$ | $\mathbf{3 2 7}$ |


| 6. WAPCO | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | $2000-2009$ | Ave |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Shareholder return $\%$ | $\mathbf{- 9 . 0 6}$ | $\mathbf{1 7 . 5 9}$ | $\mathbf{- 2 5 . 1 0}$ | $\mathbf{- 1 2 . 8 9}$ | $\mathbf{- 1 . 9 4}$ | $\mathbf{- 1 9 . 6 8}$ | $\mathbf{2 0 1 . 3 8}$ | $\mathbf{8 7 . 2 9}$ | $\mathbf{- 7 8 . 2 1}$ | $\mathbf{7 6 . 4 2}$ | $\mathbf{2 3 5 . 8 0}$ | $\mathbf{2 3 . 5 8}$ |
| Equity Market value $(\mathrm{K})$ | 2087 | 2454 | 1838 | 1601 | 1570 | 1231 | 3610 | 6641 | 1387 | 2437 | 24856 | 2486 |
| Increase in Equity market value $(\mathrm{K})$ | -208 | 367 | -616 | -237 | -31 | -339 | 2379 | 3031 | -5254 | 1050 | 142 | 14 |
| Shareholder value added $(\mathrm{K})$ | -208 | 367 | -616 | -237 | -31 | $\mathbf{- 3 0 9}$ | $\mathbf{2 4 7 9}$ | $\mathbf{3 1 5 1}$ | $\mathbf{- 5 1 9 4}$ | $\mathbf{1 0 6 0}$ | 462 | 46 |
| $\mathrm{R}_{\mathrm{f}}(\%)$ | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 8.58 | 6.05 | 110.4 | 11.04 |
| Required return to equity $(\mathrm{Ke}) \%$ | 10.74 | 82.75 | 13.89 | 27.81 | 38.58 | -18.88 | 47.93 | 74.25 | 8.40 | -48.78 | 236.69 | 23.67 |
| Risk premium $\left[\beta\left(\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}\right)\right] \%$ | $\mathbf{- 1 . 2 6}$ | 69.80 | -4.99 | 12.79 | 24.37 | -25.88 | 39.13 | 67.34 | -0.18 | $\mathbf{- 5 4 . 8 3}$ | 126.29 | 12.63 |
| Shareholder value creation $(\mathrm{k})$ | $\mathbf{- 4 1 3}$ | $\mathbf{- 1 5 9 9}$ | $\mathbf{- 7 1 7}$ | $\mathbf{- 6 5 2}$ | $\mathbf{- 6 3 6}$ | $\mathbf{- 1 0}$ | $\mathbf{5 5 3 9}$ | $\mathbf{8 6 7}$ | $\mathbf{- 1 2 0 1}$ | $\mathbf{3 0 5 1}$ | $\mathbf{4 2 2 9}$ | $\mathbf{4 2 3}$ |

Table 2: Ranked order of Shareholder value creators and Shareholder value destroyers

| $\mathrm{s} / \mathrm{n}$ | Stocks | 2000 | Stocks | 2001 | Stocks | 2002 | Stocks | 2003 | Stocks | 2004 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | Benuecem | 71 | AshakaCem | 1348 | AshakaCem | 723 | Nigerian Ropes | -30 | AshakaCem | 191 |
| 2 | Nigerian wire | $\mathbf{- 1 7}$ | CCNN | 40 | CCNN | 508 | Nigerian Wire | -53 | BenueCem | 57 |
| 3 | Nigerian Ropes | $\mathbf{- 2 1}$ | BenueCem | -6 | Nigerian Ropes | -22 | BenueCem | -80 | Nigerian Wire | -34 |
| 4 | CCNN | $\mathbf{- 3 4}$ | Nigerian Wire | -8 | Nigerian Wire | -58 | CCNN | -137 | Nigerian Ropes | -42 |
| 5 | Ashakacem | $\mathbf{- 1 9 8}$ | Nigerian Ropes | -22 | BenueCem | -87 | AshakaCem | -617 | CCNN | -466 |
| 6 | WAPCO | $\mathbf{- 4 1 3}$ | WAPCO | -1599 | WAPCO | -717 | WAPCO | -652 | WAPCO | -636 |


| s/n | Stocks | 2005 | Stocks | 2006 | Stocks | 2007 | Stocks | 2008 | Stocks | 2009 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | AshakaCem | 1407 | WAPCO | 5539 | BenueCem | 4075 | Nigerian Wire | 3437 | WAPCO | 3051 |
| 2 | CCNN | 256 | BenueCem | 1929 | CCNN | 1847 | Nigerian Ropes | 178 | BenueCem | 1145 |
| 3 | BenueCem | 114 | AshakaCem | 1553 | WAPCO | 867 | CCNN | -557 | AshakaCem | 432 |
| 4 | WAPCO | -10 | Nigerian Ropes | -1 | Nigerian Ropes | 107 | BenueCem | -915 | Nigerian wire | 55 |
| 5 | Nigerian Wire | -16 | Nigerian Wire | -20 | Nigerian Wire | -15 | WAPCO | -1201 | Nigerian Ropes | -134 |
| 6 | Nigerian Ropes | -44 | CCNN | -53 | AshakaCem | -2300 | AshakaCem | -1798 | CCNN | -178 |

In this paper the researcher quantified shareholder value creation for the companies quoted in Building Materials sector of the Nigerian Stock Exchange (NSE) in the period 2000-2009. Shareholder value created is defined according to Fernandez (2004). A company creates value for the shareholders when the shareholder return exceeds the shareholder required return to equity. In other words, a company creates value in one year when it outperforms expectations; hence the created shareholder value is quantified as equity market value multiplied by the difference between the shareholder return and the cost of equity capital. As shareholder return is equal to shareholder value added divided by the equity market value, the created shareholder value can also be calculated as shareholder value added minus the product of equity market value multiplied by the cost of equity capital.

Table 4.1 shows the shareholder return in percent, equity market value in kobo, increase in equity market value in kobo, shareholder value added in kobo, risk-free return in percent, required return to equity in percent, equity risk premium in percent, and shareholder value created in kobo for the six active companies namely; Ashaka, Benue, CCNN, Nigerian Ropes, Nigerian Wire, and WAPCO listed in the Building Materials sector of the Nigerian Stock

Exchange (NSE) in the period 2000-2009. The details of the computation for each year are shown in the appendix. Table 4.2 shows the shareholder value creators and the shareholder value destroyers in ranked order.

The average annual returns of the Building Materials sector for the period 2000-2009 are 14.51, 27.99, 23.23, -8.52, $12.84,7.91,89.41,83.42,39.59,-14.61$ percent respectively. Out of the six companies only BenueCem, AshakaCem, and Nigerian Wire made positive returns of 71.32 , 28.01, and 5.36 percent respectively in year 2000 while all the companies made positive return in 2001, 2006, and 2007. The highest return of 97.07 percent for 2001 was made by Ashaka, 201.38 percent for 2006 was made by WAPCO, 198.99 percent for 2007 was made by Benue while the poorest and lowest return of -69.24 percent was made by Ashaka in 2009 followed by Nigerian Ropes with -48.43 percent in 2009. The year 2003 and 2009 were very bad ones to the companies in terms of shareholder return, as all the companies made negative returns except Nigerian Ropes in 2003 with insignificant 0.96 percent and Nigerian Wire and WAPCO in 2009 with appreciable 5.16 and 76.42 percent shareholder return. The picture of the study period average shareholder returns for the stocks gave the first position to Benue( $45.35 \%$ ) followed by Nigerian Wire(35.73\%), CCNN(26.75\%), Ashaka(26.11\%), WAPCO(23.58\%), and Nigerian Ropes(8.63\%).

In monetary term, WAPCO commanded the highest equity market value in 2000-2001, 2003, 2009 with N20.87, N24.54, N16.01, N24.37 respectively peaking at N66.41 in 2007. Ashaka led in 2002, 2004-2008 with N19.62, $\mathrm{N} 21.35, \mathrm{~N} 27.27, \mathrm{~N} 42.42, \mathrm{~N} 62.82, \mathrm{~N} 38.20$ respectively peaking at N62.82 in 2007. Therefore within the period under study Ashaka clinched the most valued equity stock position in the sector with N 25.92 per share, closely followed by WAPCO with N24.86, Benue with N17.41, CCNN with N8.63, Nigerian Wire with N3.94, and Nigerian Ropes with N2.41 per share.

In terms of price appreciation of the stocks, Benue, Ashaka, Nigerian Wire appreciated positively by 184, 110, 6 kobo respectively while Nigerian Ropes, CCNN, WAPCO had negative price movements of $-3,-16,-208$ kobo respectively in 2000. In 2001, 2006, and 2007, all the stocks had positive price movements of various degrees. The only stock that had negative price movements in 2002 was Nigerian Wire with -12 kobo. This Nigerian Wire is the only stagnant stock in 2001, 2005-2007 but made the best price appreciation in 2008 and second best in 2009. The 2003, 2008 and 2009 were very bad years as all the stocks depreciated in their prices in different negative rates of decline except Nigerian Ropes in 2003, Nigerian Wire in 2008, Nigerian Wire and WAPCO in 2009. Ashaka made the most appreciated stock in 2000-2002, 2004-2005, followed by Nigerian Ropes in 2003, WAPCO in 2006-2007, 2009, and Nigerian Wire in 2008. However, on the study period average increase in equity market value, Benue becomes the most appreciated stock with N3.07, followed by Nigerian Wire with N0.81, CCNN with N0.71, Ashaka with N0.60, WAPCO with N0.14, and Nigerian Ropes with N0.07.

The average monthly rates of return of the sector for the period $2000-2009$ were $2.07,2.40,-0.62,0.42,0.07,2.20$, $7.32,1.12,-3.87$, and 2.24 percent respectively while the market monthly rates of return were $3.16,3.19,0.59,4.32$, $1.43,0.33,2.62,4.42,-4.88$, and -3.05 percent for the equivalent period. Hence it is obvious that the market outperformed the Building Materials sector for the period 2000-2005 and 2007 while the sector outshone the market in 2006 and 2008-2009 on monthly return.

In shareholder value added, Ashaka and Benue added positive values in 7 out of the 10 years in 2000-2002, 20042007, to the tune of $\mathrm{N} 1.70, \mathrm{~N} 6.96, \mathrm{~N} 6.84, \mathrm{~N} 8.94, \mathrm{~N} 8.24, \mathrm{~N} 16.65$, and N 20.40 per share respectively for Ashaka, and to the tune of N1.84, N0.34, N0.03, N0.08, N1.09, N10.90, N33.51 per share for Benue. CCNN added 60kobo, 300 kobo, 109 kobo, 145 kobo, 358 kobo and 1163 kobo in 2001-2002, 2004-2007 respectively; Nigerian Ropes added 14kobo, 16kobo, 2 kobo, 64.5 kobo, 125.5 kobo, 152.5 kobo per share in 2001-2003, 2006-2008 respectively; Nigerian Wire added 26kobo, 25 kobo, 783 kobo, and 52 kobo per share in 2000-2001, 2008-2009 respectively; and WAPCO added value only in 2001, 2006, 2007, and 2009. Hence on the study period average shareholder value added, Benue led the pack in shareholder value added per share, followed by Ashaka, CCNN, Nigerian Wire, WAPCO, and Nigerian Ropes. While the average risk free rate of return was $11.04 \%$, Benue with an average actual return of $45.35 \%$ maintained the best stock with risk premium of $34.31 \%$, followed by Nigerian Wire with risk premium of $24.69 \%$, CCNN with $15.71 \%$, Ashaka with $15.07 \%$, WAPCO with $12.54 \%$, and Nigerian Ropes with $-2.41 \%$.

The actual shareholder return of Ashaka were 28.01, 97.07, 51.12, -13.51, 58.58, 38.59, 61.06, 48.09, -38.71, and 69.24 percent for the period while the required shareholder return were $55.67,-3.69,14.27,26.94,49.62,-13.02$,
$24.45,84.71,8.35$, and -106.04 percent, hence Ashaka surpassed its target return in 2001, 2002, 2004, 2005, 2006, 2009, but fell short of expectation in 2000, 2003, 2007, 2008 as can be seen from table 4.1above. On the other hand, the actual shareholder return of Benue for the period 2000-2009 were $71.32,7.69,0.63,-0.42,1.68,22.47,183.50$, 198.99, $-12.49,-19.88$ percent against its equity required return of $55.36,8.89,18.88,16.40,-10.16,3.28,68.97$, $118.06,8.28,-54.26$ percent. This shows that Benue could meet and surpass its target return in six years (2000, 20042007, 2009) out of the ten-year period. Moreover, in the same measure CCNN generated actual shareholder return of $27.91,109.09,26.77,107.49$ percent in 2001, 2002, 2005, 2007 to surpass its target shareholder return of 13.36 , 20.67, $-8.59,25.22$ percent in these years. For Nigerian Ropes to surpass its target return of $26.52,8.65$ percent in 2007-2008 it had generate $58.64,45.93$ percent in the years.

Nigerian Wire exceeded its target return in two years namely, 2008:349.55\% against the target of $8.20 \%$; $2009: 5.16 \%$ against the target of $-0.04 \%$. WAPCO hit and exceeded its target return in 2006, 2007, 2009, a three year-records. This indicates that with respect to return to equity the two stocks( Ashaka and Benue) are the best quality stocks in the sector.

Furthermore, on the ground of shareholder value creation only one stock namely Benue produced positive value creation in year 2000 to the tune of 71 kobo. Two stocks namely Ashaka and CCNN generated positive values of 1348 kobo per share for Ashaka, and 40 kobo per share for CCNN. In 2002, only CCNN created value of 508 kobo and not a single stock yielded positive value in 2003. Ashaka and Benue in 2004, and also Ashaka, Benue, and CCNN in 2005created value while others destroyed value. Only CCNN and Nigerian Ropes in 2006, Ashaka and Nigerian Wire in 2007 destroyed value. Surprisingly, only the two never-do-well stocks, Nigerian Ropes and Nigerian Wire churned out positive value creation in 2008, while Ashaka, Benue, Nigerian Wire and WAPCO created value in 2009. Ashaka created shareholder value for 6 years to the tune of N13.48, N7.23, N1.91, N14.07, N15.53, N4.32 per share in years 2001, 2002, 2004, 2005, 2006, 2009 respectively. Benue for six years created N0.71, N0.57, N1.14, N19.29, N40.75, N11.45 per share in years 2000, 2004-2007, 2009 respectively. CCNN for 4 years created N0.40(2001), N5.08(2002), N2.56(2005), and N18.47(2007) while Nigerian Ropes and Nigerian Wire could make it each only for 2 years in 2007(N1.07), 2008(N1.78) for Ropes and 2008(N34.37), 2009(N0.55) for Wire. WAPCO also generated positive value in 2006(N55.39), 2007(N8.67), and 2009(N30.51).

Table 2 shows the shareholder value creators and the shareholder value destroyers in the sector. The only company that created shareholder value in 2000 is Benue while Nigerian Wire, Nigerian Ropes, CCNN, Ashaka, WAPCO were the shareholder value destroyers in the year. Only Ashaka and CCNN were the shareholder value creators in 2001-2002, with the inclusion of Benue in 2005. All the stocks in 2003 were shareholder value destroyers while in 2004 only Ashaka and Benue were shareholder value creators. Highest shareholder value was created in 2006 by WAPCO with N55.39 followed by Benue with N19.29 per share, Ashaka with N15.53 per share. In 2007 Benue topped the shareholder value creators list with N40.75 per share, with a far distance second of N18.47 from CCNN, while WAPCO occupied the third position. Surprisingly again, the two poor performance stocks, Nigerian Wire and Nigerian Ropes occupied the first and second positions in shareholder value creation in 2008 with a high figure of N34.37 per share from the former and N1.78 from the latter. However Nigerian Ropes and CCNN occupied the shareholder value destroyers position in 2009. In 2009 WAPCO took the lead with N30.51 shareholder value creation per share, Benue had N11.45 per share, Ashaka N4.32 per share, Nigerian Wire N0.55 per share while CCNN came last in the table with negative shareholder value creation of -N 1.78 per share.

### 5.0 Summary of findings and Conclusions

In this work attempts were made to discover the shareholder value creation of the active companies quoted in the Building Materials sector of the Nigerian Stock Exchange (NSE) in the period 2000-2009. In the process we defined and quantified shareholder value created, shareholder value added, shareholder return, shareholder required return to equity and other relevant data. The study revealed that Benue Cement which created value in 2000, 2004, 2005, 2006, 2007, 2009 generated the highest average shareholder value creation of 630 kobo. Throughout the study period, WAPCO created the highest shareholder value of N55.39 in 2006 which no other stocks could attain in any of the years under study, though Benue Cement came a near second with N40.75 per share. However, WAPCO produced high negative shareholder value in almost all the years except in 3 years, 2006, 2007, 2009. All the years have a mix of positive and negative shareholder value creations. But, in terms of equity shareholder value creation, on the
average, Benue Cement Company Plc stands as the most active quality stock in the Building Materials sector of the Nigerian Stock Exchange (NSE) in the period 2000-2009, followed by WAPCO, Nigerian Wire, CCNN, Ashaka.

In conclusion, Benue Cement Company Plc is the best shareholder value creator in the Building Materials sector of the Nigerian Stock Exchange (NSE) in the period 2000-2009, followed by WAPCO, Nigerian Wire, CCNN, Ashaka, while Nigerian Ropes is majorly the shareholder value destroyer in the period under study.

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APPENDIX

| 1. AshakaCem | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Shares [NOS] |  |  |  |  |  |  |  |  |  |  |  |
| Market Average Price [MAP]kobo |  |  |  |  |  |  |  |  |  |  |  |
| Equity Market Value (EMV) ${ }_{\text {t }}$ | 607 | 717 | 1338 | 1962 | 1526 | 2135 | 2727 | 4242 | 6282 | 3820 | 1175 |
| Increase in Equity Market Value |  | 110 | 621 | 623 | -436 | 609 | 592 | 1515 | 2040 | -2462 | -2645 |
| +Dividends paid during the year |  | 60 | 75 | 60 | 171 | 285 | 232 | 150 | 0 | 30 | 0 |
| +Share Repurchases |  | - | - | - | - | - | - |  | - |  | - |
| -Payments from Shareholders for capital Increases |  | - | - | - | - | - | - | - | - | - | - |
| -Conversion of convertible Debts |  | - | - | - | - | - | - | - | - | - | - |
| Shareholder Value Added ${ }_{\text {( }}$ (SVA) |  | 170 | 696 | 684 | -265 | 894 | 824 | 1665 | 2040 | -2432 | -2645 |
| Shareholder return, $\mathrm{R}=\mathrm{SVA} / \mathrm{EMV})_{\mathrm{t}-1}$ |  | 28.01 | 97.07 | 51.12 | -13.51 | 58.58 | 38.59 | 61.06 | 48.09 | -38.71 | -69.24 |
| Market return(Rm) |  | 27.71 | 53.53 | 15.44 | 32.30 | 60.20 | -7.30 | 21.63 | 72.29 | 8.32 | -54.87 |
| $\mathrm{R}_{\mathrm{f}}$ |  | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 8.58 | 6.05 |
| Rm - $\mathrm{R}_{\mathrm{f}}$ |  | 15.71 | 40.58 | -3.44 | 17.28 | 45.99 | -14.30 | 12.83 | 65.38 | -0.26 | -60.92 |
| Stock beta ( $\beta$ ) |  | 2.78 | -0.41 | 1.34 | 0.69 | 0.77 | 1.40 | 1.22 | 1.19 | 0.87 | 1.84 |
| Risk premium $\left[\beta\left(\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}\right)\right] \%$ |  | 43.67 | -16.64 | -4.61 | 11.92 | 35.41 | -20.02 | 15.65 | 77.80 | -0.23 | (112.09) |
| Required return to equity(Ke) |  | 55.67 | -3.69 | 14.27 | 26.94 | 49.62 | -13.02 | 24.45 | 84.71 | 8.35 | -106.04 |
| $\mathrm{R}-\mathrm{Ke}$ |  | -27.66 | 100.76 | 36.85 | -40.45 | 8.96 | 51.61 | 36.61 | -36.62 | -47.06 | 36.80 |
| (EMV) ${ }_{\text {t }}$ ( $\mathrm{R}-\mathrm{Ke}$ ) |  | (198) | 1348 | 723 | (617) | 191 | 1407 | 1553 | -2300 | -1798 | 432 |
| Created Shareholder Value $_{\text {t }}$ |  | (198) | 1348 | 723 | (617) | 191 | 1407 | 1553 | -2300 | -1798 | 432 |


| 2. Benue/DangoteCem | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Shares [NOS] |  |  |  |  |  |  |  |  |  |  |  |
| Market Average Price [MAP]kobo | 258 | 442 | 476 | 479 | 477 | 485 | 594 | 1684 | 5035 | 4406 | 3330 |
| Equity Market Value (EMV) ${ }_{\mathrm{t}}$ | 258 | 442 | 476 | 479 | 477 | 485 | 594 | 1684 | 5035 | 4406 | 3330 |
| Increase in Equity Market Value |  | 184 | 34 | 3 | -2 | 8 | 109 | 1090 | 3351 | -629 | -1076 |
| +Dividends paid during the year |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 200 |
| +Share Repurchases |  | - | - | - | - | - | - | - | - | - | - |
| -Payments from Shareholders for capital Increases |  | - | - | - | - | - | - | - | - | - | - |
| -Conversion of convertible Debts |  | - | - | - | - | - | - | - | - | - | - |
| Shareholder Value Added $_{\text {t }}$ (SVA) |  | 184 | 34 | 3 | -2 | 8 | 109 | 1090 | 3351 | -629 | -876 |
| Shareholder return $=$ SVA/ EMV) $)_{\text {t-1 }}$ |  | 71.32 | 7.69 | 0.63 | -0.42 | 1.68 | 22.47 | 183.50 | 198.99 | -12.49 | -19.88 |
| Market return(Rm) |  | 27.71 | 53.53 | 15.44 | 32.30 | 60.20 | -7.30 | 21.63 | 72.29 | 8.32 | -54.87 |
| $\mathrm{R}_{\mathrm{f}}$ |  | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 8.58 | 6.05 |
| $\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}$ |  | 15.71 | 40.58 | -3.44 | 17.28 | 45.99 | -14.30 | 12.83 | 65.38 | -0.26 | -60.92 |
| Stock beta ( $\beta$ ) |  | 2.76 | -0.1 | 0 | 0.08 | -0.53 | 0.26 | 4.69 | 1.70 | 1.15 | 0.99 |
| Risk premium [ $\left.\beta\left(\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}\right)\right] \%$ |  | 43.36 | -4.06 | 0 | 1.38 | -24.37 | -3.72 | 60.17 | 111.15 | -0.30 | -60.31 |
| Required return to equity (Ke) |  | 55.36 | 8.89 | 18.88 | 16.40 | -10.16 | 3.28 | 68.97 | 118.06 | 8.28 | -54.26 |
| R - Ke |  | 15.96 | -1.20 | -18.25 | -16.82 | 11.84 | 19.19 | 114.53 | 80.93 | -20.77 | 34.38 |
| (EMV) t . ( $\mathrm{R}-\mathrm{Ke}$ ) |  | 71 | -6 | -87 | -80 | 57 | 114 | 1929 | 4075 | -915 | 1145 |
| Created Shareholder Value ${ }_{\text {t }}$ |  | 71 | -6 | -87 | -80 | 57 | 114 | 1929 | 4075 | -915 | 1145 |


| 3. CCNN | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Shares [NOS] |  |  |  |  |  |  |  |  |  |  |  |
| Market Average Price [MAP]kobo | 231 | 215 | 275 | 575 | 470 | 579 | 724 | 1082 | 2245 | 1515 | 945 |
| Equity Market Value (EMV) ${ }_{\mathrm{t}}$ | 231 | 215 | 275 | 575 | 470 | 579 | 724 | 1082 | 2245 | 1515 | 945 |
| Increase in Equity Market Value |  | -16 | 60 | 300 | -105 | 109 | 145 | 358 | 1163 | -730 | -570 |
| +Dividends paid during the year |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 90 | 90 |
| +Share Repurchases |  | - | - | - | - | - | - | - | - | - | - |
| -Payments from Shareholders for capital Increases |  | - | - | - | - | - | - | - | - | - | - |
| -Conversion of convertible Debts |  | - | - | - | - | - | - | - | - | - | - |
| Shareholder Value Added $_{\text {t }}$ (SVA) |  | -16 | 60 | 300 | -105 | 109 | 145 | 358 | 1163 | -640 | -480 |
| Shareholder return $=$ SVA/ EMV) $)_{\text {t-1 }}$ |  | -6.93 | 27.91 | 109.09 | -18.26 | 25.32 | 26.77 | 49.45 | 107.49 | -28.51 | -31.68 |
| Market return(Rm) |  | 27.71 | 53.53 | 15.44 | 32.30 | 60.20 | -7.30 | 21.63 | 72.29 | 8.32 | -54.87 |
| $\mathrm{R}_{\mathrm{f}}$ |  | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 8.58 | 6.05 |
| $\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}$ |  | 15.71 | 40.58 | -3.44 | 17.28 | 45.99 | -14.30 | 12.83 | 65.38 | -0.26 | -60.92 |
| Stock beta ( $\beta$ ) |  | -0.21 | 0.01 | -0.52 | -0.24 | 1.99 | 1.09 | 3.55 | 0.28 | 1.34 | 0.31 |
| Risk premium $\left[\beta\left(\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}\right)\right] \%$ |  | (3.30) | 0.41 | 1.79 | -4.15 | 91.52 | -15.59 | 45.55 | 18.31 | -0.35 | -18.89 |
| Required return to equity (Ke) |  | 8.70 | 13.36 | 20.67 | 10.87 | 105.73 | -8.59 | 54.35 | 25.22 | 8.23 | -12.84 |
| R - Ke |  | -15.63 | 14.55 | 88.42 | -29.13 | -80.41 | 35.36 | -4.90 | 82.27 | -36.74 | -18.84 |
| (EMV) ${ }_{\text {t. }}$ ( $\mathrm{R}-\mathrm{Ke}$ ) |  | -34 | 40 | 508 | -137 | -466 | 256 | -53 | 1847 | -557 | -178 |
| Created Shareholder Value ${ }_{\text {t }}$ |  | -34 | 40 | 508 | -137 | -466 | 256 | -53 | 1847 | -557 | -178 |


| 4. Nigerian Ropes | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Shares [NOS] |  |  |  |  |  |  |  |  |  |  |  |
| Market Average Price [MAP]kobo | 181 | 178 | 192 | 208 | 210 | 198 | 157 | 214 | 332 | 477 | 246 |
| Equity Market Value (EMV) ${ }_{t}$ | 181 | 178 | 192 | 208 | 210 | 198 | 157 | 214 | 332 | 477 | 246 |
| Increase in Equity Market Value |  | -3 | 14 | 16 | 2 | -12 | -41 | 57 | 118 | 145 | -231 |
| +Dividends paid during the year |  | 0 | 0 | 0 | 0 | 0 | 0 | 7.5 | 7.5 | 7.5 | 0 |
| +Share Repurchases |  | - | - | - | - | - | - | - | - | - | - |
| -Payments from Shareholders for capital Increases |  | - | - | - | - | - | - | - | - | - | - |
| -Conversion of convertible Debts |  | - | - | - | - | - | - | - | - | - | - |
| Shareholder Value Added ${ }_{\text {t }}$ (SVA) |  | -3 | 14 | 16 | 2 | -12 | -41 | 64.5 | 125.5 | 152.5 | -231 |
| Shareholder return = SVA/ EMV) ${ }_{\text {t-1 }}$ |  | -1.66 | 7.87 | 8.33 | 0.96 | -5.71 | -20.71 | 41.08 | 58.64 | 45.93 | -48.43 |
| Market return(Rm) |  | 27.71 | 53.53 | 15.44 | 32.30 | 60.20 | -7.30 | 21.63 | 72.29 | 8.32 | -54.87 |
| $\mathrm{R}_{\mathrm{f}}$ |  | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 8.58 | 6.05 |
| $\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}$ |  | 15.71 | 40.58 | -3.44 | 17.28 | 45.99 | -14.30 | 12.83 | 65.38 | -0.26 | -60.92 |
| Stock beta ( $\beta$ ) |  | -0.12 | 0.16 | -0.02 | 0 | 0.03 | 0 | 2.55 | 0.30 | -0.27 | 0 |
| Risk premium $\left[\beta\left(\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}\right)\right] \%$ |  | -1.89 | 6.49 | 0.07 | 0 | 1.38 | 0 | 32.72 | 19.61 | 0.07 | 0 |
| Required return to equity (Ke) |  | 10.11 | 19.44 | 18.95 | 15.02 | 15.59 | 7.00 | 41.52 | 26.52 | 8.65 | 6.05 |
| R - Ke |  | -11.77 | -11.57 | -10.62 | -14.06 | -21.30 | -27.71 | -0.44 | 32.12 | 37.28 | -54.48 |
| (EMV) ${ }_{\text {t. }}$ ( $\mathrm{R}-\mathrm{Ke}$ ) |  | -21 | -22 | -22 | -30 | -42 | -44 | -1 | 107 | 178 | -134 |
| Created Shareholder Value $_{\text {t }}$ |  | -21 | -22 | -22 | -30 | -42 | -44 | -1 | 107 | 178 | -134 |


| 5. Nigerian Wire | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Shares [NOS] |  |  |  |  |  |  |  |  |  |  |  |
| Market Average Price [MAP]kobo | 261 | 255 | 255 | 243 | 226 | 224 | 224 | 224 | 224 | 1007 | 1059 |
| Equity Market Value (EMV) ${ }_{\text {t }}$ | 261 | 255 | 255 | 243 | 226 | 224 | 224 | 224 | 224 | 1007 | 1059 |
| Increase in Equity Market Value |  | 6 | 0 | -12 | -17 | -2 | 0 | 0 | 0 | 783 | 52 |
| +Dividends paid during the year |  | 20 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +Share Repurchases |  | - | - | - | - | - | - | - | - | - | - |
| -Payments from Shareholders for capital Increases |  | - | - | - | - | - | - | - | - | - | - |
| -Conversion of convertible Debts |  | - | - | - | - | - | - | - | - | - | - |
| Shareholder Value Added ${ }_{\text {t }}$ (SVA) |  | 26 | 25 | -12 | -17 | -2 | 0 | 0 | 0 | 783 | 52 |
| Shareholder return = SVA/ EMV) t-1 $^{\text {den }}$ |  | 5.36 | 9.80 | -4.71 | -7.00 | -0.88 | 0 | 0 | 0 | 349.55 | 5.16 |
| Market return(Rm) |  | 27.71 | 53.53 | 15.44 | 32.30 | 60.20 | -7.30 | 21.63 | 72.29 | 8.32 | -54.87 |
| $\mathrm{R}_{\mathrm{f}}$ |  | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 8.58 | 6.05 |
| $\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}$ |  | 15.71 | 40.58 | -3.44 | 17.28 | 45.99 | -14.30 | 12.83 | 65.38 | -0.26 | -60.92 |
| Stock beta ( $\beta$ ) |  | 0 | 0 | -0.14 | 0.08 | 0 | 0 | 0 | 0 | 1.48 | 0.10 |
| Risk premium $\left[\beta\left(\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}\right)\right] \%$ |  | 0 | 0 | 0.48 | 1.38 | 0 | 0 | 0 | 0 | -0.38 | -6.09 |
| Required return to equity (Ke) |  | 12.00 | 12.95 | 19.36 | 16.40 | 14.21 | 7.00 | 8.80 | 6.91 | 8.20 | -0.04 |
| $\mathrm{R}-\mathrm{Ke}$ |  | -6.64 | -3.15 | -24.07 | -23.40 | -15.09 | -7.00 | -8.80 | -6.91 | 341.35 | 5.20 |
| (EMV) ${ }_{\text {t. }}$ ( $\mathrm{R}-\mathrm{Ke}$ ) |  | -17 | -8 | -58 | -53 | -34 | -16 | -20 | -15 | 3437 | 55 |
| Created Shareholder Value ${ }_{\text {t }}$ |  | -17 | -8 | -58 | -53 | -34 | -16 | -20 | -15 | 3437 | 55 |


| 6. WAPCO Lafarge | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Shares [NOS] |  |  |  |  |  |  |  |  |  |  |  |
| Market Average Price [MAP]kobo | 2295 | 2087 | 2454 | 1838 | 1601 | 1570 | 1231 | 3610 | 6641 | 1387 | 2437 |
| Equity Market Value (EMV) ${ }_{\text {t }}$ | 2295 | 2087 | 2454 | 1838 | 1601 | 1570 | 1231 | 3610 | 6641 | 1387 | 2437 |
| Increase in Equity Market Value |  | -208 | 367 | -616 | -237 | -31 | -339 | 2379 | 3031 | -5254 | 1050 |
| +Dividends paid during the year |  | 0 | 0 | 0 | 0 | 0 | 30 | 100 | 120 | 60 | 10 |
| +Share Repurchases |  | - | - | - | - | - | - | - | - | - | - |
| -Payments from Shareholders for capital Increases |  | - | - | - | - | - | - | - | - | - | - |
| -Conversion of convertible Debts |  | - | - | - | - | - | - | - | - | - | - |
| Shareholder Value Added ${ }_{\text {t }}$ (SVA) |  | -208 | 367 | -616 | -237 | -31 | -309 | 2479 | 3151 | -5194 | 1060 |
| Shareholder return $=$ SVA/ EMV) $)_{\text {t-1 }}$ |  | -9.06 | 17.59 | -25.10 | -12.89 | -1.94 | -19.68 | 201.38 | 87.29 | -78.21 | 76.42 |
| Market return(Rm) |  | 27.71 | 53.53 | 15.44 | 32.30 | 60.20 | -7.30 | 21.63 | 72.29 | 8.32 | -54.87 |
| $\mathrm{R}_{\mathrm{f}}$ |  | 12.00 | 12.95 | 18.88 | 15.02 | 14.21 | 7.00 | 8.80 | 6.91 | 8.58 | 6.05 |
| $\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}$ |  | 15.71 | 40.58 | -3.44 | 17.28 | 45.99 | -14.30 | 12.83 | 65.38 | -0.26 | -60.92 |
| Stock beta ( $\beta$ ) |  | -0.08 | 1.72 | 1.45 | 0.74 | 0.53 | 1.81 | 3.05 | 1.03 | 0.70 | 0.90 |
| Risk premium $\left[\beta\left(\mathrm{Rm}-\mathrm{R}_{\mathrm{f}}\right)\right] \%$ |  | -1.26 | 69.80 | -4.99 | 12.79 | 24.37 | -25.88 | 39.13 | 67.34 | -0.18 | -54.83 |
| Required return to equity (Ke) |  | 10.74 | 82.75 | 13.89 | 27.81 | 38.58 | -18.88 | 47.93 | 74.25 | 8.40 | -48.78 |
| R - Ke |  | -19.80 | -65.16 | -38.99 | -40.70 | -40.52 | -0.80 | 153.45 | 13.04 | -86.61 | 125.20 |
| (EMV) ${ }_{\text {t. }}$ ( $\mathrm{R}-\mathrm{Ke}$ ) |  | -413 | -1599 | -717 | -652 | -636 | -10 | 5539 | 867 | -1201 | 3051 |
| Created Shareholder Value ${ }_{\text {t }}$ |  | -413 | -1599 | -717 | -652 | -636 | -10 | 5539 | 867 | -1201 | 3051 |

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