



*ISSN: 2278 – 0211 (Online)*

## **The Effect Of The 2008 Global Financial Crisis On The Performance Of Stock Indices At The Nairobi Securities Exchange**

**Oscar Kipyegon Koech**

Student, Jomo Kenyatta University of Agriculture and Technology, Kenya

**Dr. Gladys Rotich**

Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

### **Abstract:**

*The year 2007/2008 saw the world witness one of the greatest financial crises ever since the Great Depression of the 1930s. This research narrows down the effects of the crisis to the stock indices at the Nairobi Securities Exchange, namely; the Market Capitalization Index, the NSE 20 Share Index and the Volumes Traded Index*

*The research employed a descriptive research method, and the sampling technique used was cluster sampling. The research utilised questionnaires and semi-structured interviews from managers at the NSE and the CMA, and market analysts from stock brokerage firms to collect the data. To determine the reliability of the tools employed, the Cronbach's alpha ( $\alpha$ ) test was conducted. To check on validity of the study, the convergent and the content validity tests were conducted with the data being processed using excel, SPSS software and a multiple regression analysis.*

*The study found that there was a decline of the market indices, which began in the third quarter of 2008 extending to the fourth quarter of the same year. The biggest negative effect of the decline was felt in the first quarter of 2009 where the values, prices and the number of stocks being traded declined substantially, eroding the gains made in the years prior to the occurrence of the global financial crisis in the Kenyan stock market.*

*The study recommends that countries should impose tailored restrictions that are country specific in opening up their stock markets, careful vetting of new products introduced to the market vetted by relevant authorities, broad based economic reforms by governments, solid financial and economic management and timely governmental intervention and a proactive private sector that restructures its operations with new measures to cut costs.*

**Key words:** *Performance of Stock Indices, Global financial Crisis*

## **1.Introduction**

The 2008 Global financial crisis was one of the worst economic crises over the last six decades after the great depression of the 1930's, often being referred to as the Great Recession. It started in August 2007 with the genesis of the crisis being the bursting of the housing burble and turbulence in the sub-prime mortgages issued by banks in the US. (Verick & Islam, 2010)

Movements in one market can drastically affect other markets that are not even structurally related with that market located in another continent (Maswana, 2009). Coleman (2008) in his study showed that those developed stock markets associated with the global financial crisis experienced a decline in their markets during his sample period; November 2008 to December 2008. The studies also showed that the global financial crisis had a negative effect on three African securities market which fell by 30-40% over the period of study namely; JSE, NSE of Kenya and the Nigerian stock Exchange

In Kenya, between July 2008 to May 2009 the NSE 20 share index dropped by a massive 48 percent which was not only attributed to the global crisis but also the post election violence and political crisis in the first quarter of 2008 following a disputed election of December 2007. There were also scandals involving stock brokerage firms that outlined the poor regulations and governance of the stock market industry. (Mwega, 2010).

## **2.Statement Of The Problem**

In spite of Kenya experiencing positive economic growth rates from the year 2002, the global financial crisis had a negative effect on other sectors of the economy such as the banking sector( real growth in private sector lending being -1.4% in 2008 from 11.6% in 2007), reduction in FDI flows( from USD 692 million in 2007 to USD 52 million in 2008) , decreasing employment growth rates (from 7% in 2007 to 2.1% in the second quarter of 2009) , reduction of remittances by Kenyans in the Diaspora( \$504.6 million in the first 10 months of 2009 compared with \$527.1 million in the same period in 2008) and an overall reduction in exports(export earnings declining by 9.0% in the year to September 2009 compared with the same period in 2008). ( Mwega, 2010).

Terfa (2010) while studying the effect of the GFC on African stock exchanges over the period November 2007 to November 2012 found that African Capital markets fell by 30% to 40% but private equity investors remained committed to Africa. The study also

found that the stock market was a major transmission of financial crises around the globe.

The objective of the study therefore was to determine the effect of the global crisis on the Kenyan stock market and the performance of various market counters in light of the financial turmoil happening internationally.

### **3.Purpose Of The Study**

There is inadequate information regarding the effect of international activities in relation to the performance of stocks in the Nairobi Securities Exchange. The quantitative evaluation and assessment of the stock market will encourage market development, growth and policy formulation by the regulator of the stock market (CMA), government departments and market participants in the financial market to protect the Kenyan market against future stock market upheavals

The study answers the following questions: 1) What was the effect of global financial crises on stock values at the NSE? 2) What was the effect of the global financial crisis on daily market trading at the NSE? 3) What was the effect of the global financial crisis on stock prices at the NSE?

### **4.Literature Review**

Mindel & Sleight (2010) describe an index as a benchmark or measure used to measure a markets movements and performance. Imperiale (2005) defines Market Capitalization (also called Market Cap) as the sum of all common shares outstanding multiplied by the company's current market price of the shares. It is an integral index in the valuation of what a company's stock is worth. It represents the value that the market has placed on the value of a company's equity and is a very important index to prospective investors in any stock market as it gives a brief description of expected returns. The formula is as follows;  $\text{Market capitalization} = \sum (\text{shares outstanding} \times \text{current market price per share})$ . (Imperiale, 2005)

The NSE 20 share index is a price weighted index whose members are selected on a weighted market performance over a 12 month period. The variables that constitute the basis of weighting include: Shares traded 30%, Market capitalization 40%, Turnover 10% and Number of deals 20%. The NSE 20 share index, which primarily constitutes 20 blue chip companies whose financial performance, was consistently positive and above per, has been in use as a share since 1964. (Obienugh, 2010)

The NSE (2012) define the formula for calculating the NSE 20-share index as a weighted geometric mean of 20 ordinary stocks of relatively big companies, in some instances considered as blue chip companies given as;

$$I(t) = I(t-1) \sqrt[20]{\prod_{j=1}^{20} P_j(t)/P_j(t-1)}$$

where;

$$\sqrt[20]{\prod_{j=1}^{20} P_j(t)/P_j(t-1)} = \sqrt[20]{P_1(t)/P_1(t-1) * P_2(t)/P_2(t-1) * \dots * P_{20}(t)/P_{20}(t-1)}$$

$\sqrt[20]{\quad}$  = The 20<sup>th</sup> root of the equation

$\prod_{j=1}^{20} P_j$  = The product operator of the relative prices

$I(t)$  = The index at time t

$I(t-1)$  = The index at time t-1

$P_j(t)$  = Price of stock j at time t where j=1,2,3,4,.....,20

$P_j(t-1)$  = Price of stock j at time t where j=1,2,3,4,.....,20

Volume according to Fontanills (2005) means the total number of shares traded. It's the total number of shares bought or sold for a specific stock. It's one of the most important indicators used for technical analysis as it reflects the activity of underlying assets over a given period. Volume measures market liquidity (supply and demand of stocks) by counting the number of shares that are traded for a given period of time. A strong volume is usually considered a sign of a bullish market and when volumes are swelling during a decline, it is considered that bears are driving the market and Performance of stock indices is considered poor. A low volume implies an illiquid market and a high price volatility, while a high volume reflects a highly liquid market and low price volatility (CMA, 2010)

## 5. Research Methodology

The study adopted a descriptive survey research method. Descriptive Research Design according to Mugenda & Mugenda (2003) is a design that seeks to explain the particular characteristics of an individual, group or a phenomenon. The target population of this research study were all the 50 companies listed at the NSE and have from the period 01 January 2006 to 31 December 2010. This is because the indices under study are a cumulative indication of the entire market performance that is usually recorded at the close of the trading period.

Mugenda & Mugenda (2003) advise a researcher to select a big sample because small sample sizes do not reproduce the similar characteristics to the population under study to an acceptable degree. This study therefore selected a total of 50 companies; that is all the companies listed on the NSE. This research utilised cluster sampling technique. The clusters consist of stocks listed in the Agricultural, Automobiles and Accessories, Banking, Commercial and Services, Insurance, Investment, Manufacturing and Allied, Telecommunication and Technology

SECTOR	POPULATION	SAMPLE SIZE	PERCENTAGE (%)
Agricultural	7	7	14
Automobiles and Accessories	4	4	8
Banking	10	10	20
Commercial and Services	9	9	18
Insurance	6	6	12
Investment	4	4	8
Manufacturing and Allied	8	8	16
Telecommunication and Technology	2	2	4
<b>TOTAL</b>	<b>50</b>	<b>50</b>	<b>100</b>

*Table 1: Sampling Frame*

*Source: NSE (2012)*

Data was collected using both primary and secondary sources. Primary data was collected mainly through semi-structured interviews and the use of questionnaires which enabled data collection that met the objectives of the study. Mugenda & Mugenda (2003) stipulate that semi structured interviews contain both structured and open ended questions.

A pilot study was carried out where a questionnaire and a semi-structured interview were administered to two managers, one at the NSE and the other at the CMA and ten stock analysts to study the stock market performance over the period January 1, 1999 to December 31, 2004, whose scope was outside the period of study. This facilitated the determination of reliability and validity of the data collection instruments.

The Cronbach's alpha ( $\alpha$ ) test which is an extension of Kuder-Richardson Formula 20 (KR-20) test was used to test reliability of the instruments. An alpha coefficient greater than 0.7 ( $\alpha > 0.7$ ) should lead to the acceptance of the instrument hence or otherwise

<b>MARKET CAPITALIZATION INDICES</b>					
<b>Month</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
January	479.07	829.59	812.83	819.55	900.56
February	475.73	790.72	797.39	700.66	916.98
March	469.07	675.49	826.10	636.05	962.42
April	479.05	706.68	846.41	677.12	1,018.50
May	569.95	710.16	904.51	689.83	1,062.12
June	606.53	731.18	1,187.12	763.92	1,093.75
July	619.78	756.04	1,183.75	829.87	1,117.40
August	646.18	776.24	1,094.48	812.93	1,167.81
September	701.92	826.24	1,010.97	789.59	1,150.19
October	736.37	759.31	837.40	771.73	1,201.98
November	800.47	779.90	845.77	801.16	1,203.90
December	769.63	813.86	788.16	820.27	1,157.20
Average	612.82	762.95	927.91	759.39	1,079.40
Percentage Change	-	24%	22%	-18%	42%

*Table 14: The Market Capitalization Average Indices Table*

*Source: NSE (2012)*

Multiple regression analysis was used to analyse the data where the Performance of stock indices was regressed on the Market Capitalization Index, NSE 20 share index and the Volumes Traded. The Performance of stock indices was estimated against the three variables. The multiple regression equation was of the form;  $Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$  Where;

$Y$  = Performance of stock indices ,  $X_1$  = Market Capitalization Index,  $X_2$  = NSE 20 share index,  $X_3$  = Volumes Traded ,  $a$  = coefficient of intercept,  $\epsilon$  = error and  $\beta_1, \beta_2, \beta_3$  = regression coefficients.

## 6.Data Analysis And Findings

### 6.1.What Was The Effect Of Global Financial Crises On Stock Values At The NSE?

Table 14 contains the average monthly indices that were compiled from the January 2006 to December 2010 and the average yearly index values.

The Market Cap Index began the year in 2006 with an average of 479.07 points on the first month of trading and by 30<sup>th</sup> June 2006, the index had grown to 606.53 points showing a 26.61% growth within the year. By December 2006, the index closed the year with a high of 769.63 points, a 26.89% increase. The 2006 yearly market cap index averaged 612.82 points. In 2007, the monthly index averaged 762.95 points, with the index growing by 24% in reference to the previous year. In 2008, the index averaged 927.91 points showing a growth of 22%. The month of June 2008 saw a sharp increase in the market capitalization index because the Safaricom shares started trading on the stock exchange on June 09. However in 2009, this positive growth ceased and the index averaged 759.39 points showing a decline of -18% in comparison to the 2008 average index value of 927.91 points.



Figure 4: The daily Market Cap index movement from January 2006 to December 2010

In the month of January 2009, the average index showed a decline of -11.68%, -14.51% in February and -9.22% in March. The 2009 average was the lowest in comparison to the 2006, 2007, 2008 and 2010 indices with 2010 average rising by 42% to 1,079.40 points.

Figure 4 shows the daily indices movement recorded by the NSE from 2006 to 2010 showing a steady decline from mid 2008 to early 2009.

Figure 5 shows the monthly comparisons of the index depicting the points recorded each month comparing the index performance from 2006 to 2010. This shows the months over the respective years in which the index figures performed against each other. June 2008 witnessed the highest index value of 1,187.12 points recorded, and March 2006 reflects the lowest index value of 469.07 points recorded.

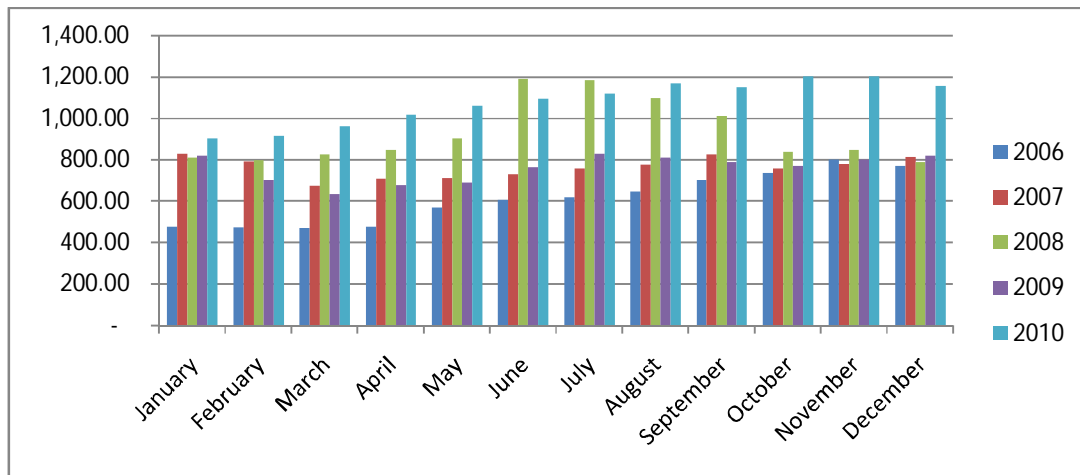


Figure 5: Monthly comparisons of the Market Cap Index over the years 2006 to 2010

Figure 6 shows the average yearly performance of the Market Cap Index from 2006 to 2010. The year 2006 saw an average of 612.82 points, 762.75(24% growth) points for 2007, 927.91 (22% growth) points for 2008, 759.91(-18% growth) points for 2009 and 1079.40(42% growth) points for 2010. This therefore shows that the 2009 Market Cap Index was the lowest over the period under study.

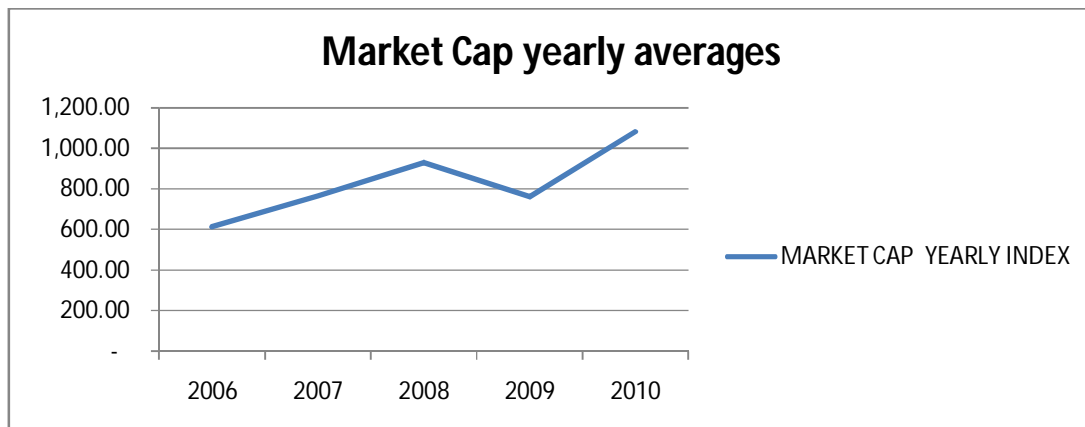


Figure 6: Yearly Market Cap averages



6.2. What Was The Effect Of The Global Financial Crisis On Stock Prices At The NSE?

Table 16 contains the average monthly indices and yearly averages compiled from January 2006 to December 2010

<b>THE NSE 20 SHARE INDICES</b>					
<b>Month</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
January	4,134.15	5,973.39	5,064.64	3,410.11	3,467.74
February	4,102.32	5,724.97	4,857.70	2,799.43	3,587.90
March	3,997.90	5,040.72	5,050.24	2,556.97	3,922.81
April	4,008.90	5,178.68	5,081.95	2,776.19	4,142.22
May	4,301.87	5,122.59	5,210.76	2,845.04	4,263.85
June	4,251.43	5,100.83	5,292.53	3,095.03	4,286.15
July	4,262.14	5,171.59	5,044.98	3,298.11	4,336.18
August	4,416.88	5,246.65	4,717.82	3,205.11	4,567.79
September	4,691.00	5,443.51	4,345.66	3,091.34	4,532.14
October	4,952.42	5,050.57	3,676.93	3,022.14	4,640.24
November	5,630.06	5,130.65	3,621.36	3,128.05	4,578.21
December	5,526.75	5,295.14	3,302.85	3,190.50	4,371.69
Average	4,522.99	5,289.94	4,605.62	3,034.83	4,224.74
percentage Change	-	16.96%	-12.94%	-34.11%	39.21%

Table 16: The NSE 20 Share Index Average Indices Table

Source: NSE (2012)

At the beginning of the year 2006, the NSE 20 share index average value over the month of January 2007 was a high of 4134.15 points. By June the average index for the month was 4251.43 points, a 2.84% increase. In December the index was at a high of 5526.75 points, one of the best months of the year reflecting a 30% increase in comparison to the June average index. The average NSE 20 share index value for the year 2006 was 4522.99 points, the second highest value over the period under study. Figure 7 shows the movement of the daily indices from January 2006 to December 2010

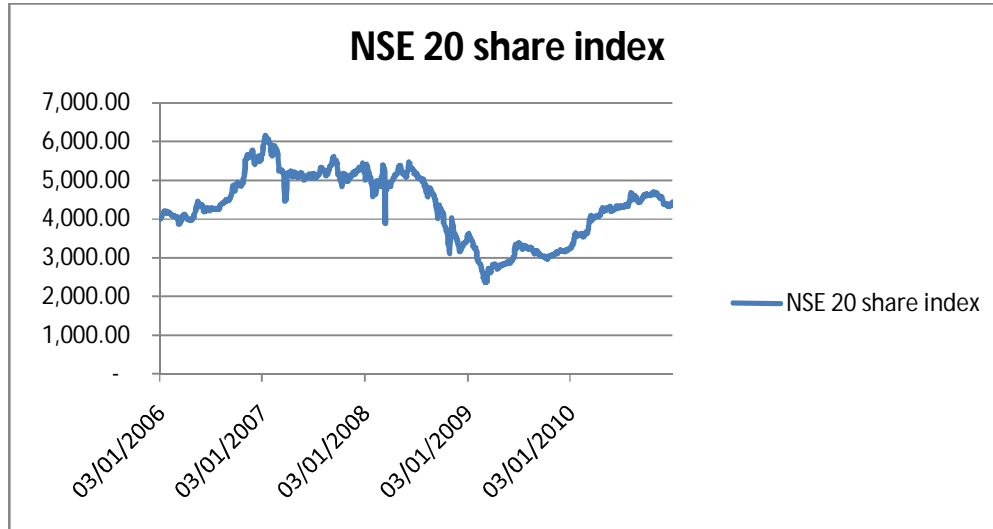


Figure 7: The daily NSE 20 share index movement from January 2006 to December 2010

In January 2007, the NSE 20 share index average opened the year with an all time high of 5,973.39 points, an 8.08% increase from the 2006 December average value. By the mid year, the index value was 5100.83 points reflecting a 14.61% drop, and 5,295.14 average points in December, a 3.81% increase. The average value for the year was 5289.94 points, a 16.96% increase from 2006 and the highest average value over the years under study. The year 2008 saw a drop in the NSE 20 share Index yearly average to 4,605.62 points, a -12.94% growth in comparison to the previous year as shown in figure 8.

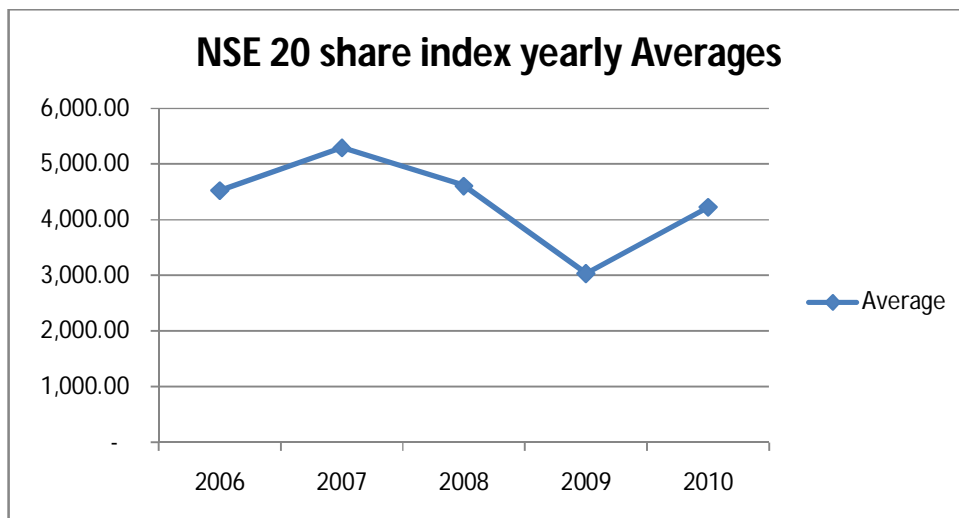


Figure 8: NSE 20 share Index yearly averages

The year 2009 witnessed the lowest index value of 3,034.83 points, a -34.11% drop from the 2008 average, with the month of March recording an all time low of 2,556.97 points, -57.19% lower than the all time high of 5,973.39 points recorded in the month of January 2007. However, the market showed incremental optimism witnessing growth within the same year. The month of April witnessed an average growth of 8.57%, 2.48% increase in May, 8.79% increase in June and 6.56% increase in July. The growth decreased slightly in the following months but the index closed the year with 3190.50 points, a 2% increase from the previous month.

In the year 2010, the market showed an increased optimism, where the index recorded a 39.21% growth of 4,224.74 points in comparison with the previous year's 3,034.83 points. Figure 9 compares the monthly index values that were recorded over the study period, enabling a month by month comparison of the indices over the years under study. It shows that January 2007 witnessed the highest index value of 5,973.39 points recorded and March 2009 witnessed the lowest index value of 2,556.97 points recorded. This bar chart also shows that the 2007 NSE 20 share indices were, on average, the highest values on its all time high over the period under study.

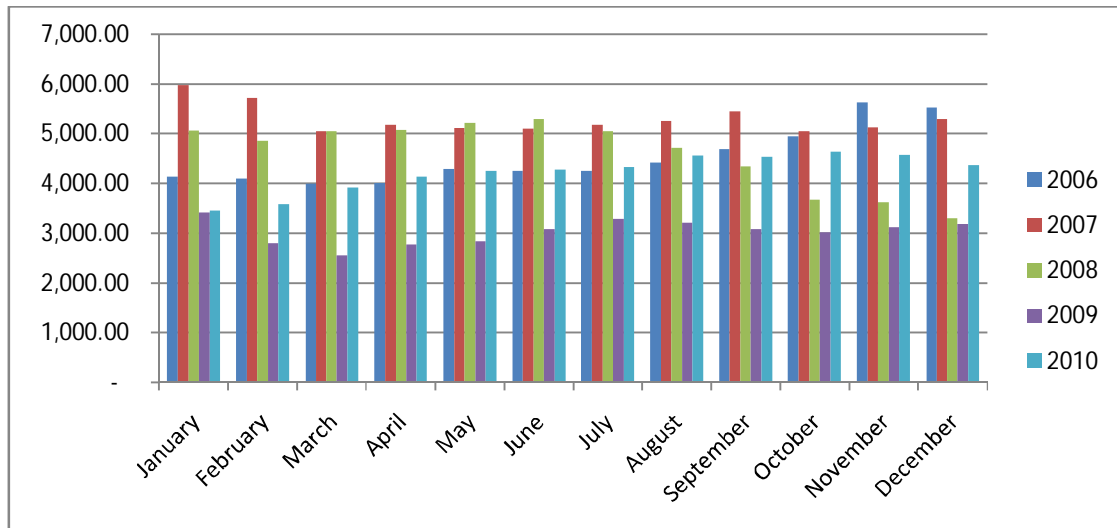


Figure 9: Monthly comparisons of the NSE 20 share Index over the years 2006 to 2010

Terfa (2010) found that the Kenyan Bourse was greatly affected by the GFC because it had a significant Autoregressive Distributed Lag relationship with the US stock market. Mwega (2010) found that the Kenyan bourse offset the gains made from 2005 to 2008 in the year 2009, being the biggest offset in the Sub-Saharan region. He noted that the NSE

20 share index took a hit since the mid-2008 on the back of the post-election violence and the GFC. This consequently reduced market capitalisation significantly. The fall in share prices was blamed on the crisis, which saw foreign investors offload their shares as they retreated to their markets to buy safer investments in government bonds. He also concluded that the Kenyan Bourse was one of the worst hit in the latter region. This research is consistent with the findings of Mwega (2010) and Terfa (2010).

### *6.3. What Was The Effect Of The Global Financial Crisis On Daily Market Trading At The NSE?*

Table 18 below represents the volumes traded from January 2006 and December 2009 and can theoretically be used to interpret market liquidity.

<b>VOLUMES INDEX</b>					
<b>Month</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
January	7,020,619.52	6,196,145.73	9,382,888.05	8,454,914.76	30,192,055.00
February	3,094,277.75	5,454,014.65	9,180,618.57	7,531,979.10	18,484,875.00
March	3,156,955.30	5,191,707.23	9,507,563.32	9,426,780.82	27,082,773.91
April	3,371,503.53	4,602,879.26	6,443,424.45	10,776,812.85	19,926,640.00
May	8,370,551.71	5,623,834.00	8,010,185.24	15,397,410.00	44,453,690.48
June	6,780,656.90	7,556,508.20	106,722,745.75	17,889,661.90	17,363,719.05
July	4,438,920.43	7,662,474.05	42,760,721.57	12,875,773.91	15,708,086.36
August	5,108,644.74	10,788,403.87	23,371,925.90	14,042,530.00	25,777,435.00
September	8,443,935.71	13,693,580.00	22,058,319.55	11,010,847.62	18,368,595.45
October	8,484,937.11	8,073,649.77	19,676,292.40	14,440,347.62	25,043,145.00
November	7,703,325.18	8,435,221.77	15,312,667.79	18,872,066.67	22,667,309.09
December	4,295,101.67	10,053,548.29	8,543,190.15	9,767,250.00	16,318,281.82
Average	5,855,785.80	7,777,663.90	23,414,211.89	12,540,531.27	23,448,883.85
percentage Change	-	33%	201%	-46%	87%

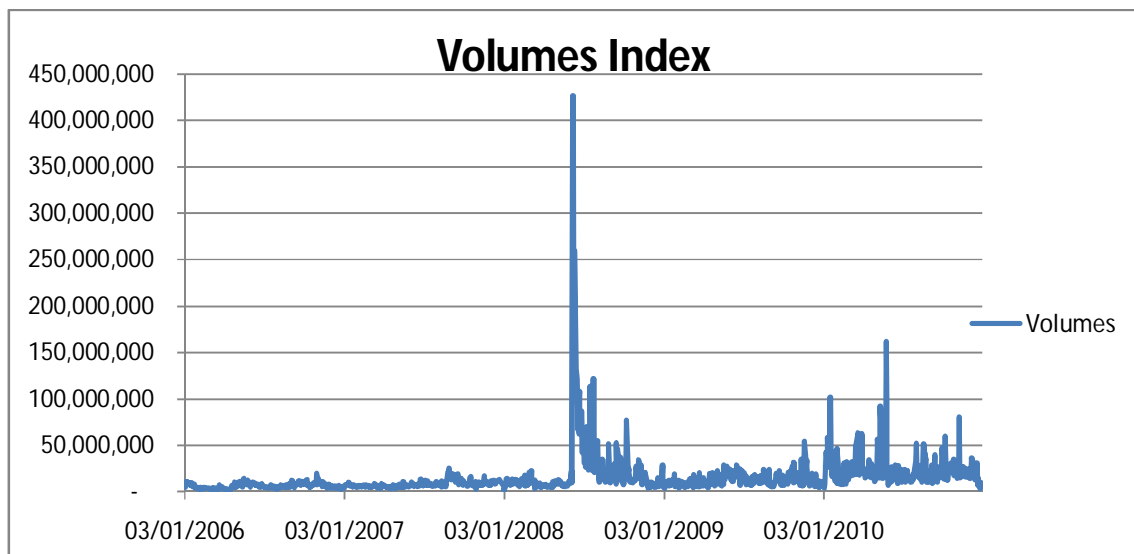
*Table 18: The Volumes Traded Average Indices Table*

*Source: NSE (2012)*

The findings of this study show that number of shares being traded daily was negatively affected by the GFC. Theoretically, low volume means that the market is illiquid and

reflects a lack of selling/buying urgency in the market and vice-versa. It also implies high price volatility. (CMA, 2010). The year 2008 saw a 201% increase in trading average in comparison to 2007, mainly attributed to the initial trading of the Safaricom shares. The third quarter of the same year saw a decline in the volumes index by 48%, but partly responsible for the decline was the reduced market excitement in the previous month's first trading of the Safaricom shares.

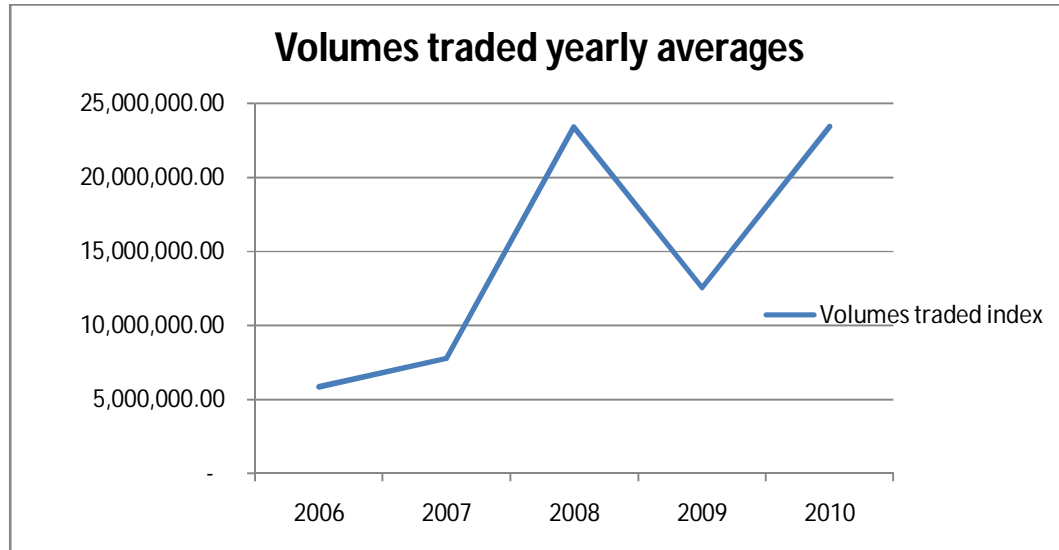
The index declined a further 57% in the fourth quarter and in January of 2009, the index had declined by 1% in comparison to the previous month's average. It declined a further 11% the following month but gained ground the next month with a 25% increase. It further increased in the second quarter then started declining in the subsequent quarters. It closed the year with a 46% decline from the previous year's average. The rebounded 2010 with an average increase of 87% in comparison to the previous year's average, although the monthly averages kept fluctuating not showing any consistent trends.



*Figure 10: The daily Volumes traded index movement from January 2006 to December 2010*

In 2007, the volumes traded index yearly average grew by 33% to 7,777,663.90 in comparison to the previous year's average, reflecting an increased liquidity in the market. The month of January 2007 began in an optimistic 44% growth in trading in comparison to the previous month. However the preceding months of February, March and April saw a reduction in shares traded by 12%, 5% and 11% respectively but the market bounced back again with a 22% increase in trading in the month of August. This

optimism continued to December where the market displayed increased trading closing the year with a 19% increase from the previous month. Figure 11 shows the yearly averages of the volumes traded index.



*Figure 11: Volumes traded Index yearly averages*

The year 2008 had the biggest increase in trading with an average growth of 201%, with the month of June alone having exponential trading of 1232%. This is attributable to the initial trading of the Safaricom shares on the 9<sup>th</sup> of June, where the volumes traded on this day alone was a record 426,649,400. However during the last quarter of 2008, the shares traded reduced drastically by 57%. The year 2009 showed a reduction in trading of 46% to an average of 12,540,531.27 in comparison to 2008 average of 23,414,211.89 shares traded. Figure 12 shows the monthly comparisons of the shares traded in the respective years under study and shows how month to month comparisons can be made.

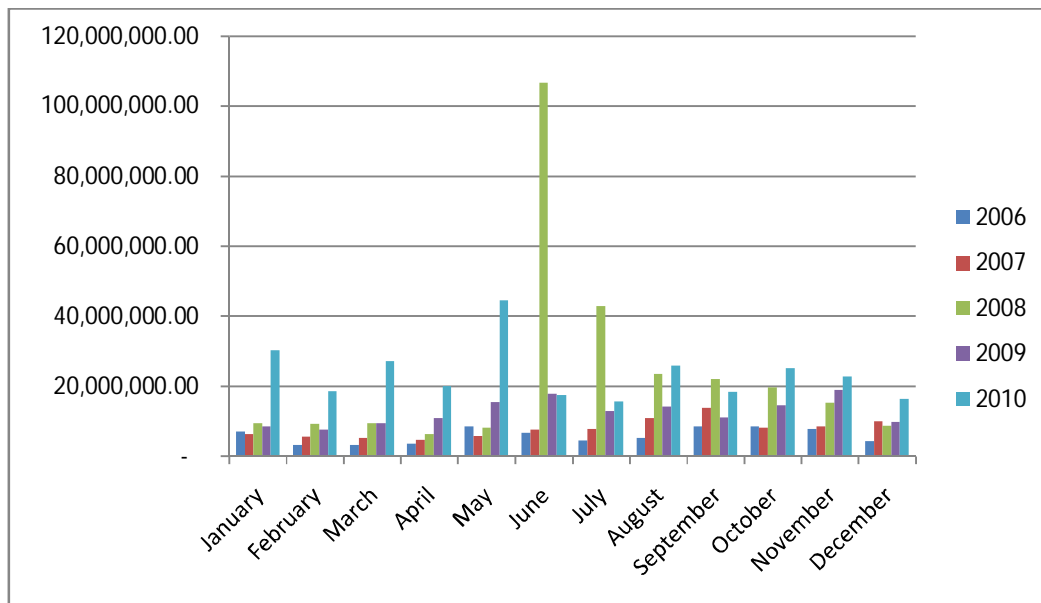


Figure 12: Monthly comparisons of the Volumes traded Index over the years 2006 to 2010

The year 2010 saw an increase in average trading activities recording an 87% increase from the previous year to 23,448,883.85 shares changing hands. This reflects an increased optimism in the market in addition to the Safaricom shares which contributed to an increase in market liquidity.

The GFC adversely affected the stock market, with foreign sales exceeding foreign buys in many counters, as foreign investors diversify away from the market. There was an aggregate reduction in stock market trading during the GFC period. (Kibaara, 2008). This research therefore supports the findings of Kibaara (2008) where volumes reduced significantly in the last two quarters of 2008 and the first quarter of 2009.

The Beta values obtained after regressing the independent variables against the dependent variable obtained using the SPSS software was as follows;

$$Y = a + 0.341 X_1 + 0.435 X_2 + 0.157 X_3 + \epsilon \dots \dots \dots \text{(Equation I)}$$

From Equation I, the correlation coefficient of 0.341 illustrates that the market capitalization index is strongly and positively correlated with Performance of stock indices. It can also be interpreted that The NSE 20 Share index has the highest positive correlation with Performance of stock indices because it has the highest correlation coefficient of 0.435. The volumes traded index showed the lowest positive correlation with Performance of stock indices with a correlation coefficient value of 0.157.

Model	Variables	B <sub>i</sub> Coefficient	Std.Error	Sig.
1	(Constant)	0.012	0.036	0.00
	Market Capitalization Index	0.389	0.047	.003
	NSE 20 Share Index	0.606	0.059	.005
	Volumes Traded Index	0.248	0.038	.002

*Table 19: Correlation of the Variables under study*

*Source: NSE (2012)*

The findings from table 19 show that the independent variables which are the Market Capitalization index, the NSE 20 share Index and the Volumes Traded index are important indicators for determining Performance of stock indices due to the positive correlation with the dependent variable; Performance of stock indices

Because the NSE 20 Share Index has the highest coefficient in comparison with the two variables, it influences Performance of stock indices more than market capitalization and volumes traded.

#### *6.4. Regression Model Summary*

Table 20 below shows the summary of the regression model depicting the relationship between the independent and the dependent variables. The R<sup>2</sup> value, the coefficient of determination is 0.709, implies that the independent variables in the study explain 70.9% of the dependent variable. i.e Market Cap Index, NSE 20 share Index and Volumes Index explain only 70% Performance of stock indices. The other 29.1 % is not explored in this research and therefore further research should be conducted to determine other variables affecting Performance of stock indices.

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate
1	.842 <sup>a</sup>	.709	.701	.076

*Table 20: Regression model summary of relationship between variables*

*Source: NSE (2012)*

- Predictors: (constant), Market Capitalization index, the NSE 20 share Index and the Volumes Traded index
- Dependent Variable: Performance of stock indices



**7. Conclusion**

Indeed the 2008 GFC affected the performance of stock indices with significant negative growth in index values occurring in the third quarter of 2008 with 2009 experiencing greater declines. The findings of this research support those of CMA (2010), Terfa (2010) and Mwege (2010). It is important to note that the decline in market indices was in a relatively short period of time between the third quarters of 2008 extending to the first quarter of 2009.

**8. Recommendations**

In light of the 2008 GFC, countries need to be cautious in opening up their stock markets and should impose tailored restrictions that are country specific since the extent of how an international crisis affects a country depends on the level of integration with other stock and financial markets. Extreme care therefore needs to be upheld at all times though the restrictions imposed should not be punitive because according to Coleman (2008), private equity investors still remain committed to Africa.

New products introduced to the market must be carefully vetted by all the relevant authorities, especially the market regulators. Some products introduced to a market may introduce a high element of risk which could affect stock market volatility negatively. Sound policies and regulations affecting financial products in the market must be imposed and must be inculcated to the laws of the country.

Broad based economic reforms by governments can avert the entire financial market from international financial misfortunes. These reforms must be proactively pushed by the government agencies and regulators rather than be a reactive objective of private institutions and public outcry. This can foster market confidence among both local and international investors, prospective investors and the general market participants and stakeholders. A strong financial and banking sector with sound regulations and generally prudent investment policies can protect a financial system from the effects of industry malpractices and international financial misfortunes

Solid financial and economic management and timely governmental intervention through Economic Stimulus Packages can avert total catastrophes in a financial market. Waiting to intervene only when a situation becomes worse can create irreparable damage to an economy. In some cases it may require more input and resources to reverse a trend that could have been alleviated had the intervention been conducted earlier.

A proactive private sector that restructures its operations with new measures to cut costs, increase efficiency and increase market share can boost the value of stocks and cushion the organization against industry catastrophes. In addition, extensive research to identify the impact of crises and the transmission channels is crucial in identifying effective policy responses.

### **9. Abbreviations**

- CMA Capital Markets Authority
- GFC Global Financial Crisis
- JSE Johannesburg Stock Exchange
- FDI Foreign Direct Investment
- NSE Nairobi Securities Exchange
- USD Unites States Dollar

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