

**EFFECTS OF THE VOLATILITY OF SELECTED MACROECONOMIC FACTORS
ON STOCK MARKET RETURNS IN KENYA**

BY:


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THE REQUIREMENTS OF MASTERS OF SCIENCE IN FINANCE, SCHOOL OF
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2020

DECLARATION

I declare that this research project report is my original work and has never been submitted to any other university for assessment or award of a degree.

 Recoverable Signature

X 

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This research project report has been submitted with my authority as the university supervisor.

Signature.....

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TABLE OF CONTENTS

DECLARATION.....	ii
LIST OF FIGURES	vi
LIST OF TABLES	vii
LIST OF ABBREVIATIONS	viii
ABSTRACT.....	x
CHAPTER ONE: INTRODUCTION.....	1
1.1 Background	1
1.1.1 Volatility of the Macroeconomic Factors	2
1.1.2 Stock Market Returns	3
1.1.3 Stock Market Returns and the Volatility of the Macroeconomic Factors	4
1.1.4 The Nairobi Securities Exchange.....	5
1.2 Research Problem.....	6
1.3 Research Objective.....	8
1.4 Value of the Study.....	8
CHAPTER TWO: LITERATURE REVIEW.....	10
2.1 Introduction	10
2.2 Theoretical Framework	10
2.2.1 Capital Asset Pricing Model	10
2.2.2 Efficient Market Hypothesis	11
2.2.3 Coherent Market Hypothesis	12

2.3	Determinants of Stock Returns	13
2.3.1	Macroeconomic Factors.....	13
2.3.2	Historical Performance	15
2.4	Empirical Review.....	15
2.5	Conceptual Model	21
2.6	Summary of Literature Review and Research Gaps	23
CHAPTER THREE: RESEARCH METHODOLOGY		24
3.1	Introduction	24
3.2	Research Design.....	24
3.3	Data Collection.....	24
3.4	Data Analysis	26
3.4.1	Model Estimation.....	26
3.4.2	Model Validation	27
CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION		30
4.1	Introduction	30
4.2	Results	30
4.2.1	Descriptive Statistics.....	30
4.2.2	Model Verification and Validation Results	31
4.2.3	Simulation Results	34
4.3	Interpretation of the Results	38
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS		42

5.1	Introduction	42
5.2	Summary of Findings	42
5.3	Conclusion and Recommendations	43
5.4	Study Limitations	44
5.5	Suggestions for Further Research	45
	REFERENCES.....	46
	APPENDIXES	54

LIST OF FIGURES

Figure 2.1: Conceptual Framework	22
Figure 4.1: Linearity Test Results.....	32
Figure 4.2: Smoothed Regime Probabilities	37

LIST OF TABLES

Table 4.1: Summary of Descriptive Statistics.....	30
Table 4.2: Stationarity Test Results	31
Table 4.3: Lag Selection Results	32
Table 4.4: Regime Selection Results	33
Table 4.5: Regression Results.....	35
Table 4.6: Regime Constant Transition Probabilities and Duration Results	37

LIST OF ABBREVIATIONS

ADF-	Augmented Dickey-Fuller
AIC-	Akaike Information Criterion
ARCH-	Autoregressive Conditional Heteroskedasticity
ARFIMA-	Autoregressive Fractional Integral Moving Average
BBK-	Barclays Bank of Kenya
BRICS-	Brazil, Russia, India, China and South Africa
CAPM -	Capital Markets Authority
CBK -	Central Bank of Kenya
CMA -	Capital Markets Authority
CMH -	Coherent Market Hypothesis
CNY -	Chinese Yuan
EGARCH-	Exponential GARCH
EMH -	Efficient Market Hypothesis
EUR -	Euro
GARCH-	Generalized ARCH
GBP -	Great Britain Pound
GDP -	Gross Domestic Product
INR -	Indian Rupee

KES-	Kenya Shillings
MSM-	Markov Switching Model
NSE -	Nairobi Securities Exchange
PKR -	Pakistan Rupee
TZS -	Tanzania Shilling
UGX -	Uganda Shilling
USD-	United States Dollar
VAR-	Vector Autoregression
ZAR -	South Africa Rand

ABSTRACT

The stock markets play a vital role in the development of the economy in a country by acting as a platform to raise business capital, mobilize savings, control the management of firms, and to raise government capital. The performance of the markets is influenced by different factors among them being macroeconomic factors. This study sought to determine the effects of the volatility of selected macro-economic factors on the stock market returns in Kenya, with a key focus on interest and foreign exchange rate volatility. The study used the NSE 20 share index to determine the stock market returns, the interbank rate to proxy interest rate and the USD/KES for the foreign exchange rate. Panel data from January 2009 to December 2018 was used and daily observations were applied. The study was based on the Markov switching model. The results indicated that during the period under study, there were three regimes characterized as low, medium and high volatility regimes. The longest regime was the moderate volatility regime followed by the high volatility regime. The shortest regime was the low volatility regime. During the high volatility regime, the stock returns followed a random walk with little levels of predictability. In the moderate volatility regime, the historical performance was positively correlated to the stock market returns, while there was no significant effect of the volatility of interest and foreign exchange rates on the stock market returns. The period of low volatility was characterized with significant positive and negative effects of the foreign exchange and the interest rates, and the historical performance on the stock market returns. Based on the results, the study found out that the effects of the volatility of the interest rate and foreign exchange rate differ depending on the distinctive volatility regimes.

CHAPTER ONE: INTRODUCTION

1.1 Background

The stock markets are vital in the development of the economy in a country. They play a significant role in raising business capital, mobilizing savings for the purpose of investments, controlling the management of firms, creating investment opportunities for investors, creating hedging and speculation opportunities for investors, and raising government capital. Further they act as barometers to the performance of an economy through some of the indicators such as capital investments, market capitalization, market turnover and total shares traded (Musyoka, 2012). The economic performance is also affected by other economic elements like interest rate, foreign exchange rate and inflation, which characterize the volatility of macroeconomic factors in an economy. The volatility of these factors is responsible for signaling investors' confidence in investing in an economy and also influences the operational and investing decisions for firms in an economy (Owiti, 2012). This indicates a bidirectional link between the stock market and the macroeconomic performance indicators.

The relationship between the stock returns and the volatility of the macroeconomic factors can be modeled using the risk-return trade-off model. According to the model, investors require a premium return for the additional risk presumed. This is stipulated by CAPM, which assigns a beta as a measure for the risk and is useful in the determining the additional compensation for the investors beyond the risk free returns (Womack & Zhang, 2003). Based on the study findings by Benigno (2016) and Muktadir-Al- Mukit (2013), the impacts of the volatility of macroeconomic factors have varying impacts on the stock market, which is dependent on the degree of the changes in the macroeconomic factors. This is according to the CMH whereby, the stock market

performance is seen to encounter different market phases that are based on the prevailing market conditions.

The main capital market trading platform in Kenya is the Nairobi Securities Exchange. The NSE performance is measured through different indices as shown in Appendix I (NSE, 2018). The forex market is guided by different exchange rate pairs against the shilling such as USD/KES, GBP/KES, EUR/KES, ZAR/KES, TZS/KES and UGX/KES among others (Central Bank of Kenya, 2018). The operating interest rates include the interbank rate, the CBK rate, repo and reverse repo, treasury bills rate and treasury bond rate, banks lending rate and banks savings rate (Central Bank of Kenya, 2018).

1.1.1 Volatility of the Macroeconomic Factors

The volatility of the macroeconomic factors is the dynamic changes in the economic dynamics that influence the performance of a particular economy. This includes the deviations in the interest rates, variations in the foreign exchange rates and the variations in the commodity prices (Sornette, Ivliev, & Woodard, 2012). The volatility is critical in influencing the decisions of firms and investors, which include financing and investment decisions. The changes in the market factors help them in determining the horizons of their investments and the mode of financial management to ensure that their returns are not severely reduced during times of momentous market volatility.

A study by (Thu, 2012) measured interest rate through the 3-month Treasury bills rate. The 3-month Treasury bills are short-term debts to the government with a maturity term of 3 months

and their yield over their term of issue is the 3-month Treasury bill rate. The interest rate volatility was measured using the Garch (1,1) model. Muktadir-Al- Mukit (2013) used the average interest rate on savings deposits to proxy interest rate. The savings deposit rate is the interest rate earned by bank account holders for holding their savings in the particular bank. The study used variance decomposition to determine the interest rate volatility.

In the study by Oyinpreye and Moses (2015) that was based in Nigeria, the NGN/USD rate was used and its volatility was measured using the Garch (1,1). Hussain and Bashir (2013) conducted their study in Pakistan, India and China. The foreign exchange rates used were PKR/USD, INR/USD and CNY/USD respectively. The volatility of the exchange rates was measured using the GARCH model

1.1.2 Stock Market Returns

Stock market returns refer to the earnings realized by investors on the equity capital markets (Drobetz, 2013). The returns comprise of capital returns and dividends earned over a given period. Capital market returns are earned when an investor trades shares and is computed as the difference between the stock prices at the date of selling and the price at which the investor purchased the shares. Contrariwise, dividends are the share of profits passed by firms to their investors. Thus, the stock market returns are a summation of the capital and the dividend yields (Drobetz, 2013).

The stock market returns fluctuate periodically depending on the trade activities on the stock markets. The fluctuations on the stock prices are based on the investors' activities, which are

usually subject to their prospects concerning the movement of the stock prices over time. This further influences their investment horizons and their investment motives (Musyoka, 2012). Thus, the investors' anticipations are inclined to the economic conditions based on the prevalent macroeconomic factors such as interest rate and foreign exchange rate changes.

1.1.3 Stock Market Returns and the Volatility of the Macroeconomic Factors

Given that investors and firms follow market indicators to determine their investment and financing strategies, it is imminent that this too affects the stock market performance. Their reactions to the changes in the economic indicators necessitate their assessment to ascertain the extent of the influence of the economic factors on the stock returns (Owiti, 2012). Thus, the movements in interest and foreign exchange rates are influential in informing investors' decisions concerning their investment decisions.

The expected connection between stock returns and the macroeconomic factors is a positive association. This is attributed to portfolio restructuring and rebalancing. In periods of high interest rates, investors will opt to restructure their portfolios so that they have a higher weighting on interest-related investments to take advantage of the high interest rates for a higher income. Hence, they may tend to draw their investments from the stock market and place them into the bonds market (Fabozzi & Markowitz, 2011). When the foreign exchange rates change, investors are exposed to foreign exchange risk, which demands that they repatriate their portfolios. In periods of local currency depreciation, the foreign stock holdings outdo the domestic holdings. The high foreign exchange exposure may require that the investor sells the overweight stock and simultaneously purchases the domestic currency (Constantinides, Harris, &

Stulz, 2003). This will lead to the appreciation of the local currency following the demand during the portfolio adjustments

On the other hand, the expected theoretical association between volatility of the macroeconomic factors and the stock market returns is positive. This is a reflection of investors seeking to profit from excess risk derived from the high market volatility as outlined by CAPM (Womack & Zhang, 2003). During periods of high uncertainties, there is usually a high chance of making high returns or losses. This depends on whether the market changes are favourable or unfavourable to the investor. Therefore, the higher the risk due to the volatility, the higher the expected returns (losses) as opposed to periods with low volatility.

In the Kenyan context, Oloo (2017) indicated that the stock returns are autonomous of the macroeconomic factors while Otieno, Ngugi, and Wawire (2017) found out that the variations in interest rates negatively influenced the stock returns in the long-run. Musyoki (2017) indicated a negative substantial connection between the stock returns and the foreign exchange rates while Mburu (2015) established a noteworthy positive connection between the foreign exchange rates and the stock returns. Following the contradictory conclusions founded on the previous studies, this forms the underlying premise on conducting the study to ascertain the influence of the changes of the interest and the foreign exchange rates on the stock returns.

1.1.4 The Nairobi Securities Exchange

The main platform for trading capital in Kenya is the NSE. The exchange was established in 1954 as an association of stockbrokers to facilitate the trade in shares. In 1991, the association

was incorporated as a limited company trading as the Nairobi Stock Exchange (NSE, 2015). Over time, the market has been growing both in the number of instruments traded, counters and volume of trades. This has extended the developments of the market and in 2014, it demutualized and self-listed. Currently, the NSE is used to mobilize both debt and equity capital. For the equity capital, the exchange operates 67 counters that are grouped into 12 sectors as shown in Appendix II. It also has six market indices (see Appendix I). The indices act as guides to investors in assessing the performance of the core segments in the economy (NSE, 2018).

The movements of the stock market returns can be indicated through the performance of the NSE 20 share index. From 2010-2018, the index experienced drastic spikes in October 2010, May 2013, November 2013, September 2014, and March 2015. In March 2015, the index had a record high of 5499.64 points. The significant dips were in November 2011, January 2016, January 2017 and October 2018, when the index hit an all-time low of 2,636.47 points in May, 2019 (Trading Economics, 2018).

In the past years, the NSE20 index is seen to follow the CMH, where the movements in the prices seem to be cyclical (Vaga, The Coherent Market Hypothesis, 1990). This implores the need to examine the causes for such movements and particularly, whether they are caused by economic factors.

1.2 Research Problem

The stock market plays a vital function in the economic development of a state. One of the core roles is providing opportunities for investors to invest and for firms and the government to raise

funds (Musyoka, 2012). For the investors, the stock returns determine their incentive to invest in the market as opposed to investing in other form of securities. However, as indicated by Owiti (2012), the stock returns are influenced by the volatility of economic factors. This is because their movements affect the judgments made by investors and corporations concerning their respective investment decisions. Favorable market conditions characterized by stability promote the investors' confidence while instability deters their confidence and may cause them to withdraw from the stock market altogether (Li & Nishimura, 2014). Therefore, the changes in interest rates cause the changes in the stock returns (Otieno, Ngugi, & Wawire, 2017) and also, the changes in the exchange rates too cause the the fluctuations in the stock returns (Sifunjo & Mwasaru, 2012).

The stock returns on the NSE have experienced sporadic movements over time. Partially, this can be attributed to the dynamic changes in the macroeconomic factors, which largely influence the economy at large. This is seen from the periodic movements between the NSE 20 share index and macroeconomic factors. However, although the cause of the causality effects flowing from the volatility of the macroeconomic factors to the stock returns has been established, there are inconsistencies on the magnitude of the effect.

According to Oloo (2017), stock returns are not influenced by the changes in interest rates. On the contrary, Dima (2015) indicated that the variations in interest rates cause positive, negative or insignificant impacts on the stock returns. Further, based on the findings by Nganga and Wanyoike (2017), there exists a negative correlation between interest rates and stock market returns. Regarding the effects of the volatility of foreign exchange rates on stock market returns,

there exist a negative link according to Jumah (2013) and Musyoki (2017) and a positive relationship according to Mburu (2015) and Sangany (2015). This presents a hurdle in explicating the underlying impact of the volatility of interest and foreign exchange rates in Kenya.

The contradictory findings across the studies formed the basis of conducting this study to expand the empirical knowledge on the effects of the volatility of macroeconomic factors on the stock market returns. Therefore, the study sought to answer the question: What is the effect of the volatility of the selected macroeconomic factors on the stock market returns in Kenya?

1.3 Research Objective

The general objective of the study was to determine the effect of the volatility of selected macroeconomic factors on stock returns on the Nairobi Securities Exchange. The specific objectives of the study were:

- i. To determine the effect of the volatility of interest rates on the stock market returns.
- ii. To establish the effect of the volatility of foreign exchange rate on the stock market returns.

1.4 Value of the Study

The results of the study are useful to investors, scholars, policy makers and regulators. To the investors, the study generates useful information for making investment decisions such as portfolio rebalancing, and entry into and exit from the market.

The study is also beneficial to academia in the fields of finance and economics. It particularly adds to the empirical knowledge concerning the effects of the volatility of macroeconomic factors on stock returns. Besides, it provides researchers and scholars with insights useful for guiding future research work.

Further, the study findings are valuable to policy makers and regulators such as the CBK and CMA. It acts as a guide in establishing macroeconomic policies to regulate the market based on the forecasted magnitude of the effects of the changes of the market factors on the stock returns. Thus, through the study, the regulators can establish regulations and policies that are beneficial to the economy.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter discusses the literature that guided the study. It is organized into four sections: the theoretical framework, empirical context, conceptual model and the research gaps for the study.

2.2 Theoretical Framework

This section outlines the underpinning theories that were used in assessing the results of the study.

2.2.1 Capital Asset Pricing Model

CAPM is a model used to price risky assets. It was established by Treynor (1962), Sharpe (1964) Lintner (1965) and Mossin (1966) to extend the modern portfolio theory by Markowitz (1952) and the mean variance model by Tobin (1958). The model is based on the premise that the cost of equity for an asset is only defined by beta, which is a reflection of the market risk (systematic risk). CAPM follows the risk-return tradeoff concept. Thus, consistent with the model, higher risks are usually rewarded for by higher returns for the invested assets. In this case, an investor with an investment in high risk assets expects a higher return from the investment than an investor with an investment in low risk assets (Womack & Zhang, 2003). Over time, the CAPM model has been improved. Shanken (1985) assessed the concept of multi-beta CAPM indicating that the risks influencing the returns of a security originate from different sources. Abbas, Ayub, Sargana, and Saeed (2011) introduced the concept of downside-beta CAPM indicating that risks are either downside or upside and that investors assign different weights to the risks.

Based on CAPM, therefore, the stock returns were expected to vary over time based on the changes in the betas as reflected by the volatility of the macroeconomic factors. Also, the study outcomes were predicted to follow the risk-return trade-off whereby, the stocks returns would be high during the periods characterized by significant volatilities because of the high beta.

2.2.2 Efficient Market Hypothesis

The EMH was hypothesized by Fama (1970). According to the hypothesis, the capital markets are efficient, which means that the asset prices mirror all the available information. It puts across three market forms: weak-, semi-strong-, and strong-forms of market efficiencies. In the weak-form market efficiency, the asset prices in the capital markets replicate all the obtainable information and therefore, the future asset prices cannot be projected using past information because the prices follow a random walk. The semi-strong-form market efficiency has the asset prices reflect all market information including the newly released public information. Thus, the asset prices follow a random walk that incorporates all new information. In the strong-form market efficiency, the asset prices reflect all the past, public and private information. The investors, therefore, cannot earn excess returns by applying such information (Fama, 1970).

Based on the EMH, it is difficult for investors to earn risk-adjusted excess returns from technical and fundamental analysis. There are no opportunities in the market for making riskless gains and when they appear, they are usually short-lived because the market tends to make quick corrections to adjust the assets into their fair prices (Guerrien & Gun, 2011; Malkiel, 2011). In this regard, the study was based on the expectation that there are no significant impacts of the selected macro-economic factors on the stock market returns.

2.2.3 Coherent Market Hypothesis

The CMH was proposed by Vaga (1990) as a progression of the EMH. According to the hypothesis, the variations in the market conditions result in the emergence of different market phases: the steady state, the random walk, the unstable transition and the coherent cycles. During the random walk state, the stock market prices move unpredictably. In the unstable transition state, the stock market transits between random walk and crowd behavior based on the investors' prospects, which are usually unbalanced. The steady/coherent state is characterized by both crowd behavior and utilization of economic fundamentals. Investors in this state tend to exercise crowd behavior with a bias on the fundamentals. This skews the probability distribution towards either excess returns or loss, representing an inverted risk-reward ratio. Excess returns are realized when the bias on fundamentals is positive leading to a coherent bull market, while excess losses are realized when the bias is negative, leading to a coherent bear market. Coherent cycles or chaos occur similarly to the steady state only that the crowd behavior lacks the support from the fundamentals (Vaga, 1994).

Based on the CMH, the study was based on the expectation that the stock returns do not have a consistent association with the market volatilities. Rather, the stock returns move through market transitions with different variations in the risk-return ratios. Thus, the relationship between the stock returns and the volatility of the macroeconomic factors depict unique risk-return ratios for the different market phases.

2.3 Determinants of Stock Returns

Stock returns are influenced by interplay of different factors. They include the macroeconomic factors and investors' sentiments on the exchange.

2.3.1 Macroeconomic Factors

The macroeconomic factors include the GDP growth, inflation rate, unemployment rate, interest rates and foreign exchange rate.

2.3.1.1 GDP Growth

Growth in the GDP indicates a growing economy and hence an expansion of the firms' trading in the stock market, and an increase in the consumers' income levels (Indangasi, 2017). Therefore, the growth in the firms will lead to a growth in their performance and thus, their stock returns. Contrary, a declining economy indicates poor performance for firms (Indangasi, 2017). This translates to low stock market returns.

2.3.1.2 Inflation Rate

The inflation rate indicates the changes in commodity prices in an economy. Expected inflation has positive or negative impact on the stock market, which is usually dependent on the ability of the investors to plan and hedge, and the aim of the government's monetary policy. On the other hand, unexpected inflation is considered a signal for future commodity prices (Laichena & Obwogi, 2015). Therefore, high inflation rates are linked with high volatility of stock returns due to the uncertainty in the economy.

2.3.1.3 Interest Rate

High interest rates raise the cost of operations and investments for firms (Alam & Uddin, 2009; Dima, 2015). Therefore, this leads to poor performance of the firms and the stock market, and thus the stock returns. Further, the high rates offer an alternative for investors because of the higher income, which could make them abandon stocks for the Treasuries. A low demand for stocks lowers the stock returns (Alam & Uddin, 2009; Dima, 2015). On the other hand, low interest rates are favorable to the costs of operation and investments for firms. Further, they discourage investors, who turn to other investments such as the stock market, which increases the demand for stocks in the stock market (Alam & Uddin, 2009; Dima, 2015). Therefore, low interest rates are associated with high returns in the stock market.

2.3.1.4 Foreign Exchange Rate

The prevailing foreign exchange rate largely influences the import and export markets in a country (Sifunjo & Mwasaru, 2012). A high exchange rate supports importation while a low exchange rate supports exportation. Thus, it impacts the firms in each category respectively, which translates to their performance in the stock market. In contrast, foreign exchange rates are an indicator of the stability of an economy. A stable foreign exchange rate supports economic development by supporting the operations for both local and foreign investors (Jumah, 2013). This boosts the performance of the firms and thus their performance in the stock market. In contrast, instability signals economic uncertainty, which deters investors from investing in the country (Jumah, 2013). Thus, it lowers the performance of firms, which translates to poor stock performance.

2.3.2 Historical Performance

Historical prices are the past stock prices. Normally, the prices imply the performance of the stock market from which the investors draw the overall perception regarding the movement of stock prices. This is pegged on their anticipation of price developments in the market. The historical prices exhibit two stock market extremes: a bullish or bearish outlook. In a bullish outlook, investors believe in rising stock prices while in a bearish outlook, the investors believe in dropping stock prices (Salur, 2013). Therefore, the investors depend on the previous prices to make investment decisions and to trade.

2.4 Empirical Review

Alam and Uddin (2009) assessed the association between interest rates and stock prices based on an examination of fifteen industrialized and emerging nations. Monthly data collected from January 1988 to March 2003 was used. The data used for the interest rate was bank deposit rates and for the stock prices, the study used the respective share market indices. The study used panel regression to assess the relationship and it found out that the interest rate has a substantial negative association with share prices. For six countries, (Bangladesh, Colombia, Italy, Japan, Malaysia and S. Africa), the study established that the volatility of interest rates has a negative significant connection with the variations in stock prices. For eight countries, (Australia, Canada, Chile, Germany, Jamaica, Mexico, Spain, and Venezuela), although they indicated a substantial negative relationship between interest rates and the share prices, there was no relationship between the volatilities of both variables. Four countries, Bangladesh, Colombia, Italy, and S. Africa, indicated a significant negative connection between the interest rates and the stock prices and the changes between the interest rates and the deviations in the stock prices. The study

indicated that the relation between interest rates and stock prices, and the volatility between the two variables may vary for different economies.

Muktadir-Al- Mukit (2013) examined the influence of the volatility of interest rates on stock returns in Bangladesh. The study was based on monthly data for the period from 1991-2012. The interest rate used was the average of the savings deposit interest rate while the stock returns were based on the DSE General Index. The study used the Granger causality test to assess the association of the variables and indicated that the causality was unidirectional, moving from the interest rates to the market index. The results also indicated independence of the stock market returns from impacts by other macroeconomic variables in the short-run. However, there was a negative steady and substantial correlation in the long-run between the changes in interest rate and the market index. Based on the study, interest rate volatility has very little impact on the stock market returns in the short-run while there is a substantial negative impact in the long-run.

Benigno (2016) carried out a similar study and assessed the connection between the fluctuations in interest rates and the stock returns in fourteen developed countries for the period from 1999-2015. The interest rate changes were based on the yields on the 10-year government bonds in the respective countries while the stock returns were based on the stock market indices. The relationship was examined using the quantile-on-quantile approach. The study established a weak link between the interest rate variations and the stock returns for Australia, Germany, Netherlands, UK and US. Contrary, there was a significant link between the two variables for Greece, Ireland, Italy, Portugal and Spain. Also, the study established that the relationship

between the variables was pronounced during the periods characterized with market turbulence. However, the magnitude of the relationship varied across the different quantiles. The study also found out that the negative shocks on interest rates led to a larger influence on the stock market returns compared to the positive shocks. Thus, the study indicated that the link between the interest rate fluctuations and the stock markets returns is asymmetrical.

Otieno, Ngugi, and Wawire (2017) assessed the link between interest rates and the stock market returns on the NSE. The data was examined from January 1993 - December 2015. The stock returns were assessed using the monthly NSE 20 share index while the interest rates were examined using the 3-month treasury bill rate and the monthly lending rate. The data was analyzed through ARFIMA and the Granger causality test. The results indicated that the variables are fractionally integrated. Also, the results indicated that in the long-run, the interest rates Granger cause the returns in the stock market. In the short-run, the study indicated that the returns in the stock market negatively lead the rates on the 3-month treasury bills and the lending rate. According to this study, there exists a bidirectional effect between the two variables that is dependent on time.

Oloo (2017) examined the influence of interest rates on the stock market returns based on an assessment of the NSE. The data used was the monthly observations of the NSE 20 share index and the CBK lending rate from January 2007-December 2017. The study used regression analysis to test the influence of the interest rate and stock returns. The results of the study indicated that the stock market is largely independent of other macroeconomic variables and

therefore, interest rate was not significant in determining the NSE stock returns. According to this study, the volatility of interest rates has no influence on the stock market returns.

Dima (2015) assessed the effects of interest rates on the stock returns for the commercial banks listed on the NSE. The study assessed the stock returns for the banks against the CBR rate for the period from 2006-2014. The study indicated that the effects of interest rates on the stock returns varied from bank to bank. There was a noteworthy negative connection between interest rate variations and the stock returns for BBK while the relationship was positive for Standard Chartered Bank. For the rest of the banks, the positive and negative impacts were insignificant. Based on the study, the volatility of interest rates generates different results on the stock returns for different sectors and firms.

Oyinpreye and Moses (2015) conducted a study to gauge the effects of the instability of exchange rates on the share prices in Nigeria. The study was undertaken from 1985-2012 and was based on monthly data. The study marked the transition between two exchange rate regimes: from the fixed rate to the floating and managed regimes. It applied the Granger causality and the outcome indicated that the volatility of the exchange rates has a negative impact on the changes in the prices and causality effects run from the share prices towards the exchange rates. Sui and Sun (2016) conducted a study to assess the outcome of spillovers between the exchange rates and stock prices. Their study was executed based on the stock returns in the US and BRICS between 2007 and 2009. The study assessed two distinct periods: the crunch and the tranquil periods. The results of the study indicated that except for China, there was a substantial negative affiliation between stock prices and foreign exchange rates, which was more in the crisis period

than the tranquil period. Thus, the changes in the foreign exchange rates affect stock returns significantly, indicating causality running from the foreign exchange rates to the stock returns.

Malarvizhi and Jaya (2012) examined the movement of the stock prices in the Indian stock market through the Nifty Index and the exchange rate. Their study involved an assessment of monthly data from April 2001 – March 2011 and used the Granger causality test to assess the causation effects between the variables. The study found a bidirectional causal association between the Indian stock market and the exchange rate. Thus, contrary to the results by Oyinpreye and Moses (2015), the study indicated that changes in the two variables affect the outcomes of each other.

Hussain and Bashir (2013) examined the dynamic link between the unpredictability of the exchange rates and stock returns. The study was based on PIC countries (Pakistan, India and China) for the period from 2007-2012. It assessed daily data of the variables whereby the volatilities of the variables was extracted using the GARCH model and the Johansen co-integration and the Granger causality tests were used to determine the correlation between the variables. The results indicated that there exists no causality association between the variables for India and China while it was found out that the variations in the exchange rates influences the volatility of the stock returns in Pakistan. Based on the study, the relationship between the variables varies across different countries.

Sifunjo and Mwasaru (2012) conducted a study to assess the causal connection between the exchange rates and the stock prices. The study was based on an assessment of monthly

observations for the period from November 1993- May 1999. The stock prices were assessed through the NSE 20 share index while the exchange rates were based on the USD/KES exchange rate. The study used the Granger causality test and established that both variables are cointegrated and have a causal relationship with Granger causality running from the exchange rates to the stock prices. Therefore, the foreign exchange rates impact the stock prices and thus the stock returns.

Jumah (2013) assessed the influence of foreign exchange rate volatility on the fluctuations of the stock returns on the NSE. The stock returns were based on the NSE 20 share index, which is a composite of 20 blue chip companies on the NSE. The study assessed monthly data covering the period from 1996-2012 and employed the EGARCH to test the effect. The study findings indicated that the foreign exchange unpredictability has a small negative influence on the volatility of stock returns. Therefore, the correlation between the two variables is negative.

Mburu (2015) examined the association between the exchange rate volatility and the performance of the stock market (NSE). The study employed the NSE 20 index and was carried out for the period between 2011 and June 2015. The assessment was based on monthly data for the two variables. The study employed regression analysis to assess the connection between the variables. The results of the study indicated that there is a positive link between the exchange rate volatility and the performance of the stock market on the NSE. Contrary to the findings by Jumah (2013), the study established a positive correlation between the two variables.

2.5 Conceptual Model

The variations in interest rates and the exchange rates are significant market factors that influence the investment and financing decisions by both firms and investors. This further influences the profitability and performance of the firms (Muriithi, 2016) and spirals down to the performance of their stocks in the capital market. The changes in interest rates or the expectations relating to the movements of interest rates widely influence market performance. Stable interest rates enable firms and investors to make projections concerning their future returns. On the contrary, the volatility of interest rates in the market leads to uncertainty, and firms and investors can hardly predict the future economic performance. Accordingly, they are faced with difficulties in making financing decisions as they may shy away from borrowing. This has a trickledown effect on the capital injections across the various firms in the economy to support their expansion and operations. As a result, the performance of the firms is affected, which is reflected on the performance of their stocks. Further, it also affects the investment horizon for the investors because stability may encourage long-term investments while instability may promote short-term positions (Moya-Martínez, Ferrer-Lapena, & Escribano-Sotos, 2014).

The foreign exchange rates influence the economic performance of a country based on its impacts on the firms and investors too. For the firms, the impact is mainly on the export and importing firms, which rely on foreign currencies to complete their trades and operations. When the foreign exchange rates are stable, the firms can project their foreign exchange exposure unlike when the rates are highly volatile. The irregular changes influence the firms' performance and are reflected on the performance of their shares. For the investors, the foreign exchange rates affect their motivation in investing in a particular economy. Stability in the foreign exchange

market boosts confidence amongst the investors while highly volatile foreign exchange rates may deter them from investing in the different industries given the uncertainty involved for their future returns.

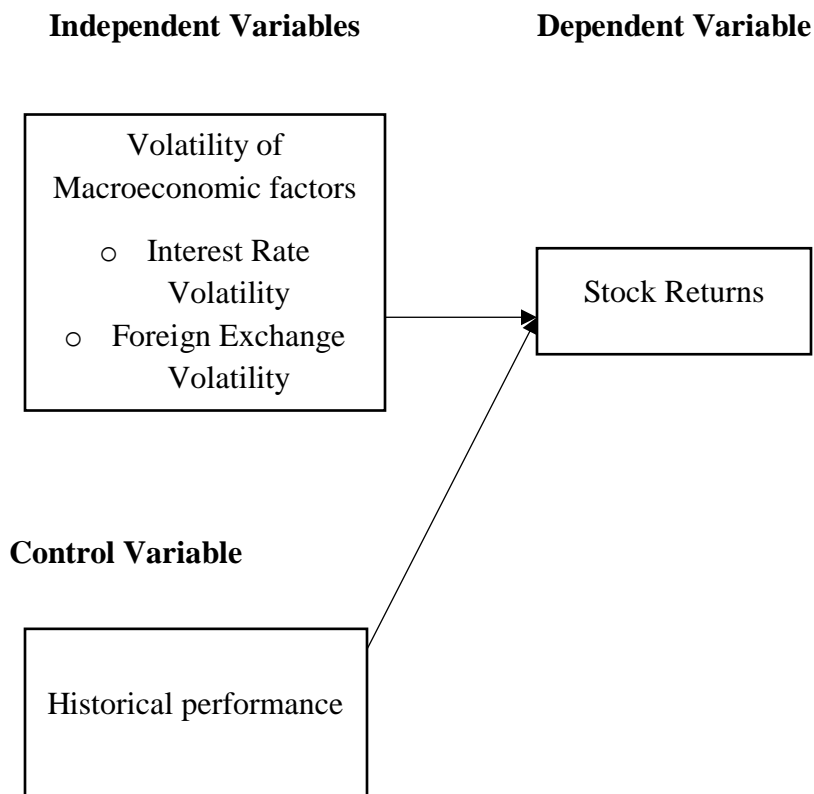


Figure 2.1: Conceptual Framework

This may affect firms in two ways. First, massive withdrawals of foreign investments from the capital markets lead to its contraction and may lead to the devaluation of the affected stocks. Second, lack of confidence by foreign investors in investing in an economy can deter its growth and expansion significantly, thus halting the performance of the firms (Karoui, 2006). This provides the foundation for the conceptual framework for the study as shown in the Figure 2.1 above. The framework shows the interrelationship between the variables and will guide the study.

Stock returns was the dependent variable and was measured based on the changes on the stock exchange index points over time. The independent variables were the volatilities in interest rates and foreign exchange rates, and the historical performance of the stock market returns. The study measured the volatility of the interest rate and the foreign exchange based on their variations over time. The historical returns were the past returns of the stock market.

2.6 Summary of Literature Review and Research Gaps

The theoretical framework indicates that the performance of stock markets is influenced by the happenings in the economy as it drives the investment decisions both by firms and investors. However, it is unclear on the exact impact given that the CMH postulates that the effects are different based on the economic stages of the market. The uncertainty of the impacts of the volatility of macroeconomic factors is further heightened by the empirical studies, which have divergent results. The local studies too do not have consistent findings on the impact of interest rates and the foreign exchange rates. While some studies indicate a positive significant relationship, others indicate a negative significant relationship while some show none existence of any effect of the risks on the performance of the stock returns. However, it is worth noting that the previous studies in Kenya were assessed under one periodical blanket, which could have led to the divergent results given that the different periods have been experiencing different economic conditions. Therefore, the study evaluated the effects of the selected macroeconomic risks based on different economic regimes to provide more empirical evidence useful in alleviating the inconsistencies.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research methodology that was used to conduct the study. It is organized in the following sections: research design, data collection and data analysis.

3.2 Research Design

A research design refers to the approach used to undertake a study. The study was conducted as a descriptive study. Descriptive studies aim at describing the features of the population being investigated to establish relationships between the variables (Saunders, 2015). The aim of the study was to examine and measure the effect of the volatility of selected macroeconomic factors on stock returns on the NSE.

3.3 Data Collection

The study used panel data collected for a period of 10 years ranging from January 2009 to December 2018. The period features the trickle down effects of the 2007/08 global financial crisis, the operation of economic reforms such as the Vision 2030 following its launch in June, 2008 and the Privatization Law enacted in 2005, accelerated external borrowings, and two general elections (Global Security, 2010). Therefore, the period was deemed satisfactory in extracting the effects of the volatility of the selected macroeconomic factors on the stock returns across the period.

The study used secondary data that was collected from the NSE and the CBK. The data collected was the daily observations for the variables: the daily NSE 20 Share Index points for data, daily interbank rate and daily USD/KES floating exchange rate. The NSE 20 Share Index was selected because it comprises the largest securities on the NSE from the different sectors. Also, the securities on the index meet stringent qualifying conditions that include: being principally quoted on the exchange, a minimum of 20% of their free float be available for trading on the exchange, a continuous listing on the exchange for a minimum of 1-year, an ideally blue-chip company with a record of high profitability and dividend payout, and a market cap of KES 50 million and above (NSE, 2019). Thus, it was the ideal index since the securities included are prone to the dynamic movements of the macroeconomic factors.

The daily interbank rate was selected because of its role in transmitting the monetary policies into an economy. The rate influences the economic activities such as open market operations, financing the liquidity risk of banks and acts as a yardstick for the short-term savings and lending rates (CBK, 2019). Therefore, the movements on the interbank rates have a significant impact on the economic market. Besides, the previous studies that were conducted assessed the treasury bills, treasury bonds and the Central Bank base rates in examining the impact of the interest rates on the stock returns on NSE. Therefore, the effect of the interbank rate has been inadequately explored. The floating USD/KES exchange rate was selected because the USD is a major currency in influencing the foreign exchange market globally.

3.4 Data Analysis

This section outlines the basis for estimating and validating the model that was used to derive the relationship between the study variables.

3.4.1 Model Estimation

The daily changes in the interest rate and the foreign exchange rate over time were measured as shown in equations 1 and 2 below:

$$\Delta IR_t = \ln \frac{IR_t}{IR_{(t-1)}} \quad (1)$$

$$\Delta ER_t = \ln \frac{ER_t}{ER_{(t-1)}} \quad (2)$$

Where; IR is interest rate, ER is foreign exchange rate, and t is the time period. The values for IR and ER as shown in Appendix V.

The stock market returns will be measured as shown in equation 3 below:

$$N SER_t = \ln \frac{NSEi_t}{NSEi_{(t-1)}} \quad (3)$$

Where; $N SER$ is stock market returns, $NSEi$ is the stock market index points and t is the time period. The values for $NSEi$ are as shown in Appendix V.

The historical performance was measured as a lag of $N SER$.

The study used standard deviation to derive the daily volatilities of the interest rate and foreign exchange rate as shown 4 and 5 below respectively.

$$\sigma IR_t = \sqrt{\frac{\sum_{t=1}^n (\Delta IR_t - \overline{\Delta IR_1})^2}{n}} \quad (4)$$

$$\sigma ER_t = \sqrt{\frac{\sum_{t=1}^n (\Delta ER_t - \overline{\Delta ER_2})^2}{n}} \quad (5)$$

σIR_t was represented as IRV and σER_t was represented as ERV in the analysis of the data.

A Markov switching model (MSM) was used to determine the effects of the volatility of the selected macroeconomic factors (interest rate and foreign exchange volatility) on the stock market returns. MSM is a non-linear model proposed by Hamilton (1989) to model disconnected changes between different economic states. According to Schaller and van Norden (1997), stock returns exhibit variations in both mean and variance resulting in regime switching. Under the Markov chain, current values are derived from a number of distributions to determine the most likely state to determine the particular observation. The transition from one state (i) at time $t-1$ to another state (j) at time t follows a probability distribution as shown in equation 6 below:

$$\Pr(s_t = j | s_{t-1} = i) = p_{ij} \quad (6)$$

The transition matrix one state to another is as shown in equation 7 below:

$$\begin{matrix} p_{00} & p_{01} \\ p_{10} & p_{11} \end{matrix} \quad (7)$$

Where; $\sum_{j=0}^n p_{ij} = 1$

Based on the different regimes, the model estimated the stock market returns as follows:

$$NSER_t | s_t = \beta_0 | s_t + \beta_1 | s_t IRV_t | s_t + \beta_2 | s_t ERV_t | s_t + \beta_3 | s_t NSER_{(t-1)} | s_t + \varepsilon_t | s_t \quad (8)$$

Where; s_t at time t is either of the regimes where γ_{rt} lies and β represents the respective coefficients for each variable.

3.4.2 Model Validation

Model validation involves conducting particular statistical tests to ascertain the performance of the given model. The model used in the study was validated as follows:

3.4.2.1 Testing for Stationarity

The augmented Dickey-Fuller (ADF) test was used to test the variables for stationarity. The ADF null hypothesis states that there is presence of a unit root in the sample being tested in the time series while the alternative hypothesis indicates absence of a unit root. The presence of a unit root shows that the time series is non-stationary. Using such data in data analysis produces unreliable models as the data is unpredictable. To make the data stationary, the time series is transformed or differenced (Brooks, 2008).

3.4.2.2 Testing for Linearity

Scatter plots were used to assess whether the relationship between the response and the predictor variables was linear or non-linear. In linear relationships, the points depicting the relationship between the variables appear to fall along a straight line while the points in a nonlinear relationship may follow a curve on no particular pattern. Linear relationships are analyzed linear regression, which entails examining the strength of correlation between the variables. On the other hand, analyzing nonlinear relationships involves nonlinear transformation of the data to make it linear or using nonlinear regression models (Vonesh & Chinchilli, 1996).

3.4.2.3 Lag Selection

The VAR lag order selection criterion was used to determine the optimal lags for each variable. Optimal lags are selected in regression to reduce or eliminate residual correlation. Different criteria are used, which include; Schwarz Criterion, Akaike Information Criterion and Hannan Quinn Criterion among others. Using the lag order selection criterion, the lowest value for all the criteria used is selected to determine the ideal number of lags (Asteriou & Hall, 2015).

3.4.2.4 Selection of the Optimal Number of Regimes

The optimal number of regimes was determined using the log likelihood test together with the AIC, HQ criterion and SC tests, where two states were tested against three states. To select the optimal number regimes using the log likelihood test, the model with the highest value is selected while when using the AIC, SC and HQ criterion, the model with the lowest values is selected (Chevallier & Goutte, 2016).

3.4.2.5 Testing for ARCH Effects

The presence of ARCH effects indicates autocorrelation in the squared series or conditional heteroskedasticity in the error terms. It was evaluated using the correlogram of standardized residuals squared test. The null hypothesis for the test is that there are no ARCH effects in a model. The alternative hypothesis shows presence of ARCH effects in a model, indicating existence of autocorrelation and heteroskedasticity. The two can be removed from the model by using generalized least squares to improve the model's fit or ordinary least squares with robust standard errors to eliminate the effect of misleading or erroneous standard errors (Brooks, 2008).

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This section outlines the results of the data analysis and discusses the results for the study. The objective of the study was to determine the effect of the volatility of selected macroeconomic factors on stock returns on the NSE. Secondary data was used and was collected from CBK and NSE. The study was a descriptive study and the data analysis was conducted with the aid of Eviews 9 student version. The Markov switching model was used to measure the effect of the volatility of the selected macroeconomic factors on stock market returns.

4.2 Results

This section outlines the results from the data analysis.

4.2.1 Descriptive Statistics

Table 4.1 below is a summary of the descriptive statistics for the variables:

Table 4.1: Summary of Descriptive Statistics

	NSER	ERV	IRV
Mean	-9.21E-05	0.002586	0.055990
Median	-1.90E-05	0.001566	0.046686
Maximum	0.086344	0.031271	0.219510
Minimum	-0.086022	0.000207	0.004269
Std. Dev.	0.007317	0.003351	0.038439
Skewness	0.110744	5.210860	1.116726
Kurtosis	21.91721	41.13868	4.248835
Jarque-Bera	37043.69	161788.2	677.7074
Probability	0.000000	0.000000	0.000000
Sum	-0.228838	6.423211	139.0790
Sum Sq. Dev.	0.132940	0.027889	3.668720
Observations	2484	2484	2484

The distribution of the daily NSER was symmetric (skewness = 0.1107). This means that the frequency of both negative and positive returns was relatively the same. In relation to kurtosis, the distribution was leptokurtic (kurtosis = 21.9172). This implies that the frequency of small changes is lesser than that of the extreme changes, which means that the exceptional variations are more likely to occur compared to a normally distributed series.

4.2.2 Model Verification and Validation Results

The ADF test was conducted at level. The null hypothesis was rejected for all the variables (p-value < 0.05), indicating that the variables were stationary at level as shown by the results in Table 4.2 below:

Table 4.2: Stationarity Test Results

Series	Prob.	Lag	Max Lag	Obs
NSER	0.0000	1	26	2482
ERV	0.0000	25	26	2458
IRV	0.0002	21	26	2462

The scatter plot analysis results are as shown in Figure 4.1 below. There was no distinct straight line to depict a linear relationship thus indicating a non-linear relationship between variables.

Based on the VAR lag selection criterion, the lowest value of the different criteria used was under AIC lag 4 as shown in Table 4.3 below.

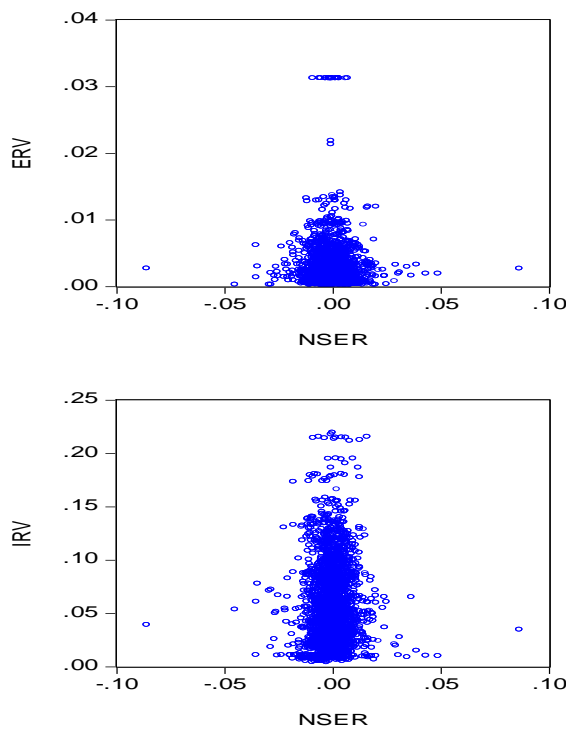


Figure 4.1: Linearity Test Results

Table 4.3: Lag Selection Results

Lag	LogL	LR	FPE	AIC	SC	HQ
0	23842.53	NA	8.70e-13	-19.25649	-19.24944	-19.25393
1	32350.04	16987.52	9.08e-16	-26.12119	-26.09301	-26.11096
2	32669.92	637.9588	7.07e-16	-26.37231	-26.32300*	-26.35440
3	32689.94	39.87766	7.00e-16	-26.38121	-26.31076	-26.35562*
4	32704.64	29.23201*	6.97e-16*	-26.38581*	-26.29423	-26.35255
5	32706.82	4.343073	7.01e-16	-26.38031	-26.26759	-26.33937
6	32713.68	13.61639	7.02e-16	-26.37858	-26.24473	-26.32996
7	32717.40	7.370706	7.05e-16	-26.37431	-26.21933	-26.31802
8	32724.17	13.39460	7.07e-16	-26.37251	-26.19639	-26.30854

The results for the log-likelihood and AIC, SC and HQ criterion tests indicated in Table 4.4 below favored the use of three regimes as opposed to two regimes. The log-likelihood for 2 regimes was 9176.492, which was smaller than for 3 regimes (log-likelihood = 9290.715). The AIC, SC and HQ criterion estimators for 2 regimes were -7.37, -7.29 and -7.34 respectively, which were all greater than the estimators for 3 regimes, which were -7.45, -7.32 and -7.40 respectively. Therefore, 3 regimes were the most suitable for the model. For both regimes, the Durbin-Watson test outputs were 2.01 and 2.14 for 2 regimes and 3 regimes respectively, indicating absence of autocorrelation in the models.

Table 4.4: Regime Selection Results

2 Regimes

Mean dependent var	-0.000101	S.D. dependent var	0.007310
S.E. of regression	0.006992	Sum squared resid	0.119689
Durbin-Watson stat	2.013332	Log likelihood	9176.492
Akaike info criterion	-7.372978	Schwarz criterion	-7.293242
Hannan-Quinn criter.	-7.344018		

3 Regimes

Mean dependent var	-0.000101	S.D. dependent var	0.007310
S.E. of regression	0.006822	Sum squared resid	0.113195
Durbin-Watson stat	2.137759	Log likelihood	9290.715
Akaike info criterion	-7.448963	Schwarz criterion	-7.322324
Hannan-Quinn criter.	-7.402969		

The results of the correlogram of standardized residuals squared test were as shown in Appendix IV. The autocorrelation (AC) and partial autocorrelation (PAC) were zero or near zero and their respective probabilities were significant. Therefore, the null hypothesis was not rejected (p-value >0.05), indicating that there was no ARCH effects.

4.2.3 Simulation Results

4.2.3.1 Regression Output

All the variables were lagged to order 4. The estimated model output is as shown in Table 4.5 below.

For each of the three regimes, the estimation equations are shown as follows:

$$\begin{aligned} \text{Regime 1: NSER} &= -7.72\text{E-}05 + 0.185828*\text{NSER}(-1) + 0.118252*\text{NSER}(-2) + \\ &0.042477*\text{NSER}(-3) + 0.050710*\text{NSER}(-4) + 0.131810*\text{ERV}(-1) - 0.119984*\text{ERV}(-2) - \\ &0.013047*\text{ERV}(-3) - 0.014933*\text{ERV}(-4) + 0.024527*\text{IRV}(-1) - 0.010885*\text{IRV}(-2) + \\ &0.005074*\text{IRV}(-3) - 0.016828*\text{IRV}(-4) \\ 1: \text{SIGMA} &= @\text{EXP}(-5.363326) = 0.004685 \end{aligned} \tag{9}$$

$$\begin{aligned} \text{Regime 2: NSER} &= 0.001068 + 0.509257*\text{NSER}(-1) + 0.032944*\text{NSER}(-2) - 0.062615*\text{NSER}(-3) \\ &- 0.044381*\text{NSER}(-4) - 4.297979*\text{ERV}(-1) + 5.603106*\text{ERV}(-2) - 0.329905*\text{ERV}(-3) - \\ &1.307768*\text{ERV}(-4) - 0.040467*\text{IRV}(-1) - 0.013436*\text{IRV}(-2) + 0.051648*\text{IRV}(-3) - \\ &0.001601*\text{IRV}(-4) \\ 2: \text{SIGMA} &= @\text{EXP}(-4.672546) = 0.009348 \end{aligned} \tag{10}$$

$$\begin{aligned} \text{Regime 3: NSER} &= -0.081852 - 0.563290*\text{NSER}(-1) + 0.743534*\text{NSER}(-2) - 3.256725*\text{NSER}(-3) \\ &- 0.151256*\text{NSER}(-4) + 21.63106*\text{ERV}(-1) + 36.60757*\text{ERV}(-2) + 194.9035*\text{ERV}(-3) - \\ &212.3261*\text{ERV}(-4) + 11.52190*\text{IRV}(-1) - 11.93655*\text{IRV}(-2) + 2.292884*\text{IRV}(-3) - \\ &1.574967*\text{IRV}(-4) \\ 3: \text{SIGMA} &= @\text{EXP}(-7.204456) = 0.000743 \end{aligned} \tag{11}$$

Table 4.5: Regression Results

Variable	Coefficient	Std. Error	z-Statistic	Prob.
Regime 1				
C	-7.72E-05	0.000231	-0.333847	0.7385
NSER(-1)	0.185828	0.032767	5.671194	0.0000
NSER(-2)	0.118252	0.027269	4.336571	0.0000
NSER(-3)	0.042477	0.020435	2.078672	0.0376
NSER(-4)	0.050710	0.019433	2.609442	0.0091
ERV(-1)	0.131810	0.082619	1.595385	0.1106
ERV(-2)	-0.119984	0.189854	-0.631980	0.5274
ERV(-3)	-0.013047	0.183782	-0.070993	0.9434
ERV(-4)	-0.014933	0.082357	-0.181316	0.8561
IRV(-1)	0.024527	0.023345	1.050634	0.2934
IRV(-2)	-0.010885	0.039617	-0.274766	0.7835
IRV(-3)	0.005074	0.034076	0.148908	0.8816
IRV(-4)	-0.016828	0.022204	-0.757905	0.4485
LOG(SIGMA)	-5.363326	0.036537	-146.7898	0.0000
Regime 2				
C	0.001068	0.001265	0.844210	0.3986
NSER(-1)	0.509257	0.073289	6.948647	0.0000
NSER(-2)	0.032944	0.061734	0.533645	0.5936
NSER(-3)	-0.062615	0.053070	-1.179860	0.2381
NSER(-4)	-0.044381	0.046023	-0.964324	0.3349
ERV(-1)	-4.297979	2.916902	-1.473474	0.1406
ERV(-2)	5.603106	4.916722	1.139602	0.2545
ERV(-3)	-0.329905	2.271168	-0.145258	0.8845
ERV(-4)	-1.307768	1.848696	-0.707400	0.4793
IRV(-1)	-0.040467	0.104561	-0.387019	0.6987
IRV(-2)	-0.013436	0.136397	-0.098509	0.9215
IRV(-3)	0.051648	0.092458	0.558613	0.5764
IRV(-4)	-0.001601	0.050484	-0.031714	0.9747
LOG(SIGMA)	-4.672546	0.072749	-64.22835	0.0000
Regime 3				
C	-0.081852	0.000564	-145.1926	0.0000
NSER(-1)	-0.563290	0.005652	-99.66037	0.0000
NSER(-2)	0.743534	0.052766	14.09110	0.0000
NSER(-3)	-3.256725	0.046568	-69.93413	0.0000
NSER(-4)	-0.151256	0.056391	-2.682257	0.0073
ERV(-1)	21.63106	0.556383	38.87801	0.0000
ERV(-2)	36.60757	0.484943	75.48835	0.0000
ERV(-3)	194.9035	0.040207	4847.490	0.0000
ERV(-4)	-212.3261	0.050532	-4201.810	0.0000
IRV(-1)	11.52190	0.001710	6737.893	0.0000
IRV(-2)	-11.93655	0.001416	-8429.279	0.0000
IRV(-3)	2.292884	0.014228	161.1480	0.0000
IRV(-4)	-1.574967	0.015266	-103.1706	0.0000
LOG(SIGMA)	-7.204456	0.273272	-26.36371	0.0000

In regime 1, the only significant variables were NSER(-1), NSER(-2), NSER(-3) and NSER(-4) (p-value<0.05). The constant, ERV(-1), ERV(-2), ERV(-3) ERV(-4), IRV(-1), IRV(-2), IRV(-3) and IRV(-4) were not significant (p-value>0.05). The volatility in the regime was 0.004685 and was significant (p-value<0.05). It was the second highest compared to regimes 2 and 3.

In regime 2, the only significant variable was NSER(-1)(p-value<0.05). The constant, NSER(-2), NSER(-3) and NSER(-4), ERV(-1), ERV(-2), ERV(-3) ERV(-4), IRV(-1), IRV(-2), IRV(-3) and IRV(-4) were not significant (p-value>0.05). The volatility in the regime was 0.009348 and was significant (p-value<0.05). It was the highest compared to regimes 1 and 3.

In regime 3, all the variables were significant (p-value<0.05). The volatility in the regime was 0.000743 and was significant (p-value<0.05). It was the lowest compared to regimes 1 and 3.

4.2.3.2 Regime Transition Output

The results of the probabilities for the transitions from each regime to the other and their respective durations are as shown in Figure 4.2 and Table 4.6 below. From the graphs in Figure 4.2 above, regimes 1 and 2 are persistent, indicating a probability for a longer stay in the regime as opposed to the intermittent occurrence in regime 3. Regime 3 is characterized with spikes, indicating that its happening is sporadic. As shown in Table 4.6, the probability of persistence in regime 1 was 0.9703 and it had the longest duration of 34 days. The probability of persistence in regime 2 was 0.8749 with duration of 8 days. Regime 3 had the lowest probability of persistence (0.4179) and duration (2 days).

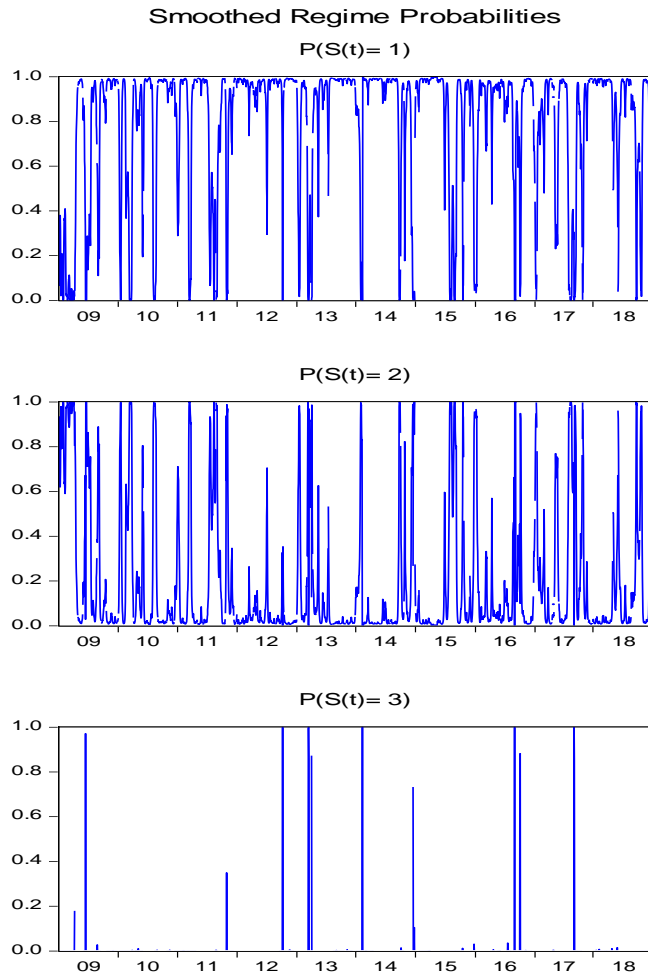


Figure 4.2: Smoothed Regime Probabilities

Table 4.6: Regime Constant Transition Probabilities and Duration Results

Constant transition probabilities:
 $P(i, k) = P(s(t) = k \mid s(t-1) = i)$
 (row = i / column = j)

	1	2	3
1	0.970389	0.028227	0.001384
2	0.111634	0.874922	0.013444
3	0.068237	0.513850	0.417914

Constant expected durations:

	1	2	3
	33.77125	7.994991	1.717958

4.3 Interpretation of the Results

Variations in the macroeconomic factors have different impacts on the stock market. This study investigated the effect of interest and foreign exchange rates volatility on the stock market returns in Kenya. Investigations into the study indicated that for the period under investigation, stock market returns went through three regimes. Based on the volatility outputs in equations 9-11, regime 1 relates to moderate volatility, regime 2 relates to high volatility and regime 3 relates to low volatility.

During the period of high volatility, the historical performance of the stock market was significant at lag 1 only, while it was not significant for lags 2, 3 and 4. The interest and foreign exchange rate volatilities were also not significant. This indicated that in periods of high volatility, the stock market takes a random walk with limited predictability from external factors. The positive and significant historical performance at lag 1 indicated the persistence of the current stock prices based on the historical prices in the previous day. These results during this regime supported the Fama's EMH on the inability to forecast asset prices based on their historical prices and other relevant information (Fama, 1970). Further, the results were in line with the findings by Oloo (2017) and Muktadir-Al- Mukit (2013) that interest rates have no impact on the stock market performance. Regarding the impact of exchange rates, the results supported the findings by Hussain and Bashir (2013) that there is no causal effect of the exchange rate volatility on the stock market returns.

During the period of moderate volatility, the historical performance of the stock market was significant at all lags while the interest and foreign exchange rate volatilities were not significant. This showed that during periods of moderate volatility, the stock market returns are guided by the historical performance but there is insignificant impact from the selected macroeconomic factors. All the four lags had a positive correlation of 18.6% for lag 1, 11.8% for lag 2, 4.2% for lag 3 and 5.1% for lag 4. This indicated the persistence of stock prices and thus predictability using historical prices as indicated by Salur (2013). The results during this period were also in line with the findings by Oloo(2017), Muktadir-Al- Mukit (2013) and Hussain and Bashir (2013), and contrary to the findings by Sui and Sun (2016).

During the period of low volatility, all the predictor variables were significant in influencing the stock returns. For historical performance, there was a negative correlation at lags 1, 3 and 4 except for lag 2. This indicates a tremendous reversion of the stock returns towards the mean returns over time. Therefore, in this period, the current returns can be predicted using the historical returns (Salur, 2013). The volatility of interest and foreign exchange rates was also significant in this regime. The coefficients were both negative and positive for different lags. This indicates an interplay of the risk-return trade-off (Sharpe, 1964; Treynor, 1962) and the inverse risk-return trade-off (Vaga, The Coherent Market Hypothesis, 1990). The risk-return trade-off was shown by the positive correlation, where high volatility in the interest and exchange rates leads to a rise in the stock returns. The inverse risk-return trade-off was indicated by the negative correlation, where an increase in the volatility of interest and exchange rates leads to a drop in the stock market returns. The findings during this period were in line with the results of Benigno (2016) and Dima (2015) that there are both positive and negative impacts of

interest rates on the stock market returns. However, the results contradicted the findings by Sui and Sun (2016), who found out that the exchange rate volatility has significant negative influence on stock market returns during the periods of high volatility. The results also were contrary to the conclusions made by Jumah (2013), who established a negative relationship between foreign exchange rates and stock market returns, and the deductions by Mburu (2015), who established a positive correlation between the two variables.

The durations indicated the longest stay in the period of moderate volatility at 34 days. The probability of stay in the regime was 97.0%, while the probability of shift to the high volatility and low volatility was 2.8% and 0.14% respectively. The second longest duration was the high volatility regime at 8 days. The probability of stay in the regime was 87.5%, while the probability of shift to the moderate volatility and low volatility was 11.2% and 1.3% respectively. The shortest duration was the low volatility regime at 2 days. The probability of stay in the regime was 41.8%, while the probability of shift to the high volatility and moderate volatility was 54.4% and 6.8% respectively. This indicated the prevalence of high volatility in stock market returns as explained by their leptokurtic nature (Ivanovski, Stojanovski, & Narasanov, 2015).

The study results affirmed the movement of the stock market returns through different cycles as stipulated by CMH. The high volatility regime was attributed to the random walk states, where the stock returns are barely influenced by their historical performance nor the volatility of the interest and foreign exchange rates. Thus, returns fluctuations in this state are caused by random forces, which could be positive or negative based on the underlying biases, and investors are

unlikely to realize excess returns or losses (Vaga, 1994). The medium volatility regime was categorized as the unstable transition state whereby the stock market returns were partially predictable from their historical values, with no associated effect from the volatility of interest and foreign exchange rates. Therefore, in this state, there is a critical bias on investors' sentiments, which is absorbed slowly in the market and signals a trend (Vaga, 1994). Lastly, the low volatility regime was associated with the coherent and chaotic states. Crowd behaviour was evidenced by the predictability of the stock returns from the historical performance while the dependence on the fundamentals was demonstrated by the significance of the volatility of the interest and foreign exchange rates (Vaga, 1994). Based on the study findings, the stock market in Kenya follows the CMH with the realized returns being dependent on the prevailing market state.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter outlines the summary of the study findings, the study limitations and the recommendations for future studies.

5.2 Summary of Findings

The objective of the study was to determine the effects of the volatility of selected macroeconomic factors on the stock market returns in Kenya. The dependent variable was stock market returns, which was measured from the NSE 20 share index. The independent variables were volatility of foreign exchange rate, the volatility of interest rate and the historical performance of the NSE 20 share index, which was a control variable in the model. The volatility of exchange rate was measured through the USD/KES exchange rate, the volatility of interest rate was measured using the interbank rate, while the historical performance of the NSE 20 share index was measured as a lag of the stock returns. Daily observations for each variable were used for the period between January 2009 and December 2018.

The study applied the Markov switching model to assess the effects of the independent variables on the dependent variable. The results indicated that during the period under study, there were three regimes characterized as low, medium and high volatility regimes. The longest regime was the moderate volatility regime followed by the high volatility regime. The shortest regime was the low volatility regime. During the high volatility regime, the stock returns followed a random walk with little levels of predictability. In the moderate volatility regime, the historical performance was positively correlated to the stock market returns, while there was no significant effect of the volatility of interest and foreign exchange rates on the stock market returns. The period of low volatility was characterized with significant positive and negative effects of the

foreign exchange and the interest rates, and the historical performance on the stock market returns. Based on the results, the study found out that the effects of the volatility of the interest rate and foreign exchange rate differ depending on the distinctive volatility regime.

5.3 Conclusion and Recommendations

The study results indicated that the volatility of interest and foreign exchange rates had no significant impact on stock market returns in the high and moderate volatility regimes. There were negative and positive effects of the volatility of interest and foreign exchange rates in the low volatility regime. The effect of the historical performance was also insignificant in the high volatility regime. In the moderate volatility regime, the effect was significant and positive. In the low volatility regime, there was a significant positive correlation at lag 2 while at lags 1, 3 and 4, there was a negative significant correlation. Based on the empirical evidence, the study concludes that the effects of the volatility of interest and foreign exchange rates on stock market returns vary over the different volatility regimes.

From these findings, it is evident that the volatility of macroeconomic factors is critical in making investment decisions, which has a huge implication on policy makers and investors. Periods of instability are marked by a lack of investors' confidence that may lead to their withdrawal from investing. Therefore, policy makers should be well versed with the prevailing market conditions and set policies that promote or correct instability in a timely manner to boost the investors' confidence.

Further, the study suggests the application of the study findings in asset selection and portfolio rebalancing. Depending on the underlying market state, investors can make decisions on whether to increase or decrease the size of their assets accordingly. Besides, the study recommends use of the results in active portfolio management, where investors can identify market biases and

benefit from the inverted risk-reward ratio. This is useful in optimizing the returns for their portfolios.

5.4 Study Limitations

The study used the interbank rate to proxy interest rate and the USD/KES for the foreign exchange rate. Other interest rates such as the bank lending rates, savings rate or the Central Bank base rate would have been used to measure interest rate volatility and other currency exchange rates such as GBP/KES or EUR/KES would have been used to measure foreign exchange rate volatility. Also, the study was limited to two macroeconomic factors, which are not a wholesome representative of the macroeconomic environment. Other factors such as inflation, GDP or money supply could have been used for the study.

The study was based on the overall stock market as proxied by the NSE 20 share index. The effects of the volatility of foreign exchange and interest rates could be different for different sectors in the market, based on their different response to the macroeconomic factors. Therefore, the study is an indicator of the general response of the economy to the volatility of the selected macroeconomic factors, while the response for specific factors could be different.

Lastly, the study focused on identifying the different market states in relation to the volatility of interest and foreign exchange rates. However, it did not measure the risk-return ratios corresponding to each of the market states, which would be a guide in making a market exit or entry for investors. Thus, the findings are only useful in pointing the magnitude of the direction of the effects but not the possible gains or losses for respective changes.

5.5 Suggestions for Further Research

Future studies can focus on the different proxies of the interest and foreign exchange rates to assess their dynamic impacts on the stock market returns. For instance, lending rates may lead to different results from savings rates as they serve different macroeconomic functions. Also, the USD/KES rate could lead to different results from the EUR/KES rate as the two refer to different jurisdictions. Therefore, examining the different measures would be helpful in obtaining a wider outlook on the volatility impacts of the two variables.

Further, the studies can evaluate the effects of the volatility of interest and foreign exchange rates for the different industries in the stock market in Kenya. Different sectors respond differently to macroeconomic conditions; for instance, a depreciation of the local currency leads to high cost of imports and thus negatively affect the sectors that are dependent on imports, while other sectors would experience no effects. Therefore, future studies can focus on determining the effects for each sector represented in the Kenyan economy.

Lastly, the studies can focus on determining the risk-reward ratios associated with each market state. The three market regimes are expected to have different risk-reward combinations as indicated by the different responses of the stock market returns to the volatility of the assessed macroeconomic conditions. Therefore, future studies can focus on measuring the risk-reward behavior in each market state to provide more guidance to investors in portfolio building and rebalancing for optimal returns.

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APPENDIXES

Appendix I: Indices on the NSE

1	NSE All Share Index
2	NSE 20 Share Index
3	NSE 25 Share Index
4	FTSE NSE Kenya 15 Index
5	FTSE NSE Kenya 25 Index
6	FTSE NSE KE Government Bond Index

Appendix II: Sectors in the NSE

1	Agriculture
2	Automobile and Accessories
3	Banking
4	Commercial and Services
5	Construction and Allied
6	Energy and Petroleum
7	Insurance
8	Investment
9	Investment Services
10	Manufacturing and Allied
11	Telecommunication and Technology
12	Real Estate Investment Trust

Appendix III: Stocks in the NSE 20 Share Index

1	ARM Cement
2	<u>Bamburi</u> Cement
3	Barclays Bank Kenya
4	<u>Britam</u>
5	British American Tobacco Kenya
6	Centum Invest
7	<u>CfC Stanbic</u>
8	Co-operative Bank
9	East African Breweries
10	Equity Group
11	KCB Group
12	<u>KenolKobil</u>
13	Kenya Airways
14	Kenya Electricity Generating
15	Kenya Power Lighting
16	Nation Media
17	Safaricom
18	<u>Sasini</u>
19	Standard Chartered Bank
20	WPP- <u>Scangroup</u>

Appendix IV: ARCH Effects Test Results

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob*	
		1	0.003	0.003	0.0250	0.874
		2	0.009	0.009	0.2230	0.894
		3	-0.000	-0.000	0.2233	0.974
		4	-0.001	-0.001	0.2283	0.994
		5	0.005	0.005	0.2803	0.998
		6	-0.000	-0.000	0.2807	1.000
		7	-0.001	-0.001	0.2844	1.000
		8	-0.001	-0.001	0.2870	1.000
		9	-0.001	-0.001	0.2920	1.000
		10	-0.001	-0.001	0.2963	1.000
		11	0.002	0.002	0.3101	1.000
		12	-0.002	-0.002	0.3177	1.000
		13	-0.002	-0.002	0.3253	1.000
		14	-0.001	-0.001	0.3308	1.000
		15	-0.002	-0.002	0.3383	1.000
		16	-0.002	-0.002	0.3444	1.000
		17	-0.002	-0.002	0.3508	1.000
		18	-0.001	-0.001	0.3557	1.000
		19	-0.001	-0.001	0.3601	1.000
		20	-0.001	-0.001	0.3616	1.000
		21	-0.001	-0.001	0.3631	1.000
		22	-0.001	-0.001	0.3658	1.000
		23	-0.001	-0.001	0.3682	1.000
		24	0.001	0.001	0.3732	1.000
		25	-0.001	-0.001	0.3775	1.000
		26	-0.001	-0.001	0.3829	1.000
		27	-0.001	-0.001	0.3878	1.000
		28	-0.002	-0.002	0.3952	1.000
		29	-0.002	-0.002	0.4011	1.000
		30	-0.001	-0.001	0.4054	1.000
		31	-0.002	-0.002	0.4139	1.000
		32	-0.002	-0.002	0.4214	1.000
		33	-0.002	-0.002	0.4294	1.000
		34	-0.001	-0.001	0.4324	1.000
		35	-0.001	-0.001	0.4353	1.000
		36	-0.002	-0.002	0.4442	1.000

*Probabilities may not be valid for this equation specification.

**Appendix V: Data on Daily Interest Rates, Foreign Exchange Rates and NSE-20 Share
Index Points**

Date	IR	ER	NSEi
1-Dec-08	7.05%	79.08	3,309.56
2-Dec-08	7.05%	79.825	3,191.98
3-Dec-08	7.01%	79.8944	3,168.05
4-Dec-08	6.95%	79.6856	3,162.43
5-Dec-08	6.90%	79.2828	3,160.12
8-Dec-08	6.73%	79.2389	3,193.06
9-Dec-08	6.68%	78.8833	3,196.51
10-Dec-08	6.68%	78.6028	3,205.91
11-Dec-08	6.69%	78.3728	3,251.03
16-Dec-08	6.60%	77.5867	3,318.18
17-Dec-08	6.56%	77.4	3,353.50
18-Dec-08	6.52%	76.9278	3,367.07
19-Dec-08	6.50%	76.3067	3,350.63
22-Dec-08	6.46%	75.6411	3,367.24
23-Dec-08	6.45%	76.8778	3,381.69
24-Dec-08	6.49%	77.0778	3,406.34
29-Dec-08	6.51%	76.8389	3,401.09
30-Dec-08	6.51%	77.6833	3,459.97
31-Dec-08	6.47%	77.7111	3,521.18
02-Jan-09	6.44%	78.2678	3,589.16
05-Jan-09	6.43%	78.8389	3,611.67
06-Jan-09	6.42%	79.2822	3,624.00
07-Jan-09	6.41%	78.7167	3,600.68
08-Jan-09	6.34%	78.2317	3,546.01
09-Jan-09	6.25%	77.4361	3,516.18
12-Jan-09	6.01%	77.665	3,513.09
13-Jan-09	5.99%	77.8944	3,483.97
14-Jan-09	6.00%	78.6306	3,455.88
15-Jan-09	5.98%	78.8306	3,447.45
16-Jan-09	5.95%	79.7567	3,427.87
19-Jan-09	5.77%	78.7417	3,398.95
20-Jan-09	5.71%	78.9539	3,341.09
21-Jan-09	5.68%	79.7028	3,282.00
22-Jan-09	5.66%	80.0083	3,272.49
23-Jan-09	5.65%	79.7339	3,256.38
26-Jan-09	5.64%	79.7167	3,269.04
27-Jan-09	5.67%	79.6139	3,247.26
28-Jan-09	5.67%	79.7961	3,267.60

Date	IR	ER	NSEi
29-Jan-09	5.66%	79.6317	3,262.54
30-Jan-09	5.60%	79.5439	3,198.90
02-Feb-09	5.56%	79.6461	3,156.64
03-Feb-09	5.57%	79.4583	3,046.34
04-Feb-09	5.55%	79.4789	2,975.12
05-Feb-09	5.50%	79.4	2,950.25
06-Feb-09	5.42%	79.3172	2,932.11
09-Feb-09	5.41%	79.3983	2,927.66
10-Feb-09	5.43%	79.2478	2,890.20
11-Feb-09	5.50%	79.1028	2,862.54
12-Feb-09	5.56%	79.05	2,855.87
13-Feb-09	5.57%	79.6528	2,848.24
16-Feb-09	5.48%	79.55	2,820.03
17-Feb-09	5.50%	79.6222	2,792.05
18-Feb-09	5.49%	79.7478	2,740.95
19-Feb-09	5.46%	79.7083	2,714.49
20-Feb-09	5.38%	79.5878	2,674.15
23-Feb-09	5.36%	79.69	2,638.31
24-Feb-09	5.36%	79.8356	2,600.61
25-Feb-09	5.51%	79.7667	2,576.74
26-Feb-09	5.54%	79.7067	2,511.47
27-Feb-09	5.61%	79.6872	2,474.75
02-Mar-09	5.58%	79.7183	2,426.15
03-Mar-09	5.58%	80.07	2,394.33
04-Mar-09	5.58%	80.3339	2,363.99
05-Mar-09	5.58%	80.0367	2,360.01
06-Mar-09	5.51%	80.025	2,375.01
09-Mar-09	5.51%	79.9278	2,361.36
10-Mar-09	5.47%	80.1756	2,364.72
11-Mar-09	5.53%	80.2761	2,379.86
12-Mar-09	5.62%	80.19	2,453.36
13-Mar-09	5.66%	80.1333	2,575.77
16-Mar-09	5.61%	80.1172	2,689.19
17-Mar-09	5.57%	80.2056	2,715.53
18-Mar-09	5.49%	80.3928	2,684.57
19-Mar-09	5.44%	81.1083	2,668.11
20-Mar-09	5.47%	80.7722	2,646.58
23-Mar-09	5.53%	80.6694	2,638.56

Date	IR	ER	NSEi
24-Mar-09	5.58%	80.5828	2,614.00
25-Mar-09	5.62%	80.4694	2,619.54
26-Mar-09	5.64%	79.8578	2,663.19
27-Mar-09	5.54%	79.9922	2,699.92
30-Mar-09	5.62%	80.2678	2,754.64
31-Mar-09	5.63%	80.4306	2,805.03
01-Apr-09	5.60%	80.305	2,813.99
02-Apr-09	5.58%	80.1122	2,808.94
03-Apr-09	5.56%	80.0189	2,784.79
06-Apr-09	5.53%	79.94	2,833.14
07-Apr-09	5.52%	80.3306	2,821.49
08-Apr-09	5.53%	80.5767	2,814.37
09-Apr-09	5.52%	80.2139	2,775.78
14-Apr-09	5.53%	80.0083	2,739.90
15-Apr-09	5.54%	79.9306	2,734.09
16-Apr-09	5.58%	79.8839	2,699.42
17-Apr-09	5.65%	79.8533	2,714.02
20-Apr-09	5.67%	79.6756	2,722.48
21-Apr-09	5.73%	79.5	2,728.04
22-Apr-09	5.80%	78.9444	2,740.75
23-Apr-09	5.88%	78.5889	2,764.05
24-Apr-09	6.01%	79.1922	2,785.89
27-Apr-09	6.13%	78.8583	2,815.12
28-Apr-09	6.40%	79.0439	2,814.49
29-Apr-09	6.62%	78.8778	2,813.02
30-Apr-09	6.78%	78.6617	2,800.10
04-May-09	6.78%	78.6783	2,801.09
05-May-09	6.88%	78.6811	2,822.05
06-May-09	6.99%	77.6222	2,820.58
07-May-09	7.09%	76.3583	2,829.42
08-May-09	7.11%	77.4333	2,809.62
11-May-09	7.19%	77.8833	2,829.98
12-May-09	7.23%	77.4778	2,819.73
13-May-09	7.23%	76.9361	2,839.98
14-May-09	7.19%	77.0522	2,836.16
15-May-09	6.60%	78.3278	2,849.49
18-May-09	6.72%	78.2139	2,840.86
19-May-09	6.38%	78.3383	2,855.82

20-May-09	6.31%	78.0972	2,868.74
21-May-09	6.31%	77.7894	2,877.56
22-May-09	6.27%	77.975	2,883.07
25-May-09	6.16%	77.8756	2,884.80
26-May-09	5.93%	77.9361	2,871.42
27-May-09	5.69%	78.0472	2,858.42
28-May-09	5.29%	78.1556	2,849.43
29-May-09	4.65%	78.3483	2,852.57
02-Jun-09	4.17%	78.2111	2,860.37
03-Jun-09	3.83%	77.9556	2,890.79
04-Jun-09	3.68%	77.8933	2,924.77
05-Jun-09	3.47%	77.9222	2,912.10
08-Jun-09	3.22%	77.8717	2,927.41
09-Jun-09	3.05%	78.0778	2,945.35
10-Jun-09	2.81%	78.075	2,953.14
11-Jun-09	2.60%	78.1233	2,959.47
12-Jun-09	2.49%	78.0139	2,996.59
15-Jun-09	2.91%	77.9944	3,010.17
16-Jun-09	3.13%	77.9417	3,052.94
17-Jun-09	3.18%	78.0828	3,087.74
18-Jun-09	3.00%	77.9533	3,202.18
19-Jun-09	2.99%	77.885	3,279.67
22-Jun-09	3.05%	77.8583	3,345.62
23-Jun-09	3.01%	78.0289	3,322.17
24-Jun-09	2.94%	77.9583	3,239.61
25-Jun-09	2.64%	77.9789	3,246.43
26-Jun-09	2.14%	76.8706	3,266.45
29-Jun-09	2.30%	77.0206	3,278.00
30-Jun-09	2.42%	77.1578	3,294.56
01-Jul-09	2.51%	76.5167	3,299.69
02-Jul-09	2.52%	76.2694	3,357.66
03-Jul-09	2.49%	75.9372	3,381.20
06-Jul-09	2.51%	75.9517	3,360.72
07-Jul-09	2.56%	76.3978	3,359.97
08-Jul-09	2.59%	76.925	3,330.69
09-Jul-09	2.56%	77.4078	3,312.64
10-Jul-09	2.53%	76.7861	3,296.27
13-Jul-09	2.53%	76.8572	3,286.56
14-Jul-09	2.54%	77.5417	3,247.39

15-Jul-09	2.52%	77.445	3,220.90
16-Jul-09	2.48%	77.3072	3,256.75
17-Jul-09	2.32%	76.8161	3,281.02
20-Jul-09	2.46%	76.83	3,302.77
21-Jul-09	2.62%	76.8867	3,301.40
22-Jul-09	2.79%	76.9044	3,310.34
23-Jul-09	2.93%	76.8528	3,317.62
24-Jul-09	2.87%	76.5528	3,308.46
27-Jul-09	2.98%	76.5389	3,295.47
28-Jul-09	3.10%	76.6833	3,266.97
29-Jul-09	3.18%	76.6233	3,242.75
30-Jul-09	3.15%	76.6428	3,246.09
31-Jul-09	3.03%	76.6067	3,273.10
03-Aug-09	3.11%	76.6167	3,249.09
04-Aug-09	3.25%	76.4911	3,229.53
05-Aug-09	3.33%	76.3156	3,224.32
06-Aug-09	3.34%	76.3483	3,237.20
07-Aug-09	3.41%	76.4278	3,257.38
10-Aug-09	3.45%	76.2411	3,259.46
11-Aug-09	3.48%	76.1917	3,261.76
12-Aug-09	3.59%	76.5667	3,254.42
13-Aug-09	3.62%	76.595	3,255.19
14-Aug-09	3.63%	76.455	3,262.92
17-Aug-09	3.68%	76.3817	3,234.31
18-Aug-09	3.74%	76.4361	3,232.42
19-Aug-09	3.82%	76.3944	3,219.47
20-Aug-09	3.83%	76.3639	3,183.71
21-Aug-09	3.87%	76.3222	3,179.30
24-Aug-09	3.97%	76.2883	3,153.14
26-Aug-09	4.08%	76.2806	3,113.87
27-Aug-09	4.13%	76.2617	3,099.92
28-Aug-09	4.15%	76.2261	3,092.07
31-Aug-09	4.17%	76.2333	3,102.68
01-Sep-09	4.12%	76.2583	3,126.04
02-Sep-09	4.11%	76.2361	3,175.73
03-Sep-09	4.16%	76.4278	3,188.87
04-Sep-09	4.24%	76.3372	3,185.98
07-Sep-09	4.28%	76.2317	3,174.12
08-Sep-09	4.34%	76.1367	3,126.61

09-Sep-09	4.39%	75.9328	3,114.19
10-Sep-09	4.43%	75.9639	3,090.31
11-Sep-09	4.42%	75.9272	3,096.15
14-Sep-09	4.16%	75.8258	3,093.04
15-Sep-09	3.75%	75.8147	3,088.18
16-Sep-09	3.09%	75.7106	3,080.00
17-Sep-09	2.77%	75.5681	3,064.42
18-Sep-09	2.17%	74.9547	3,045.78
22-Sep-09	2.31%	74.8289	3,037.87
23-Sep-09	2.48%	74.7389	3,040.10
24-Sep-09	2.49%	74.7381	3,040.69
25-Sep-09	2.39%	74.4986	3,046.04
28-Sep-09	2.38%	75.1228	3,023.03
29-Sep-09	2.28%	75.4503	3,015.72
30-Sep-09	2.23%	74.9994	3,005.41
01-Oct-09	2.17%	74.8214	3,022.33
02-Oct-09	2.16%	75.5128	3,037.00
05-Oct-09	2.16%	75.4764	3,021.69
06-Oct-09	2.14%	75.5403	3,020.62
07-Oct-09	2.12%	75.1086	2,986.83
08-Oct-09	2.13%	75.1806	2,987.20
09-Oct-09	2.12%	75.1075	2,983.38
12-Oct-09	2.21%	75.1169	2,961.01
13-Oct-09	2.33%	75.3939	2,976.80
14-Oct-09	2.41%	75.4111	2,969.15
15-Oct-09	2.48%	75.1925	3,001.21
16-Oct-09	2.58%	75.2153	3,031.79
19-Oct-09	2.61%	75.2794	3,042.42
21-Oct-09	2.85%	75.2994	3,031.10
22-Oct-09	2.94%	75.0856	3,049.99
23-Oct-09	3.05%	75.1117	3,044.44
26-Oct-09	3.04%	75.1956	3,057.23
27-Oct-09	3.09%	75.2839	3,043.22
28-Oct-09	3.11%	75.3006	3,047.87
29-Oct-09	3.14%	75.2428	3,066.01
30-Oct-09	3.20%	75.2389	3,083.63
02-Nov-09	3.26%	75.2297	3,082.92
03-Nov-09	3.35%	75.245	3,081.07
04-Nov-09	3.33%	75.4275	3,076.44

05-Nov-09	3.35%	75.2039	3,077.11	31-Dec-09	3.95%	75.82	3,247.44	25-Feb-10	2.30%	77.0556	3,627.30
06-Nov-09	3.34%	74.9961	3,089.44	04-Jan-10	3.96%	75.8406	3,261.17	26-Feb-10	2.03%	76.8972	3,629.41
09-Nov-09	3.41%	74.6903	3,082.36	05-Jan-10	3.99%	75.5903	3,254.26	01-Mar-10	2.17%	76.8083	3,621.04
10-Nov-09	3.47%	74.3836	3,094.13	06-Jan-10	3.98%	75.5528	3,266.53	02-Mar-10	2.21%	76.9378	3,657.52
11-Nov-09	3.47%	74.5583	3,114.53	07-Jan-10	4.00%	75.6686	3,282.58	03-Mar-10	2.23%	76.8931	3,666.53
12-Nov-09	3.50%	74.4069	3,131.47	08-Jan-10	3.86%	75.5708	3,303.56	04-Mar-10	2.25%	76.8486	3,675.54
13-Nov-09	3.51%	74.5042	3,136.89	11-Jan-10	3.88%	75.3764	3,349.59	05-Mar-10	2.23%	76.7447	3,706.80
16-Nov-09	3.46%	74.6769	3,142.30	12-Jan-10	3.85%	75.3619	3,344.54	08-Mar-10	2.29%	76.7944	3,743.11
17-Nov-09	3.22%	74.7161	3,141.66	13-Jan-10	3.84%	75.5258	3,370.37	09-Mar-10	2.27%	76.6653	3,810.74
18-Nov-09	2.92%	74.4722	3,112.80	14-Jan-10	3.80%	75.4269	3,426.41	10-Mar-10	2.29%	76.7778	3,900.12
19-Nov-09	2.93%	74.3339	3,111.95	15-Jan-10	3.75%	75.4389	3,491.18	11-Mar-10	2.25%	76.6608	3,964.86
20-Nov-09	2.83%	74.5419	3,132.62	18-Jan-10	3.78%	75.8639	3,545.82	12-Mar-10	2.19%	76.7197	3,964.86
23-Nov-09	2.81%	74.7528	3,156.35	19-Jan-10	3.78%	76.0528	3,610.60	15-Mar-10	2.20%	76.6639	4,061.10
24-Nov-09	2.77%	74.6919	3,156.71	20-Jan-10	3.81%	75.9911	3,639.99	16-Mar-10	2.24%	76.8444	4,096.45
25-Nov-09	2.72%	74.7436	3,188.71	21-Jan-10	3.85%	75.9811	3,628.53	17-Mar-10	2.32%	76.8292	4,066.29
26-Nov-09	2.65%	74.5028	3,191.93	22-Jan-10	3.89%	75.9339	3,628.68	18-Mar-10	2.38%	76.8569	4,008.17
27-Nov-09	2.55%	74.5389	3,197.84	25-Jan-10	3.79%	75.9622	3,607.45	19-Mar-10	2.41%	76.9714	3,954.40
30-Nov-09	2.48%	74.9072	3,189.55	26-Jan-10	3.58%	76.0989	3,607.14	22-Mar-10	2.36%	76.9539	3,990.22
01-Dec-09	2.43%	74.8928	3,176.45	27-Jan-10	3.35%	76.2778	3,598.81	23-Mar-10	2.28%	77.0489	4,010.56
02-Dec-09	2.32%	74.7658	3,174.22	28-Jan-10	2.91%	76.3236	3,572.39	24-Mar-10	2.18%	77.0531	4,017.81
03-Dec-09	2.03%	74.8158	3,170.51	29-Jan-10	2.25%	75.8856	3,565.28	25-Mar-10	1.93%	77.4586	4,042.87
04-Dec-09	1.73%	75.0203	3,184.55	01-Feb-10	3.01%	75.9653	3,579.27	26-Mar-10	1.80%	77.3089	4,055.16
07-Dec-09	1.86%	75.1286	3,188.71	02-Feb-10	2.85%	76.0458	3,577.15	29-Mar-10	2.08%	77.3017	4,029.73
08-Dec-09	2.04%	75.3683	3,192.04	03-Feb-10	2.90%	76.1231	3,583.56	30-Mar-10	2.19%	77.3025	4,057.63
09-Dec-09	2.22%	75.6761	3,192.98	04-Feb-10	2.73%	76.0889	3,584.24	31-Mar-10	2.17%	77.3314	4,072.93
10-Dec-09	2.38%	75.9322	3,181.76	05-Feb-10	2.48%	76.5819	3,599.40	01-Apr-10	2.18%	77.2975	4,060.03
11-Dec-09	2.48%	75.8442	3,152.22	08-Feb-10	2.64%	76.8764	3,594.77	06-Apr-10	2.31%	77.2083	4,061.93
14-Dec-09	2.62%	75.6292	3,147.43	09-Feb-10	2.52%	76.9253	3,604.95	07-Apr-10	2.36%	77.2097	4,061.93
15-Dec-09	2.88%	75.3508	3,164.24	10-Feb-10	2.24%	76.7242	3,604.74	08-Apr-10	2.43%	77.2994	4,061.93
16-Dec-09	3.01%	75.3131	3,174.73	11-Feb-10	1.97%	76.4111	3,604.74	09-Apr-10	2.41%	77.2767	4,061.93
17-Dec-09	3.18%	75.4553	3,186.76	12-Feb-10	1.83%	76.5042	3,606.46	12-Apr-10	2.43%	77.1708	4,074.02
18-Dec-09	3.41%	75.455	3,194.60	15-Feb-10	2.10%	77.0236	3,600.47	13-Apr-10	2.45%	77.175	4,060.17
21-Dec-09	3.57%	75.1211	3,184.21	16-Feb-10	2.30%	77.3736	3,570.92	14-Apr-10	2.42%	77.0978	4,073.86
22-Dec-09	3.68%	75.2669	3,199.79	17-Feb-10	2.36%	77.3403	3,520.92	15-Apr-10	2.43%	76.9472	4,099.44
23-Dec-09	3.75%	75.9422	3,189.59	18-Feb-10	2.37%	77.0403	3,536.72	16-Apr-10	2.45%	77.0281	4,111.49
24-Dec-09	3.67%	75.5361	3,209.67	19-Feb-10	2.29%	77.045	3,553.99	19-Apr-10	2.50%	77.3481	4,095.56
28-Dec-09	3.76%	75.6625	3,212.51	22-Feb-10	2.28%	76.7814	3,562.47	20-Apr-10	2.49%	77.4953	4,109.86
29-Dec-09	3.90%	75.8	3,235.89	23-Feb-10	2.30%	76.8386	3,596.21	21-Apr-10	2.50%	77.2729	4,148.09
30-Dec-09	3.98%	75.6889	3,232.80	24-Feb-10	2.31%	76.9681	3,634.11	22-Apr-10	2.52%	77.2854	4,181.41

23-Apr-10	2.50%	77.3784	4,226.03
26-Apr-10	2.57%	77.3048	4,278.31
27-Apr-10	2.55%	77.3305	4,289.85
28-Apr-10	2.56%	77.3442	4,280.80
29-Apr-10	2.57%	77.3512	4,270.87
30-Apr-10	2.55%	77.266	4,233.24
03-May-10	2.60%	77.1642	4,217.18
04-May-10	2.60%	77.2255	4,205.54
05-May-10	2.64%	77.4243	4,243.57
06-May-10	2.67%	77.7528	4,270.74
07-May-10	2.71%	78.0936	4,277.63
10-May-10	2.70%	77.9713	4,237.35
11-May-10	2.68%	77.8241	4,226.63
12-May-10	2.62%	77.8899	4,241.79
13-May-10	2.53%	77.8009	4,251.20
14-May-10	2.31%	78.0468	4,288.84
17-May-10	2.26%	78.3497	4,285.61
18-May-10	2.14%	78.6397	4,299.50
19-May-10	2.02%	78.7834	4,305.85
20-May-10	1.91%	79.1712	4,306.30
21-May-10	1.72%	79.4427	4,314.90
24-May-10	1.71%	79.2471	4,319.66
25-May-10	1.70%	79.5467	4,320.06
26-May-10	1.62%	79.7868	4,262.24
27-May-10	1.50%	79.7463	4,203.40
28-May-10	1.40%	79.7171	4,221.11
31-May-10	1.30%	79.7453	4,241.81
02-Jun-10	1.19%	79.8929	4,270.74
03-Jun-10	1.12%	80.0085	4,234.29
04-Jun-10	1.10%	80.2228	4,242.10
07-Jun-10	1.07%	81.5586	4,249.44
08-Jun-10	1.10%	82.1028	4,257.58
09-Jun-10	1.09%	81.9486	4,247.09
10-Jun-10	1.09%	81.7458	4,263.06
11-Jun-10	1.03%	80.6889	4,272.72
14-Jun-10	1.10%	80.6806	4,298.84
15-Jun-10	1.12%	80.6958	4,315.31
16-Jun-10	1.13%	80.55	4,337.63
17-Jun-10	1.16%	80.7194	4,327.40

18-Jun-10	1.09%	80.7117	4,312.44
21-Jun-10	1.14%	80.5264	4,284.62
22-Jun-10	1.16%	80.6361	4,272.97
23-Jun-10	1.26%	80.9936	4,277.64
24-Jun-10	1.28%	80.9375	4,309.51
25-Jun-10	1.28%	81.6153	4,296.61
28-Jun-10	1.27%	81.4694	4,318.80
29-Jun-10	1.21%	81.7583	4,339.52
30-Jun-10	1.19%	81.9167	4,339.28
01-Jul-10	1.19%	81.7958	4,313.01
02-Jul-10	1.15%	81.6583	4,324.63
05-Jul-10	1.21%	81.4225	4,323.85
06-Jul-10	1.17%	81.4919	4,309.41
07-Jul-10	1.21%	81.5422	4,304.38
08-Jul-10	1.23%	81.4847	4,321.39
09-Jul-10	1.24%	81.4475	4,308.35
12-Jul-10	1.22%	81.5097	4,322.99
13-Jul-10	1.22%	81.8106	4,310.81
14-Jul-10	1.25%	81.6839	4,329.95
15-Jul-10	1.26%	81.6033	4,344.84
16-Jul-10	1.27%	81.4375	4,372.53
19-Jul-10	1.31%	81.5417	4,332.52
20-Jul-10	1.32%	81.5861	4,345.30
21-Jul-10	1.36%	81.8403	4,329.95
22-Jul-10	1.40%	81.8153	4,345.86
23-Jul-10	1.47%	81.5783	4,329.92
26-Jul-10	1.55%	81.4014	4,326.01
27-Jul-10	1.63%	81.1506	4,325.20
28-Jul-10	1.70%	80.6639	4,338.25
29-Jul-10	1.72%	80.6806	4,398.32
30-Jul-10	1.67%	80.2297	4,438.58
02-Aug-10	1.64%	80.2667	4,494.78
03-Aug-10	1.62%	80.1458	4,591.04
05-Aug-10	1.66%	79.9014	4,667.47
06-Aug-10	1.68%	79.6019	4,674.31
09-Aug-10	1.71%	79.4403	4,666.36
10-Aug-10	1.73%	79.6408	4,626.41
11-Aug-10	1.77%	79.705	4,554.24
12-Aug-10	1.79%	80.0458	4,544.52

13-Aug-10	1.80%	80.3983	4,495.27
16-Aug-10	1.83%	80.4208	4,532.46
17-Aug-10	1.77%	80.4872	4,574.54
18-Aug-10	1.69%	80.5286	4,604.77
19-Aug-10	1.62%	80.7806	4,603.26
20-Aug-10	1.59%	81.0153	4,597.07
23-Aug-10	1.55%	81.085	4,588.61
24-Aug-10	1.54%	81.3628	4,564.83
25-Aug-10	1.51%	81.2428	4,541.70
26-Aug-10	1.48%	80.7819	4,509.56
30-Aug-10	1.55%	80.8731	4,476.19
31-Aug-10	1.57%	81.0711	4,454.59
01-Sep-10	1.59%	80.9742	4,446.68
02-Sep-10	1.44%	80.7689	4,466.96
03-Sep-10	1.37%	80.7272	4,437.69
06-Sep-10	1.36%	80.6708	4,427.77
07-Sep-10	1.30%	80.9442	4,424.72
08-Sep-10	1.23%	81.1514	4,442.60
09-Sep-10	1.21%	81.2619	4,457.47
10-Sep-10	1.17%	81.2703	4,486.28
13-Sep-10	1.20%	80.8933	4,503.86
14-Sep-10	1.13%	80.9303	4,545.86
15-Sep-10	1.11%	80.8592	4,547.37
16-Sep-10	1.12%	80.8403	4,541.25
17-Sep-10	1.12%	80.5903	4,549.87
20-Sep-10	1.11%	80.7869	4,583.01
21-Sep-10	1.10%	80.9917	4,579.93
22-Sep-10	1.07%	80.8358	4,613.75
23-Sep-10	1.07%	80.9486	4,601.81
24-Sep-10	1.06%	81.1597	4,581.72
27-Sep-10	1.07%	80.8917	4,589.83
28-Sep-10	1.05%	80.9375	4,605.11
29-Sep-10	1.05%	80.8503	4,643.70
30-Sep-10	1.04%	80.7781	4,629.80
01-Oct-10	1.01%	80.8444	4,636.18
04-Oct-10	0.99%	80.8361	4,623.81
05-Oct-10	0.97%	80.8411	4,623.19
06-Oct-10	0.98%	80.7172	4,638.18
07-Oct-10	0.98%	80.63	4,626.19

08-Oct-10	0.94%	80.5369	4,620.21
11-Oct-10	0.93%	80.5589	4,611.37
12-Oct-10	0.91%	80.735	4,642.28
13-Oct-10	0.90%	80.7306	4,612.57
14-Oct-10	0.91%	80.5861	4,608.36
15-Oct-10	0.90%	80.5047	4,625.96
18-Oct-10	0.90%	80.6694	4,629.26
19-Oct-10	0.96%	80.7561	4,648.20
21-Oct-10	1.00%	80.8406	4,664.03
22-Oct-10	1.02%	80.8028	4,678.10
25-Oct-10	1.05%	80.6428	4,666.21
26-Oct-10	1.08%	80.6819	4,701.15
27-Oct-10	1.04%	80.75	4,649.52
28-Oct-10	1.05%	80.8344	4,640.42
29-Oct-10	1.02%	80.7869	4,659.56
01-Nov-10	1.00%	80.7539	4,675.17
02-Nov-10	1.00%	80.7394	4,686.98
03-Nov-10	1.00%	80.5586	4,647.21
04-Nov-10	1.01%	80.5308	4,629.03
05-Nov-10	0.99%	80.1356	4,652.09
08-Nov-10	1.01%	80.3333	4,668.00
09-Nov-10	1.01%	80.6236	4,626.47
10-Nov-10	1.04%	80.6344	4,622.46
11-Nov-10	1.05%	80.5469	4,587.49
12-Nov-10	1.08%	80.5986	4,595.28
15-Nov-10	1.07%	80.5147	4,574.28
16-Nov-10	1.06%	80.4572	4,546.28
17-Nov-10	1.07%	80.45	4,541.20
25-Nov-10	1.12%	80.2931	4,528.26
26-Nov-10	1.11%	80.3892	4,471.42
29-Nov-10	1.11%	80.7764	4,435.51
30-Nov-10	1.09%	80.9742	4,395.17
01-Dec-10	1.10%	80.8972	4,390.98
02-Dec-10	1.08%	80.3208	4,388.43
03-Dec-10	1.07%	80.4625	4,385.03
06-Dec-10	1.09%	80.4364	4,376.77
07-Dec-10	1.08%	80.4831	4,378.63
08-Dec-10	1.09%	80.5525	4,381.40
09-Dec-10	1.09%	80.5736	4,371.89

10-Dec-10	1.11%	80.5578	4,383.36
14-Dec-10	1.14%	80.5153	4,384.23
15-Dec-10	1.11%	80.5239	4,382.43
16-Dec-10	1.14%	80.6325	4,368.31
17-Dec-10	1.16%	80.5375	4,326.08
20-Dec-10	1.24%	80.5308	4,364.49
21-Dec-10	1.28%	80.4886	4,329.71
22-Dec-10	1.28%	80.4906	4,334.16
23-Dec-10	1.26%	80.5733	4,337.06
24-Dec-10	1.24%	80.5903	4,361.27
27-Dec-10	1.20%	80.6625	4,359.49
28-Dec-10	1.30%	80.6144	4,347.90
29-Dec-10	1.33%	80.6292	4,396.37
30-Dec-10	1.33%	80.6714	4,396.49
31-Dec-10	1.29%	80.7519	4,432.60
03-Jan-11	1.30%	80.7961	4,495.41
04-Jan-11	1.31%	80.995	4,486.49
05-Jan-11	1.28%	80.9389	4,531.11
06-Jan-11	1.25%	81.1322	4,594.45
07-Jan-11	1.22%	81.1444	4,621.66
10-Jan-11	1.21%	81.1747	4,610.92
11-Jan-11	1.22%	81.2181	4,579.52
12-Jan-11	1.23%	81.0708	4,547.34
13-Jan-11	1.23%	80.9417	4,563.65
14-Jan-11	1.24%	80.7431	4,551.07
17-Jan-11	1.21%	80.9736	4,541.70
18-Jan-11	1.20%	81.0708	4,540.31
19-Jan-11	1.21%	80.9333	4,547.14
20-Jan-11	1.20%	81.0661	4,537.30
21-Jan-11	1.24%	81.0764	4,514.59
24-Jan-11	1.23%	81.0147	4,501.88
25-Jan-11	1.25%	81.0217	4,498.29
26-Jan-11	1.26%	81.0031	4,516.40
27-Jan-11	1.27%	80.9986	4,526.78
28-Jan-11	1.30%	81.025	4,497.14
31-Jan-11	1.26%	81.2722	4,464.92
01-Feb-11	1.26%	81.1917	4,431.04
02-Feb-11	1.21%	81.1014	4,399.99
03-Feb-11	1.19%	81.0667	4,386.69

04-Feb-11	1.12%	81.1889	4,390.46
07-Feb-11	1.11%	81.1472	4,391.29
08-Feb-11	1.11%	81.2042	4,383.57
09-Feb-11	1.11%	81.2167	4,361.82
10-Feb-11	1.11%	81.2375	4,326.57
11-Feb-11	1.10%	81.3014	4,327.54
14-Feb-11	1.12%	81.4428	4,322.33
15-Feb-11	1.12%	81.3869	4,311.24
16-Feb-11	1.13%	81.3583	4,295.12
17-Feb-11	1.12%	81.3942	4,284.90
18-Feb-11	1.10%	81.4456	4,267.87
21-Feb-11	1.12%	81.7936	4,246.91
22-Feb-11	1.10%	81.8611	4,258.58
23-Feb-11	1.13%	81.875	4,261.58
24-Feb-11	1.13%	81.8917	4,264.66
25-Feb-11	1.09%	81.9992	4,269.51
28-Feb-11	1.11%	82.3639	4,240.18
01-Mar-11	1.11%	82.6014	4,199.91
02-Mar-11	1.11%	82.8031	4,182.83
03-Mar-11	1.10%	82.9278	4,182.58
04-Mar-11	1.08%	83.0542	4,163.65
07-Mar-11	1.12%	83.0081	4,136.55
08-Mar-11	1.13%	83.0833	4,090.07
09-Mar-11	1.16%	83.4667	4,028.88
10-Mar-11	1.17%	84.0447	3,915.01
11-Mar-11	1.18%	84.6569	3,928.25
14-Mar-11	1.19%	84.9294	3,986.59
15-Mar-11	1.18%	86.3239	4,026.78
16-Mar-11	1.21%	85.8572	4,017.80
17-Mar-11	1.21%	85.8108	3,993.53
18-Mar-11	1.21%	85.0417	3,983.49
21-Mar-11	1.21%	84.5917	3,922.24
22-Mar-11	1.13%	85.1486	3,899.85
23-Mar-11	1.10%	84.7847	3,881.89
24-Mar-11	1.06%	84.9931	3,873.45
25-Mar-11	1.02%	84.9444	3,882.96
28-Mar-11	1.23%	84.2944	3,891.97
29-Mar-11	1.46%	83.8206	3,870.97
30-Mar-11	1.90%	83.5511	3,877.32

31-Mar-11	2.23%	82.9889	3,887.07
01-Apr-11	2.70%	83.1583	3,924.55
04-Apr-11	3.05%	83.3722	3,966.89
05-Apr-11	3.19%	83.7444	3,998.38
06-Apr-11	3.23%	83.7325	4,010.22
07-Apr-11	2.99%	84.7664	3,993.07
08-Apr-11	2.58%	84.2917	4,001.50
11-Apr-11	2.59%	84.1431	4,019.14
12-Apr-11	2.62%	84.2428	4,006.94
13-Apr-11	2.75%	83.9431	3,981.08
14-Apr-11	3.27%	84.0736	3,998.59
15-Apr-11	3.85%	84.1472	4,022.66
18-Apr-11	4.32%	84.0056	4,032.06
19-Apr-11	4.54%	83.8417	4,017.42
20-Apr-11	4.78%	83.9181	4,007.73
21-Apr-11	5.34%	83.9828	4,023.19
26-Apr-11	5.75%	83.9278	4,025.91
27-Apr-11	5.93%	83.5708	4,037.49
28-Apr-11	5.99%	83.625	4,005.78
29-Apr-11	5.94%	83.4194	4,029.23
03-May-11	5.95%	83.4583	4,031.44
04-May-11	5.98%	83.5278	4,032.16
05-May-11	5.97%	83.6556	4,031.78
06-May-11	5.88%	84.05	4,036.35
09-May-11	5.79%	84.2208	4,035.26
10-May-11	5.69%	84.7056	4,007.86
11-May-11	5.70%	85.2222	4,013.38
12-May-11	5.73%	85.9244	3,992.55
13-May-11	5.52%	86.1139	3,987.19
16-May-11	5.16%	85.9333	3,975.53
17-May-11	5.42%	86.2514	3,993.09
18-May-11	5.31%	86.5611	3,988.01
19-May-11	5.31%	87.0486	3,986.78
20-May-11	5.35%	86.0261	4,001.64
23-May-11	5.33%	86.1528	4,002.83
24-May-11	5.31%	86.1472	4,051.05
25-May-11	5.28%	86.4208	4,071.37
26-May-11	5.25%	86.0111	4,070.05
27-May-11	5.10%	85.4417	4,089.61

30-May-11	5.37%	85.5161	4,078.32
31-May-11	5.52%	85.7044	4,078.10
02-Jun-11	5.71%	86.375	4,091.55
03-Jun-11	5.89%	86.7514	4,086.96
06-Jun-11	6.01%	86.8292	4,088.90
07-Jun-11	6.12%	87.0422	4,089.38
08-Jun-11	6.16%	87.7219	4,098.52
09-Jun-11	6.19%	87.5569	4,086.62
10-Jun-11	6.21%	87.6625	4,066.90
13-Jun-11	6.21%	88.0931	4,031.37
14-Jun-11	6.24%	89.3708	4,009.31
15-Jun-11	6.25%	89.2361	3,981.53
16-Jun-11	6.25%	88.9764	3,992.30
17-Jun-11	6.25%	90.0444	3,984.77
20-Jun-11	6.25%	89.8	3,986.05
21-Jun-11	6.25%	90.7333	3,995.64
22-Jun-11	6.25%	91.6556	3,964.17
23-Jun-11	6.25%	90.5597	3,970.59
24-Jun-11	6.25%	90.4486	3,969.03
27-Jun-11	6.25%	90.4625	3,953.25
28-Jun-11	7.08%	90.8278	3,936.89
29-Jun-11	7.57%	90.0236	3,967.74
30-Jun-11	8.00%	89.8639	3,968.12
01-Jul-11	8.05%	89.3597	3,942.94
04-Jul-11	8.15%	88.6856	3,962.79
05-Jul-11	8.18%	88.4514	3,938.53
06-Jul-11	8.23%	88.9694	3,923.82
07-Jul-11	8.24%	89.8583	3,906.71
08-Jul-11	8.28%	89.9389	3,885.39
11-Jul-11	8.36%	90.2417	3,865.72
12-Jul-11	9.17%	90.4417	3,813.18
13-Jul-11	10.17%	89.6708	3,777.13
14-Jul-11	10.52%	89.475	3,746.00
15-Jul-11	10.57%	89.5833	3,782.36
18-Jul-11	9.14%	89.6847	3,738.64
19-Jul-11	8.24%	90.1861	3,784.79
20-Jul-11	8.05%	90.1681	3,780.93
21-Jul-11	7.96%	90.0583	3,756.69
22-Jul-11	8.00%	89.9611	3,777.41

25-Jul-11	7.91%	90.2878	3,766.46
26-Jul-11	8.14%	90.375	3,757.89
27-Jul-11	7.63%	90.5111	3,769.45
28-Jul-11	8.44%	90.8444	3,733.34
29-Jul-11	8.63%	91.1	3,738.46
01-Aug-11	9.01%	90.975	3,710.80
02-Aug-11	7.80%	91.2111	3,747.83
03-Aug-11	6.28%	91.5847	3,745.07
04-Aug-11	6.29%	91.9361	3,744.59
05-Aug-11	6.28%	92.3528	3,721.53
08-Aug-11	6.40%	92.7667	3,645.12
09-Aug-11	6.52%	93.7375	3,520.47
10-Aug-11	6.74%	94.5167	3,514.21
11-Aug-11	7.26%	93.9131	3,519.28
12-Aug-11	8.34%	93.2328	3,511.10
15-Aug-11	10.87%	92.7183	3,501.64
16-Aug-11	12.68%	92.85	3,507.34
17-Aug-11	14.89%	93.1431	3,516.75
18-Aug-11	16.68%	93.1361	3,540.42
24-Aug-11	24.25%	92.7306	3,476.61
25-Aug-11	26.37%	92.4042	3,444.28
26-Aug-11	28.44%	92.8931	3,458.39
30-Aug-11	19.25%	93.6222	3,465.02
01-Sep-11	16.25%	93.6806	3,402.13
02-Sep-11	14.09%	94.1097	3,397.83
05-Sep-11	12.14%	94.4278	3,366.36
06-Sep-11	10.40%	94.7722	3,357.66
07-Sep-11	8.82%	93.4597	3,360.61
08-Sep-11	7.18%	93.9903	3,400.68
09-Sep-11	5.66%	93.7083	3,393.70
12-Sep-11	5.29%	94.1111	3,398.66
13-Sep-11	5.46%	95.4306	3,430.92
14-Sep-11	5.15%	94.7819	3,444.70
15-Sep-11	5.13%	94.9708	3,464.65
16-Sep-11	5.19%	94.8056	3,507.77
19-Sep-11	5.63%	95.1928	3,491.07
20-Sep-11	6.78%	95.8361	3,478.35
21-Sep-11	7.30%	96.0278	3,439.86
22-Sep-11	6.92%	97.5806	3,430.27

23-Sep-11	6.38%	98.8944	3,417.60
26-Sep-11	6.34%	99.0556	3,383.27
27-Sep-11	5.65%	101.949	3,361.51
28-Sep-11	5.69%	102.011	3,323.44
29-Sep-11	6.18%	101.232	3,291.79
30-Sep-11	6.33%	99.8319	3,284.06
03-Oct-11	6.67%	100.479	3,280.96
04-Oct-11	7.25%	101.674	3,277.79
05-Oct-11	7.70%	101.715	3,273.33
06-Oct-11	10.28%	100.949	3,281.96
07-Oct-11	11.14%	101.947	3,273.05
10-Oct-11	12.06%	102.811	3,293.95
11-Oct-11	12.59%	103.908	3,296.55
12-Oct-11	13.72%	105.961	3,306.34
13-Oct-11	14.45%	104.01	3,290.90
14-Oct-11	15.41%	101.426	3,277.50
17-Oct-11	16.68%	100.512	3,289.51
18-Oct-11	17.09%	99.1861	3,301.18
19-Oct-11	17.26%	99.5181	3,300.48
21-Oct-11	17.32%	99.7014	3,304.39
24-Oct-11	17.95%	100.117	3,304.85
25-Oct-11	18.83%	100.596	3,309.05
26-Oct-11	19.49%	101.443	3,328.57
27-Oct-11	19.98%	100.632	3,381.90
28-Oct-11	20.85%	99.0319	3,450.33
31-Oct-11	21.77%	99.7783	3,507.34
01-Nov-11	22.69%	99.3347	3,536.25
02-Nov-11	23.65%	96.5222	3,540.03
03-Nov-11	24.25%	96.8097	3,497.10
04-Nov-11	25.94%	96.975	3,500.55
07-Nov-11	27.02%	97.3819	3,459.51
08-Nov-11	28.00%	96.9706	3,449.31
09-Nov-11	29.43%	96.2694	3,449.24
10-Nov-11	30.06%	95.6903	3,447.66
11-Nov-11	30.67%	94.7989	3,422.82
14-Nov-11	30.82%	93.2164	3,387.51
15-Nov-11	30.01%	93.7208	3,374.37
16-Nov-11	29.31%	94.1458	3,355.67
17-Nov-11	29.54%	93.6806	3,370.72

18-Nov-11	29.48%	92.5433	3,350.29
21-Nov-11	30.25%	91.0417	3,348.44
22-Nov-11	30.62%	90.6722	3,333.09
23-Nov-11	31.01%	90.0611	3,320.77
24-Nov-11	31.36%	90.3097	3,288.70
25-Nov-11	30.87%	90.2681	3,252.59
28-Nov-11	30.66%	90.5611	3,235.54
29-Nov-11	30.34%	90.1681	3,185.71
30-Nov-11	29.67%	89.7208	3,155.46
01-Dec-11	27.89%	89.5972	3,122.50
02-Dec-11	24.73%	89.7125	3,103.04
05-Dec-11	22.86%	89.8281	3,072.38
06-Dec-11	21.52%	89.5467	3,070.36
07-Dec-11	19.38%	89.6236	3,078.49
08-Dec-11	16.28%	89.6669	3,109.25
09-Dec-11	12.09%	89.4986	3,115.64
13-Dec-11	11.79%	89.55	3,110.64
14-Dec-11	11.89%	88.9764	3,120.88
15-Dec-11	13.58%	87.2792	3,106.90
16-Dec-11	16.55%	84.5972	3,118.92
19-Dec-11	19.86%	83.6939	3,109.79
20-Dec-11	22.70%	83.8306	3,106.72
21-Dec-11	25.55%	83.5167	3,128.03
22-Dec-11	27.63%	83.5542	3,139.67
23-Dec-11	29.34%	83.6864	3,145.72
27-Dec-11	30.23%	83.6472	3,168.55
28-Dec-11	28.79%	83.7167	3,163.16
29-Dec-11	26.82%	84.6667	3,160.03
30-Dec-11	25.00%	85.0681	3,205.02
03-Jan-12	24.19%	85.0906	3,212.86
04-Jan-12	22.50%	85.5722	3,203.35
05-Jan-12	20.25%	88.4403	3,220.74
06-Jan-12	18.06%	87.0361	3,224.87
09-Jan-12	17.39%	86.9786	3,200.46
10-Jan-12	17.29%	87.1778	3,180.55
11-Jan-12	17.22%	87.3164	3,200.80
12-Jan-12	16.47%	87.4208	3,196.86
13-Jan-12	15.85%	87.5889	3,184.92
16-Jan-12	15.34%	87.4958	3,187.22

17-Jan-12	15.68%	86.9583	3,190.78
18-Jan-12	16.59%	86.3331	3,202.57
19-Jan-12	17.35%	86.2197	3,204.76
20-Jan-12	18.23%	85.6778	3,185.14
23-Jan-12	19.22%	86.0444	3,171.63
24-Jan-12	20.34%	86.1	3,182.88
25-Jan-12	21.11%	85.8444	3,191.72
26-Jan-12	22.41%	85.3639	3,188.23
27-Jan-12	22.67%	85.0306	3,202.34
30-Jan-12	23.07%	84.9167	3,224.89
31-Jan-12	23.38%	84.5875	3,224.18
01-Feb-12	23.55%	83.8833	3,205.01
02-Feb-12	22.33%	83.5861	3,215.70
03-Feb-12	20.09%	83.8708	3,196.70
06-Feb-12	17.71%	83.8125	3,167.49
07-Feb-12	13.10%	83.4903	3,168.27
08-Feb-12	11.91%	83.1403	3,167.87
09-Feb-12	10.66%	82.7167	3,156.87
10-Feb-12	11.07%	83.9278	3,160.51
13-Feb-12	12.35%	82.8125	3,156.19
14-Feb-12	13.69%	82.9583	3,142.74
15-Feb-12	14.49%	82.93	3,143.90
16-Feb-12	15.73%	83.1667	3,154.46
17-Feb-12	17.98%	83.0722	3,182.14
20-Feb-12	19.44%	82.9097	3,176.36
21-Feb-12	20.79%	83.2972	3,183.01
22-Feb-12	21.63%	83.2944	3,199.67
23-Feb-12	21.40%	82.7569	3,208.63
24-Feb-12	21.19%	82.6986	3,248.40
27-Feb-12	23.09%	82.6519	3,258.43
28-Feb-12	23.56%	82.7514	3,275.87
29-Feb-12	22.41%	82.9708	3,303.75
01-Mar-12	22.31%	83.2625	3,312.15
02-Mar-12	22.40%	83.2561	3,329.16
05-Mar-12	23.02%	83.2347	3,343.96
06-Mar-12	23.61%	83.3625	3,362.59
07-Mar-12	24.04%	82.8222	3,380.27
08-Mar-12	24.69%	82.8292	3,394.29
09-Mar-12	25.36%	84.1483	3,401.60

12-Mar-12	26.24%	82.7125	3,399.97
13-Mar-12	26.76%	82.2686	3,358.60
14-Mar-12	27.15%	82.2694	3,332.89
15-Mar-12	26.40%	82.3472	3,326.35
16-Mar-12	25.39%	82.9617	3,318.95
19-Mar-12	23.98%	82.9611	3,317.62
20-Mar-12	22.81%	82.6344	3,285.51
21-Mar-12	22.42%	82.8489	3,293.10
22-Mar-12	22.58%	82.8611	3,293.91
23-Mar-12	23.02%	83.1083	3,312.85
26-Mar-12	23.29%	83.0324	3,312.56
27-Mar-12	23.30%	83.1042	3,339.27
28-Mar-12	23.49%	83.0278	3,367.23
29-Mar-12	23.21%	83.0153	3,360.12
30-Mar-12	22.95%	83.0556	3,366.89
02-Apr-12	21.82%	83.1014	3,363.72
03-Apr-12	18.78%	83.0694	3,392.23
04-Apr-12	12.71%	83.1764	3,408.70
05-Apr-12	10.26%	83.0667	3,400.48
10-Apr-12	11.07%	83.1031	3,396.83
11-Apr-12	12.47%	83.1961	3,429.02
12-Apr-12	13.36%	83.2541	3,454.34
13-Apr-12	13.81%	83.3681	3,456.35
16-Apr-12	15.00%	83.1611	3,443.94
17-Apr-12	16.40%	83.15	3,461.19
18-Apr-12	17.12%	83.1389	3,489.24
19-Apr-12	17.51%	83.1542	3,534.27
20-Apr-12	18.28%	83.1969	3,554.46
23-Apr-12	19.42%	83.2178	3,571.20
24-Apr-12	20.61%	83.2293	3,581.33
25-Apr-12	20.70%	83.2531	3,579.57
26-Apr-12	18.05%	83.265	3,557.13
27-Apr-12	14.89%	83.25	3,534.53
30-Apr-12	14.54%	83.2164	3,546.66
02-May-12	15.50%	83.2903	3,541.07
03-May-12	15.79%	83.4053	3,585.12
04-May-12	15.98%	83.2806	3,611.10
07-May-12	16.32%	83.2703	3,599.13
08-May-12	16.81%	83.2831	3,599.18

09-May-12	16.82%	83.2958	3,585.93
10-May-12	16.60%	83.3972	3,589.43
11-May-12	15.67%	83.6181	3,599.33
14-May-12	15.22%	83.6764	3,628.64
15-May-12	15.95%	83.9469	3,637.08
16-May-12	16.35%	84.9572	3,655.07
17-May-12	17.25%	84.5639	3,677.81
18-May-12	17.84%	85.1625	3,699.69
21-May-12	18.71%	84.9572	3,708.88
22-May-12	19.08%	84.5639	3,672.36
23-May-12	19.44%	85.1625	3,678.02
24-May-12	19.74%	85.2558	3,668.21
25-May-12	19.19%	85.3153	3,634.85
28-May-12	18.36%	85.3958	3,618.53
29-May-12	17.68%	85.5819	3,627.64
30-May-12	16.87%	85.9556	3,626.07
31-May-12	16.22%	86.825	3,650.85
04-Jun-12	16.16%	86.1167	3,653.29
05-Jun-12	16.58%	85.9569	3,635.86
06-Jun-12	16.93%	85.6486	3,634.82
07-Jun-12	17.16%	85.5111	3,651.27
08-Jun-12	17.33%	84.6722	3,639.46
11-Jun-12	16.78%	84.8125	3,657.01
12-Jun-12	16.50%	85.2431	3,670.18
13-Jun-12	16.00%	85.4556	3,670.75
14-Jun-12	16.01%	85.2667	3,685.36
15-Jun-12	16.25%	85.1306	3,694.23
18-Jun-12	16.54%	84.8847	3,682.23
19-Jun-12	17.00%	84.525	3,663.11
20-Jun-12	17.86%	84.1556	3,694.55
21-Jun-12	19.37%	83.6403	3,682.24
22-Jun-12	19.89%	84.0125	3,704.70
25-Jun-12	19.35%	83.9472	3,725.55
26-Jun-12	17.40%	84.2519	3,738.15
27-Jun-12	16.48%	84.1625	3,739.00
28-Jun-12	16.43%	84.1478	3,704.70
29-Jun-12	15.84%	84.2333	3,703.94
02-Jul-12	15.64%	84.1322	3,763.91
03-Jul-12	15.74%	84.1231	3,790.07

04-Jul-12	15.72%	84.0278	3,791.79
05-Jul-12	15.24%	84.0347	3,795.32
06-Jul-12	14.37%	84.5292	3,793.32
09-Jul-12	14.31%	84.0972	3,791.06
10-Jul-12	14.10%	83.9368	3,789.33
11-Jul-12	13.90%	83.9588	3,797.40
12-Jul-12	13.65%	83.9292	3,802.96
13-Jul-12	13.14%	84.0265	3,788.64
16-Jul-12	13.23%	84.1222	3,795.10
17-Jul-12	13.56%	84.1889	3,778.10
18-Jul-12	13.70%	84.1794	3,788.52
19-Jul-12	13.98%	84.1558	3,825.93
20-Jul-12	14.19%	84.1447	3,840.36
23-Jul-12	14.15%	84.1917	3,844.61
24-Jul-12	13.97%	84.2617	3,845.93
25-Jul-12	13.32%	84.2997	3,878.49
26-Jul-12	12.98%	84.2292	3,878.52
27-Jul-12	11.24%	84.2011	3,870.51
30-Jul-12	10.82%	84.2014	3,854.28
31-Jul-12	10.76%	84.2125	3,832.42
01-Aug-12	10.73%	84.2383	3,825.65
02-Aug-12	10.70%	84.2264	3,825.08
03-Aug-12	10.65%	84.2506	3,843.58
06-Aug-12	10.59%	84.2022	3,830.24
07-Aug-12	10.44%	84.095	3,815.44
08-Aug-12	10.26%	83.9367	3,815.10
09-Aug-12	10.04%	84.0875	3,823.49
10-Aug-12	9.43%	84.0139	3,831.01
13-Aug-12	8.82%	84.0506	3,792.22
14-Aug-12	8.25%	83.8975	3,800.23
15-Aug-12	7.95%	83.9333	3,801.03
16-Aug-12	7.84%	83.9833	3,804.54
17-Aug-12	8.07%	84.0672	3,814.10
21-Aug-12	8.18%	83.975	3,808.47
22-Aug-12	8.37%	84.0056	3,819.45
23-Aug-12	8.54%	83.9903	3,817.70
24-Aug-12	8.66%	84.0056	3,826.89
27-Aug-12	8.70%	84.0236	3,839.12
28-Aug-12	8.32%	84.0961	3,842.38

29-Aug-12	8.10%	84.1181	3,878.13
30-Aug-12	7.41%	84.1422	3,875.11
31-Aug-12	7.20%	84.3208	3,865.76
03-Sep-12	7.26%	84.1483	3,855.14
04-Sep-12	7.39%	84.2667	3,895.86
05-Sep-12	7.17%	84.8653	3,897.45
06-Sep-12	6.96%	84.3872	3,888.14
07-Sep-12	6.73%	84.4056	3,899.62
11-Sep-12	6.45%	84.2403	3,903.72
12-Sep-12	6.45%	84.1417	3,941.10
13-Sep-12	6.54%	84.2139	3,953.84
14-Sep-12	6.52%	84.4042	3,953.53
17-Sep-12	6.50%	84.3817	3,950.18
18-Sep-12	6.57%	84.7531	3,956.54
19-Sep-12	6.71%	84.8847	3,959.10
20-Sep-12	6.81%	84.8275	3,934.52
21-Sep-12	6.97%	84.8264	3,927.44
24-Sep-12	7.06%	84.8667	3,942.40
25-Sep-12	7.33%	84.8444	3,950.97
26-Sep-12	7.78%	85.0097	3,950.90
27-Sep-12	8.31%	85.1764	3,980.53
28-Sep-12	8.47%	85.2833	3,972.03
01-Oct-12	8.73%	85.2764	3,965.75
02-Oct-12	8.91%	85.1764	3,945.25
03-Oct-12	8.94%	84.9714	4,069.33
04-Oct-12	9.05%	84.925	3,961.05
05-Oct-12	8.92%	84.9125	3,975.79
08-Oct-12	8.83%	84.9153	3,971.68
09-Oct-12	8.80%	85.1019	3,983.16
10-Oct-12	8.76%	85.0978	3,982.94
12-Oct-12	8.96%	85.1175	3,995.03
15-Oct-12	9.14%	85.1339	4,029.50
16-Oct-12	9.27%	85.1383	4,032.41
17-Oct-12	9.45%	85.1261	4,014.03
18-Oct-12	9.62%	85.0342	4,023.55
19-Oct-12	9.74%	85.0422	4,034.07
22-Oct-12	9.47%	85.1667	4,053.79
23-Oct-12	9.22%	85.1819	4,072.50
24-Oct-12	9.30%	85.2328	4,095.26

25-Oct-12	9.31%	85.2208	4,119.50
26-Oct-12	9.37%	85.1472	4,132.91
29-Oct-12	9.32%	85.1342	4,141.23
30-Oct-12	9.21%	85.1692	4,143.35
31-Oct-12	9.09%	85.1678	4,147.28
01-Nov-12	8.79%	85.1775	4,133.28
02-Nov-12	8.77%	85.2361	4,125.74
05-Nov-12	8.66%	85.3083	4,124.53
06-Nov-12	8.69%	85.4456	4,113.96
07-Nov-12	8.69%	85.55	4,121.13
08-Nov-12	8.64%	85.41	4,148.79
09-Nov-12	8.08%	85.3778	4,159.73
12-Nov-12	7.91%	85.3994	4,152.11
13-Nov-12	7.35%	85.5283	4,156.86
14-Nov-12	6.79%	85.6428	4,157.59
15-Nov-12	6.65%	85.6261	4,160.49
16-Nov-12	6.22%	85.645	4,155.99
19-Nov-12	6.13%	85.6597	4,147.94
20-Nov-12	6.18%	85.7139	4,158.38
21-Nov-12	6.14%	85.7114	4,171.87
22-Nov-12	6.10%	85.7097	4,162.79
23-Nov-12	6.14%	85.7211	4,166.55
26-Nov-12	6.27%	85.7975	4,163.91
27-Nov-12	6.41%	85.9903	4,139.02
28-Nov-12	6.35%	85.9708	4,128.62
29-Nov-12	6.24%	85.9431	4,111.92
30-Nov-12	6.01%	85.9347	4,083.52
03-Dec-12	5.81%	85.9111	4,063.09
04-Dec-12	5.76%	85.9639	4,056.41
05-Dec-12	5.66%	85.9417	4,057.39
06-Dec-12	5.62%	85.9889	4,022.64
07-Dec-12	5.68%	85.9575	4,037.99
10-Dec-12	5.67%	85.9889	4,012.05
11-Dec-12	5.70%	86.0522	4,031.72
13-Dec-12	5.95%	86.0422	4,031.70
14-Dec-12	5.95%	86.0383	4,056.18
17-Dec-12	5.45%	86.0672	4,067.21
18-Dec-12	5.21%	86.0611	4,085.70
19-Dec-12	5.54%	86.0744	4,124.06

20-Dec-12	5.76%	86.0472	4,127.60
21-Dec-12	6.34%	86.0008	4,119.10
24-Dec-12	6.63%	85.9039	4,109.28
27-Dec-12	6.60%	85.8628	4,122.74
28-Dec-12	6.20%	85.9611	4,122.22
31-Dec-12	5.63%	86.0286	4,133.02
02-Jan-13	5.50%	86.0769	4,140.43
03-Jan-13	5.37%	86.3569	4,159.25
04-Jan-13	5.25%	86.4417	4,191.05
07-Jan-13	5.22%	86.4264	4,212.49
08-Jan-13	5.23%	86.4775	4,247.74
09-Jan-13	5.25%	86.5242	4,305.03
10-Jan-13	5.30%	86.6053	4,319.73
11-Jan-13	5.50%	86.6722	4,349.87
14-Jan-13	5.48%	86.6844	4,413.97
15-Jan-13	5.43%	86.6853	4,474.68
16-Jan-13	5.52%	86.6989	4,553.25
17-Jan-13	5.63%	86.7042	4,545.70
18-Jan-13	5.77%	86.8653	4,500.09
21-Jan-13	5.82%	86.8531	4,471.21
22-Jan-13	5.90%	86.9792	4,461.32
23-Jan-13	5.99%	87.3794	4,417.17
24-Jan-13	6.13%	87.4694	4,385.00
25-Jan-13	6.38%	87.5206	4,379.71
28-Jan-13	6.67%	87.5828	4,403.38
29-Jan-13	6.93%	87.5906	4,402.75
30-Jan-13	7.21%	87.5861	4,412.61
31-Jan-13	7.40%	87.6111	4,416.60
01-Feb-13	7.57%	87.5828	4,420.79
04-Feb-13	7.67%	87.5669	4,450.78
05-Feb-13	7.77%	87.5775	4,483.62
06-Feb-13	7.84%	87.6025	4,522.53
07-Feb-13	7.99%	87.6133	4,561.16
08-Feb-13	8.28%	87.5539	4,588.42
11-Feb-13	8.83%	87.5681	4,611.03
12-Feb-13	9.40%	87.5756	4,633.48
13-Feb-13	9.72%	87.4519	4,648.09
14-Feb-13	9.91%	87.3428	4,637.54
15-Feb-13	9.82%	87.4194	4,614.75

18-Feb-13	9.92%	87.4108	4,573.88
19-Feb-13	9.97%	87.6094	4,551.06
20-Feb-13	9.96%	87.6336	4,502.75
21-Feb-13	10.04%	87.5964	4,505.59
22-Feb-13	10.12%	87.5419	4,477.89
25-Feb-13	10.12%	87.4764	4,463.65
26-Feb-13	10.14%	87.3194	4,469.19
27-Feb-13	10.02%	87.2319	4,513.55
28-Feb-13	9.93%	86.2361	4,518.59
01-Mar-13	9.68%	86.1403	4,510.47
05-Mar-13	9.61%	86.0375	4,533.82
06-Mar-13	9.64%	86.1667	4,546.83
07-Mar-13	9.62%	86.5833	4,585.07
08-Mar-13	9.40%	86.1639	4,658.64
11-Mar-13	9.34%	85.8236	4,796.33
12-Mar-13	9.09%	85.5889	4,985.91
13-Mar-13	8.92%	85.3222	4,911.45
14-Mar-13	8.78%	85.34	4,831.85
15-Mar-13	8.63%	85.6361	4,774.12
18-Mar-13	8.63%	85.6014	4,727.04
19-Mar-13	8.56%	85.8083	4,721.23
20-Mar-13	8.54%	85.7139	4,719.05
21-Mar-13	8.48%	85.725	4,708.56
22-Mar-13	8.42%	85.7628	4,713.60
25-Mar-13	8.36%	85.8258	4,732.79
26-Mar-13	8.39%	85.8486	4,758.22
27-Mar-13	8.40%	85.8083	4,830.44
28-Mar-13	8.40%	85.6386	4,860.83
02-Apr-13	8.41%	84.9833	5,030.91
03-Apr-13	8.40%	84.9903	5,030.91
04-Apr-13	8.40%	84.8569	4,975.77
05-Apr-13	8.34%	84.8639	4,985.68
08-Apr-13	8.27%	84.7917	4,980.84
10-Apr-13	8.18%	84.6792	4,990.04
11-Apr-13	8.11%	84.3039	5,027.90
12-Apr-13	8.05%	84.1861	5,020.50
15-Apr-13	7.97%	83.9889	4,994.94
16-Apr-13	7.92%	83.8781	4,947.51
17-Apr-13	7.90%	83.8989	4,932.77

18-Apr-13	7.76%	83.7933	4,902.60
19-Apr-13	7.72%	83.82	4,868.29
22-Apr-13	7.66%	83.8831	4,839.49
23-Apr-13	7.59%	83.8836	4,824.44
25-Apr-13	7.49%	83.7681	4,764.52
26-Apr-13	7.38%	83.7944	4,785.38
29-Apr-13	7.41%	83.8131	4,763.09
30-Apr-13	7.56%	83.8208	4,765.23
02-May-13	7.64%	83.795	4,788.26
03-May-13	7.66%	83.7553	4,821.17
06-May-13	7.69%	83.7164	4,846.43
07-May-13	7.74%	83.8906	4,881.75
08-May-13	7.60%	83.8989	4,905.68
09-May-13	7.52%	83.7917	4,917.46
10-May-13	7.47%	83.725	4,888.97
13-May-13	7.29%	83.8609	4,866.05
14-May-13	7.06%	83.8361	4,844.81
15-May-13	7.05%	83.8069	4,918.27
16-May-13	7.10%	83.8242	4,955.61
17-May-13	7.10%	83.7972	4,978.79
20-May-13	7.13%	83.8375	4,960.30
21-May-13	7.12%	83.8508	4,978.65
22-May-13	7.05%	84.2597	4,983.54
23-May-13	6.95%	84.4764	4,956.95
24-May-13	6.77%	84.37	4,965.98
27-May-13	6.76%	84.4261	4,953.03
28-May-13	6.70%	84.9833	4,967.75
29-May-13	6.70%	85.2861	4,987.16
30-May-13	6.75%	84.9042	4,996.07
31-May-13	6.72%	85.1236	5,006.96
03-Jun-13	6.77%	85.1281	4,986.93
04-Jun-13	6.79%	85.2208	4,985.48
05-Jun-13	6.79%	85.0972	4,984.33
06-Jun-13	6.74%	85.1806	4,989.04
07-Jun-13	6.79%	84.95	4,962.66
10-Jun-13	6.84%	84.8806	4,957.08
11-Jun-13	6.88%	85.0528	4,886.64
12-Jun-13	6.95%	85.0539	4,862.69
13-Jun-13	6.99%	85.3531	4,838.01

14-Jun-13	7.10%	85.3878	4,806.52
17-Jun-13	7.12%	85.6083	4,761.89
18-Jun-13	7.14%	85.7103	4,701.22
19-Jun-13	7.17%	85.7236	4,705.19
20-Jun-13	7.26%	85.6772	4,713.39
21-Jun-13	7.43%	85.7375	4,706.80
24-Jun-13	7.52%	85.8875	4,680.33
25-Jun-13	7.50%	86.0603	4,641.07
26-Jun-13	7.56%	86.025	4,602.40
27-Jun-13	7.67%	86.0269	4,584.50
28-Jun-13	7.72%	86.0075	4,598.16
01-Jul-13	8.03%	85.8347	4,579.21
02-Jul-13	8.48%	85.8561	4,561.74
03-Jul-13	8.96%	85.9897	4,562.83
04-Jul-13	9.27%	86.2	4,574.10
05-Jul-13	9.39%	86.2583	4,585.42
08-Jul-13	9.11%	86.6831	4,576.21
09-Jul-13	8.40%	86.7969	4,600.45
10-Jul-13	8.00%	86.8972	4,640.50
11-Jul-13	7.34%	86.8556	4,658.46
15-Jul-13	6.79%	87.2364	4,746.26
16-Jul-13	6.69%	86.9986	4,786.47
17-Jul-13	6.68%	86.7875	4,778.88
18-Jul-13	6.69%	86.8919	4,800.16
19-Jul-13	6.91%	87.1583	4,807.53
22-Jul-13	7.12%	87.0808	4,807.41
23-Jul-13	7.35%	87.1697	4,807.41
24-Jul-13	7.56%	87.3431	4,787.78
25-Jul-13	7.72%	87.4056	4,796.30
26-Jul-13	8.10%	87.4028	4,801.63
29-Jul-13	8.55%	87.2361	4,793.82
30-Jul-13	8.97%	87.2333	4,796.97
31-Jul-13	9.38%	87.2797	4,787.56
01-Aug-13	9.54%	87.3978	4,781.40
02-Aug-13	9.59%	87.4075	4,777.12
05-Aug-13	9.64%	87.3731	4,783.40
06-Aug-13	9.76%	87.3844	4,783.12
07-Aug-13	10.00%	87.3983	4,801.03
08-Aug-13	10.37%	87.3908	4,792.87

12-Aug-13	10.38%	87.3858	4,805.34
13-Aug-13	8.90%	87.6083	4,810.29
14-Aug-13	8.60%	87.7042	4,799.06
15-Aug-13	8.27%	87.5906	4,812.27
16-Aug-13	8.04%	87.4997	4,842.59
19-Aug-13	8.10%	87.4711	4,851.54
20-Aug-13	8.25%	87.5389	4,840.69
21-Aug-13	8.34%	87.4606	4,830.50
22-Aug-13	8.38%	87.4572	4,814.12
23-Aug-13	8.42%	87.5303	4,821.50
26-Aug-13	8.47%	87.5611	4,806.48
27-Aug-13	8.49%	87.525	4,774.58
28-Aug-13	8.50%	87.4928	4,742.15
29-Aug-13	8.36%	87.5775	4,708.05
30-Aug-13	7.97%	87.5967	4,697.75
02-Sep-13	7.69%	87.5567	4,669.85
03-Sep-13	7.35%	87.5178	4,648.21
04-Sep-13	6.99%	87.5325	4,659.85
05-Sep-13	6.61%	87.4986	4,677.60
06-Sep-13	6.39%	87.4236	4,708.95
09-Sep-13	6.35%	87.4028	4,722.89
10-Sep-13	6.40%	87.4792	4,722.91
11-Sep-13	6.53%	87.5158	4,727.66
12-Sep-13	6.60%	87.5458	4,732.92
13-Sep-13	6.60%	87.5444	4,749.32
16-Sep-13	6.72%	87.5806	4,710.36
17-Sep-13	6.94%	87.5361	4,715.34
18-Sep-13	7.31%	87.5406	4,728.03
19-Sep-13	7.60%	87.4542	4,745.47
20-Sep-13	7.94%	87.3861	4,751.82
23-Sep-13	8.41%	87.4194	4,739.42
24-Sep-13	8.62%	87.4611	4,729.30
25-Sep-13	8.79%	87.4097	4,746.71
26-Sep-13	9.12%	87.2292	4,764.12
27-Sep-13	9.39%	86.9903	4,768.03
30-Sep-13	9.52%	86.6458	4,793.20
01-Oct-13	9.69%	86.1478	4,804.48
02-Oct-13	9.78%	86.3722	4,830.38
03-Oct-13	9.76%	86.7936	4,838.07

04-Oct-13	9.70%	86.5236	4,841.33
07-Oct-13	9.74%	86.1306	4,881.44
08-Oct-13	9.73%	85.2583	4,930.79
09-Oct-13	9.80%	84.9639	4,946.02
10-Oct-13	9.92%	85.3917	4,947.00
11-Oct-13	10.40%	85.1986	4,929.62
14-Oct-13	10.84%	84.9714	4,925.96
15-Oct-13	10.66%	84.9944	4,934.07
16-Oct-13	10.71%	84.9894	4,923.47
17-Oct-13	10.82%	84.9736	4,919.17
18-Oct-13	11.07%	84.8708	4,948.77
22-Oct-13	11.12%	84.7194	4,943.83
23-Oct-13	11.17%	84.785	4,953.84
24-Oct-13	11.32%	84.7389	4,949.65
25-Oct-13	11.49%	84.7431	4,935.91
28-Oct-13	11.48%	84.8678	4,940.32
30-Oct-13	11.75%	85.1667	4,970.88
31-Oct-13	11.87%	85.1469	4,992.88
01-Nov-13	11.71%	85.2714	4,989.97
04-Nov-13	11.84%	85.4472	4,964.42
05-Nov-13	12.07%	85.5197	4,954.69
06-Nov-13	12.36%	85.3736	4,990.24
07-Nov-13	12.70%	85.3069	5,017.78
08-Nov-13	12.88%	85.5153	5,019.18
11-Nov-13	12.77%	85.5872	5,027.28
12-Nov-13	11.84%	85.7	5,031.02
13-Nov-13	10.42%	86.0042	5,026.82
14-Nov-13	9.62%	86.2569	5,030.76
15-Nov-13	9.18%	86.2819	5,043.58
18-Nov-13	9.40%	86.4556	5,058.16
19-Nov-13	9.56%	86.4658	5,052.63
20-Nov-13	9.79%	86.3075	5,024.08
21-Nov-13	10.04%	86.1667	5,053.91
22-Nov-13	10.57%	86.2972	5,054.21
25-Nov-13	10.42%	86.6842	5,068.36
26-Nov-13	10.15%	86.6528	5,085.83
27-Nov-13	9.94%	86.8889	5,125.74
28-Nov-13	9.58%	86.9875	5,137.21
29-Nov-13	9.30%	86.9931	5,100.88

02-Dec-13	8.72%	86.6506	5,072.87
03-Dec-13	8.00%	86.7192	5,076.47
04-Dec-13	7.52%	86.7139	5,042.94
05-Dec-13	7.19%	86.4886	5,005.45
06-Dec-13	6.93%	86.5589	4,976.77
09-Dec-13	6.90%	86.625	4,969.32
10-Dec-13	7.01%	86.6511	4,943.64
11-Dec-13	7.47%	86.6789	4,913.55
16-Dec-13	7.82%	86.5542	4,912.36
17-Dec-13	8.27%	86.4286	4,876.05
18-Dec-13	8.45%	86.0431	4,855.50
19-Dec-13	8.88%	86.1722	4,849.30
20-Dec-13	9.70%	85.8278	4,851.06
23-Dec-13	10.70%	85.7208	4,851.84
24-Dec-13	11.80%	85.7197	4,885.87
27-Dec-13	11.95%	85.8164	4,886.52
30-Dec-13	12.12%	85.8903	4,874.29
31-Dec-13	12.19%	86.3097	4,926.97
02-Jan-14	12.16%	86.4167	4,910.74
03-Jan-14	11.89%	86.8722	4,901.12
06-Jan-14	11.70%	86.8228	4,940.51
07-Jan-14	11.68%	86.9583	4,993.12
08-Jan-14	11.63%	86.9611	5,010.93
09-Jan-14	11.40%	86.8639	5,044.35
10-Jan-14	10.79%	86.6306	5,059.52
13-Jan-14	10.37%	86.4372	5,017.20
14-Jan-14	9.27%	86.2806	5,023.05
15-Jan-14	9.07%	86.2344	5,058.51
16-Jan-14	8.96%	85.8508	5,021.07
17-Jan-14	8.70%	85.8972	5,018.58
20-Jan-14	8.77%	85.4572	5,023.12
21-Jan-14	8.95%	85.8792	5,075.06
22-Jan-14	9.11%	85.8806	5,092.16
23-Jan-14	9.49%	85.8181	5,063.98
24-Jan-14	9.87%	85.5333	5,091.30
27-Jan-14	10.23%	85.8125	5,078.13
28-Jan-14	10.54%	85.8278	5,060.53
29-Jan-14	11.37%	85.9611	5,015.67
30-Jan-14	11.72%	86.0833	4,960.99

31-Jan-14	11.85%	86.2361	4,856.15
03-Feb-14	11.71%	86.5519	4,828.34
04-Feb-14	11.62%	86.5839	4,883.90
05-Feb-14	11.40%	86.3361	4,870.43
06-Feb-14	11.17%	86.1056	4,843.90
07-Feb-14	10.43%	86.0611	4,831.80
10-Feb-14	9.98%	86.0569	5,267.54
11-Feb-14	9.22%	86.1875	4,833.36
12-Feb-14	8.33%	86.1922	4,842.22
13-Feb-14	7.49%	86.2444	4,839.52
14-Feb-14	6.85%	86.3778	4,838.47
17-Feb-14	6.75%	86.3569	4,806.73
18-Feb-14	6.76%	86.3431	4,797.20
19-Feb-14	7.13%	86.2575	4,786.18
20-Feb-14	7.42%	86.1764	4,806.69
21-Feb-14	7.88%	86.1033	4,836.25
24-Feb-14	8.21%	86.1611	4,848.71
25-Feb-14	8.45%	86.2458	4,875.82
26-Feb-14	8.62%	86.4083	4,903.48
27-Feb-14	8.65%	86.4806	4,915.85
28-Feb-14	8.45%	86.3264	4,933.41
03-Mar-14	7.76%	86.2758	4,935.01
04-Mar-14	6.77%	86.3875	4,906.70
05-Mar-14	5.97%	86.3839	4,902.72
06-Mar-14	5.65%	86.5306	4,896.40
07-Mar-14	5.34%	86.5194	4,906.72
10-Mar-14	5.31%	86.5111	4,943.57
11-Mar-14	5.21%	86.4844	4,915.84
12-Mar-14	5.12%	86.3861	4,935.81
13-Mar-14	5.04%	86.4361	4,960.65
14-Mar-14	4.97%	86.4444	4,983.83
17-Mar-14	5.03%	86.4667	4,922.65
18-Mar-14	5.44%	86.4861	4,928.74
19-Mar-14	6.28%	86.5417	4,936.80
20-Mar-14	7.45%	86.4917	4,940.97
21-Mar-14	8.07%	86.5014	4,971.74
24-Mar-14	8.40%	86.6167	4,961.02
25-Mar-14	8.40%	86.5725	4,974.05
26-Mar-14	8.14%	86.5853	4,969.24

27-Mar-14	7.68%	86.6675	4,958.62
28-Mar-14	7.44%	86.5333	4,972.45
31-Mar-14	7.29%	86.4414	4,945.78
01-Apr-14	7.12%	86.4	4,959.96
02-Apr-14	7.09%	86.4264	4,933.56
03-Apr-14	6.93%	86.5472	4,918.07
04-Apr-14	6.89%	86.5819	4,908.75
07-Apr-14	6.92%	86.6586	4,869.75
08-Apr-14	6.87%	86.6042	4,882.33
09-Apr-14	6.73%	86.5889	4,892.70
10-Apr-14	6.92%	86.5611	4,878.88
11-Apr-14	6.82%	86.5572	4,905.46
14-Apr-14	6.86%	86.6264	4,909.10
15-Apr-14	6.91%	86.7053	4,910.92
16-Apr-14	7.29%	86.9042	4,906.96
17-Apr-14	7.72%	86.8278	4,921.13
22-Apr-14	7.82%	86.8958	4,904.58
23-Apr-14	7.96%	87.0806	4,904.66
24-Apr-14	8.09%	86.9208	4,923.71
25-Apr-14	8.35%	86.8736	4,956.78
28-Apr-14	8.41%	86.8375	4,958.16
29-Apr-14	8.40%	86.8572	4,956.52
30-Apr-14	8.42%	86.8711	4,948.97
02-May-14	8.42%	86.8667	4,959.91
05-May-14	8.51%	86.8944	4,930.63
06-May-14	8.47%	86.9292	4,942.87
07-May-14	8.50%	86.9594	4,946.24
08-May-14	8.37%	86.9653	4,962.06
09-May-14	8.20%	87.0322	4,963.76
12-May-14	8.04%	87.1222	4,978.20
13-May-14	7.81%	87.0917	4,975.39
14-May-14	7.71%	87.2208	4,940.99
15-May-14	7.52%	87.3211	4,945.33
16-May-14	7.50%	87.3892	4,967.57
19-May-14	7.64%	87.5333	4,939.49
20-May-14	7.55%	87.6847	4,920.61
21-May-14	7.49%	87.8042	4,902.62
22-May-14	7.41%	87.8319	4,915.06
23-May-14	7.24%	87.8583	4,925.58

26-May-14	7.33%	87.8289	4,899.92
27-May-14	7.29%	87.8569	4,888.36
28-May-14	7.43%	87.84	4,885.29
29-May-14	7.31%	87.8164	4,895.13
30-May-14	7.32%	87.7972	4,881.56
03-Jun-14	7.21%	87.7389	4,866.71
04-Jun-14	7.04%	87.5722	4,856.54
05-Jun-14	6.88%	87.5056	4,835.53
06-Jun-14	6.54%	87.5069	4,847.83
09-Jun-14	6.38%	87.5014	4,835.69
10-Jun-14	6.02%	87.55	4,828.65
11-Jun-14	5.33%	87.6972	4,832.09
12-Jun-14	3.48%	87.7639	4,811.00
13-Jun-14	3.18%	87.8319	4,836.71
16-Jun-14	4.41%	87.8889	4,787.94
17-Jun-14	5.66%	87.92	4,764.11
18-Jun-14	5.82%	87.5367	4,790.38
19-Jun-14	5.71%	87.6094	4,797.42
20-Jun-14	5.99%	87.4056	4,825.52
23-Jun-14	6.65%	87.4308	4,843.36
24-Jun-14	7.52%	87.3785	4,856.15
25-Jun-14	8.48%	87.4756	4,845.60
26-Jun-14	9.53%	87.6083	4,856.35
27-Jun-14	10.06%	87.6828	4,834.02
30-Jun-14	10.04%	87.6269	4,885.04
01-Jul-14	9.70%	87.6361	4,925.86
02-Jul-14	9.10%	87.8278	4,922.99
03-Jul-14	8.70%	87.7222	4,884.69
04-Jul-14	8.24%	87.825	4,885.71
07-Jul-14	7.47%	87.8792	4,868.81
08-Jul-14	7.36%	87.8919	4,876.01
09-Jul-14	7.17%	87.8589	4,892.84
10-Jul-14	7.39%	87.775	4,898.29
11-Jul-14	7.28%	87.6486	4,902.18
14-Jul-14	7.17%	87.6306	4,902.30
15-Jul-14	7.07%	87.7083	4,889.99
16-Jul-14	7.12%	87.7447	4,870.96
17-Jul-14	7.40%	87.7069	4,913.61
18-Jul-14	7.47%	87.7706	4,910.60

21-Jul-14	7.53%	87.7958	4,896.77
22-Jul-14	7.59%	87.7994	4,882.73
23-Jul-14	7.67%	87.8597	4,903.68
24-Jul-14	7.80%	87.8039	4,883.75
25-Jul-14	8.12%	87.7997	4,879.09
28-Jul-14	8.71%	87.6903	4,863.87
30-Jul-14	9.51%	87.7444	4,891.03
31-Jul-14	10.10%	87.8042	4,906.09
01-Aug-14	10.13%	87.84	4,942.28
04-Aug-14	10.52%	87.8042	4,954.51
05-Aug-14	10.76%	87.8197	5,003.36
06-Aug-14	11.46%	87.8783	5,022.36
07-Aug-14	11.73%	87.8728	5,011.51
08-Aug-14	11.89%	87.9031	5,003.78
11-Aug-14	11.36%	87.9514	5,015.57
12-Aug-14	11.35%	87.9864	5,023.49
13-Aug-14	11.56%	88.0769	5,010.13
14-Aug-14	11.68%	88.0361	5,019.28
15-Aug-14	11.95%	88.1194	5,042.90
18-Aug-14	12.19%	88.185	5,040.56
19-Aug-14	12.49%	88.3039	5,070.13
20-Aug-14	12.87%	88.2761	5,048.69
21-Aug-14	13.11%	88.3144	5,024.64
22-Aug-14	13.45%	88.3261	5,028.06
25-Aug-14	13.84%	88.5828	5,033.69
26-Aug-14	13.29%	88.35	5,044.40
27-Aug-14	11.43%	88.3786	5,072.87
28-Aug-14	10.63%	88.3944	5,089.16
29-Aug-14	9.99%	88.4306	5,139.39
01-Sep-14	9.13%	88.5167	5,140.92
02-Sep-14	8.77%	88.6269	5,163.21
03-Sep-14	8.20%	88.6789	5,163.28
04-Sep-14	7.63%	88.6378	5,157.15
05-Sep-14	7.13%	88.6289	5,160.32
08-Sep-14	6.89%	88.6181	5,168.80
09-Sep-14	6.90%	88.6319	5,182.89
10-Sep-14	6.95%	88.7433	5,190.01
11-Sep-14	7.07%	88.7961	5,197.67
12-Sep-14	7.24%	88.8167	5,169.50

15-Sep-14	7.27%	88.7944	5,182.98
16-Sep-14	7.35%	88.9894	5,217.25
17-Sep-14	7.34%	89.2681	5,209.10
18-Sep-14	7.57%	88.9456	5,222.87
19-Sep-14	7.80%	88.5856	5,307.52
22-Sep-14	7.77%	88.9114	5,406.39
23-Sep-14	7.58%	89.125	5,377.29
24-Sep-14	7.29%	89.0986	5,322.65
25-Sep-14	7.06%	89.125	5,249.07
26-Sep-14	6.90%	89.1417	5,216.96
30-Sep-14	6.77%	89.3275	5,255.62
01-Oct-14	6.70%	89.3611	5,267.54
02-Oct-14	6.67%	89.3306	5,249.65
03-Oct-14	6.70%	89.3231	5,292.42
06-Oct-14	6.65%	89.3231	5,323.49
07-Oct-14	6.59%	89.2253	5,300.21
08-Oct-14	6.48%	89.0903	5,287.87
09-Oct-14	6.46%	89.0475	5,272.53
10-Oct-14	6.16%	89.1167	5,280.46
13-Oct-14	5.97%	89.2639	5,311.27
14-Oct-14	5.81%	89.3322	5,299.12
15-Oct-14	5.93%	89.1694	5,304.86
16-Oct-14	6.06%	88.9792	5,290.09
17-Oct-14	6.67%	89.1083	5,279.88
21-Oct-14	6.85%	88.9083	5,259.18
22-Oct-14	6.91%	89.1278	5,251.09
23-Oct-14	7.06%	89.3375	5,259.43
24-Oct-14	7.13%	89.4028	5,161.21
27-Oct-14	7.26%	89.4131	5,197.67
28-Oct-14	7.29%	89.125	5,198.89
29-Oct-14	7.43%	89.3556	5,221.44
30-Oct-14	7.55%	89.3522	5,233.42
31-Oct-14	7.63%	89.415	5,194.89
03-Nov-14	7.59%	89.6144	5,193.11
04-Nov-14	7.44%	89.6178	5,151.46
05-Nov-14	7.28%	89.7125	5,101.11
06-Nov-14	7.11%	89.7308	5,075.93
07-Nov-14	6.80%	89.8808	5,074.93
10-Nov-14	6.69%	89.8172	5,058.41

11-Nov-14	6.62%	90.0083	5,098.40
12-Nov-14	6.57%	90.0656	5,123.45
13-Nov-14	6.53%	90.2181	5,123.45
14-Nov-14	6.39%	89.9028	5,139.37
17-Nov-14	6.40%	89.9575	5,111.47
18-Nov-14	6.45%	90.1083	5,108.84
19-Nov-14	6.51%	90.1472	5,117.08
20-Nov-14	6.63%	90.0503	5,145.28
21-Nov-14	6.75%	90.1792	5,166.45
24-Nov-14	6.88%	90.2156	5,145.98
25-Nov-14	7.11%	90.3069	5,137.94
26-Nov-14	7.23%	90.1344	5,174.02
27-Nov-14	7.18%	90.1792	5,152.26
28-Nov-14	7.00%	90.1878	5,156.33
01-Dec-14	6.94%	90.2431	5,172.57
02-Dec-14	6.76%	90.3294	5,170.57
03-Dec-14	6.60%	90.2222	5,111.37
04-Dec-14	6.49%	90.2917	5,169.88
05-Dec-14	6.47%	90.3261	5,184.92
08-Dec-14	6.53%	90.3917	5,193.96
09-Dec-14	6.53%	90.4583	5,173.77
10-Dec-14	6.57%	90.5672	5,135.97
11-Dec-14	6.82%	90.5317	5,212.11
15-Dec-14	6.63%	90.6283	5,106.67
16-Dec-14	6.58%	90.5947	5,091.30
17-Dec-14	6.71%	90.45	5,048.20
18-Dec-14	6.93%	90.4811	4,957.52
19-Dec-14	7.03%	90.4289	4,910.10
22-Dec-14	7.24%	90.3756	4,910.32
23-Dec-14	7.37%	90.5017	4,907.27
24-Dec-14	7.58%	90.5686	5,049.19
29-Dec-14	7.62%	90.7083	5,049.19
30-Dec-14	7.51%	90.5978	5,091.60
31-Dec-14	7.24%	90.7031	5,112.65
02-Jan-15	7.01%	90.7944	5,117.43
05-Jan-15	6.92%	90.8222	5,089.71
06-Jan-15	6.81%	90.9228	5,098.49
07-Jan-15	6.69%	91.1056	5,102.67
08-Jan-15	6.65%	91.0989	5,097.80

09-Jan-15	6.59%	91.13	5,121.76
12-Jan-15	6.47%	91.2428	5,121.99
13-Jan-15	6.37%	91.3333	5,138.07
14-Jan-15	6.38%	91.3583	5,193.93
15-Jan-15	6.34%	91.4831	5,201.61
16-Jan-15	6.50%	91.4992	5,203.72
19-Jan-15	6.65%	91.5944	5,177.38
20-Jan-15	6.90%	91.6342	5,139.06
21-Jan-15	7.17%	91.7367	5,159.96
23-Jan-15	7.42%	91.7472	5,217.88
26-Jan-15	7.73%	91.6867	5,209.84
27-Jan-15	8.08%	91.6694	5,213.48
28-Jan-15	8.33%	91.5533	5,207.04
29-Jan-15	8.50%	91.6736	5,194.21
30-Jan-15	8.64%	91.6944	5,212.11
02-Feb-15	8.81%	91.6683	5,222.76
03-Feb-15	8.75%	91.5861	5,242.61
04-Feb-15	8.44%	91.5556	5,268.98
05-Feb-15	8.12%	91.3317	5,284.41
06-Feb-15	7.71%	91.3183	5,280.72
09-Feb-15	7.28%	91.5967	5,296.07
10-Feb-15	7.04%	91.5733	5,313.06
11-Feb-15	6.54%	91.5544	5,330.01
12-Feb-15	6.23%	91.5422	5,333.86
13-Feb-15	5.90%	91.5567	5,340.08
16-Feb-15	5.89%	91.5367	5,357.69
17-Feb-15	5.91%	91.4217	5,403.72
18-Feb-15	5.97%	91.3639	5,446.04
19-Feb-15	6.04%	91.4017	5,473.81
20-Feb-15	6.08%	91.4008	5,465.90
23-Feb-15	6.15%	91.4167	5,455.84
24-Feb-15	6.17%	91.4106	5,455.23
25-Feb-15	6.20%	91.4189	5,467.78
26-Feb-15	6.11%	91.4231	5,475.84
27-Feb-15	6.11%	91.4139	5,491.37
02-Mar-15	6.07%	91.4144	5,499.64
03-Mar-15	6.04%	91.3267	5,474.45
04-Mar-15	5.98%	91.1708	5,461.08
05-Mar-15	5.94%	91.1575	5,411.05

06-Mar-15	5.86%	91.2194	5,373.22
09-Mar-15	5.77%	91.4444	5,371.69
10-Mar-15	5.86%	91.6278	5,368.69
11-Mar-15	5.93%	91.7183	5,362.43
12-Mar-15	6.01%	91.685	5,347.54
13-Mar-15	6.29%	91.7472	5,350.30
16-Mar-15	6.47%	92.0222	5,342.17
17-Mar-15	6.68%	92.0506	5,313.84
18-Mar-15	7.03%	91.8858	5,342.36
19-Mar-15	7.35%	91.9856	5,346.56
20-Mar-15	7.55%	92.0333	5,304.41
23-Mar-15	7.66%	91.965	5,265.67
24-Mar-15	7.79%	91.8144	5,254.60
25-Mar-15	7.97%	91.7669	5,275.10
26-Mar-15	8.09%	92.0319	5,252.74
27-Mar-15	8.12%	92.1861	5,242.35
31-Mar-15	8.25%	92.3917	5,248.16
01-Apr-15	8.22%	92.5833	5,240.53
02-Apr-15	8.18%	92.775	5,196.86
07-Apr-15	8.06%	92.55	5,179.76
08-Apr-15	7.91%	92.6847	5,142.35
09-Apr-15	7.77%	92.8489	5,128.03
10-Apr-15	7.69%	102.1854	5,123.97
13-Apr-15	7.79%	93.245	5,136.20
14-Apr-15	8.05%	93.3767	5,128.02
15-Apr-15	8.29%	93.5	5,126.02
16-Apr-15	8.42%	93.475	5,078.74
17-Apr-15	8.57%	93.4756	5,093.00
20-Apr-15	8.65%	93.7778	5,102.04
21-Apr-15	8.81%	93.7183	5,073.86
22-Apr-15	9.03%	93.7944	5,042.85
23-Apr-15	9.32%	94.0478	5,026.79
24-Apr-15	9.91%	94.2222	5,061.09
27-Apr-15	10.07%	94.3	5,056.27
28-Apr-15	10.17%	94.4139	5,055.00
29-Apr-15	10.26%	94.6	5,061.11
30-Apr-15	10.28%	94.6444	5,091.43
04-May-15	10.37%	94.7597	5,085.40
05-May-15	10.54%	95.0431	5,100.51

06-May-15	10.64%	95.1534	5,083.94
07-May-15	10.72%	95.3079	5,074.76
08-May-15	10.75%	95.4269	5,070.75
11-May-15	10.59%	96.1868	5,042.52
12-May-15	9.66%	96.5461	5,012.94
13-May-15	9.44%	96.5341	4,980.48
14-May-15	9.29%	96.1498	4,979.71
15-May-15	9.56%	95.9712	4,980.71
18-May-15	9.75%	96.3111	4,932.32
19-May-15	10.37%	96.5352	4,941.71
20-May-15	11.01%	96.7994	4,924.45
21-May-15	11.45%	96.8052	4,928.91
22-May-15	12.06%	97.3884	4,879.95
25-May-15	12.42%	97.8957	4,858.61
26-May-15	12.76%	98.3128	4,853.44
27-May-15	13.18%	98.235	4,835.75
28-May-15	13.30%	97.781	4,805.89
29-May-15	13.49%	97.5458	4,786.74
02-Jun-15	13.58%	96.8727	4,816.66
03-Jun-15	13.69%	96.8198	4,790.50
04-Jun-15	13.81%	96.114	4,773.79
05-Jun-15	13.62%	96.9395	4,784.07
08-Jun-15	13.28%	97.8668	4,761.44
09-Jun-15	12.10%	97.2041	4,745.42
10-Jun-15	10.54%	97.0741	4,744.66
11-Jun-15	10.19%	97.2083	4,744.95
12-Jun-15	9.72%	97.2465	4,765.02
15-Jun-15	10.02%	97.3296	4,759.58
16-Jun-15	10.56%	97.4944	4,773.23
17-Jun-15	10.88%	97.8703	4,790.42
18-Jun-15	11.29%	98.181	4,796.26
19-Jun-15	11.57%	98.554	4,778.63
22-Jun-15	11.80%	98.5884	4,780.48
23-Jun-15	11.98%	98.7823	4,776.35
24-Jun-15	12.08%	98.4483	4,793.77
25-Jun-15	12.10%	98.5242	4,798.73
26-Jun-15	12.17%	98.4997	4,810.36
29-Jun-15	11.81%	98.6394	4,837.58
30-Jun-15	10.66%	99.2226	4,906.07

01-Jul-15	9.85%	99.3197	4,858.42
02-Jul-15	9.53%	99.5654	4,839.60
03-Jul-15	8.91%	99.9769	4,812.57
06-Jul-15	8.67%	100.1084	4,814.11
07-Jul-15	8.46%	100.4845	4,815.00
08-Jul-15	8.02%	100.3683	4,762.87
09-Jul-15	8.24%	100.7421	4,754.66
10-Jul-15	8.68%	101.8489	4,727.46
13-Jul-15	9.43%	101.8089	4,723.76
14-Jul-15	10.34%	101.5598	4,692.17
15-Jul-15	11.57%	102.0386	4,690.16
16-Jul-15	12.76%	102.5016	4,676.16
17-Jul-15	13.61%	102.4957	4,638.44
20-Jul-15	14.27%	102.551	4,627.90
21-Jul-15	14.79%	101.4984	4,605.25
22-Jul-15	15.42%	100.5213	4,578.62
23-Jul-15	16.38%	100.7268	4,539.47
24-Jul-15	16.96%	101.2913	4,500.43
27-Jul-15	17.27%	102.0455	4,467.36
28-Jul-15	17.66%	102.4316	4,485.71
29-Jul-15	18.00%	101.8798	4,532.28
30-Jul-15	18.46%	102.5212	4,487.38
31-Jul-15	19.21%	101.7743	4,404.72
03-Aug-15	19.82%	101.3255	4,354.99
04-Aug-15	20.44%	101.1118	4,343.16
05-Aug-15	21.27%	101.2954	4,317.23
06-Aug-15	22.18%	101.2045	4,350.70
07-Aug-15	22.94%	101.1142	4,415.09
10-Aug-15	23.03%	101.1317	4,483.58
11-Aug-15	23.58%	100.9167	4,519.63
12-Aug-15	23.93%	101.1539	4,499.06
13-Aug-15	24.04%	102.2534	4,495.52
14-Aug-15	20.91%	102.2911	4,496.23
17-Aug-15	18.93%	102.9	4,509.84
18-Aug-15	17.32%	103.1596	4,482.19
19-Aug-15	15.97%	103.5285	4,464.74
20-Aug-15	15.34%	103.4756	4,429.87
21-Aug-15	15.31%	103.6042	4,405.29
24-Aug-15	15.09%	103.7712	4,337.47

25-Aug-15	15.17%	103.8061	4,242.73
26-Aug-15	15.28%	103.604	4,171.35
27-Aug-15	15.18%	103.7533	4,080.83
28-Aug-15	14.78%	103.8699	4,101.67
31-Aug-15	14.46%	103.9576	4,176.59
01-Sep-15	13.93%	104.227	4,153.21
02-Sep-15	13.91%	104.6886	4,127.08
03-Sep-15	13.83%	105.147	4,153.31
04-Sep-15	13.65%	105.5471	4,134.41
07-Sep-15	13.26%	106.2455	4,194.73
08-Sep-15	13.11%	105.4057	4,216.83
09-Sep-15	12.92%	105.214	4,219.89
10-Sep-15	13.44%	105.3575	4,217.78
11-Sep-15	15.35%	105.2931	4,210.02
14-Sep-15	18.40%	105.3783	4,234.66
15-Sep-15	20.56%	105.6298	4,250.60
16-Sep-15	21.93%	105.6784	4,257.27
17-Sep-15	23.40%	105.6028	4,248.95
18-Sep-15	24.56%	105.1067	4,236.26
21-Sep-15	25.23%	105.3599	4,242.26
22-Sep-15	25.67%	105.5597	4,212.11
23-Sep-15	25.79%	105.56	4,207.27
24-Sep-15	25.64%	105.2757	4,222.55
25-Sep-15	25.62%	105.2444	4,221.10
28-Sep-15	25.84%	105.2743	4,206.15
29-Sep-15	25.78%	105.2928	4,189.22
30-Sep-15	24.77%	104.6829	4,173.52
01-Oct-15	22.37%	104.3943	4,153.00
02-Oct-15	19.56%	103.9313	4,109.60
05-Oct-15	18.16%	103.0658	4,084.36
06-Oct-15	17.26%	103.1556	4,064.16
07-Oct-15	15.82%	103.3171	4,071.56
08-Oct-15	14.56%	103.0828	4,041.35
09-Oct-15	13.53%	103.0214	4,017.34
12-Oct-15	12.93%	102.9543	3,991.49
13-Oct-15	13.13%	103.2257	3,978.70
14-Oct-15	13.40%	103.2442	3,875.84
15-Oct-15	13.52%	103.0499	3,868.18
16-Oct-15	13.90%	102.4563	3,901.13

19-Oct-15	14.82%	102.1205	3,930.32
21-Oct-15	15.06%	102.0997	3,909.27
22-Oct-15	14.42%	102.0201	3,935.88
23-Oct-15	13.79%	102.1572	3,952.97
26-Oct-15	13.39%	101.6613	3,936.60
27-Oct-15	13.32%	101.6399	3,913.51
28-Oct-15	13.32%	101.5571	3,905.88
29-Oct-15	13.21%	101.8	3,884.13
30-Oct-15	12.79%	101.9657	3,868.83
02-Nov-15	11.14%	102.0099	3,856.75
03-Nov-15	10.63%	102.0086	3,829.91
04-Nov-15	10.19%	101.9715	3,830.15
05-Nov-15	9.29%	102.1284	3,868.09
06-Nov-15	9.62%	102.2398	3,872.57
09-Nov-15	10.19%	102.2443	3,892.84
10-Nov-15	9.90%	102.2474	3,887.53
11-Nov-15	10.21%	102.2926	3,919.10
12-Nov-15	10.91%	102.2524	3,916.62
13-Nov-15	11.00%	102.3085	3,917.64
16-Nov-15	10.51%	102.2372	3,928.72
17-Nov-15	10.53%	102.214	3,950.97
18-Nov-15	8.94%	102.1859	3,946.99
19-Nov-15	7.31%	102.2011	3,971.30
20-Nov-15	6.44%	102.1806	3,992.58
23-Nov-15	6.00%	102.2	4,021.14
24-Nov-15	5.28%	102.1793	4,020.55
25-Nov-15	5.11%	102.1363	4,044.72
27-Nov-15	5.88%	102.1143	3,994.56
30-Nov-15	6.24%	102.1842	4,016.18
01-Dec-15	5.34%	102.1529	3,978.17
02-Dec-15	5.08%	102.1854	3,989.87
03-Dec-15	4.76%	102.1814	3,994.49
04-Dec-15	4.49%	102.1611	3,990.64
07-Dec-15	4.07%	102.1185	3,990.02
08-Dec-15	4.01%	102.0213	3,994.88
09-Dec-15	4.23%	101.8943	4,002.63
10-Dec-15	4.13%	101.8771	3,986.28
11-Dec-15	4.41%	102.0579	3,995.09
14-Dec-15	4.98%	102.1685	3,968.20

15-Dec-15	4.39%	102.2097	3,987.57
16-Dec-15	4.22%	102.3157	4,011.66
17-Dec-15	4.77%	102.3548	4,005.22
18-Dec-15	4.73%	102.3204	3,989.95
21-Dec-15	5.08%	102.2442	4,008.63
22-Dec-15	5.61%	102.2526	3,954.54
23-Dec-15	6.08%	102.3123	3,918.75
24-Dec-15	6.45%	102.2951	3,955.73
28-Dec-15	7.65%	102.257	3,980.57
29-Dec-15	6.73%	102.2303	4,004.91
30-Dec-15	6.17%	102.3114	3,992.57
31-Dec-15	6.87%	102.2948	4,040.75
04-Jan-16	7.52%	102.2674	4,007.33
05-Jan-16	7.27%	102.2742	3,974.58
06-Jan-16	6.65%	102.2605	4,008.53
07-Jan-16	5.66%	102.1471	4,003.11
08-Jan-16	5.29%	102.2165	3,940.42
11-Jan-16	5.26%	102.3357	3,929.92
12-Jan-16	5.13%	102.3583	3,910.14
13-Jan-16	3.57%	102.3664	3,880.13
14-Jan-16	4.62%	102.3525	3,835.78
15-Jan-16	4.96%	102.3617	3,839.29
18-Jan-16	5.45%	102.3699	3,824.60
19-Jan-16	5.60%	102.4013	3,835.10
20-Jan-16	6.25%	102.3828	3,796.49
21-Jan-16	6.92%	102.3285	3,759.94
22-Jan-16	7.26%	102.3142	3,747.40
25-Jan-16	7.35%	102.3437	3,752.45
26-Jan-16	7.52%	102.3194	3,745.38
27-Jan-16	7.43%	102.277	3,759.86
28-Jan-16	6.74%	102.2834	3,763.36
29-Jan-16	6.02%	102.2708	3,773.17
01-Feb-16	5.56%	102.288	3,767.24
02-Feb-16	4.96%	102.2685	3,781.36
03-Feb-16	4.79%	102.2828	3,805.15
04-Feb-16	4.09%	102.1614	3,785.73
05-Feb-16	4.06%	102.1314	3,833.07
08-Feb-16	3.87%	101.9427	3,844.39
09-Feb-16	3.87%	101.9284	3,853.56

10-Feb-16	3.75%	101.7729	3,851.07
11-Feb-16	4.68%	101.8271	3,825.18
12-Feb-16	5.95%	101.8145	3,790.54
15-Feb-16	5.36%	101.8257	3,794.41
16-Feb-16	5.02%	101.7999	3,789.59
17-Feb-16	4.95%	101.7954	3,815.40
18-Feb-16	4.73%	101.7917	3,804.73
19-Feb-16	4.42%	101.8133	3,834.57
22-Feb-16	4.17%	101.8038	3,814.06
23-Feb-16	3.75%	101.7856	3,844.58
24-Feb-16	3.74%	101.7805	3,850.93
25-Feb-16	3.77%	101.7833	3,867.06
26-Feb-16	3.71%	101.6971	3,871.62
29-Feb-16	3.91%	101.6743	3,862.24
01-Mar-16	4.09%	101.5671	3,884.01
02-Mar-16	4.32%	101.3975	3,932.86
03-Mar-16	4.28%	101.335	3,932.48
04-Mar-16	4.65%	101.3895	3,981.47
07-Mar-16	4.95%	101.4109	3,980.09
08-Mar-16	4.97%	101.602	3,941.46
09-Mar-16	4.30%	101.581	3,951.42
10-Mar-16	4.07%	101.4475	3,949.82
11-Mar-16	3.71%	101.4445	3,958.82
14-Mar-16	3.78%	101.535	3,953.13
15-Mar-16	3.73%	101.4948	3,921.10
16-Mar-16	3.82%	101.4848	3,925.25
17-Mar-16	4.03%	101.4484	3,927.65
18-Mar-16	3.77%	101.4599	3,946.19
21-Mar-16	3.65%	101.4863	3,938.22
22-Mar-16	3.53%	101.5248	3,957.06
23-Mar-16	3.94%	101.5218	3,991.95
24-Mar-16	4.10%	101.5292	4,001.36
29-Mar-16	4.06%	101.5249	3,995.56
30-Mar-16	4.37%	101.3339	3,981.33
31-Mar-16	3.75%	101.3928	3,982.09
01-Apr-16	4.32%	101.4292	3,996.38
04-Apr-16	4.24%	101.4799	4,008.50
05-Apr-16	4.45%	101.3785	4,016.64
06-Apr-16	3.81%	101.3157	4,030.00

07-Apr-16	3.85%	101.3413	4,054.29
08-Apr-16	4.14%	101.1306	3,999.33
11-Apr-16	4.40%	101.0896	3,958.57
12-Apr-16	4.25%	101.1275	3,925.32
13-Apr-16	4.04%	101.137	3,909.47
14-Apr-16	3.66%	101.1662	3,901.45
15-Apr-16	3.61%	101.2194	3,920.00
18-Apr-16	3.32%	101.2046	3,929.51
19-Apr-16	3.43%	101.156	3,934.58
20-Apr-16	3.34%	101.1342	3,939.50
21-Apr-16	3.79%	101.14	3,968.75
22-Apr-16	3.73%	101.2115	4,010.82
25-Apr-16	3.78%	101.2172	4,019.85
26-Apr-16	3.78%	101.2029	4,012.72
27-Apr-16	3.68%	101.1817	3,985.04
28-Apr-16	3.92%	101.1413	3,990.20
29-Apr-16	4.05%	101.1108	4,009.26
03-May-16	4.15%	100.7896	4,022.61
04-May-16	4.25%	100.6942	3,989.71
05-May-16	4.07%	100.5744	3,977.85
06-May-16	3.91%	100.473	3,964.65
09-May-16	3.79%	100.5211	3,962.95
10-May-16	3.69%	100.6873	3,916.74
11-May-16	3.46%	100.6339	3,934.43
12-May-16	3.26%	100.6	3,923.42
13-May-16	3.25%	100.6711	3,927.69
16-May-16	4.05%	100.7127	3,907.09
17-May-16	3.73%	100.8299	3,866.97
18-May-16	3.53%	100.9712	3,878.42
19-May-16	4.76%	100.6913	3,880.81
20-May-16	5.44%	100.7947	3,890.85
23-May-16	4.00%	100.9272	3,875.69
24-May-16	3.88%	100.8714	3,895.86
25-May-16	3.56%	100.6722	3,912.33
26-May-16	3.42%	100.6619	3,871.74
27-May-16	3.07%	100.6606	3,867.50
30-May-16	3.16%	100.8306	3,860.94
31-May-16	3.06%	100.8444	3,827.80
02-Jun-16	2.45%	100.9022	3,799.57

03-Jun-16	2.31%	101.0042	3,801.31
06-Jun-16	2.30%	101.1083	3,801.03
07-Jun-16	2.28%	101.1278	3,797.74
08-Jun-16	2.21%	101.0889	3,798.26
09-Jun-16	2.23%	101.1203	3,818.19
10-Jun-16	2.75%	101.1042	3,833.42
13-Jun-16	2.66%	101.1275	3,817.66
14-Jun-16	2.53%	101.1442	3,784.56
15-Jun-16	2.77%	101.2514	3,799.16
16-Jun-16	2.99%	101.2603	3,789.94
17-Jun-16	3.07%	101.2336	3,784.32
20-Jun-16	3.50%	101.2456	3,767.20
21-Jun-16	4.53%	101.1958	3,775.09
22-Jun-16	5.56%	101.2108	3,750.98
23-Jun-16	7.08%	101.2739	3,744.58
24-Jun-16	7.95%	101.24	3,706.44
27-Jun-16	8.25%	101.2417	3,662.15
28-Jun-16	8.64%	101.21	3,636.64
29-Jun-16	8.86%	101.1022	3,629.05
30-Jun-16	9.14%	101.0861	3,640.61
01-Jul-16	8.73%	101.0867	3,652.79
04-Jul-16	8.77%	101.1042	3,633.98
05-Jul-16	8.69%	101.1194	3,668.45
08-Jul-16	8.81%	101.2372	3,664.78
11-Jul-16	6.66%	101.2683	3,661.58
12-Jul-16	5.36%	101.2872	3,619.67
13-Jul-16	4.83%	101.34	3,616.10
14-Jul-16	4.46%	101.3372	3,609.81
15-Jul-16	4.33%	101.3847	3,596.98
18-Jul-16	4.67%	101.4781	3,555.18
19-Jul-16	4.05%	101.5678	3,522.98
20-Jul-16	3.53%	101.5778	3,520.77
21-Jul-16	3.71%	101.5544	3,515.10
22-Jul-16	4.07%	101.545	3,524.59
25-Jul-16	4.80%	101.3894	3,508.49
26-Jul-16	5.67%	101.3167	3,494.03
27-Jul-16	5.70%	101.39	3,475.38
28-Jul-16	5.79%	101.3889	3,468.29
29-Jul-16	5.58%	101.3972	3,488.67

01-Aug-16	5.98%	101.4111	3,460.60
02-Aug-16	6.30%	101.4117	3,478.97
03-Aug-16	6.27%	101.4067	3,479.73
04-Aug-16	6.20%	101.3939	3,464.48
05-Aug-16	5.78%	101.3794	3,482.18
08-Aug-16	5.33%	101.4489	3,463.59
09-Aug-16	5.05%	101.4744	3,459.10
10-Aug-16	4.55%	101.4939	3,463.22
11-Aug-16	4.26%	101.4744	3,450.10
12-Aug-16	4.37%	101.4639	3,449.44
15-Aug-16	4.26%	101.4617	3,445.60
16-Aug-16	4.24%	101.4811	3,485.36
17-Aug-16	4.13%	101.4139	3,508.51
18-Aug-16	4.02%	101.3722	3,484.08
19-Aug-16	4.07%	101.355	3,462.56
22-Aug-16	4.12%	101.3756	3,456.21
23-Aug-16	3.91%	101.3506	3,442.87
24-Aug-16	4.20%	101.3744	3,462.68
25-Aug-16	4.55%	101.3661	3,309.76
26-Aug-16	5.62%	101.3817	3,216.62
29-Aug-16	5.70%	101.3889	3,123.54
30-Aug-16	5.57%	101.3589	3,116.82
31-Aug-16	5.36%	101.325	3,178.83
01-Sep-16	4.80%	101.2983	3,179.23
02-Sep-16	4.38%	101.2356	3,187.87
05-Sep-16	4.07%	101.2739	3,171.28
06-Sep-16	3.71%	101.3167	3,169.31
07-Sep-16	3.16%	101.3194	3,168.62
08-Sep-16	3.06%	101.3028	3,180.29
09-Sep-16	2.94%	101.2044	3,208.25
13-Sep-16	4.72%	101.1844	3,223.80
14-Sep-16	2.91%	101.2728	3,221.87
15-Sep-16	3.10%	101.2872	3,239.80
16-Sep-16	3.01%	101.2906	3,206.12
19-Sep-16	3.25%	101.2856	3,218.88
20-Sep-16	3.18%	101.2628	3,192.31
21-Sep-16	3.35%	101.2706	3,170.22
22-Sep-16	5.73%	101.21	3,169.64
23-Sep-16	6.25%	101.1944	3,174.15

26-Sep-16	6.20%	101.3011	3,187.33
27-Sep-16	6.38%	101.2844	3,206.71
28-Sep-16	6.45%	101.3133	3,177.70
29-Sep-16	6.64%	101.2617	3,217.75
30-Sep-16	6.32%	101.2206	3,243.21
03-Oct-16	5.28%	101.2139	3,295.10
04-Oct-16	5.24%	101.26	3,282.64
05-Oct-16	4.52%	101.27	3,284.84
06-Oct-16	4.02%	101.25	3,264.03
07-Oct-16	3.53%	101.2653	3,261.34
10-Oct-16	3.40%	101.2847	3,258.93
11-Oct-16	3.13%	101.2953	3,241.92
12-Oct-16	3.14%	101.2892	3,247.11
13-Oct-16	3.57%	101.3475	3,242.32
14-Oct-16	3.38%	101.3583	3,267.92
17-Oct-16	3.89%	101.3528	3,243.68
18-Oct-16	4.10%	101.3078	3,249.67
19-Oct-16	4.21%	101.315	3,239.00
21-Oct-16	4.34%	101.37	3,203.38
24-Oct-16	4.39%	101.4039	3,214.50
25-Oct-16	4.76%	101.3883	3,203.99
26-Oct-16	4.05%	101.3828	3,204.69
27-Oct-16	4.03%	101.4342	3,201.55
28-Oct-16	4.80%	101.4586	3,204.67
31-Oct-16	4.20%	101.4761	3,229.22
01-Nov-16	3.78%	101.5239	3,227.24
02-Nov-16	4.15%	101.5661	3,237.08
03-Nov-16	3.79%	101.5911	3,262.31
04-Nov-16	3.44%	101.6578	3,251.46
07-Nov-16	3.49%	101.6222	3,248.54
08-Nov-16	4.06%	101.7208	3,242.46
09-Nov-16	4.53%	101.6983	3,238.47
10-Nov-16	5.47%	101.7028	3,246.72
11-Nov-16	5.59%	101.7417	3,264.26
14-Nov-16	5.79%	101.7667	3,268.41
15-Nov-16	4.50%	101.7717	3,261.71
16-Nov-16	4.85%	101.8533	3,272.47
17-Nov-16	4.80%	101.8278	3,283.77
18-Nov-16	5.33%	101.8444	3,291.25

21-Nov-16	4.94%	101.8556	3,283.94
22-Nov-16	5.33%	101.8528	3,267.53
23-Nov-16	6.14%	101.865	3,263.44
24-Nov-16	5.92%	101.8733	3,273.61
25-Nov-16	5.80%	101.8939	3,265.89
28-Nov-16	5.80%	101.8756	3,249.63
29-Nov-16	6.36%	101.8769	3,256.57
30-Nov-16	6.56%	101.8503	3,247.19
01-Dec-16	6.76%	101.8586	3,250.62
02-Dec-16	6.14%	101.87	3,248.02
05-Dec-16	5.93%	101.8739	3,230.00
06-Dec-16	6.06%	101.9144	3,195.42
07-Dec-16	5.77%	101.9731	3,181.48
08-Dec-16	5.50%	101.9739	3,180.56
09-Dec-16	5.14%	102.0817	3,158.89
13-Dec-16	5.39%	102.0978	3,155.57
14-Dec-16	4.65%	102.1006	3,148.48
15-Dec-16	4.34%	102.1861	3,129.78
16-Dec-16	4.18%	102.1978	3,104.95
19-Dec-16	4.31%	102.2417	3,084.48
21-Dec-16	4.97%	102.3472	3,074.43
22-Dec-16	7.12%	102.3578	3,106.91
23-Dec-16	8.22%	102.3589	3,113.61
28-Dec-16	8.67%	102.4433	3,130.93
29-Dec-16	8.73%	102.4858	3,156.59
30-Dec-16	8.20%	102.5628	3,186.21
03-Jan-17	7.13%	102.8128	3,206.24
04-Jan-17	6.68%	103.4667	3,194.13
05-Jan-17	6.88%	103.6094	3,170.71
06-Jan-17	7.76%	103.6583	3,139.21
09-Jan-17	8.55%	103.8056	3,117.40
11-Jan-17	6.90%	103.8283	3,047.68
12-Jan-17	7.09%	103.8778	3,014.36
13-Jan-17	8.13%	103.915	2,971.10
17-Jan-17	9.00%	103.9611	2,929.68
18-Jan-17	9.23%	103.9494	2,932.79
19-Jan-17	9.22%	103.8333	2,924.90
20-Jan-17	8.75%	103.8028	2,913.84
23-Jan-17	8.35%	103.9511	2,905.31

24-Jan-17	7.84%	103.9928	2,873.02
25-Jan-17	7.53%	104.0028	2,855.81
26-Jan-17	7.19%	103.9639	2,824.32
27-Jan-17	7.77%	103.9667	2,812.04
30-Jan-17	7.23%	103.9556	2,789.64
31-Jan-17	7.38%	103.8589	2,794.27
01-Feb-17	6.60%	103.8233	2,801.85
02-Feb-17	6.66%	103.8144	2,833.09
03-Feb-17	7.17%	103.7583	2,862.39
06-Feb-17	6.80%	103.6917	2,867.39
07-Feb-17	6.61%	103.6989	2,882.74
08-Feb-17	6.92%	103.6994	2,908.87
09-Feb-17	7.23%	103.5333	2,933.09
10-Feb-17	6.99%	103.6319	2,951.62
13-Feb-17	6.61%	103.67	2,933.69
14-Feb-17	6.52%	103.6608	2,941.46
15-Feb-17	6.84%	103.65	2,952.33
16-Feb-17	7.42%	103.6514	2,971.50
17-Feb-17	6.99%	103.6222	2,948.75
20-Feb-17	6.24%	103.5833	2,945.33
21-Feb-17	6.00%	103.5767	2,964.48
22-Feb-17	6.02%	103.5944	2,983.20
23-Feb-17	5.80%	103.5467	3,009.19
24-Feb-17	5.45%	103.4678	3,023.07
27-Feb-17	4.93%	103.3417	3,033.33
28-Feb-17	4.60%	102.975	2,994.53
01-Mar-17	5.26%	102.8333	2,966.16
02-Mar-17	4.73%	102.8761	2,969.12
03-Mar-17	4.63%	102.6528	2,961.78
06-Mar-17	5.06%	102.6428	2,963.01
07-Mar-17	5.08%	102.6211	2,963.56
08-Mar-17	4.29%	102.5628	2,947.93
09-Mar-17	4.29%	102.5639	2,951.15
10-Mar-17	4.02%	102.615	2,963.08
13-Mar-17	3.61%	102.6711	2,970.53
14-Mar-17	3.35%	102.8122	2,974.01
15-Mar-17	4.40%	102.8944	2,970.98
16-Mar-17	5.57%	103.0306	2,965.31
17-Mar-17	5.16%	103.1111	2,983.68

20-Mar-17	4.57%	103.1117	2,990.70
21-Mar-17	4.14%	103.1056	3,007.90
22-Mar-17	4.57%	102.8972	3,037.16
23-Mar-17	4.74%	102.9472	3,082.85
24-Mar-17	4.67%	102.9083	3,077.81
27-Mar-17	4.98%	102.7061	3,098.16
28-Mar-17	4.42%	102.9528	3,109.01
29-Mar-17	3.80%	103.0167	3,128.44
30-Mar-17	4.34%	103	3,122.51
31-Mar-17	3.95%	103.0989	3,112.52
03-Apr-17	4.02%	103.1944	3,106.21
04-Apr-17	4.06%	103.2367	3,096.83
05-Apr-17	4.19%	103.2783	3,101.12
06-Apr-17	3.88%	103.4372	3,101.19
07-Apr-17	4.01%	103.3889	3,104.89
10-Apr-17	3.93%	103.4444	3,092.61
11-Apr-17	4.12%	103.415	3,104.43
12-Apr-17	4.03%	103.4089	3,109.78
13-Apr-17	3.77%	103.3617	3,102.71
18-Apr-17	4.46%	103.4283	3,101.89
19-Apr-17	4.72%	103.4139	3,129.78
20-Apr-17	4.93%	103.3806	3,149.33
21-Apr-17	5.66%	103.3247	3,128.69
24-Apr-17	6.83%	103.2683	3,143.15
25-Apr-17	6.94%	103.2711	3,137.41
26-Apr-17	7.48%	103.2833	3,162.37
27-Apr-17	6.58%	103.2222	3,164.36
28-Apr-17	6.13%	103.1478	3,157.38
02-May-17	6.02%	103.0972	3,139.03
05-May-17	5.40%	103.1386	3,147.04
08-May-17	5.57%	103.175	3,154.38
09-May-17	5.61%	103.2006	3,141.69
10-May-17	5.69%	103.3161	3,175.41
11-May-17	5.72%	103.3778	3,195.70
12-May-17	5.43%	103.2222	3,244.72
15-May-17	5.56%	103.2333	3,229.30
16-May-17	5.37%	103.3494	3,221.19
17-May-17	5.67%	103.3378	3,226.43
18-May-17	6.16%	103.3406	3,244.69

19-May-17	5.97%	103.3078	3,285.49
22-May-17	4.83%	103.2883	3,296.16
23-May-17	3.99%	103.3	3,317.16
24-May-17	4.19%	103.2986	3,376.58
25-May-17	3.80%	103.3094	3,410.89
26-May-17	3.68%	103.3439	3,442.38
29-May-17	3.49%	103.3561	3,438.20
30-May-17	4.04%	103.3811	3,438.17
31-May-17	3.79%	103.3544	3,441.05
02-Jun-17	3.87%	103.3317	3,473.19
05-Jun-17	4.13%	103.3622	3,480.78
06-Jun-17	4.05%	103.3486	3,457.29
07-Jun-17	3.51%	103.3194	3,472.96
08-Jun-17	3.24%	103.3208	3,474.78
09-Jun-17	2.90%	103.3206	3,468.68
12-Jun-17	2.96%	103.34	3,469.08
13-Jun-17	2.65%	103.3694	3,487.45
14-Jun-17	2.45%	103.4083	3,506.90
15-Jun-17	2.60%	103.5547	3,522.79
16-Jun-17	3.18%	103.5756	3,541.35
19-Jun-17	3.44%	103.6156	3,582.76
20-Jun-17	3.82%	103.62	3,600.01
21-Jun-17	4.69%	103.6256	3,608.15
22-Jun-17	5.75%	103.6283	3,612.55
23-Jun-17	5.47%	103.6661	3,623.83
27-Jun-17	5.21%	103.6717	3,616.31
28-Jun-17	4.73%	103.6783	3,609.21
29-Jun-17	4.47%	103.7117	3,596.56
30-Jun-17	4.80%	103.7167	3,607.18
03-Jul-17	5.13%	103.8078	3,583.41
04-Jul-17	5.40%	103.7678	3,560.51
05-Jul-17	5.18%	103.7839	3,568.80
06-Jul-17	5.57%	103.8372	3,580.52
07-Jul-17	5.97%	103.835	3,604.06
10-Jul-17	6.01%	103.9217	3,594.41
11-Jul-17	6.16%	104.0167	3,600.60
12-Jul-17	6.41%	103.9333	3,632.82
13-Jul-17	6.87%	103.8889	3,659.28
14-Jul-17	7.23%	103.9089	3,642.90

17-Jul-17	7.27%	103.9072	3,658.65
18-Jul-17	7.60%	103.9256	3,679.43
19-Jul-17	7.42%	103.9469	3,674.96
20-Jul-17	7.38%	103.8417	3,683.24
21-Jul-17	7.08%	103.8661	3,700.44
24-Jul-17	7.32%	103.8828	3,712.13
25-Jul-17	7.18%	103.9072	3,729.81
26-Jul-17	7.22%	103.9033	3,768.38
27-Jul-17	7.28%	103.9094	3,764.74
28-Jul-17	7.29%	103.9111	3,798.63
31-Jul-17	8.54%	103.9194	3,797.53
01-Aug-17	8.67%	103.8739	3,742.50
02-Aug-17	9.22%	103.8572	3,741.46
03-Aug-17	9.93%	103.8672	3,773.52
04-Aug-17	10.51%	103.8881	3,775.89
07-Aug-17	10.58%	103.9039	3,818.27
09-Aug-17	10.76%	103.9028	3,850.13
10-Aug-17	10.81%	103.8972	3,903.29
11-Aug-17	10.40%	103.87	3,976.98
14-Aug-17	8.94%	103.7611	4,076.94
15-Aug-17	8.86%	103.7456	4,114.01
16-Aug-17	7.73%	103.6978	4,069.34
17-Aug-17	6.59%	103.3878	4,045.89
18-Aug-17	6.64%	103.225	3,992.76
21-Aug-17	5.82%	103.1028	4,007.55
22-Aug-17	5.67%	103.1778	4,013.71
23-Aug-17	5.62%	103.2378	4,028.56
24-Aug-17	5.83%	103.2528	4,052.54
25-Aug-17	5.55%	103.1583	4,069.20
28-Aug-17	5.50%	103.1728	4,089.00
29-Aug-17	5.43%	103.1828	4,042.08
30-Aug-17	5.10%	103.1433	4,038.86
31-Aug-17	4.83%	102.8111	4,027.12
01-Sep-17	4.88%	103.1639	3,887.28
04-Sep-17	5.25%	103.2328	3,806.80
05-Sep-17	5.44%	103.2528	3,770.03
06-Sep-17	5.96%	103.2417	3,786.92
07-Sep-17	5.94%	103.1617	3,805.22
08-Sep-17	4.47%	102.8944	3,839.99

11-Sep-17	4.82%	102.7017	3,815.71
12-Sep-17	4.79%	102.8778	3,849.45
13-Sep-17	4.19%	102.8706	3,805.24
14-Sep-17	3.56%	102.8486	3,813.78
15-Sep-17	3.71%	103.0333	3,783.98
18-Sep-17	4.34%	103.1444	3,780.61
19-Sep-17	4.47%	103.275	3,784.91
20-Sep-17	4.99%	103.315	3,783.69
21-Sep-17	6.09%	103.2872	3,777.09
22-Sep-17	7.10%	103.2611	3,764.44
25-Sep-17	7.48%	103.2694	3,750.35
26-Sep-17	7.41%	103.34	3,733.04
27-Sep-17	7.71%	103.3439	3,729.84
28-Sep-17	7.91%	103.2472	3,716.72
29-Sep-17	8.16%	103.2222	3,751.46
02-Oct-17	8.16%	103.2194	3,732.16
03-Oct-17	8.20%	103.3072	3,732.19
04-Oct-17	8.23%	103.3139	3,691.87
05-Oct-17	8.23%	103.2144	3,702.51
06-Oct-17	8.13%	103.225	3,693.22
09-Oct-17	8.00%	103.2667	3,712.37
10-Oct-17	7.89%	103.225	3,696.77
11-Oct-17	7.80%	103.3028	3,644.80
12-Oct-17	7.25%	103.2783	3,640.14
13-Oct-17	6.25%	103.2767	3,626.62
16-Oct-17	6.55%	103.2961	3,623.76
17-Oct-17	6.89%	103.3611	3,597.85
18-Oct-17	7.05%	103.4167	3,591.62
19-Oct-17	7.45%	103.5528	3,543.99
23-Oct-17	7.71%	103.6961	3,541.56
24-Oct-17	8.52%	103.8139	3,602.56
27-Oct-17	8.77%	103.6917	3,648.31
30-Oct-17	8.73%	103.6944	3,674.84
31-Oct-17	8.81%	103.75	3,729.62
01-Nov-17	8.69%	103.7944	3,759.67
02-Nov-17	8.58%	103.7389	3,776.83
03-Nov-17	8.51%	103.6639	3,800.43
06-Nov-17	8.40%	103.6194	3,797.96
07-Nov-17	8.57%	103.6056	3,788.84

08-Nov-17	8.85%	103.6	3,768.38
09-Nov-17	8.94%	103.5933	3,762.11
10-Nov-17	9.27%	103.5811	3,752.15
13-Nov-17	9.20%	103.5861	3,746.69
14-Nov-17	9.72%	103.6778	3,719.17
15-Nov-17	9.67%	103.7361	3,728.16
16-Nov-17	9.43%	103.6939	3,743.10
17-Nov-17	9.28%	103.7889	3,730.15
20-Nov-17	8.89%	103.6	3,779.16
21-Nov-17	8.79%	103.365	3,817.77
22-Nov-17	8.83%	103.3861	3,839.46
23-Nov-17	8.80%	103.2639	3,826.76
24-Nov-17	8.82%	103.3444	3,833.00
27-Nov-17	8.82%	103.3533	3,820.74
29-Nov-17	8.40%	103.2533	3,820.74
30-Nov-17	8.34%	103.1028	3,804.69
01-Dec-17	8.05%	103.0389	3,815.61
04-Dec-17	7.96%	103.0611	3,803.78
05-Dec-17	7.91%	102.9833	3,769.34
06-Dec-17	7.88%	102.8778	3,751.10
07-Dec-17	7.75%	102.9583	3,752.17
08-Dec-17	6.95%	103.0778	3,750.53
11-Dec-17	6.58%	103.1083	3,731.79
13-Dec-17	6.60%	103.1667	3,710.83
14-Dec-17	6.24%	103.22	3,706.37
15-Dec-17	6.85%	103.1983	3,707.76
18-Dec-17	6.98%	103.1572	3,690.50
19-Dec-17	6.56%	103.1306	3,696.13
20-Dec-17	6.45%	103.0889	3,696.15
21-Dec-17	7.06%	103.0806	3,695.41
22-Dec-17	7.77%	103.0806	3,719.38
27-Dec-17	8.08%	103.1528	3,714.15
28-Dec-17	8.02%	103.2317	3,711.64
29-Dec-17	6.91%	103.2944	3,711.94
02-Jan-18	6.99%	103.3522	3,704.51
03-Jan-18	6.62%	103.4389	3,676.48
04-Jan-18	6.63%	103.2761	3,701.57
05-Jan-18	5.95%	103.2606	3,713.41
08-Jan-18	5.62%	103.215	3,707.66

09-Jan-18	4.93%	103.1778	3,728.51
10-Jan-18	4.89%	103.1433	3,721.07
11-Jan-18	5.22%	103.0933	3,719.77
12-Jan-18	5.16%	103.0667	3,708.75
15-Jan-18	5.57%	103.0583	3,703.76
16-Jan-18	6.09%	103.0361	3,711.23
17-Jan-18	6.63%	102.8883	3,698.18
18-Jan-18	7.03%	102.9083	3,705.97
19-Jan-18	7.36%	102.8681	3,737.17
22-Jan-18	6.75%	102.785	3,741.80
23-Jan-18	6.24%	102.5556	3,745.01
24-Jan-18	6.29%	102.3394	3,713.19
25-Jan-18	6.34%	102.3667	3,710.16
26-Jan-18	6.38%	102.3533	3,728.15
29-Jan-18	6.30%	102.3611	3,739.69
30-Jan-18	6.20%	102.3572	3,727.73
31-Jan-18	6.09%	101.9917	3,737.27
01-Feb-18	5.67%	101.9222	3,752.48
02-Feb-18	5.50%	101.7361	3,758.18
05-Feb-18	5.55%	101.3639	3,755.77
06-Feb-18	5.52%	101.3061	3,759.95
07-Feb-18	5.33%	101.0056	3,729.34
08-Feb-18	5.35%	100.7956	3,746.18
09-Feb-18	4.93%	100.8483	3,741.02
12-Feb-18	4.62%	101.0361	3,729.32
13-Feb-18	4.49%	101.2333	3,727.65
14-Feb-18	4.70%	101.2167	3,707.29
15-Feb-18	4.65%	101.2517	3,703.28
16-Feb-18	5.09%	101.3083	3,713.25
19-Feb-18	5.55%	101.3	3,719.47
20-Feb-18	5.20%	101.2972	3,727.33
21-Feb-18	5.20%	101.4683	3,730.24
22-Feb-18	5.38%	101.7322	3,719.91
23-Feb-18	5.09%	101.8322	3,710.97
26-Feb-18	4.90%	101.7417	3,704.02
27-Feb-18	4.69%	101.6167	3,735.00
28-Feb-18	4.72%	101.3833	3,750.75
01-Mar-18	4.82%	101.2858	3,774.04
02-Mar-18	4.70%	101.3222	3,755.95

05-Mar-18	4.57%	101.3267	3,726.74
06-Mar-18	4.54%	101.3078	3,735.95
07-Mar-18	4.97%	101.2933	3,740.97
08-Mar-18	4.47%	101.2	3,719.86
09-Mar-18	4.48%	101.1472	3,720.21
12-Mar-18	4.49%	101.2889	3,725.44
13-Mar-18	4.11%	101.2744	3,745.16
14-Mar-18	4.04%	101.26	3,760.87
15-Mar-18	4.13%	101.2867	3,767.23
16-Mar-18	4.63%	101.2783	3,801.79
19-Mar-18	4.68%	101.2694	3,840.08
20-Mar-18	4.64%	101.2667	3,850.56
21-Mar-18	4.76%	101.0625	3,862.27
22-Mar-18	5.31%	100.9669	3,851.37
23-Mar-18	6.11%	100.9625	3,847.18
26-Mar-18	5.82%	100.9083	3,831.16
27-Mar-18	5.68%	100.8572	3,822.12
28-Mar-18	5.89%	100.8472	3,816.56
29-Mar-18	6.07%	100.8944	3,845.34
03-Apr-18	6.24%	101.0656	3,832.12
04-Apr-18	6.45%	101.0606	3,820.84
05-Apr-18	6.34%	101.0278	3,836.49
06-Apr-18	6.17%	101.0017	3,820.81
09-Apr-18	6.15%	100.9906	3,809.86
10-Apr-18	5.97%	101.0033	3,817.04
11-Apr-18	5.66%	100.9756	3,830.94
12-Apr-18	5.05%	100.8667	3,820.26
13-Apr-18	4.37%	100.7694	3,805.23
16-Apr-18	4.58%	100.6267	3,801.65
17-Apr-18	4.65%	100.4028	3,770.92
18-Apr-18	4.46%	100.3989	3,745.01
19-Apr-18	4.60%	100.2556	3,727.69
20-Apr-18	4.84%	100.0556	3,710.32
23-Apr-18	4.79%	99.9778	3,716.36
24-Apr-18	4.79%	100.0478	3,697.28
25-Apr-18	4.71%	100.1086	3,694.74
26-Apr-18	4.73%	100.3294	3,705.36
27-Apr-18	4.73%	100.3611	3,723.30
30-Apr-18	4.97%	100.335	3,735.06

02-May-18	4.92%	100.1856	3,689.59
03-May-18	4.91%	100.2222	3,662.98
04-May-18	5.09%	100.2644	3,699.78
07-May-18	5.22%	100.2917	3,671.28
08-May-18	4.90%	100.4611	3,658.91
09-May-18	4.68%	100.595	3,665.63
10-May-18	4.22%	100.4406	3,635.76
11-May-18	3.86%	100.4317	3,602.33
14-May-18	3.69%	100.2694	3,582.36
15-May-18	4.85%	100.4506	3,560.73
16-May-18	5.29%	100.4278	3,533.07
17-May-18	5.64%	100.4244	3,519.78
18-May-18	5.83%	100.5461	3,494.17
21-May-18	5.52%	100.6006	3,477.08
22-May-18	5.80%	100.7989	3,445.01
23-May-18	5.70%	101.0028	3,433.56
24-May-18	5.83%	101.0711	3,406.89
25-May-18	5.70%	101.18	3,364.58
28-May-18	5.43%	101.5378	3,344.88
29-May-18	5.17%	101.5658	3,358.68
30-May-18	4.74%	101.5658	3,353.08
31-May-18	4.33%	101.385	3,333.36
04-Jun-18	4.11%	100.9111	3,273.22
05-Jun-18	3.95%	101	3,308.88
06-Jun-18	4.01%	100.825	3,334.20
07-Jun-18	3.78%	100.8444	3,349.77
08-Jun-18	3.63%	101.0028	3,352.85
11-Jun-18	3.64%	101.0461	3,335.85
12-Jun-18	3.37%	101.1261	3,357.28
13-Jun-18	3.53%	101.1406	3,343.76
14-Jun-18	3.75%	101.1056	3,349.66
18-Jun-18	4.05%	101.1333	3,373.55
19-Jun-18	3.92%	101.1217	3,348.05
20-Jun-18	4.48%	100.96	3,320.35
21-Jun-18	4.95%	100.83	3,309.43
22-Jun-18	6.18%	100.7628	3,299.90
25-Jun-18	6.40%	100.8283	3,303.54
26-Jun-18	6.66%	100.9439	3,287.76
27-Jun-18	6.68%	101.045	3,298.14

28-Jun-18	6.64%	101.05	3,289.31
29-Jun-18	6.53%	100.8861	3,285.73
02-Jul-18	6.59%	100.8411	3,273.98
03-Jul-18	6.32%	100.8411	3,280.46
04-Jul-18	5.84%	100.725	3,276.27
05-Jul-18	5.45%	100.7583	3,301.70
06-Jul-18	4.86%	100.8083	3,314.43
09-Jul-18	4.70%	100.8883	3,304.50
10-Jul-18	4.51%	100.9056	3,302.30
11-Jul-18	3.77%	100.79	3,308.67
12-Jul-18	3.30%	100.7944	3,302.17
13-Jul-18	2.78%	100.66	3,334.21
16-Jul-18	3.11%	100.3944	3,326.78
17-Jul-18	3.31%	100.6228	3,290.40
18-Jul-18	3.42%	100.6339	3,285.27
19-Jul-18	3.40%	100.7333	3,303.22
20-Jul-18	3.42%	100.7417	3,314.60
23-Jul-18	3.98%	100.55	3,318.72
24-Jul-18	4.55%	100.5139	3,312.83
25-Jul-18	5.06%	100.4889	3,313.81
26-Jul-18	5.54%	100.4639	3,312.10
27-Jul-18	6.45%	100.3378	3,320.44
30-Jul-18	7.52%	100.4083	3,308.75
31-Jul-18	8.11%	100.475	3,296.68
01-Aug-18	8.53%	100.4556	3,304.82
02-Aug-18	8.35%	100.3472	3,298.63
03-Aug-18	8.45%	100.3833	3,310.15
06-Aug-18	8.73%	100.4694	3,293.08
07-Aug-18	8.14%	100.4028	3,290.04
08-Aug-18	8.11%	100.4222	3,321.06
09-Aug-18	8.21%	100.3639	3,322.44
10-Aug-18	7.77%	100.4872	3,314.92
13-Aug-18	6.04%	100.7333	3,317.35
14-Aug-18	6.60%	100.7278	3,334.57
15-Aug-18	6.20%	100.7722	3,323.88
16-Aug-18	6.09%	100.7861	3,334.67
17-Aug-18	6.15%	100.8583	3,336.06
20-Aug-18	6.10%	100.8922	3,336.69
22-Aug-18	5.96%	100.6356	3,344.94

23-Aug-18	5.88%	100.6778	3,305.29
24-Aug-18	5.85%	100.7856	3,296.26
27-Aug-18	5.76%	100.79	3,259.37
28-Aug-18	5.88%	100.6778	3,253.09
29-Aug-18	5.80%	100.6922	3,248.78
30-Aug-18	5.79%	100.6456	3,245.16
31-Aug-18	5.43%	100.6483	3,203.40
03-Sep-18	5.68%	100.6572	3,178.24
04-Sep-18	5.43%	100.7178	3,178.93
05-Sep-18	5.27%	100.7133	3,152.17
06-Sep-18	4.97%	100.7156	3,128.76
07-Sep-18	4.34%	100.7206	3,099.84
10-Sep-18	4.15%	100.7083	3,068.58
11-Sep-18	3.81%	100.7472	3,045.35
12-Sep-18	3.58%	100.9194	3,019.94
13-Sep-18	3.47%	101.1778	2,990.02
14-Sep-18	3.63%	100.9583	2,993.38
17-Sep-18	3.63%	100.8417	2,969.69
18-Sep-18	3.55%	100.7989	2,962.01
19-Sep-18	3.82%	100.7917	2,929.51
20-Sep-18	3.55%	100.7989	2,852.46
21-Sep-18	3.84%	100.8583	2,832.81
24-Sep-18	4.23%	100.9794	2,873.04
25-Sep-18	4.89%	101.055	2,873.03
26-Sep-18	5.43%	100.9139	2,889.24
27-Sep-18	5.74%	100.9556	2,891.40
28-Sep-18	5.99%	100.9028	2,875.51
01-Oct-18	5.41%	100.9194	2,883.98
02-Oct-18	4.48%	100.9483	2,854.32
03-Oct-18	4.22%	100.9678	2,861.39
04-Oct-18	3.85%	100.95	2,876.85
05-Oct-18	3.68%	100.85	2,864.99
08-Oct-18	3.69%	100.9	2,866.06
09-Oct-18	3.46%	100.915	2,842.26
11-Oct-18	3.39%	100.9183	2,825.11
12-Oct-18	3.36%	100.8972	2,807.03
15-Oct-18	3.50%	100.925	2,782.97
16-Oct-18	3.73%	100.9706	2,749.34
17-Oct-18	3.77%	100.9744	2,754.91

18-Oct-18	3.82%	101.0261	2,776.59
19-Oct-18	3.84%	101.0444	2,807.12
22-Oct-18	4.09%	101.1044	2,803.01
23-Oct-18	3.82%	101.1328	2,766.25
24-Oct-18	3.57%	101.2106	2,801.14
25-Oct-18	3.33%	101.2333	2,825.41
26-Oct-18	3.05%	101.3233	2,820.55
29-Oct-18	3.55%	101.7028	2,811.87
30-Oct-18	2.33%	101.8472	2,801.22
31-Oct-18	2.05%	102.0544	2,810.32
01-Nov-18	2.53%	101.7361	2,820.28
02-Nov-18	2.88%	101.4556	2,831.10
05-Nov-18	3.09%	101.5089	2,839.35
06-Nov-18	2.89%	101.8222	2,842.00
07-Nov-18	3.04%	101.7806	2,837.42
08-Nov-18	3.23%	101.8556	2,819.78
09-Nov-18	2.99%	102.0961	

			2,833.29
12-Nov-18	2.84%	102.4417	2,839.83
13-Nov-18	2.89%	102.6639	2,829.65
14-Nov-18	3.03%	102.9056	2,830.69
15-Nov-18	3.63%	103.2072	2,820.07
16-Nov-18	3.99%	103.1028	2,806.58
19-Nov-18	4.22%	102.8056	2,801.72
20-Nov-18	4.39%	102.8583	2,796.02
21-Nov-18	4.54%	102.3583	2,769.16
22-Nov-18	5.13%	102.4489	2,777.96
23-Nov-18	5.47%	102.4683	2,760.84
26-Nov-18	5.65%	102.4533	2,771.23
27-Nov-18	5.72%	102.6794	2,776.86
28-Nov-18	5.79%	102.5983	2,780.56
29-Nov-18	6.23%	102.5444	2,790.30
30-Nov-18	6.77%	102.5111	2,797.44
03-Dec-18	7.02%	102.6794	2,795.91

04-Dec-18	7.17%	102.5997	2,801.40
05-Dec-18	7.40%	102.6389	2,791.52
06-Dec-18	7.65%	102.6	2,790.91
07-Dec-18	8.24%	102.45	2,819.00
10-Dec-18	8.85%	102.4722	2,772.19
11-Dec-18	9.77%	102.655	2,764.28
13-Dec-18	10.96%	102.5694	2,762.34
14-Dec-18	11.34%	102.5339	2,759.18
17-Dec-18	10.17%	102.4789	2,754.30
18-Dec-18	7.87%	102.3833	2,779.25
19-Dec-18	7.21%	101.9361	2,773.24
20-Dec-18	6.99%	101.4156	2,780.16
21-Dec-18	6.63%	101.8461	2,755.00
24-Dec-18	6.60%	101.8239	2,796.72
27-Dec-18	7.05%	101.8128	2,793.28
28-Dec-18	6.46%	101.8461	2,800.95