

**THE IMPACT OF MACROECONOMIC VARIABLES ON  
STOCK PRICES IN NIGERIA**

**BY**

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*CERTIFICATION*

This is to certify that the Thesis  
“The Impact of Macroeconomic Variables on Stock Prices in Nigeria”  
Submitted to the  
School of Postgraduate Studies  
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For the award of the degree of

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is a record of original research carried out

By:

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In the Department of Finance

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## **DEDICATION**

This thesis is dedicated to God almighty; the source of all knowledge, the Untaught Teacher who teaches all. You are my Teacher, Comforter, Helper, Protector and my All in All.

## LIST OF ABBREVIATIONS

NSE:	Nigeria Stock Exchange
APT:	Arbitrage Pricing Theory
MEV:	Macroeconomic Variables
GDP:	Gross domestic Product
M2:	Broad Money Supply
CAPM:	Capital Asset Pricing Model
EMH:	Efficient Market Hypothesis
GNP:	Gross Domestic Product
M1:	Narrow Money Supply
CPI:	Consumer Price Index
VECM:	Vector Error Correlation Model
GCC:	Golf Cooperative Council
WTI:	West Texas Intermediate
NYMEX:	New York Mercantile Exchange
VAR:	Vector Autoregressive
JSE:	Johannesburg Stock Exchange
DSE:	Dhaka Stock Exchange
PER:	Price Earning Ratio
RIR:	Real Interest Rate
Y:	Output
ECHR:	Exchange Rate
ALX:	Stock Exchange Index
SAP:	Structural Adjustment Programme
E-View:	Econometric Package
STK:	Stock Prices
GLS:	Generalized Least Square
OLS:	Ordinary Least Square
ADF:	Augmented Dickey-Fuller
PP:	Philips-Peron
BRDM:	Broad Money
INTR:	Interest Rate
INF:	Inflation Rate
OIL:	Oil Price

NBS: Nation Bureau of Statistics  
SEC: Securities and Exchange Commission

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## ABSTRACT

This study investigates the impact of macroeconomic variables on stock prices in Nigeria. Since most of the previous studies in this area did not consider the topic at the individual firm's level, the work therefore made an attempt to unravel the complex relationship between stock prices and macroeconomic variables at the market level as well as at the individual firm's level. Secondary data on stock prices of selected firms, Nigerian Stock Exchange (NSE) stock price index and six macroeconomic variables between 1985:1 and 2009:4 were used for the analysis. The macroeconomic variables used in the research work were: money supply (BRDM), interest rate (INTR), exchange rate (ECHR), inflation rate (INF), oil price (OIL) and gross domestic product (GDP). The work was considered at two different levels using two separate models for the estimations. At the firm's (microeconomic) level, a panel model was used to examine the impact of macroeconomic variables on stock prices of the selected firms in Nigeria. This model was considered appropriate for its ability to combine both time series and cross-sectional data. At the market (macroeconomic) level, the Johansen co-integration technique was used to determine whether there is a long run dynamic relationship between stock prices and macroeconomic variables in Nigeria. The empirical findings of the study revealed that macroeconomic variables have strong significant impacts on stock prices both at the market level and at the individual firm's level in Nigeria. The results are useful and indicate a strong linkage among the macroeconomic variables and stock prices. The respective null hypotheses which state that money supply, exchange rate, interest rate, oil price and gross domestic product do not have any significant impact on stock prices were rejected at 5% level of significance. The study also revealed that there is a long run relationship between macroeconomic variables and stock prices in Nigeria. Arising from the causality test, with exception of oil price, there was no sufficient information that causation exists between stock prices and the selected macroeconomic variables. This implies that the macroeconomic variables are not good predictors of stock prices in Nigeria. The lack of causation agrees with theories on security pricing. Theories emphasize an indirect channel of influence between macroeconomic variables and stock prices. Given the indirect channel of influence, the study therefore concluded that the choice of an appropriate monetary policy which guarantees better management of exchange rate, interest rate, money supply and steady economic growth will significantly impact stock prices in Nigeria.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Study

In the pre-1970 era, Nigerian stock market was less explored because the economy was basically agrarian and the various regional governments largely achieved food security (Maku and Atanda, 2009). Nigeria realized the need to encourage private capital for development early enough with the establishment of the Nigerian Stock Exchange (NSE) (formerly called the Lagos Stock Exchange) in 1961 as a base to develop the capital market. Since the deregulation of the economy in 1986, the stock market has grown very significantly (Ajayi and Mougoue, 1996). For example, with a market capitalization of less than five (5) trillion naira in the 1990s, the stock market in Nigeria attained over thirteen (13) trillion naira market capitalization in 2007 before the global economic meltdown. The stock market plays a major role in financial intermediation in both developed and developing countries by channeling idle funds from surplus to deficit units in the economy. As the economy develops, more resources are needed to meet the rapid expansion. The stock market serves as a veritable tool in the mobilization and allocation of savings among competing uses which are critical to the growth and efficiency of the economy (Alile, 1984). Through mobilization of resources, the stock market promotes economic growth by providing avenues to pool large and long term capital through issuing of shares and stocks and other equities for industries in dire need of finance to expand their businesses. Thus, the overall development of the economy is a function of how well the stock market performs.

There is an extensive literature on the influence of macroeconomic variables on stock prices. However, most of them have so far concentrated on developed countries. With a growing importance of stock markets in developing countries, such as the Nigerian Stock Exchange (NSE), there is a need for research into these particular markets. Many scholars have used

macroeconomic factors to explain stock return and found that changes in interest rate are associated with risk premium. They interpreted the observation to be a reflection of changes in the rate of inflation, given the finding of Fama (1977) that changes in the rate of inflation are fully reflected in interest rates (Emenuga, 1994). This line of thought is what researchers in the field of finance refer to as the macroeconomic approach. It is a method of using factor analysis technique to determine the factors affecting asset returns. The focus of the macroeconomic approach is to examine how stock prices are affected by macroeconomic variables. This approach maintains that movement of stock prices are influenced by changes in money supply, interest rate, inflation rate, exchange rate, international crude oil prices, external debt, external reserve and so on. The approach uses a general equilibrium approach, stressing the interrelations between sectors as central to the understanding of the persistence and co-movement of macroeconomic time series, based on the economic logic, which suggests that everything does depend on everything else.

## **1.2 Statement of the Problem**

The arbitrage pricing theory (APT) of Ross (1976) provided the primary motivation for earlier studies on this topic. Among macroeconomic factors included in the models are either monetary ones such as inflation, interest rate and exchange rate or real economic ones such as production and oil prices. Empirical evidences from most economies have shown that changes in stock prices are linked with macroeconomic behaviour (Muradoglu *et al*, 2000; Diacogiannis *et al*, 2001; Wongbampo and Sharma, 2002; Mukhopadhyay and Sarkar, 2003; Gan *et al* 2006; Robert, 2008). The Nigerian Stock Exchange (NSE) is one of the emerging stock exchange markets facing challenges that hinder the efficiency, sustainable growth and development of the market. Inflation is still a problem in Nigeria. The monetary authority is fighting tooth and nail to reduce inflation rate to a single digit. Nigerian economy is also



facing the problem of currency depreciation over dollar, unemployment, population increase and poverty. These factors are capable of affecting either indirect or direct economic stability of the country. Adverse fluctuations in most macroeconomic variables sometimes affects the purchasing power of the local currency. When the value of naira depreciates it affects trading in stock market in Nigeria by increasing cost of trading stocks. The currency depreciation over dollar also affects macroeconomic stability of the country which leads to inflation. Basically, sustainable macroeconomic stability may accelerate growth and performance of stock exchange by motivating investors to invest with positive expectation; also vice versa is true under “Ceteris Peribus”.

Given the fact that there is yet not a consensus as to whether macroeconomic variables have a force to bear on stock prices in the Nigerian stock market, the research on the impact of macroeconomic variables on stock prices in Nigeria is not only of vital importance to investors but also to policy makers. Stock prices are proxied by index of stock price at macro level and individual stock prices at micro level. The selected macroeconomic variables are money supply, interest rate, exchange rate, inflation rate, international price of crude oil and Gross Domestic Product using time series quarterly data from 1985 to 2009 which captures the adjustment, post adjustment and reform eras in Nigeria.

### **1.3 Objectives of Study**

As it has been clearly spelt out in the discussions so far, the aim of this study is to critically examine the long run and short run effects of macroeconomic variables on the stock prices in Nigeria between 1985 and 2009 ascertaining whether stocks in Nigerian capital market are responsive to changes in the macroeconomic variables. However, the following specific objectives are of great interest to the researcher.

1. To examine whether each of the macroeconomic variables (money supply, interest rate, exchange rate, inflation rate, international price of crude oil and Gross Domestic Product) has any significant impact on stock prices in Nigeria.
2. To determine whether there is a long run relationship between stock prices and each of the macroeconomic variables (money supply, interest rate, exchange rate, inflation rate, international price of crude oil and Gross Domestic Product) in Nigeria.
3. To investigate whether there is a causal relationship between each of the macroeconomic variables (money supply, interest rate, exchange rate, inflation rate, international price of crude oil and Gross Domestic Product) and stock prices in Nigeria.
4. To investigate whether each of the macroeconomic variables (money supply, interest rate, exchange rate, inflation rate, international price of crude oil and Gross Domestic Product) is a good predictor of stock prices in Nigeria.

#### **1.4 Research Questions**

This research work answers the following questions:

1. To what extent and in what ways can movement in stock prices be explained by changes in the trends of each of the macroeconomic variables (money supply, interest rate, exchange rate, inflation rate, international price of crude oil and Gross Domestic Product) in Nigeria?
2. Is there a long run relationship between stock prices and each of the macroeconomic variables (money supply, interest rate, exchange rate, inflation rate, international price of crude oil and Gross Domestic Product) in Nigeria?
3. Are there evidences of causation between each of the macroeconomic variables (money supply, interest rate, exchange rate, inflation rate, international price of crude oil and Gross Domestic Product) and stock prices in Nigeria?

4. Is each of the macroeconomic variables (money supply, interest rate, exchange rate, inflation rate, international price of crude oil and Gross Domestic Product) a good predictor of stock prices in Nigeria?

### **1.5 Research Hypotheses**

In accordance with the objectives of the study, this research work aims at testing the following null hypotheses:

#### **Hypothesis One**

None of the selected macroeconomic variables (money supply, interest rate, exchange rate, inflation rate, international price of crude oil and Gross Domestic Product) has a significant impact on stock prices in Nigeria whether at the firm's level or at the market level.

#### **Hypothesis Two**

None of the selected macroeconomic variables (money supply, interest rate, exchange rate, inflation rate, international price of crude oil and Gross Domestic Product) has a significant long run relationship with stock prices in Nigeria.

#### **Hypothesis Three**

There are no significant evidence of causation between each of the macroeconomic variables (money supply, interest rate, exchange rate, inflation rate, international price of crude oil and Gross Domestic Product) and stock prices in Nigeria.

#### **Hypothesis Four**

None of the selected macroeconomic variables (money supply, interest rate, exchange rate, inflation rate, international price of crude oil and Gross Domestic Product) can significantly predict stock prices in Nigeria.

## **1.6 Significance of the Study**

The capital markets generally, are believed to be the heart beat of the economy given their ability to respond almost instantaneously to fundamental changes in the economy. It encourages savings and real investment in any healthy economic environment. Aggregate savings are channeled into real investments that increase the capital stock and therefore economic growth of the country. Given these attributes, it becomes necessary for the discerning minds to feel the impulse of such an economy. The Nigerian Stock Exchange (NSE) may not be an exemption as it is expected to be influenced by trends of macroeconomic variables, which are outside the realm of capital market. This is what Maku and Atanda (2009) referred to as external shocks. These external shocks are the macroeconomic fundamentals or variables that are expected to cause variation in the stock price movement. In the light of the above importance, the significance of this research can be summarized as follows:

1. A better understanding of the impact of macroeconomic variables on stock prices enhances the knowledge and practice of portfolio management.
2. Most of the earlier studies in this area concentrated on examining the impact analysis at the macro level. The effort put in place to explore the impact analysis at the level of the individual firms through a panel model has contributed to the growing literature in Nigeria.
3. The study leads to establishment of evidence of causation between macroeconomic variables and stock prices which enhance optimal investment decisions by investors as well as financial consultants.
4. Finally, the study also focuses on establishing whether macroeconomic variables are good predictors of stock prices in Nigeria. This guides the choice of numerous investors in capital market investments.

## **1.7 Scope and Delimitation of the Study**

Quarterly data for all share index, selected firms' stock prices, inflation rate, exchange rate, broad money supply, interest rate, oil prices and gross domestic product (GDP) in Nigeria were analyzed and used throughout the process. The study covers a period of twenty five years (1985-2009), representing adjustment, post-adjustment and reform eras in Nigeria. Thirty six (36) surviving publicly quoted companies (as at 1985) from all industrial classifications were studied at the first layer of the work. The study was limited by the following factors:

1. The prices as published by the Nigerian Stock Exchange were used. Therefore, any inherent inaccuracy on the listed prices may have affected the work. The much the researcher could do was to avoid transmission errors.
2. Only closing share prices per quarter were used in the study. Assuming, therefore, that quarterly share prices had a definite pattern or sequence, then that would have affected the results.
3. Non-availability of electronic data prices. This affected the speed and accuracy of generating data. Elsewhere, electronic data has facilitated studies on share prices at hourly intervals.
4. Nigerian Stock Market is shallow in relation to the major developed country markets in terms of transaction volume and the number of listed securities. Even among the listed stocks, a large majority is infrequently traded.

## **1.8 Organisation of the Study**

This study is divided into six chapters in line with the Post Graduate School requirements. Chapter one presents the background of study, the statement of problem, the objectives and

research questions. The research hypotheses, significance of study and research scope of study are identified.

Chapter two covers literature review of previous and current research works on the impact of macroeconomic variables on stock prices. It starts with theoretical and conceptual frameworks. Five theories of stock price behaviour were reviewed. Several empirical research works are explained.

Chapter three focuses on research methods. These include research design, study population, sample size, sampling technique, sources of data, research instruments, model specification and model estimation technique.

Chapter four presents data presentation, analysis and interpretation. The hypotheses were tested and the results presented.

Chapter five presents the summary and policy implication of findings of the study.

Chapter six which is the last chapter covers conclusions, recommendations, contributions to knowledge, and suggestions for further studies.

## **1.9 Operational Definition of Terms**

### ***Macroeconomy***

The aggregation of a country's economic activities in the different sectors which interact together to form its economic system as a whole.

### ***Macroeconomic Variables***

Economic fundamentals, variables or factors that are expected to cause variation in the stock prices movement. For the purpose of this work, they are: money supply (M2), interest rate, inflation rate, exchange rate, oil price and gross domestic product.

### ***Stock Price***

The price of a single unit of a number of salable stocks of a company. Once the stock is purchased, the owner automatically becomes a shareholder of the company that issues the share. ***Stock Price Index***

The index is an aggregate of the market capitalization of all the industrial equities listed in the stock market.

### ***Stock Exchange***

A stock exchange is an entity that provides services for stock brokers and traders to trade stocks, bonds and other securities.

### ***Panel data Model***

A technique of empirical analysis for the use of the combination of both time series and cross-section data.

### ***Unit Root***

This is a situation of nonstationarity of a variable. Thus the terms: nonstationarity, random walk and unit root can be treated as synonymous.

### ***Cointegration***

When there is a long-term or equilibrium relationship between two or more variables. Of course, there may be disequilibrium in the short run. Therefore, one can treat the error term in the short run as disequilibrium error.

### ***Error Correction Mechanism***

This is a means of reconciling the short run behaviour of an economic variable with its long run behaviour.

### ***Granger Causality Test***

A mechanism to prove the existence of causality or direction of influence between two variables.

### ***Autocorrelation (Serial Correlation)***

It is possible to attempt to correlate values of a variable  $X$  at certain time with corresponding values of  $x$  at earlier times. Such correlation is often called autocorrelation (Spiegel and Stephens, 1999). Also, according to Horngren, Forster and Datar (1997), serial correlation (also called autocorrelation) means that there is a systematic pattern in the sequence of residuals such that the residual in observation  $n$  conveys information about the residuals in observation  $n_{t1}$ ,  $n_{t2}$  and so on. In time series data, inflation is a common cause of autocorrelation because it causes costs (and hence residuals) to be related over time. Autocorrelation can also occur in cross-sectional data.

### ***Residuals***

The vertical deviation of the observed value  $Y$  from the regression line, estimate  $y$  is called the residual term, disturbance term or error term,  $\mu = Y - y$

### ***External Shock***

The responsiveness of stock prices to factors (macroeconomic variables) outside the firms.

### ***Homoscedasticity (constant variance)***

The assumption of constant variance implies that the residual terms are unaffected by the level of the independent variables. The assumption also implies that there is a uniform scatter or dispersion of the data points about the regression line. The scatter diagram is the easiest way to check for constant variance. Constant variance is also known as homoscedasticity.

### ***Heteroscedasticity***

In a regression analysis, once the scatter is not uniform around the line of best fit, that is, once there is a violation of the assumption of constant variance, we refer to the situation as heteroscedasticity. Heteroscedasticity does not affect the accuracy of the regression estimates 'a and b'. It however, reduces the reliability of the estimates of the standard errors and thus affects the precision with which inferences can be drawn.



### ***Multicollinearity***

Multicollinearity (also known as simultaneous relationship) exists when two or more independent variables are highly correlated with each other. Generally, users of regression analysis believe that a coefficient of correlation between independent variables greater than 0.70 indicates multicollinearity. Multicollinearity increases the standard errors of the coefficients of the individual variable. The result is that there is greater uncertainty about the underlying value of the coefficients of the individual independent variables. That is, variables that are economically and statistically significant will appear insignificant (Homgren et al, 1997).

## References

- Ajayi, R. A. and Mougoue, M., 1996. On the Dynamic Relation between Stock Prices and Exchange Rates. *The Journal of Financial Research*, 19: 193-207
- Alile, H. I. (1984): "The Nigerian Stock Exchange: Historical Perspective, Operations and Contributions to Economic Development" *Central Bank of Nigeria Bullion*, Silver Jubilee edition, 2, 65-69.
- Ashaolu T.O and Ogunmuyiwa M. S. (2011) 'An Econometric Analysis of the Impact of Macro Economic Variables on Stock market movement in Nigeria'. *Journal of Business Management* 3(1), 72-78
- Diacogiannis, G.P., Tsiritakis E.D. and Manolas G.A. (2001). 'Macroeconomic factors and stock returns in a changing economic framework: The case of Athens stock exchange. *Managerial Finance*, 27(6), 23-41.
- Emenuga C.A. (1994); *Systematic Factors and Returns on Equities in the Nigerian Securities Market*. Unpublished Ph.D Thesis, University of Ibadan, Ibadan.
- Fama E. (1977): Asset Returns and Inflation, *Journal of Monetary Economics*, 38, 327-348.
- Gan, C., M. Lee, H. Yong and J. Zhang (2006). 'Macroeconomic variables and stock market interactions: New Zealand evidence. *Int. Manage. Financ. Innov.*, 3(4), 89-101.
- Horngren, C. T, Foster, G. and Datar, S. M. (1997). *Cost Accounting: A Managerial Emphasis*. 9th ed. (New Delhi: Prentice Hall Inc.).
- Maku O. E. and Atanda A. A. (2009), 'Does Macroeconomic Indicators Exert shock on the Nigerian Capital Market? Online at <http://mpira.ub.uni-muenchen.de/17917/>
- Muradoglu, G., F. Taskin and I. Bigan, (2000). 'Causality between stock returns and macroeconomic variables in emerging markets. *Russian East Eur. Finance Trade*, 36(6), 33-53.
- Mukhopadhyay, D. and N. Sakar, (2003). 'Stock returns and macroeconomic fundamentals in model specification framework: Evidence from Indian stock market. Indian Statistical Institute, Economic Research Unit, ERU 2003-2005 Discussion Paper, January, 1-28.
- Robert, D.G. (2008). 'Effect of macroeconomic variables on stock market returns for four emerging economies: Brazil, Russia, India and China', *Int. Bus. Econ. Res. J.*, 7(3).
- Ross S.A.(1976): *The Arbitrage Theory of Capital Asset Pricing*. *Journal of Economic Theory*, 13(3),341-360.

Spiegel, M. R. and Stephens, L. J. (1999). *Schaum's Outlines: Statistics*. 3rd ed. (New York: McGraw-Hill).

Wongbampo, P. and Sharma S. C. (2002). 'Stock market and macroeconomic fundamental dynamic interactions: ASEAN-5 countries', *J. Asian Econ.*, 13, 27-51.

## CHAPTER TWO

### REVIEW OF LITERATURE

#### 2.1 Theoretical Framework

The Arbitrage Pricing Theory (APT) has been applied by various scholars to analyze the relationship between stock prices and macroeconomic variables (Clare and Thomas, 1994; Hamao, 1998; Shama, 2002; Chen, Roll and Ross, 1986). The APT was formulated as an alternative to Capital Asset Pricing Model (CAPM) of Sharpe (1964), Lintner (1965, 1969) and Mossin (1966). The CAPM has been criticized due to its non-applicability as well as the condition of perfect capital market which is not realistic. The APT in contrast to CAPM acknowledges several sources of risk that may affect stock prices. The model links changes in stock prices to multiple risk factors and in the process measures the risk premiums associated with each of these risk factors. The overall economy is the environment where the firms operate. Macroeconomic variables are the indicators of the economic activities which affect firms' opportunity to increase sales/cash flow and make investments. A change in government policies affecting any of the macroeconomic variables presents the risk factors. This implies that any economic factor which influences a firm's future cash flow/earnings will affect its stock price. Hence, the major objective of this research is to find out the impact of these macroeconomic variables on stock prices in Nigeria. The APT with the multiple risk factors is expressed as follows:

$$E(R_{it}) = \lambda_0 + \lambda_1 b_{i1} \dots + \lambda_j b_{ij} + \varepsilon_{it} \dots \dots \dots 2.1$$

Where:  $E(R_{it})$  = Expected return on stock i.

$\lambda_0$  = Risk free rate of return.

$\lambda_j$  = Asset return sensitivity to factor j/price-risk sensitivity.

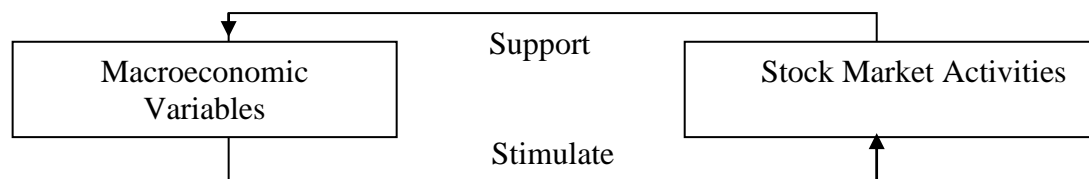
$b_{i1}, b_{i2}, \dots, b_{ij}$  = Risk factors/macroecomic variables.

The APT was adapted as the theoretical framework of this study for its applicability in Nigeria.

## 2.2 Conceptual Framework

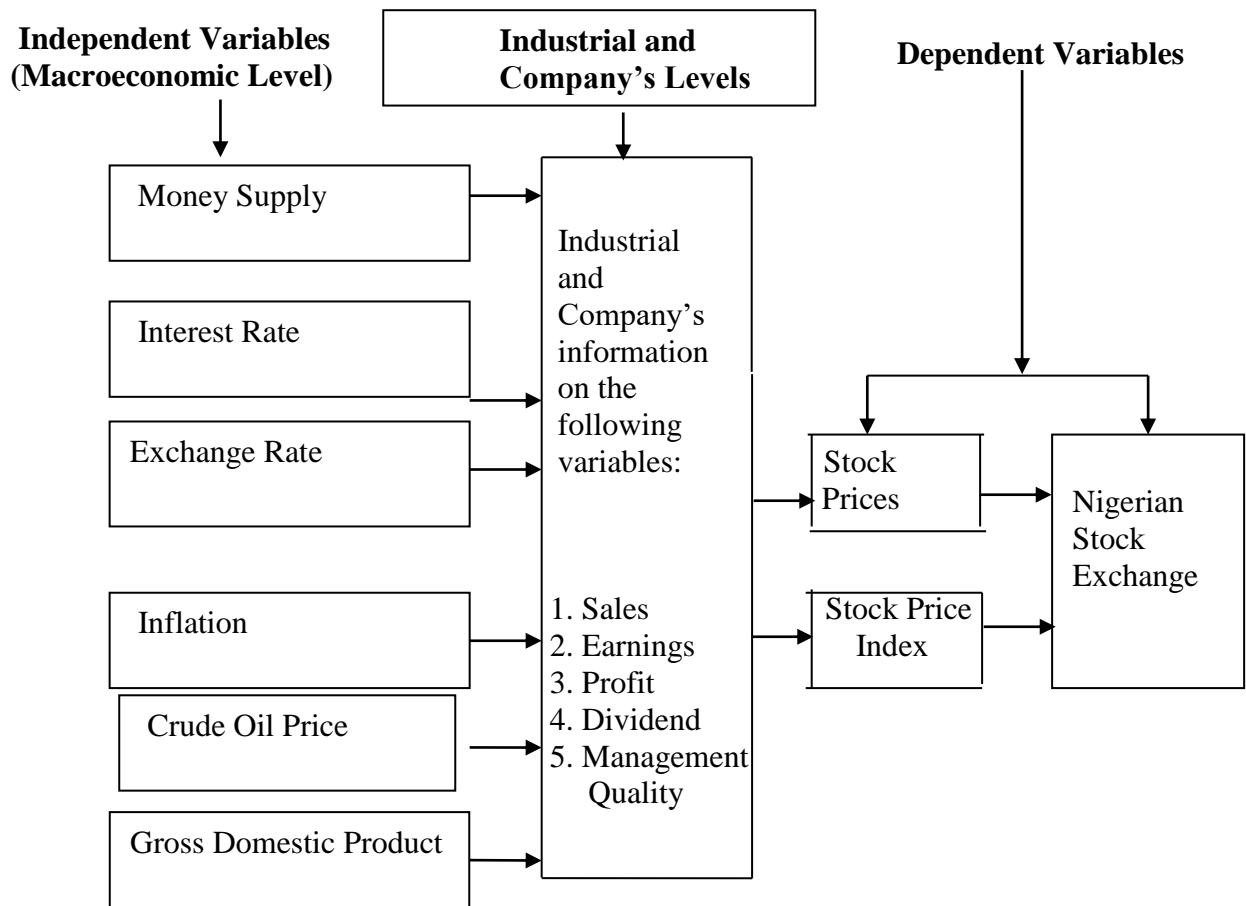
At the stock exchange, stock prices rise and fall depending, largely, on market forces. Stock prices tend to rise or remain stable when industries, companies and the economy in general show signs of stability and growth. An economic recession, depression, or financial crisis could eventually lead to a stock market crash. In this work, the movement of stock prices is assumed to be an indicator of the general trend in the economy. Therefore the relationship between the stock trends and the economic trends can be argued to be cyclic. This is summarized in figure 1.

**Figure 2.1:** The Relationship between Macroeconomic Variables and Stock Market Activities



**Source: Designed for the current study by the Author, 2013**

**Figure 2.2:** Conceptual Framework of the Channel of Influence between the Macroeconomic Variables and Stock Prices



**Source: Designed for the current study by the Author, 2013**

Figure 2.2 clearly shows the overall objective of this study. That is to critically examine the impact of macroeconomic variables on stock prices in Nigeria. The relationship between the six macroeconomic variables and stock prices are as shown above. The channel of influence is anticipated to be indirect; from the macroeconomic variables to industrial and company's level before affecting the stock prices.

## **2.3 Other Theories of Stock Price Behaviour**

### **2.3.1 Fundamentalist View**

To the fundamentalists, the value of a corporation's stock is determined by expectations regarding future earnings and by the rate at which those earnings are discounted. The fundamentalists apply present value principles to the valuation of corporate stock, using dividends, earnings, assets and interest rate to establish the price of stock. According to Pilbeam (1995), the fundamentalist theory holds that it is the prospective changes in economic fundamentals that move the share prices. The fundamental approach assumes that: every security has an intrinsic value; the intrinsic value of every security is reflected by its market price; basic economic factors about a firm determine the intrinsic value of securities issued by it (Okafor 1983). Continuing, Okafor (1983) opined that without agreeing on specifics, fundamentalists use three basic performance indicators in predicting intrinsic values. These are the earnings record, some index of risk and a time - value conversion rate for funds. Also, according to Okafor (1983), specifically three major forms of analyses are conducted by the fundamentalists: They are: analysis of general economic conditions; industry conditions and company analysis.

### **2.3.2 Technicalist View**

The technical school on the other hand, opposes the fundamentalists' arguments, and claims that stock price behaviour can be predicted by the use of financial or economic data. The disciples of the school submit that stock prices tend to follow definite pattern and each price is influenced by preceding prices, and that successive prices depend on each other. According to Smith (1990), technical analysts engage themselves in studying changes in market prices, the volume of trading and investors' attitude.

The major tenets of the method, according to Reilly and Norton (1999) and Okafor (1983) could be summarized as follows: the value (price) of securities is determined by forces of demand and supply; demand and supply forces are influenced by both rational and irrational factors; movements in stock prices tend to follow identifiable systematic, self-sustaining and recurring trends; market trends constitute solid foundations on which profitable trading rules can be erected.

Of all the tools used in technical analysis, the Dow Theory is the oldest and perhaps the most popular. In essence, the theory is a mechanical device which uses previous highpoints and low points in a stock market index as indicators for predicting trends and reversal in the market. According to Charles Dow - the originator of the theory, as quoted in Okafor (1983), all price actions on the exchange comprise three contemporaneous movements:

- (a) The primary movement
- (b) The secondary movement and
- (c) The minor movement.

According to Roberts (1959), a common and convenient name for analysis of stock market pattern is technical analysis. Perhaps, no one in the financial world completely ignores technical analysis - indeed, its terminology is ingrained in market reporting-and some rely intensively on it. Technical analysis includes many different approaches, most requiring a good deal of subjective judgment in application. In part, these approaches are purely empirical; in part, they are based on analogy with physical process, such as tides and waves. In the light of the intense pattern and the publicity given to statistics in recent years, it seems curious that there has not been widespread recognition among financial analysts that the pattern of technical analysis may be little, if anything, more than a statistical artifact.

As an alternative to the technical analysis, Alexander (1961) argued that the random walk and efficient market theories of security price behaviour imply that stock market trading



rules based solely on the past price series can not earn profits greater than those generated by a simple buy-and-hold policy. Technical analysts or chartists, however, have insisted that this evidence does not imply their methods are invalid and have argued that the basis upon which their rules are based are much too subtle to be captured by simple statistical tests (Jenson and Benington, 1970).

### **2.3.3 Efficient Market Hypothesis (EMH)**

According to Fama (1970), the primary role of the capital market is allocation of ownership of the economy's capital stock. In general terms, the ideal market is the market in which prices provide accurate signals for resource allocation: that is, a market in which firms can make production-investment decisions and investors can choose among the securities that represent ownership of firm's activities under the assumption that security prices at any time "fully reflect" all available information. A market in which prices always "fully reflect" available information is called "efficient". Sharpe (1970) while discussing Fama's paper above remarked thus: simply put, the thesis is this: in a well-functioning market, the prices of capital assets (securities) will reflect predictions based on all relevant and available information. Fama (1970) posits that the capital market is efficient:

- if all security prices fully reflect all known market information and
- if no traders in the market have monopoly control of information.

He then presents a tri-chotomization of information:

- (1) A strong form, which encompasses all information including that possessed by insiders;
- (2) A semi-strong form, which includes all public information; and
- (3) A weak form which includes only that information which can be gleaned from an examination of an historical series of security prices. He uses this trichotomy to structure his discussion according to three classes of market studies (Schwartz, 1970). According to

Malliaris and Stein (1999), the early observation by Working (1934), that changes in futures prices tend to be largely random, eventually directed researchers to seek theories for such a statistical phenomenon. During the past 30 years, the theory of market efficiency has been refined analytically, mathematically and statistically. A major advance has been the use of the stochastic calculus to explain the pricing of derivatives (Merton 1990). Nweze (2002) summarizes the matter as follows:

*The randomness of asset price changes hypothesized by the EMH requires an explanation about the variance of such changes. If price changes are induced by changes in information, can information concerning the shocks in fundamental factors explain the magnitude of the observed price volatility? Or is the variance of price changes due to other factors?*

According to Lo (1997) as quoted in Malliaris and Stein (1999), “The EMH which is disarmingly simple to state, has far reaching consequences for academic pursuits and business practice and yet is surprisingly resilient to empirical proof or refutation”. Even after three decades of research and literally thousands of journal articles, economists have not yet reached a consensus about whether markets particularly financial markets - are efficient or not". The source of the problem is that "efficiency is an implication of the rational use of information in a competitive market. There are binding limitations in our knowledge of what price behaviour to expect in an "efficient" market. So in turn, there is limited reliable evidence on 'efficiency'. The wide range of anomalous evidence that have been uncovered highlights the limitations of 'efficiency' as a construct and our knowledge of asset pricing (Ball and Shanken, 1989).

#### **2.3.4 Random-Walk Hypothesis**

Both the “technical” and “fundamental” analyses have been challenged by scholars who subscribe to the random-walk hypothesis, which sees stock price movements in terms of a probability distribution of different possible outcome. The random-walk hypothesis is based

on efficient market assumption that investors adjust security rapidly to reflect the effect of new information. Believers in the efficient capital market hypothesis argue that stock prices are essentially random and therefore, there is no chance for profitable speculation in the stock market. An interesting feature of random walk is the persistence of random shocks.

The basic hypothesis of the random walk theory is that a particular price series behave as a simple stochastic process. Successive price changes are independent random variables implying that the past history of a series generates no information predicting future price changes. Continuing, Malliaris and Stein (1999), noted that the random walk hypothesis assumes that price volatility is exogenous and unexplained.

Randomness means that the knowledge of the past cannot help to predict the future. We accept the view that randomness appears because information is incomplete. Ekeland (1988), quoted in Malliaris and Stein (1999). Nweze (2002) put the matter lucidly:

*Randomness appears because the available information; though accurate, is incomplete. If determinism means that the past determines the future it can only be a property of reality as a whole of the total cosmos. As soon as one isolates from this global reality - a sequence of observations to be described and analyzed, one runs the risk of finding only randomness in that particular projection of the deterministic whole.*

In his contribution, Debby *et al.* (2000) submitted that the random walk hypothesis has three components: that the price increments are independent, symmetric about zero, and identical. As discussed by Ayadi (1984), the original and analytical empirical work on the random walk theory was done by Bachelier (1900). He was the first to point out that security prices and prices of other speculative commodities follow a random walk. His study was not recognized until Working (1934) confirmed the same result.

Kendel (1953) examined the behaviour of weekly changes in 19 indices of British Industrial share price, spot prices for cotton in New York and wheat in Chicago. He found successive arithmetic differences in British stock price averages to be largely uncorrelated. Other studies in support of the random walk theory include Roberts (1959), Osborne (1959), Moore

(1962), Morgenstern and Granger (1963), Fama (1965), Samuelson (1965), Mandelbrot (1967), Black and Scholes (1972), and in Nigeria, Samuels and Yacout (1981), Anyafo (1982), Osisioma (1983), and Okafor (1983).

Specifically, Osborne (1959) found a very high degree of conformity between the movements of stock prices and the law governing Brownian stock market behaviour. Moore (1962) examined the weekly changes of 29 randomly selected New York Stock Exchange (NYSE) stocks from 1951 to 1958 and found an average serial correlation coefficient of -0.06. With the aid of a statistical technique called spectral analysis, Morgenstern and Granger (1963) found no substantial relationship between one period's security returns and the returns in prior periods. Of more direct relevance to this study was the study by Samuels and Yacout in 1981 on the Nigerian data. They tested for several correlations in the weekly prices of shares in 21 companies quoted on the Nigerian Stock Exchange between July 1977 and July 1979. They found a trace of dependence with a one-week lag in only seven shares and a two-week lag in four shares. The absolute mean serial correlation coefficient was 0.146 with one-week lag and 0.086 with a two-week lag. The results of these tests support the theory that prices follow a random walk.

There are, however, conflicting evidence against the random walk theory. Alexander (1961, 1964), applied the filter rule test to the daily closing prices of two stock market indices. The evidence runs strongly against the random walk hypothesis. Levy (1966, 1967, and 1968) posed a more serious challenge to the random walk hypothesis. The study used various technical portfolio upgrading. On the basis of his evidence, Levy concluded that "the theory of random walks has been refuted". Other scholars who contradicted the random walk hypothesis include Shiskin (1968), Cheng and Deets (1971), and Kemp and Reid (1972).

In the words of Dockery and Vergari (1997), considerable attention has been paid to testing the theory of random walk which claims that for stock returns to follow a random walk

process, successive stock returns must be identically distributed and independent so that the correlation between one period's return and the immediate following period is zero (see Fama, 1965; D'Ambrosio, 1980; Cooper, 1983; Shiller and Peron, 1985; Lo and Mackinlay, 1988 and Urrutia, 1995).

Kendall, as quoted in Roberts (1959), found that changes in security prices behaved nearly as if they had been generated by a suitably designed roulette wheel for which each outcome was statistically independent of past history and for which relative frequencies were reasonably stable through time. Also, Leuthold (1977) opined that a notable and provocative development in the recent literature has been the application of the theory of random walks to the analysis of price behaviour in the stock and commodity futures market.

The question of whether stock returns obey a random walk process has been addressed in previous studies utilizing data from the stock markets of major industrialized economies. The findings of Summers (1986), Poterba and Summers (1988), Fama and French (1988) and Lo and Mackinlay (1988) all disclose that stock returns do not obey the hypothesis of random walk. Along similar lines a more recent study on emerging capital markets in Latin America, Urrutia (1995) present results which also debunked the hypothesis of random walk. (Dockery and Vergari, 1997). Zhu (1998) while concluding that the random walk property of stock prices is well established also agreed that several studies using tests for serial dependence have rejected the random walk model (e.g. Fama, 1976; Fama and French, 1988; Lo and Mackinlay 1988). Poterba and Summers (1988) claimed that there is little theoretical basis for strong attachment to the null hypothesis that stock prices follow a random walk. Although they present evidence that the various data set together strengthen the case against the validity of the random walk, their individual data set do not consistently permit rejection of the random walk hypothesis at high significance levels. Kasa (1992) found similar but mixed results.

### **2.3.5 Behavioural View**

The behavioural school of finance holds that market might fail to reflect economic fundamentals under three conditions. The first behavioural condition is irrational behaviour. It holds that investors behave irrationally when they don't correctly process all the available information while forming their expectations of a company's future performance. The second is systematic patterns of behaviour, which hold that even if individual investors decided to buy or sell without consulting economic fundamentals, the impact of their actions on share prices would be limited. Lastly, limits to arbitrage in financial markets ascertain that when investors assume that a company's recent strong performance alone is an indication of future performance; they may start bidding for shares and drive up the price. When all three apply, the theory predicts that pricing biases in financial markets can be both significant and persistent. Some investors might expect a company that surprises the market in one quarter to go on exceeding expectations (Business Day, February 19, 2009).

### **2.3.6 Macroeconomist View**

This is a method of using factor analysis approach to determine the factors affecting asset returns. Some scholars have used macroeconomic factors to explain stock return and found that changes in interest rate are associated with risk premium. They interpreted the observation to be a reflection of changes in the rate of inflation; given the finding of Fama (1977) that changes in the rate of inflation are fully reflected in interest rates (Emenuga, 1994). The macroeconomic approach attempts to examine the sensitivity of stock prices to changes in macroeconomic variables. The approach posits that stock prices are influenced by changes in money supply, interest rate, inflation and other macroeconomic indicators. The technique is to employ a general equilibrium approach, stressing the interrelations between sectors as central to the understanding of the persistence and co-movement of

macroeconomic time series, based on the economic logic, which suggests that everything does depend on everything else. The issue of causality between macroeconomic variables and share returns over the years has stirred up controversies among researchers based on varying findings (Maku and Attanda, 2009). Theoretically, macroeconomic variables are expected to affect returns on equities. But over the years, the observed pattern of the influence of macroeconomic variables (in signs and magnitude) on share returns varies from one study to another in different capital markets. A brief overview of studies using macroeconomic factor models is presented in the following section.

#### **2.4.0 Macroeconomic Variables and Stock Prices**

##### **2.4.1 Evidence from Developed Countries**

The first group of the studies reviewed covers developed countries. In an elaborate search for the macroeconomic variables that have effect on stock returns, Chen, Roll and Ross (1986) identified interest rate and expected rate of inflation and the spread between high and low-grade bond as the relevant variables. Chen, Roll and Ross (1986) test the multifactor model in the United States of America (USA) by employing seven macroeconomic variables. They find that consumption, oil prices and the market index are not priced by the financial market. However, industrial production, changes in risk premium and twists in the yield curve are found to be significant in explaining stock returns.

Chen (1991) performed the second study covering the USA. Findings suggest that future market stock return could be forecasted by interpreting some macroeconomic variables such as default spread, term spread, one month t-bill rate, industrial production growth rate, and the dividend–price ratio. Mukherjee and Naka (1995) use vector error correction approach to model the relationship between Japanese stock return and macroeconomic variables. Cointegration relation is detected among stock prices and the six macroeconomic variables,

namely exchange rate, inflation rate, money supply, real economic activity, long-term government bond rate and call money rate.

The study by Flannery and Protopapadakis (2002) reevaluate the effect of some macroeconomic series on US stock. Among these series six macro variables, namely, balance of trade, housing starts, employment, consumer price index, M1 and producer price index seem to affect stock returns. On the other hand two popular measures of aggregate economic activity (real GNP and industrial production) do not appear to be related with stock returns.

#### **2.4.2 Evidence from Developing Countries**

These are considered as second group of studies that investigate the relationship between stock returns and macroeconomic variables for some developing countries. Mookerjee and Yu (1997) investigates the effect of macroeconomic variable on Singapore stock market. Results suggest that stock prices are cointegrated with both measures of the money supply (M1 and M2) and aggregate foreign exchange reserves. However stock prices and exchange rates do not have a long-term relationship. Know and Shin (1999) examines the role of macroeconomic variables in estimating Korean stock prices. Stock indices seem to be cointegrated with the combination of the four macroeconomic variables namely trade balance, foreign exchange rate, industrial production and money supply.

Ibrahim and Aziz (2003) investigates the relationship between stock prices and industrial production, money supply, consumer price index, and exchange rate in Malaysia. Stock prices are found to share positive long term relationships with industrial production and consumer price index CPI. On the contrary, the study found that stock prices have a negative association with money supply and exchange rate.

Serkan (2008) investigates the role of macroeconomic factors in explaining Turkish stock returns. The study employed macroeconomic factor model from the period of July 1997 to



June 2005. The macroeconomic variables considered are growth rate of industrial production index, change in consumer price index, growth rate of narrowly defined money supply, change in exchange rate, interest rate, growth rate of international crude oil prices and return on the World Equity Index. He found that exchange rate, interest rate and world market return seem to affect all of the portfolio returns, while inflation rate is significant for only three of the twelve portfolios. Also, industrial production, money supply and oil prices do not appear to have significant effect on stock returns in Turkey.

Adam and Tweneboah (2008) examined the impact of macroeconomic variables on stock prices in Ghana using quarterly data from 1991 to 2007. They examined both the long-run and short-run dynamic relationships between the stock market index and the economic variables: inward foreign direct investment, treasury bill rate, consumer price index, average oil prices and exchange rates using cointegration test and Vector Error Correction Model (VECM). The study found that there is cointegration between macroeconomic variables and stock prices in Ghana indicating long-run relationship. The VECM analysis shows that the lagged values of interest rate and inflation have a significant influence on the stock market. Also, the inward foreign direct investments, oil prices, and the exchange rate demonstrate weak influence on price changes.

### **2.4.3 Evidence from Nigeria**

Attempts have also been made by Nigerian studies to investigate the relationship between macroeconomic variables and stock prices. Akinnifesi (1987) used a disaggregated analysis to investigate the relationship between exchange rate and stock prices fluctuation. He found that a depreciating Naira exchange rate increases stock prices. Soyode (1993) made an attempt to test the association between stock prices and macroeconomic variables as

exchange rate, inflation and interest rate. He found that the macro economic variables are cointegrated with stock prices and are consequently related to stock returns.

Amadi, Oneyema and Odubo (2000) employed multiple regression to estimate the functional relationship between money supply, inflation, interest rate, exchange rate and stock prices. Their study revealed that the relationship between stock prices and the macroeconomic variables are consistent with theoretical postulation and empirical findings in some countries. Though, they found that the relationship between stock prices and inflation does not agree with some other works done outside Nigeria.

Nwokoma (2002), examines the long-run relationship between the stock market and some of macroeconomic indicators. The result shows that only industrial production and level of interest rates, as represented by the 3-month commercial bank deposit rate have a long-run relationship with the stock market. The study also found that the Nigeria market responds more to its past prices than changes in the macroeconomic variables in the short run.

Ologunde, Elumilade and Asaolu (2006), examines the relationships between stock market capitalization rate and interest rate. They found that prevailing interest rate exerts positive influence on stock market capitalization. They also found that government development stock rate exerts negative influence on stock market capitalization rate and prevailing interest rate exerts negative influence on government development stock rate. The findings seem to take interest rate as the lending rate. If deposit rate increases, theoretically, investors will switch their capital from share market to banks. This will exert a negative impact on stock prices. Therefore this work used the deposit rate to express interest rates in Nigeria. Earlier studies have revealed that the impact of oil prices depends on whether a country is oil exporting or oil importing. Crude oil accounts for over 60% of GDP in Nigeria and findings from the six oil producing countries of the Gulf Cooperative Council (GCC) show that there is a link between oil price and stock returns. Again, Nigeria exports crude oil and at the same

time the country is a major importer of oil. Therefore, oil price is a major variable in the model for this work. With the exemption of Olowe, (2007) this variable was omitted in many of the related works in Nigeria.

From the positions of the several authors in this line of thought, there is no doubt that the impact of macroeconomic variables on stock prices both in the short-run and in the long-run produce mixed results. Hence the need to further explore this in Nigeria by including more variable such as oil price into the bi-variate models.

## **2.5 Impact of Oil Price on Stock Prices**

The impact of oil price on stock market differs from country to country depending on whether the country is an oil-exporter or oil-importer. In oil-exporting countries, a rise in world oil price improves the trade balance, leading to a higher current account surplus and an improving net foreign asset position. At the same time, increase in oil prices tends to increase private disposable income in oil-exporting countries. This increases corporate profitability, raises domestic demand and stock prices thereby causing exchange rate to appreciate. In oil-importing countries, the process works broadly in reverse: trade deficit are offset by weaker growth and, over time, real exchange rate depreciates and stock prices decrease (Abdelaziz *et. al.*, 2008).

### **2.5.1 The Gulf Cooperative Council (GCC)**

The six members of the Gulf Cooperation Council (GCC), Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates represent very promising emerging markets. With the exception of Bahrain, they are relatively unknown to most foreign investors (Ravichandran and Alkhatlan, 2010). The GCC markets differ from those of developed countries and from other emerging markets in that they are largely segmented from the world

equity markets and are overly sensitive to regional political events. While Bahrain, Kuwait, and most recently, Qatar permit foreign stock ownership; Saudi Arabia allows foreign ownership only through investment in mutual funds. In GCC markets, fads or speculative attacks (which are rare) do not result from the rapid flow of capital into and out of markets as in other emerging markets. Instead, they often occur when domestic markets overheat. Restrictions on foreign ownership limit flows of 'hot money' into and out of GCC countries. The turnover, with the exception of Saudi Arabia and Kuwait, is relatively low for most markets. The number of publicly traded companies per market is relatively small, and they are owned by a very small percentage of the indigenous population.

On the other hand, volatility can also be traced back to the types of these publicly traded companies that dominate the stock markets: largely banks, and real estate, construction, and communications companies. Herding, fads and speculative attacks occur in these companies because their returns are particularly uncertain. Combined with lax information disclosure requirements, this may cause problems of rash trading based on patchy news. The GCC economies are also oil-dependent, and on a daily or a weekly basis their oil prices take their cues from the futures prices for West Texas Intermediate (WTI), a primary crude oil stream traded on the New York Mercantile Exchange (NYMEX). GCC stock markets have been argued to be sensitive to the daily or weekly movements of stock prices in the US stock exchanges because GCC investors invest in both sets of markets. Moreover, their exchange rates are effectively tied to the US dollar and their monetary policies and thus their short-term interest rates follow the US monetary policy and its short-term interest rates (Karam, 2001). Understanding the linkage of oil price volatility with Gulf Cooperation Council (GCC) stock markets returns is important for investors to make necessary investment decisions and for policy makers to adopt appropriate policies in managing stock markets. Like the GCC economies, the Nigerian economy is mono product. Therefore, it is likely that

the performance of the Nigerian Stock Exchange is not affected by fluctuations in the prices of crude oil.

Generally, research on volatility of stock markets returns have been approached in the literature from two different perspectives. In one approach, volatility of stock markets returns has been related to key macroeconomic indicators. Several studies examined the effects of global, country and industry factors on the movements and volatilities of stock returns but not for the markets under consideration in this study. Moreover, Grinold et al. (1989), Drummen and Zimmermann (1992), and Heston and Rouwenhorst (1994) all find that country factors dominate stock return volatilities although industry factors play a significant role.

On the other hand however, Jones and Kaul (1996) study the impact of global oil shocks on the equity prices in Canada, Japan, UK and the US. They find that only in the case of US and Canada can the impact of the oil shocks on real cash completely account for this reaction. Huang et al. (1996) examines the relationship between daily returns of oil futures and US stock returns, using an unrestricted VAR model. The study finds that oil futures returns lead some individual oil company stock returns but have negligible impact on the broad-based market indices. In another study, Sadorsky (1999) examines the links between the fuel oil prices and stock prices based on US monthly data from January 1947 to April 1996. Using an unrestricted VAR model that also includes short-term interest rate and industrial production; he highlights the importance of oil price in explaining the movements of the other variables. Schwert (1989) employed vector auto regressive model (VAR) using bond returns, growth rate of producer price index, and the monetary base, as relevant macroeconomic indicators explaining volatility of stock market returns. King, Sentana, and Wadhvani (1994) employed a multivariate model using data for a number of developed and

emerging markets to study the linkage between stock returns and observable factors, such as interest rates, industrial production, oil prices; and unobservable factors that are not reflected in the published data of stock markets. Their findings indicate that the unobservable factors play more significant role in explaining the volatility of stock returns.

The other approach of modeling volatility of stock markets returns is by focusing exclusively on oil price volatility as a predictive indicator for stock market returns. This approach is motivated by research finding verifying existence of significant causal links between oil price change and key macroeconomic indicators. Hamilton (1983) argues that almost all United States recessions since the World War II have been preceded by oil shocks.

In a survey article, Mork (1994) shows a negative correlation between oil prices and aggregate measures of output and employment for a group of oil importing countries. Wassal (2005) uses Johansen co-integration technique to show existence of long-run relationship between stock market indicators such as liquidity and size, with macroeconomic indicators for a number of oil exporting countries in Asia, Africa, and Latin America. Bashar (2005) employs VAR analysis to study the effect of oil price change on GCC stock markets, and shows that only Saudi and Muscat markets have predictive power of oil price increase.

Hammoudeh and Aleisa (2004) use Johansen co-integration to examine the relation between oil prices and stock markets in GCC countries, and conclude that the Saudi market is the only market in the group that can be predicted by oil future prices. King et al. (1994) employ a multivariate model using data for a number of developed and emerging markets to study the linkage between stock returns and observable factors, such as interest rates, industrial production, oil prices; and unobservable factors that are not reflected in the published data of stock markets. Their findings indicate that the unobservable factors play more significant role in explaining the volatility of stock returns. The other approach of modeling volatility of

stock markets returns is by focusing exclusively on oil price volatility as a predictive indicator for stock market returns. This approach is motivated by research finding verifying existence of significant causal links between oil price change and key macroeconomic indicators. Hamilton (1983) argues that almost all US recessions since the Second World War have been preceded by oil shocks. In a survey paper, Mork (1994) shows a negative correlation between oil prices and aggregate measures of output and employment for a group of oil importing countries.

El-Sharif et al (2005) uses Johansen co-integration technique to show existence of long-run relationship between a number of stock market indicators such as liquidity and size, with macroeconomic indicators for a number of oil exporting countries in Asia, Africa, and Latin America. Bashar (2006) employs VAR analysis to study the effect of oil price change on GCC stock markets, and shows that only Saudi and Muscat markets have predictive power of oil price increase. Hammoudeh and Aleisa (2004) use Johansen co-integration to examine the relationship between oil prices and stock markets in GCC countries, and conclude that Saudi market is the only market in the group that can be predicted by oil future prices. One rationale of using oil price change as a measure for change in key macroeconomic indicators is that value of stock prices in theory equals discounted expectation of future cash flows (dividends), which in turn are affected by macroeconomic events that possibly can be influenced by oil shocks. Despite the strong connection of oil revenues with almost all macroeconomic indicators in GCC economies, apparently the transmission mechanism of oil price shocks to stock market returns are ambiguous. Since oil price increase raises production cost in industrial oil consuming countries, oil price increase is expected to raise the cost of imported capital goods, therefore adversely affecting the prospects of higher profits for firms traded in GCC stock markets. Since oil price change transmits its effect on GCC stock markets via its effect on relevant macroeconomic variables, it seems more

appropriate to estimate the linkage between stock market prices and macroeconomic variables. However, this approach is not reliable in case of GCC countries because most GCC markets were established, as formally regulated markets only in the past six years (Alkhatlan, 2010). Thus, investigation of long-run relationship based on reliable time series models can be constrained by sample size problems. As empirical investigations seem to favour the notion that there exists a link between the performance of stock market and oil prices for oil producing countries, this work has as part of its objectives to explore the effect of oil prices in the Nigerian context.

Recent trend in the energy sector (crude oil market) have reignited research interest in the oil price–macroeconomics relationships and oil prices-stock prices long-run relationships. Several studies have explored the oil price-macroeconomics casual link and among them are Hamilton (1983), Burbridge and Harrison (1984), Gisser and Goodwin (1986), Mork (1989), Loungani (1986), Hooker (1996), Hamilton (2000), and Francois and Valerie (2008). Research by Jones and Kaul (1996), Huang et al (1996), Sadorsky (1999), Papapetrou (2001), Ciner (2001), Yang and Bessler (2004), El Sharif et al (2005), Anoruo and Mustafa (2007), McSweeney and Worthington (2007), and Miller and Ratti (2009) have investigated the effects of oil prices on stock prices in developed countries.

In addition, studies by Maghyereh (2004), Onour (2007), Aliyu (2009), Nandha and Hammoudeh (2006), and Narayan and Narayan (2010) explored the relationship between oil prices and stock prices in emerging and developing countries. Hamilton (1983) provided evidence of correlation between oil price and economic output, and further claimed that oil price was to be blamed for every post-World War II (1948-1972) recessions in the US economy. According to the author, the data (real GNP, unemployment, implicit price deflator for non-farm products, hourly compensation per worker, import prices, and M1) indicated that economic recession preceded an oil price increase after 3-4 quarters, with recovery



starting after 6-7 quarters. Gisser and Godwin (1986), Mork (1989), and Hooker (1996) provided evidence in support of Hamilton's findings. Jones and Kaul (1996) studied the response of international stock markets to changes in the oil prices using quarterly data. The study focused on stock returns from the US, Canada, UK, and Japan, utilized simple regression models, and reported that the stock returns for all countries (except UK) were negatively impacted by oil prices. Sadorsky (1999) used monthly data to probe the relationship between oil prices and stock returns for the US from January 1947 to April 1996. The author applied variance decomposition. The findings suggested that oil prices and stock returns have a negative relationship in the short term, meaning higher oil prices lead to lower stock returns. Papapetrou (2001) applied vector error correction modeling to study the effect of oil prices on stock returns for Greece using daily data and the variance decomposition. The study suggested a negative oil prices effect on stock returns that extended over four months.

Maghyereh (2004) studied the dynamic linkage between oil price and stock returns in 22 emerging economies using the unrestricted Vector Autoregressive (VAR) approach proposed by Sim (1980) with daily data. The research investigated the effectiveness of innovations transmission from oil market to emerging equity markets, utilizing forecast error variance decomposition and impulse response analysis. According to the study, a plot of each emerging equity market response to a shock in the oil price suggested a gradual transmission with the equity market reacting to the shock two days after. While the speed of adjustment slowly declined to zero on the fourth day in 16 countries, the response continued to the seventh day in Argentina, Brazil, China, Czech Republic, Egypt, and Greece. The impulse response demonstrated gradual diffusion of innovations from the oil market into the emerging equity markets. Furthermore, the author postulated the slow adjustment to imply the presence of inefficiency in the emerging equity markets transmission of innovations from

oil market. The variance decomposition revealed very weak evidence of cointegration between oil price shocks and stock market returns. In addition, the study stated that the oil market has an ineffective influence on the equity market because the sizes of responses are very small.

Anoruo and Mustafa (2007) examined the relationship between oil and stock returns for the US using daily data with Johansen Bivariate Cointegration, and error-correction approach. The findings indicate long-run relationship between oil and stock returns in the US. The estimated Vector-error-correction Model (VECM) provides evidence of causality from stock market returns to oil market and not vice versa. Although the Johansen and Juselius estimation technique did not yield evidence of cointegration, the Gregory-Hansen cointegration test provided evidence of both oil and stock markets being cointegrated. The study states that this result implied that both markets are integrated and not segmented. Consequently, the study believes that diversifying in both markets will not create benefits for the investors holding the portfolio because of the integration of the markets, and that risk minimization through portfolio diversification are unattainable by holding assets in oil and stock markets. Narayan and Narayan (2010) assess the relationship between oil prices and Vietnam's stock prices with daily series from 2000 to 2008. Using the Johansen test, the findings provide evidence of a long run relationship between oil prices, stock prices, and exchange rates for Vietnam stock market. In addition, the study found both oil prices and exchange rates have a positive and statistically significant effect on Vietnam's stock prices in the long-run and not in the short-run.

## **2.6 Relationship between Interest Rate and Stock Price**

Interest rate is one of the important macroeconomic variables, which is directly related to economic growth. Generally, interest rate is considered as the cost of capital which means the price paid for the use of money for a period of time. From the point of view of a borrower, interest rate is the cost of borrowing money (borrowing rate). From a lender's point of view, interest rate is the fee charged for lending money (lending rate). Good investors always look for investing in an efficient market. In an inefficient market few people are able to generate extra ordinary profit which causes loss of confidence of the general people about the market. In such cases, if the rate of interest paid by banks to depositors increases, people switch their capital from share market to bank. This will lead to decrease the demand of share and to decrease the price of share and vice versa. On the other way, when rate of interest paid by banks to depositors increases, this in turn will force lending rate to increase. Increase in lending rate leads to decrease the level of investment in the economy which is also another reason of decreasing share price and vice versa. So, theoretically there is inverse relationship between share price and interest rate.

### **2.6.1 Review of Empirical Evidence**

The findings from the empirical testing of the efficient market hypothesis (i.e., random walk) with stock prices have been mixed. Early studies by Fama (1965), Samuelson (1965), and Working (1960) could not reject a random walk. Shiller (1989) indicated that there are reasons that the random-walk behaviour of stock prices should hold, and there is plenty of evidence suggesting that stock prices do follow a random walk. An early rejection of a random walk was found by Niederhoffer and Osborne (1966). Poterba & Summers (1988) argued that there is little theoretical basis for strong attachment to the null hypothesis that stock prices follow a random walk. Lo and MacKinlay (1988) investigated the sampling

distributions of variance ratios over different sampling intervals and found that stock returns do not follow a random walk. Claessens (1995) in a world bank study reported significant serial correlation in equity returns from 19 emerging markets and suggested that stock prices in emerging markets violates weak form EMH. Poshakwale (1996) found the evidence of non-randomness in stock price behavior and the market inefficiency (not weak-form efficient) on the Indian market. Khababa (1998) has examined the behaviour of stock price in the Saudi Financial market seeking evidence for weak-form efficiency and found that the market was not weak-form efficient. He explained that the inefficiency might be due to delay in operations and high transaction cost, thinness of trading and illiquidity in the market.

While working on Johannesburg Stock Exchange (JSE), Jamine and Hawkins (1974), Hadassin (1976) and Du Toit (1986) rejects weak-form efficiency, but Affleck-Graves and Money (1975), Gilbertson and Roux (1977, 1978) found weak-form efficiency; Knight and Afflect-Graves (1983) rejected semi-strong form efficiency but Knight, Afflect-Graves and Hamman (1985) showed semi-strong form efficiency; Gilbertson (1976) found evidence supporting strong-form efficiency, but Knight and Firer (1989) rejected the strong-form efficiency. Given the mixed evidence on efficiency of JSE, Thompson and Ward (1995) showed that there are some share price dependencies but too small to be profitably exploited and concluded that JSE is “operationally efficient”. This means only a small group of investors are able to outperform the market.

Although some studies (Balaban 1995, Urrutia 1995, Grieb & Reyes 1999, Kawakatsu & Morey 1999) support non randomness of emerging markets’ stock prices, some other studies related to these same markets (Butler & Malaikah, 1992, and Panas, 1990) do not. Harvey (1993) states that stock returns of emerging countries are highly predictable and have low correlation with stock returns of developed countries. The study concludes that emerging

markets are less efficient than developed markets and that higher return and low risk can be obtained by incorporating emerging market stocks in investors' portfolios.

The relationship between stock prices and interest rates has received considerable attention in the literature. Fama (1981) argues that expected inflation is negatively correlated with anticipated real activity, which in turn is positively related to returns on the stock market. Therefore, stock market returns should be negatively correlated with expected inflation, which is often proxied by the short-term interest rate. On the other hand, the influence of the long-term interest rate on stock prices stems directly from the present value model through the influence of the long-term interest rate on the discount rate. Rather than using either short-term or long-term interest rates, Campbell (1987) analyzed the relationship between the yield spread and stock market returns. He argues that the same variables that have been used to predict excess returns in the term structure also predicts excess stock returns, deducing that a simultaneous analysis of the returns on bills, bonds and stock should be beneficial. His results support the effectiveness of the term structure of interest rates in predicting excess returns on the US stock market. Kaul (1990) studied the relationship between expected inflation and the stock market, which, according to the proxy hypothesis of Fama (1981) should be negatively related since expected inflation is negatively correlated with anticipated real activity, which in turn is positively related to returns on the stock market. Instead of using the short-term interest rate as a proxy for expected inflation, Kaul (1990) explicitly models the relationship between expected inflation and stock market returns. Zhou (1996) also studied the relationship between interest rates and stock prices using regression analysis. He found that interest rates have an important impact on stock returns, especially on long horizons, but the hypothesis that expected stock returns move one-for-one with ex ante interest rates is rejected. In addition, the results show that long-term interest rate explain a major part of the variation in price-dividend ratios and suggests that the high volatility of the

stock market is related to the high volatility of long-term bond yields and may be accounted for by changing forecasts of discount rates.

Lee (1997) used three-year rolling regressions to analyze the relationship between the stock market and the short-term interest rate. He tried to forecast excess returns ( the differential between stock market returns and the risk-free short-run interest rate) on the *Standard and Poor 500* index with the short-term interest rate, but found that the relationship is not stable over time. It gradually changes from a significantly negative to no relationship, or even a positive although insignificant relationship. Jefferis and Okeahalam (2000) worked on South Africa, Botswana and Zimbabwe stock market, where higher interest rates are hypothesized to depress stock prices through the substitution effect (interest-bearing assets become more attractive relative to shares), an increase in the discount rate (and hence a reduced present value of future expected returns), or a depressing effect on investment and hence on expected future profits.

Harasty and Roulet (2000) worked on 17 developed countries and showed that stock prices are cointegrated with earnings (a proxy for dividends) and the long-term interest rate in each country (except the Italian market for which the short-term interest rate was used). Spyrou (2001) also studied the relationship between inflation and stock returns but for the emerging economy of Greece. Consistent with Kaul's results, Spyrou (2001) found that inflation and stock returns are negatively related, but only up to 1995 after which the relationship became insignificant. Arango et al (2002) found that some evidence of the nonlinear and inverse relationship between the share prices on the Bogota stock market and the interest rate as measured by the inter bank loan interest rate, which is to some extent affected by monetary policy. The model captures the stylized fact on this market of high dependence of returns in short periods. These findings do not support any efficiency on the main stock market in Colombia. Hsing (2004) adopts a structural VAR model that allows for the simultaneous

determination of several endogenous variables such as, output, real interest rate, exchange rate, the stock market index and found that there is an inverse relationship between stock prices and interest rate. Zordan (2005) said that historical evidence illustrates that stock prices and interest rates are inversely correlated, with cycle's observable well back into the 1880's; more relevant to the period subsequent to World War II. From the late 1940's to the mid 1960's, inflation was low, and interest rates were both low and stable. Stocks did well during this period, both in nominal and real terms. The inverse relationship between interest-sensitive asset classes like stocks, bonds, and real estate and commodity prices has been known through history. This relationship was observed in the 1877 to 1906 cycle, the 1906 to 1920 cycle, the 1920 to 1929 cycle, the 1929 to 1949 cycle, and the 1949 to 1966 cycle by Gilbertson and Roux (1977, 1978).

Uddin and Alam (2007) examines the linear relationship between share price and interest rate, share price and changes of interest rate, changes of share price and interest rate, and changes of share price and changes of interest rate on Dhaka Stock Exchange (DSE). For all of the cases, included and excluded outlier, it was found that Interest Rate has significant negative relationship with Share Price and Changes of Interest Rate has significant negative relationship with Changes of Share Price.

## **2.7 Inflation Rate and Stock Price**

One of the most important questions that arise in the assessment of equity markets is the correlation between stock prices and inflation. It is commonly believed that rising prices also push up corporate profits and hence share prices. But is this fact or fiction? To evaluate the impact of inflation on stock market price, investors frequently draw on experiences in the immediate aftermath of the two World Wars. In Europe, these periods were marked by drastic currency depreciation. However, stockholders at the time were far less affected by

inflation and currency reforms than were (for example) holders of fixed-income securities or cash, some of whom lost all of the money they had put up.

Are stockholders, then protected against inflationary risks? At first sight, economic logic suggests that they might be. After all, rising prices mean higher corporate sales revenues and – provided costs do not rise even more sharply – higher profits. It is often pointed out in this context that a share is based on an underlying physical capital stock, which is a real entity and has a value that cannot be eroded by inflation. The nominal value of the company should therefore rise in line with general price increase.

Given that stocks refer to real capital and the (real) earnings opportunities derived from it, price increase should drive up both earnings per share and share prices in equal measure. In this case both future dividend payments and stock prices – in other words the “redemption value” – would be inflation-proof as a result of the adjustments to price inflation. However, past experience shows that this is not always the case, and it is therefore worth taking a critical look at this argument. No one would deny that, over very long horizons (e.g. about one hundred years), there is a high degree of correlation between price indices on the one hand and profits and stock indices on the other, i.e. that they move in line with each other. However, the situation can be quite different over the short and medium term (e.g. within a ten-year period). In fact, the violent economic fluctuations of the seventies, eighties and nineties were accompanied by an inverse relationship between inflation rates and stock prices.

### **2.7.1 Inflation and Corporate Profit Margins**

If businesses are simply able to pass on higher costs in their output prices, inflation would have arguably not affected corporate profit margins (the ratio of profits per unit to unit costs). However, the empirical evidence of recent decades clearly contradicts this theory



(Pindyck 1984). In reality, the correlation between inflation and profit margins seems to be negative. There are several explanations for this. The simplest is the one that points to the time lags between changes in costs and adjustments to prices. Generally speaking, businesses alter their sales prices once or twice a year at the most, not monthly. Furthermore, cost increases tend not to be passed on immediately in full, but rather in stages. The second explanation points to the behavior of central banks. If they respond to inflationary processes by tightening monetary policy, this impacts on the overall economic development in a number of ways, and restricts the ability to pass on cost increases through higher prices. And finally, structural changes also put pressure on profit margins: businesses have to take account of consumer reactions in their pricing policy. When inflation is rising, consumers tend to spend more time comparing prices and searching for alternative offers. Companies that put up their prices thus run the risk of quickly losing market share. They therefore prefer to adopt a more cautious price policy, which in turn means lower profit margins. In an inflationary environment, this translates into falling profits per unit.

### **2.7.2 Inflation and Economic Growth**

When inflation is rising, a restrictive monetary policy squeezes corporate sales potential. Furthermore, inflation affects market participants' economic activities. It generates risks for nominal contracts such as loans, pensions and pay settlements. Long-term contracts, such as investment financing or collective pay agreements which run for a number of years, are exposed to the risk that one of the parties to the agreement might inadvertently be placed at a disadvantage. In this kind of environment creditors demand risk premiums – with all the consequences this has for the cost of capital. Market players become less willing to commit to long-term contracts. Instead, they plan and act in shorter timescales. This requires extra resources, which may make sense from the individual's point of view but which are

nonetheless misplaced in macroeconomic terms. This means that options designed to put resources to efficient economic use – options which are pursued in periods of low inflation – are not exploited. In other words, an inflationary economy forfeits growth potential.

### **2.7.3 Inflation Stokes Uncertainty**

Were inflation to remain constant over many years, it would not give rise to any particular concern among market players, who would be able to anticipate it. Markets could come to terms with the regular price increases and factor them into their planning in a timely fashion. As we all know, however, inflation is prone to marked fluctuation over time. These fluctuations in inflation are closely related to the level of inflation.

### **2.7.4 Inflation Depresses Equity Performance**

On balance, therefore, inflation affects share performance in different ways. On the one hand, fundamentals such as earnings per share are hit. On the other, the longer-term inflationary uncertainty also pushes up the risk premium for shares, placing a damper on performance. The adjacent chart illustrates the negative correlation between inflation and share performance since the beginning of the seventies.

### **2.7.5 Consequences of Inflation for Stock Valuation: Real or Nominal Yield?**

In an ideal world, where inflation has a negative effect neither on real profit growth nor on risk premiums, a 5 % rise in prices (for example) would lead to an equivalent rise in corporate profits, dividend payments and stock prices. In that case, future dividend payments and stock prices would be inflation-proof, and shares would then function like an inflation-indexed bond. To find a fair value in such a case, the yield on a particular share can, as an inverse P/E ratio, be compared with the real yield on a bond.

In the real world, however, rising inflation and its impact on profit margins and sales markets can have a dampening effect on real profit growth, and thus on the average profit growth rate. On top of this, investors demand risk premiums for shares in an inflationary environment. Both of these effects reduce the fair value of the share. The higher the inflation rate, the more a real yield-P/E comparison overstates the fair value. Using this valuation approach, the danger of overvaluation therefore increases with the pace of inflation. Markets evidently price this danger into share quotations. Although a close correlation has emerged in the past two decades between the P/E ratio and the real yield, on closer examination it is clearly apparent that variances between the (inverse) P/E ratio and real yields increase in parallel with the rate of inflation.

The notion that equities provide a hedge against inflation was widespread in the older literature on economics. However, justified doubts regarding the thesis were expressed in an article by Bodie, (1976). In the meantime, the negative impact of inflation on stock performance is widely recognized in the empirical literature. An exception to this is the article by Boudoukh and Richardson, (1993). Looking at the unusually long horizon of the years 1802-1990, the authors conclude that inflation and (rolling) five-year returns move broadly in parallel. Furthermore, international comparative studies show that stock prices can benefit from inflation as soon as the inflation rate rises above around 15 percent. Clearly, there is a flight to money and near money assets in times of hyperinflation. This is the conclusion reached using the Gordon approach, which argues that, if a stock is fairly valued, the inverse P/E ratio will correspond to the sum of the real return and the risk premium minus the average (real) profit growth rate per share.

### **2.7.6 Review of Empirical Evidence**

Countries around the world have achieved significant reductions in the general rate of inflation. For emerging economies, controlling inflation has been a high priority, and there needs to be an evaluation of economic reform on emerging stock markets.

In theory, there is a case to support the view that since the rate of inflation means an increase in the general level of prices, and since common stocks can be considered as capital goods, then the stock prices should move with the general level of prices. So, when the general inflation rate increases, common stocks should also increase to compensate investors for the decrease in the value of money. In this framework, it is expected that there is a positive relationship between the inflation rate and stock prices. However, early empirical studies demonstrated a negative relationship between the inflation rate and stock returns. (Lintner, 1975; Bodie, 1976; Jaffe and Mandelker, 1976; Nelson, 1976; Fama and Schwert, 1977). In fact, the inverse relationship between a higher inflation rate and lower common stock prices according to Feldstein(1980) results from basic features of US tax laws, particularly, historic cost depreciation and the taxation of nominal capital gains. This is also reinforced by others studies. For example, Feldstein and Summers, (1979); Feldstein, (1980b, 1982); Summers, (1981); Pindyck, (1984); Fama, (1981); Dokko and Edelstein, (1987) examined this relationship in the US market by using the Mundell (1963) wealth-effect hypothesis, and the Darby (1975) tax-effect hypothesis. The results of their study indicated that a negative relationship exists between the level of expected inflation and the expected real stock market returns. Chen et al.(1986) used monthly data for the period 1958-1984 to test the impact of the inflation rate on stock prices. In fact, they defined three variables related to the inflation rate: expected inflation; the change in expected inflation; and unanticipated inflation, and found a significantly negative relationship between the inflation variables and stock prices. Similarly, Chen and Jordan (1993) found the same result for the same variables. Benderly

and Zwick (1985) and Titman and Warga (1989), however, suggested there exists a structural relationship between the inflation rate and stock returns arising from the real balance effect pertaining only to a period of adjustment rather than to a long-run equilibrium.

In an Italian study, Bottazzil and Corradi (1991) investigated the variability of the risk premium in the stock market over the period 1978-1989 and found that the acceleration of the inflation rate is negatively related to stock prices. On the other hand, other empirical studies have examined this issue in the short and long-term. For example, Boudoukh and Richardson (1993) used annual data on inflation, stock returns and short- and long-term interest rates over the period 1802-1990. Covering both the UK and US markets, the data were obtained from Spiegel (1992) and Schwert (1990) to look at the contemporaneous relationship between the inflation rate and the stock market, the study regressed 1-year stock returns on the 1-year inflation rate, and 5-year stock returns on the 5-year inflation rate. The results of this study revealed a negative relationship between the inflation rate and stock returns in the short-term, but in a long-horizon, this relationship tended to be positive.

Again, Boudoukh et al. (1994) investigate the cross-sectional relationship between expected inflation and the industry stock returns. Using monthly data for the period 1953-1990, sorting the firms into 22 industry sectors and using regression analysis, they found that the direction of relationship between expected inflation and the industry group is linked to cyclical movements in industry output and, specifically, stock returns of cyclical industries co-vary negatively with expected inflation, while the non-cyclical industries co-vary positively. They also found a negative relationship for short horizons and a positive relationship for long horizons.

Asprem (1989) and Wasserfallen (1989) explore the relationship between macroeconomic variables, and stock prices and asset portfolios in European countries. The study discover a negative relationship between the inflation rate and stock prices. Also, Najand and Rahman

(1991) argued that the volatility of inflation increases the volatility of stocks, thus in turn causing a higher required rate of return on stocks, which means a fall in stock prices. Erb et al.(1995) examined the interaction between the inflation rate and both the time-series and cross-section of expected stock returns in 41 developed and emerging equity markets. The result of this study confirmed the negative time-series relationship between realized inflation and realized asset returns when examined country-by-country. The study found that the negative relationship is maintained when longer horizon returns are examined, otherwise, when this study investigated the relationship between long-term inflation and long-horizon asset returns, it did not find a positive relationship between both variables. Hence, this suggested that international equity returns fail to serve as an inflation hedge, even if the equities are held over long horizons. Furthermore, on a country-by-country basis, equity returns do not serve as an inflation hedge. Other studies, however, have indicated that the relationship between the inflation rate and international stock returns tend to be positive in the long horizons (Boudoukh and Richardson, 1993; Boudoukh et al., 1994). However, from most of the empirical studies shown above, it can be concluded that, contrary to economic theory and common sense, a significant negative relationship between the rate of inflation and stock returns is found.

## **2.8 Relationship between Stock Price and Exchange Rate**

Establishing the relationship between stock prices and exchange rates is important for a few reasons. First, it may affect decisions about monetary and fiscal policy. Gavin (1989) shows that a booming stock market has a positive effect on aggregate demand. If this is large enough, expansionary monetary or contractionary fiscal policies that target the interest rate and the real exchange rate will be neutralized. Sometimes policy-makers advocate less expensive currency in order to boost the export sector. They should be aware whether such a

policy might depress the stock market. Second, the link between the two markets may be used to predict the path of the exchange rate. This will benefit multinational corporations in managing their exposure to foreign contracts and exchange rate risk stabilizing their earnings. Third, currency is more often being included as an asset in investment funds' portfolios. Knowledge about the link between currency rates and other assets in a portfolio is vital for the performance of the fund. The Mean-Variance approach to portfolio analysis suggests that the expected return is implied by the variance of the portfolio. Therefore, an accurate estimate of the variability of a given portfolio is needed. This requires an estimate of the correlation between stock prices and exchange rates. Is the magnitude of this correlation different when the stock prices are the trigger variable or when the exchange rates are the trigger variable? Last, the understanding of the stock price-exchange rate relationship may prove helpful to foresee a crisis. Khalid and Kawai (2003) as well as Ito and Yuko (2004) among others, claim that the link between the stock and currency markets helped propagate the Asian Financial Crisis in 1997. It is believed that the sharp depreciation of the Thai baht triggered depreciation of other currencies in the region, which led to the collapse of the stock markets as well. Awareness about such a relationship between the two markets would trigger preventive action before the spread of a crisis.

### **2.8.1 Review of Empirical Evidence**

Most studies that try to explain the fluctuations of stock prices and exchange rates are interested in finding a statistical relationship between the two variables. The studies reviewed in this section pertain to this research in the following way: Ajayi and Mougoue (1996) examine the short run relationship between stock and currency markets in the U.S. and U.K. Their results support my hypotheses about the expected signs of the two-way relationship. Granger, Huang and Yang's (2000) study further illustrates that the two markets can jointly

affect each other. Hsing (2004) and Zietz and Pemberton (1990) develop models with monthly data and simultaneously determine macroeconomic variables. Thus, their approach is particularly relevant to the one undertaken in this study.

Ajayi and Mougoue (1996) investigate the short-and long- run relationship between stock prices and exchange rates in eight advanced economies. Of interest to them are the results on short-run effects in the U.S. and U.K. markets. They find that an increase in stock prices causes the currency to depreciate for both the U.S. and the U.K. Ajayi and Mougoue explain this as follows: a rising stock market is an indicator of an expanding economy, which goes together with higher inflation expectations. Foreign investors perceive higher inflation negatively. Their demand for the currency drops and it depreciates.

As to the currency effect on the stock market, the study find that currency depreciation leads to a decline in stock prices in the short run, also consistent with my hypothesis. The authors explain this negative relationship as follows: exchange rate depreciation suggests higher inflation in the future, which makes investors skeptical about the future performance of companies. As a result, the stock prices drop. This hypothesis is supported by data from the U.K. markets. Granger, Huang and Yang (2000) research whether currency depreciation led to lower stock prices or whether declining stock prices led to depreciating currencies during the Asian Crisis of 1997. The data on some of the Asian countries support the case of bivariate causality.

Stock prices are expected to react ambiguously to exchange rates. The authors explain this with the effect of currency changes on the balance sheets of multinational companies. Depreciation could either raise or lower the value of a company, depending on whether the company is a net importer or exporter. When the stock market index is considered, the net effect cannot be predicted. The other hypothesis is that the currency will depreciate if the stock market declines (contrary to rational expectation-that currency depreciates if the stock



market is booming). This is explained as follows: in markets with high capital mobility, it is the capital flows, and not the trade flows that determine the daily demand for currency. A decline in stock prices makes foreign investors sell the financial assets they hold in the respective currency. This leads to currency depreciation. Seven of the countries examined by Granger, Huang and Yang (2000) showed a strong relationship between the two markets; causality was unidirectional in some cases and bi-directional in others. Whenever the relationship was unidirectional, it was found to be negative, regardless of which the lead variable was. For four of the countries the authors found evidence of joint causality. The direction (positive or negative) of the dual causality could not be determined, nor could it be specified which the trigger variable was. The reason for the disparity of results between the different countries might be the different degree of the capital mobility, trade volume and economic links among them. Another reason could be an omitted variable bias—for example interest rates may have an influence on stock and currency markets.

Hsing (2004) studied how fluctuations of macroeconomic indicators affect the output in Brazil in order to prescribe monetary and fiscal policy. He also used monthly data, which still provides a short-run insight, but captures more macroeconomic relationships than daily data. The author builds upon the open economy Mundell-Fleming framework where net exports depend on the real exchange rate. The model is slightly extended by including variables which research claims as relevant—oil prices, domestic and external debt. Stock prices are also included and they are expected to affect output through wealth and investment.

Hsing (2004) adopts a structural VAR model originally proposed by Sims (1986), using this method allows for the simultaneous determination of several endogenous variables. Among the seven endogenous variables are output (Y), real interest rate (RR), exchange rate (ECHR) and the stock market index (ALS), which are also the four endogenous variables in my

model. The model consists of seven equations where each endogenous variable is expressed as a function of its own lag, the lags of the other six endogenous variables, the two exogenous variables (which are the same for all seven equations), and a white noise term.

## **2.9 The Effect of GDP on Stock Prices**

The effect of GDP on equity prices is difficult to predict in part because there are two potentially offsetting effects. Stronger than expected GDP growth implies potentially stronger dividend growth and higher equity prices, however, the accompanying inflation and interest rate concerns tend to have a negative effect on equity prices.

Several studies in the macroeconomics and finance literature have examined this question with sufficiently large datasets to allow for more rigorous methods. These studies test for the effect of the surprise component of various macroeconomic releases (i.e. actual less consensus or survey estimates) on asset price movements on that day, or intraday around the time of the release. See for example Bernanke and Kutter (2003) and Fair (2003). In general, these studies tend not to find a significant effect of the GDP release news and equity price movements due to the offsetting effects noted above and difficulty measuring the true “news” contained in the data release. Nevertheless, the disconnect between equity prices and GDP release surprises remains a puzzle. A recent study by Rigobon and Sack (2006) tries to address some of these problems. Using data from 1994 to 2006, they find no significant effect from advance GDP release surprises on equity prices using a standard OLS regression. However, they do find a slightly positive effect that is statistically significant when they use a more advanced econometric method which controls for censoring effects. The coefficient was tiny, so it would take a large surprise to generate even a small movement in stock prices according to their findings.

Mobilization of resources for national development has long been the central focus of development economists. As a result of this, the centrality of savings and investment in economic growth has been given considerable attention in the literature (Rostow, 1960; Malivaud, 1979; Soyode, 1990; Aigbokan, 1995; Samuel, 1996; Demirguc-Kunt and Levine, 1996). For sustainable growth and development, funds must be effectively mobilized and allocated to enable businesses and the economy harness their human, material, and management resources for optimal output. The stock market is an economic institution, which promotes efficiency in capital formation and allocation. The stock market enables governments and industry to raise long-term capital for financing new projects, and expanding and modernizing industrial/commercial concerns. If capital resources are not provided to those economic areas, especially industries where demand is growing and which are capable of increasing production and productivity, the rate of expansion of the economy often suffers. A unique benefit of the stock market to corporate entities is the provision of long-term, non-debt financial capital. Through the issuance of equity securities, companies acquire perpetual capital for development. Through the provision of equity capital, the market also enables companies to avoid over-reliance on debt financing, thus improving corporate debt-to-equity ratio. The existing literature clearly shows that developed economies had explored the two channels through which resources mobilization affects economic growth and development – money and capital markets (Samuel, 1996; Demirguc-Kunt and Levine, 1996). This is however, not the case in developing economies where emphasis was placed on money market with little consideration for capital market (Nyong, 1997). Since the introduction of structural adjustment programme (SAP) in Nigeria, the country's stock market has grown very significantly (Alile, 1996; Soyode, 1990). This is as a result of deregulation of the financial sector and the privatization exercises, which exposed investors and companies to the significance of the stock market. Equity financing became

one of the cheapest and flexible sources of finance from the capital market and remain a critical element in the sustainable development of the economy (Okereke-Onyiuke, 2000).

Though stock market is growing it is however characterized by complexities. The complexities arise from trends in globalization and increased variety of new instruments being traded (equity options, derivatives of various forms and index futures). However, the central objectives of the stock exchanges worldwide remain the maintenance of the efficient market with attendant benefit of economic growth (Alile, 1997). The link between stock market performance and economic growth has often generated strong controversy among analysts based on their study of developed and emerging markets (Samuel, 1996; Demirguc-Kunt and Levine, 1996; Akinifesi, 1987; Levine and Zeros, 1996; Obadan, 1998; Onosode, 1998; Emenuga, 1998; Osinubi, 1998). According to Nyong (1997) the financial structure of a firm, that is, the mix of debt and equity financing, changes as economies develop. The tilt is however, more towards equity financing through the stock market. As economies develop, more funds are needed to meet the rapid expansion. The stock market serves as a veritable tool in the mobilization and allocation of savings among competing uses which are critical to the growth and efficiency of the economy (Alile, 1984).

The determination of the overall growth of an economy depends on how efficiently the stock market performs its allocative functions of capital. As the stock market mobilizes savings, concurrently it allocates a larger proportion of it to the firms with relatively high prospects as indicated by its rate of returns and level of risk. The importance of this function is that capital resources are channeled by the mechanism of the forces of demand and supply to those firms with relatively high and increasing productivity thus enhancing economic expansion and growth (Alile, 1997).

## 2.10 Summary of Review

In the literature, five schools of thought have been identified as far as stock price behaviour is concerned. These are: the fundamentalist school; the technical school; the random walk hypothesis school; the behavioural school and the macroeconomic school. Researches in the macroeconomic school all over the globe tend to favour that asset prices are affected by both economic and non-economic factors. Ross (1976) was among the earliest researchers to link macroeconomic variables with stock market returns through arbitrage pricing (APT), where multi-risk factors are used to explain asset returns. The few earlier empirical papers in Nigeria on this subject focused on aggregate stock market framework (Maku and Atanda, 2009; Ologunde, Elumilade and Asaolu, 2006; Olowe, 2007) while the link between individual stock returns and macroeconomic variables was left unattended to. This is one of the gaps in the literature that this work intends to fill.

Findings in the literature vary from country to country depending on the scope of the study, the assets and factors examined. For example, while Akinifesi (1987), Narayan and Narayan (2010) and Garvin (1989) among other researchers discover that exchange rate impacts positively on stock prices, Ajayi and Mougoue insist that increase in stock prices causes currency to depreciate for UK and US. Granger, Huang and Yang (2000) show a bivariate causality. The impact of oil price in the literature depends on whether a country is an oil producing country or an oil importing country. For instance, the work of Mork (1994), Papepetrou (2001) for Greece, Sadorsky (1999) for US, Jones and Kaul (1996) for Canada, UK and Japan show a significant negative relationship between oil price and stock return. However, the studies of Hammoudeh and Aleisa (2004) for Saudi Arabia, El-Sharif *et al* (2005) for countries in Asia, Africa, and Latin America and Narayan and Narayan (2010) show that a significant positive relationship exists between oil price and stock return.

Contrary to economic theory and common sense, in most of the empirical studies reviewed, a significant positive relationship exists between inflation rate and stock prices (Kaul, 1990; Spyrou, 2001: for Greece; Lintner, 1975; Bodie, 1976; Jaffe and Mandelker, 1976; Nelson, 1976; Fama and Schwert, 1977). The works of Jefferis and Okeahalam (2000): for South Africa, Botswana and Zimbabwe, Hsing (2004), Arango (2002), Zordan (2005) and Uddin and Alam (2007) suggest that a significant negative relationship exists between stock prices and interest rate.

Lastly, this review reveals that the determination of the overall growth of an economy depends on how efficiently the stock market performs its allocative function of capital. Literature clearly shows that developed economies had fully explored the two channels through which resources mobilization affects economic growth and development- money market and capital market (Samuel 1996, Demirguc-Kunt and Levine 1996). This is however not the case in developing countries where emphasis is placed on money market with little or no consideration for capital market (Nyong, 1997). Depending on the scope and the country under study, the relationship between stock prices and GDP remains a puzzle.

In view of the fore going, this work will not only use another technique to investigate the impact of macroeconomic variables on stock prices in Nigeria, but also make a reconciliatory effort in the macroeconomic variables-stock price puzzle; thereby contributing to the body of knowledge needed globally.

## References

- Abdelaziz M.; Chortareas G and Upollinni A. (2008), Stock Price Exchange Rates and Oil: Evidence from Middle-East Oil exporting countries- unpublished manuscript.
- Adam A.M. and Tweneboah G. (2008): *Do Macroeconomic Variables Play any Role in the Stock Market Movement in Ghana?*. MPRA Working Paper No. 9368.
- Adeyemi, K. S. (1998): "Option for Effective Development of Nigerian Capital Market" at one day seminar organized by Nigeria Economic Society at the Institute of International Affairs, Lagos 21st January 1998.
- Affleck-Graves, J. F. and Money, A. H. (1975). A Note on the Random Walk Model and South African Share Prices. *The South African Journal of Economics*, 43(3), 382-388.
- Agenor, P. R. and Montiel P., (1996). *Development Macroeconomics*, Princeton, New Jersey: Princeton University Press.
- Aigbokan, B. K. (1995): 'Financial Development and Economic Growth: A Test of Hypotheses on Supply-Leading and Demand-Following Finance, with Evidence on Nigeria'. *Nigerian Economic and Financial Review (N. E. F. R.)* December 1995 Vol. 1 2: 1-10
- Ajayi, R. A. and Mougoue, M., (1996). On the Dynamic Relation between Stock Prices and Exchange Rates. *The Journal of Financial Research* 19: 193-207
- Ajayi, S. I. and Mohsin S. K. (2000). *External Debt and Capital Flight in sub-Saharan Africa* (Washington: International Monetary Fund).
- Akamiokhor, G. (1984): 'The Securities and Exchange Commission and the Nigerian Capital Market' *Central Bank of Nigeria Bullion volume II* pp 70-77.
- Akinifesi, O. (1987): "The Role and Performance of the Capital market" in Adedotun Philips and Eddy Ndekwu (eds) *Economic Policy and Development in Nigeria* NISER, Ibadan Nigeria.
- Akinnifesi O.E. (1987): *The Role and Performance of the Capital Market*. Journal of Nigeria Institute of Social and Economic Research, Ibadan.
- Akinlo, A. E. and Ayodele F. O. (2000): "An Alternative Framework for Assessing the Impacts of Nigeria's Naira Depreciation on Output and Inflation". Final Research work to be published by African Economic Research Consortium, Nairobi, Kenya.

- Al-Tamimi, H. (2007), "Factors Affecting Stock Prices in The UAE Financial Markets", Singapore Economic Review Conference, <https://editorialexpress.com/conference/SERC2007>
- Alexander, S. (1961). "Price Movement in Speculative Markets: Trends or Random Walks," *Industrial Management Review*. Vol. 11, pp. 7 - 26.
- Alexander, S. (1964). "Price Movement in Speculative Markets: Trends or Random Walks, No. 2," *Industrial Management Review*. Vol. V, pp. 25 - 46.
- Alile, H. I. and Anao, R. A. (1986): The Nigerian Stock Market in Operation Jeromelaiho and Associate Limited, Lagos Nigeria.
- Alile, H. I. (1984): "The Nigerian Stock Exchange: Historical Perspective, Operations and Contributions to Economic Development" Central Bank of Nigeria Bullion, Silver Jubilee edition vol. II pp. 65-69.
- Alile, H. I. (1996): "Dismantling Barrier of Foreign Capital Inflows" The Business Times of Nigeria 14th April, page 5.
- Alile, H. I. (1997): "Government Must Divest" The Business Concord of Nigeria 2nd December, Pp. 8.
- Aliyu, R. U. S., Yakub, U. M., Sanni, K. G., and Duke, O. O. (2010). Exchange rate pass-through in Nigeria: Evidence for a Vector Error Correction Model, CSAE. <http://www.csae.ox.ac.uk/conference/2010-EdiA/paperlist.htm>
- Aliyu, U. R. S. (2009), Impact of oil price shock and exchange rate volatility on economic growth in Nigeria: An empirical Investigation. *Research Journal of International Studies*, Issue 11. 4-15.
- Alkathlan K. A. (2010) Impact of Oil Prices on GCC Stock Market Research in Applied Economics, Vol. 2, No. 1: E4
- Amadi S. N., Onyema J. I. and Odubo T.D. (2002): *Macroeconomic Variables and Stock Prices. A Multivariate Analysis*. Africa Journal of Development Studies, 2-1: 159-164.
- Anoruo, E., and Mustafa, M. (2007), An empirical investigation into the relation of oil to stock market prices. *North American Journal of Finance and Banking Research*, 1(1), 22-36. *Global Journal of Finance and Banking Issues Vol. 4. No. 4. 2010. Samuel Imarhiagbe* 30
- Anyafu, A. M. O. (1982). "Dividend as an Investment Decision Criterion," *Management in Nigeria: Journal of Nigerian Institute of Management (NIM)*, vol. 17, No. 2, pp. 38 - 44.



- Appleyard, D. R. and Field, A. J., (2001). *International Economics 4<sup>th</sup> ed.* Singapore: McGraw-Hill Book Co.
- Arango, L. E., Gonzalez, A. and Posada, C. E. (2002). Returns and interest rate: A nonlinear relationship in the Bogotá stock market. *Applied Financial Economics*, 12(11), 835-842.
- Asaolu T. O. and Ogunmakinwa M. S. (2011), 'An Econometric Analysis of the Impact of Macroeconomic Variables on Stock Market Movement in Nigeria' *Asian Journal of Business Management*, 3(1), 72 – 78.
- Asquith, P. and Mullins D., 1986, The impact of initiating dividend payments on shareholders' wealth, *Journal of Business* 46, 77-96.
- Asprem, M., (1989). Stock prices, asset portfolios and macroeconomic variables in ten European countries. *J. Bank. Finance* 13, 589\_612.  
Available: <http://www.econometrica.com/publications/StockPrices.pdf>
- Ayadi, O. (1984), "The Random Walk Hypothesis and the Behaviour of Share Prices in Nigeria" *The Nigerian Journal of Econornic and Social Studies Vol. XXVI No. I Pp.* 57-71.
- Bachelier, L. (1900). "Theory of Speculation," *Ann Sci. Ecote Norm. Sup.* 3, No. 1018.
- Ball, R., Kothari S. P. and Shanken J. (1995), "Problems in Measuring Portfolio Performance: An Application to Contratvian Investment Strategies" *Journal of Financial Economics*, 48, 79-107.
- Ball, R. Kothari, S. P, and Shanken, J. (1989). "Nonstationary Expected Returns: Implications for Test of Market Efficiency and Serial correlation in Returns," *Journal of Financial Economics*. Vol. 25, pp. 5 1 - 74.
- Balaban, E. (1995). Day of the Week Effects: New Evidence from an Emerging Stock Market. *Applied Economics Letters*, 2(5), 139-143.
- Banerjee, A., Dolado, J. J., Hendry, D.F., Smith, G.W., (1986). Exploring equilibrium relationships in econometrics through static models: some Monte Carlo evidence. *Oxford Bull. Econ. Stat.* 48, 253-277.
- Barro, R., (2000). Inequality and Growth in a Panel of Countries, *Journal of Economic Growth*, 5(1), 5-32.
- Bashar, Z. (2006). Wild oil prices, but brave stock markets!The case of Gulf Cooperation Council (GCC) stock markets. Middle East Economic Association Conference, Dubai, United Arab Emirates.

- Battacharya, R. and Clements, B., (2004). How cutting the external debt burden can boost growth in low-income countries, *Finance & Development, December 2004 (48-50)*
- Bencivenga, V. R., Bruce D. S., and Ross M. S. (1996): "Equity Markets, Transaction Costs, and Capital Accumulations: An Illustration". *The World Bank Review* 10(2):241-265.
- Benderly, J., and Zwick, B., (1985). Inflation, real balances, output, and real stock returns. *Am. Econ. Rev.* 75, 1115-1123.
- Benhabib, J. and Spiegel, M.M, (1994). The role of human capital in economic development: Evidence from aggregate cross-country data, *Journal of Monetary Economics* 34
- Benigno, G., (2004). Lecture Notes in International Macroeconomics. The London School of Economics and Political Science, London.
- Berg, A. and Sachs, J., (1988). The Debt Crisis: Structural Explanations of Country Performance, *Journal of Development Economics*, 29 (3), 271-306.
- Bernanke, B. and Kuttner K.. (2003). "What Explains the Stock Market's Reaction to Federal Reserve Policy?" *Journal of Finance*, 60. 1221- 1257.
- BGL Financial Monitor (2001), "*Patterns of Industry Financing in Nigeria*", A Publication of BGL Limited 18th Edition, April Central Bank of Nigeria's Statistical Bulletin (Various issues).
- Black, F. and Scholes, M. (1972). "The Valuation of Option Contracts and a Test of Market Efficiency:" *Journal of Finance*. Vol. 27, pp. 399 - 417.
- Bodie, Z., (1976). Common stocks as a hedge against inflation. *J. Finance* 31, 459-470.
- Boote, A. R. and Thugge, K., (1997). Debt Relief for Low-Income Countries: The HIPC Initiative, *IMF Pamphlet Series* No 51 (Washington: International Monetary Fund).
- Bottazzil, L., and Corradi, V., (1991). Analyzing the risk premium in the Italian stock market: ARCH-M models vs. non-parametric models. *Appl. Econ.* 23, 335\_341.
- Boudoukh, J., and Richardson, M., (1993). Stock returns and inflation: a long-horizon perspective. *Am. Econ. Rev.* 83, 1346\_1355.
- Boudoukh, J., and Richardson, M., Whitelaw, R.F., (1994). Industry returns and Fisher effect. *J. Finance* 49, 1595-1615.
- Brook, C. (2008). *Introductory Econometrics for Finance*, Cambridge, Cambridge University Press.
- Brooks, R (1998). *External Debt Histories of Ten Low-Income Countries: Lessons from Their Experience*, IMF, WP/98/72 (Washington).

- Brurbridge, J., and Harrison A. (1984), Testing for the effects of oil-price rises using vector autoregression. *Int'l Economic Rev*, 25, 459-84.
- Bureau of Economic Analysis. (2006). National Income and Product Accounts, Second Quarter 2006 GDP (Advance). July 28, 2006.
- Butler, K.C. and Mailaikah, S. J. (1992). Efficiency and Inefficiency in Thinly Traded Stock Markets: Kuwait and Saudi Arabia. *Journal of Banking and Finance*, 16, 197-210.
- Campbell J. and R.J. Shiller (1988): *Stock Prices, Earnings and Expected Dividend*. *Journal of Finance*, 43: 661-676.
- Campbell, J.Y. (1987). Stock Returns and the Term Structure. *Journal of Financial Economics*, 18, 373-399.
- CBE(Central Bank of Egypt., (1992-1998), Annual Economic Review, Various Issues (CBE, Cairo).
- Central Bank of Nigeria Statistical Bulletin for Several Issues: [http:// www.cenbank.org/](http://www.cenbank.org/)
- Charemza, W. and Deadman D., (1997). *New Directions in Econometric Practice, General to Specific Modeling, Co-integration and Vector Auto regression*, University of Leicester, 2nd Edition, Edward Elgar publishing.
- Charemza, W.W. and Deadman, D.F., (1992). *New Directions in Econometric Practice: General to Specific*
- Chen N.F., Roll R. and Ross S.A. (1986): *Economic Forces and the Stock Market*. *Journal of Business*, 59-3: 383-403.
- Chen, S., and Jordan B. D., 1993. Some empirical tests in the arbitrage pricing theory; macrovariables versus derived factors. *J. Bank. Finance* 17, 65-89.
- Chen N. F. (1991). Financial investment opportunities and the macro-economy. *J. Fin.* 46(2): 529-554.
- Cheng. P. L. and Deets, K. M. (1971). "Portfolio Returns and the Random Walk Theory," *The Journal of Finance* 26(1), 1-30.
- Christopher G.,Minsoo L.,HuaHwa A. and Z. Jun (2006): *Macroeconomic variables and Stock Market Interactions: New Zealand evidence*. *Journal of Investment Management and financial Innovation*, 3-4.
- Ciner, C. (2001), Energy shocks and financial markets: nonlinear linkages. *Studies in Nonlinear Dynamics and Econometrics*, 5(3), 203-212.
- Claessens S. and Ishac D., 1989. Liquidity, Debt Relief and Conditionality: in *Dealing with the Debt Crisis*, (Washington: World Bank).

- Claessens S., Erica D., Ravi K., and Peter W., (2000). Analytical Aspects of Debt Problems, in *External Finance for Low-Income Countries* (Washington: International Monetary Fund).
- Claessens, S., Dasgupta, S. and Glen, J. (1995). Return Behaviour in Emerging Stock Markets. *The World Bank Economic Review*, 9(1), 131–151.
- Clements, B., Battacharya, and Taon Quoc Nguyen, 2003. External Debt, Public Investment, and Growth in Low-income Countries, *IMF Working Paper* No WP/03/249.
- Cohen, D., (1996). The Sustainability of African Debt, *World Bank Policy Research Department Working Paper* No 1691.
- Collier, P. and Gunning, J. W. (1998) “Exploring African Economic Performance” WPS97-2.2 CSAE Working Papers Series.
- Cong, R. G., Wei, J. L., & Fan, Y. (2008), Relationship between oil price shocks and stock market: An empirical analysis from China. *Energy Policy*, 36(9), 3544-3553.
- Cooper, J. C. (1983), "The Korean Stock Exchange: A Qualitative and Quantitative Assessment" *The Investment Analyst* Vol. 70, Pp. 5 - 12.
- Copeland, L., (2000). *Exchange Rates and International Finance*, 3<sup>rd</sup> ed. Harlow, New York: Financial Times Prentice Hall.
- D'Ambrosio, C. (1980), "Random Walk and the Stock Exchange of Singapore" *The Financial Review* Pp. 1 - 12.
- Darby, M. R., (1975). The financial and tax effects of monetary policy on interest rates. *Econ. Esq.* 85, 266-276.
- Debby, M. Y; Mok, L. K. and Li W. (2000) "Using Daily High/Low Time to Test for Intraday Random Walk in Two Index Futures Markets" *Review of Quantitative Finance and Accounting* Volume 14, No. 4 Pp. 381 - 397.
- Demirgüç-Kunt, A. and Ross L. (1996): "Stock Market, Corporate Finance and Economic Growth: An Overview" *The World Bank Review* 10(2):223-239.
- Deshpande, A., (1997). The debt Overhang and the Disincentive to Invest, *Journal of Development Economics*, 52, 169-187.
- Detragiache, E., and Spilimbergo, A., (2001). Crises and Liquidity: Evidence and Interpretation, *IMF Working Paper* No 01/ 2.
- Diacogiannis, G.P., Tsiritakis E.D. and Manolas G.A. (2001). ‘Macroeconomic factors and stock returns in a changing economic framework: The case of Athens stock exchange. *Manage Finance*, 27(6): 23-41.

- Dickey D. and Fuller W. (1979): *Distribution of the estimators for Autoregressive time series with unit root*. Journal of American Statistical Association, 74: 427-431.
- Dickey, D. A., Fuller, W. A., (1979). Distributions of the estimators for autoregressive time series with a unit root. J. Am. Stat. Assoc. 74, 427\_431.
- Dickey, D. A., Fuller, W. A., (1981). Likelihood ratio statistics for autoregressive time series with a unit root. Econometrica 49, 1057-1072.
- Dickey, D. A., Jansen, D. W. and Thornton, D. L., (1991). A primer on cointegration with an application to money and income. Fed. Reserve Bank St. Louis Rev. 73, 58-78.
- Dijkstra, G. and Niels, H., (2001). The Uncertainty of Debt Service Payments and Economic Growth of Highly Indebted Poor Countries: Is There a Case for Debt Relief? *Unpublished manuscript, United Nations University, Helsinki.*
- Dikhanov, Y., (2003). Reconstruction of Historical Present Value of Debt for Developing Countries, 1980- 2001: Methodology and Calculations, Manuscript, The World Bank (Washington: World Bank).
- Dockery, E. and Vergari, F. (1997), "Testing the Random Walk Hypothesis: Evidence for the Budapest Stock Exchange" Applied Economic Letters Volume 4 No. 10, Pp. 627 - 629.
- Dokko, Y., Edelstein, R., (1987). The empirical interrelationships among the Mundell and Darby hypothesis and expected stock market returns. Rev. Econ. Stat. 69, 161-166.
- Dolado, J. J., Jenkison, T., and Sosvilla-Rivero, S., (1990). Co-integration and unit roots. J. Econ. Surv. 4, 249-273.
- Doornik, J. A., Hendry, D.F., (1994). An Interactive Econometric Modelling System., International Thomson Publishing, London.
- Dornbusch, R and Fisher, S. (1980), Exchange rates and the current account. *The American Economics Review*, 70(5), 960-971
- Drummen, M., and Zimmermann, H. (1992). The structure of European stock returns. Finan. Analyst J. 48, 15–26.
- Du Toit, G. S. (1986). Technical Analysis and Market Efficiency on the Johannesburg Stock Exchange. *Working Paper for D.Com degree*, Pretoria: University of Pretoria.
- Eatwell, J; Milgate, M. and Newman, P; (1987). The New Palgrave Dictionary of Economics, Vol. 2, The Macmillan Press Limited: London.
- Edo, S. E, (1995): "An Estimation of a Model of Long-term Securities Investment in Nigeria"

- Elbadawi, I.A., Ndulu, B.J. and Ndungu, N., (1997). Debt Overhang and Economic Growth in sub-Saharan Africa, *External Finance for Low-Income Countries*, IMF, Washington D.C.
- El-Sharif, I., Brown, D., Burton, B., Nixon, B., and Russell, A. (2005), Evidence on the nature and extent of the relationship between oil prices and equity values in the UK. *Energy Economics*, 27, 819-830.
- Emenuga C.A. (1994); *Systematic Factors and Returns on Equities in the Nigerian Securities Market*. Unpublished Ph.D Thesis, University of Ibadan, Ibadan.
- Emenuga, Chidozie (1998): "Nigerian Capital Market and Nigeria Economic Performance" at one day seminar organized by Nigeria Economic Society at the Institute of International Affairs, Lagos 21st January 1998.
- Emerging Stock Market Fact Book (2000) Standard and Poor's , A Division of McGraw-Hill Companies New York USA.
- Energy Information Administration (EIA). [www.eia.doe.gov/emeu/cabs/](http://www.eia.doe.gov/emeu/cabs/)
- Engle R.F. and C.W.J. Granger (1987): *Cointegration and Error Correction. Representation, estimation and testing*. *Econometrica*, 55: 251-276.
- Engle, R. F., and Granger, C. W. (1987), Cointegration and error correction: representation, estimation and testing. *Econometrica*, 55, 251-276.
- Engle, R.F., Granger, C.W.J., (1991). Long Run Economic Relations: Readings in Co-integration. Oxford University Press, Oxford.
- Erb, C.B., Harvey, C.R., Viskanta, T.E., (1995). Inflation and world equity selection. *Finance. Anal. J.* 51, 28-42.
- EViews7, (2009). User's guide II, California, Quantitative Micro Software.
- Fama, E. F. (1976). *Foundations of Finance*. (Basic Books, New York).
- Fama, E. F. (1970). "Efficient Capital Markets: Review of Theory and Empirical Work," *Journal of Finance*. 25(2), 383 - 423.
- Fama, E. F. (1965). "The Behaviour of Stock Market Prices," *Journal of Finance*. Volume 37, Pp 934 - 1003.
- Fama, E. and French, K. R. (1988). "Permanent and Temporary Components of Stock Prices," *Journal of Political Economy*. 96, 246 - 73.
- Fama, E. F (1970), "Efficient Capital Markets: Review of Theory and Empirical Work" *Journal of Finance*, Volume 25(2), 383 - 423.
- Fama E. F. (1977): Asset Returns and Inflation, *Journal of Monetary Economics*, 38: 327-348.

- Fama, E.F., (1981). Stock returns, real activity, inflation, and money. *Am. Econ. Rev.* 71, 545-565.
- Fama, E. F., Schwert, G.W., (1977). Asset returns and inflation. *J. Finance Econ.* 5, 115-146.
- Feldstein, M., (1980). Inflation and the stock markets. *Am. Econ. Rev.* 70, 839-847.
- Feldstein, M., (1980). Inflation tax rules, and the stock market. *J. Monet. Econ.* 6, 309-331.
- Feldstein, M., (1982). Inflation and the stock market: reply. *Am. Econ. Rev.* 72, 243-246.
- Feldstein, M., Summers, L., (1979). Inflation and the taxation of capital income in the corporate sector. *Natl. Tax J.* 32, 445-470.
- Filler, Randall K., Jan Hanousek and Nauro F. C. (1999): "Do Stock Market Promote Economic Growth?" The William Davidson Institute (University of Michigan Business School) Working Paper Series No. 267 September. Federal Office of Statistics Statistical Bulletin (Various issues).
- Flannery M. I. and A. A. Protopapadakis (2002): *Macroeconomic Factors do Increase Aggregate Stock Returns*. *Review of Financial Studies*, 15: 751-789.
- Fry, M. J., (1989). Foreign Debt Instability: An Analysis of National Saving and Domestic Investment Responses to Foreign Debt Accumulation in 28 Developing Countries, *Journal of International Money and Finance*, 8, 315-344.
- Gan, C., M. Lee, H. Y. and Zhang J. (2006). 'Macroeconomic variables and stock market interactions: New Zealand evidence. *Int. Manage. Financ. Innov.*, 3(4): 89-101.
- Gavin, M., (1989). The Stock Market and Exchange Rate Dynamics, *Journal of International Money and Finance* 8:181-200.
- Gilbertson, B. P. (1976). The Performance of South African Mutual Funds. *Report No. F76/84*, Johannesburg: Johannesburg Consolidated Investment Company. Vol. 4, No. 3 *International Journal of Business and Management*, 48
- Gisser, M., and Goodwin T. H. (1986), Crude oil and the macroeconomy: tests of some popular notions. *Journal of Money Credit Bank*, 18, 95-103.
- Granger, C.W.J, Huang, B., Yang, C.W., (2000). A bivariate causality between stock prices and exchange rates: Evidence form recent Asian flu. *The Quarterly Review of Economics and Finance* 40: 337-354.
- Grieb, T. A. and Reyes, M. G. (1999). Random Walk Tests for Latin American Equity Indexes and Individual Firms. *Journal of Financial Research*, 22(4), 371-383.
- Grinold, R., Rudd, A., and Stefek, D. (1989). Global factors: fact or fiction? *J. Portfolio Manage.* 16, 79–88.

- Gunter, B.; (2003). What's Wrong with the HIPC Initiative and What's Next? *Development Policy Review*, 2002, 20(1): 5-24.
- Gunter, B.; (2003). Achieving Long-term Debt Sustainability in All Heavily Indebted Poor Countries (HIPC), Discussion Paper, International Group of 24 (G-24), Trinidad and Tobago.
- Hadassin, I. (1976). An Investigation into the Behavior of Emerging and Share Prices of South African Listed Companies. *Investment Analysts Journal*, 8, 13-24.
- Hamilton, J. D. (1983), Oil and the macroeconomy since World War II. *Journal of Political Economy*, 92, 228-48.
- Hamilton, J. D. (2000). What is an Oil Shock?, NBER Working Paper 7755.
- Hammoudeh, S. and Aleisa, E. (2004), Dynamic relationships among GCC stock markets and NYMEX oil Futures.. *Contemporary Economic Policy*, 22(2), 250-269.
- Hansen, H., (2001). The Impact of Aid and External Debt on Growth and Investment: Insights from Cross-Country Regression Analysis, *WIDER Conference on Debt Relief, United Nations University, Helsinki*.
- Harasty, H. and Roulet, J. (2000). Modeling Stock Market Returns. *Journal of Portfolio Management*, 26 (2), 33.
- Harris, R.I.D., (1995). Using Co-integration Analysis in Econometric Modeling, University of Portsmouth, Prentice Hall, Harvester Wheatsheaf, London.
- Harvey, A. C. (1993). *Time Series Models*. 2nd Edition, New York: Harvester Wheatsheaf.
- Hatemi J, A and Irandoust, M. (2002). On the Causality between Exchange Rates and Stock Prices: A Note. *Bulletin of Economic Research* 54: 197-203
- Hendry, D, and Juselius, K. (2000), Explaining Cointegration Analysis: Part II. *Discussion Paper*, <http://www.econ.ku.dk/Reserach/publications/pink/2000/0020.pdf>.
- Heston, S. L. and Rouwenhorst, K. G. (1994). Does industrial structure explain the benefits of international diversification? *J. Finan. Econ.* 36, 3–27.
- Hjertholm, P. (1999). Analytical History of Heavily Indebted Poor Country (HIPC) Debt Sustainability Targets, Development Economics Research Group (DERG), Institute of Economics, University of Copenhagen.
- Hjertholm, P. (2001). Debt Relief and the Rule of Thumb: Analytical History of HIPC Debt Sustainability Targets, Wider Conference on Debt Relief, Helsinki.
- Horngren, C. T., Foster, G. and Datar, S. M. (1997). *Cost Accounting: A Managerial Emphasis*. 9th ed. (New Delhi: Prentice Hall Inc.).



- Hooker, M. A. (1996), What happened to the oil price-macroeconomy Relationship? *Journal of Monetary Economics*, 38, 195-213.
- Hsing, Y. (2004). Impacts of Fiscal Policy, Monetary Policy, and Exchange Rate Policy on Real GDP in Brazil: A VAR Model, *Brazilian Electronic Journal of Economics* 6: 1-12
- Huang, R. D., Masulis, R. W. and Stoll, H. R. (1996), Energy shocks and financial markets *Journal of Future Markets*, 16, 1-27.
- Hussainey K. and Ngoc L. (2009), 'Impact of Macroeconomic Variables on Vietnamese Stock Exchange' *Journal of Risk Finance*, Vol. 4, 18-46
- Ibrahim M. H. and Aziz H. (2003): *Macroeconomic Variables and the Malaysian Equity market: A view Through Rolling Sub-Samples*. *Journal of Economic Studies*, 30: 6-27
- Ibrahim, M. H., (1999). Macroeconomic Variables and Stock Prices in Malaysia: An Empirical Analysis. *Asian Economic Journal* 13: 46-69.
- IMF and IDA (2004). Debt Sustainability in Low-Income Countries- Proposal for an Operational Framework and Policy Implications (Staff of the IMF and the World Bank: Washington).
- IMF (2003): Debt Sustainability in Low-income Countries-Towards a Forward-Looking Strategy (Staff of the Policy Development and Review Department: Washington).
- Inanga, I. L. and Emenuga C. (1997) "Institutional, Traditional and Asset Pricing Characteristics of the Nigerian Stock Exchange" African Economic Research Consortium Research paper 60 March 1997.
- Ito T. and Yuko H. (2004). High-Frequency Contagion between the Exchange Rates and Stock Prices, *Working Paper 10448*, NBER, Cambridge, MA.
- Jaffe, J. F. and Mandelker, G., (1976). The Fisher effect for risky assets: an empirical investigation. *J. Finance* 31, 447-458.
- Iyiegbuniwe, W. (1999), 'Change in Stock Price and Analysts' (Value Line) Forecasts of earnings and Dividends', *Review of Business and Finance*, 1 (1): Pp 1-16.
- Jammie, A. P. and Hawkins, D. M. (1974). The Behavior of Some Share Indices: A Statistical Analysis. *The South African Journal of Economics*, 42(1), 43-55.
- Jefferis, K. R. and Okeahalam, C. C. (2000). The Impact of Economic Fundamentals on Stock Markets in Southern Africa. *Development Southern Africa*, 17(1), 23-51.
- Jensen, M. C. and Benington George A. (1970), "Random Walk and Technical Theories: Some Additional Evidence " *Journal of Finance* 25(2), 469 - 482.

- Johansen, S. (1991), Estimation and hypothesis testing of Cointegration Vector in Guassian Vector Autoregressive Models. *Econometrica*, 59, 1551-1580.
- Johansen, S. (1995), Likelihood-based inference in Cointegration Vector Autoregressive Models, Oxford: Oxford University Press.
- Jones, C. M., and Kaul, G. (1996), Oil and the stock markets. *The Journal of Finance*, 51, 463-491.
- Karam, P. (2001). Exchange rate policies in Arab countries: assessment and recommendation. Economic Policy Institute, Arab Monetary Fund, UAE, Unpublished working paper.
- Kasa, Y. (1992). "Common Stochastic Trends in International Stock Markets," *Journal of Monetary Econometrics*. 29, 95-124.
- Kaul, G. (1990). Monetary Regimes and the relation between stock returns and inflationary expectations. *Journal of Financial and Quantitative Analysis*, 15, 307-321.
- Kawakatsu, H. and Morey, M. R. (1999). An Empirical Examination of Financial Liberalization and the Efficiency of Emerging Market Stock Prices. *The Journal of Financial Research*, 22, 385-411.
- Kemp, A. C. and Ried, G. C. (1972). "Random Walk Hypothesis and the Recent Behaviour of Equity Prices in Britain," *Econozics*. Pp. 28 - 5 1.
- Kendel, M. G. (1953). "The Analysis of Economic Time Series I," *Jozzrnal of the Rqyal Statistical Society (Ser. A)*. 116, 11 - 26.
- Kennedy, P. (2003). A guide to Econometrics, Fourth Edition, Simon Fraser University, Blackwell Publishers.
- Khababa, N. (1998). Behavior of stock prices in the Saudi Arabian Financial Market: Empirical research findings. *Journal of Financial Management & Analysis*, 11(1), 48-55.
- Khalid, A.M., and Kawai, M. (2003). Was financial market contagion the source of economic crisis in Asia?: Evidence using a multivariate VAR model. *Journal of Asian Economics* 14: 131-156.
- King M., and S. Wadhvani. (1994). Volatility and links between national stock markets. *Econometrica*, Vol. 62/4, pp. 901–33.
- Knight, E. T. and Firer, C. (1989). The Performance of South African Unit Trusts 1977-1986. *The South African Journal of Economics*, 57(1), 52-68.

- Knight, R. F. and Affleck-Graves, J. F. (1983). The Efficient Market Hypothesis and a Change to LIFO: An Empirical Study on the JSE. *Investment Analysts Journal*, 21, 21-33.
- Knight, R. F., Affleck-Graves, J. F. and Hamman, W. D. (1985). The Effect of Inventory Valuation Methods on Share Prices: Some New Evidence for the JSE. *Investment Analysts Journal*, 26, 45-47.
- Kraay, A. and Nehru, V., (2004). When Is External Debt Sustainable? *World Bank Policy Research Working Paper* 3200, (Washington: World Bank).
- Krugman, P. (1988). Financing vs. Forgiving a Debt Overhang, *Journal of Development Economics*, 29, 253-68.
- Kwon C. S. and Shin T.S. (1999). *Cointegration Vectors of Economic Variables and Stock Market Returns*. *Global Financial Journal*, 10: 71-81
- Lee, W. (1997). Market timing and short-term interest rates. *Journal of Portfolio Management*, 23 (3), 35-46.
- Lescaroux, F. and Mignon, V. (2008), On the influence of oil prices on economics activity and other macroeconomic and financial variables. *OPEC Energy Review*, 343-380.
- Levine R. and Sara Z. (1996): "Stock Market Development and Long-run Economic Growth" *The World Bank Review* 10(2), 56-74.
- Lintner, J. (1975). Inflation and security returns. *J. Finance* 30, 259-280.
- Lloyd-Ellis, H., McKenzie, G. W., and Thomas, S. H., (1990). Predicting the Quantity of LDC Debt Rescheduling, *Economic Letters*, 32 (1), 67-73.
- Leuthold, R. M. (1977) "Random Walk and Price Trends; The Live Cattle Futures Markets" *Journal of Finance* Volume, 27(4), 879 - 889.
- Levy, R. A. (1966). "An Evaluation of Selected Applications of Stock Market Timing Techniques, Trading Tactics and Trend Analysis," (Unpublished Ph.D. Dissertation. The American University.
- Levy, R. A. (1967a). "Random Walks: Reality or Myth," *Financial Analysts Journal*. (November - December).
- Levy, R. A. (1967b). "Relative Strength as a Criterion for Investment Selection," *Journal of Finance*. 22, 595 - 610.
- Levy, R. A. (1967c). "The Principle of Portfolio Upgrading," *The Industrial Management Review*. Pp. 82 - 96.
- Levy, R. A. (1968). "Random Walks: Reality or Myth - Reply," *Financial Analysts Journal*. Pp. 129 - 132.

- Lo, A. W, and Mackinlay, A. C. (1989), "The Size and Power of the Variance Ratio Test in Finite Samples: A Monte Carlo Investigation" *Journal of Econometrics*, 40, 203 - 38.
- Lo, A. W. and Mackinlay, A.C. (1988). Stock Market Prices Do Not Follow Random Walks: Evidence from A Simple Specification Test. *Review of Financial Studies*, 1, 41-66.
- Loungani P. (1986), Oil Price Shock and Dispersion Hypothesis. *Rev Econ Stat*, 68, 3, 536-539.
- Lucas, R. E., (1990). Why doesn't capital flow from rich to poor countries? *American Economic Review, Papers and Proceedings*, 80, 942-63.
- Maghyreh, A. (2004), Oil price shock and emerging stock markets: A Generalized VAR Approach. *International Journal of Applied Econometrics and Quantitative Studies*, 1(2), 27-40.
- Maku O. E. and Atanda A. A. (2009), 'Does Macroeconomic Indicators Exert shock on the Nigerian Capital Market? Online at <http://mpira.ub.uni-muenchen.de/17917/>
- Malivaud, E. (1979): Economic Growth and Resources (Vol. 1): The Major Issues. Proceedings of the 5th World Congress of the International Economic Association held in Tokyo, Japan 1977. Macmillan Press Limited London.
- Malliaris, A. G. and Stein, J. L. (1999). "Methodological Issues in Asset Pricing: Random Walk or Chaotic Dynamics," *Journal of Banking and Finance*. (23)11, 1605 - 1635.
- Mandelbrot, B. and Taylor, H. M. (1967). "On the Distribution of Stock Price Differences," *International Research*. 15, 1057 - 1062.
- Martin, M., (2004). Has Debt Relief Made Low-Income Countries' Debt Sustainable? Debt Relief International; Conference on Debt Relief and Global Governance, Rotterdam.
- Mc Fadden, D., Eckaus R., Feder, G., Hajivassiliou, V., and O'Connell, S., (1985). Is There Life After Debt? An Econometric Analysis of the Creditworthiness of Developing Countries, *International Debt and the Developing Countries*, (Washington: World Bank).
- McSweeney, E. and Worthington, A. C. (2007), A comparative analysis of oil as a risk factor in Australian industry stock returns, 1980-2006. *Working Papers Series*, University of Wollongong, <http://ro.uow.edu.au/commpapers/339>
- Miller, I. J., and Ratti, A. R., (2009), Crude oil and stock markets: stability, instability, and bubbles. *Energy Economics*, 31(4), 559-568.
- Mishkin, F. S. (2001). The transmission mechanism and the role of asset prices in monetary policy. *NBER Working Paper No 8617*.

- Mookerjee R. and Yu Q. (1997): *Macroeconomic Variables and stock prices in a Small Open Economy: The case of Singapore*. Pacific-Basin Financial Journal, 5: 377-388.
- Moore H. (1962): *Stock Prices and the Business Cycle*. Journal of Portfolio Management, 1: 59-64.
- Mork K. (1989), Oil and the Macroeconomy, When prices go up and down: An extension of Hamilton's results. *Journal of Political Economy*, 97(51), 740-744.
- Mork, K. (1994). Business cycles and the oil market (special issue). *Energy Journal*, 1(15), 15-37.
- Morgenstern, O . and Granger, C. W. J. (1963). "Spectral Analysis of New York Market Prices," *Kyklos*. 16, 1 - 27.
- Mukherjee T. K. and Naka A. (1995): *Dynamic Relations between Macroeconomic Variables and the Japanese Stock Market. An application of Vector Error Correction Model*. Journal of Finance Research, 18: 223-237.
- Mundell, R. A., (1963). Inflation and real interest. *J. Polit. Econ.* 71, 280-283.
- Muradoglu, G., Taskin F. and Bigan I. (2000). 'Causality between stock returns and macroeconomic variables in emerging markets. *Russian East Eur. Finance Trade*, 36(6): 33-53.
- Mukhopadhyay, D. and Sakar N. (2003). 'Stock returns and macroeconomic fundamentals in model specification framework: Evidence from Indian stock market. Indian Statistical Institute, Economic Research Unit, ERU 2003-2005 Discussion Paper, January, 1-28.
- Najand, M. and Rahman, H., (1991). Stock market volatility and macroeconomic variables: international evidence. *J. Multinatl. Financ. Manage.* 1, 51-56.
- Nandha, M., and Hammoudeh, S. (2006), Systematic risk, and oil price and exchange rate sensitivities in Asia-Pacific stock markets. *Research in International Business and Finance*, 219(20), 326-341.
- Narayan, K. P., and Narayan, S. (2010), Modeling the impact of oil prices on Vietnam's stock prices. *Applied Energy*, 87, 356-361.
- National Bureau of Statistic: [www.nigerianstat.gov.ng](http://www.nigerianstat.gov.ng)
- Nelson R. R. and Phelps E. S., (1966). Investments in humans, technological diffusion, and economic growth, *American Economic Review*, 56, 69-75.
- Nelson, C. R., (1976). Inflation and rates of return on common stocks. *J. Finance* 31, 471-483.
- Niederhoffer, V. and Osborne, M. F. M. (1966). Market Making and Reversal on the Stock Exchange. *Journal of the American Statistical Association*, 61, 897-916.

- Nigerian Capital Market Data Bank: <http://dbank.secnigeria.org/index.php>
- Nigerian Economic and Financial Review (N. E. F. R.) December 1995 12: 45-53
- Nwokoma N. I. (2002): *Stock Market Performance and Macroeconomic Indicators Nexus in Nigeria. An empirical investigation.* Nigerian Journal of Economic and Social Studies, 44-2.
- Nyong, M. O. (1997): "Capital Market Development and Long-run Economic Growth: Theory, Evidence and Analysis" First Bank Review, December 1997: 13-38.
- Nweze A. U. (2002), 'The Relation Of The Structure Of Equity Share Prices To Historical, Expectational And Industrial Variables: The Nigerian Experience' *Unpublished Ph.D Thesis*, University of Nigeria, Nsukka.
- Obadan, M. I. (1998): Presidential Address presented on the " Capital Market and Nigeria's Economic Development" at one day seminar organized by Nigeria Economic Society at the Institute of International Affairs, Lagos 21st January 1998.
- Obstfeld, Maurice (1994): "Risk-taking, Global Diversification, and Growth" American Economic Review 84 (5, December) 1310-1329.
- Okafor, F.O (1983) *Investment decisions: Evaluation of projects and securities* (London: Cassel).
- Okereke-Onyiuke N. (2000): "Stock Market Financing Options for Public Projects in Nigeria" The Nigerian Stock Exchange Factbook 2000.
- Oks, D., and Swender V. W. (1995). Mexico After the Debt Crisis: Is Growth Sustainable? *Journal of Development Economics*, 47,155-78.
- Ologunde, A. O., Elumilade, D. O. and Asaolu, T. O. (2006). Stock Market Capitalization and Interest Rate in Nigeria: A Time Series Analysis. *International Research Journal of Finance and Economics*, 4, 154-166.
- Olowe, R. A. (2007), 'The Relationship Between Stock Prices and Macroeconomic Factors in the Nigerian Stock Market' *African Review of Money, Finance and Banking*, 79 - 98
- Omran, M. and Pointon J. (2000), The determinants of the cost of capital by industry within an emerging economy: Evidence from Egypt, *Emerging Markets Review*, 2(2001), 263-279.
- Onosode, G. O. (1998): "The Capital Market and Nigeria's Economic Development" at one day seminar organised by Nigeria Economic Society at the Institute of International Affairs, Lagos 21st January 1998.

- Onour, A. I. (2007), Impact of oil price volatility on Gulf Cooperation Council stock markets' return. *OPEC Review*,31(3), 171-189.
- Osborne, H. F. M. (1959). "Brownian Motion in the Stock Market," *Operation Research*. 7, 145 - 173.
- Osinubi, T. S. (1998): Stock Market Development and Long-run Growth in Nigeria". Unpublished M.Sc. Economics Dissertation, University of Ibadan Nigeria.
- Osioma, B. C. (1 983). "Capital Market Efficiency in Nigeria: A Test of the Random Walk Hypothesis," Ph.D. Thesis. Department of Banking and Finance, University of Nigeria, Enugu Campus - Nigeria.
- Oyejide, T. Ademola (1994): "The Financial System and Economic Growth in the Context of Political Transition". Central Bank of Nigeria Economic and Financial Review. 32(3), 260-267.
- Panas, E. E. (1990). The Behaviour of Athens Stock Prices. *Applied Economics*, 22(12), 1915-1927.
- Papapetrou, E. (2001), Oil price shocks, stock market, economic activity and employment in Greece., *Energy Economics*,. 23 (5), 511-532.
- Park, J, and Ratti, A. R. (2008), Oil price shocks and stock markets in the U. S. and 13 European Countries. *Energy Economics*, 30, 2587-2608.
- Pattillo, C., Poirson, H. and Ricci, L., (2004). What are the Channels Through Which External Debt Affects Growth? *IMF Working Paper* No WP/ 04/15.
- Pilbeam, K. (1995), "The Profitability of Trading in the Foreign Exchange Market: Chartists Fundamentalists and Simpletons" *Oxford Economic Papers*, 47(3), 437 - 452.
- Pindyck, B. S., (1984). Risk, inflation, and the stock market. *Am. Econ. Rev.* 74, 335-351.
- Poshakwale, S. (1996). Evidence on the Weak-form efficiency and the day of the week effect in the Indian Stock Market. *Finance India*, 10(3), 605-616.
- Poterba, J. M. and Summers, L. H. (1988). Mean Reversion in Stock Returns: Evidence and Implications. *Journal of Financial Economics*, 22, 27-59.
- Ranis G., S., and Ramirez, (2000). Economic Growth and Human Development, *World Development*, 28,197-219.
- Refalo, F. J. (2009), China's impact on price shocks in the world oil markets. *The Journal of Energy Markets*, 2(1), 89-113.
- Reilly F. and Norton E. (1999), *Investments*, USA: Dryen press
- Rigobon, R. and Sack B. (2006). "Noisy Macroeconomic Announcements, Monetary Policy and Asset Prices." Working Paper. June 2006.

- Robert, D. G. (2008). 'Effect of macroeconomic variables on stock market returns for four emerging economies: Brazil, Russia, India and China', *Int. Bus. Econ. Res. J.*, 7(3).
- Roberts, H. V. (1959). "Stock Market "Patterns" And Financial analysis: Methodological Suggestions "Journal of Finance, 14(1), 1 - 10.
- Romer, P. M., (1990). Endogenous technical change, *Journal of Political Economy*, 98, S71-S102.
- Ross S. A.(1976): *The Arbitrage Theory of Capital Asset Pricing*. Journal of Economic Theory, 13(3), 341-360.
- Rostow, W. W. (1960): *The process of Economic Growth* 2nd Edition Oxford University Press, Ely House, London W. I.
- Roux, F. J. P. and Gilbertson, D. P. (1978). The behavior of share prices on the Johannesburg Stock Exchange. *Journal of Business Finance and Accounting*, 5(2), 223-232.
- Ruby, D. A., (2003). Capital Accumulation and Economic Growth, *The Digital Economist*, [http:// www.digitaleconomist.com](http://www.digitaleconomist.com)
- Sachs, J., (1989). The Debt Overhang of Development Countries, in *Debt Stabilization and Development: Essays in Memory of Carlos Diaz Alejandro* (Basic Blackwell: Oxford).
- Sachs, J. (2002). Resolving the Debt Crisis of Low-Income Countries, *Brookings Papers on Economic Activity*, 1: 2002 (Harvard University).
- Sadorsky, P. (199), Oil shocks and stock markets activity. *Energy Economics*, 21, 449-469.
- Samuel, C. (1996): "Stock Market and Investment: The Governance Role of the Market" *The World Bank Review*, 10 ( 2)
- Samuel, J. M. and Yacout, N. (1981). "Stock Exchanges in Developing Countries," *Savings and Development.*, 4(2) 17 - 230.
- Samuelson, P. A. (1965). Proof that Properly Anticipated Prices Fluctuate Randomly. *Industrial Management Review*, 6, 41-49.
- Savvides, A., (1992). Investment Slowdown in Developing Countries during the 1980s: Debt Overhang or Foreign Capital Inflows, *Kyklos*, 45, 363-378.
- Schwert, G.W., (1990). Indexes of the United States stock prices from 1802 to 1987. *J. Bus.* 63, 399-426.
- Schwert, G. (1989). Why does stock market volatility change over time?. *Journal of Finance*, 44(5), 1115–1153.
- Schwartz, R. A. (1970). "Discussion - Fama's Market: A Review of Theory and Empirical Work," *Journal of Finance*. 25(2), 421 - 423.



- Securities and Exchange Commission's Statistical Bulletin (Various issues).
- Serkan Y. (2008): *Macroeconomic variables, Firm Characteristics and Stock Returns. Evidence from Turkey*. International Research Journal of Finance and Economics, 16.
- Serven, L. and Solimano, A., 1993. Debt Crisis, Adjustment Policies and Capital Formation in Developing Countries: Where do we stand? *World Development*, 21(1).
- Serven, L. (1997). Uncertainty, Instability and Irreversible Investment: Theory Evidence and Lessons for Africa, *World Bank Policy Research Working Paper* No. 1722 (Washington: World Bank).
- Sharpe W. F. (1970). "Discussion - Fama's Efficient Capital Markets: A Review of Theory and Empirical Work," *Journal of Finance*. 25(2),418 - 420.
- Shiller, R. J. and Peron P. (1985). Testing the Random Walk Hypothesis Power Versus Frequency Observation," *Economic Letters*.18, 381 - 86.
- Shiller, R. J. (1989), *Market Volatility*, Massachusetts: M.I.T. Press.
- Siegel, J. J. (1992). The real rate of interest from 1800\_1990: a study of the US and UK. *J. Monet. Econ.* 29, 227-252.
- Sim, C. A. (1980), Macroeconomics and reality. *Econometrica*, 48, 1-48.
- Smith L. H. (1990): *Stock Prices Behavior in the American Economy*. American Economic Review, 71: 429-450.
- Soyode, A. (1993): *Nigerian Capital Market and Macroeconomic Variables. An empirical analysis*. Nigerian Journal of Monetary Economics,3.
- Soyode, A. (1990): 'The Role of Capital in Economic Development' *Security Market Journal Nigeria*, 6, 67-84
- Spiegel, M. R. and Stephens, L. J. (1999). *Schaum's Outlines: Statistics*. 3rd ed. (New York: McGraw-Hill).
- Spyrou, I. S. (2001). Stock returns and inflation: evidence from an emerging market. *Applied Economics Letters*, 8, 447-450.
- Standard and Poor's Emerging Stock Market Factbook, 2000.
- Strong, N. (1992). Modelling Abnormal Returns: A Review Article. *Journal of Business Finance and Accounting*, 19(4), 533-553.
- Studenmund, A. H. (2001). *Using Econometrics: A Practical Guide*, 4<sup>th</sup> ed. Boston, MA: Addison Wesley.
- Summers, L., (1981). Inflation, the stock market, and owner-occupied housing. *Am. Econ. Rev.* 71 (2), 429-434.

- Summers, L. (1986). "Does the Stock Market Rationally Reflect Fundamental Values?"  
Journal of Finance, 41, 591 - 601.
- Summers, L., (1981), Inflation, and the valuation of corporate equities, National Bureau of  
Economic Research, Working Paper No. 824, December.
- The Nigerian Stock Market Annual Reports and Statement of Account (Various issues).
- The World Bank, (2002). Global Development Finance CD-ROM
- The World Bank, (2002). World Development Indicators CD-ROM
- The World Bank, 2003. Education in Rwanda: Rebalancing Resources to Accelerate Post-  
Conflict Development and Poverty Reduction, (Washington: World Bank).
- Thirlwall, A. P., (1999). Growth and Development: with Special Reference to Developing  
Economies, 6th edition, Edward Elgar Publishing limited, Cheltenham, UK.
- Thirlwall, A. P., (2002). The Nature of Economic Growth: An alternative Framework for  
Understanding the Performance of Nations, Edward Elgar Publishing limited,  
Cheltenham, UK.
- Thirlwall, A. P., (2003). The Mobilization of Savings for Growth and Development in  
Developing Countries, University of Kent, UK.
- Thomas, R. L., (1997). Modern Econometrics: An Introduction. Addison Wesley Longman  
Limited, Essex.
- Thompson, A. R. and Ward, M. J. D. (1995). The Johannesburg Stock Exchange as an  
Efficient Market: A Review. *Journal of Studies in Economics and Econometrics*,  
19(3), 33-63.
- Titman, S., and Warga, A., (1989). Stock returns as predictors of interest rates and inflation.  
J. Finance Quantit. Anal. 24, 47\_58.
- Uddin, M. G. S. and Alam, M. M. (2007). The Impacts of Interest Rate on Stock Market:  
Empirical Evidence from Dhaka Stock Exchange. *South Asian Journal of  
Management and Sciences*, 1(2), 123-132.
- Underwood, (1990). The Sustainability of International Debt, Manuscript, The World Bank,  
(Washington: World Bank).
- Urrutia, J. L. (1995). Tests of Random Walk and Market Efficiency for Latin American  
Emerging Markets. *Journal of Financial Research*, 18, 299-309.
- Wagner, R. (1996). Who owes what and to whom? *The Review of Austrian Economics*, 9(2),  
129-42
- Warner, J. (2003). Lecture Notes in Applied Regression, The College of Wooster, Wooster,  
OH.

- Wassal, K. (2005). Stock market growth: an analysis of co-integration and causality. *Economic Issues*, (10), 37–58.
- Wasserfallen, W., (1989). Macroeconomics news and the stock market. *J. Banking Finance* 13, 613-626.
- Watson, P., and Teelucksingh, S. (2002). *A practical introduction to econometric methods: classical and modern*. Kingston, Jamaica: University of West Indies Press
- Whistler, D., White K., Wong, D. and Bates, D. (2001). *SHAZAM: The Econometrics Computer Program, Version 9: User's Reference Manual*. Vancouver, B.C.: Northwest Econometrics.
- Wongbampo, P. and Sharma S.C. (2002). ‘Stock market and macroeconomic fundamental dynamic interactions: ASEAN-5 countries’, *J. Asian Econ.*, 13, 27-51.
- Working H. (1934). "A Random Difference Series for Use in the Analysis of Time Series," *Journal of American Statistical Association*. 29, 11- 24.
- Yang, J. and Bessler, D. (2004), The international price transmission in stock index futures markets. *Economic Inquiry*, 42(3), 370-386.
- Zhang, X. F. (2004) “Information Uncertainty and Stock Returns” An Article Submitted to The Journal of Finance Manuscript 1149, online @ [www.afajof.org/afa/forthcoming/zhanginformation.pdf](http://www.afajof.org/afa/forthcoming/zhanginformation.pdf)
- Zhao, Xing-Qiu (1999), “Stock prices, inflation and output: evidence from China,” *Applied Economics Letters*, 6
- Zhou, C. (1996). Stock Market Fluctuations and the Term Structure. Board of Governors of the Federal Reserve System, *Finance and Economics Discussion Series: 96/03*.
- Zhu, Zhen (1998), "The Random Walk of Stock Prices: Evidence from a Panel of G -
- Zietz, J. and Pemberton, D. (1990). The U.S. Budget and Trade Deficits: A Simultaneous Equation Model. *Southern Economic Journal* 57: 23-34.
- Zordan, D. J. (2005). Stock Prices, Interest Rates, Investment Survival. *Econometrica USA*, Illinois, Online @ [www.ccsenet.org/journal/index.php/ijbm/article/download/217](http://www.ccsenet.org/journal/index.php/ijbm/article/download/217)

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Research Design**

This research work is empirical in nature. The interest here is not only to examine the degree of relationship that exists between two or more variables but also to quantitatively investigate cause-effect relationships among the variables. As a result of this, the study shares the features of both correlational research design and ex-post facto research design. The impact of macroeconomic variables on stock prices in Nigerian stock market is the main cause of discuss. The data are past record of events on which the researcher has no control of manipulation. This leads to the formulation of two (2) separate models and the study institutionally focused on the Nigerian capital market within the framework of the national economy.

#### **3.2 Population, Sample Size and Sampling Technique**

##### **3.2.1 Population**

The geographical location of this study is Nigeria. Study population is the impact of macroeconomic variables on stock prices of all the listed companies on the Nigerian Stock Exchange. The total number of two hundred and twenty two companies was listed on the Nigerian Stock Exchange as at the end of 2009 (NSE Factbook, 2009). They were grouped into thirty five industrial classifications.

##### **3.2.2 Sample Size**

While there were ninety three (93) equity stocks in the Nigerian stock market as at 1985, the number had increased to two hundred and twenty two (222) in 2009. However, as a result of the various political, social and economic problems and policies, many of the companies that were in existence in 1985 have either been acquired or ceased to exist. Again some were

either not active in the market within the period. To achieve a balanced panel of data at the first layer of this study (the microeconomic level), the sample size was made up of all the thirty six (36) firms that were active in the market throughout the period. At the market level, the sample size is made up of all the two hundred and twenty two (222) equity stocks in the Nigerian stock market as at 2009.

### **3.2.3 Sampling Technique**

On the impact of macroeconomic variables on stock prices in Nigeria, the stratified sampling technique was used. At the first layer of the study, the equity stocks were divided into two strata. The study used the stratum comprising those stocks that were active and consistent between 1985 and 2009 in order to achieve a balanced panel. At the second layer of the analysis, since the publication of index of share price started in 1985 in Nigeria, the study used the stratum comprising all equity stocks in the Nigerian Stock market between 1985 and 2009.

### **3.3 Research Instruments**

Since the data of the variables are basically quantitative, the study therefore relied on the computing power of econometric view (E-View) software version 7 as its main instrument of estimation. Nevertheless, this is complemented by other instruments of computations such as calculator and statistical tables. The study also used published secondary data from the Central Bank of Nigeria, National Bureau of Statistics and Fact Books of the Nigerian stock Exchange.

### **3.4 Model Specification and Estimation Techniques**

The first task in this section was to formulate an effective and reliable model that would provide a theoretical basis for estimations. From the literatures reviewed, the various

macroeconomic variables that are capable of affecting stock prices have been widely identified as either economic ones or non economic ones. The basic empirical question here is whether macroeconomic variables (MEV) significantly affect stock prices at individual firm's level (STK) as well as stock prices at aggregate market level represented by stock price index (ALS). To capture the precise effect of MEV on stock prices at the two levels, reference is made to the theoretical and empirical literature considered in chapter two. Following Olowe (2007); Maku and Atanda (2009); Asaolu and Ogunmakinwa (2010); Ali, Rehman, Yilmaz, Khan and Afzal (2010), two different models were specified to explore the effects of macroeconomic variables at two different levels.

### **3.4.1 Assumptions of the Models**

The following assumptions were made based on the theoretical relationship that exists among the variables in the literature. Hence, the hypotheses were tested in line with the assumptions.

1. It was assumed that stock prices are affected by economic and non-economic factors.
2. An increase in money supply will positively increase the volatility of stock prices in Nigeria.
3. An increase in interest rate will cause a fall in stock prices as investors are likely to take advantage and liquidate their investment in the stock market to earn higher returns from the banking system.
4. It was assumed that depreciating exchange rate will fuel inflation which will lead to a fall in stock prices.
5. Nigerian economy is generally believed to be driven by crude oil. It is therefore assumed that trend in crude oil price will affect stock prices in Nigeria.
6. Lastly, it was also assumed that there is a direct link between the rate of economic growth and stock prices in Nigeria.

### 3.4.2 Model One

At the micro level, the explicit form of the panel model that can be estimated at the individual firms' level using a pool object is hereby specified as:

$$\gamma_{it} = \alpha_{it} + \chi_{it}' \beta_i + \theta_{it} \dots \dots \dots (3.1)$$

Where  $\gamma_{it}$  is the dependent variable (STK) and  $\chi_{it}$  is the k- vector of non-constant regressors (MEV) while  $\beta_i$  are parameters for  $i = 1, 2, \dots, 36$  cross sectional units. Each cross-section unit is observed for dated periods  $t = 1, 2, \dots, 100$ .  $\alpha_{it}$  is the **common effect** of the intercept which is assumed to be identical for all the pool members. The **fixed effect** estimators allow the intercept  $\alpha_{it}$  to differ across cross-section units by estimating different constants for each cross section. The basic specification treats the pool specification as a system of equation and estimates the model using the Generalized Least Square (GLS) instead of the usual Ordinary Least Square (OLS). In order to determine the presence of multicollinearity, the pairwise correlation matrix for the equation is computed as:

$$\Omega = E(\epsilon\epsilon') = E \begin{pmatrix} \epsilon_1\epsilon_1' & \epsilon_2\epsilon_1' & \dots & \epsilon_N\epsilon_1' \\ \epsilon_2\epsilon_1' & \epsilon_2\epsilon_2' & & \cdot \\ & & & \cdot \\ \epsilon_N\epsilon_1' & & & \epsilon_N\epsilon_N' \end{pmatrix} \dots \dots \dots (3.2).$$

### 3.4.3 Model Two

At the macro level, to capture the precise long-run and short-run effect of MEV on ALS as a system of equation, the model is specified as:

$$ALS_t = \alpha_0 + \alpha_1 BRDM_t - \alpha_2 INTR_t - \alpha_3 ECHR_t - \alpha_4 INF_t + \alpha_5 OIL_t + \alpha_6 GDP_t + U_t \dots \dots \dots (3.3)$$

Where:  $\alpha_0$  is the constant and  $\alpha_{1-6}$  are the co-efficients of the macroeconomic variables in equation 3.3.  $U_t$  is the stochastic error term. The stationarity properties of the time series

variables were examined using the popular Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests. The Johansen co-integration was be employed to determine whether the  $MEV_{t-1}$  are co-integrated with  $ALS_{t-1}$  within the framework of the Nigerian economy.

### 3.4.4 Augmented Dickey-Fuller and Phillips-Perron Tests

The time series variables characteristics and order of integration were determined using the ADF and PP unit root tests developed by Dickey and Fuller (1979) and Phillips and Perron (1988). This is based on the following model:

$$\Delta Y_t = \beta_1 + \delta Y_{t-1} + \sum_{\tau=1}^m \alpha_i \Delta Y_{t-1} + \varepsilon_t \quad (\text{with intercept}) \dots\dots\dots (3.4)$$

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \sum_{\tau=1}^m \alpha_i \Delta Y_{t-1} + \varepsilon_t \quad (\text{with trend and intercept})\dots (3.5)$$

Where  $Y_t$  represents the values of each variable in the two equations. The t-statistics was used to test the null hypothesis of  $\delta_1 = 0$  (i.e. no stationary) against the alternative that  $\delta_1 < 0$  (i.e. stationary). If the series were not stationary at level, i.e.  $I(0)$ , it would be differenced  $d$  times to be stationary and to determine its order of integration. i.e  $I(1)$  or  $I(2)$

### 3.4.5 Johansen Cointegration Test

The Johansen co-integration test was employed to determine if the variables in equation 3.3 are co-integrated or linearly stationary. This is to investigate the long-run relationship between the dependent variable and the explanatory variables. There are seven variables in this study ( $g = 7$ ). There can be at most 6 linearly cointegrating vectors, i.e.  $r \leq 6$ . Therefore the statistics takes the following form based on the model proposed by Johansen (1988):

$$T \text{ trace } (r) = -T \sum_{i=r+1}^g \ln(1 - \tau_i) \text{ Or } \tau \max (r, r+1) = -T \ln(1 - \tau_i) \dots\dots\dots (3.6)$$



Where  $r$  is the number of cointegrating vectors under the null hypothesis, and  $\tau$  is the estimated value for the  $i^{\text{th}}$  Eigen value from the  $\Pi$  matrix. If the test statistic is greater than the critical values from Johansen's table, reject the null hypothesis that there is  $r$  cointegrating vectors in favour of the alternative hypothesis that there are  $r + 1$  cointegrating vectors (for trace).

### 3.4.6 Error Correction Mechanism

To investigate the short run dynamic the relationship between the dependent variable (LALS) and the explanatory variables (MEV), the error correction mechanism (ECM) was employed to be sure that spurious regression outcomes on time series data have been corrected. Sequel to the above, the OLS in equations 3.3 is re-specified to take care of possible short term disequilibrium as follows:

$$\Delta \text{ALS}_t = \alpha_0 + \alpha_1 \Delta \text{BRDM}_t - \alpha_2 \Delta \text{INTR}_t - \alpha_3 \Delta \text{ECHR}_t - \alpha_4 \Delta \text{INF}_t + \alpha_5 \Delta \text{OIL}_t + \alpha_6 \Delta \text{GDP}_t + \alpha_7 U_{t-1+3t} \dots \dots \dots (3.7)$$

$\alpha_2, \alpha_3$  and  $\alpha_4$  are expected to be  $< 0$  while  $\alpha_1, \alpha_5$  and  $\alpha_6$  are expected to be  $> 0$ .

The validation of the equilibrium structure of the over-parameterized error correction model was tested by the statistical significance or otherwise of the ECM-1. To generate a model which captures short-run and the long-run behaviour of stock market and macroeconomic variables, the parsimonious error model was estimated to show whether the error correction model is of good fit and whether the estimated model is free from problem of serial correlation.

### 3.4.7 The Granger Causality Test

Thus, the model employed the Granger causality test to ascertain the direction of causality between all share index (ALS) and the macroeconomic variables (MEV = BRDM, INTR, ECHR, INF, OIL and GDP) in Nigeria between 1985 and 2009 which covers the structural

adjustment, post adjustment and reform periods in Nigeria. The test procedure as described by Granger et al (2000) is illustrated as:

$$ALS_t = \sum_{j=1}^k A_j MEV_{t-1} + \sum_{j=1}^k B_j ALS_{t-1} + U_{it} \dots\dots\dots (3.8)$$

$$MEV_t = \sum_{j=1}^k C_j MEV_{t-1} + \sum_{j=1}^k D_j ALS_{t-1} + U_{2t} \dots\dots\dots (3.9)$$

Equations 9 and 10 postulate that current ALS is related to past values of itself as well as that of MEV. A unidirectional causality from MEV to ALS is indicated if the estimated coefficients on the lagged MEV are statistically different from zero as a group. (i.e.,  $\sum A_i \neq 0$ ) and the set of estimated coefficients on the lagged ALS is not statistically different from zero (i.e.,  $\sum D_j \neq 0$ ). The converse is the case for unidirectional causality from ALS to MEV. A feedback or bilateral causality exists when the sets of MEV and ALS's coefficients are statistically different from zero in both regressions (Gujarati, 2004). The more general model with instantaneous causality is expressed as:

$$ALS_t + b_0 MEV_t = \sum_{j=1}^k A_j MEV_{t-1} + \sum_{j=1}^k B_j ALS_{t-1} + U_{it} \dots\dots\dots (3.10)$$

$$MEV_t + C_0 ALS_t = \sum_{j=1}^k C_j MEV_{t-1} + \sum_{j=1}^k D_j ALS_{t-1} + U_{2t} \dots\dots\dots (3.11)$$

Instantaneous causality occurs and knowledge of ALS will improve prediction of goodness of fit of the equation (3.3) for MEV.

### 3.5 Data Description and Sources

Here, reference is made to theory and existing empirical works (e.g Olowe, 2007, Maku and Atanda, 2009; Asaolu and Ogunmakinwa, 2010 and Ali et al, 2010) as a motivation in selecting a number of macroeconomic variables that are expected to be strongly related to

stock prices in Nigeria. Six macroeconomic variables that were hypothesized to exert shocks on share returns are: money supply (BRDM), interest rate (INTR), exchange rate (ECHR), inflation rate (INF), international price of crude oil (OIL) and Gross Domestic Product (GDP). The Nigerian Stock Exchange (NSE) index of stock price (ALS) was used to capture the stock prices at the market aggregate level, while individual stock price (STK) was used as dependent variable at the firm's level. Both the ALS and STK were used in this work as barometers for monitoring upswings and downswings of stock prices in the capital market. The time series secondary data sets were (from 1985 - when computation of the respective NSE all share index started to 2009 - when Nigerian capital market came out of the global economic meltdown crisis) sourced from various issues of the Central Bank of Nigeria Statistical Bulletin, Annual Abstract of Statistics of National Bureau of Statistics (NBS) and the NSE Daily Equities Report. The Jarque-Bera statistics was used to determine the initial distribution of the data.

## References

- Ali I., Kashif U. R., Ayse K. Y., Muhammad A. K. and Hasan A. (2010), 'Causal relationship between macro-economic indicators and stock exchange prices in Pakistan' *African Journal of Business Management*, 4(3), 312-319.
- Asaolu T.O. and Ogunmakinwa M. S. (2011), 'An Econometric Analysis of the Impact of Macroeconomic Variables on Stock Market Movement in Nigeria' *Asian Journal of Business Management*, 3(1), 72 – 78.
- Avwokeni J. A. (2007), *Practical Research Methodology: Design, Analysis and Reporting*, Unicampus Books, Lagos.
- Chiang C. A. (1984), *Fundamental Methods of Mathematical Economics*, McGraw-Hill Book Company, Singapore.
- Dickey D. and Fuller W. (1979): Distribution of the estimators for Autoregressive time series with unit root. *Journal of American Statistical Association*, 74, 427-431.
- Granger C. W. (1986). "Some recent developments in the concept of causality", *J. Econometrics* 39: 194–211.
- Granger C. W., Huang B. N. and Yang C. W. (2000), 'A bi-variate causality between Stock Prices and Exchange Rates: Evidence from recent Asian flu' *Rev. Econ. Fin.* 40, 337–354.
- Gujarati D. (2004), *Basic Econometrics*, McGraw-Hill Publishing Company Ltd, New Delhi.
- Kumaron, R. (1976), *A Manual of Sampling Techniques*, Heinemann, London.
- Lucey T. (2002), *Quantitative Techniques*, Continuum, London.
- Maku O. E. and Atanda A. A. (2009), 'Does Macroeconomic Indicators Exert shock on the Nigerian Capital Market? Online at <http://mpira.ub.uni-muenchen.de/17917/>
- Mason D. R., Lind A. D. and Marchal G. W. (1999), *Statistical Techniques in Business and Economics*, McGraw-Hill Company, Irwin.
- Nweze A. U. (2002), 'The Relation Of The Structure Of Equity Share Prices To Historical, Expectational And Industrial Variables: The Nigerian Experience' *Unpublished Ph.D Thesis*, University of Nigeria, Nsukka.
- Olowe, R. A. (2007), 'The Relationship Between Stock Prices and Macroeconomic Factors in the Nigerian Stock Market' *African Review of Money, Finance and Banking*, 79 - 98
- Phillips, P. (1988). Trends and random walks in macroeconomic time-series. *Journal of Economic Dynamics and Control*, 12: 297–332.

Phillips, P.C.B., and Perron, P. (1988). Testing for a unit root in time series regression.  
*Biometra*, 75, 335–346.

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS AND RESULTS

#### 4.1 Data Presentation

The data used for this study were too voluminous to be presented here due to the largeness of both the cross sectional and time series observations. Therefore, they have been carefully attached as appendices.

#### 4.2 Data Analysis

**Table 4.2.1: Descriptive Statistics**

	STK	BRDM	INTR	ECHR	INF	OIL	GDP
Mean	12261.92	1652104.	8.886000	60.50940	22.60370	32.31710	1526291.
Median	5747.200	402771.0	5.490000	21.89000	14.25500	22.14000	686087.9
Maximum	63016.56	10767378	18.00000	137.2200	89.57000	133.9300	6376225.
Minimum	1.022000	899.7330	3.110000	1.010000	-4.980000	11.28000	15647.00
Std. Dev.	16381.92	2584765.	5.164808	54.33966	21.65886	23.02105	1920829.
Skewness	1.584231	2.024114	0.365629	0.265556	1.229000	2.026209	1.250892
Kurtosis	4.447657	6.206114	1.509552	1.197742	3.439850	7.203794	3.158937
Jarque-Bera	50.56191	111.1138	11.48406	14.70923	25.98014	142.0582	26.18411
Probability	0.000000	0.000000	0.003208	0.000640	0.000002	0.000000	0.000002
Sum	1226192.	1.65E+08	888.6000	6050.940	2260.370	3231.710	1.53E+08
Sum Sq. Dev.	2.66E+10	6.61E+14	2640.849	292327.0	46441.50	52466.91	3.65E+14
Observations	100	100	100	100	100	100	100

**Source:** Computation Using E-Views Statistical Package, Version 7.0

Table 4.2.1 shows the descriptive statistics of the data series employed in the study. Stock Prices (STK) averaged 12261.92 and varies from a minimum of 1.022000 to a maximum of 63016.56. Broad Money (BRDM), Interest Rate (INT), Exchange Rate (ECHR) has a mean of 1652104, 8.886000 and 60.50940 and ranges from a minimum of 899.7330, 3.110000 and 1.010000 to a maximum of 10767378, 18.00000 and 137.2200 respectively. Consequently, Inflation (INF), Oil (OIL) and Gross Domestic Product (GDP) each has a mean of 22.60370,

32.31710 and 1526291 and varies from a minimum of -4.980000, 11.28000 and 15647.00 to a maximum of 89.57000, 133.9300 and 6376225 respectively.

Evidently, the Jarque-Bera statistics rejects the null hypothesis of normal distribution for all the variables; implying that the data were normally distributed. The statistics for Kurtosis shows that STK, BRDM, and OIL are leptokurtic, since their distributions are peaked relative to the normal. On the other hand, INTR, ECHR, INF and GDP are platykurtic, suggesting that their distributions are flat relative to the normal. Lastly, the statistic for skewness shows that all the variables are positively skewed.

### **4.3 Model One Results**

The first objective of this study is to examine the impact of macroeconomic variables on stock prices of selected quoted companies in Nigeria. i.e. the impact examination at the firms' level. This was sufficiently satisfied in model one. There are thirty six (36) cross-sectional observations and for each company, there are one hundred (100) time series observations on stock prices and macroeconomic variables. Since each cross-sectional unit has the same number of time series observation, we then have a balanced panel. The pooled regression techniques were used here to take heterogeneity of the individual firm into account. This was believed to enrich empirical analysis in a way that might not be possible if only cross-section or time series data were used. Unfortunately, the usual OLS method does not allow for the strategy and variability of the dependent variable (STK) because it only assigns equal weight or importance to each observation. (see table 4.1) However, the Generalized Least Square (GLS) takes such information into account explicitly and is therefore capable of producing estimates that are reliable. Again, it was envisaged here that the residual covariance matrix would show a heavy presence of heteroskedasticity as revealed in table 4.1. In order to take care of residuals that were cross-section

heteroskedastic, cross-section weighted regression was considered appropriate. This led to the choice of instituting individual firm's weights and convergence after one (1) iteration as contained in table 4.3.1.

**Table 4.3.1: GLS Results (Common Coefficient Method)**

Dependent Variable: STK?				
Method: Pooled Least Squares				
Sample: 1985:1 2009:4				
Included observations: 99				
Number of cross-sections used: 36				
Total panel (balanced) observations: 3564				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-19.52653	3.094665	-6.309742	0.0000
BRDM?	0.043373	0.583305	0.074358	0.9407
INTR? *	-0.310920	0.073740	-4.216455	0.0000
ECHR? *	-0.027050	0.008216	-3.292300	0.0010
INF?	0.002880	0.010837	0.265757	0.7904
OIL? *	0.190954	0.011227	17.00821	0.0000
GDP?	2.164148	1.330631	1.626408	0.1040
R-squared	0.409607	Mean dependent var		18.25929
Adjusted R-squared	0.408612	S.D. dependent var		30.20697
S.E. of regression	23.22970	Sum squared resid		1919424.
Log likelihood	-13887.90	F-statistic		411.3009
Durbin-Watson stat	0.804683	Prob(F-statistic)		0.000000

**Note:** \* significant at 5%

**Source:** Computation Using E-Views Statistical Package, Version 7.0

The results presented in table 4.3.1 showed the common coefficients for all cross sectional observations. Three (3) of the variables, namely: interest rate (INTR), exchange rate (ECHR) and oil price (OIL) were found to be statistically significant at 5% significant level. OIL exerts a positive impact on stock prices (STK). Interest rate and exchange rate exerted a negative impact on stock prices in Nigeria. The other three macroeconomic variables in the model; money supply (BRDM), inflation rate (INF) and Gross Domestic Product (GDP) were not statistically significant in this result. The adjusted  $R^2$  of 0.4086 implied that about 40.86% of the behaviour of stock prices in the Nigerian Stock Exchange (NSE) was explained by the selected macroeconomic variables. The F- statistics of 411.3 showed that the model was statistically significant at 5% significant level.



Since the major objective of this section of the work is to examine the impact of macroeconomic variables on stock prices of individual firms (a micro approach), it becomes expedient to consider the cross section specific coefficient method and at the same time attend to the problem of cross-sectional heteroskedastic. The results from this approach are as presented in the appendix. However, the summary is as shown in tables 4.3.2.

**Table 4.3.2: GLS Results (cross section specific coefficient method) Summary I**

Dependent Variable: STK?			
Variable	Number of stocks on which the variable has significant impact	Percentage of total sample	
BRDM?	15	41.7	
INTR?	26	72.2	
ECHR?	29	80.6	
INF?	6	16.7	
OIL?	31	86.1	
GDP?	15	41.7	
Weighted Statistics			
R-squared	0.775596	Mean dependent var	17.94272
Adjusted R-squared	0.761114	S.D. dependent var	21.69102
S.E. of regression	10.60168	Sum squared resid	376188.5
Log likelihood	-9780.794	F-statistic	53.55599
Durbin-Watson stat	2.155811	Prob(F-statistic)	0.000000

**Source:** Computation Using E-Views Statistical Package, Version 7.0

This approach improved the adjusted  $R^2$  from 40.86% to 76.11% showing that about 76.11% of the behaviour of stock prices in the Nigerian Stock Exchange was explained by the selected macroeconomic variables. The impact of broad money was statistically significant on fifteen out of the thirty six selected stocks, interest rate was statistically significant on twenty five stocks, exchange rate had significant impact on twenty nine, inflation rate had significant impact on only six, oil price had significant impact on thirty one while GDP had significant impact on only fifteen of the selected stocks. The results showed that interest rate, exchange rate and oil prices have a strong influence on stock prices in Nigeria. The relationship between Stock Price (STK) and Interest Rate (INTR) was negative for most of

the selected firms. This is consistent with theory since the study uses the deposit rate as interest rate. The findings also confirmed the work of Jefferis and Okeahalam (2000) on South Africa, Botswana and Zimbabwe. Nigeria exchange rate (ECHR) has a negative relationship with the stock prices of majority of the sampled firms. A negative relationship between a depreciating exchange rate and stock prices is consistent with theory. The international price of crude oil was positively related to majority of the stock prices. This implies that movement of oil price affects share price movement in Nigeria. My finding was consistent with several studies which have explored the oil price-stock price casual link. Among them are Hamilton (1983), Burbridge and Harrison (1984), Gisser and Goodwin (1986), Mork (1989), Loungani (1986), Hooker (1996) and Hamilton (2000).

The influence of money supply (BRDM), inflation rate (INF) and gross domestic product (GDP) on stock price was weak. Nevertheless, one could not yet conclude until it is established that there is no presence of multicollinearity since the study involves financial data. This might have affected the estimates. There are several ways of detecting problem of multicollinearity. For the purpose of this work, the Frisch's Confluence Analysis was adopted (Koutsoyiannis 1977). The first step is to compute the pairwise correlation coefficients between each pair of the regressors. This is presented as follows:

**Table 4.3.3 Pairwise Correlation Matrix**

	BRDM	INTR	ECHR	INF	OIL	GDP
BRDM	1					
INTR	0.7819	1				
ECHR	0.9027	0.8919	1			
INF	0.8862	0.8633	0.9339	1		
OIL	0.2173	0.0955	0.0327	0.1368	1	
GDP	0.9130	0.8813	0.9480	0.9753	0.7601	1

**Source:** Computation Using E-Views Statistical Package, Version 7.0

From table 4.3.3, the correlation coefficients ( $R_{BRDM/INTR} = 0.7819$ ,  $R_{BRDM/ECHR} = 0.9027$ ,  $R_{BRDM/GDP} = 0.9130$ ,  $R_{INF/INTR} = 0.8633$ ,  $R_{INF/ECHR} = 0.9339$ ,  $R_{INF/BRDM} = 0.8862$ ,  $R_{GDP/INTR} = 0.8813$ ,  $R_{IDP/ECHR} = 0.9480$ ,  $R_{GDP/INF} = 0.9753$ ) even though are less than perfect, they are

statistically significant at 5% level of significance. The next step in the procedure is to regress the dependent variable on each of the explanatory variables separately to determine whether a variable superfluous. The results are as presented below:

**Table 4.3.4: GLS Results (cross section specific coefficient method) Summary II**

Dependent Variable: STK?		
Variable	Number of stocks on which the variable has significant impact	Percentage of total sample
BRDM?	36	100
INTR?	33	91.7
ECHR?	34	94.4
INF?	21	58.3
OIL?	36	100
GDP?	36	100

**Source:** Computation Using E-Views Statistical Package, Version 7.0

From the summary of results, having detected and corrected the problems posed by multicollinearity, one can conclude that among the macroeconomic variables used, inflation (INF) was the only variable in this work that has weak impact on stock prices in Nigeria.

#### 4.4 Model Two Results

The second objective of this exercise is to examine the impact of macroeconomic variables on the index of stock prices i.e. the impact examination at the macro level. This objective is adequately achieved in this section. As earlier stated in the chapter three of the research work, the analysis is carried out using the Cointegration technique of the error correction Model. However, before the long run equilibrium relationship is determined using the Johnsen Cointegration test, there is need to test for the stationarity of the variables using the Augmented Dickey-Fuller and Phillip-Perron Unit root tests.

#### 4.4.1 Unit Root Test

Looking at the OLS results in table 4.4.1.1, the Durbin Watson statistic of 0.9171 suggests a heavy presence of serial correlation and that the data follow a random walk. This is a serious violation of OLS assumption. Hence, the need to perform the unit root test and thereafter use a higher econometric technique.

**Table 4.4.1.1: OLS Regression Result**

Dependent Variable: ALS				
Method: Least Squares				
Sample: 1985:1 2009:4				
Included observations: 100				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	399.7021	2162.338	0.184847	0.8538
BRDM	0.001959	0.000537	3.649518	0.0004
INTR	-290.1261	173.8159	-1.669157	0.0984
ECHR	-4.814087	17.42383	-0.276293	0.7829
INF	16.38170	24.64802	0.664625	0.5079
OIL	191.4919	44.41711	4.311220	0.0000
GDP	0.003235	0.001108	2.920167	0.0044
R-squared	0.937907	Mean dependent var		12261.92
Adjusted R-squared	0.933901	S.D. dependent var		16381.92
S.E. of regression	4211.749	Akaike info criterion		19.59657
Sum squared resid	1.65E+09	Schwarz criterion		19.77894
Log likelihood	-972.8287	F-statistic		234.1253
Durbin-Watson stat	0.917113	Prob(F-statistic)		0.000000

**Source:** Computation Using E-Views Statistical Package, Version 7.0

As earlier said, the import of the unit root test is to determine the stationarity of the variables with respect to time using the Augmented Dickey-Fuller and Phillips–Perron Unit root tests. The tests are carried out at Level and First Difference. The decision rule is that the Augmented Dickey-Fuller (ADF) and Phillip Perron (PP) unit root statistics must be greater than the critical value at 5%. Table 4.4.1.2 shows the results of the ADF and PP Unit root test at level.

**Table 4.4.1.2: Unit Root Test at Level**

Variables	ADF			PP		
	ADF statistics	Critical value (5%)	Remarks	PP statistics	Critical value (5%)	Remarks
ALS	-1.695518	-4.0550	Not stationary	-1.932666	-4.0530	Not stationary
BRDM	2.793349	-4.0550	Not stationary	3.756797	-4.0530	Not stationary
INTR	-0.683243	-3.4986	Not stationary	-2.443235	-4.0530	Not stationary
ECHR	-1.796200	-4.0550	Not stationary	-1.864439	-4.0530	Not stationary
INF	-3.173876	-2.8912	Stationary	-2.509769	-2.8906	Not Stationary
OIL	-0.995682	-2.5824	Not stationary	-1.334342	-2.5821	Not stationary
GDP	-0.528285	-3.1536	Not stationary	-0.623639	-3.1531	Not stationary
ECM	-10.0325	-2.89155	Stationary	-10.08077	-2.891550	Stationary

**Source:** Computation Using E-Views Statistical Package, Version 7.0

The results of the ADF and PP unit root test in table 4.4.1.2 showed that six variables (ALS, BRDM, INTR, ECHR, OIL and GDP) are not stationary at level using ADF and PP unit root tests. However, the ADF and PP gave conflicting results for the order of integration of INF. The ECM stationarity at level showed that it effectively corrected the errors in the spurious data that produced the OLS results. It also showed that the data are good for time-series analysis. We conducted the ADF and PP unit root test at first difference on all the variables again.

**Table 4.4.1.3: Unit Root Test at 1<sup>st</sup> Difference**

Variables	ADF			PP		
	ADF statistics	Critical value (5%)	Remarks	PP statistics	Critical value (5%)	Remarks
ALS	-7.003644	-4.0560	stationary	-4.0540	-4.0540	stationary
BRDM	-4.755602	-4.0560	stationary	-11.63116	-4.0540	stationary
INTR	-5.581774	-3.4993	stationary	-9.862951	-4.0540	stationary
ECHR	-5.288057	-4.0560	stationary	-9.067458	-4.0540	stationary
INF	-5.325272	-3.4993	stationary	-6.766556	-2.8909	stationary
OIL	-6.448156	-3.4993	stationary	-8.224683	-2.5822	stationary
GDP	-7.598305	-4.0560	stationary	-10.41494	-3.1534	stationary

**Source:** Computation Using E-Views Statistical Package, Version 7.0

Table 4.4.1.3 shows that all the variables (ALS, BRDM, INTR, ECHR, INF, OIL and GDP) are stationary at first difference. Now the conflict between ADF and PP on INF has been resolved. While ADF indicated that INF became stationary at PP test affirmed it was at I(1). For the purpose of this study however, I treat INF as an I(1) variable, in line with the Phillip–Perron’s Test conclusion.

**Table 4.4.1.4: Summary of Stationarity**

Variables	ADF order of integration	Remarks	PP order of integration	Remarks
ALS	1(1)	Stationary	1(1)	Stationary
BRDM	1(1)	Stationary	1(1)	Stationary
INTR	1(1)	Stationary	1(1)	Stationary
ECHR	1(1)	Stationary	1(1)	Stationary
INF	1(1)	Stationary	1(1)	Stationary
OIL	1(1)	Stationary	1(1)	Stationary
GDP	1(1)	Stationary	1(1)	Stationary
ECM	1(0)	Stationary	1(0)	Stationary

**Source:** Computation Using E-Views Statistical Package, Version 7.0

Table 4.4.1.4 shows that all the variables are stationary at 1(1) order of integration. Having determined the stationarity of the variables with respect to time, the next task is to perform the long- run equilibrium test using the Cointegration technique.

#### **4.4.2 Cointegration Test**

The cointegration test is determined using the Johansen Cointegration technique. The technique is adopted in determining the existence of a long run equilibrium relationship among the variables in the specified model the condition for the existence of a long-run

relationship is that the trace statistics must be greater than the 5% critical value at none hypothesized (None\*) and equation. Table 4.4.2.1 shows the summary of the Cointegration test considering the trace and maximum Eigen tests.

**Table 4.4.2.1: Cointegration Test**

Hypothesis -ed No of (Ecs)	Eigen Value	Trace statistic	5 % critical value	1 % critical value	Max. Eigen statistic	5 % critical value	1 % critical value
None **	0.389952	146.7813	124.24	133.57	55.96224	45.28	49.57
At most 1*	0.333722	100.8190	94.15	103.18	39.37243	37.76	45.10
At most 2	0.240958	63.05661	68.52	76.07	25.63990	23.46	38.77
At most 3	0.170189	37.41671	47.21	54.46	17.34983	27.07	32.24
At most 4	0.120296	20.06688	29.68	35.65	11.91982	20.97	25.52
At most 5	0.053052	8.147062	15.41	20.04	5.069557	14.07	18.63
At most 6	0.032550	3.077505	3.76	6.65	3.077505	3.76	6.65

\*(\*\*) denotes rejection of the hypothesis at the 5%(1%) level

Trace test indicates 2 cointegrating equation(s) at the 5% level

Trace test indicates 1 cointegrating equation(s) at the 1% level

Max-eigenvalue test indicates 2 cointegrating equation(s) at the 5% level

Max-eigenvalue test indicates 1 cointegration equation(s) at the 1% level

**Source:** Computation Using E-Views Statistical Package, Version 7.0

The result showed the existence of two cointegrating equations because the trace statistics and the maximum eigen statistics are greater than their respective critical values at 5%. The cointegration equations in the result implied an existence of a long run relationship among the variables. The Cointegration equation with the highest log likelihood (in absolute term) is adopted as our equation and specified below:

**Table 4.4.2.2: Cointegration Equation Coefficients**

ALS	BRDM	INTR	ECHR	INF	OIL	GDP
1.0000	-0.895358	+0.061142	+0.006576	+0.003946	+0.015327	-0.423363
	(0.29753)	(0.01294)	(0.00280)	(0.00352)	(0.00466)	(0.25158)
	(-3.0093)*	(4.72504)*	(2.32714)*	(1.12102)	(3.28906)*	(-1.68282)*

**NOTE: The standard error and t statistics are respectively given in parenthesis.**

**\* significant at 5% level of significance**

**t-table value 1.65**

**Source:** Computation Using E-Views Statistical Package, Version 7.0

From the table 4.4.2.2, it could be deduced that BRDM and GDP are negatively related to ALS. This means that a unit increase in BRDM and GDP will lead to 0.895358 and 0.423363 unit decrease in ALS respectively. Furthermore, INTR, ECHR, INF and OIL are all positive with respect to ALS. This means that a unit increase in INTR, ECHR, INF and Oil will lead to 0.061142, 0.006576, 0.003946 and 0.015327 unit increase in ALS respectively. The t-statistics shows that BRDM, INTR, ECHR, OIL and GDP are statistically significant while INF is not significant enough in the explanation of ALS. Having determined the long-run relationship of the parameters in the specified model, we switch to the short run analysis using the Error correction model (ECM).

#### **4.4.3 Error Correction Model**

The error correction model (ECM) which is otherwise known as the speed of adjustment is significant with the appropriate negative sign in conformity with the stated *a priori* expectation. This implies that the present value of the dependent variable adjusts rapidly to changes in the explanatory variables. The value of the ECM indicates a feed back from that value or an adjustment of the value from the previous period disequilibrium of the present



level of the dependent variable in the determination of causality between the past level of the dependent variable and the present and past level of the explanatory variables. The over parameterized ECM (ECM1) was determined by leading and lagging the variables in the regression model while the parsimonious ECM (ECM2) simply introduced dynamism into the model. Only the variables that were not statistically significant are repeated in ECM2. Tables 4.4.3.1 and 4.4.3.2 show the over parameterized and parsimonious ECM respectively.

**Table 4.4.3.1: Over Parameterized ECM**

<b>Variables</b>	<b>Coefficient</b>	<b>Std. error</b>	<b>t-statistics</b>	<b>Prob</b>
D(ALS(-1),2)	-0.465903	0.078676	-5.921796	0.0000
D(BRDM,2)	0.000788	0.000846	0.931747	0.3542
D(BRDM(-1),2)	-0.001150	0.000897	-1.280920	0.2038
D(INTR,2)	-302.7013	206.1559	-1.468313	0.1458
D(INTR(-1),2)	-102.1493	205.3810	-0.497365	0.6203
D(ECHR,2)	-5.547827	32.02536	-0.173232	0.8629
D(ECHR(-1),2)	16.54718	31.60729	0.523524	0.6020
D(INF,2)	-23.64973	29.44095	-0.803294	0.4241
D(INF(-1),2)	2.917501	29.66995	0.098332	0.9219
D(OIL,2)	206.7887	28.58490	7.234194	0.0000
D(OIL(-1),2)	97.82880	32.02009	3.055232	0.0030
D(GDP,2)	-0.006007	0.001235	-4.866223	0.0000
D(GDP(-1),2)	-0.001971	0.001364	-1.444874	0.1523
ECM(-1)	-0.541290	0.083935	-6.448958	0.0000

**R<sup>2</sup> = 0.847521      AdjR<sup>2</sup> = 0.822430      DW = 2.071219**

**Source:** Computation Using E-Views Statistical Package, Version 7.0

**Table 4.4.3.2: Parsimonious Error Correction Model**

Variables	Coefficient	Std. error	t-statistics	Prob
D(ALS(-1),2)	-0.505958	0.077835	-6.500363	0.0000
D(OIL,2)	188.8185	27.88766	6.770682	0.0000
D(OIL(-1),2)	113.8710	29.52045	3.857358	0.0002
D(GDP,2)	-0.006408	0.001243	-5.154515	0.0000
D(GDP(-1),2)	-0.003070	0.001339	-2.293425	0.0242
ECM(-1)	-0.550377	0.081041	-6.791348	0.0000

**R<sup>2</sup> = 0.762791****AdjR<sup>2</sup> = 0.746977****DW = 2.168692****Source:** Computation Using E-Views Statistical Package, Version 7.0

Tables 4.4.3.1 and 4.4.3.2 show the overparameterised and parsimonious ECM respectively for the specified model. The Overparameterized ECM presented in table 4.4.3.1 above shows that there exists a long-run equilibrium relationship among the variables. This is evident by the correctly signed and significant ECM coefficient (-0.541290) with probability value of 0.0000. Hence, for concise elucidation of the ECM, non-significant variables were removed from each pairs in the overparameterized model, for a Parsimonious Error Correction Model to be generated. The Parsimonious ECM result presented in Table 4.4.3.2 shows that the coefficient of one period lag of ECM is statistically significant and correctly signed. This validated the existence of long-run equilibrium relationship among the variables despite the presence of short-run inconsistencies due to non-stationary of some of the series. The result showed that about 55% of the short-run inconsistencies had been corrected and incorporated into the long-run equilibrium relationship quarterly. In the parsimonious ECM result, the short run inter-relationship between Stock Price Index and Stock Price Index lagged by a period, Oil, Oil lagged by one period, Gross Domestic Product, Gross Domestic Product lagged by one period and ECM lagged by one period was presented. From the result, it was

observed that Oil and Oil lagged by one period have a significant positive influence on Stock Price Index. On the other hand, Stock Price Index lagged by one period, Gross Domestic Product, Gross Domestic Product lagged by one period all have negative but significant influence on Stock Price Index. Consequently, the result also revealed the coefficient of determination (R-Square) to be 0.762791. This implied that 76% of the systematic variations in the dependent (Stock Price Index) was explained by the explanatory variables. Moreover, the probability value of the F-Statistics depicts the overall goodness of fit of the model. This implied that, the systematic variation in the dependent variable was truly explained by the behaviour of the explanatory variables. The Durbin-Watson statistics of 2.07 implied no presence of autocorrelation in the data.

#### 4.4.4 The Granger Causality Test

**Table 4.4.4.1:** Pairwise Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Probability
BRDM does not Granger Cause ALS	80	5.64829	2.1E-06
ALS does not Granger Cause BRDM		6.41301	4.1E-07
INTR does not Granger Cause ALS	80	0.38183	0.98803
ALS does not Granger Cause INTR		0.41078	0.98194
ECHR does not Granger Cause ALS	80	1.57943	0.10917
ALS does not Granger Cause ECHR		0.57741	0.90503
INF does not Granger Cause ALS	80	7.89000	2.5E-08
ALS does not Granger Cause INF		5.76423	1.6E-06
OIL does not Granger Cause ALS	80	0.94551	0.53998
ALS does not Granger Cause OIL		8.29553	1.2E-08
GDP does not Granger Cause ALS	80	20.6651	6.8E-15
ALS does not Granger Cause GDP		2.53267	0.00639

**Source:** Computation Using E-Views Statistical Package, Version 7.0

The fourth objective of this work is to investigate the causal relationship between macroeconomic variables (MEV) and stock prices in Nigeria. When causality is established, it suggests that one can use a variable, in this context the macroeconomic variables, to better predict the other variable namely stock price, than simply the past history of the latter variable. The lack of unidirectional causality from most macroeconomic variables to stock prices that has been found in Nigeria may be due to the fact that Nigerian stock market capitalization is relatively small in relation to her level of economic activities. For price of crude oil, there was a unidirectional causal relationship between stock price and oil prices in Nigeria. The causation ran from oil price to stock prices implying that oil price is a good predictor of stock prices of oil companies in Nigeria.

## References

- Avwokeni J. A. (2007), *Practical Research Methodology: Design, Analysis and Reporting*, Unicampus Books, Lagos.
- Brurbridge, J., and Harrison A. (1984), Testing for the effects of oil-price rises using vector Autoregression. *Int Econom Rev*, 25, 459-84.
- Chiang C. A. (1984), *Fundamental Methods of Mathematical Economics*, McGraw-Hill Book Company, Singapore.
- Dickey D. and Fuller W. A. (1979): *Distribution of the estimators for Autoregressive time series with unit root*. *Journal of American Statistical Association*, 74, 427-431.
- Dickey, D.A., and Fuller W. A., (1981). Likelihood ratio statistics for autoregressive time series with a unit root. *Econometrica* 49, 1057-1072.
- Dickey, D.A., Jansen, D.W. and Thornton, D. L., (1991). A primer on cointegration with an application to money and income. *Fed. Reserve Bank St. Louis Rev.* 73, 58-78.
- Gisser, M., and Goodwin T. H. (1986), Crude oil and the macroeconomy: tests of some popular notions. *Journal of Money Credit Bank*, 18, 95-103.
- Granger C. W. (1986). "Some recent developments in the concept of causality", *J. Econometrics* 39, 194–211.
- Granger C. W., Huang B. N. and Yang C. W (2000), 'A bi-variate causality between Stock Prices and Exchange Rates: Evidence from recent Asian flu' *Rev. Econ. Fin.* 40, 337–354.
- Gujarati D. (2004), *Basic Econometrics*, McGraw-Hill Publishing Company Ltd, New Delhi.
- Hamilton, J. D. (1983), Oil and the macroeconomy since World War II. *Journal of Political Economy*, 92, 228-48.
- Hamilton, J. D. (2000). What is an Oil Shock?, NBER Working Paper 7755.
- Hooker, M. A. (1996), What happened to the oil price-macroeconomy Relationship? *Journal of Monetary Economics*, 38, 195-213.
- Johansen, S. (1991), Estimation and hypothesis testing of Cointegration Vector in Guassian Vector Autoregressive Models. *Econometrica*, 59, 1551-1580.
- Johansen, S. (1995), Likelihood-based inference in Cointegration Vector Autoregressive Models, Oxford: Oxford University Press.
- Kumaron, R. (1976), *A Manual of Sampling Techniques*, Heinemann, London.
- Loungani P. (1986), Oil Price Shock and Dispersion Hypothesis. *Rev Econ Stat*, 68, 3, 536-539.

Lucey T. (2002), *Quantitative Techniques*, Continuum, London.

Phillips, P.C.B (1988). Trends and random walks in macroeconomic time-series. *Journal of Economic Dynamics and Control*, 12, 297–332.

Phillips, P.C.B., and Perron, P. (1988). Testing for a unit root in time series regression. *Biometra*, 75: 335–346.

## CHAPTER FIVE

### DISCUSSION AND SUMMARY OF FINDINGS

#### 5.1 Summary of Findings

Model one captured the impact of macroeconomic variables on the stock prices of selected quoted firms in Nigeria while the second model considered the impact at the macro level, using the Johansen co-integration test. The six macroeconomic variables that were carefully selected based on stock price-macroeconomic theories as well as the peculiar economic characteristics of the Nigeria are: money supply (M2), interest rate, exchange rate, inflation rate, international oil price and gross domestic product (GDP). The work showed that at both microeconomic and macroeconomic levels, money supply exerts a significant impact on stock prices in Nigeria. This satisfies the first objective of this study and it is also consistent with the works of Maku and Atanda (2009) and Ali *et al* (2010). However, the direction of the impact was negative in the market aggregate level. This is consistent with the findings of Ibrahim and Aziz (2003) on Malaysia among others. The implication is that a small change in money supply tends to fuel or aggravate inflation further in Nigeria. The existence of a cointegration equation showed that stock prices and money supply have a long run relationship in Nigerian economy. This satisfies the second objective of the study. The findings also revealed that there is no evidence of causation between money supply and stock prices in Nigeria. This implied that money supply is not a good predictor of stock prices in Nigeria and this satisfies the third and fourth objectives of this work.

This work also revealed that at both macroeconomic and microeconomic levels, there is a significant relationship between stock prices and interest rate. This satisfies the first of objective of this study. However, while the relationship is negative at the firm's level, it is positive at the market aggregate level. The implication of this is that if the rate of interest paid by banks to depositors increases, people will switch their capital from stock market to

bank. This will lead to decrease in the demand for stocks and a fall in their prices and vice versa. However, in the long run the increase in the deposit rate will force lending rate to increase too; and this creates excess liquidity for financial institutions which they put in the capital market through direct investment thereby causing stock prices to rise. This finding is consistent with that of Uddin and Alam (2007) on Dhaka Stock Exchange (DSE). The results also showed that a significant long run relationship exists between stock prices and interest rate in Nigeria. This satisfies the second objective of this research work. A unidirectional causal relationship cannot be established between the two variables. The failure of causation to run from interest rate to stock prices implied that interest rate is not a predictor of stock prices in Nigeria. This also satisfies the third and fourth objectives of this work.

The findings also revealed that at both macroeconomic and microeconomic levels, there is a significant relationship between stock prices and exchange rate in Nigeria. This satisfies the first objective of this work. However, while the relationship is negative at the firm's level, it is positive at the market aggregate level. The implication of a negative relationship at the firm's level is that at first instance, if the currency of a nation is devalued to stimulate export, it may lead to rising stock prices. This is consistent with the findings of Ajayi and Mougoue (1996) where a decrease in the value of currency causes stock prices to appreciate in the US and UK markets. However, as to the currency effect on stock prices at the market aggregate level, this study revealed that currency depreciation in Nigeria leads to a decline in stock prices. The implication of this is that, falling stock prices is an indicator of a depressed economy which goes together with lower demand for local currency. This is consistent with the hypothesis of this work. The findings showed that a significant long run relationship exists between exchange rate and stock prices in Nigeria. This again satisfies the second objective of this work. A unidirectional causal relationship cannot be established between the two variables. The failure of causation to run from exchange rate to stock prices implied that



exchange rate is not a predictor of stock prices in Nigeria. This also satisfies the third and fourth objectives of this work.

The results showed that the impact of inflation rate on stock prices both at the micro and macro levels in Nigeria is weak. This satisfies the first objective of this work. The relationship is also positive at the two levels contrary to the *a priori* expectation. However, this is consistent with the findings of Siegel (1992), Schwert (1990) and Bondoukh *et al* (1994) among others. The implication of this according to Najand and Rahman (1991) is that the volatility of inflation increases the volatility of stock prices. In this particular study and for the period under study, the results showed that a long run relationship does not exist between inflation rate and stock prices in Nigeria. This satisfies the second objective of this work. (objective 2). The Granger causality test showed no evidence of a causal relationship between the two variables implying that inflation rate cannot be used to predict stock price movement in Nigeria. This also satisfies the third and fourth objectives of this work.

The crude oil price is statistically significant both at the individual firm's level and at the market aggregate level. This also satisfies the first objective of this work. The positive relationship agrees with existing theories especially on oil producing countries. This result is also consistent with the earlier studies of Olowe (2007), Hammondeh and Aleisa (2004) and Nayaran and Nayaran (2010) on stock markets of oil producing countries. The results also implied that oil price has a significant long run relationship with stock prices in Nigeria. This again satisfies the second objective of this work. A unidirectional causality exists between oil price and stock prices in Nigeria; and causality runs from oil price to stock prices. This implies that oil price is a good predictor of stock prices of oil companies in Nigeria. This also satisfies the third and fourth objectives of this work.

Lastly, the results from the two models showed that the impact of GDP on stock prices is significantly strong. This also satisfies the first objective of this work. However, the direction

of the impact is negative in the market aggregate level. The results also implied that oil price has a significant long run relationship with stock prices in Nigeria. This again satisfies the second objective of this work. A unidirectional causal relationship cannot be established between the two variables. The failure of causation to run from GDP to stock prices implied that GDP is not a good predictor of stock prices in Nigeria. This also satisfies the third and fourth objectives of this work.

## **5.2 Implication of Findings**

The results of this study have implications on both local and foreign investors, stock market regulators such as Securities and Exchange Commission (SEC), policy makers and stock market analysts. Although the direction of influence between macroeconomic variables and stock prices is an indirect one, Nigerian investors and security analysts could still use trends in macroeconomic variables as indicators of stock price variations and earn profits. Stock market regulators could take steps to monitor the activities of companies to prevent manipulation of stock prices and get the general public educated on the stock market activities and encourage them to invest in stocks. Policy makers should be aware of these macroeconomic effects on stock prices and make their decisions in a more effective and accurate way. Since the monetary policy should not be guided by the impact of macroeconomic variables on stock prices in the capital market, such influences should not be ignored as a result of the influence of the market on economic activities.

## References

- Ajayi, R. A. and Mougoue, M., (1996). On the Dynamic Relation between Stock Prices and Exchange Rates. *The Journal of Financial Research* 19, 193-207
- Ali I., Kashif U. R., Yilmaz A. K., Khan M. A. and Hasan A. (2010), 'Causal relationship between macro-economic indicators and stock exchange prices in Pakistan' *African Journal of Business Management*, 4 (3), 312-319
- Asaolu T. O. and Ogunmakinwa M. S. (2011), 'An Econometric Analysis of the Impact of Macroeconomic Variables on Stock Market Movement in Nigeria' *Asian Journal of Business Management*, 3(1), 72 – 78.
- Boudoukh, J., R. M. and Whitelaw, R.F., (1994). Industry returns and Fisher effect. *J. Finance* 49, 1595-1615.
- Hammoudeh, S., and Aleisa, E. (2004), Dynamic relationships among GCC stock markets and NYMEX oil Futures.. *Contemporary Economic Policy*, 22(2), 250-269.
- Hussainey K. and Ngoc L. (2009), 'Impact of Macroeconomic Variables on Vietnamese Stock Exchange' *Journal of Risk Finance*, 4, 18-46
- Ibrahim M. H. and Aziz H. (2003): *Macroeconomic Variables and the Malaysian Equity market: A view Through Rolling Sub-Samples*. *Journal of Economic Studies*, 30, 6-27
- Maku O. E. and Atanda A. A. (2009), 'Does Macroeconomic Indicators Exert shock on the Nigerian Capital Market? Online at <http://mpira.ub.uni-muenchen.de/17917/>
- Najand, M. and Rahman, H., (1991). Stock market volatility and macroeconomic variables: international evidence. *J. Multinatl. Financ. Manage.* 1, 51-56.
- Narayan, K. P. and Narayan, S. (2010), Modeling the impact of oil prices on Vietnam's stock prices. *Applied Energy*, 87, 356-361.
- Ologunde, A. O., Elumilade, D. O. and Asaolu, T. O. (2006). Stock Market Capitalization and Interest Rate in Nigeria: A Time Series Analysis. *International Research Journal of Finance and Economics*, 4, 154-166.
- Olowe, R. A. (2007), 'The Relationship between Stock Prices and Macroeconomic Factors in the Nigerian Stock Market' *African Review of Money, Finance and Banking*, 79-98
- Schwert, G. W. (1990). Indexes of the United States stock prices from 1802 to 1987. *J. Bus.* 63, 399-426.
- Siegel, J. J. (1992). The real rate of interest from 1800\_1990: a study of the US and UK. *J. Monet. Econ.* 29, 227-252.

Uddin, M. G. S. and Alam, M. M. (2007). The Impacts of Interest Rate on Stock Market: Empirical Evidence from Dhaka Stock Exchange. *South Asian Journal of Management and Sciences*, 1(2), 123-132.

**CHAPTER SIX**  
**CONCLUSION, RECOMMENDATIONS AND CONTRIBUTIONS TO**  
**KNOWLEDGE**

**6.1 Conclusion**

This research work examined the dynamic equilibrium relationship between a group of macroeconomic variables and the Nigerian stock prices both at the individual firm's level and at the macro level using both the pooled data model and Johansen cointegration model. The study went further to examine whether stock price in Nigeria is affected by macroeconomic risk factors herein referred to as macroeconomic variables, adapting the Arbitrage Pricing Technique (APT). The macroeconomic variables investigated include: money supply (M2), interest rate, exchange rate, inflation rate, oil prices and GDP.

Time series macroeconomic (quarterly) data were sourced from 1985 to 2009. The period covered the adjustment, post-adjustment and reform eras in Nigeria. Although the Johansen co-integration tests affirmed that a long run relationship exists between stock price index (ALS) and macroeconomic variables, Granger causality results failed to establish causation between ALS and most macroeconomic variables. This implies that economic activities whose indicators are macroeconomic variables only have indirect impact on stock prices. It is the firm's cash flow or future earnings that cause price changes. This confirms the results of Iyiegbuniwe (1999). However, whether the impact is direct or indirect, this study revealed that stock prices in Nigeria are exposed to risk of macroeconomic variables. The findings are also consistent with the work of Olowe (2007).

The results from the two models used in this work suggest that with exception of oil price, macroeconomic variables in the study cannot be used to predict stock price movements. The error correction mechanism (ECM) gave support of a strong relationship between ALS and macroeconomic variables in Nigeria. Albeit, the  $R^2$  showed that 84.75% macroeconomic risk

sensitivity is experienced by stock prices in Nigeria. This means that stock prices are influenced by changes in macroeconomic variables. However, the fact that there was no evidence of causation between the two reaffirmed the position of theories the model used in this study on the channel of influence which is in direct.

## **6.2 Recommendations**

Stock market is an interesting but very risky channel of investment. Hence, investors always try to predict the trends of stock market to spot the abnormal benefits and avoid risks (Hussainey and Ngoc, 2009). By concerning with the relationship between macroeconomic variables and stock prices in Nigeria, investors and policy makers might forecast how financial market changes if domestic macroeconomic variables fluctuate. Considering the empirical findings of this research work vis-à-vis the objectives of the exercise, it becomes obvious that stock prices in Nigeria are very sensitive to domestic macroeconomic factors. Hence, the following policy recommendations are hereby suggested:

1. The fact that domestic macroeconomic variables have varying significant impact on stock prices have proved useful for portfolio diversification strategies as well as achieving better risk return trade off. It suggests that Nigerian investors must focus and study the varying significance of the macroeconomic variables so as to improve their portfolio performance.
2. The fact that international oil prices have a significant impact on stock prices in Nigeria suggests that the Nigerian stock market might also be very sensitive to international crude oil price. The causality tests showed that the causation runs from oil price to stock prices. This suggests that investors in the Nigerian stock market should therefore be mindful of the trend of the international crude oil price and other global macroeconomic

variables so that the risk of global economic melt down as experienced between 2007 and 2009 can be reduced to its barest minimum.

3. Lastly, it is also suggested that policy makers in Nigeria must be mindful of the correlation between stock prices and macroeconomic variables to formulate monetary policies. This will enable them to sufficiently and timely adjust Nigerian stock market to economic conditions in the country.

### **6.3 Contributions to Knowledge**

The relevance of this study reflects first on the choice of the topic that deals with asset prices in the Nigerian capital market. The capital markets generally, are believed to be the heart beat of the economy given their ability to respond almost instantaneously to fundamental changes in the economy. It encourages savings and real investment in any healthy economic environment. Aggregate savings are channeled into real investments that increase the capital stock and therefore economic growth of the country. With the global economic melt down that recently mired the Nigerian capital market between 2007 and 2009, this study is not only timely but has really contributed to the debate and practice of portfolio management by investors especially in developing economies like ours. In the light of the above importance, the contributions of this research can be summarized as follows:

1. The study established that macroeconomic variables do not only have significant impact on stock prices in Nigeria but that the channel of influence is an indirect one. This is a major landmark in the knowledge and practice of portfolio management in Nigeria.
- 2 The study explored the impact analysis at the level of the individual firms through a panel model. Panel model as an estimation technique was not used by most of the earlier researchers in this area and it has contributed to the growing literature in Nigeria.

3 The study established empirically that there was no sufficient evidence of a direct causation between macroeconomic variables and stock prices. Nevertheless, stock prices in Nigeria are exposed to macroeconomic risk factors.

4. The study also established empirically that macroeconomic variables are not good predictors of stock prices in Nigeria contrary to the conclusions of some earlier studies. Information on industrial and company's variables are likely to lead to accurate prediction of stock prices.

5. Finally, the study presented a conceptual model of the channel of influence between macroeconomic variables and stock price. This has contributed to the body of knowledge needed globally.

#### **6.4 Suggestions for Further Studies**

Arising from limitations of time and resources, and new grounds opened by the findings of this work, the researcher recommends the following areas for further research:

1. Most studies used the macro approach for this topic. This study employed the panel model in addition to explore the impact of macroeconomic variables on stock prices in Nigeria. It is therefore recommended that the same model be employed to study advanced and emerging markets for a more comprehensive analysis and definite conclusions.

2. It is also recommended that further researches can conduct sectoral analysis of the impact of macroeconomic variables on stock prices. This will help to identify the stock prices of which industrial sector do macroeconomic variables have greater impact.



## References

- Ajayi, R. A. and Mougoue, M., (1996). On the Dynamic Relation between Stock Prices and Exchange Rates. *The Journal of Financial Research* 19, 193-207
- Ali I., Kashif U. R., Yilmaz A. K., Khan M. A. and Hasan A. (2010), 'Causal relationship between macro-economic indicators and stock exchange prices in Pakistan' *African Journal of Business Management*, 4 (3), 312-319
- Asaolu T. O. and Ogunmakinwa M. S. (2011), 'An Econometric Analysis of the Impact of Macroeconomic Variables on Stock Market Movement in Nigeria' *Asian Journal of Business Management*, 3(1), 72 – 78.
- Boudoukh, J., R. M. and Whitelaw, R.F., (1994). Industry returns and Fisher effect. *J. Finance* 49, 1595-1615.
- Hammoudeh, S., and Aleisa, E. (2004), Dynamic relationships among GCC stock markets and NYMEX oil Futures.. *Contemporary Economic Policy*, 22(2), 250-269.
- Hussainey K. and Ngoc L. (2009), 'Impact of Macroeconomic Variables on Vietnamese Stock Exchange' *Journal of Risk Finance*, 4, 18-46
- Ibrahim M. H. and Aziz H. (2003): *Macroeconomic Variables and the Malaysian Equity market: A view Through Rolling Sub-Samples*. *Journal of Economic Studies*, 30, 6-27
- Maku O. E. and Atanda A. A. (2009), 'Does Macroeconomic Indicators Exert shock on the Nigerian Capital Market? Online at <http://mpira.ub.uni-muenchen.de/17917/>
- Najand, M. and Rahman, H., (1991). Stock market volatility and macroeconomic variables: international evidence. *J. Multinatl. Financ. Manage.* 1, 51-56.
- Narayan, K. P. and Narayan, S. (2010), Modeling the impact of oil prices on Vietnam's stock prices. *Applied Energy*, 87, 356-361.
- Ologunde, A. O., Elumilade, D. O. and Asaolu, T. O. (2006). Stock Market Capitalization and Interest Rate in Nigeria: A Time Series Analysis. *International Research Journal of Finance and Economics*, 4, 154-166.
- Olowe, R. A. (2007), 'The Relationship between Stock Prices and Macroeconomic Factors in the Nigerian Stock Market' *African Review of Money, Finance and Banking*, 79-98
- Schwert, G. W. (1990). Indexes of the United States stock prices from 1802 to 1987. *J. Bus.* 63, 399-426.
- Siegel, J. J. (1992). The real rate of interest from 1800\_1990: a study of the US and UK. *J. Monet. Econ.* 29, 227-252.

Uddin, M. G. S. and Alam, M. M. (2007). The Impacts of Interest Rate on Stock Market: Empirical Evidence from Dhaka Stock Exchange. *South Asian Journal of Management and Sciences*, 1(2), 123-132.

## Bibliography

- Adam A. M. and Tweneboah G. (2008): *Do Macroeconomic Variables Play any Role in the Stock Market Movement in Ghana?*. MPRA Working Paper No. 9368.
- Adeyemi, K. S. (1998): "Option for Effective Development of Nigerian Capital Market" at one day seminar organized by Nigeria Economic Society at the Institute of International Affairs, Lagos 21st January 1998.
- Affleck-Graves, J. F. and Money, A. H. (1975). A Note on the Random Walk Model and South African Share Prices. *The South African Journal of Economics*, 43(3), 382-388.
- Agenor, P. R. and Montiel P., (1996). *Development Macroeconomics*, Princeton, New Jersey: Princeton University Press.
- Aigbokan, B. K. (1995): 'Financial Development and Economic Growth: A Test of Hypotheses on Supply-Leading and Demand-Following Finance, with Evidence on Nigeria'. *Nigerian Economic and Financial Review (N. E. F. R.)* December 1995, 12, 1-10
- Ajayi, R. A. and Mougoue, M., (1996). On the Dynamic Relation between Stock Prices and Exchange Rates. *The Journal of Financial Research* 19, 193-207
- Ajayi, S. I., and Mohsin S. K., (2000). *External Debt and Capital Flight in sub-Saharan Africa* (Washington: International Monetary Fund).
- Akamiokhor, G. (1984): 'The Securities and Exchange Commission and the Nigerian Capital Market' *Central Bank of Nigeria Bullion* volume II pp 70-77.
- Akinifesi, O. E. (1987): "The Role and Performance of the Capital market" in Adedotun Philips and Eddy Ndekwu (eds) *Economic Policy and Development in Nigeria* NISER, Ibadan Nigeria.
- Akinnifesi O. E. (1987): *The Role and Performance of the Capital Market*. Journal of Nigeria Institute of Social and Economic Research, Ibadan.
- Akinlo, A. E. and Ayodele F. O. (2000): "An Alternative Framework for Assessing the Impacts of Nigeria's Naira Depreciation on Output and Inflation". Final Research work to be published by African Economic Research Consortium, Nairobi, Kenya.
- Ali I., Kashif U. R., Yilmaz A. K., Khan M. A. and Hasan A. (2010), 'Causal relationship between macro-economic indicators and stock exchange prices in Pakistan' *African Journal of Business Management*, 4 (3), 312-319

- Alile, H. and Anao, R. A. (1986), *The Nigerian Stock Market in Operation* Jeromelaiho and Associate Limited, Lagos Nigeria.
- Alile, H. I. (1984), "The Nigerian Stock Exchange: Historical Perspective, Operations and Contributions to Economic Development" Central Bank of Nigeria Bullion, Silver Jubilee edition, 2, 65-69.
- Alile, Hayford (1996), "Dismantling Barrier of Foreign Capital Inflows" *The Business Times of Nigeria* 14th April, page 5.
- Alile, Hayford (1997): "Government Must Divest" *The Business Concord of Nigeria* 2nd December, Pp. 8.
- Aliyu, R. U. S., Yakub, U. M., Sanni, K. G., & Duke, O. O. (2010). Exchange rate pass-through in Nigeria: Evidence for a Vector Error Correction Model, CSAE. <http://www.csae.ox.ac.uk/conference/2010-EdiA/paperlist.htm>
- Aliyu, U. R. S. (2009), Impact of oil price shock and exchange rate volatility on economic growth in Nigeria: An empirical Investigation. *Research Journal of International Studies*, Issue 11. 4-15.
- Amadi S. N., Onyema J. I. and T. D. Odubo (2002): *Macroeconomic Variables and Stock Prices. A Multivariate Analysis*. *Africa Journal of Development Studies*, 2(1) 159-164.
- Anoruo, E., & Mustafa, M. (2007), An empirical investigation into the relation of oil to stock market prices. *North American Journal of Finance and Banking Research*, 1(1), 22-36. *Global Journal of Finance and Banking Issues Vol. 4. No. 4. 2010. Samuel Imarhiagbe* 30
- Appleyard, D. R. and Field, A. J., (2001). *International Economics 4<sup>th</sup> ed*. Singapore: McGraw-Hill Book Co.
- Arango, L. E., Gonzalez, A. and Posada, C. E. (2002). Returns and interest rate: A nonlinear relationship in the Bogotá stock market. *Applied Financial Economics*, 12(11), 835-842.
- Asprem, M., (1989). Stock prices, asset portfolios and macroeconomic variables in ten European countries. *J. Bank. Finance* 13, 589\_612.  
Available: <http://www.econometrica.com/publications/StockPrices.pdf>
- Asaolu T.O. and Ogunmakinwa M. S. (2011), 'An Econometric Analysis of the Impact of Macroeconomic Variables on Stock Market Movement in Nigeria' *Asian Journal of Business Management*, 3(1), 72 – 78.

- Avwokeni J. A. (2007), *Practical Research Methodology: Design, Analysis and Reporting*, Unicampus Books, Lagos.
- Balaban, E. (1995). Day of the Week Effects: New Evidence from an Emerging Stock Market. *Applied Economics Letters*, 2(5), 139-143.
- Banerjee, A., Dolado, J. J., Hendry, D. F., and Smith, G. W., (1986). Exploring equilibrium relationships in econometrics through static models: some Monte Carlo evidence. *Oxford Bull. Econ. Stat.* 48, 253-277.
- Barro, R., (2000). Inequality and Growth in a Panel of Countries, *Journal of Economic Growth*, 5(1), 5-32.
- Battacharya, R. and Clements, B., (2004). How cutting the external debt burden can boost growth in low-income countries, *Finance & Development*, December 2004 (48-50)
- Bencivenga, V. R., Bruce D. S. and Ross M. S. (1996): "Equity Markets, Transaction Costs, and Capital Accumulations: An Illustration". *The World Bank Review*, 10(2), 241-265.
- Benderly, J., Zwick, B., (1985). Inflation, real balances, output, and real stock returns. *Am. Econ. Rev.* 75, 1115-1123.
- Benhabib, J. and Spiegel, M. M, (1994). The role of human capital in economic development: Evidence from aggregate cross-country data, *Journal of Monetary Economics* 34(2), 143-173
- Benigno, G., (2004). *Lecture Notes in International Macroeconomics*. The London School of Economics and Political Science, London.
- Berg, A. and Sachs, J., (1988). The Debt Crisis: Structural Explanations of Country Performance, *Journal of Development Economics*, 29 (3), 271-306.
- Bernanke, B. and K. Kuttner. (2003). "What Explains the Stock Market's Reaction to Federal Reserve Policy?" *Journal of Finance*, 60, 1221- 1257.
- BGL Financial Monitor (2001), "*Patterns of Industry Financing in Nigeria*", A Publication of BGL Limited 18th Edition, April Central Bank of Nigeria's Statistical Bulletin (Various issues).
- Bodie, Z., (1976). Common stocks as a hedge against inflation. *J. Finance* 31, 459-470.
- Boote, A. R. and Thugge, K., (1997). Debt Relief for Low-Income Countries: The HIPC Initiative, *IMF Pamphlet Series* No 51 (Washington: International Monetary Fund).
- Bottazzil, L., Corradi, V., (1991). Analyzing the risk premium in the Italian stock market: ARCH-M models vs. non-parametric models. *Appl. Econ.* 23, 335\_341.

- Boudoukh, J., Richardson, M., (1993). Stock returns and inflation: a long-horizon perspective. *Am. Econ. Rev.* 83, 1346-1355.
- Boudoukh, J., Richardson, M. and Whitelaw R. F., (1994). Industry returns and Fisher effect. *J. Finance* 49, 1595-1615.
- Brook, C. (2008). *Introductory Econometrics for Finance*, Cambridge, Cambridge University Press.
- Brooks, R., Mariano C., Francesca F., Benoit K., Ydahlia M., Robert P., Saquib R., Doris R. and Kevin R., (1998). External Debt Histories of Ten Low-Income Countries: Lessons from Their Experience, IMF, WP/98/72 (Washington).
- Brurbridge, J., and Harrison A. (1984), Testing for the effects of oil-price rises using vector autoregression. *Int Econom Rev*, 25, 459-84.
- Bureau of Economic Analysis. (2006). National Income and Product Accounts, Second Quarter 2006 GDP (Advance). July 28, 2006.
- Butler, K. C. and Mailaikah, S. J. (1992). Efficiency and Inefficiency in Thinly Traded Stock Markets: Kuwait and Saudi Arabia. *Journal of Banking and Finance*, 16, 197-210.
- Campbell J. and R. J. Shiller (1988): *Stock Prices, Earnings and Expected Dividend*. *Journal of Finance*, 43, 661-676.
- Campbell, J. Y. (1987). Stock Returns and the Term Structure. *Journal of Financial Economics*, 18, 373-399.
- CBE (Central Bank of Egypt., (1992-1998), Annual Economic Review, Various Issues (CBE, Cairo).
- Central Bank of Nigeria Statistical Bulletin for Several Issues: [http:// www.cenbank.org/](http://www.cenbank.org/)
- Charemza, W. and Deadman D., (1997). *New Directions in Econometric Practice, General to Specific Modeling, Co-integration and Vector Auto regression*, University of Leicester, 2nd Edition, Edward Elgar publishing.
- Charemza, W. W., Deadman, D. F., (1992). *New Directions in Econometric Practice: General to Specific*
- Chen N. F., Roll R. and S. A. Ross (1986): *Economic Forces and the Stock Market*. *Journal of Business*, 59(3), 383-403.
- Chen N., Roll R. and Ross, S. A., 1986. Economic force and the stock market. *J. Bus.* 59, 383-403.
- Chen, S., Jordan, B. D., (1993). Some empirical tests in the arbitrage pricing theory; macrovariables versus derived factors. *J. Bank. Finance* 17, 65-89.

- Chiang C. A. (1984), *Fundamental Methods of Mathematical Economics*, McGraw-Hill Book Company, Singapore.
- Christopher G., Minsoo L., HuaHwa A. and Jun Z. (2006): *Macroeconomic variables and Stock Market Interactions: New Zealand evidence*. *Journal of Investment Management and financial Innovation*, 3(4), 116-134
- Ciner, C. (2001), Energy shocks and financial markets: nonlinear linkages. *Studies in Nonlinear Dynamics and Econometrics*, 5(3), 203-212.
- Claessens E. D. and Ishac D., (1989). Liquidity, Debt Relief and Conditionality: in *Dealing with the Debt Crisis*, (Washington: World Bank).
- Claessens, E. D., Ravi K., and Wickam P., (2000). Analytical Aspects of Debt Problems, in *External Finance for Low-Income Countries* (Washington: International Monetary Fund).
- Claessens, E. D., Dasgupta, S. and Glen, J. (1995). Return Behaviour in Emerging Stock Markets. *The World Bank Economic Review*, 9(1), 131–151.
- Clements, B., B., and Nguyen T. Q. (2003). External Debt, Public Investment, and Growth in Low-income Countries, *IMF Working Paper* No WP/03/249.
- Cohen, D., (1996). The Sustainability of African Debt, *World Bank Policy Research Department Working Paper* No 1691.
- Collier, P. and Gunning, J. W. (1998) “Exploring African Economic Performance” WPS97-2.2 CSAE Working Papers Series.
- Cong, R. G., Wei, J. L., and Fan, Y. (2008), Relationship between oil price shocks and stock market: An empirical analysis from China. *Energy Policy*, 36(9), 3544-3553.
- Copeland, L., (2000). *Exchange Rates and International Finance*, 3<sup>rd</sup> ed. Harlow, New York: Financial Times Prentice Hall.
- Darby, M. R., (1975). The financial and tax effects of monetary policy on interest rates. *Econ. Esq.* 85, 266-276.
- Demirgüç-Kunt, A. and Ross L. (1996): "Stock Market, Corporate Finance and Economic Growth: An Overview" *The World Bank Review* 10(2):223-239.
- Deshpande, A., (1997).The debt Overhang and the Disincentive to Invest, *Journal of Development Economics*, 52, 169-187.
- Detragiache, E., and Spilimbergo, A., (2001). Crises and Liquidity: Evidence and Interpretation, *IMF Working Paper* No 01/ 2.

- Diacogiannis, G. P., Tsiritakis E. D. and Manolas G. A. (2001). ‘Macroeconomic factors and stock returns in a changing economic framework: The case of Athens stock exchange. *Manage Finance*, 27(6): 23-41.
- Dickey D. and Fuller W. (1979): *Distribution of the estimators for Autoregressive time series with unit root*. Journal of American Statistical Association, 74: 427-431.
- Dickey, D.A., Fuller, W.A., (1981). Likelihood ratio statistics for autoregressive time series with a unit root. *Econometrica* 49, 1057-1072.
- Dickey, D. A., Jansen, D. W. and Thornton, D.L., (1991). A primer on cointegration with an application to money and income. *Fed. Reserve Bank St. Louis Rev.* 73, 58-78.
- Dijkstra, G. and Niels, H., (2001). The Uncertainty of Debt Service Payments and Economic Growth of Highly Indebted Poor Countries: Is There a Case for Debt Relief? *Unpublished manuscript, United Nations University, Helsinki*.
- Dikhanov, Y., (2003). Reconstruction of Historical Present Value of Debt for Developing Countries, 1980-2001: Methodology and Calculations, Manuscript, The World Bank (Washington: World Bank).
- Dokko, Y., Edelstein, R., (1987). The empirical interrelationships among the Mundell and Darby hypothesis and expected stock market returns. *Rev. Econ. Stat.* 69, 161-166.
- Dolado, J. J., Jenkison, T. and Sosvilla-Rivero, S., (1990). Co-integration and unit roots. *J. Econ. Surv.* 4, 249-273.
- Doornik, J. A., and Hendry D. F. (1994), *An Interactive Econometric Modelling System*. International Thomson Publishing, London.
- Dornbusch, R and Fisher, S. (1980), Exchange rates and the current account. *The American Economics Review*, 70(5), 960-971
- Du Toit, G. S. (1986). Technical Analysis and Market Efficiency on the Johannesburg Stock Exchange. *Working Paper for D.Com degree*, Pretoria: University of Pretoria.
- Eatwell, J; Milgate, M. and Newman, P; (1987). *The New Palgrave Dictionary of Economics*, Vol. 2, The Macmillan Press Limited: London.
- Edo, S. E. (1995): “An Estimation of a Model of Long-term Securities Investment in Nigeria”
- Elbadawi, I. A., Ndulu, B. J. and Ndungu, N., (1997). Debt Overhang and Economic Growth in sub-Saharan Africa, *External Finance for Low-Income Countries*, IMF, Washington D.C.



- El-Sharif, I., Brown, D., Burton, B., Nixon, B., and Russell, A. (2005), Evidence on the nature and extent of the relationship between oil prices and equity values in the UK. *Energy Economics*, 27, 819-830.
- Emenuga C. A. (1994); *Systematic Factors and Returns on Equities in the Nigerian Securities Market*. Unpublished Ph.D Thesis, University of Ibadan, Ibadan.
- Emenuga, C. A. (1998): “Nigerian Capital Market and Nigeria Economic Performance” at one day seminar organized by Nigeria Economic Society at the Institute of International Affairs, Lagos 21st January 1998.
- Emerging Stock Market Fact Book (2000) Standard and Poors , A Division of McGraw-Hill Companies New York USA.
- Energy Information Administration (EIA). [www.eia.doe.gov/emeu/cabs/](http://www.eia.doe.gov/emeu/cabs/)
- Engle R. F. and Granger C. W. J. (1987): *Cointegration and Error Correction. Representation, estimation and testing*. *Econometrica*, 55: 251-276.
- Engle, R. F., Granger, C. W. J., (1991). Long Run Economic Relations: Readings in Co-integration. Oxford University Press, Oxford.
- Erb, C. B., Harvey, C. R. and Viskanta, T. E., (1995). Inflation and world equity selection. *Finance. Anal. J.* 51, 28-42.
- EViews7, (2009). User’s guide II, California, Quantitative Micro Software.
- Fama E. F. (1965): *The Behaviour of Stock Prices*. *Journal of Business*,38-1.
- Fama E. F. (1977): Asset Returns and Inflation, *Journal of Monetary Economics*, 38: 327-348.
- Fama, E. F. (1965). The Behavior of Stock Market Prices. *Journal of Business*, 38, 34-105..... (1981). Stock returns, real activity, inflation and money. *American Economic Review*, 71, 545-564. 0119
- Fama, E. F., (1981). Stock returns, real activity, inflation, and money. *Am. Econ. Rev.* 71, 545-565.
- Fama, E. F. and Schwert, G.W., (1977). Asset returns and inflation. *J. Finance Econ.* 5, 115-146.
- Feldstein, M., (1980). Inflation and the stock markets. *Am. Econ. Rev.* 70, 839-847.
- Feldstein, M., (1980). Inflation tax rules, and the stock market. *J. Monet. Econ.* 6, 309-331.
- Feldstein, M., (1982). Inflation and the stock market: reply. *Am. Econ. Rev.* 72, 243-246.
- Feldstein, M. and Summers, L., (1979). Inflation and the taxation of capital income in the corporate sector. *Natl. Tax J.* 32, 445-470.

- Filler, R. K., Jan H. and Nauro F. C. (1999): "Do Stock Market Promote Economic Growth?" The William Davidson Institute (University of Michigan Business School) Working Paper Series No. 267 September. Federal Office of Statistics Statistical Bulletin (Various issues).
- Flannery M. I. and Protopapadakis A. A. (2002): *Macroeconomic Factors do Increase Aggregate Stock Returns*. Review of Financial Studies, 15: 751-789.
- Fry, M. J., (1989). Foreign Debt Instability: An Analysis of National Saving and Domestic Investment Responses to Foreign Debt Accumulation in 28 Developing Countries, *Journal of International Money and Finance*, 8, 315-344.
- Gan, C., M. Lee, H. Y. and Zhang J. (2006). 'Macroeconomic variables and stock market interactions: New Zealand evidence. *Int. Manage. Financ. Innov.*, 3(4): 89-101.
- Gavin, M., (1989). The Stock Market and Exchange Rate Dynamics, *Journal of International Money and Finance* 8:181-200.
- Gilbertson, B. P. (1976). The Performance of South African Mutual Funds. *Report No. F76/84*, Johannesburg: Johannesburg Consolidated Investment Company. Vol. 4, No. 3 *International Journal of Business and Management*, 48
- Gisser, M. and Goodwin T. H. (1986), Crude oil and the macroeconomy: tests of some popular notions. *Journal of Money Credit Bank*, 18, 95-103.
- Granger, C. W. J, Huang, B., Yang, C. W., (2000). A bivariate causality between stock prices and exchange rates: Evidence form recent Asian flu. *The Quarterly Review of Economics and Finance* 40: 337-354.
- Grieb, T. A. and Reyes, M. G. (1999). Random Walk Tests for Latin American Equity Indexes and Individual Firms. *Journal of Financial Research*, 22(4), 371-383.
- Gujarati D. (2004), *Basic Econometrics*, McGraw-Hill Publishing Company Ltd, New Delhi.
- Gunter, B.; (2003). What's Wrong with the HIPC Initiative and What's Next? Development Policy Review, 2002, 20(1): 5-24.
- Gunter,B.; (2003). Achieving Long-term Debt Sustainability in All Heavily Indebted Poor Countries (HIPC), Discussion Paper, International Group of 24 (G-24), Trinidad and Tobago.
- Hadassin, I. (1976). An Investigation into the Behavior of Emerging and Share Prices of South African Listed Companies. *Investment Analysts Journal*, 8, 13-24.
- Hamilton, J. D. (1983), Oil and the macroeconomy since World War II. *Journal of Political Economy*, 92, 228-48.
- Hamilton, J. D. (2000). What is an Oil Shock?, NBER Working Paper 7755.

- Hammoudeh, S. and Aleisa, E. (2004), Dynamic relationships among GCC stock markets and NYMEX oil Futures.. *Contemporary Economic Policy*, 22(2), 250-269.
- Hansen, H., 2001. The Impact of Aid and External Debt on Growth and Investment: Insights from Cross-Country Regression Analysis, *WIDER Conference on Debt Relief, United Nations University, Helsinki*.
- Harasty, H. and Roulet, J. (2000). Modeling Stock Market Returns. *Journal of Portfolio Management*, 26 (2), 33.
- Harris, R. I. D., 1995. Using Co-integration Analysis in Econometric Modeling, University of Portsmouth, Prentice Hall, Harvester Wheatsheaf, London.
- Harvey, A. C. (1993). *Time Series Models*. 2nd Edition, New York: Harvester Wheatsheaf.
- Hatemi J. A and Irandoust M. (2002). On the Causality between Exchange Rates and Stock Prices: A Note. *Bulletin of Economic Research* 54: 197-203
- Hendry, D, and Juselius, K. (2000), Explaining Cointegration Analysis: Part II. *Discussion Paper*, <http://www.econ.ku.dk/Reserach/publications/pink/2000/0020.pdf>.
- Hjertholm, P., (1999). Analytical History of Heavily Indebted Poor Country (HIPC) Debt Sustainability Targets, Development Economics Research Group (DERG), Institute of Economics, University of Copenhagen.
- Hjertholm, P., (2001). Debt Relief and the Rule of Thumb: Analytical History of HIPC Debt Sustainability Targets, Wider Conference on Debt Relief, Helsinki.
- Horngren, C. T, Foster, G. and Datar, S. M. (1997). *Cost Accounting: A Managerial Emphasis*. 9th ed. (New Delhi: Prentice Hall Inc.).
- Hooker, M. A. (1996), What happened to the oil price-macroeconomy Relationship? *Journal of Monetary Economics*, 38, 195-213.
- Hsing, Y., (2004). Impacts of Fiscal Policy, Monetary Policy, and Exchange Rate Policy on Real GDP in Brazil: A VAR Model, *Brazilian Electronic Journal of Economics* 6: 1-12
- Huang, R. D., Masulis, R. W. and Stoll, H. R. (1996), Energy shocks and financial markets *Journal of Future Markets*, 16, 1-27.
- Hussainey K and Ngoc L (2009), 'Impact of Macroeconomic Variables on Vietnamese Stock Exchange' *Journal of Risk Finance*, Vol. 4, 18-46
- Ibrahim M. H. and Aziz H. (2003): *Macroeconomic Variables and the Malaysian Equity market: A view Through Rolling Sub-Samples*. *Journal of Economic Studies*, 30: 6-27
- Ibrahim, M. H., (1999). Macroeconomic Variables and Stock Prices in Malaysia: An Empirical Analysis. *Asian Economic Journal* 13: 46-69.

- IMF and IDA, (2004): Debt Sustainability in Low-Income Countries- Proposal for an Operational Framework and Policy Implications (Staff of the IMF and the World Bank: Washington).
- IMF, (2003): Debt Sustainability in Low-income Countries-Towards a Forward-Looking Strategy (Staff of the Policy Development and Review Department: Washington).
- Inanga, I. L. and Emenuga C. (1997) "Institutional, Traditional and Asset Pricing Characteristics of the Nigerian Stock Exchange" African Economic Research Consortium Research paper 60 March 1997.
- Ito, T. and Yuko H. (2004). High-Frequency Contagion between the Exchange Rates and Stock Prices, *Working Paper 10448*, NBER, Cambridge, MA.
- Jaffe, J. F. and Mandelker, G., (1976). The Fisher effect for risky assets: an empirical investigation. *J. Finance* 31, 447-458.
- Jamine, A. P. and Hawkins, D. M. (1974). The Behavior of Some Share Indices: A Statistical Analysis. *The South African Journal of Economics*, 42(1), 43-55.
- Jefferis, K. R. and Okeahalam, C. C. (2000). The Impact of Economic Fundamentals on Stock Markets in Southern Africa. *Development Southern Africa*, 17(1), 23-51.
- Johansen, S. (1991), Estimation and hypothesis testing of Cointegration Vector in Gaussian Vector Autoregressive Models. *Econometrica*, 59, 1551-1580.
- Johansen, S. (1995), Likelihood-based inference in Cointegration Vector Autoregressive Models, Oxford: Oxford University Press.
- Jones, C. M., and Kaul, G. (1996), Oil and the stock markets. *The Journal of Finance*, 51, 463-491.
- Kaul, G. (1990). Monetary Regimes and the relation between stock returns and inflationary expectations. *Journal of Financial and Quantitative Analysis*, 15, 307-321.
- Kawakatsu, H. and Morey, M. R. (1999). An Empirical Examination of Financial Liberalization and the Efficiency of Emerging Market Stock Prices. *The Journal of Financial Research*, 22, 385-411.
- Kennedy, P., (2003). A guide to Econometrics, Fourth Edition, Simon Fraser University, Blackwell Publishers.
- Khababa, N. (1998). Behavior of stock prices in the Saudi Arabian Financial Market: Empirical research findings. *Journal of Financial Management & Analysis*, 11(1), 48-55.

- Khalid, A. M., and Kawai, M. (2003). Was financial market contagion the source of economic crisis in Asia?: Evidence using a multivariate VAR model. *Journal of Asian Economics* 14: 131-156.
- Knight, E. T. and Firer, C. (1989). The Performance of South African Unit Trusts 1977-1986. *The South African Journal of Economics*, 57(1), 52-68.
- Knight, R. F. and Affleck-Graves, J. F. (1983). The Efficient Market Hypothesis and a Change to LIFO: An Empirical Study on the JSE. *Investment Analysts Journal*, 21, 21-33.
- Knight, R. F., Affleck-Graves, J. F. and Hamman, W. D. (1985). The Effect of Inventory Valuation Methods on Share Prices: Some New Evidence for the JSE. *Investment Analysts Journal*, 26, 45-47.
- Kraay, A. and Nehru, V., (2004). When Is External Debt Sustainable? *World Bank Policy Research Working Paper* 3200, (Washington: World Bank).
- Krugman, P. (1988). Financing vs. Forgiving a Debt Overhang, *Journal of Development Economics*, 29, 253-68.
- Kwon C. S. and Shin T. S.(1999): *Cointegration Vectors of Economic Variables and Stock Market Returns*. *Global Financial Journal*, 10: 71-81
- Lee, W. (1997). Market timing and short-term interest rates. *Journal of Portfolio Management*, 23 (3), 35-46.
- Lescaroux, F., & Mignon, V. (2008), On the influence of oil prices on economics activity and other macroeconomic and financial variables. *OPEC Energy Review*, 343-380.
- Levine, Ross and Sara Zeros (1996): "Stock Market Development and Long-run Economic Growth" *The World Bank Review* 10(2):
- Lintner, J., (1975). Inflation and security returns. *J. Finance* 30, 259-280.
- Lloyd-Ellis, H., McKenzie, G. W., and Thomas, S. H., (1990). Predicting the Quantity of LDC Debt Rescheduling, *Economic Letters*, 32 (1), 67-73.
- Lo, A. W. and Mackinlay, A. C. (1988). Stock Market Prices Do Not Follow Random Walks: Evidence from A Simple Specification Test. *Review of Financial Studies*, 1, 41-66.
- Loungani P. (1986), Oil Price Shock and Dispersion Hypothesis. *Rev Econ Stat*, 68, 3, 536-539.
- Lucas, R. E., (1990). Why doesn't capital flow from rich to poor countries? *American Economic Review, Papers and Proceedings*, 80, 942-63.
- Lucey T. (2002), *Quantitative Techniques*, Continuum, London.

- Maghyereh, A. (2004), Oil price shock and emerging stock markets: A Generalized VAR Approach. *International Journal of Applied Econometrics and Quantitative Studies*, Vol. 1(2), 27-40.
- Maku O. E. and Atanda A. A. (2009), 'Does Macroeconomic Indicators Exert shock on the Nigerian Capital Market? Online at <http://mpr.aub.uni-muenchen.de/17917/>
- Malivaud, E. (1979): *Economic Growth and Resources (Vol. 1): The Major Issues*. Proceedings of the 5th World Congress of the International Economic Association held in Tokyo, Japan 1977. Macmillan Press Limited London.
- Martin, M., (2004). Has Debt Relief Made Low-Income Countries' Debt Sustainable? Debt Relief International; Conference on Debt Relief and Global Governance, Rotterdam.
- Mason D. R., Lind A. D. and Marchal G. W. (1999), *Statistical Techniques in Business and Economics*, McGraw-Hill Company, Irwin.
- Mc Fadden, D., Eckaus, R., Feder, G., Hajivassiliou, V., and O'Connell, S., (1985). Is There Life After Debt? An Econometric Analysis of the Creditworthiness of Developing Countries, *International Debt and the Developing Countries*, (Washington: World Bank).
- McSweeney, E. and Worthington, A. C. (2007), A comparative analysis of oil as a risk factor in Australian industry stock returns, 1980-2006. *Working Papers Series*, University of Wollongong, <http://ro.uow.edu.au/commpapers/339>
- Miller, I. J., and Ratti, A. R., (2009), Crude oil and stock markets: stability, instability, and bubbles. *Energy Economics*, 31(4), 559-568.
- Mishkin, F. S. (2001). The transmission mechanism and the role of asset prices in monetary policy. *NBER Working Paper No 8617*.
- Mookerjee R. and Yu Q. (1997): *Macroeconomic Variables and stock prices in a Small Open Economy: The case of Singapore*. *Pacific-Basin Financial Journal*, 5: 377-388.
- Moore H. (1962): *Stock Prices and the Business Cycle*. *Journal of Portfolio Management*, 1: 59-64.
- Mork K. (1989), Oil and the Macroeconomy, When prices go up and down: An extension of Hamilton's results. *Journal of Political Economy*, 97(51), 740-744.
- Mukherjee T. K. and Naka A. (1995): *Dynamic Relations between Macroeconomic Variables and the Japanese Stock Market. An application of Vector Error Correction Model*. *Journal of Finance Research*, 18: 223-237.
- Mundell, R. A., (1963). Inflation and real interest. *J. Polit. Econ.* 71, 280-283.

- Muradoglu, G., Taskin F. and Bigan I, (2000). ‘Causality between stock returns and macroeconomic variables in emerging markets. *Russian East Eur. Finance Trade*, 36(6): 33-53.
- Mukhopadhyay, D. and Sakar N., (2003). ‘Stock returns and macroeconomic fundamentals in model specification framework: Evidence from Indian stock market. Indian Statistical Institute, Economic Research Unit, ERU 2003-2005 Discussion Paper, January, 1-28.
- Najand, M. and Rahman, H., (1991). Stock market volatility and macroeconomic variables: international evidence. *J. Multinat. Financ. Manage.* 1, 51-56.
- Nandha, M., and Hammoudeh, S. (2006), Systematic risk, and oil price and exchange rate sensitivities in Asia-Pacific stock markets. *Research in International Business and Finance*, 21(20)(326-341).
- Narayan, K. P., and Narayan, S. (2010), Modeling the impact of oil prices on Vietnam’s stock prices. *Applied Energy*, 87, 356-361.
- National Bureau of Statistic: [www.nigerianstat.gov.ng](http://www.nigerianstat.gov.ng)
- Nelson R. R. and Phelps E. S., (1966). Investments in humans, technological diffusion, and economic growth, *American Economic Review*, 56, 69-75.
- Nelson, C. R., (1976). Inflation and rates of return on common stocks. *J. Finance* 31, 471-483.
- Niederhoffer, V. and Osborne, M. F. M. (1966). Market Making and Reversal on the Stock Exchange. *Journal of the American Statistical Association*, 61, 897-916.
- Nigerian Capital Market Data Bank: <http://dbank.secnigeria.org/index.php>
- Nigerian Economic and Financial Review (N. E. F. R.) December 1995, 12, 45-53
- Nwokoma N. I. (2002): *Stock Market Performance and Macroeconomic Indicators Nexus in Nigeria. An empirical investigation.* Nigerian Journal of Economic and Social Studies, 44-2.
- Nyong, M. O. (1997): “Capital Market Development and Long-run Economic Growth: Theory, Evidence and Analysis” First Bank Review, December 1997: 13-38.
- Obadan, M. I. (1998): Presidential Address presented on the “ Capital Market and Nigeria’s Economic Development” at one day seminar organized by Nigeria Economic Society at the Institute of International Affairs, Lagos 21st January 1998.
- Obstfeld, M. (1994): “Risk-taking, Global Diversification, and Growth” *American Economic Review* 84 (5, December) 1310-1329.

- Okereke-Onyiuke N. (2000): “Stock Market Financing Options for Public Projects in Nigeria” The Nigerian Stock Exchange Factbook 2000.
- Oks, D., and Swender V. W., (1995). Mexico After the Debt Crisis: Is Growth Sustainable? *Journal of Development Economics*, 47,155-78.
- Ologunde, A. O., Elumilade, D. O. and Asaolu, T. O. (2006). Stock Market Capitalization and Interest Rate in Nigeria: A Time Series Analysis. *International Research Journal of Finance and Economics*, 4, 154-166.
- Olowe, R. A. (2007), ‘The Relationship Between Stock Prices and Macroeconomic Factors in the Nigerian Stock Market’ *African Review of Money, Finance and Banking*, 79 - 98
- Omran, M. and J. Pointon, (2000), The determinants of the cost of capital by industry within an emerging economy: Evidence from Egypt, *Emerging Markets Review*, 2(2001), 263-279.
- Onosode, G. O. (1998): “The Capital Market and Nigeria’s Economic Development” at one day seminar organised by Nigeria Economic Society at the Institute of International Affairs, Lagos 21st January 1998.
- Onour, A. I. (2007), Impact of oil price volatility on Gulf Cooperation Council stock markets’ return. *OPEC Review*,31(3), 171-189.
- Osinubi, Tokunbo S. (1998): Stock Market Development and Long-run Growth in Nigeria”. Unpublished M.Sc. Economics Dissertation, University of Ibadan Nigeria.
- Oyejide, T. A. (1994): “The Financial System and Economic Growth in the Context of Political Transition”. Central Bank of Nigeria Economic and Financial Review. 32(3), 260-267.
- Panas, E. E. (1990). The Behaviour of Athens Stock Prices. *Applied Economics*, 22(12), 1915-1927.
- Papapetrou, E, (2001), Oil price shocks, stock market, economic activity and employment in Greec., *Energy Economics*,. 23 (5), 511-532.
- Park, J, and Ratti, A. R. (2008), Oil price shocks and stock markets in the U. S. and 13 European Countries. *Energy Economics*, 30, 2587-2608.
- Pattillo, C., Poirson, H. and Ricci, L., (2004). What are the Channels Through Which External Debt Affects Growth? *IMF Working Paper* No WP/ 04/15.
- Pindyck, B. S., (1984). Risk, inflation, and the stock market. *Am. Econ. Rev.* 74, 335-351.



- Poshakwale, S. (1996). Evidence on the Weak-form efficiency and the day of the week effect in the Indian Stock Market. *Finance India*, 10(3), 605-616.
- Poterba, J. M. and Summers, L. H. (1988). Mean Reversion in Stock Returns: Evidence and Implications. *Journal of Financial Economics*, 22, 27-59.
- Ranis, G., Stewart F., and Ramirez A., (2000). Economic Growth and Human Development, *World Development*, 28,197-219.
- Refalo, F. J. (2009), China's impact on price shocks in the world oil markets. *The Journal of Energy Markets*, 2(1), 89-113.
- Rigobon, R. and Sack B. (2006). "Noisy Macroeconomic Announcements, Monetary Policy and Asset Prices." Working Paper. June 2006.
- Robert, D. G. (2008). 'Effect of macroeconomic variables on stock market returns for four emerging economies: Brazil, Russia, India and China', *Int. Bus. Econ. Res. J.*, 7(3).
- Romer, P. M., (1990). Endogenous technical change, *Journal of Political Economy*, 98, S71-S102.
- Ross S. A.(1976): *The Arbitrage Theory of Capital Asset Pricing*. Journal of Economic Theory, 13(3):341-360.
- Rostow, W. W. (1960): *The process of Economic Growth* 2nd Edition Oxford University Press, Ely House, London W. I.
- Roux, F. J. P. and Gilbertson, D. P. (1978). The behavior of share prices on the Johannesburg Stock Exchange. *Journal of Business Finance and Accounting*, 5(2), 223-232.
- Ruby, D. A., (2003). Capital Accumulation and Economic Growth, *The Digital Economist*, [http:// www.digitaleconomist.com](http://www.digitaleconomist.com)
- Sachs J., (1989). The Debt Overhang of Development Countries, in *Debt Stabilization and Development: Essays in Memory of Carlos Diaz Alejandro* (Basic Blackwell: Oxford).
- Sachs, J., (2002). Resolving the Debt Crisis of Low-Income Countries, *Brookings Papers on Economic Activity*, 1: 2002 (Harvard University).
- Sadorsky, P. (199), Oil shocks and stock markets activity. *Energy Economics*, 21, 449-469.
- Samuel, C. (1996): "Stock Market and Investment: The Governance Role of the Market" *The World Bank Review*, 10( 2), 241-265
- Samuelson, P. A. (1965). Proof that Properly Anticipated Prices Fluctuate Randomly. *Industrial Management Review*, 6, 41-49.
- Savvides, A., (1992). Investment Slowdown in Developing Countries during the 1980s: Debt Overhang or Foreign Capital Inflows, *Kyklos*, 45, 363-378.

- Schwert, G. W., (1990). Indexes of the United States stock prices from 1802 to 1987. *J. Bus.* 63, 399-426.
- Securities and Exchange Commission's Statistical Bulletin (Various issues).
- Serkan Y. (2008): *Macroeconomic variables, Firm Characteristics and Stock Returns. Evidence from Turkey*. *International Research Journal of Finance and Economics*, 16.
- Serven, L. and Solimano, A., (1993). Debt Crisis, Adjustment Policies and Capital Formation in Developing Countries: Where do we stand? *World Development*, 21(1).
- Serven, L., (1997). Uncertainty, Instability and Irreversible Investment: Theory Evidence and Lessons for Africa, *World Bank Policy Research Working Paper* No. 1722 (Washington: World Bank).
- Shiller, R. J. (1989), *Market Volatility*, Massachusetts: M.I.T. Press.
- Siegel, J. J., (1992). The real rate of interest from 1800\_1990: a study of the US and UK. *J. Monet. Econ.* 29, 227-252.
- Sim, C. A. (1980), Macroeconomics and reality. *Econometrica*, 48, 1-48.
- Smith L .H. (1990): *Stock Prices Behavior in the American Economy*. *American Economic Review*, 71: 429-450.
- Soyode A. (1993): *Nigerian Capital Markey and Macroeconomic Variables: An Empirical Analysis*. *Nigerian Journal of Monetary Economics*, 13(3), 341-360.
- Soyode, A. (1990): 'The Role of Capital in Economic Development" *Security Market Journal Nigeria*, 6, 6-13.
- Spiegel, M. R. and Stephens, L. J. (1999). *Schaum's Outlines: Statistics*. 3rd ed. (New York: McGraw-Hill).
- Spyrou, I. S. (2001). Stock returns and inflation: evidence from an emerging market. *Applied Economics Letters*, 8, 447-450.
- Standard and Poor's Emerging Stock Market Factbook, 2000.
- Strong, N. (1992). Modelling Abnormal Returns: A Review Article. *Journal of Business Finance and Accounting*, 19(4), 533-553.
- Studenmund, A. H. (2001). *Using Econometrics: A Practical Guide*, 4<sup>th</sup> ed. Boston, MA: Addison Wesley.
- Summers, L., (1981). Inflation, the stock market, and owner-occupied housing. *Am. Econ. Rev.* 71(2), 429-434.
- Summers, L., (1981), Inflation, and the valuation of corporate equities, National Bureau of Economic Research, Working Paper No. 824, December.

- The Nigerian Stock Market Annual Reports and Statement of Account (Various issues).
- The World Bank, (2002). Global Development Finance CD-ROM
- The World Bank, (2002). World Development Indicators CD-ROM
- The World Bank, 2003. Education in Rwanda: Rebalancing Resources to Accelerate Post-Conflict Development and Poverty Reduction, (Washington: World Bank).
- Thirlwall, A. P., (1999). Growth and Development: with Special Reference to Developing Economies, 6th edition, Edward Elgar Publishing limited, Cheltenham, UK.
- Thirlwall, A. P., (2002). The Nature of Economic Growth: An alternative Framework for Understanding the Performance of Nations, Edward Elgar Publishing Limited, Cheltenham, UK.
- Thirlwall, A. P., (2003). The Mobilization of Savings for Growth and Development in Developing Countries, University of Kent, UK.
- Thomas, R. L., (1997). Modern Econometrics: An Introduction. Addison Wesley Longman Limited, Essex.
- Thompson, A. R. and Ward, M. J. D. (1995). The Johannesburg Stock Exchange as an Efficient Market: A Review. *Journal of Studies in Economics and Econometrics*, 19(3), 33-63.
- Titman, S., and Warga, A., (1989). Stock returns as predictors of interest rates and inflation. *J. Finance Quantit. Anal.* 24, 47\_58.
- Uddin, M. G. S. and Alam, M. M. (2007). The Impacts of Interest Rate on Stock Market: Empirical Evidence from Dhaka Stock Exchange. *South Asian Journal of Management and Sciences*, 1(2), 123-132.
- Underwood J. (1990). The Sustainability of International Debt, Manuscript, The World Bank, (Washington: World Bank).
- Urrutia, J. L. (1995). Tests of Random Walk and Market Efficiency for Latin American Emerging Markets. *Journal of Financial Research*, 18, 299-309.
- Wagner, Richard, (1996). *The Review of Austrian Economics*, 9(2), 129-42
- Warner, J. (2003). Lecture Notes in Applied Regression, The College of Wooster, Wooster, OH.
- Wasserfallen, W., (1989). Macroeconomics news and the stock market. *J. Banking Finance* 13, 613-626.
- Watson, P., and Teelucksingh, S. (2002). *A practical introduction to econometric methods: classical and modern*. Kingston, Jamaica: University of West Indies Press

- Whistler, D., White, K., Wong, D., Bates, D. (2001). *SHAZAM: The Econometrics Computer Program, Version 9: User's Reference Manual*. Vancouver, B.C.: Northwest Econometrics.
- Wongbampo, P. and Sharma S. C. (2002). 'Stock market and macroeconomic fundamental dynamic interactions: ASEAN-5 countries', *J. Asian Econ.*, 13, 27-51.
- Yang, J., & Bessler, D. (2004), The international price transmission in stock index futures markets. *Economic Inquiry*, 42(3), 370-386.
- Zhou, C. (1996). Stock Market Fluctuations and the Term Structure. Board of Governors of the Federal Reserve System, *Finance and Economics Discussion Series: 96/03*.
- Zietz, J. and Pemberton, D. (1990). The U.S. Budget and Trade Deficits: A Simultaneous Equation Model. *Southern Economic Journal* 57, 23-34.
- Zordan, D. J. (2005). Stock Prices, Interest Rates, Investment Survival. *Econometrica USA*, Illinois, Online @ [www.ccsenet.org/journal/index.php/ijbm/article/download/217](http://www.ccsenet.org/journal/index.php/ijbm/article/download/217)

## APPENDIX 1

### Quarterly Data on Stock Prices of Selected Quoted Firms and Macroeconomic Variables in Nigeria (1985-2009)

ID	YEAR	STK	BRDM	INTR	ECHR	INF	OIL	GDP
_DUN	<b>1985Q1</b>	0.56	10.04524	9.50	1.03	20.00	28.24	9.658034
_DUN	<b>Q2</b>	0.90	10.08231	9.50	1.06	3.77	27.14	9.747728
_DUN	<b>Q3</b>	1.00	10.15195	9.50	1.10	-4.98	28.23	9.746658
_DUN	<b>Q4</b>	1.35	10.17647	9.50	1.01	1.03	27.23	9.800862
_DUN	<b>1986Q1</b>	1.44	10.18833	9.50	1.11	-3.45	12.62	9.672463
_DUN	<b>Q2</b>	1.47	7.867489	9.50	1.12	2.95	13.47	9.767674
_DUN	<b>Q3</b>	1.42	10.29246	9.50	4.64	12.89	14.91	9.764903
_DUN	<b>Q4</b>	1.44	10.21793	9.50	3.18	13.67	16.08	9.819758
_DUN	<b>1987Q1</b>	0.85	10.18574	14.00	3.92	14.50	18.31	10.12646
_DUN	<b>Q2</b>	1.05	10.22061	14.00	4.05	8.97	20.03	10.18309
_DUN	<b>Q3</b>	1.05	10.27855	14.00	4.21	6.42	19.53	10.18175
_DUN	<b>Q4</b>	1.05	10.42429	14.00	4.17	9.69	17.24	10.21678
_DUN	<b>1988Q1</b>	0.90	10.51156	14.00	4.32	43.09	16.22	10.38074
_DUN	<b>Q2</b>	0.90	10.57748	14.00	4.19	62.72	16.53	10.46199
_DUN	<b>Q3</b>	0.90	10.60232	14.00	4.72	65.72	14.47	10.47246
_DUN	<b>Q4</b>	0.90	10.7243	14.00	5.35	61.21	16.27	10.50676
_DUN	<b>1989Q1</b>	1.73	10.80769	16.40	7.59	56.73	19.45	10.88285
_DUN	<b>Q2</b>	1.75	10.78155	16.40	7.35	60.36	20.01	10.90298
_DUN	<b>Q3</b>	1.82	10.69684	16.40	7.34	44.97	19.59	10.89292
_DUN	<b>Q4</b>	2.20	10.75907	16.40	7.62	44.67	21.09	10.92252
_DUN	<b>1990Q1</b>	2.35	10.82487	18.00	7.94	14.20	20.42	11.09634
_DUN	<b>Q2</b>	2.56	10.79856	18.00	7.94	0.40	16.87	11.114
_DUN	<b>Q3</b>	2.85	10.94928	18.00	7.97	2.79	33.69	11.10135
_DUN	<b>Q4</b>	3.25	11.13725	18.00	8.71	3.61	27.34	11.13102
_DUN	<b>1991Q1</b>	3.34	11.17084	14.29	9.45	6.93	19.86	11.24438
_DUN	<b>Q2</b>	3.44	11.2915	14.29	10.17	12.66	20.20	11.26758
_DUN	<b>Q3</b>	3.84	11.30472	14.29	10.24	15.92	21.86	11.25569
_DUN	<b>Q4</b>	4.00	11.37925	14.29	9.87	22.96	19.52	11.29138
_DUN	<b>1992Q1</b>	4.32	11.53943	16.10	17.61	32.51	18.92	11.80505
_DUN	<b>Q2</b>	3.36	11.65174	16.10	18.46	48.47	22.38	11.80006
_DUN	<b>Q3</b>	4.15	11.70874	16.10	19.35	54.88	21.90	11.78074
_DUN	<b>Q4</b>	4.65	11.76823	16.10	19.66	48.80	19.41	11.81092
_DUN	<b>1993Q1</b>	5.57	11.89527	16.66	24.88	55.85	20.35	12.02422
_DUN	<b>Q2</b>	4.45	11.97949	16.66	21.89	56.34	19.07	12.05078
_DUN	<b>Q3</b>	4.50	12.07892	16.66	21.89	58.35	17.51	12.04731
_DUN	<b>Q4</b>	5.05	12.19844	16.66	21.89	61.26	14.51	12.07398
_DUN	<b>1994Q1</b>	5.05	12.24626	13.50	21.89	50.71	14.66	12.26337
_DUN	<b>Q2</b>	5.05	12.33826	13.50	21.89	41.57	19.07	12.32513
_DUN	<b>Q3</b>	4.81	12.39999	13.50	21.89	60.18	17.46	12.33586
_DUN	<b>Q4</b>	5.58	12.4948	13.50	21.89	76.76	17.16	12.36762

_DUN	<b>1995Q1</b>	7.60	12.44715	12.61	21.89	81.30	18.55	13.07136
_DUN	<b>Q2</b>	9.10	12.57994	12.61	21.89	89.57	18.42	13.08772
_DUN	<b>Q3</b>	12.75	12.6179	12.61	21.89	69.88	18.23	13.08387
_DUN	<b>Q4</b>	13.80	12.6722	12.61	21.89	51.59	19.04	13.0898
_DUN	<b>1996Q1</b>	13.88	12.70295	11.69	21.89	41.90	21.36	13.41596
_DUN	<b>Q2</b>	12.83	12.77708	11.69	21.89	28.84	20.45	13.42268
_DUN	<b>Q3</b>	12.20	12.77113	11.69	21.89	23.66	23.99	13.41604
_DUN	<b>Q4</b>	10.30	12.82216	11.69	21.89	14.31	25.39	13.43901
_DUN	<b>1997Q1</b>	13.20	12.88658	4.80	21.89	13.75	20.99	13.43914
_DUN	<b>Q2</b>	9.65	12.92529	4.80	21.89	11.65	19.17	13.4596
_DUN	<b>Q3</b>	7.10	12.96096	4.80	21.89	6.53	19.79	13.45873
_DUN	<b>Q4</b>	7.55	12.97092	4.80	21.89	10.21	18.32	13.48027
_DUN	<b>1998Q1</b>	7.75	13.05632	5.49	21.89	6.96	15.02	13.38158
_DUN	<b>Q2</b>	6.20	13.07587	5.49	21.89	6.34	13.66	13.42733
_DUN	<b>Q3</b>	5.10	13.17501	5.49	21.89	6.98	14.95	13.43851
_DUN	<b>Q4</b>	5.30	13.17237	5.49	21.89	11.91	11.28	13.45478
_DUN	<b>1999Q1</b>	5.00	13.31962	5.33	86.97	13.55	14.66	13.56323
_DUN	<b>Q2</b>	5.29	13.36128	5.33	94.88	8.28	17.89	13.59142
_DUN	<b>Q3</b>	3.99	13.39333	5.33	94.88	2.24	23.88	13.59413
_DUN	<b>Q4</b>	4.10	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_DUN	<b>2000Q1</b>	3.50	13.58676	5.29	100.93	-1.43	29.89	13.96831
_DUN	<b>Q2</b>	4.50	13.71475	5.29	101.83	5.87	31.83	13.95028
_DUN	<b>Q3</b>	4.15	13.77754	5.29	102.36	15.51	33.88	13.93296
_DUN	<b>Q4</b>	3.91	13.85095	5.29	106.71	14.53	28.46	13.95365
_DUN	<b>2001Q1</b>	3.80	14.0577	5.49	110.66	18.20	27.24	13.96758
_DUN	<b>Q2</b>	3.43	14.04913	5.49	112.48	16.06	26.60	13.98321
_DUN	<b>Q3</b>	3.50	14.0989	5.49	111.60	19.12	25.88	13.98187
_DUN	<b>Q4</b>	3.36	14.16852	5.49	112.99	16.49	19.33	13.99556
_DUN	<b>2002Q1</b>	2.85	14.22234	4.15	116.04	17.42	24.42	14.30135
_DUN	<b>Q2</b>	2.12	14.4063	4.15	118.49	12.25	25.52	14.36687
_DUN	<b>Q3</b>	2.59	14.2852	4.15	126.45	9.96	29.67	14.39904
_DUN	<b>Q4</b>	2.70	14.46728	4.15	126.88	12.14	29.42	14.38019
_DUN	<b>2003Q1</b>	3.11	14.56896	4.11	127.16	5.80	33.55	14.52822
_DUN	<b>Q2</b>	2.22	14.49915	4.11	127.83	13.98	30.72	14.57055
_DUN	<b>Q3</b>	2.52	14.50123	4.11	128.58	18.37	28.29	14.59097
_DUN	<b>Q4</b>	2.30	14.56136	4.11	137.22	23.84	32.15	14.58016
_DUN	<b>2004Q1</b>	3.60	14.56375	4.19	134.43	22.47	36.76	14.78297
_DUN	<b>Q2</b>	2.85	14.58508	4.19	132.75	14.07	38.02	14.76805
_DUN	<b>Q3</b>	2.10	14.64126	4.19	132.84	9.17	45.95	14.90929
_DUN	<b>Q4</b>	2.16	14.75866	4.19	132.86	10.01	43.33	14.97929
_DUN	<b>2005Q1</b>	1.72	14.80553	3.83	132.85	16.28	54.31	14.96912
_DUN	<b>Q2</b>	1.76	14.83542	3.83	132.87	18.58	56.26	15.0391
_DUN	<b>Q3</b>	2.80	14.85042	3.83	130.81	24.31	65.57	15.18282
_DUN	<b>Q4</b>	2.79	14.84242	3.83	130.29	11.57	59.43	15.22124

_DUN	<b>2006Q1</b>	2.30	15.01175	3.13	128.70	12.07	62.90	15.19837
_DUN	<b>Q2</b>	2.01	15.17951	3.13	128.45	8.50	70.96	15.30303
_DUN	<b>Q3</b>	3.61	15.27892	3.13	128.29	6.24	63.87	15.42224
_DUN	<b>Q4</b>	14.89	15.20876	3.13	128.29	8.57	62.03	15.45756
_DUN	<b>2007Q1</b>	6.49	15.38378	3.55	128.15	5.22	60.56	15.37172
_DUN	<b>Q2</b>	5.19	15.44832	3.55	127.41	6.41	67.48	15.39528
_DUN	<b>Q3</b>	4.20	15.58581	3.55	125.88	4.10	79.93	15.52468
_DUN	<b>Q4</b>	3.20	15.57506	3.55	118.21	6.56	91.73	15.5272
_DUN	<b>2008Q1</b>	5.25	15.89473	3.43	117.92	7.79	105.56	15.50585
_DUN	<b>Q2</b>	3.20	15.88848	3.43	117.73	12.05	133.93	15.55675
_DUN	<b>Q3</b>	2.10	16.01054	3.43	112.47	13.04	103.90	15.66242
_DUN	<b>Q4</b>	0.98	16.03331	3.43	126.48	15.10	41.02	15.66809
_DUN	<b>2009Q1</b>	0.50	16.01249	3.11	126.48	15.1	47.98	15.44102
_DUN	<b>Q2</b>	0.74	16.02126	3.11	126.48	15.1	69.68	15.47927
_DUN	<b>Q3</b>	0.53	16.06242	3.11	126.48	15.1	69.46	15.59592
_DUN	<b>Q4</b>	0.64	16.19203	3.11	126.48	15.1	74.30	15.60012
_FBN	<b>1985Q1</b>	1.98	10.04524	9.50	1.03	20.00	28.24	9.658034
_FBN	<b>Q2</b>	2.05	10.08231	9.50	1.06	3.77	27.14	9.747728
_FBN	<b>Q3</b>	2.17	10.15195	9.50	1.10	-4.98	28.23	9.746658
_FBN	<b>Q4</b>	2.34	10.17647	9.50	1.01	1.03	27.23	9.800862
_FBN	<b>1986Q1</b>	2.15	10.18833	9.50	1.11	-3.45	12.62	9.672463
_FBN	<b>Q2</b>	2.75	7.867489	9.50	1.12	2.95	13.47	9.767674
_FBN	<b>Q3</b>	3.13	10.29246	9.50	4.64	12.89	14.91	9.764903
_FBN	<b>Q4</b>	2.68	10.21793	9.50	3.18	13.67	16.08	9.819758
_FBN	<b>1987Q1</b>	2.87	10.18574	14.00	3.92	14.50	18.31	10.12646
_FBN	<b>Q2</b>	5.00	10.22061	14.00	4.05	8.97	20.03	10.18309
_FBN	<b>Q3</b>	4.55	10.27855	14.00	4.21	6.42	19.53	10.18175
_FBN	<b>Q4</b>	4.16	10.42429	14.00	4.17	9.69	17.24	10.21678
_FBN	<b>1988Q1</b>	3.80	10.51156	14.00	4.32	43.09	16.22	10.38074
_FBN	<b>Q2</b>	3.67	10.57748	14.00	4.19	62.72	16.53	10.46199
_FBN	<b>Q3</b>	3.49	10.60232	14.00	4.72	65.72	14.47	10.47246
_FBN	<b>Q4</b>	3.49	10.7243	14.00	5.35	61.21	16.27	10.50676
_FBN	<b>1989Q1</b>	3.50	10.80769	16.40	7.59	56.73	19.45	10.88285
_FBN	<b>Q2</b>	3.25	10.78155	16.40	7.35	60.36	20.01	10.90298
_FBN	<b>Q3</b>	1.65	10.69684	16.40	7.34	44.97	19.59	10.89292
_FBN	<b>Q4</b>	1.76	10.75907	16.40	7.62	44.67	21.09	10.92252
_FBN	<b>1990Q1</b>	1.69	10.82487	18.00	7.94	14.20	20.42	11.09634
_FBN	<b>Q2</b>	1.69	10.79856	18.00	7.94	0.40	16.87	11.114
_FBN	<b>Q3</b>	1.61	10.94928	18.00	7.97	2.79	33.69	11.10135
_FBN	<b>Q4</b>	1.44	11.13725	18.00	8.71	3.61	27.34	11.13102
_FBN	<b>1991Q1</b>	1.36	11.17084	14.29	9.45	6.93	19.86	11.24438
_FBN	<b>Q2</b>	1.21	11.2915	14.29	10.17	12.66	20.20	11.26758
_FBN	<b>Q3</b>	0.97	11.30472	14.29	10.24	15.92	21.86	11.25569
_FBN	<b>Q4</b>	0.95	11.37925	14.29	9.87	22.96	19.52	11.29138

_FBN	<b>1992Q1</b>	0.94	11.53943	16.10	17.61	32.51	18.92	11.80505
_FBN	<b>Q2</b>	0.94	11.65174	16.10	18.46	48.47	22.38	11.80006
_FBN	<b>Q3</b>	0.95	11.70874	16.10	19.35	54.88	21.90	11.78074
_FBN	<b>Q4</b>	0.96	11.76823	16.10	19.66	48.80	19.41	11.81092
_FBN	<b>1993Q1</b>	0.96	11.89527	16.66	24.88	55.85	20.35	12.02422
_FBN	<b>Q2</b>	0.50	11.97949	16.66	21.89	56.34	19.07	12.05078
_FBN	<b>Q3</b>	2.03	12.07892	16.66	21.89	58.35	17.51	12.04731
_FBN	<b>Q4</b>	4.71	12.19844	16.66	21.89	61.26	14.51	12.07398
_FBN	<b>1994Q1</b>	2.67	12.24626	13.50	21.89	50.71	14.66	12.26337
_FBN	<b>Q2</b>	3.70	12.33826	13.50	21.89	41.57	19.07	12.32513
_FBN	<b>Q3</b>	3.75	12.39999	13.50	21.89	60.18	17.46	12.33586
_FBN	<b>Q4</b>	3.75	12.4948	13.50	21.89	76.76	17.16	12.36762
_FBN	<b>1995Q1</b>	2.60	12.44715	12.61	21.89	81.30	18.55	13.07136
_FBN	<b>Q2</b>	3.40	12.57994	12.61	21.89	89.57	18.42	13.08772
_FBN	<b>Q3</b>	9.80	12.6179	12.61	21.89	69.88	18.23	13.08387
_FBN	<b>Q4</b>	9.56	12.6722	12.61	21.89	51.59	19.04	13.0898
_FBN	<b>1996Q1</b>	9.15	12.70295	11.69	21.89	41.90	21.36	13.41596
_FBN	<b>Q2</b>	6.70	12.77708	11.69	21.89	28.84	20.45	13.42268
_FBN	<b>Q3</b>	7.10	12.77113	11.69	21.89	23.66	23.99	13.41604
_FBN	<b>Q4</b>	7.10	12.82216	11.69	21.89	14.31	25.39	13.43901
_FBN	<b>1997Q1</b>	19.00	12.88658	4.80	21.89	13.75	20.99	13.43914
_FBN	<b>Q2</b>	13.28	12.92529	4.80	21.89	11.65	19.17	13.4596
_FBN	<b>Q3</b>	12.60	12.96096	4.80	21.89	6.53	19.79	13.45873
_FBN	<b>Q4</b>	12.60	12.97092	4.80	21.89	10.21	18.32	13.48027
_FBN	<b>1998Q1</b>	10.10	13.05632	5.49	21.89	6.96	15.02	13.38158
_FBN	<b>Q2</b>	9.70	13.07587	5.49	21.89	6.34	13.66	13.42733
_FBN	<b>Q3</b>	7.40	13.17501	5.49	21.89	6.98	14.95	13.43851
_FBN	<b>Q4</b>	9.50	13.17237	5.49	21.89	11.91	11.28	13.45478
_FBN	<b>1999Q1</b>	10.70	13.31962	5.33	86.97	13.55	14.66	13.56323
_FBN	<b>Q2</b>	14.63	13.36128	5.33	94.88	8.28	17.89	13.59142
_FBN	<b>Q3</b>	9.30	13.39333	5.33	94.88	2.24	23.88	13.59413
_FBN	<b>Q4</b>	11.69	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_FBN	<b>2000Q1</b>	13.99	13.58676	5.29	100.93	-1.43	29.89	13.96831
_FBN	<b>Q2</b>	17.00	13.71475	5.29	101.83	5.87	31.83	13.95028
_FBN	<b>Q3</b>	15.52	13.77754	5.29	102.36	15.51	33.88	13.93296
_FBN	<b>Q4</b>	23.80	13.85095	5.29	106.71	14.53	28.46	13.95365
_FBN	<b>2001Q1</b>	26.77	14.0577	5.49	110.66	18.20	27.24	13.96758
_FBN	<b>Q2</b>	32.35	14.04913	5.49	112.48	16.06	26.60	13.98321
_FBN	<b>Q3</b>	22.95	14.0989	5.49	111.60	19.12	25.88	13.98187
_FBN	<b>Q4</b>	23.55	14.16852	5.49	112.99	16.49	19.33	13.99556
_FBN	<b>2002Q1</b>	23.44	14.22234	4.15	116.04	17.42	24.42	14.30135
_FBN	<b>Q2</b>	25.15	14.4063	4.15	118.49	12.25	25.52	14.36687
_FBN	<b>Q3</b>	19.96	14.2852	4.15	126.45	9.96	29.67	14.39904
_FBN	<b>Q4</b>	21.05	14.46728	4.15	126.88	12.14	29.42	14.38019



_FBN	<b>2003Q1</b>	26.00	14.56896	4.11	127.16	5.80	33.55	14.52822
_FBN	<b>Q2</b>	27.97	14.49915	4.11	127.83	13.98	30.72	14.57055
_FBN	<b>Q3</b>	20.00	14.50123	4.11	128.58	18.37	28.29	14.59097
_FBN	<b>Q4</b>	20.00	14.56136	4.11	137.22	23.84	32.15	14.58016
_FBN	<b>2004Q1</b>	28.10	14.56375	4.19	134.43	22.47	36.76	14.78297
_FBN	<b>Q2</b>	28.22	14.58508	4.19	132.75	14.07	38.02	14.76805
_FBN	<b>Q3</b>	22.35	14.64126	4.19	132.84	9.17	45.95	14.90929
_FBN	<b>Q4</b>	23.60	14.75866	4.19	132.86	10.01	43.33	14.97929
_FBN	<b>2005Q1</b>	23.58	14.80553	3.83	132.85	16.28	54.31	14.96912
_FBN	<b>Q2</b>	30.00	14.83542	3.83	132.87	18.58	56.26	15.0391
_FBN	<b>Q3</b>	32.00	14.85042	3.83	130.81	24.31	65.57	15.18282
_FBN	<b>Q4</b>	32.00	14.84242	3.83	130.29	11.57	59.43	15.22124
_FBN	<b>2006Q1</b>	37.00	15.01175	3.13	128.70	12.07	62.90	15.19837
_FBN	<b>Q2</b>	53.50	15.17951	3.13	128.45	8.50	70.96	15.30303
_FBN	<b>Q3</b>	34.80	15.27892	3.13	128.29	6.24	63.87	15.42224
_FBN	<b>Q4</b>	33.50	15.20876	3.13	128.29	8.57	62.03	15.45756
_FBN	<b>2007Q1</b>	38.00	15.38378	3.55	128.15	5.22	60.56	15.37172
_FBN	<b>Q2</b>	40.40	15.44832	3.55	127.41	6.41	67.48	15.39528
_FBN	<b>Q3</b>	42.55	15.58581	3.55	125.88	4.10	79.93	15.52468
_FBN	<b>Q4</b>	44.70	15.57506	3.55	118.21	6.56	91.73	15.5272
_FBN	<b>2008Q1</b>	47.24	15.89473	3.43	117.92	7.79	105.56	15.50585
_FBN	<b>Q2</b>	42.77	15.88848	3.43	117.73	12.05	133.93	15.55675
_FBN	<b>Q3</b>	27.76	16.01054	3.43	112.47	13.04	103.90	15.66242
_FBN	<b>Q4</b>	21.11	16.03331	3.43	126.48	15.10	41.02	15.66809
_FBN	<b>2009Q1</b>	15.80	16.01249	3.11	126.48	15.1	47.98	15.44102
_FBN	<b>Q2</b>	22.02	16.02126	3.11	126.48	15.1	69.68	15.47927
_FBN	<b>Q3</b>	18.92	16.06242	3.11	126.48	15.1	69.46	15.59592
_FBN	<b>Q4</b>	20.47	16.19203	3.11	126.48	15.1	74.30	15.60012
_UBA	<b>1985Q1</b>	2.33	10.04524	9.50	1.03	20.00	28.24	9.658034
_UBA	<b>Q2</b>	2.60	10.08231	9.50	1.06	3.77	27.14	9.747728
_UBA	<b>Q3</b>	2.58	10.15195	9.50	1.10	-4.98	28.23	9.746658
_UBA	<b>Q4</b>	2.68	10.17647	9.50	1.01	1.03	27.23	9.800862
_UBA	<b>1986Q1</b>	2.90	10.18833	9.50	1.11	-3.45	12.62	9.672463
_UBA	<b>Q2</b>	2.89	7.867489	9.50	1.12	2.95	13.47	9.767674
_UBA	<b>Q3</b>	1.97	10.29246	9.50	4.64	12.89	14.91	9.764903
_UBA	<b>Q4</b>	2.59	10.21793	9.50	3.18	13.67	16.08	9.819758
_UBA	<b>1987Q1</b>	2.32	10.18574	14.00	3.92	14.50	18.31	10.12646
_UBA	<b>Q2</b>	4.80	10.22061	14.00	4.05	8.97	20.03	10.18309
_UBA	<b>Q3</b>	4.15	10.27855	14.00	4.21	6.42	19.53	10.18175
_UBA	<b>Q4</b>	3.75	10.42429	14.00	4.17	9.69	17.24	10.21678
_UBA	<b>1988Q1</b>	3.49	10.51156	14.00	4.32	43.09	16.22	10.38074
_UBA	<b>Q2</b>	3.29	10.57748	14.00	4.19	62.72	16.53	10.46199
_UBA	<b>Q3</b>	3.04	10.60232	14.00	4.72	65.72	14.47	10.47246
_UBA	<b>Q4</b>	3.00	10.7243	14.00	5.35	61.21	16.27	10.50676

_UBA	<b>1989Q1</b>	2.98	10.80769	16.40	7.59	56.73	19.45	10.88285
_UBA	<b>Q2</b>	3.03	10.78155	16.40	7.35	60.36	20.01	10.90298
_UBA	<b>Q3</b>	2.80	10.69684	16.40	7.34	44.97	19.59	10.89292
_UBA	<b>Q4</b>	2.82	10.75907	16.40	7.62	44.67	21.09	10.92252
_UBA	<b>1990Q1</b>	2.80	10.82487	18.00	7.94	14.20	20.42	11.09634
_UBA	<b>Q2</b>	2.79	10.79856	18.00	7.94	0.40	16.87	11.114
_UBA	<b>Q3</b>	1.96	10.94928	18.00	7.97	2.79	33.69	11.10135
_UBA	<b>Q4</b>	2.07	11.13725	18.00	8.71	3.61	27.34	11.13102
_UBA	<b>1991Q1</b>	2.09	11.17084	14.29	9.45	6.93	19.86	11.24438
_UBA	<b>Q2</b>	2.18	11.2915	14.29	10.17	12.66	20.20	11.26758
_UBA	<b>Q3</b>	1.04	11.30472	14.29	10.24	15.92	21.86	11.25569
_UBA	<b>Q4</b>	1.05	11.37925	14.29	9.87	22.96	19.52	11.29138
_UBA	<b>1992Q1</b>	1.05	11.53943	16.10	17.61	32.51	18.92	11.80505
_UBA	<b>Q2</b>	1.05	11.65174	16.10	18.46	48.47	22.38	11.80006
_UBA	<b>Q3</b>	0.90	11.70874	16.10	19.35	54.88	21.90	11.78074
_UBA	<b>Q4</b>	0.70	11.76823	16.10	19.66	48.80	19.41	11.81092
_UBA	<b>1993Q1</b>	0.74	11.89527	16.66	24.88	55.85	20.35	12.02422
_UBA	<b>Q2</b>	0.74	11.97949	16.66	21.89	56.34	19.07	12.05078
_UBA	<b>Q3</b>	0.54	12.07892	16.66	21.89	58.35	17.51	12.04731
_UBA	<b>Q4</b>	0.54	12.19844	16.66	21.89	61.26	14.51	12.07398
_UBA	<b>1994Q1</b>	0.54	12.24626	13.50	21.89	50.71	14.66	12.26337
_UBA	<b>Q2</b>	3.25	12.33826	13.50	21.89	41.57	19.07	12.32513
_UBA	<b>Q3</b>	1.16	12.39999	13.50	21.89	60.18	17.46	12.33586
_UBA	<b>Q4</b>	1.94	12.4948	13.50	21.89	76.76	17.16	12.36762
_UBA	<b>1995Q1</b>	2.38	12.44715	12.61	21.89	81.30	18.55	13.07136
_UBA	<b>Q2</b>	2.38	12.57994	12.61	21.89	89.57	18.42	13.08772
_UBA	<b>Q3</b>	7.40	12.6179	12.61	21.89	69.88	18.23	13.08387
_UBA	<b>Q4</b>	7.28	12.6722	12.61	21.89	51.59	19.04	13.0898
_UBA	<b>1996Q1</b>	6.55	12.70295	11.69	21.89	41.90	21.36	13.41596
_UBA	<b>Q2</b>	5.65	12.77708	11.69	21.89	28.84	20.45	13.42268
_UBA	<b>Q3</b>	5.30	12.77113	11.69	21.89	23.66	23.99	13.41604
_UBA	<b>Q4</b>	5.30	12.82216	11.69	21.89	14.31	25.39	13.43901
_UBA	<b>1997Q1</b>	13.80	12.88658	4.80	21.89	13.75	20.99	13.43914
_UBA	<b>Q2</b>	11.30	12.92529	4.80	21.89	11.65	19.17	13.4596
_UBA	<b>Q3</b>	6.30	12.96096	4.80	21.89	6.53	19.79	13.45873
_UBA	<b>Q4</b>	6.25	12.97092	4.80	21.89	10.21	18.32	13.48027
_UBA	<b>1998Q1</b>	8.00	13.05632	5.49	21.89	6.96	15.02	13.38158
_UBA	<b>Q2</b>	8.24	13.07587	5.49	21.89	6.34	13.66	13.42733
_UBA	<b>Q3</b>	7.40	13.17501	5.49	21.89	6.98	14.95	13.43851
_UBA	<b>Q4</b>	8.00	13.17237	5.49	21.89	11.91	11.28	13.45478
_UBA	<b>1999Q1</b>	6.35	13.31962	5.33	86.97	13.55	14.66	13.56323
_UBA	<b>Q2</b>	8.80	13.36128	5.33	94.88	8.28	17.89	13.59142
_UBA	<b>Q3</b>	7.00	13.39333	5.33	94.88	2.24	23.88	13.59413
_UBA	<b>Q4</b>	8.42	#VALUE!	5.33	97.60	0.22	26.08	13.61258

_UBA	<b>2000Q1</b>	12.03	13.58676	5.29	100.93	-1.43	29.89	13.96831
_UBA	<b>Q2</b>	19.00	13.71475	5.29	101.83	5.87	31.83	13.95028
_UBA	<b>Q3</b>	12.45	13.77754	5.29	102.36	15.51	33.88	13.93296
_UBA	<b>Q4</b>	13.81	13.85095	5.29	106.71	14.53	28.46	13.95365
_UBA	<b>2001Q1</b>	12.90	14.0577	5.49	110.66	18.20	27.24	13.96758
_UBA	<b>Q2</b>	12.75	14.04913	5.49	112.48	16.06	26.60	13.98321
_UBA	<b>Q3</b>	12.00	14.0989	5.49	111.60	19.12	25.88	13.98187
_UBA	<b>Q4</b>	11.50	14.16852	5.49	112.99	16.49	19.33	13.99556
_UBA	<b>2002Q1</b>	10.10	14.22234	4.15	116.04	17.42	24.42	14.30135
_UBA	<b>Q2</b>	10.00	14.4063	4.15	118.49	12.25	25.52	14.36687
_UBA	<b>Q3</b>	5.96	14.2852	4.15	126.45	9.96	29.67	14.39904
_UBA	<b>Q4</b>	5.79	14.46728	4.15	126.88	12.14	29.42	14.38019
_UBA	<b>2003Q1</b>	7.99	14.56896	4.11	127.16	5.80	33.55	14.52822
_UBA	<b>Q2</b>	6.68	14.49915	4.11	127.83	13.98	30.72	14.57055
_UBA	<b>Q3</b>	6.19	14.50123	4.11	128.58	18.37	28.29	14.59097
_UBA	<b>Q4</b>	10.39	14.56136	4.11	137.22	23.84	32.15	14.58016
_UBA	<b>2004Q1</b>	12.49	14.56375	4.19	134.43	22.47	36.76	14.78297
_UBA	<b>Q2</b>	11.60	14.58508	4.19	132.75	14.07	38.02	14.76805
_UBA	<b>Q3</b>	7.94	14.64126	4.19	132.84	9.17	45.95	14.90929
_UBA	<b>Q4</b>	9.05	14.75866	4.19	132.86	10.01	43.33	14.97929
_UBA	<b>2005Q1</b>	10.00	14.80553	3.83	132.85	16.28	54.31	14.96912
_UBA	<b>Q2</b>	9.40	14.83542	3.83	132.87	18.58	56.26	15.0391
_UBA	<b>Q3</b>	14.93	14.85042	3.83	130.81	24.31	65.57	15.18282
_UBA	<b>Q4</b>	13.00	14.84242	3.83	130.29	11.57	59.43	15.22124
_UBA	<b>2006Q1</b>	12.81	15.01175	3.13	128.70	12.07	62.90	15.19837
_UBA	<b>Q2</b>	14.99	15.17951	3.13	128.45	8.50	70.96	15.30303
_UBA	<b>Q3</b>	23.69	15.27892	3.13	128.29	6.24	63.87	15.42224
_UBA	<b>Q4</b>	25.31	15.20876	3.13	128.29	8.57	62.03	15.45756
_UBA	<b>2007Q1</b>	37.99	15.38378	3.55	128.15	5.22	60.56	15.37172
_UBA	<b>Q2</b>	37.99	15.44832	3.55	127.41	6.41	67.48	15.39528
_UBA	<b>Q3</b>	43.75	15.58581	3.55	125.88	4.10	79.93	15.52468
_UBA	<b>Q4</b>	49.50	15.57506	3.55	118.21	6.56	91.73	15.5272
_UBA	<b>2008Q1</b>	50.10	15.89473	3.43	117.92	7.79	105.56	15.50585
_UBA	<b>Q2</b>	32.99	15.88848	3.43	117.73	12.05	133.93	15.55675
_UBA	<b>Q3</b>	25.45	16.01054	3.43	112.47	13.04	103.90	15.66242
_UBA	<b>Q4</b>	13.15	16.03331	3.43	126.48	15.10	41.02	15.66809
_UBA	<b>2009Q1</b>	8.00	16.01249	3.11	126.48	15.1	47.98	15.44102
_UBA	<b>Q2</b>	13.55	16.02126	3.11	126.48	15.1	69.68	15.47927
_UBA	<b>Q3</b>	10.68	16.06242	3.11	126.48	15.1	69.46	15.59592
_UBA	<b>Q4</b>	12.12	16.19203	3.11	126.48	15.1	74.30	15.60012
_UBN	<b>1985Q1</b>	2.20	10.04524	9.50	1.03	20.00	28.24	9.658034
_UBN	<b>Q2</b>	2.31	10.08231	9.50	1.06	3.77	27.14	9.747728
_UBN	<b>Q3</b>	2.35	10.15195	9.50	1.10	-4.98	28.23	9.746658
_UBN	<b>Q4</b>	2.43	10.17647	9.50	1.01	1.03	27.23	9.800862

_UBN	<b>1986Q1</b>	2.62	10.18833	9.50	1.11	-3.45	12.62	9.672463
_UBN	<b>Q2</b>	2.90	7.867489	9.50	1.12	2.95	13.47	9.767674
_UBN	<b>Q3</b>	3.15	10.29246	9.50	4.64	12.89	14.91	9.764903
_UBN	<b>Q4</b>	2.89	10.21793	9.50	3.18	13.67	16.08	9.819758
_UBN	<b>1987Q1</b>	3.00	10.18574	14.00	3.92	14.50	18.31	10.12646
_UBN	<b>Q2</b>	4.84	10.22061	14.00	4.05	8.97	20.03	10.18309
_UBN	<b>Q3</b>	4.50	10.27855	14.00	4.21	6.42	19.53	10.18175
_UBN	<b>Q4</b>	4.00	10.42429	14.00	4.17	9.69	17.24	10.21678
_UBN	<b>1988Q1</b>	3.77	10.51156	14.00	4.32	43.09	16.22	10.38074
_UBN	<b>Q2</b>	3.69	10.57748	14.00	4.19	62.72	16.53	10.46199
_UBN	<b>Q3</b>	3.59	10.60232	14.00	4.72	65.72	14.47	10.47246
_UBN	<b>Q4</b>	3.61	10.7243	14.00	5.35	61.21	16.27	10.50676
_UBN	<b>1989Q1</b>	0.87	10.80769	16.40	7.59	56.73	19.45	10.88285
_UBN	<b>Q2</b>	0.88	10.78155	16.40	7.35	60.36	20.01	10.90298
_UBN	<b>Q3</b>	0.85	10.69684	16.40	7.34	44.97	19.59	10.89292
_UBN	<b>Q4</b>	0.85	10.75907	16.40	7.62	44.67	21.09	10.92252
_UBN	<b>1990Q1</b>	1.00	10.82487	18.00	7.94	14.20	20.42	11.09634
_UBN	<b>Q2</b>	0.98	10.79856	18.00	7.94	0.40	16.87	11.114
_UBN	<b>Q3</b>	0.94	10.94928	18.00	7.97	2.79	33.69	11.10135
_UBN	<b>Q4</b>	0.48	11.13725	18.00	8.71	3.61	27.34	11.13102
_UBN	<b>1991Q1</b>	0.60	11.17084	14.29	9.45	6.93	19.86	11.24438
_UBN	<b>Q2</b>	0.55	11.2915	14.29	10.17	12.66	20.20	11.26758
_UBN	<b>Q3</b>	0.57	11.30472	14.29	10.24	15.92	21.86	11.25569
_UBN	<b>Q4</b>	0.44	11.37925	14.29	9.87	22.96	19.52	11.29138
_UBN	<b>1992Q1</b>	0.41	11.53943	16.10	17.61	32.51	18.92	11.80505
_UBN	<b>Q2</b>	0.42	11.65174	16.10	18.46	48.47	22.38	11.80006
_UBN	<b>Q3</b>	0.73	11.70874	16.10	19.35	54.88	21.90	11.78074
_UBN	<b>Q4</b>	1.02	11.76823	16.10	19.66	48.80	19.41	11.81092
_UBN	<b>1993Q1</b>	0.72	11.89527	16.66	24.88	55.85	20.35	12.02422
_UBN	<b>Q2</b>	0.72	11.97949	16.66	21.89	56.34	19.07	12.05078
_UBN	<b>Q3</b>	0.72	12.07892	16.66	21.89	58.35	17.51	12.04731
_UBN	<b>Q4</b>	0.72	12.19844	16.66	21.89	61.26	14.51	12.07398
_UBN	<b>1994Q1</b>	1.60	12.24626	13.50	21.89	50.71	14.66	12.26337
_UBN	<b>Q2</b>	2.33	12.33826	13.50	21.89	41.57	19.07	12.32513
_UBN	<b>Q3</b>	2.45	12.39999	13.50	21.89	60.18	17.46	12.33586
_UBN	<b>Q4</b>	3.20	12.4948	13.50	21.89	76.76	17.16	12.36762
_UBN	<b>1995Q1</b>	3.00	12.44715	12.61	21.89	81.30	18.55	13.07136
_UBN	<b>Q2</b>	3.80	12.57994	12.61	21.89	89.57	18.42	13.08772
_UBN	<b>Q3</b>	6.45	12.6179	12.61	21.89	69.88	18.23	13.08387
_UBN	<b>Q4</b>	5.88	12.6722	12.61	21.89	51.59	19.04	13.0898
_UBN	<b>1996Q1</b>	3.30	12.70295	11.69	21.89	41.90	21.36	13.41596
_UBN	<b>Q2</b>	6.21	12.77708	11.69	21.89	28.84	20.45	13.42268
_UBN	<b>Q3</b>	8.04	12.77113	11.69	21.89	23.66	23.99	13.41604
_UBN	<b>Q4</b>	5.80	12.82216	11.69	21.89	14.31	25.39	13.43901

_UBN	<b>1997Q1</b>	16.10	12.88658	4.80	21.89	13.75	20.99	13.43914
_UBN	<b>Q2</b>	10.80	12.92529	4.80	21.89	11.65	19.17	13.4596
_UBN	<b>Q3</b>	13.00	12.96096	4.80	21.89	6.53	19.79	13.45873
_UBN	<b>Q4</b>	13.00	12.97092	4.80	21.89	10.21	18.32	13.48027
_UBN	<b>1998Q1</b>	11.00	13.05632	5.49	21.89	6.96	15.02	13.38158
_UBN	<b>Q2</b>	10.70	13.07587	5.49	21.89	6.34	13.66	13.42733
_UBN	<b>Q3</b>	10.70	13.17501	5.49	21.89	6.98	14.95	13.43851
_UBN	<b>Q4</b>	9.30	13.17237	5.49	21.89	11.91	11.28	13.45478
_UBN	<b>1999Q1</b>	8.50	13.31962	5.33	86.97	13.55	14.66	13.56323
_UBN	<b>Q2</b>	9.80	13.36128	5.33	94.88	8.28	17.89	13.59142
_UBN	<b>Q3</b>	11.30	13.39333	5.33	94.88	2.24	23.88	13.59413
_UBN	<b>Q4</b>	11.05	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_UBN	<b>2000Q1</b>	10.95	13.58676	5.29	100.93	-1.43	29.89	13.96831
_UBN	<b>Q2</b>	15.60	13.71475	5.29	101.83	5.87	31.83	13.95028
_UBN	<b>Q3</b>	20.99	13.77754	5.29	102.36	15.51	33.88	13.93296
_UBN	<b>Q4</b>	26.99	13.85095	5.29	106.71	14.53	28.46	13.95365
_UBN	<b>2001Q1</b>	32.50	14.0577	5.49	110.66	18.20	27.24	13.96758
_UBN	<b>Q2</b>	39.00	14.04913	5.49	112.48	16.06	26.60	13.98321
_UBN	<b>Q3</b>	24.91	14.0989	5.49	111.60	19.12	25.88	13.98187
_UBN	<b>Q4</b>	24.91	14.16852	5.49	112.99	16.49	19.33	13.99556
_UBN	<b>2002Q1</b>	24.91	14.22234	4.15	116.04	17.42	24.42	14.30135
_UBN	<b>Q2</b>	21.62	14.4063	4.15	118.49	12.25	25.52	14.36687
_UBN	<b>Q3</b>	18.14	14.2852	4.15	126.45	9.96	29.67	14.39904
_UBN	<b>Q4</b>	21.33	14.46728	4.15	126.88	12.14	29.42	14.38019
_UBN	<b>2003Q1</b>	26.50	14.56896	4.11	127.16	5.80	33.55	14.52822
_UBN	<b>Q2</b>	29.10	14.49915	4.11	127.83	13.98	30.72	14.57055
_UBN	<b>Q3</b>	22.65	14.50123	4.11	128.58	18.37	28.29	14.59097
_UBN	<b>Q4</b>	25.01	14.56136	4.11	137.22	23.84	32.15	14.58016
_UBN	<b>2004Q1</b>	27.39	14.56375	4.19	134.43	22.47	36.76	14.78297
_UBN	<b>Q2</b>	36.06	14.58508	4.19	132.75	14.07	38.02	14.76805
_UBN	<b>Q3</b>	24.70	14.64126	4.19	132.84	9.17	45.95	14.90929
_UBN	<b>Q4</b>	21.00	14.75866	4.19	132.86	10.01	43.33	14.97929
_UBN	<b>2005Q1</b>	21.50	14.80553	3.83	132.85	16.28	54.31	14.96912
_UBN	<b>Q2</b>	24.59	14.83542	3.83	132.87	18.58	56.26	15.0391
_UBN	<b>Q3</b>	25.86	14.85042	3.83	130.81	24.31	65.57	15.18282
_UBN	<b>Q4</b>	25.48	14.84242	3.83	130.29	11.57	59.43	15.22124
_UBN	<b>2006Q1</b>	25.48	15.01175	3.13	128.70	12.07	62.90	15.19837
_UBN	<b>Q2</b>	30.55	15.17951	3.13	128.45	8.50	70.96	15.30303
_UBN	<b>Q3</b>	24.10	15.27892	3.13	128.29	6.24	63.87	15.42224
_UBN	<b>Q4</b>	22.91	15.20876	3.13	128.29	8.57	62.03	15.45756
_UBN	<b>2007Q1</b>	30.00	15.38378	3.55	128.15	5.22	60.56	15.37172
_UBN	<b>Q2</b>	33.50	15.44832	3.55	127.41	6.41	67.48	15.39528
_UBN	<b>Q3</b>	38.28	15.58581	3.55	125.88	4.10	79.93	15.52468
_UBN	<b>Q4</b>	43.06	15.57506	3.55	118.21	6.56	91.73	15.5272

_UBN	<b>2008Q1</b>	43.50	15.89473	3.43	117.92	7.79	105.56	15.50585
_UBN	<b>Q2</b>	36.36	15.88848	3.43	117.73	12.05	133.93	15.55675
_UBN	<b>Q3</b>	42.00	16.01054	3.43	112.47	13.04	103.90	15.66242
_UBN	<b>Q4</b>	15.20	16.03331	3.43	126.48	15.10	41.02	15.66809
_UBN	<b>2009Q1</b>	10.10	16.01249	3.11	126.48	15.1	47.98	15.44102
_UBN	<b>Q2</b>	17.02	16.02126	3.11	126.48	15.1	69.68	15.47927
_UBN	<b>Q3</b>	13.73	16.06242	3.11	126.48	15.1	69.46	15.59592
_UBN	<b>Q4</b>	13.81	16.19203	3.11	126.48	15.1	74.30	15.60012
_GUIN	<b>1985Q1</b>	1.08	10.04524	9.50	1.03	20.00	28.24	9.658034
_GUIN	<b>Q2</b>	1.13	10.08231	9.50	1.06	3.77	27.14	9.747728
_GUIN	<b>Q3</b>	1.14	10.15195	9.50	1.10	-4.98	28.23	9.746658
_GUIN	<b>Q4</b>	1.15	10.17647	9.50	1.01	1.03	27.23	9.800862
_GUIN	<b>1986Q1</b>	1.02	10.18833	9.50	1.11	-3.45	12.62	9.672463
_GUIN	<b>Q2</b>	1.06	7.867489	9.50	1.12	2.95	13.47	9.767674
_GUIN	<b>Q3</b>	1.21	10.29246	9.50	4.64	12.89	14.91	9.764903
_GUIN	<b>Q4</b>	1.10	10.21793	9.50	3.18	13.67	16.08	9.819758
_GUIN	<b>1987Q1</b>	1.30	10.18574	14.00	3.92	14.50	18.31	10.12646
_GUIN	<b>Q2</b>	1.25	10.22061	14.00	4.05	8.97	20.03	10.18309
_GUIN	<b>Q3</b>	1.22	10.27855	14.00	4.21	6.42	19.53	10.18175
_GUIN	<b>Q4</b>	1.08	10.42429	14.00	4.17	9.69	17.24	10.21678
_GUIN	<b>1988Q1</b>	0.92	10.51156	14.00	4.32	43.09	16.22	10.38074
_GUIN	<b>Q2</b>	1.03	10.57748	14.00	4.19	62.72	16.53	10.46199
_GUIN	<b>Q3</b>	1.41	10.60232	14.00	4.72	65.72	14.47	10.47246
_GUIN	<b>Q4</b>	1.49	10.7243	14.00	5.35	61.21	16.27	10.50676
_GUIN	<b>1989Q1</b>	1.61	10.80769	16.40	7.59	56.73	19.45	10.88285
_GUIN	<b>Q2</b>	1.47	10.78155	16.40	7.35	60.36	20.01	10.90298
_GUIN	<b>Q3</b>	2.02	10.69684	16.40	7.34	44.97	19.59	10.89292
_GUIN	<b>Q4</b>	2.64	10.75907	16.40	7.62	44.67	21.09	10.92252
_GUIN	<b>1990Q1</b>	2.83	10.82487	18.00	7.94	14.20	20.42	11.09634
_GUIN	<b>Q2</b>	2.17	10.79856	18.00	7.94	0.40	16.87	11.114
_GUIN	<b>Q3</b>	2.33	10.94928	18.00	7.97	2.79	33.69	11.10135
_GUIN	<b>Q4</b>	2.51	11.13725	18.00	8.71	3.61	27.34	11.13102
_GUIN	<b>1991Q1</b>	3.04	11.17084	14.29	9.45	6.93	19.86	11.24438
_GUIN	<b>Q2</b>	3.63	11.2915	14.29	10.17	12.66	20.20	11.26758
_GUIN	<b>Q3</b>	3.80	11.30472	14.29	10.24	15.92	21.86	11.25569
_GUIN	<b>Q4</b>	3.80	11.37925	14.29	9.87	22.96	19.52	11.29138
_GUIN	<b>1992Q1</b>	3.80	11.53943	16.10	17.61	32.51	18.92	11.80505
_GUIN	<b>Q2</b>	3.97	11.65174	16.10	18.46	48.47	22.38	11.80006
_GUIN	<b>Q3</b>	3.30	11.70874	16.10	19.35	54.88	21.90	11.78074
_GUIN	<b>Q4</b>	3.00	11.76823	16.10	19.66	48.80	19.41	11.81092
_GUIN	<b>1993Q1</b>	3.00	11.89527	16.66	24.88	55.85	20.35	12.02422
_GUIN	<b>Q2</b>	2.84	11.97949	16.66	21.89	56.34	19.07	12.05078
_GUIN	<b>Q3</b>	3.00	12.07892	16.66	21.89	58.35	17.51	12.04731
_GUIN	<b>Q4</b>	5.20	12.19844	16.66	21.89	61.26	14.51	12.07398

_GUIN	<b>1994Q1</b>	6.70	12.24626	13.50	21.89	50.71	14.66	12.26337
_GUIN	<b>Q2</b>	6.69	12.33826	13.50	21.89	41.57	19.07	12.32513
_GUIN	<b>Q3</b>	6.78	12.39999	13.50	21.89	60.18	17.46	12.33586
_GUIN	<b>Q4</b>	8.07	12.4948	13.50	21.89	76.76	17.16	12.36762
_GUIN	<b>1995Q1</b>	9.70	12.44715	12.61	21.89	81.30	18.55	13.07136
_GUIN	<b>Q2</b>	10.19	12.57994	12.61	21.89	89.57	18.42	13.08772
_GUIN	<b>Q3</b>	11.45	12.6179	12.61	21.89	69.88	18.23	13.08387
_GUIN	<b>Q4</b>	12.88	12.6722	12.61	21.89	51.59	19.04	13.0898
_GUIN	<b>1996Q1</b>	12.30	12.70295	11.69	21.89	41.90	21.36	13.41596
_GUIN	<b>Q2</b>	10.55	12.77708	11.69	21.89	28.84	20.45	13.42268
_GUIN	<b>Q3</b>	8.95	12.77113	11.69	21.89	23.66	23.99	13.41604
_GUIN	<b>Q4</b>	6.30	12.82216	11.69	21.89	14.31	25.39	13.43901
_GUIN	<b>1997Q1</b>	8.40	12.88658	4.80	21.89	13.75	20.99	13.43914
_GUIN	<b>Q2</b>	6.90	12.92529	4.80	21.89	11.65	19.17	13.4596
_GUIN	<b>Q3</b>	8.15	12.96096	4.80	21.89	6.53	19.79	13.45873
_GUIN	<b>Q4</b>	7.60	12.97092	4.80	21.89	10.21	18.32	13.48027
_GUIN	<b>1998Q1</b>	7.80	13.05632	5.49	21.89	6.96	15.02	13.38158
_GUIN	<b>Q2</b>	8.10	13.07587	5.49	21.89	6.34	13.66	13.42733
_GUIN	<b>Q3</b>	8.85	13.17501	5.49	21.89	6.98	14.95	13.43851
_GUIN	<b>Q4</b>	12.50	13.17237	5.49	21.89	11.91	11.28	13.45478
_GUIN	<b>1999Q1</b>	12.80	13.31962	5.33	86.97	13.55	14.66	13.56323
_GUIN	<b>Q2</b>	20.90	13.36128	5.33	94.88	8.28	17.89	13.59142
_GUIN	<b>Q3</b>	21.40	13.39333	5.33	94.88	2.24	23.88	13.59413
_GUIN	<b>Q4</b>	20.50	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_GUIN	<b>2000Q1</b>	19.03	13.58676	5.29	100.93	-1.43	29.89	13.96831
_GUIN	<b>Q2</b>	20.48	13.71475	5.29	101.83	5.87	31.83	13.95028
_GUIN	<b>Q3</b>	31.50	13.77754	5.29	102.36	15.51	33.88	13.93296
_GUIN	<b>Q4</b>	30.45	13.85095	5.29	106.71	14.53	28.46	13.95365
_GUIN	<b>2001Q1</b>	35.00	14.0577	5.49	110.66	18.20	27.24	13.96758
_GUIN	<b>Q2</b>	37.85	14.04913	5.49	112.48	16.06	26.60	13.98321
_GUIN	<b>Q3</b>	37.26	14.0989	5.49	111.60	19.12	25.88	13.98187
_GUIN	<b>Q4</b>	34.45	14.16852	5.49	112.99	16.49	19.33	13.99556
_GUIN	<b>2002Q1</b>	38.50	14.22234	4.15	116.04	17.42	24.42	14.30135
_GUIN	<b>Q2</b>	48.00	14.4063	4.15	118.49	12.25	25.52	14.36687
_GUIN	<b>Q3</b>	46.00	14.2852	4.15	126.45	9.96	29.67	14.39904
_GUIN	<b>Q4</b>	44.00	14.46728	4.15	126.88	12.14	29.42	14.38019
_GUIN	<b>2003Q1</b>	53.50	14.56896	4.11	127.16	5.80	33.55	14.52822
_GUIN	<b>Q2</b>	70.00	14.49915	4.11	127.83	13.98	30.72	14.57055
_GUIN	<b>Q3</b>	92.00	14.50123	4.11	128.58	18.37	28.29	14.59097
_GUIN	<b>Q4</b>	84.00	14.56136	4.11	137.22	23.84	32.15	14.58016
_GUIN	<b>2004Q1</b>	99.51	14.56375	4.19	134.43	22.47	36.76	14.78297
_GUIN	<b>Q2</b>	159.00	14.58508	4.19	132.75	14.07	38.02	14.76805
_GUIN	<b>Q3</b>	125.05	14.64126	4.19	132.84	9.17	45.95	14.90929
_GUIN	<b>Q4</b>	116.99	14.75866	4.19	132.86	10.01	43.33	14.97929

_GUIN	<b>2005Q1</b>	64.00	14.80553	3.83	132.85	16.28	54.31	14.96912
_GUIN	<b>Q2</b>	87.00	14.83542	3.83	132.87	18.58	56.26	15.0391
_GUIN	<b>Q3</b>	105.00	14.85042	3.83	130.81	24.31	65.57	15.18282
_GUIN	<b>Q4</b>	96.00	14.84242	3.83	130.29	11.57	59.43	15.22124
_GUIN	<b>2006Q1</b>	102.00	15.01175	3.13	128.70	12.07	62.90	15.19837
_GUIN	<b>Q2</b>	108.90	15.17951	3.13	128.45	8.50	70.96	15.30303
_GUIN	<b>Q3</b>	156.20	15.27892	3.13	128.29	6.24	63.87	15.42224
_GUIN	<b>Q4</b>	107.99	15.20876	3.13	128.29	8.57	62.03	15.45756
_GUIN	<b>2007Q1</b>	120.00	15.38378	3.55	128.15	5.22	60.56	15.37172
_GUIN	<b>Q2</b>	133.62	15.44832	3.55	127.41	6.41	67.48	15.39528
_GUIN	<b>Q3</b>	131.81	15.58581	3.55	125.88	4.10	79.93	15.52468
_GUIN	<b>Q4</b>	130.00	15.57506	3.55	118.21	6.56	91.73	15.5272
_GUIN	<b>2008Q1</b>	130.00	15.89473	3.43	117.92	7.79	105.56	15.50585
_GUIN	<b>Q2</b>	124.00	15.88848	3.43	117.73	12.05	133.93	15.55675
_GUIN	<b>Q3</b>	116.54	16.01054	3.43	112.47	13.04	103.90	15.66242
_GUIN	<b>Q4</b>	99.50	16.03331	3.43	126.48	15.10	41.02	15.66809
_GUIN	<b>2009Q1</b>	89.90	16.01249	3.11	126.48	15.1	47.98	15.44102
_GUIN	<b>Q2</b>	129.00	16.02126	3.11	126.48	15.1	69.68	15.47927
_GUIN	<b>Q3</b>	131.05	16.06242	3.11	126.48	15.1	69.46	15.59592
_GUIN	<b>Q4</b>	98.88	16.19203	3.11	126.48	15.1	74.30	15.60012
_NBL	<b>1985Q1</b>	1.62	10.04524	9.50	1.03	20.00	28.24	9.658034
_NBL	<b>Q2</b>	1.40	10.08231	9.50	1.06	3.77	27.14	9.747728
_NBL	<b>Q3</b>	1.38	10.15195	9.50	1.10	-4.98	28.23	9.746658
_NBL	<b>Q4</b>	1.31	10.17647	9.50	1.01	1.03	27.23	9.800862
_NBL	<b>1986Q1</b>	1.33	10.18833	9.50	1.11	-3.45	12.62	9.672463
_NBL	<b>Q2</b>	0.88	7.867489	9.50	1.12	2.95	13.47	9.767674
_NBL	<b>Q3</b>	1.03	10.29246	9.50	4.64	12.89	14.91	9.764903
_NBL	<b>Q4</b>	1.08	10.21793	9.50	3.18	13.67	16.08	9.819758
_NBL	<b>1987Q1</b>	0.97	10.18574	14.00	3.92	14.50	18.31	10.12646
_NBL	<b>Q2</b>	0.90	10.22061	14.00	4.05	8.97	20.03	10.18309
_NBL	<b>Q3</b>	1.15	10.27855	14.00	4.21	6.42	19.53	10.18175
_NBL	<b>Q4</b>	1.10	10.42429	14.00	4.17	9.69	17.24	10.21678
_NBL	<b>1988Q1</b>	3.49	10.51156	14.00	4.32	43.09	16.22	10.38074
_NBL	<b>Q2</b>	3.29	10.57748	14.00	4.19	62.72	16.53	10.46199
_NBL	<b>Q3</b>	3.04	10.60232	14.00	4.72	65.72	14.47	10.47246
_NBL	<b>Q4</b>	2.32	10.7243	14.00	5.35	61.21	16.27	10.50676
_NBL	<b>1989Q1</b>	2.47	10.80769	16.40	7.59	56.73	19.45	10.88285
_NBL	<b>Q2</b>	2.37	10.78155	16.40	7.35	60.36	20.01	10.90298
_NBL	<b>Q3</b>	2.78	10.69684	16.40	7.34	44.97	19.59	10.89292
_NBL	<b>Q4</b>	3.35	10.75907	16.40	7.62	44.67	21.09	10.92252
_NBL	<b>1990Q1</b>	3.73	10.82487	18.00	7.94	14.20	20.42	11.09634
_NBL	<b>Q2</b>	2.85	10.79856	18.00	7.94	0.40	16.87	11.114
_NBL	<b>Q3</b>	3.20	10.94928	18.00	7.97	2.79	33.69	11.10135
_NBL	<b>Q4</b>	3.71	11.13725	18.00	8.71	3.61	27.34	11.13102



_NBL	<b>1991Q1</b>	4.45	11.17084	14.29	9.45	6.93	19.86	11.24438
_NBL	<b>Q2</b>	4.70	11.2915	14.29	10.17	12.66	20.20	11.26758
_NBL	<b>Q3</b>	5.35	11.30472	14.29	10.24	15.92	21.86	11.25569
_NBL	<b>Q4</b>	5.70	11.37925	14.29	9.87	22.96	19.52	11.29138
_NBL	<b>1992Q1</b>	5.97	11.53943	16.10	17.61	32.51	18.92	11.80505
_NBL	<b>Q2</b>	5.79	11.65174	16.10	18.46	48.47	22.38	11.80006
_NBL	<b>Q3</b>	6.90	11.70874	16.10	19.35	54.88	21.90	11.78074
_NBL	<b>Q4</b>	7.92	11.76823	16.10	19.66	48.80	19.41	11.81092
_NBL	<b>1993Q1</b>	8.20	11.89527	16.66	24.88	55.85	20.35	12.02422
_NBL	<b>Q2</b>	5.30	11.97949	16.66	21.89	56.34	19.07	12.05078
_NBL	<b>Q3</b>	5.47	12.07892	16.66	21.89	58.35	17.51	12.04731
_NBL	<b>Q4</b>	9.25	12.19844	16.66	21.89	61.26	14.51	12.07398
_NBL	<b>1994Q1</b>	1.66	12.24626	13.50	21.89	50.71	14.66	12.26337
_NBL	<b>Q2</b>	1.46	12.33826	13.50	21.89	41.57	19.07	12.32513
_NBL	<b>Q3</b>	11.82	12.39999	13.50	21.89	60.18	17.46	12.33586
_NBL	<b>Q4</b>	13.18	12.4948	13.50	21.89	76.76	17.16	12.36762
_NBL	<b>1995Q1</b>	15.03	12.44715	12.61	21.89	81.30	18.55	13.07136
_NBL	<b>Q2</b>	13.90	12.57994	12.61	21.89	89.57	18.42	13.08772
_NBL	<b>Q3</b>	20.25	12.6179	12.61	21.89	69.88	18.23	13.08387
_NBL	<b>Q4</b>	19.89	12.6722	12.61	21.89	51.59	19.04	13.0898
_NBL	<b>1996Q1</b>	18.70	12.70295	11.69	21.89	41.90	21.36	13.41596
_NBL	<b>Q2</b>	15.02	12.77708	11.69	21.89	28.84	20.45	13.42268
_NBL	<b>Q3</b>	12.80	12.77113	11.69	21.89	23.66	23.99	13.41604
_NBL	<b>Q4</b>	15.60	12.82216	11.69	21.89	14.31	25.39	13.43901
_NBL	<b>1997Q1</b>	19.90	12.88658	4.80	21.89	13.75	20.99	13.43914
_NBL	<b>Q2</b>	18.55	12.92529	4.80	21.89	11.65	19.17	13.4596
_NBL	<b>Q3</b>	13.20	12.96096	4.80	21.89	6.53	19.79	13.45873
_NBL	<b>Q4</b>	13.50	12.97092	4.80	21.89	10.21	18.32	13.48027
_NBL	<b>1998Q1</b>	15.50	13.05632	5.49	21.89	6.96	15.02	13.38158
_NBL	<b>Q2</b>	14.00	13.07587	5.49	21.89	6.34	13.66	13.42733
_NBL	<b>Q3</b>	16.65	13.17501	5.49	21.89	6.98	14.95	13.43851
_NBL	<b>Q4</b>	21.74	13.17237	5.49	21.89	11.91	11.28	13.45478
_NBL	<b>1999Q1</b>	22.40	13.31962	5.33	86.97	13.55	14.66	13.56323
_NBL	<b>Q2</b>	18.82	13.36128	5.33	94.88	8.28	17.89	13.59142
_NBL	<b>Q3</b>	16.10	13.39333	5.33	94.88	2.24	23.88	13.59413
_NBL	<b>Q4</b>	17.14	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_NBL	<b>2000Q1</b>	21.00	13.58676	5.29	100.93	-1.43	29.89	13.96831
_NBL	<b>Q2</b>	20.80	13.71475	5.29	101.83	5.87	31.83	13.95028
_NBL	<b>Q3</b>	22.00	13.77754	5.29	102.36	15.51	33.88	13.93296
_NBL	<b>Q4</b>	24.51	13.85095	5.29	106.71	14.53	28.46	13.95365
_NBL	<b>2001Q1</b>	28.05	14.0577	5.49	110.66	18.20	27.24	13.96758
_NBL	<b>Q2</b>	27.85	14.04913	5.49	112.48	16.06	26.60	13.98321
_NBL	<b>Q3</b>	31.24	14.0989	5.49	111.60	19.12	25.88	13.98187
_NBL	<b>Q4</b>	35.00	14.16852	5.49	112.99	16.49	19.33	13.99556

_NBL	<b>2002Q1</b>	43.85	14.22234	4.15	116.04	17.42	24.42	14.30135
_NBL	<b>Q2</b>	28.49	14.4063	4.15	118.49	12.25	25.52	14.36687
_NBL	<b>Q3</b>	28.41	14.2852	4.15	126.45	9.96	29.67	14.39904
_NBL	<b>Q4</b>	30.20	14.46728	4.15	126.88	12.14	29.42	14.38019
_NBL	<b>2003Q1</b>	30.15	14.56896	4.11	127.16	5.80	33.55	14.52822
_NBL	<b>Q2</b>	33.90	14.49915	4.11	127.83	13.98	30.72	14.57055
_NBL	<b>Q3</b>	47.80	14.50123	4.11	128.58	18.37	28.29	14.59097
_NBL	<b>Q4</b>	63.20	14.56136	4.11	137.22	23.84	32.15	14.58016
_NBL	<b>2004Q1</b>	73.50	14.56375	4.19	134.43	22.47	36.76	14.78297
_NBL	<b>Q2</b>	63.46	14.58508	4.19	132.75	14.07	38.02	14.76805
_NBL	<b>Q3</b>	40.00	14.64126	4.19	132.84	9.17	45.95	14.90929
_NBL	<b>Q4</b>	42.80	14.75866	4.19	132.86	10.01	43.33	14.97929
_NBL	<b>2005Q1</b>	33.20	14.80553	3.83	132.85	16.28	54.31	14.96912
_NBL	<b>Q2</b>	26.01	14.83542	3.83	132.87	18.58	56.26	15.0391
_NBL	<b>Q3</b>	37.50	14.85042	3.83	130.81	24.31	65.57	15.18282
_NBL	<b>Q4</b>	38.80	14.84242	3.83	130.29	11.57	59.43	15.22124
_NBL	<b>2006Q1</b>	30.57	15.01175	3.13	128.70	12.07	62.90	15.19837
_NBL	<b>Q2</b>	34.91	15.17951	3.13	128.45	8.50	70.96	15.30303
_NBL	<b>Q3</b>	41.75	15.27892	3.13	128.29	6.24	63.87	15.42224
_NBL	<b>Q4</b>	37.25	15.20876	3.13	128.29	8.57	62.03	15.45756
_NBL	<b>2007Q1</b>	38.00	15.38378	3.55	128.15	5.22	60.56	15.37172
_NBL	<b>Q2</b>	35.00	15.44832	3.55	127.41	6.41	67.48	15.39528
_NBL	<b>Q3</b>	42.00	15.58581	3.55	125.88	4.10	79.93	15.52468
_NBL	<b>Q4</b>	49.00	15.57506	3.55	118.21	6.56	91.73	15.5272
_NBL	<b>2008Q1</b>	52.01	15.89473	3.43	117.92	7.79	105.56	15.50585
_NBL	<b>Q2</b>	50.00	15.88848	3.43	117.73	12.05	133.93	15.55675
_NBL	<b>Q3</b>	45.21	16.01054	3.43	112.47	13.04	103.90	15.66242
_NBL	<b>Q4</b>	40.85	16.03331	3.43	126.48	15.10	41.02	15.66809
_NBL	<b>2009Q1</b>	35.75	16.01249	3.11	126.48	15.1	47.98	15.44102
_NBL	<b>Q2</b>	49.03	16.02126	3.11	126.48	15.1	69.68	15.47927
_NBL	<b>Q3</b>	52.35	16.06242	3.11	126.48	15.1	69.46	15.59592
_NBL	<b>Q4</b>	41.60	16.19203	3.11	126.48	15.1	74.30	15.60012
_JHT	<b>1985Q1</b>	0.87	10.04524	9.50	1.03	20.00	28.24	9.658034
_JHT	<b>Q2</b>	1.12	10.08231	9.50	1.06	3.77	27.14	9.747728
_JHT	<b>Q3</b>	1.25	10.15195	9.50	1.10	-4.98	28.23	9.746658
_JHT	<b>Q4</b>	1.35	10.17647	9.50	1.01	1.03	27.23	9.800862
_JHT	<b>1986Q1</b>	1.32	10.18833	9.50	1.11	-3.45	12.62	9.672463
_JHT	<b>Q2</b>	1.40	7.867489	9.50	1.12	2.95	13.47	9.767674
_JHT	<b>Q3</b>	1.53	10.29246	9.50	4.64	12.89	14.91	9.764903
_JHT	<b>Q4</b>	1.42	10.21793	9.50	3.18	13.67	16.08	9.819758
_JHT	<b>1987Q1</b>	1.68	10.18574	14.00	3.92	14.50	18.31	10.12646
_JHT	<b>Q2</b>	2.30	10.22061	14.00	4.05	8.97	20.03	10.18309
_JHT	<b>Q3</b>	2.28	10.27855	14.00	4.21	6.42	19.53	10.18175
_JHT	<b>Q4</b>	2.28	10.42429	14.00	4.17	9.69	17.24	10.21678

_JHT	<b>1988Q1</b>	2.28	10.51156	14.00	4.32	43.09	16.22	10.38074
_JHT	<b>Q2</b>	2.28	10.57748	14.00	4.19	62.72	16.53	10.46199
_JHT	<b>Q3</b>	2.16	10.60232	14.00	4.72	65.72	14.47	10.47246
_JHT	<b>Q4</b>	1.72	10.7243	14.00	5.35	61.21	16.27	10.50676
_JHT	<b>1989Q1</b>	1.74	10.80769	16.40	7.59	56.73	19.45	10.88285
_JHT	<b>Q2</b>	1.52	10.78155	16.40	7.35	60.36	20.01	10.90298
_JHT	<b>Q3</b>	1.80	10.69684	16.40	7.34	44.97	19.59	10.89292
_JHT	<b>Q4</b>	1.96	10.75907	16.40	7.62	44.67	21.09	10.92252
_JHT	<b>1990Q1</b>	2.12	10.82487	18.00	7.94	14.20	20.42	11.09634
_JHT	<b>Q2</b>	2.05	10.79856	18.00	7.94	0.40	16.87	11.114
_JHT	<b>Q3</b>	2.08	10.94928	18.00	7.97	2.79	33.69	11.10135
_JHT	<b>Q4</b>	1.85	11.13725	18.00	8.71	3.61	27.34	11.13102
_JHT	<b>1991Q1</b>	1.76	11.17084	14.29	9.45	6.93	19.86	11.24438
_JHT	<b>Q2</b>	1.33	11.2915	14.29	10.17	12.66	20.20	11.26758
_JHT	<b>Q3</b>	1.55	11.30472	14.29	10.24	15.92	21.86	11.25569
_JHT	<b>Q4</b>	1.67	11.37925	14.29	9.87	22.96	19.52	11.29138
_JHT	<b>1992Q1</b>	1.63	11.53943	16.10	17.61	32.51	18.92	11.80505
_JHT	<b>Q2</b>	1.61	11.65174	16.10	18.46	48.47	22.38	11.80006
_JHT	<b>Q3</b>	2.50	11.70874	16.10	19.35	54.88	21.90	11.78074
_JHT	<b>Q4</b>	2.75	11.76823	16.10	19.66	48.80	19.41	11.81092
_JHT	<b>1993Q1</b>	2.85	11.89527	16.66	24.88	55.85	20.35	12.02422
_JHT	<b>Q2</b>	3.05	11.97949	16.66	21.89	56.34	19.07	12.05078
_JHT	<b>Q3</b>	3.19	12.07892	16.66	21.89	58.35	17.51	12.04731
_JHT	<b>Q4</b>	4.70	12.19844	16.66	21.89	61.26	14.51	12.07398
_JHT	<b>1994Q1</b>	5.73	12.24626	13.50	21.89	50.71	14.66	12.26337
_JHT	<b>Q2</b>	4.81	12.33826	13.50	21.89	41.57	19.07	12.32513
_JHT	<b>Q3</b>	5.06	12.39999	13.50	21.89	60.18	17.46	12.33586
_JHT	<b>Q4</b>	5.90	12.4948	13.50	21.89	76.76	17.16	12.36762
_JHT	<b>1995Q1</b>	7.60	12.44715	12.61	21.89	81.30	18.55	13.07136
_JHT	<b>Q2</b>	8.15	12.57994	12.61	21.89	89.57	18.42	13.08772
_JHT	<b>Q3</b>	11.60	12.6179	12.61	21.89	69.88	18.23	13.08387
_JHT	<b>Q4</b>	12.97	12.6722	12.61	21.89	51.59	19.04	13.0898
_JHT	<b>1996Q1</b>	13.18	12.70295	11.69	21.89	41.90	21.36	13.41596
_JHT	<b>Q2</b>	11.85	12.77708	11.69	21.89	28.84	20.45	13.42268
_JHT	<b>Q3</b>	11.25	12.77113	11.69	21.89	23.66	23.99	13.41604
_JHT	<b>Q4</b>	10.00	12.82216	11.69	21.89	14.31	25.39	13.43901
_JHT	<b>1997Q1</b>	9.70	12.88658	4.80	21.89	13.75	20.99	13.43914
_JHT	<b>Q2</b>	9.50	12.92529	4.80	21.89	11.65	19.17	13.4596
_JHT	<b>Q3</b>	8.60	12.96096	4.80	21.89	6.53	19.79	13.45873
_JHT	<b>Q4</b>	8.51	12.97092	4.80	21.89	10.21	18.32	13.48027
_JHT	<b>1998Q1</b>	7.30	13.05632	5.49	21.89	6.96	15.02	13.38158
_JHT	<b>Q2</b>	6.95	13.07587	5.49	21.89	6.34	13.66	13.42733
_JHT	<b>Q3</b>	6.90	13.17501	5.49	21.89	6.98	14.95	13.43851
_JHT	<b>Q4</b>	6.80	13.17237	5.49	21.89	11.91	11.28	13.45478

_JHT	<b>1999Q1</b>	6.00	13.31962	5.33	86.97	13.55	14.66	13.56323
_JHT	<b>Q2</b>	3.22	13.36128	5.33	94.88	8.28	17.89	13.59142
_JHT	<b>Q3</b>	3.22	13.39333	5.33	94.88	2.24	23.88	13.59413
_JHT	<b>Q4</b>	3.22	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_JHT	<b>2000Q1</b>	3.22	13.58676	5.29	100.93	-1.43	29.89	13.96831
_JHT	<b>Q2</b>	1.66	13.71475	5.29	101.83	5.87	31.83	13.95028
_JHT	<b>Q3</b>	1.66	13.77754	5.29	102.36	15.51	33.88	13.93296
_JHT	<b>Q4</b>	1.15	13.85095	5.29	106.71	14.53	28.46	13.95365
_JHT	<b>2001Q1</b>	1.75	14.0577	5.49	110.66	18.20	27.24	13.96758
_JHT	<b>Q2</b>	2.63	14.04913	5.49	112.48	16.06	26.60	13.98321
_JHT	<b>Q3</b>	1.65	14.0989	5.49	111.60	19.12	25.88	13.98187
_JHT	<b>Q4</b>	2.29	14.16852	5.49	112.99	16.49	19.33	13.99556
_JHT	<b>2002Q1</b>	1.70	14.22234	4.15	116.04	17.42	24.42	14.30135
_JHT	<b>Q2</b>	1.40	14.4063	4.15	118.49	12.25	25.52	14.36687
_JHT	<b>Q3</b>	1.21	14.2852	4.15	126.45	9.96	29.67	14.39904
_JHT	<b>Q4</b>	0.88	14.46728	4.15	126.88	12.14	29.42	14.38019
_JHT	<b>2003Q1</b>	1.08	14.56896	4.11	127.16	5.80	33.55	14.52822
_JHT	<b>Q2</b>	0.75	14.49915	4.11	127.83	13.98	30.72	14.57055
_JHT	<b>Q3</b>	1.05	14.50123	4.11	128.58	18.37	28.29	14.59097
_JHT	<b>Q4</b>	0.59	14.56136	4.11	137.22	23.84	32.15	14.58016
_JHT	<b>2004Q1</b>	1.47	14.56375	4.19	134.43	22.47	36.76	14.78297
_JHT	<b>Q2</b>	0.99	14.58508	4.19	132.75	14.07	38.02	14.76805
_JHT	<b>Q3</b>	0.72	14.64126	4.19	132.84	9.17	45.95	14.90929
_JHT	<b>Q4</b>	0.99	14.75866	4.19	132.86	10.01	43.33	14.97929
_JHT	<b>2005Q1</b>	0.85	14.80553	3.83	132.85	16.28	54.31	14.96912
_JHT	<b>Q2</b>	0.80	14.83542	3.83	132.87	18.58	56.26	15.0391
_JHT	<b>Q3</b>	1.70	14.85042	3.83	130.81	24.31	65.57	15.18282
_JHT	<b>Q4</b>	1.47	14.84242	3.83	130.29	11.57	59.43	15.22124
_JHT	<b>2006Q1</b>	1.20	15.01175	3.13	128.70	12.07	62.90	15.19837
_JHT	<b>Q2</b>	1.12	15.17951	3.13	128.45	8.50	70.96	15.30303
_JHT	<b>Q3</b>	1.00	15.27892	3.13	128.29	6.24	63.87	15.42224
_JHT	<b>Q4</b>	1.21	15.20876	3.13	128.29	8.57	62.03	15.45756
_JHT	<b>2007Q1</b>	2.79	15.38378	3.55	128.15	5.22	60.56	15.37172
_JHT	<b>Q2</b>	3.80	15.44832	3.55	127.41	6.41	67.48	15.39528
_JHT	<b>Q3</b>	4.15	15.58581	3.55	125.88	4.10	79.93	15.52468
_JHT	<b>Q4</b>	4.49	15.57506	3.55	118.21	6.56	91.73	15.5272
_JHT	<b>2008Q1</b>	19.73	15.89473	3.43	117.92	7.79	105.56	15.50585
_JHT	<b>Q2</b>	16.42	15.88848	3.43	117.73	12.05	133.93	15.55675
_JHT	<b>Q3</b>	14.68	16.01054	3.43	112.47	13.04	103.90	15.66242
_JHT	<b>Q4</b>	13.95	16.03331	3.43	126.48	15.10	41.02	15.66809
_JHT	<b>2009Q1</b>	11.97	16.01249	3.11	126.48	15.1	47.98	15.44102
_JHT	<b>Q2</b>	11.37	16.02126	3.11	126.48	15.1	69.68	15.47927
_JHT	<b>Q3</b>	11.37	16.06242	3.11	126.48	15.1	69.46	15.59592
_JHT	<b>Q4</b>	12.10	16.19203	3.11	126.48	15.1	74.30	15.60012

_PZ	<b>1985Q1</b>	1.14	10.04524	9.50	1.03	20.00	28.24	9.658034
_PZ	<b>Q2</b>	1.20	10.08231	9.50	1.06	3.77	27.14	9.747728
_PZ	<b>Q3</b>	1.22	10.15195	9.50	1.10	-4.98	28.23	9.746658
_PZ	<b>Q4</b>	1.39	10.17647	9.50	1.01	1.03	27.23	9.800862
_PZ	<b>1986Q1</b>	1.65	10.18833	9.50	1.11	-3.45	12.62	9.672463
_PZ	<b>Q2</b>	1.78	7.867489	9.50	1.12	2.95	13.47	9.767674
_PZ	<b>Q3</b>	1.90	10.29246	9.50	4.64	12.89	14.91	9.764903
_PZ	<b>Q4</b>	1.78	10.21793	9.50	3.18	13.67	16.08	9.819758
_PZ	<b>1987Q1</b>	1.84	10.18574	14.00	3.92	14.50	18.31	10.12646
_PZ	<b>Q2</b>	2.40	10.22061	14.00	4.05	8.97	20.03	10.18309
_PZ	<b>Q3</b>	2.42	10.27855	14.00	4.21	6.42	19.53	10.18175
_PZ	<b>Q4</b>	2.23	10.42429	14.00	4.17	9.69	17.24	10.21678
_PZ	<b>1988Q1</b>	2.25	10.51156	14.00	4.32	43.09	16.22	10.38074
_PZ	<b>Q2</b>	2.30	10.57748	14.00	4.19	62.72	16.53	10.46199
_PZ	<b>Q3</b>	2.50	10.60232	14.00	4.72	65.72	14.47	10.47246
_PZ	<b>Q4</b>	1.78	10.7243	14.00	5.35	61.21	16.27	10.50676
_PZ	<b>1989Q1</b>	2.08	10.80769	16.40	7.59	56.73	19.45	10.88285
_PZ	<b>Q2</b>	2.24	10.78155	16.40	7.35	60.36	20.01	10.90298
_PZ	<b>Q3</b>	2.47	10.69684	16.40	7.34	44.97	19.59	10.89292
_PZ	<b>Q4</b>	3.16	10.75907	16.40	7.62	44.67	21.09	10.92252
_PZ	<b>1990Q1</b>	3.80	10.82487	18.00	7.94	14.20	20.42	11.09634
_PZ	<b>Q2</b>	4.11	10.79856	18.00	7.94	0.40	16.87	11.114
_PZ	<b>Q3</b>	4.13	10.94928	18.00	7.97	2.79	33.69	11.10135
_PZ	<b>Q4</b>	3.18	11.13725	18.00	8.71	3.61	27.34	11.13102
_PZ	<b>1991Q1</b>	4.17	11.17084	14.29	9.45	6.93	19.86	11.24438
_PZ	<b>Q2</b>	4.89	11.2915	14.29	10.17	12.66	20.20	11.26758
_PZ	<b>Q3</b>	5.17	11.30472	14.29	10.24	15.92	21.86	11.25569
_PZ	<b>Q4</b>	4.65	11.37925	14.29	9.87	22.96	19.52	11.29138
_PZ	<b>1992Q1</b>	5.40	11.53943	16.10	17.61	32.51	18.92	11.80505
_PZ	<b>Q2</b>	6.02	11.65174	16.10	18.46	48.47	22.38	11.80006
_PZ	<b>Q3</b>	6.56	11.70874	16.10	19.35	54.88	21.90	11.78074
_PZ	<b>Q4</b>	6.13	11.76823	16.10	19.66	48.80	19.41	11.81092
_PZ	<b>1993Q1</b>	6.70	11.89527	16.66	24.88	55.85	20.35	12.02422
_PZ	<b>Q2</b>	7.75	11.97949	16.66	21.89	56.34	19.07	12.05078
_PZ	<b>Q3</b>	7.80	12.07892	16.66	21.89	58.35	17.51	12.04731
_PZ	<b>Q4</b>	8.12	12.19844	16.66	21.89	61.26	14.51	12.07398
_PZ	<b>1994Q1</b>	9.65	12.24626	13.50	21.89	50.71	14.66	12.26337
_PZ	<b>Q2</b>	10.52	12.33826	13.50	21.89	41.57	19.07	12.32513
_PZ	<b>Q3</b>	10.56	12.39999	13.50	21.89	60.18	17.46	12.33586
_PZ	<b>Q4</b>	6.40	12.4948	13.50	21.89	76.76	17.16	12.36762
_PZ	<b>1995Q1</b>	8.67	12.44715	12.61	21.89	81.30	18.55	13.07136
_PZ	<b>Q2</b>	15.16	12.57994	12.61	21.89	89.57	18.42	13.08772
_PZ	<b>Q3</b>	17.94	12.6179	12.61	21.89	69.88	18.23	13.08387
_PZ	<b>Q4</b>	16.56	12.6722	12.61	21.89	51.59	19.04	13.0898

_PZ	<b>1996Q1</b>	19.05	12.70295	11.69	21.89	41.90	21.36	13.41596
_PZ	<b>Q2</b>	28.25	12.77708	11.69	21.89	28.84	20.45	13.42268
_PZ	<b>Q3</b>	36.00	12.77113	11.69	21.89	23.66	23.99	13.41604
_PZ	<b>Q4</b>	35.70	12.82216	11.69	21.89	14.31	25.39	13.43901
_PZ	<b>1997Q1</b>	26.65	12.88658	4.80	21.89	13.75	20.99	13.43914
_PZ	<b>Q2</b>	28.30	12.92529	4.80	21.89	11.65	19.17	13.4596
_PZ	<b>Q3</b>	18.40	12.96096	4.80	21.89	6.53	19.79	13.45873
_PZ	<b>Q4</b>	12.30	12.97092	4.80	21.89	10.21	18.32	13.48027
_PZ	<b>1998Q1</b>	10.90	13.05632	5.49	21.89	6.96	15.02	13.38158
_PZ	<b>Q2</b>	9.50	13.07587	5.49	21.89	6.34	13.66	13.42733
_PZ	<b>Q3</b>	8.90	13.17501	5.49	21.89	6.98	14.95	13.43851
_PZ	<b>Q4</b>	6.50	13.17237	5.49	21.89	11.91	11.28	13.45478
_PZ	<b>1999Q1</b>	7.80	13.31962	5.33	86.97	13.55	14.66	13.56323
_PZ	<b>Q2</b>	8.30	13.36128	5.33	94.88	8.28	17.89	13.59142
_PZ	<b>Q3</b>	6.40	13.39333	5.33	94.88	2.24	23.88	13.59413
_PZ	<b>Q4</b>	6.48	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_PZ	<b>2000Q1</b>	6.31	13.58676	5.29	100.93	-1.43	29.89	13.96831
_PZ	<b>Q2</b>	6.56	13.71475	5.29	101.83	5.87	31.83	13.95028
_PZ	<b>Q3</b>	6.56	13.77754	5.29	102.36	15.51	33.88	13.93296
_PZ	<b>Q4</b>	10.50	13.85095	5.29	106.71	14.53	28.46	13.95365
_PZ	<b>2001Q1</b>	12.49	14.0577	5.49	110.66	18.20	27.24	13.96758
_PZ	<b>Q2</b>	14.12	14.04913	5.49	112.48	16.06	26.60	13.98321
_PZ	<b>Q3</b>	12.40	14.0989	5.49	111.60	19.12	25.88	13.98187
_PZ	<b>Q4</b>	10.70	14.16852	5.49	112.99	16.49	19.33	13.99556
_PZ	<b>2002Q1</b>	9.86	14.22234	4.15	116.04	17.42	24.42	14.30135
_PZ	<b>Q2</b>	9.40	14.4063	4.15	118.49	12.25	25.52	14.36687
_PZ	<b>Q3</b>	11.00	14.2852	4.15	126.45	9.96	29.67	14.39904
_PZ	<b>Q4</b>	7.70	14.46728	4.15	126.88	12.14	29.42	14.38019
_PZ	<b>2003Q1</b>	8.15	14.56896	4.11	127.16	5.80	33.55	14.52822
_PZ	<b>Q2</b>	8.20	14.49915	4.11	127.83	13.98	30.72	14.57055
_PZ	<b>Q3</b>	8.50	14.50123	4.11	128.58	18.37	28.29	14.59097
_PZ	<b>Q4</b>	9.13	14.56136	4.11	137.22	23.84	32.15	14.58016
_PZ	<b>2004Q1</b>	15.00	14.56375	4.19	134.43	22.47	36.76	14.78297
_PZ	<b>Q2</b>	16.05	14.58508	4.19	132.75	14.07	38.02	14.76805
_PZ	<b>Q3</b>	16.35	14.64126	4.19	132.84	9.17	45.95	14.90929
_PZ	<b>Q4</b>	11.64	14.75866	4.19	132.86	10.01	43.33	14.97929
_PZ	<b>2005Q1</b>	11.15	14.80553	3.83	132.85	16.28	54.31	14.96912
_PZ	<b>Q2</b>	12.73	14.83542	3.83	132.87	18.58	56.26	15.0391
_PZ	<b>Q3</b>	16.60	14.85042	3.83	130.81	24.31	65.57	15.18282
_PZ	<b>Q4</b>	16.20	14.84242	3.83	130.29	11.57	59.43	15.22124
_PZ	<b>2006Q1</b>	16.20	15.01175	3.13	128.70	12.07	62.90	15.19837
_PZ	<b>Q2</b>	21.02	15.17951	3.13	128.45	8.50	70.96	15.30303
_PZ	<b>Q3</b>	24.50	15.27892	3.13	128.29	6.24	63.87	15.42224
_PZ	<b>Q4</b>	25.98	15.20876	3.13	128.29	8.57	62.03	15.45756

_PZ	<b>2007Q1</b>	25.15	15.38378	3.55	128.15	5.22	60.56	15.37172
_PZ	<b>Q2</b>	27.10	15.44832	3.55	127.41	6.41	67.48	15.39528
_PZ	<b>Q3</b>	26.80	15.58581	3.55	125.88	4.10	79.93	15.52468
_PZ	<b>Q4</b>	26.50	15.57506	3.55	118.21	6.56	91.73	15.5272
_PZ	<b>2008Q1</b>	27.50	15.89473	3.43	117.92	7.79	105.56	15.50585
_PZ	<b>Q2</b>	27.05	15.88848	3.43	117.73	12.05	133.93	15.55675
_PZ	<b>Q3</b>	24.51	16.01054	3.43	112.47	13.04	103.90	15.66242
_PZ	<b>Q4</b>	11.24	16.03331	3.43	126.48	15.10	41.02	15.66809
_PZ	<b>2009Q1</b>	15.80	16.01249	3.11	126.48	15.1	47.98	15.44102
_PZ	<b>Q2</b>	20.41	16.02126	3.11	126.48	15.1	69.68	15.47927
_PZ	<b>Q3</b>	19.45	16.06242	3.11	126.48	15.1	69.46	15.59592
_PZ	<b>Q4</b>	16.68	16.19203	3.11	126.48	15.1	74.30	15.60012
_UAC	<b>1985Q1</b>	0.67	10.04524	9.50	1.03	20.00	28.24	9.658034
_UAC	<b>Q2</b>	0.67	10.08231	9.50	1.06	3.77	27.14	9.747728
_UAC	<b>Q3</b>	0.69	10.15195	9.50	1.10	-4.98	28.23	9.746658
_UAC	<b>Q4</b>	0.72	10.17647	9.50	1.01	1.03	27.23	9.800862
_UAC	<b>1986Q1</b>	0.85	10.18833	9.50	1.11	-3.45	12.62	9.672463
_UAC	<b>Q2</b>	0.88	7.867489	9.50	1.12	2.95	13.47	9.767674
_UAC	<b>Q3</b>	1.00	10.29246	9.50	4.64	12.89	14.91	9.764903
_UAC	<b>Q4</b>	0.91	10.21793	9.50	3.18	13.67	16.08	9.819758
_UAC	<b>1987Q1</b>	0.93	10.18574	14.00	3.92	14.50	18.31	10.12646
_UAC	<b>Q2</b>	0.75	10.22061	14.00	4.05	8.97	20.03	10.18309
_UAC	<b>Q3</b>	0.58	10.27855	14.00	4.21	6.42	19.53	10.18175
_UAC	<b>Q4</b>	0.50	10.42429	14.00	4.17	9.69	17.24	10.21678
_UAC	<b>1988Q1</b>	0.56	10.51156	14.00	4.32	43.09	16.22	10.38074
_UAC	<b>Q2</b>	0.90	10.57748	14.00	4.19	62.72	16.53	10.46199
_UAC	<b>Q3</b>	1.21	10.60232	14.00	4.72	65.72	14.47	10.47246
_UAC	<b>Q4</b>	1.12	10.7243	14.00	5.35	61.21	16.27	10.50676
_UAC	<b>1989Q1</b>	1.45	10.80769	16.40	7.59	56.73	19.45	10.88285
_UAC	<b>Q2</b>	1.75	10.78155	16.40	7.35	60.36	20.01	10.90298
_UAC	<b>Q3</b>	2.14	10.69684	16.40	7.34	44.97	19.59	10.89292
_UAC	<b>Q4</b>	2.33	10.75907	16.40	7.62	44.67	21.09	10.92252
_UAC	<b>1990Q1</b>	2.42	10.82487	18.00	7.94	14.20	20.42	11.09634
_UAC	<b>Q2</b>	3.09	10.79856	18.00	7.94	0.40	16.87	11.114
_UAC	<b>Q3</b>	3.31	10.94928	18.00	7.97	2.79	33.69	11.10135
_UAC	<b>Q4</b>	3.59	11.13725	18.00	8.71	3.61	27.34	11.13102
_UAC	<b>1991Q1</b>	4.13	11.17084	14.29	9.45	6.93	19.86	11.24438
_UAC	<b>Q2</b>	4.17	11.2915	14.29	10.17	12.66	20.20	11.26758
_UAC	<b>Q3</b>	4.86	11.30472	14.29	10.24	15.92	21.86	11.25569
_UAC	<b>Q4</b>	5.31	11.37925	14.29	9.87	22.96	19.52	11.29138
_UAC	<b>1992Q1</b>	5.80	11.53943	16.10	17.61	32.51	18.92	11.80505
_UAC	<b>Q2</b>	5.66	11.65174	16.10	18.46	48.47	22.38	11.80006
_UAC	<b>Q3</b>	6.40	11.70874	16.10	19.35	54.88	21.90	11.78074
_UAC	<b>Q4</b>	6.65	11.76823	16.10	19.66	48.80	19.41	11.81092

_UAC	<b>1993Q1</b>	6.70	11.89527	16.66	24.88	55.85	20.35	12.02422
_UAC	<b>Q2</b>	5.64	11.97949	16.66	21.89	56.34	19.07	12.05078
_UAC	<b>Q3</b>	5.70	12.07892	16.66	21.89	58.35	17.51	12.04731
_UAC	<b>Q4</b>	6.35	12.19844	16.66	21.89	61.26	14.51	12.07398
_UAC	<b>1994Q1</b>	6.02	12.24626	13.50	21.89	50.71	14.66	12.26337
_UAC	<b>Q2</b>	6.04	12.33826	13.50	21.89	41.57	19.07	12.32513
_UAC	<b>Q3</b>	6.03	12.39999	13.50	21.89	60.18	17.46	12.33586
_UAC	<b>Q4</b>	6.03	12.4948	13.50	21.89	76.76	17.16	12.36762
_UAC	<b>1995Q1</b>	5.43	12.44715	12.61	21.89	81.30	18.55	13.07136
_UAC	<b>Q2</b>	5.43	12.57994	12.61	21.89	89.57	18.42	13.08772
_UAC	<b>Q3</b>	11.85	12.6179	12.61	21.89	69.88	18.23	13.08387
_UAC	<b>Q4</b>	13.60	12.6722	12.61	21.89	51.59	19.04	13.0898
_UAC	<b>1996Q1</b>	13.50	12.70295	11.69	21.89	41.90	21.36	13.41596
_UAC	<b>Q2</b>	11.75	12.77708	11.69	21.89	28.84	20.45	13.42268
_UAC	<b>Q3</b>	10.90	12.77113	11.69	21.89	23.66	23.99	13.41604
_UAC	<b>Q4</b>	8.40	12.82216	11.69	21.89	14.31	25.39	13.43901
_UAC	<b>1997Q1</b>	15.75	12.88658	4.80	21.89	13.75	20.99	13.43914
_UAC	<b>Q2</b>	16.45	12.92529	4.80	21.89	11.65	19.17	13.4596
_UAC	<b>Q3</b>	10.60	12.96096	4.80	21.89	6.53	19.79	13.45873
_UAC	<b>Q4</b>	10.50	12.97092	4.80	21.89	10.21	18.32	13.48027
_UAC	<b>1998Q1</b>	10.50	13.05632	5.49	21.89	6.96	15.02	13.38158
_UAC	<b>Q2</b>	9.40	13.07587	5.49	21.89	6.34	13.66	13.42733
_UAC	<b>Q3</b>	9.40	13.17501	5.49	21.89	6.98	14.95	13.43851
_UAC	<b>Q4</b>	6.70	13.17237	5.49	21.89	11.91	11.28	13.45478
_UAC	<b>1999Q1</b>	5.25	13.31962	5.33	86.97	13.55	14.66	13.56323
_UAC	<b>Q2</b>	4.09	13.36128	5.33	94.88	8.28	17.89	13.59142
_UAC	<b>Q3</b>	3.00	13.39333	5.33	94.88	2.24	23.88	13.59413
_UAC	<b>Q4</b>	3.05	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_UAC	<b>2000Q1</b>	3.57	13.58676	5.29	100.93	-1.43	29.89	13.96831
_UAC	<b>Q2</b>	3.70	13.71475	5.29	101.83	5.87	31.83	13.95028
_UAC	<b>Q3</b>	3.30	13.77754	5.29	102.36	15.51	33.88	13.93296
_UAC	<b>Q4</b>	3.12	13.85095	5.29	106.71	14.53	28.46	13.95365
_UAC	<b>2001Q1</b>	4.00	14.0577	5.49	110.66	18.20	27.24	13.96758
_UAC	<b>Q2</b>	3.61	14.04913	5.49	112.48	16.06	26.60	13.98321
_UAC	<b>Q3</b>	3.49	14.0989	5.49	111.60	19.12	25.88	13.98187
_UAC	<b>Q4</b>	3.70	14.16852	5.49	112.99	16.49	19.33	13.99556
_UAC	<b>2002Q1</b>	3.40	14.22234	4.15	116.04	17.42	24.42	14.30135
_UAC	<b>Q2</b>	3.38	14.4063	4.15	118.49	12.25	25.52	14.36687
_UAC	<b>Q3</b>	4.29	14.2852	4.15	126.45	9.96	29.67	14.39904
_UAC	<b>Q4</b>	4.10	14.46728	4.15	126.88	12.14	29.42	14.38019
_UAC	<b>2003Q1</b>	5.00	14.56896	4.11	127.16	5.80	33.55	14.52822
_UAC	<b>Q2</b>	5.11	14.49915	4.11	127.83	13.98	30.72	14.57055
_UAC	<b>Q3</b>	7.72	14.50123	4.11	128.58	18.37	28.29	14.59097
_UAC	<b>Q4</b>	10.20	14.56136	4.11	137.22	23.84	32.15	14.58016



_UAC	<b>2004Q1</b>	14.52	14.56375	4.19	134.43	22.47	36.76	14.78297
_UAC	<b>Q2</b>	14.17	14.58508	4.19	132.75	14.07	38.02	14.76805
_UAC	<b>Q3</b>	14.17	14.64126	4.19	132.84	9.17	45.95	14.90929
_UAC	<b>Q4</b>	14.17	14.75866	4.19	132.86	10.01	43.33	14.97929
_UAC	<b>2005Q1</b>	14.17	14.80553	3.83	132.85	16.28	54.31	14.96912
_UAC	<b>Q2</b>	13.50	14.83542	3.83	132.87	18.58	56.26	15.0391
_UAC	<b>Q3</b>	15.40	14.85042	3.83	130.81	24.31	65.57	15.18282
_UAC	<b>Q4</b>	17.00	14.84242	3.83	130.29	11.57	59.43	15.22124
_UAC	<b>2006Q1</b>	18.15	15.01175	3.13	128.70	12.07	62.90	15.19837
_UAC	<b>Q2</b>	19.95	15.17951	3.13	128.45	8.50	70.96	15.30303
_UAC	<b>Q3</b>	26.05	15.27892	3.13	128.29	6.24	63.87	15.42224
_UAC	<b>Q4</b>	26.45	15.20876	3.13	128.29	8.57	62.03	15.45756
_UAC	<b>2007Q1</b>	37.78	15.38378	3.55	128.15	5.22	60.56	15.37172
_UAC	<b>Q2</b>	33.00	15.44832	3.55	127.41	6.41	67.48	15.39528
_UAC	<b>Q3</b>	42.00	15.58581	3.55	125.88	4.10	79.93	15.52468
_UAC	<b>Q4</b>	51.00	15.57506	3.55	118.21	6.56	91.73	15.5272
_UAC	<b>2008Q1</b>	53.00	15.89473	3.43	117.92	7.79	105.56	15.50585
_UAC	<b>Q2</b>	46.05	15.88848	3.43	117.73	12.05	133.93	15.55675
_UAC	<b>Q3</b>	47.75	16.01054	3.43	112.47	13.04	103.90	15.66242
_UAC	<b>Q4</b>	34.60	16.03331	3.43	126.48	15.10	41.02	15.66809
_UAC	<b>2009Q1</b>	26.49	16.01249	3.11	126.48	15.1	47.98	15.44102
_UAC	<b>Q2</b>	36.51	16.02126	3.11	126.48	15.1	69.68	15.47927
_UAC	<b>Q3</b>	36.40	16.06242	3.11	126.48	15.1	69.46	15.59592
_UAC	<b>Q4</b>	31.81	16.19203	3.11	126.48	15.1	74.30	15.60012
_CAP	<b>1985Q1</b>	0.51	10.04524	9.50	1.03	20.00	28.24	9.658034
_CAP	<b>Q2</b>	0.50	10.08231	9.50	1.06	3.77	27.14	9.747728
_CAP	<b>Q3</b>	0.50	10.15195	9.50	1.10	-4.98	28.23	9.746658
_CAP	<b>Q4</b>	0.47	10.17647	9.50	1.01	1.03	27.23	9.800862
_CAP	<b>1986Q1</b>	0.47	10.18833	9.50	1.11	-3.45	12.62	9.672463
_CAP	<b>Q2</b>	0.47	7.867489	9.50	1.12	2.95	13.47	9.767674
_CAP	<b>Q3</b>	0.43	10.29246	9.50	4.64	12.89	14.91	9.764903
_CAP	<b>Q4</b>	0.46	10.21793	9.50	3.18	13.67	16.08	9.819758
_CAP	<b>1987Q1</b>	0.50	10.18574	14.00	3.92	14.50	18.31	10.12646
_CAP	<b>Q2</b>	0.50	10.22061	14.00	4.05	8.97	20.03	10.18309
_CAP	<b>Q3</b>	0.51	10.27855	14.00	4.21	6.42	19.53	10.18175
_CAP	<b>Q4</b>	0.50	10.42429	14.00	4.17	9.69	17.24	10.21678
_CAP	<b>1988Q1</b>	0.50	10.51156	14.00	4.32	43.09	16.22	10.38074
_CAP	<b>Q2</b>	0.50	10.57748	14.00	4.19	62.72	16.53	10.46199
_CAP	<b>Q3</b>	0.50	10.60232	14.00	4.72	65.72	14.47	10.47246
_CAP	<b>Q4</b>	0.50	10.7243	14.00	5.35	61.21	16.27	10.50676
_CAP	<b>1989Q1</b>	0.53	10.80769	16.40	7.59	56.73	19.45	10.88285
_CAP	<b>Q2</b>	0.53	10.78155	16.40	7.35	60.36	20.01	10.90298
_CAP	<b>Q3</b>	0.53	10.69684	16.40	7.34	44.97	19.59	10.89292
_CAP	<b>Q4</b>	0.56	10.75907	16.40	7.62	44.67	21.09	10.92252

_CAP	<b>1990Q1</b>	0.62	10.82487	18.00	7.94	14.20	20.42	11.09634
_CAP	<b>Q2</b>	0.62	10.79856	18.00	7.94	0.40	16.87	11.114
_CAP	<b>Q3</b>	0.67	10.94928	18.00	7.97	2.79	33.69	11.10135
_CAP	<b>Q4</b>	0.60	11.13725	18.00	8.71	3.61	27.34	11.13102
_CAP	<b>1991Q1</b>	0.65	11.17084	14.29	9.45	6.93	19.86	11.24438
_CAP	<b>Q2</b>	0.88	11.2915	14.29	10.17	12.66	20.20	11.26758
_CAP	<b>Q3</b>	1.06	11.30472	14.29	10.24	15.92	21.86	11.25569
_CAP	<b>Q4</b>	0.80	11.37925	14.29	9.87	22.96	19.52	11.29138
_CAP	<b>1992Q1</b>	1.12	11.53943	16.10	17.61	32.51	18.92	11.80505
_CAP	<b>Q2</b>	1.21	11.65174	16.10	18.46	48.47	22.38	11.80006
_CAP	<b>Q3</b>	1.33	11.70874	16.10	19.35	54.88	21.90	11.78074
_CAP	<b>Q4</b>	1.50	11.76823	16.10	19.66	48.80	19.41	11.81092
_CAP	<b>1993Q1</b>	1.74	11.89527	16.66	24.88	55.85	20.35	12.02422
_CAP	<b>Q2</b>	2.22	11.97949	16.66	21.89	56.34	19.07	12.05078
_CAP	<b>Q3</b>	2.30	12.07892	16.66	21.89	58.35	17.51	12.04731
_CAP	<b>Q4</b>	2.28	12.19844	16.66	21.89	61.26	14.51	12.07398
_CAP	<b>1994Q1</b>	2.44	12.24626	13.50	21.89	50.71	14.66	12.26337
_CAP	<b>Q2</b>	1.82	12.33826	13.50	21.89	41.57	19.07	12.32513
_CAP	<b>Q3</b>	1.82	12.39999	13.50	21.89	60.18	17.46	12.33586
_CAP	<b>Q4</b>	1.75	12.4948	13.50	21.89	76.76	17.16	12.36762
_CAP	<b>1995Q1</b>	1.92	12.44715	12.61	21.89	81.30	18.55	13.07136
_CAP	<b>Q2</b>	2.25	12.57994	12.61	21.89	89.57	18.42	13.08772
_CAP	<b>Q3</b>	3.15	12.6179	12.61	21.89	69.88	18.23	13.08387
_CAP	<b>Q4</b>	3.13	12.6722	12.61	21.89	51.59	19.04	13.0898
_CAP	<b>1996Q1</b>	4.31	12.70295	11.69	21.89	41.90	21.36	13.41596
_CAP	<b>Q2</b>	6.31	12.77708	11.69	21.89	28.84	20.45	13.42268
_CAP	<b>Q3</b>	8.25	12.77113	11.69	21.89	23.66	23.99	13.41604
_CAP	<b>Q4</b>	6.25	12.82216	11.69	21.89	14.31	25.39	13.43901
_CAP	<b>1997Q1</b>	10.20	12.88658	4.80	21.89	13.75	20.99	13.43914
_CAP	<b>Q2</b>	12.20	12.92529	4.80	21.89	11.65	19.17	13.4596
_CAP	<b>Q3</b>	15.00	12.96096	4.80	21.89	6.53	19.79	13.45873
_CAP	<b>Q4</b>	14.50	12.97092	4.80	21.89	10.21	18.32	13.48027
_CAP	<b>1998Q1</b>	13.50	13.05632	5.49	21.89	6.96	15.02	13.38158
_CAP	<b>Q2</b>	13.50	13.07587	5.49	21.89	6.34	13.66	13.42733
_CAP	<b>Q3</b>	13.50	13.17501	5.49	21.89	6.98	14.95	13.43851
_CAP	<b>Q4</b>	10.72	13.17237	5.49	21.89	11.91	11.28	13.45478
_CAP	<b>1999Q1</b>	10.82	13.31962	5.33	86.97	13.55	14.66	13.56323
_CAP	<b>Q2</b>	10.40	13.36128	5.33	94.88	8.28	17.89	13.59142
_CAP	<b>Q3</b>	10.40	13.39333	5.33	94.88	2.24	23.88	13.59413
_CAP	<b>Q4</b>	10.15	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_CAP	<b>2000Q1</b>	10.01	13.58676	5.29	100.93	-1.43	29.89	13.96831
_CAP	<b>Q2</b>	10.02	13.71475	5.29	101.83	5.87	31.83	13.95028
_CAP	<b>Q3</b>	10.20	13.77754	5.29	102.36	15.51	33.88	13.93296
_CAP	<b>Q4</b>	8.05	13.85095	5.29	106.71	14.53	28.46	13.95365

_CAP	<b>2001Q1</b>	8.07	14.0577	5.49	110.66	18.20	27.24	13.96758
_CAP	<b>Q2</b>	7.60	14.04913	5.49	112.48	16.06	26.60	13.98321
_CAP	<b>Q3</b>	8.50	14.0989	5.49	111.60	19.12	25.88	13.98187
_CAP	<b>Q4</b>	8.10	14.16852	5.49	112.99	16.49	19.33	13.99556
_CAP	<b>2002Q1</b>	7.60	14.22234	4.15	116.04	17.42	24.42	14.30135
_CAP	<b>Q2</b>	7.59	14.4063	4.15	118.49	12.25	25.52	14.36687
_CAP	<b>Q3</b>	7.50	14.2852	4.15	126.45	9.96	29.67	14.39904
_CAP	<b>Q4</b>	7.87	14.46728	4.15	126.88	12.14	29.42	14.38019
_CAP	<b>2003Q1</b>	7.87	14.56896	4.11	127.16	5.80	33.55	14.52822
_CAP	<b>Q2</b>	7.87	14.49915	4.11	127.83	13.98	30.72	14.57055
_CAP	<b>Q3</b>	7.87	14.50123	4.11	128.58	18.37	28.29	14.59097
_CAP	<b>Q4</b>	7.25	14.56136	4.11	137.22	23.84	32.15	14.58016
_CAP	<b>2004Q1</b>	7.25	14.56375	4.19	134.43	22.47	36.76	14.78297
_CAP	<b>Q2</b>	7.25	14.58508	4.19	132.75	14.07	38.02	14.76805
_CAP	<b>Q3</b>	7.25	14.64126	4.19	132.84	9.17	45.95	14.90929
_CAP	<b>Q4</b>	7.25	14.75866	4.19	132.86	10.01	43.33	14.97929
_CAP	<b>2005Q1</b>	7.25	14.80553	3.83	132.85	16.28	54.31	14.96912
_CAP	<b>Q2</b>	6.89	14.83542	3.83	132.87	18.58	56.26	15.0391
_CAP	<b>Q3</b>	16.70	14.85042	3.83	130.81	24.31	65.57	15.18282
_CAP	<b>Q4</b>	15.35	14.84242	3.83	130.29	11.57	59.43	15.22124
_CAP	<b>2006Q1</b>	12.64	15.01175	3.13	128.70	12.07	62.90	15.19837
_CAP	<b>Q2</b>	12.64	15.17951	3.13	128.45	8.50	70.96	15.30303
_CAP	<b>Q3</b>	9.55	15.27892	3.13	128.29	6.24	63.87	15.42224
_CAP	<b>Q4</b>	9.07	15.20876	3.13	128.29	8.57	62.03	15.45756
_CAP	<b>2007Q1</b>	15.44	15.38378	3.55	128.15	5.22	60.56	15.37172
_CAP	<b>Q2</b>	25.93	15.44832	3.55	127.41	6.41	67.48	15.39528
_CAP	<b>Q3</b>	34.91	15.58581	3.55	125.88	4.10	79.93	15.52468
_CAP	<b>Q4</b>	43.89	15.57506	3.55	118.21	6.56	91.73	15.5272
_CAP	<b>2008Q1</b>	131.77	15.89473	3.43	117.92	7.79	105.56	15.50585
_CAP	<b>Q2</b>	107.37	15.88848	3.43	117.73	12.05	133.93	15.55675
_CAP	<b>Q3</b>	106.30	16.01054	3.43	112.47	13.04	103.90	15.66242
_CAP	<b>Q4</b>	105.80	16.03331	3.43	126.48	15.10	41.02	15.66809
_CAP	<b>2009Q1</b>	105.80	16.01249	3.11	126.48	15.1	47.98	15.44102
_CAP	<b>Q2</b>	95.49	16.02126	3.11	126.48	15.1	69.68	15.47927
_CAP	<b>Q3</b>	95.49	16.06242	3.11	126.48	15.1	69.46	15.59592
_CAP	<b>Q4</b>	102.21	16.19203	3.11	126.48	15.1	74.30	15.60012
_NBC	<b>1985Q1</b>	1.13	10.04524	9.50	1.03	20.00	28.24	9.658034
_NBC	<b>Q2</b>	1.13	10.08231	9.50	1.06	3.77	27.14	9.747728
_NBC	<b>Q3</b>	1.41	10.15195	9.50	1.10	-4.98	28.23	9.746658
_NBC	<b>Q4</b>	1.44	10.17647	9.50	1.01	1.03	27.23	9.800862
_NBC	<b>1986Q1</b>	1.74	10.18833	9.50	1.11	-3.45	12.62	9.672463
_NBC	<b>Q2</b>	1.93	7.867489	9.50	1.12	2.95	13.47	9.767674
_NBC	<b>Q3</b>	1.46	10.29246	9.50	4.64	12.89	14.91	9.764903
_NBC	<b>Q4</b>	1.71	10.21793	9.50	3.18	13.67	16.08	9.819758

_NBC	<b>1987Q1</b>	1.75	10.18574	14.00	3.92	14.50	18.31	10.12646
_NBC	<b>Q2</b>	1.97	10.22061	14.00	4.05	8.97	20.03	10.18309
_NBC	<b>Q3</b>	1.58	10.27855	14.00	4.21	6.42	19.53	10.18175
_NBC	<b>Q4</b>	1.62	10.42429	14.00	4.17	9.69	17.24	10.21678
_NBC	<b>1988Q1</b>	1.91	10.51156	14.00	4.32	43.09	16.22	10.38074
_NBC	<b>Q2</b>	2.11	10.57748	14.00	4.19	62.72	16.53	10.46199
_NBC	<b>Q3</b>	2.14	10.60232	14.00	4.72	65.72	14.47	10.47246
_NBC	<b>Q4</b>	2.14	10.7243	14.00	5.35	61.21	16.27	10.50676
_NBC	<b>1989Q1</b>	2.22	10.80769	16.40	7.59	56.73	19.45	10.88285
_NBC	<b>Q2</b>	2.23	10.78155	16.40	7.35	60.36	20.01	10.90298
_NBC	<b>Q3</b>	2.36	10.69684	16.40	7.34	44.97	19.59	10.89292
_NBC	<b>Q4</b>	2.44	10.75907	16.40	7.62	44.67	21.09	10.92252
_NBC	<b>1990Q1</b>	2.83	10.82487	18.00	7.94	14.20	20.42	11.09634
_NBC	<b>Q2</b>	3.24	10.79856	18.00	7.94	0.40	16.87	11.114
_NBC	<b>Q3</b>	2.81	10.94928	18.00	7.97	2.79	33.69	11.10135
_NBC	<b>Q4</b>	2.81	11.13725	18.00	8.71	3.61	27.34	11.13102
_NBC	<b>1991Q1</b>	2.81	11.17084	14.29	9.45	6.93	19.86	11.24438
_NBC	<b>Q2</b>	2.81	11.2915	14.29	10.17	12.66	20.20	11.26758
_NBC	<b>Q3</b>	3.74	11.30472	14.29	10.24	15.92	21.86	11.25569
_NBC	<b>Q4</b>	3.80	11.37925	14.29	9.87	22.96	19.52	11.29138
_NBC	<b>1992Q1</b>	4.21	11.53943	16.10	17.61	32.51	18.92	11.80505
_NBC	<b>Q2</b>	4.27	11.65174	16.10	18.46	48.47	22.38	11.80006
_NBC	<b>Q3</b>	3.86	11.70874	16.10	19.35	54.88	21.90	11.78074
_NBC	<b>Q4</b>	3.87	11.76823	16.10	19.66	48.80	19.41	11.81092
_NBC	<b>1993Q1</b>	3.85	11.89527	16.66	24.88	55.85	20.35	12.02422
_NBC	<b>Q2</b>	4.50	11.97949	16.66	21.89	56.34	19.07	12.05078
_NBC	<b>Q3</b>	4.67	12.07892	16.66	21.89	58.35	17.51	12.04731
_NBC	<b>Q4</b>	6.40	12.19844	16.66	21.89	61.26	14.51	12.07398
_NBC	<b>1994Q1</b>	7.91	12.24626	13.50	21.89	50.71	14.66	12.26337
_NBC	<b>Q2</b>	9.12	12.33826	13.50	21.89	41.57	19.07	12.32513
_NBC	<b>Q3</b>	9.33	12.39999	13.50	21.89	60.18	17.46	12.33586
_NBC	<b>Q4</b>	7.70	12.4948	13.50	21.89	76.76	17.16	12.36762
_NBC	<b>1995Q1</b>	9.35	12.44715	12.61	21.89	81.30	18.55	13.07136
_NBC	<b>Q2</b>	15.30	12.57994	12.61	21.89	89.57	18.42	13.08772
_NBC	<b>Q3</b>	21.15	12.6179	12.61	21.89	69.88	18.23	13.08387
_NBC	<b>Q4</b>	21.96	12.6722	12.61	21.89	51.59	19.04	13.0898
_NBC	<b>1996Q1</b>	25.15	12.70295	11.69	21.89	41.90	21.36	13.41596
_NBC	<b>Q2</b>	22.15	12.77708	11.69	21.89	28.84	20.45	13.42268
_NBC	<b>Q3</b>	28.59	12.77113	11.69	21.89	23.66	23.99	13.41604
_NBC	<b>Q4</b>	28.72	12.82216	11.69	21.89	14.31	25.39	13.43901
_NBC	<b>1997Q1</b>	52.00	12.88658	4.80	21.89	13.75	20.99	13.43914
_NBC	<b>Q2</b>	54.20	12.92529	4.80	21.89	11.65	19.17	13.4596
_NBC	<b>Q3</b>	40.00	12.96096	4.80	21.89	6.53	19.79	13.45873
_NBC	<b>Q4</b>	33.90	12.97092	4.80	21.89	10.21	18.32	13.48027

_NBC	<b>1998Q1</b>	29.20	13.05632	5.49	21.89	6.96	15.02	13.38158
_NBC	<b>Q2</b>	27.70	13.07587	5.49	21.89	6.34	13.66	13.42733
_NBC	<b>Q3</b>	27.50	13.17501	5.49	21.89	6.98	14.95	13.43851
_NBC	<b>Q4</b>	21.50	13.17237	5.49	21.89	11.91	11.28	13.45478
_NBC	<b>1999Q1</b>	17.61	13.31962	5.33	86.97	13.55	14.66	13.56323
_NBC	<b>Q2</b>	16.76	13.36128	5.33	94.88	8.28	17.89	13.59142
_NBC	<b>Q3</b>	11.60	13.39333	5.33	94.88	2.24	23.88	13.59413
_NBC	<b>Q4</b>	12.00	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_NBC	<b>2000Q1</b>	11.75	13.58676	5.29	100.93	-1.43	29.89	13.96831
_NBC	<b>Q2</b>	12.25	13.71475	5.29	101.83	5.87	31.83	13.95028
_NBC	<b>Q3</b>	14.70	13.77754	5.29	102.36	15.51	33.88	13.93296
_NBC	<b>Q4</b>	13.54	13.85095	5.29	106.71	14.53	28.46	13.95365
_NBC	<b>2001Q1</b>	16.55	14.0577	5.49	110.66	18.20	27.24	13.96758
_NBC	<b>Q2</b>	21.90	14.04913	5.49	112.48	16.06	26.60	13.98321
_NBC	<b>Q3</b>	20.20	14.0989	5.49	111.60	19.12	25.88	13.98187
_NBC	<b>Q4</b>	26.99	14.16852	5.49	112.99	16.49	19.33	13.99556
_NBC	<b>2002Q1</b>	29.30	14.22234	4.15	116.04	17.42	24.42	14.30135
_NBC	<b>Q2</b>	27.00	14.4063	4.15	118.49	12.25	25.52	14.36687
_NBC	<b>Q3</b>	31.05	14.2852	4.15	126.45	9.96	29.67	14.39904
_NBC	<b>Q4</b>	31.49	14.46728	4.15	126.88	12.14	29.42	14.38019
_NBC	<b>2003Q1</b>	30.51	14.56896	4.11	127.16	5.80	33.55	14.52822
_NBC	<b>Q2</b>	38.50	14.49915	4.11	127.83	13.98	30.72	14.57055
_NBC	<b>Q3</b>	49.00	14.50123	4.11	128.58	18.37	28.29	14.59097
_NBC	<b>Q4</b>	62.00	14.56136	4.11	137.22	23.84	32.15	14.58016
_NBC	<b>2004Q1</b>	82.00	14.56375	4.19	134.43	22.47	36.76	14.78297
_NBC	<b>Q2</b>	69.00	14.58508	4.19	132.75	14.07	38.02	14.76805
_NBC	<b>Q3</b>	59.00	14.64126	4.19	132.84	9.17	45.95	14.90929
_NBC	<b>Q4</b>	57.75	14.75866	4.19	132.86	10.01	43.33	14.97929
_NBC	<b>2005Q1</b>	46.01	14.80553	3.83	132.85	16.28	54.31	14.96912
_NBC	<b>Q2</b>	50.00	14.83542	3.83	132.87	18.58	56.26	15.0391
_NBC	<b>Q3</b>	62.50	14.85042	3.83	130.81	24.31	65.57	15.18282
_NBC	<b>Q4</b>	65.36	14.84242	3.83	130.29	11.57	59.43	15.22124
_NBC	<b>2006Q1</b>	55.00	15.01175	3.13	128.70	12.07	62.90	15.19837
_NBC	<b>Q2</b>	48.10	15.17951	3.13	128.45	8.50	70.96	15.30303
_NBC	<b>Q3</b>	48.00	15.27892	3.13	128.29	6.24	63.87	15.42224
_NBC	<b>Q4</b>	36.00	15.20876	3.13	128.29	8.57	62.03	15.45756
_NBC	<b>2007Q1</b>	40.50	15.38378	3.55	128.15	5.22	60.56	15.37172
_NBC	<b>Q2</b>	33.70	15.44832	3.55	127.41	6.41	67.48	15.39528
_NBC	<b>Q3</b>	45.22	15.58581	3.55	125.88	4.10	79.93	15.52468
_NBC	<b>Q4</b>	56.74	15.57506	3.55	118.21	6.56	91.73	15.5272
_NBC	<b>2008Q1</b>	58.99	15.89473	3.43	117.92	7.79	105.56	15.50585
_NBC	<b>Q2</b>	50.00	15.88848	3.43	117.73	12.05	133.93	15.55675
_NBC	<b>Q3</b>	48.51	16.01054	3.43	112.47	13.04	103.90	15.66242
_NBC	<b>Q4</b>	35.18	16.03331	3.43	126.48	15.10	41.02	15.66809

_NBC	<b>2009Q1</b>	21.49	16.01249	3.11	126.48	15.1	47.98	15.44102
_NBC	<b>Q2</b>	20.39	16.02126	3.11	126.48	15.1	69.68	15.47927
_NBC	<b>Q3</b>	26.99	16.06242	3.11	126.48	15.1	69.46	15.59592
_NBC	<b>Q4</b>	24.59	16.19203	3.11	126.48	15.1	74.30	15.60012
_MOB	<b>1985Q1</b>	0.81	10.04524	9.50	1.03	20.00	28.24	9.658034
_MOB	<b>Q2</b>	1.01	10.08231	9.50	1.06	3.77	27.14	9.747728
_MOB	<b>Q3</b>	1.24	10.15195	9.50	1.10	-4.98	28.23	9.746658
_MOB	<b>Q4</b>	1.60	10.17647	9.50	1.01	1.03	27.23	9.800862
_MOB	<b>1986Q1</b>	1.81	10.18833	9.50	1.11	-3.45	12.62	9.672463
_MOB	<b>Q2</b>	1.37	7.867489	9.50	1.12	2.95	13.47	9.767674
_MOB	<b>Q3</b>	1.43	10.29246	9.50	4.64	12.89	14.91	9.764903
_MOB	<b>Q4</b>	1.54	10.21793	9.50	3.18	13.67	16.08	9.819758
_MOB	<b>1987Q1</b>	1.46	10.18574	14.00	3.92	14.50	18.31	10.12646
_MOB	<b>Q2</b>	1.30	10.22061	14.00	4.05	8.97	20.03	10.18309
_MOB	<b>Q3</b>	1.46	10.27855	14.00	4.21	6.42	19.53	10.18175
_MOB	<b>Q4</b>	1.52	10.42429	14.00	4.17	9.69	17.24	10.21678
_MOB	<b>1988Q1</b>	1.61	10.51156	14.00	4.32	43.09	16.22	10.38074
_MOB	<b>Q2</b>	1.65	10.57748	14.00	4.19	62.72	16.53	10.46199
_MOB	<b>Q3</b>	1.66	10.60232	14.00	4.72	65.72	14.47	10.47246
_MOB	<b>Q4</b>	1.68	10.7243	14.00	5.35	61.21	16.27	10.50676
_MOB	<b>1989Q1</b>	1.68	10.80769	16.40	7.59	56.73	19.45	10.88285
_MOB	<b>Q2</b>	1.55	10.78155	16.40	7.35	60.36	20.01	10.90298
_MOB	<b>Q3</b>	1.55	10.69684	16.40	7.34	44.97	19.59	10.89292
_MOB	<b>Q4</b>	1.55	10.75907	16.40	7.62	44.67	21.09	10.92252
_MOB	<b>1990Q1</b>	1.55	10.82487	18.00	7.94	14.20	20.42	11.09634
_MOB	<b>Q2</b>	2.21	10.79856	18.00	7.94	0.40	16.87	11.114
_MOB	<b>Q3</b>	2.64	10.94928	18.00	7.97	2.79	33.69	11.10135
_MOB	<b>Q4</b>	3.31	11.13725	18.00	8.71	3.61	27.34	11.13102
_MOB	<b>1991Q1</b>	3.65	11.17084	14.29	9.45	6.93	19.86	11.24438
_MOB	<b>Q2</b>	4.00	11.2915	14.29	10.17	12.66	20.20	11.26758
_MOB	<b>Q3</b>	4.95	11.30472	14.29	10.24	15.92	21.86	11.25569
_MOB	<b>Q4</b>	5.34	11.37925	14.29	9.87	22.96	19.52	11.29138
_MOB	<b>1992Q1</b>	5.55	11.53943	16.10	17.61	32.51	18.92	11.80505
_MOB	<b>Q2</b>	5.36	11.65174	16.10	18.46	48.47	22.38	11.80006
_MOB	<b>Q3</b>	6.56	11.70874	16.10	19.35	54.88	21.90	11.78074
_MOB	<b>Q4</b>	7.18	11.76823	16.10	19.66	48.80	19.41	11.81092
_MOB	<b>1993Q1</b>	7.68	11.89527	16.66	24.88	55.85	20.35	12.02422
_MOB	<b>Q2</b>	6.62	11.97949	16.66	21.89	56.34	19.07	12.05078
_MOB	<b>Q3</b>	6.69	12.07892	16.66	21.89	58.35	17.51	12.04731
_MOB	<b>Q4</b>	7.15	12.19844	16.66	21.89	61.26	14.51	12.07398
_MOB	<b>1994Q1</b>	7.23	12.24626	13.50	21.89	50.71	14.66	12.26337
_MOB	<b>Q2</b>	7.16	12.33826	13.50	21.89	41.57	19.07	12.32513
_MOB	<b>Q3</b>	7.28	12.39999	13.50	21.89	60.18	17.46	12.33586
_MOB	<b>Q4</b>	7.50	12.4948	13.50	21.89	76.76	17.16	12.36762

_MOB	<b>1995Q1</b>	8.70	12.44715	12.61	21.89	81.30	18.55	13.07136
_MOB	<b>Q2</b>	15.60	12.57994	12.61	21.89	89.57	18.42	13.08772
_MOB	<b>Q3</b>	24.65	12.6179	12.61	21.89	69.88	18.23	13.08387
_MOB	<b>Q4</b>	27.60	12.6722	12.61	21.89	51.59	19.04	13.0898
_MOB	<b>1996Q1</b>	29.22	12.70295	11.69	21.89	41.90	21.36	13.41596
_MOB	<b>Q2</b>	33.35	12.77708	11.69	21.89	28.84	20.45	13.42268
_MOB	<b>Q3</b>	37.70	12.77113	11.69	21.89	23.66	23.99	13.41604
_MOB	<b>Q4</b>	46.00	12.82216	11.69	21.89	14.31	25.39	13.43901
_MOB	<b>1997Q1</b>	63.50	12.88658	4.80	21.89	13.75	20.99	13.43914
_MOB	<b>Q2</b>	64.55	12.92529	4.80	21.89	11.65	19.17	13.4596
_MOB	<b>Q3</b>	62.00	12.96096	4.80	21.89	6.53	19.79	13.45873
_MOB	<b>Q4</b>	61.90	12.97092	4.80	21.89	10.21	18.32	13.48027
_MOB	<b>1998Q1</b>	60.00	13.05632	5.49	21.89	6.96	15.02	13.38158
_MOB	<b>Q2</b>	59.50	13.07587	5.49	21.89	6.34	13.66	13.42733
_MOB	<b>Q3</b>	56.00	13.17501	5.49	21.89	6.98	14.95	13.43851
_MOB	<b>Q4</b>	53.75	13.17237	5.49	21.89	11.91	11.28	13.45478
_MOB	<b>1999Q1</b>	44.00	13.31962	5.33	86.97	13.55	14.66	13.56323
_MOB	<b>Q2</b>	64.47	13.36128	5.33	94.88	8.28	17.89	13.59142
_MOB	<b>Q3</b>	50.30	13.39333	5.33	94.88	2.24	23.88	13.59413
_MOB	<b>Q4</b>	51.95	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_MOB	<b>2000Q1</b>	56.68	13.58676	5.29	100.93	-1.43	29.89	13.96831
_MOB	<b>Q2</b>	62.00	13.71475	5.29	101.83	5.87	31.83	13.95028
_MOB	<b>Q3</b>	58.50	13.77754	5.29	102.36	15.51	33.88	13.93296
_MOB	<b>Q4</b>	61.00	13.85095	5.29	106.71	14.53	28.46	13.95365
_MOB	<b>2001Q1</b>	62.01	14.0577	5.49	110.66	18.20	27.24	13.96758
_MOB	<b>Q2</b>	64.00	14.04913	5.49	112.48	16.06	26.60	13.98321
_MOB	<b>Q3</b>	62.80	14.0989	5.49	111.60	19.12	25.88	13.98187
_MOB	<b>Q4</b>	64.70	14.16852	5.49	112.99	16.49	19.33	13.99556
_MOB	<b>2002Q1</b>	68.20	14.22234	4.15	116.04	17.42	24.42	14.30135
_MOB	<b>Q2</b>	61.60	14.4063	4.15	118.49	12.25	25.52	14.36687
_MOB	<b>Q3</b>	66.50	14.2852	4.15	126.45	9.96	29.67	14.39904
_MOB	<b>Q4</b>	64.05	14.46728	4.15	126.88	12.14	29.42	14.38019
_MOB	<b>2003Q1</b>	72.50	14.56896	4.11	127.16	5.80	33.55	14.52822
_MOB	<b>Q2</b>	75.00	14.49915	4.11	127.83	13.98	30.72	14.57055
_MOB	<b>Q3</b>	83.50	14.50123	4.11	128.58	18.37	28.29	14.59097
_MOB	<b>Q4</b>	143.95	14.56136	4.11	137.22	23.84	32.15	14.58016
_MOB	<b>2004Q1</b>	139.12	14.56375	4.19	134.43	22.47	36.76	14.78297
_MOB	<b>Q2</b>	185.94	14.58508	4.19	132.75	14.07	38.02	14.76805
_MOB	<b>Q3</b>	163.50	14.64126	4.19	132.84	9.17	45.95	14.90929
_MOB	<b>Q4</b>	184.00	14.75866	4.19	132.86	10.01	43.33	14.97929
_MOB	<b>2005Q1</b>	174.00	14.80553	3.83	132.85	16.28	54.31	14.96912
_MOB	<b>Q2</b>	155.00	14.83542	3.83	132.87	18.58	56.26	15.0391
_MOB	<b>Q3</b>	167.70	14.85042	3.83	130.81	24.31	65.57	15.18282
_MOB	<b>Q4</b>	165.00	14.84242	3.83	130.29	11.57	59.43	15.22124

_MOB	<b>2006Q1</b>	168.11	15.01175	3.13	128.70	12.07	62.90	15.19837
_MOB	<b>Q2</b>	160.01	15.17951	3.13	128.45	8.50	70.96	15.30303
_MOB	<b>Q3</b>	186.13	15.27892	3.13	128.29	6.24	63.87	15.42224
_MOB	<b>Q4</b>	178.87	15.20876	3.13	128.29	8.57	62.03	15.45756
_MOB	<b>2007Q1</b>	198.00	15.38378	3.55	128.15	5.22	60.56	15.37172
_MOB	<b>Q2</b>	168.00	15.44832	3.55	127.41	6.41	67.48	15.39528
_MOB	<b>Q3</b>	174.00	15.58581	3.55	125.88	4.10	79.93	15.52468
_MOB	<b>Q4</b>	180.00	15.57506	3.55	118.21	6.56	91.73	15.5272
_MOB	<b>2008Q1</b>	186.20	15.89473	3.43	117.92	7.79	105.56	15.50585
_MOB	<b>Q2</b>	196.87	15.88848	3.43	117.73	12.05	133.93	15.55675
_MOB	<b>Q3</b>	352.14	16.01054	3.43	112.47	13.04	103.90	15.66242
_MOB	<b>Q4</b>	331.19	16.03331	3.43	126.48	15.10	41.02	15.66809
_MOB	<b>2009Q1</b>	92.01	16.01249	3.11	126.48	15.1	47.98	15.44102
_MOB	<b>Q2</b>	117.98	16.02126	3.11	126.48	15.1	69.68	15.47927
_MOB	<b>Q3</b>	117.00	16.06242	3.11	126.48	15.1	69.46	15.59592
_MOB	<b>Q4</b>	164.50	16.19203	3.11	126.48	15.1	74.30	15.60012
_FLMILL	<b>1985Q1</b>	0.82	10.04524	9.50	1.03	20.00	28.24	9.658034
_FLMILL	<b>Q2</b>	0.84	10.08231	9.50	1.06	3.77	27.14	9.747728
_FLMILL	<b>Q3</b>	0.92	10.15195	9.50	1.10	-4.98	28.23	9.746658
_FLMILL	<b>Q4</b>	0.95	10.17647	9.50	1.01	1.03	27.23	9.800862
_FLMILL	<b>1986Q1</b>	0.97	10.18833	9.50	1.11	-3.45	12.62	9.672463
_FLMILL	<b>Q2</b>	0.97	7.867489	9.50	1.12	2.95	13.47	9.767674
_FLMILL	<b>Q3</b>	0.65	10.29246	9.50	4.64	12.89	14.91	9.764903
_FLMILL	<b>Q4</b>	0.56	10.21793	9.50	3.18	13.67	16.08	9.819758
_FLMILL	<b>1987Q1</b>	0.33	10.18574	14.00	3.92	14.50	18.31	10.12646
_FLMILL	<b>Q2</b>	0.37	10.22061	14.00	4.05	8.97	20.03	10.18309
_FLMILL	<b>Q3</b>	0.5	10.27855	14.00	4.21	6.42	19.53	10.18175
_FLMILL	<b>Q4</b>	0.5	10.42429	14.00	4.17	9.69	17.24	10.21678
_FLMILL	<b>1988Q1</b>	0.53	10.51156	14.00	4.32	43.09	16.22	10.38074
_FLMILL	<b>Q2</b>	0.58	10.57748	14.00	4.19	62.72	16.53	10.46199
_FLMILL	<b>Q3</b>	0.53	10.60232	14.00	4.72	65.72	14.47	10.47246
_FLMILL	<b>Q4</b>	0.64	10.7243	14.00	5.35	61.21	16.27	10.50676
_FLMILL	<b>1989Q1</b>	0.64	10.80769	16.40	7.59	56.73	19.45	10.88285
_FLMILL	<b>Q2</b>	0.8	10.78155	16.40	7.35	60.36	20.01	10.90298
_FLMILL	<b>Q3</b>	0.8	10.69684	16.40	7.34	44.97	19.59	10.89292
_FLMILL	<b>Q4</b>	0.8	10.75907	16.40	7.62	44.67	21.09	10.92252
_FLMILL	<b>1990Q1</b>	0.8	10.82487	18.00	7.94	14.20	20.42	11.09634
_FLMILL	<b>Q2</b>	0.8	10.79856	18.00	7.94	0.40	16.87	11.114
_FLMILL	<b>Q3</b>	0.8	10.94928	18.00	7.97	2.79	33.69	11.10135
_FLMILL	<b>Q4</b>	0.5	11.13725	18.00	8.71	3.61	27.34	11.13102
_FLMILL	<b>1991Q1</b>	0.6	11.17084	14.29	9.45	6.93	19.86	11.24438
_FLMILL	<b>Q2</b>	0.58	11.2915	14.29	10.17	12.66	20.20	11.26758
_FLMILL	<b>Q3</b>	0.55	11.30472	14.29	10.24	15.92	21.86	11.25569
_FLMILL	<b>Q4</b>	0.54	11.37925	14.29	9.87	22.96	19.52	11.29138



_FLMILL	<b>1992Q1</b>	0.56	11.53943	16.10	17.61	32.51	18.92	11.80505
_FLMILL	<b>Q2</b>	0.64	11.65174	16.10	18.46	48.47	22.38	11.80006
_FLMILL	<b>Q3</b>	1.03	11.70874	16.10	19.35	54.88	21.90	11.78074
_FLMILL	<b>Q4</b>	1.4	11.76823	16.10	19.66	48.80	19.41	11.81092
_FLMILL	<b>1993Q1</b>	1.96	11.89527	16.66	24.88	55.85	20.35	12.02422
_FLMILL	<b>Q2</b>	3.65	11.97949	16.66	21.89	56.34	19.07	12.05078
_FLMILL	<b>Q3</b>	3.73	12.07892	16.66	21.89	58.35	17.51	12.04731
_FLMILL	<b>Q4</b>	4.05	12.19844	16.66	21.89	61.26	14.51	12.07398
_FLMILL	<b>1994Q1</b>	6.38	12.24626	13.50	21.89	50.71	14.66	12.26337
_FLMILL	<b>Q2</b>	7.56	12.33826	13.50	21.89	41.57	19.07	12.32513
_FLMILL	<b>Q3</b>	7.36	12.39999	13.50	21.89	60.18	17.46	12.33586
_FLMILL	<b>Q4</b>	7.66	12.4948	13.50	21.89	76.76	17.16	12.36762
_FLMILL	<b>1995Q1</b>	7.56	12.44715	12.61	21.89	81.30	18.55	13.07136
_FLMILL	<b>Q2</b>	7.5	12.57994	12.61	21.89	89.57	18.42	13.08772
_FLMILL	<b>Q3</b>	7.3	12.6179	12.61	21.89	69.88	18.23	13.08387
_FLMILL	<b>Q4</b>	7.02	12.6722	12.61	21.89	51.59	19.04	13.0898
_FLMILL	<b>1996Q1</b>	6.65	12.70295	11.69	21.89	41.90	21.36	13.41596
_FLMILL	<b>Q2</b>	7.5	12.77708	11.69	21.89	28.84	20.45	13.42268
_FLMILL	<b>Q3</b>	10.72	12.77113	11.69	21.89	23.66	23.99	13.41604
_FLMILL	<b>Q4</b>	10.8	12.82216	11.69	21.89	14.31	25.39	13.43901
_FLMILL	<b>1997Q1</b>	13.5	12.88658	4.80	21.89	13.75	20.99	13.43914
_FLMILL	<b>Q2</b>	18.1	12.92529	4.80	21.89	11.65	19.17	13.4596
_FLMILL	<b>Q3</b>	11.4	12.96096	4.80	21.89	6.53	19.79	13.45873
_FLMILL	<b>Q4</b>	14	12.97092	4.80	21.89	10.21	18.32	13.48027
_FLMILL	<b>1998Q1</b>	14	13.05632	5.49	21.89	6.96	15.02	13.38158
_FLMILL	<b>Q2</b>	13.8	13.07587	5.49	21.89	6.34	13.66	13.42733
_FLMILL	<b>Q3</b>	9.4	13.17501	5.49	21.89	6.98	14.95	13.43851
_FLMILL	<b>Q4</b>	10	13.17237	5.49	21.89	11.91	11.28	13.45478
_FLMILL	<b>1999Q1</b>	9.6	13.31962	5.33	86.97	13.55	14.66	13.56323
_FLMILL	<b>Q2</b>	10.5	13.36128	5.33	94.88	8.28	17.89	13.59142
_FLMILL	<b>Q3</b>	8.91	13.39333	5.33	94.88	2.24	23.88	13.59413
_FLMILL	<b>Q4</b>	8.91	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_FLMILL	<b>2000Q1</b>	6.65	13.58676	5.29	100.93	-1.43	29.89	13.96831
_FLMILL	<b>Q2</b>	8	13.71475	5.29	101.83	5.87	31.83	13.95028
_FLMILL	<b>Q3</b>	10.2	13.77754	5.29	102.36	15.51	33.88	13.93296
_FLMILL	<b>Q4</b>	9.8	13.85095	5.29	106.71	14.53	28.46	13.95365
_FLMILL	<b>2001Q1</b>	11.82	14.0577	5.49	110.66	18.20	27.24	13.96758
_FLMILL	<b>Q2</b>	17.35	14.04913	5.49	112.48	16.06	26.60	13.98321
_FLMILL	<b>Q3</b>	12.66	14.0989	5.49	111.60	19.12	25.88	13.98187
_FLMILL	<b>Q4</b>	16.2	14.16852	5.49	112.99	16.49	19.33	13.99556
_FLMILL	<b>2002Q1</b>	19.81	14.22234	4.15	116.04	17.42	24.42	14.30135
_FLMILL	<b>Q2</b>	26.4	14.4063	4.15	118.49	12.25	25.52	14.36687
_FLMILL	<b>Q3</b>	15	14.2852	4.15	126.45	9.96	29.67	14.39904
_FLMILL	<b>Q4</b>	16.05	14.46728	4.15	126.88	12.14	29.42	14.38019

_FLMILL	<b>2003Q1</b>	16.97	14.56896	4.11	127.16	5.80	33.55	14.52822
_FLMILL	<b>Q2</b>	13.01	14.49915	4.11	127.83	13.98	30.72	14.57055
_FLMILL	<b>Q3</b>	12	14.50123	4.11	128.58	18.37	28.29	14.59097
_FLMILL	<b>Q4</b>	13.21	14.56136	4.11	137.22	23.84	32.15	14.58016
_FLMILL	<b>2004Q1</b>	16.5	14.56375	4.19	134.43	22.47	36.76	14.78297
_FLMILL	<b>Q2</b>	22	14.58508	4.19	132.75	14.07	38.02	14.76805
_FLMILL	<b>Q3</b>	16.61	14.64126	4.19	132.84	9.17	45.95	14.90929
_FLMILL	<b>Q4</b>	16.61	14.75866	4.19	132.86	10.01	43.33	14.97929
_FLMILL	<b>2005Q1</b>	16.61	14.80553	3.83	132.85	16.28	54.31	14.96912
_FLMILL	<b>Q2</b>	16.89	14.83542	3.83	132.87	18.58	56.26	15.0391
_FLMILL	<b>Q3</b>	19.97	14.85042	3.83	130.81	24.31	65.57	15.18282
_FLMILL	<b>Q4</b>	24	14.84242	3.83	130.29	11.57	59.43	15.22124
_FLMILL	<b>2006Q1</b>	28.5	15.01175	3.13	128.70	12.07	62.90	15.19837
_FLMILL	<b>Q2</b>	36.55	15.17951	3.13	128.45	8.50	70.96	15.30303
_FLMILL	<b>Q3</b>	61.57	15.27892	3.13	128.29	6.24	63.87	15.42224
_FLMILL	<b>Q4</b>	62	15.20876	3.13	128.29	8.57	62.03	15.45756
_FLMILL	<b>2007Q1</b>	77	15.38378	3.55	128.15	5.22	60.56	15.37172
_FLMILL	<b>Q2</b>	73.6	15.44832	3.55	127.41	6.41	67.48	15.39528
_FLMILL	<b>Q3</b>	74.67	15.58581	3.55	125.88	4.10	79.93	15.52468
_FLMILL	<b>Q4</b>	78.66	15.57506	3.55	118.21	6.56	91.73	15.5272
_FLMILL	<b>2008Q1</b>	91	15.89473	3.43	117.92	7.79	105.56	15.50585
_FLMILL	<b>Q2</b>	83.5	15.88848	3.43	117.73	12.05	133.93	15.55675
_FLMILL	<b>Q3</b>	64.33	16.01054	3.43	112.47	13.04	103.90	15.66242
_FLMILL	<b>Q4</b>	31.99	16.03331	3.43	126.48	15.10	41.02	15.66809
_FLMILL	<b>2009Q1</b>	13.99	16.01249	3.11	126.48	15.1	47.98	15.44102
_FLMILL	<b>Q2</b>	23.57	16.02126	3.11	126.48	15.1	69.68	15.47927
_FLMILL	<b>Q3</b>	22.5	16.06242	3.11	126.48	15.1	69.46	15.59592
_FLMILL	<b>Q4</b>	36.51	16.19203	3.11	126.48	15.1	74.30	15.60012
_NNFMILL	<b>1985Q1</b>	0.86	10.04524	9.50	1.03	20.00	28.24	9.658034
_NNFMILL	<b>Q2</b>	0.9	10.08231	9.50	1.06	3.77	27.14	9.747728
_NNFMILL	<b>Q3</b>	0.9	10.15195	9.50	1.10	-4.98	28.23	9.746658
_NNFMILL	<b>Q4</b>	0.94	10.17647	9.50	1.01	1.03	27.23	9.800862
_NNFMILL	<b>1986Q1</b>	1.14	10.18833	9.50	1.11	-3.45	12.62	9.672463
_NNFMILL	<b>Q2</b>	1.14	7.867489	9.50	1.12	2.95	13.47	9.767674
_NNFMILL	<b>Q3</b>	1.05	10.29246	9.50	4.64	12.89	14.91	9.764903
_NNFMILL	<b>Q4</b>	0.95	10.21793	9.50	3.18	13.67	16.08	9.819758
_NNFMILL	<b>1987Q1</b>	0.9	10.18574	14.00	3.92	14.50	18.31	10.12646
_NNFMILL	<b>Q2</b>	1	10.22061	14.00	4.05	8.97	20.03	10.18309
_NNFMILL	<b>Q3</b>	0.99	10.27855	14.00	4.21	6.42	19.53	10.18175
_NNFMILL	<b>Q4</b>	0.99	10.42429	14.00	4.17	9.69	17.24	10.21678
_NNFMILL	<b>1988Q1</b>	1.08	10.51156	14.00	4.32	43.09	16.22	10.38074
_NNFMILL	<b>Q2</b>	1.15	10.57748	14.00	4.19	62.72	16.53	10.46199
_NNFMILL	<b>Q3</b>	1.07	10.60232	14.00	4.72	65.72	14.47	10.47246
_NNFMILL	<b>Q4</b>	1.11	10.7243	14.00	5.35	61.21	16.27	10.50676

_NNFMILL	<b>1989Q1</b>	1.11	10.80769	16.40	7.59	56.73	19.45	10.88285
_NNFMILL	<b>Q2</b>	1.11	10.78155	16.40	7.35	60.36	20.01	10.90298
_NNFMILL	<b>Q3</b>	0.73	10.69684	16.40	7.34	44.97	19.59	10.89292
_NNFMILL	<b>Q4</b>	0.3	10.75907	16.40	7.62	44.67	21.09	10.92252
_NNFMILL	<b>1990Q1</b>	0.3	10.82487	18.00	7.94	14.20	20.42	11.09634
_NNFMILL	<b>Q2</b>	0.3	10.79856	18.00	7.94	0.40	16.87	11.114
_NNFMILL	<b>Q3</b>	0.2	10.94928	18.00	7.97	2.79	33.69	11.10135
_NNFMILL	<b>Q4</b>	0.5	11.13725	18.00	8.71	3.61	27.34	11.13102
_NNFMILL	<b>1991Q1</b>	0.56	11.17084	14.29	9.45	6.93	19.86	11.24438
_NNFMILL	<b>Q2</b>	0.57	11.2915	14.29	10.17	12.66	20.20	11.26758
_NNFMILL	<b>Q3</b>	0.73	11.30472	14.29	10.24	15.92	21.86	11.25569
_NNFMILL	<b>Q4</b>	0.83	11.37925	14.29	9.87	22.96	19.52	11.29138
_NNFMILL	<b>1992Q1</b>	0.83	11.53943	16.10	17.61	32.51	18.92	11.80505
_NNFMILL	<b>Q2</b>	0.83	11.65174	16.10	18.46	48.47	22.38	11.80006
_NNFMILL	<b>Q3</b>	1	11.70874	16.10	19.35	54.88	21.90	11.78074
_NNFMILL	<b>Q4</b>	0.47	11.76823	16.10	19.66	48.80	19.41	11.81092
_NNFMILL	<b>1993Q1</b>	1.69	11.89527	16.66	24.88	55.85	20.35	12.02422
_NNFMILL	<b>Q2</b>	2.2	11.97949	16.66	21.89	56.34	19.07	12.05078
_NNFMILL	<b>Q3</b>	2.2	12.07892	16.66	21.89	58.35	17.51	12.04731
_NNFMILL	<b>Q4</b>	3.06	12.19844	16.66	21.89	61.26	14.51	12.07398
_NNFMILL	<b>1994Q1</b>	4.67	12.24626	13.50	21.89	50.71	14.66	12.26337
_NNFMILL	<b>Q2</b>	5.07	12.33826	13.50	21.89	41.57	19.07	12.32513
_NNFMILL	<b>Q3</b>	5.13	12.39999	13.50	21.89	60.18	17.46	12.33586
_NNFMILL	<b>Q4</b>	5	12.4948	13.50	21.89	76.76	17.16	12.36762
_NNFMILL	<b>1995Q1</b>	5.1	12.44715	12.61	21.89	81.30	18.55	13.07136
_NNFMILL	<b>Q2</b>	5.2	12.57994	12.61	21.89	89.57	18.42	13.08772
_NNFMILL	<b>Q3</b>	4.8	12.6179	12.61	21.89	69.88	18.23	13.08387
_NNFMILL	<b>Q4</b>	5.37	12.6722	12.61	21.89	51.59	19.04	13.0898
_NNFMILL	<b>1996Q1</b>	5.37	12.70295	11.69	21.89	41.90	21.36	13.41596
_NNFMILL	<b>Q2</b>	7.15	12.77708	11.69	21.89	28.84	20.45	13.42268
_NNFMILL	<b>Q3</b>	9.12	12.77113	11.69	21.89	23.66	23.99	13.41604
_NNFMILL	<b>Q4</b>	9.12	12.82216	11.69	21.89	14.31	25.39	13.43901
_NNFMILL	<b>1997Q1</b>	8.8	12.88658	4.80	21.89	13.75	20.99	13.43914
_NNFMILL	<b>Q2</b>	8.6	12.92529	4.80	21.89	11.65	19.17	13.4596
_NNFMILL	<b>Q3</b>	8.05	12.96096	4.80	21.89	6.53	19.79	13.45873
_NNFMILL	<b>Q4</b>	8.05	12.97092	4.80	21.89	10.21	18.32	13.48027
_NNFMILL	<b>1998Q1</b>	8.5	13.05632	5.49	21.89	6.96	15.02	13.38158
_NNFMILL	<b>Q2</b>	8.05	13.07587	5.49	21.89	6.34	13.66	13.42733
_NNFMILL	<b>Q3</b>	7.45	13.17501	5.49	21.89	6.98	14.95	13.43851
_NNFMILL	<b>Q4</b>	7.45	13.17237	5.49	21.89	11.91	11.28	13.45478
_NNFMILL	<b>1999Q1</b>	7.6	13.31962	5.33	86.97	13.55	14.66	13.56323
_NNFMILL	<b>Q2</b>	7.75	13.36128	5.33	94.88	8.28	17.89	13.59142
_NNFMILL	<b>Q3</b>	7.82	13.39333	5.33	94.88	2.24	23.88	13.59413
_NNFMILL	<b>Q4</b>	7.83	#VALUE!	5.33	97.60	0.22	26.08	13.61258

_NNFMILL	<b>2000Q1</b>	6.78	13.58676	5.29	100.93	-1.43	29.89	13.96831
_NNFMILL	<b>Q2</b>	6.75	13.71475	5.29	101.83	5.87	31.83	13.95028
_NNFMILL	<b>Q3</b>	6.41	13.77754	5.29	102.36	15.51	33.88	13.93296
_NNFMILL	<b>Q4</b>	7.3	13.85095	5.29	106.71	14.53	28.46	13.95365
_NNFMILL	<b>2001Q1</b>	12.16	14.0577	5.49	110.66	18.20	27.24	13.96758
_NNFMILL	<b>Q2</b>	12	14.04913	5.49	112.48	16.06	26.60	13.98321
_NNFMILL	<b>Q3</b>	9.1	14.0989	5.49	111.60	19.12	25.88	13.98187
_NNFMILL	<b>Q4</b>	9.5	14.16852	5.49	112.99	16.49	19.33	13.99556
_NNFMILL	<b>2002Q1</b>	8.4	14.22234	4.15	116.04	17.42	24.42	14.30135
_NNFMILL	<b>Q2</b>	6.6	14.4063	4.15	118.49	12.25	25.52	14.36687
_NNFMILL	<b>Q3</b>	8	14.2852	4.15	126.45	9.96	29.67	14.39904
_NNFMILL	<b>Q4</b>	9.5	14.46728	4.15	126.88	12.14	29.42	14.38019
_NNFMILL	<b>2003Q1</b>	12.89	14.56896	4.11	127.16	5.80	33.55	14.52822
_NNFMILL	<b>Q2</b>	13.6	14.49915	4.11	127.83	13.98	30.72	14.57055
_NNFMILL	<b>Q3</b>	10.5	14.50123	4.11	128.58	18.37	28.29	14.59097
_NNFMILL	<b>Q4</b>	16.25	14.56136	4.11	137.22	23.84	32.15	14.58016
_NNFMILL	<b>2004Q1</b>	13.4	14.56375	4.19	134.43	22.47	36.76	14.78297
_NNFMILL	<b>Q2</b>	21.69	14.58508	4.19	132.75	14.07	38.02	14.76805
_NNFMILL	<b>Q3</b>	18.13	14.64126	4.19	132.84	9.17	45.95	14.90929
_NNFMILL	<b>Q4</b>	15	14.75866	4.19	132.86	10.01	43.33	14.97929
_NNFMILL	<b>2005Q1</b>	15.8	14.80553	3.83	132.85	16.28	54.31	14.96912
_NNFMILL	<b>Q2</b>	16.63	14.83542	3.83	132.87	18.58	56.26	15.0391
_NNFMILL	<b>Q3</b>	14.51	14.85042	3.83	130.81	24.31	65.57	15.18282
_NNFMILL	<b>Q4</b>	15.17	14.84242	3.83	130.29	11.57	59.43	15.22124
_NNFMILL	<b>2006Q1</b>	17.5	15.01175	3.13	128.70	12.07	62.90	15.19837
_NNFMILL	<b>Q2</b>	30	15.17951	3.13	128.45	8.50	70.96	15.30303
_NNFMILL	<b>Q3</b>	26.6	15.27892	3.13	128.29	6.24	63.87	15.42224
_NNFMILL	<b>Q4</b>	26.6	15.20876	3.13	128.29	8.57	62.03	15.45756
_NNFMILL	<b>2007Q1</b>	32.5	15.38378	3.55	128.15	5.22	60.56	15.37172
_NNFMILL	<b>Q2</b>	19.86	15.44832	3.55	127.41	6.41	67.48	15.39528
_NNFMILL	<b>Q3</b>	19.81	15.58581	3.55	125.88	4.10	79.93	15.52468
_NNFMILL	<b>Q4</b>	25.51	15.57506	3.55	118.21	6.56	91.73	15.5272
_NNFMILL	<b>2008Q1</b>	34	15.89473	3.43	117.92	7.79	105.56	15.50585
_NNFMILL	<b>Q2</b>	25.6	15.88848	3.43	117.73	12.05	133.93	15.55675
_NNFMILL	<b>Q3</b>	22.42	16.01054	3.43	112.47	13.04	103.90	15.66242
_NNFMILL	<b>Q4</b>	13.46	16.03331	3.43	126.48	15.10	41.02	15.66809
_NNFMILL	<b>2009Q1</b>	16.29	16.01249	3.11	126.48	15.1	47.98	15.44102
_NNFMILL	<b>Q2</b>	18.88	16.02126	3.11	126.48	15.1	69.68	15.47927
_NNFMILL	<b>Q3</b>	17.94	16.06242	3.11	126.48	15.1	69.46	15.59592
_NNFMILL	<b>Q4</b>	21.85	16.19203	3.11	126.48	15.1	74.30	15.60012
_INCAR	<b>1985Q1</b>	0.48	10.04524	9.50	1.03	20.00	28.24	9.658034
_INCAR	<b>Q2</b>	0.5	10.08231	9.50	1.06	3.77	27.14	9.747728
_INCAR	<b>Q3</b>	0.4	10.15195	9.50	1.10	-4.98	28.23	9.746658
_INCAR	<b>Q4</b>	0.4	10.17647	9.50	1.01	1.03	27.23	9.800862

_INCAR	<b>1986Q1</b>	0.4	10.18833	9.50	1.11	-3.45	12.62	9.672463
_INCAR	<b>Q2</b>	0.43	7.867489	9.50	1.12	2.95	13.47	9.767674
_INCAR	<b>Q3</b>	0.46	10.29246	9.50	4.64	12.89	14.91	9.764903
_INCAR	<b>Q4</b>	0.53	10.21793	9.50	3.18	13.67	16.08	9.819758
_INCAR	<b>1987Q1</b>	0.55	10.18574	14.00	3.92	14.50	18.31	10.12646
_INCAR	<b>Q2</b>	0.55	10.22061	14.00	4.05	8.97	20.03	10.18309
_INCAR	<b>Q3</b>	0.41	10.27855	14.00	4.21	6.42	19.53	10.18175
_INCAR	<b>Q4</b>	0.42	10.42429	14.00	4.17	9.69	17.24	10.21678
_INCAR	<b>1988Q1</b>	0.42	10.51156	14.00	4.32	43.09	16.22	10.38074
_INCAR	<b>Q2</b>	0.44	10.57748	14.00	4.19	62.72	16.53	10.46199
_INCAR	<b>Q3</b>	0.44	10.60232	14.00	4.72	65.72	14.47	10.47246
_INCAR	<b>Q4</b>	0.44	10.7243	14.00	5.35	61.21	16.27	10.50676
_INCAR	<b>1989Q1</b>	0.5	10.80769	16.40	7.59	56.73	19.45	10.88285
_INCAR	<b>Q2</b>	0.5	10.78155	16.40	7.35	60.36	20.01	10.90298
_INCAR	<b>Q3</b>	0.63	10.69684	16.40	7.34	44.97	19.59	10.89292
_INCAR	<b>Q4</b>	0.63	10.75907	16.40	7.62	44.67	21.09	10.92252
_INCAR	<b>1990Q1</b>	0.63	10.82487	18.00	7.94	14.20	20.42	11.09634
_INCAR	<b>Q2</b>	0.63	10.79856	18.00	7.94	0.40	16.87	11.114
_INCAR	<b>Q3</b>	0.6	10.94928	18.00	7.97	2.79	33.69	11.10135
_INCAR	<b>Q4</b>	0.55	11.13725	18.00	8.71	3.61	27.34	11.13102
_INCAR	<b>1991Q1</b>	0.5	11.17084	14.29	9.45	6.93	19.86	11.24438
_INCAR	<b>Q2</b>	0.5	11.2915	14.29	10.17	12.66	20.20	11.26758
_INCAR	<b>Q3</b>	0.48	11.30472	14.29	10.24	15.92	21.86	11.25569
_INCAR	<b>Q4</b>	0.47	11.37925	14.29	9.87	22.96	19.52	11.29138
_INCAR	<b>1992Q1</b>	0.47	11.53943	16.10	17.61	32.51	18.92	11.80505
_INCAR	<b>Q2</b>	0.45	11.65174	16.10	18.46	48.47	22.38	11.80006
_INCAR	<b>Q3</b>	0.45	11.70874	16.10	19.35	54.88	21.90	11.78074
_INCAR	<b>Q4</b>	0.45	11.76823	16.10	19.66	48.80	19.41	11.81092
_INCAR	<b>1993Q1</b>	0.45	11.89527	16.66	24.88	55.85	20.35	12.02422
_INCAR	<b>Q2</b>	0.45	11.97949	16.66	21.89	56.34	19.07	12.05078
_INCAR	<b>Q3</b>	0.45	12.07892	16.66	21.89	58.35	17.51	12.04731
_INCAR	<b>Q4</b>	0.45	12.19844	16.66	21.89	61.26	14.51	12.07398
_INCAR	<b>1994Q1</b>	0.45	12.24626	13.50	21.89	50.71	14.66	12.26337
_INCAR	<b>Q2</b>	0.45	12.33826	13.50	21.89	41.57	19.07	12.32513
_INCAR	<b>Q3</b>	0.45	12.39999	13.50	21.89	60.18	17.46	12.33586
_INCAR	<b>Q4</b>	0.43	12.4948	13.50	21.89	76.76	17.16	12.36762
_INCAR	<b>1995Q1</b>	0.43	12.44715	12.61	21.89	81.30	18.55	13.07136
_INCAR	<b>Q2</b>	0.43	12.57994	12.61	21.89	89.57	18.42	13.08772
_INCAR	<b>Q3</b>	0.43	12.6179	12.61	21.89	69.88	18.23	13.08387
_INCAR	<b>Q4</b>	0.43	12.6722	12.61	21.89	51.59	19.04	13.0898
_INCAR	<b>1996Q1</b>	0.43	12.70295	11.69	21.89	41.90	21.36	13.41596
_INCAR	<b>Q2</b>	0.43	12.77708	11.69	21.89	28.84	20.45	13.42268
_INCAR	<b>Q3</b>	0.43	12.77113	11.69	21.89	23.66	23.99	13.41604
_INCAR	<b>Q4</b>	0.58	12.82216	11.69	21.89	14.31	25.39	13.43901

_INCAR	<b>1997Q1</b>	0.78	12.88658	4.80	21.89	13.75	20.99	13.43914
_INCAR	<b>Q2</b>	0.78	12.92529	4.80	21.89	11.65	19.17	13.4596
_INCAR	<b>Q3</b>	0.78	12.96096	4.80	21.89	6.53	19.79	13.45873
_INCAR	<b>Q4</b>	0.75	12.97092	4.80	21.89	10.21	18.32	13.48027
_INCAR	<b>1998Q1</b>	0.75	13.05632	5.49	21.89	6.96	15.02	13.38158
_INCAR	<b>Q2</b>	0.7	13.07587	5.49	21.89	6.34	13.66	13.42733
_INCAR	<b>Q3</b>	0.7	13.17501	5.49	21.89	6.98	14.95	13.43851
_INCAR	<b>Q4</b>	0.73	13.17237	5.49	21.89	11.91	11.28	13.45478
_INCAR	<b>1999Q1</b>	0.67	13.31962	5.33	86.97	13.55	14.66	13.56323
_INCAR	<b>Q2</b>	0.72	13.36128	5.33	94.88	8.28	17.89	13.59142
_INCAR	<b>Q3</b>	0.81	13.39333	5.33	94.88	2.24	23.88	13.59413
_INCAR	<b>Q4</b>	0.71	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_INCAR	<b>2000Q1</b>	1.02	13.58676	5.29	100.93	-1.43	29.89	13.96831
_INCAR	<b>Q2</b>	1.02	13.71475	5.29	101.83	5.87	31.83	13.95028
_INCAR	<b>Q3</b>	1.02	13.77754	5.29	102.36	15.51	33.88	13.93296
_INCAR	<b>Q4</b>	1.02	13.85095	5.29	106.71	14.53	28.46	13.95365
_INCAR	<b>2001Q1</b>	0.97	14.0577	5.49	110.66	18.20	27.24	13.96758
_INCAR	<b>Q2</b>	0.97	14.04913	5.49	112.48	16.06	26.60	13.98321
_INCAR	<b>Q3</b>	1.07	14.0989	5.49	111.60	19.12	25.88	13.98187
_INCAR	<b>Q4</b>	1.47	14.16852	5.49	112.99	16.49	19.33	13.99556
_INCAR	<b>2002Q1</b>	1.37	14.22234	4.15	116.04	17.42	24.42	14.30135
_INCAR	<b>Q2</b>	1.76	14.4063	4.15	118.49	12.25	25.52	14.36687
_INCAR	<b>Q3</b>	1.95	14.2852	4.15	126.45	9.96	29.67	14.39904
_INCAR	<b>Q4</b>	1.9	14.46728	4.15	126.88	12.14	29.42	14.38019
_INCAR	<b>2003Q1</b>	1.91	14.56896	4.11	127.16	5.80	33.55	14.52822
_INCAR	<b>Q2</b>	1.91	14.49915	4.11	127.83	13.98	30.72	14.57055
_INCAR	<b>Q3</b>	1.63	14.50123	4.11	128.58	18.37	28.29	14.59097
_INCAR	<b>Q4</b>	1.71	14.56136	4.11	137.22	23.84	32.15	14.58016
_INCAR	<b>2004Q1</b>	1.71	14.56375	4.19	134.43	22.47	36.76	14.78297
_INCAR	<b>Q2</b>	1.75	14.58508	4.19	132.75	14.07	38.02	14.76805
_INCAR	<b>Q3</b>	1.3	14.64126	4.19	132.84	9.17	45.95	14.90929
_INCAR	<b>Q4</b>	1.3	14.75866	4.19	132.86	10.01	43.33	14.97929
_INCAR	<b>2005Q1</b>	1.3	14.80553	3.83	132.85	16.28	54.31	14.96912
_INCAR	<b>Q2</b>	1.49	14.83542	3.83	132.87	18.58	56.26	15.0391
_INCAR	<b>Q3</b>	0.9	14.85042	3.83	130.81	24.31	65.57	15.18282
_INCAR	<b>Q4</b>	1.02	14.84242	3.83	130.29	11.57	59.43	15.22124
_INCAR	<b>2006Q1</b>	1.47	15.01175	3.13	128.70	12.07	62.90	15.19837
_INCAR	<b>Q2</b>	1.12	15.17951	3.13	128.45	8.50	70.96	15.30303
_INCAR	<b>Q3</b>	5.96	15.27892	3.13	128.29	6.24	63.87	15.42224
_INCAR	<b>Q4</b>	6.88	15.20876	3.13	128.29	8.57	62.03	15.45756
_INCAR	<b>2007Q1</b>	8	15.38378	3.55	128.15	5.22	60.56	15.37172
_INCAR	<b>Q2</b>	8.7	15.44832	3.55	127.41	6.41	67.48	15.39528
_INCAR	<b>Q3</b>	8.27	15.58581	3.55	125.88	4.10	79.93	15.52468
_INCAR	<b>Q4</b>	8.7	15.57506	3.55	118.21	6.56	91.73	15.5272

_INCAR	<b>2008Q1</b>	8.5	15.89473	3.43	117.92	7.79	105.56	15.50585
_INCAR	<b>Q2</b>	8.98	15.88848	3.43	117.73	12.05	133.93	15.55675
_INCAR	<b>Q3</b>	9.13	16.01054	3.43	112.47	13.04	103.90	15.66242
_INCAR	<b>Q4</b>	8.76	16.03331	3.43	126.48	15.10	41.02	15.66809
_INCAR	<b>2009Q1</b>	9.22	16.01249	3.11	126.48	15.1	47.98	15.44102
_INCAR	<b>Q2</b>	9.22	16.02126	3.11	126.48	15.1	69.68	15.47927
_INCAR	<b>Q3</b>	9.22	16.06242	3.11	126.48	15.1	69.46	15.59592
_INCAR	<b>Q4</b>	4.33	16.19203	3.11	126.48	15.1	74.30	15.60012
_BRCODE	<b>1985Q1</b>	0.2	10.04524	9.50	1.03	20.00	28.24	9.658034
_BRCODE	<b>Q2</b>	0.22	10.08231	9.50	1.06	3.77	27.14	9.747728
_BRCODE	<b>Q3</b>	0.27	10.15195	9.50	1.10	-4.98	28.23	9.746658
_BRCODE	<b>Q4</b>	0.42	10.17647	9.50	1.01	1.03	27.23	9.800862
_BRCODE	<b>1986Q1</b>	0.54	10.18833	9.50	1.11	-3.45	12.62	9.672463
_BRCODE	<b>Q2</b>	0.55	7.867489	9.50	1.12	2.95	13.47	9.767674
_BRCODE	<b>Q3</b>	0.56	10.29246	9.50	4.64	12.89	14.91	9.764903
_BRCODE	<b>Q4</b>	0.5	10.21793	9.50	3.18	13.67	16.08	9.819758
_BRCODE	<b>1987Q1</b>	0.5	10.18574	14.00	3.92	14.50	18.31	10.12646
_BRCODE	<b>Q2</b>	0.5	10.22061	14.00	4.05	8.97	20.03	10.18309
_BRCODE	<b>Q3</b>	0.5	10.27855	14.00	4.21	6.42	19.53	10.18175
_BRCODE	<b>Q4</b>	0.5	10.42429	14.00	4.17	9.69	17.24	10.21678
_BRCODE	<b>1988Q1</b>	0.54	10.51156	14.00	4.32	43.09	16.22	10.38074
_BRCODE	<b>Q2</b>	0.66	10.57748	14.00	4.19	62.72	16.53	10.46199
_BRCODE	<b>Q3</b>	0.5	10.60232	14.00	4.72	65.72	14.47	10.47246
_BRCODE	<b>Q4</b>	0.73	10.7243	14.00	5.35	61.21	16.27	10.50676
_BRCODE	<b>1989Q1</b>	0.75	10.80769	16.40	7.59	56.73	19.45	10.88285
_BRCODE	<b>Q2</b>	0.77	10.78155	16.40	7.35	60.36	20.01	10.90298
_BRCODE	<b>Q3</b>	0.87	10.69684	16.40	7.34	44.97	19.59	10.89292
_BRCODE	<b>Q4</b>	1.05	10.75907	16.40	7.62	44.67	21.09	10.92252
_BRCODE	<b>1990Q1</b>	1.04	10.82487	18.00	7.94	14.20	20.42	11.09634
_BRCODE	<b>Q2</b>	1.16	10.79856	18.00	7.94	0.40	16.87	11.114
_BRCODE	<b>Q3</b>	1.17	10.94928	18.00	7.97	2.79	33.69	11.10135
_BRCODE	<b>Q4</b>	1.15	11.13725	18.00	8.71	3.61	27.34	11.13102
_BRCODE	<b>1991Q1</b>	1.04	11.17084	14.29	9.45	6.93	19.86	11.24438
_BRCODE	<b>Q2</b>	0.97	11.2915	14.29	10.17	12.66	20.20	11.26758
_BRCODE	<b>Q3</b>	0.95	11.30472	14.29	10.24	15.92	21.86	11.25569
_BRCODE	<b>Q4</b>	0.86	11.37925	14.29	9.87	22.96	19.52	11.29138
_BRCODE	<b>1992Q1</b>	0.87	11.53943	16.10	17.61	32.51	18.92	11.80505
_BRCODE	<b>Q2</b>	1	11.65174	16.10	18.46	48.47	22.38	11.80006
_BRCODE	<b>Q3</b>	1.45	11.70874	16.10	19.35	54.88	21.90	11.78074
_BRCODE	<b>Q4</b>	1.2	11.76823	16.10	19.66	48.80	19.41	11.81092
_BRCODE	<b>1993Q1</b>	1.72	11.89527	16.66	24.88	55.85	20.35	12.02422
_BRCODE	<b>Q2</b>	1.76	11.97949	16.66	21.89	56.34	19.07	12.05078
_BRCODE	<b>Q3</b>	1.53	12.07892	16.66	21.89	58.35	17.51	12.04731
_BRCODE	<b>Q4</b>	1.55	12.19844	16.66	21.89	61.26	14.51	12.07398

_BRCODE	<b>1994Q1</b>	1.67	12.24626	13.50	21.89	50.71	14.66	12.26337
_BRCODE	<b>Q2</b>	1.67	12.33826	13.50	21.89	41.57	19.07	12.32513
_BRCODE	<b>Q3</b>	1.68	12.39999	13.50	21.89	60.18	17.46	12.33586
_BRCODE	<b>Q4</b>	1.56	12.4948	13.50	21.89	76.76	17.16	12.36762
_BRCODE	<b>1995Q1</b>	1.7	12.44715	12.61	21.89	81.30	18.55	13.07136
_BRCODE	<b>Q2</b>	2.25	12.57994	12.61	21.89	89.57	18.42	13.08772
_BRCODE	<b>Q3</b>	2.74	12.6179	12.61	21.89	69.88	18.23	13.08387
_BRCODE	<b>Q4</b>	2.75	12.6722	12.61	21.89	51.59	19.04	13.0898
_BRCODE	<b>1996Q1</b>	3.03	12.70295	11.69	21.89	41.90	21.36	13.41596
_BRCODE	<b>Q2</b>	3.3	12.77708	11.69	21.89	28.84	20.45	13.42268
_BRCODE	<b>Q3</b>	3.15	12.77113	11.69	21.89	23.66	23.99	13.41604
_BRCODE	<b>Q4</b>	3.16	12.82216	11.69	21.89	14.31	25.39	13.43901
_BRCODE	<b>1997Q1</b>	3.5	12.88658	4.80	21.89	13.75	20.99	13.43914
_BRCODE	<b>Q2</b>	3.34	12.92529	4.80	21.89	11.65	19.17	13.4596
_BRCODE	<b>Q3</b>	3.34	12.96096	4.80	21.89	6.53	19.79	13.45873
_BRCODE	<b>Q4</b>	3.34	12.97092	4.80	21.89	10.21	18.32	13.48027
_BRCODE	<b>1998Q1</b>	3.34	13.05632	5.49	21.89	6.96	15.02	13.38158
_BRCODE	<b>Q2</b>	3.1	13.07587	5.49	21.89	6.34	13.66	13.42733
_BRCODE	<b>Q3</b>	2.9	13.17501	5.49	21.89	6.98	14.95	13.43851
_BRCODE	<b>Q4</b>	2.7	13.17237	5.49	21.89	11.91	11.28	13.45478
_BRCODE	<b>1999Q1</b>	2.7	13.31962	5.33	86.97	13.55	14.66	13.56323
_BRCODE	<b>Q2</b>	1.96	13.36128	5.33	94.88	8.28	17.89	13.59142
_BRCODE	<b>Q3</b>	1.92	13.39333	5.33	94.88	2.24	23.88	13.59413
_BRCODE	<b>Q4</b>	1.92	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_BRCODE	<b>2000Q1</b>	1.69	13.58676	5.29	100.93	-1.43	29.89	13.96831
_BRCODE	<b>Q2</b>	1.6	13.71475	5.29	101.83	5.87	31.83	13.95028
_BRCODE	<b>Q3</b>	0.69	13.77754	5.29	102.36	15.51	33.88	13.93296
_BRCODE	<b>Q4</b>	1.24	13.85095	5.29	106.71	14.53	28.46	13.95365
_BRCODE	<b>2001Q1</b>	1.12	14.0577	5.49	110.66	18.20	27.24	13.96758
_BRCODE	<b>Q2</b>	1.35	14.04913	5.49	112.48	16.06	26.60	13.98321
_BRCODE	<b>Q3</b>	0.68	14.0989	5.49	111.60	19.12	25.88	13.98187
_BRCODE	<b>Q4</b>	3.38	14.16852	5.49	112.99	16.49	19.33	13.99556
_BRCODE	<b>2002Q1</b>	3.01	14.22234	4.15	116.04	17.42	24.42	14.30135
_BRCODE	<b>Q2</b>	2.8	14.4063	4.15	118.49	12.25	25.52	14.36687
_BRCODE	<b>Q3</b>	1.84	14.2852	4.15	126.45	9.96	29.67	14.39904
_BRCODE	<b>Q4</b>	2.57	14.46728	4.15	126.88	12.14	29.42	14.38019
_BRCODE	<b>2003Q1</b>	2.58	14.56896	4.11	127.16	5.80	33.55	14.52822
_BRCODE	<b>Q2</b>	4.89	14.49915	4.11	127.83	13.98	30.72	14.57055
_BRCODE	<b>Q3</b>	0.68	14.50123	4.11	128.58	18.37	28.29	14.59097
_BRCODE	<b>Q4</b>	5.53	14.56136	4.11	137.22	23.84	32.15	14.58016
_BRCODE	<b>2004Q1</b>	7.98	14.56375	4.19	134.43	22.47	36.76	14.78297
_BRCODE	<b>Q2</b>	7.22	14.58508	4.19	132.75	14.07	38.02	14.76805
_BRCODE	<b>Q3</b>	0.65	14.64126	4.19	132.84	9.17	45.95	14.90929
_BRCODE	<b>Q4</b>	7.22	14.75866	4.19	132.86	10.01	43.33	14.97929



_BRCODE	<b>2005Q1</b>	4.01	14.80553	3.83	132.85	16.28	54.31	14.96912
_BRCODE	<b>Q2</b>	0.68	14.83542	3.83	132.87	18.58	56.26	15.0391
_BRCODE	<b>Q3</b>	5.05	14.85042	3.83	130.81	24.31	65.57	15.18282
_BRCODE	<b>Q4</b>	7	14.84242	3.83	130.29	11.57	59.43	15.22124
_BRCODE	<b>2006Q1</b>	4.7	15.01175	3.13	128.70	12.07	62.90	15.19837
_BRCODE	<b>Q2</b>	5.8	15.17951	3.13	128.45	8.50	70.96	15.30303
_BRCODE	<b>Q3</b>	8.35	15.27892	3.13	128.29	6.24	63.87	15.42224
_BRCODE	<b>Q4</b>	14	15.20876	3.13	128.29	8.57	62.03	15.45756
_BRCODE	<b>2007Q1</b>	24.73	15.38378	3.55	128.15	5.22	60.56	15.37172
_BRCODE	<b>Q2</b>	26.97	15.44832	3.55	127.41	6.41	67.48	15.39528
_BRCODE	<b>Q3</b>	27.02	15.58581	3.55	125.88	4.10	79.93	15.52468
_BRCODE	<b>Q4</b>	29.17	15.57506	3.55	118.21	6.56	91.73	15.5272
_BRCODE	<b>2008Q1</b>	31	15.89473	3.43	117.92	7.79	105.56	15.50585
_BRCODE	<b>Q2</b>	21.9	15.88848	3.43	117.73	12.05	133.93	15.55675
_BRCODE	<b>Q3</b>	18.78	16.01054	3.43	112.47	13.04	103.90	15.66242
_BRCODE	<b>Q4</b>	16.25	16.03331	3.43	126.48	15.10	41.02	15.66809
_BRCODE	<b>2009Q1</b>	9.16	16.01249	3.11	126.48	15.1	47.98	15.44102
_BRCODE	<b>Q2</b>	5.14	16.02126	3.11	126.48	15.1	69.68	15.47927
_BRCODE	<b>Q3</b>	5.75	16.06242	3.11	126.48	15.1	69.46	15.59592
_BRCODE	<b>Q4</b>	6.3	16.19203	3.11	126.48	15.1	74.30	15.60012
_GGUNIEA	<b>1985Q1</b>	0.71	10.04524	9.50	1.03	20.00	28.24	9.658034
_GGUNIEA	<b>Q2</b>	0.8	10.08231	9.50	1.06	3.77	27.14	9.747728
_GGUNIEA	<b>Q3</b>	0.78	10.15195	9.50	1.10	-4.98	28.23	9.746658
_GGUNIEA	<b>Q4</b>	0.89	10.17647	9.50	1.01	1.03	27.23	9.800862
_GGUNIEA	<b>1986Q1</b>	0.93	10.18833	9.50	1.11	-3.45	12.62	9.672463
_GGUNIEA	<b>Q2</b>	1.03	7.867489	9.50	1.12	2.95	13.47	9.767674
_GGUNIEA	<b>Q3</b>	0.99	10.29246	9.50	4.64	12.89	14.91	9.764903
_GGUNIEA	<b>Q4</b>	0.97	10.21793	9.50	3.18	13.67	16.08	9.819758
_GGUNIEA	<b>1987Q1</b>	0.99	10.18574	14.00	3.92	14.50	18.31	10.12646
_GGUNIEA	<b>Q2</b>	0.7	10.22061	14.00	4.05	8.97	20.03	10.18309
_GGUNIEA	<b>Q3</b>	0.6	10.27855	14.00	4.21	6.42	19.53	10.18175
_GGUNIEA	<b>Q4</b>	0.5	10.42429	14.00	4.17	9.69	17.24	10.21678
_GGUNIEA	<b>1988Q1</b>	0.5	10.51156	14.00	4.32	43.09	16.22	10.38074
_GGUNIEA	<b>Q2</b>	0.53	10.57748	14.00	4.19	62.72	16.53	10.46199
_GGUNIEA	<b>Q3</b>	0.53	10.60232	14.00	4.72	65.72	14.47	10.47246
_GGUNIEA	<b>Q4</b>	0.58	10.7243	14.00	5.35	61.21	16.27	10.50676
_GGUNIEA	<b>1989Q1</b>	0.64	10.80769	16.40	7.59	56.73	19.45	10.88285
_GGUNIEA	<b>Q2</b>	0.67	10.78155	16.40	7.35	60.36	20.01	10.90298
_GGUNIEA	<b>Q3</b>	0.87	10.69684	16.40	7.34	44.97	19.59	10.89292
_GGUNIEA	<b>Q4</b>	1.03	10.75907	16.40	7.62	44.67	21.09	10.92252
_GGUNIEA	<b>1990Q1</b>	1.01	10.82487	18.00	7.94	14.20	20.42	11.09634
_GGUNIEA	<b>Q2</b>	0.88	10.79856	18.00	7.94	0.40	16.87	11.114
_GGUNIEA	<b>Q3</b>	0.67	10.94928	18.00	7.97	2.79	33.69	11.10135
_GGUNIEA	<b>Q4</b>	0.62	11.13725	18.00	8.71	3.61	27.34	11.13102

_GGUNIEA	<b>1991Q1</b>	0.5	11.17084	14.29	9.45	6.93	19.86	11.24438
_GGUNIEA	<b>Q2</b>	0.5	11.2915	14.29	10.17	12.66	20.20	11.26758
_GGUNIEA	<b>Q3</b>	0.6	11.30472	14.29	10.24	15.92	21.86	11.25569
_GGUNIEA	<b>Q4</b>	0.6	11.37925	14.29	9.87	22.96	19.52	11.29138
_GGUNIEA	<b>1992Q1</b>	0.66	11.53943	16.10	17.61	32.51	18.92	11.80505
_GGUNIEA	<b>Q2</b>	0.67	11.65174	16.10	18.46	48.47	22.38	11.80006
_GGUNIEA	<b>Q3</b>	0.8	11.70874	16.10	19.35	54.88	21.90	11.78074
_GGUNIEA	<b>Q4</b>	0.87	11.76823	16.10	19.66	48.80	19.41	11.81092
_GGUNIEA	<b>1993Q1</b>	1.08	11.89527	16.66	24.88	55.85	20.35	12.02422
_GGUNIEA	<b>Q2</b>	0.95	11.97949	16.66	21.89	56.34	19.07	12.05078
_GGUNIEA	<b>Q3</b>	0.67	12.07892	16.66	21.89	58.35	17.51	12.04731
_GGUNIEA	<b>Q4</b>	1.2	12.19844	16.66	21.89	61.26	14.51	12.07398
_GGUNIEA	<b>1994Q1</b>	1.5	12.24626	13.50	21.89	50.71	14.66	12.26337
_GGUNIEA	<b>Q2</b>	1.63	12.33826	13.50	21.89	41.57	19.07	12.32513
_GGUNIEA	<b>Q3</b>	1.42	12.39999	13.50	21.89	60.18	17.46	12.33586
_GGUNIEA	<b>Q4</b>	1.46	12.4948	13.50	21.89	76.76	17.16	12.36762
_GGUNIEA	<b>1995Q1</b>	1.46	12.44715	12.61	21.89	81.30	18.55	13.07136
_GGUNIEA	<b>Q2</b>	1.46	12.57994	12.61	21.89	89.57	18.42	13.08772
_GGUNIEA	<b>Q3</b>	1.26	12.6179	12.61	21.89	69.88	18.23	13.08387
_GGUNIEA	<b>Q4</b>	1.26	12.6722	12.61	21.89	51.59	19.04	13.0898
_GGUNIEA	<b>1996Q1</b>	1.45	12.70295	11.69	21.89	41.90	21.36	13.41596
_GGUNIEA	<b>Q2</b>	1.06	12.77708	11.69	21.89	28.84	20.45	13.42268
_GGUNIEA	<b>Q3</b>	1.06	12.77113	11.69	21.89	23.66	23.99	13.41604
_GGUNIEA	<b>Q4</b>	1.06	12.82216	11.69	21.89	14.31	25.39	13.43901
_GGUNIEA	<b>1997Q1</b>	1.05	12.88658	4.80	21.89	13.75	20.99	13.43914
_GGUNIEA	<b>Q2</b>	1.29	12.92529	4.80	21.89	11.65	19.17	13.4596
_GGUNIEA	<b>Q3</b>	1.23	12.96096	4.80	21.89	6.53	19.79	13.45873
_GGUNIEA	<b>Q4</b>	1.36	12.97092	4.80	21.89	10.21	18.32	13.48027
_GGUNIEA	<b>1998Q1</b>	1.7	13.05632	5.49	21.89	6.96	15.02	13.38158
_GGUNIEA	<b>Q2</b>	1.68	13.07587	5.49	21.89	6.34	13.66	13.42733
_GGUNIEA	<b>Q3</b>	1.9	13.17501	5.49	21.89	6.98	14.95	13.43851
_GGUNIEA	<b>Q4</b>	2.28	13.17237	5.49	21.89	11.91	11.28	13.45478
_GGUNIEA	<b>1999Q1</b>	2.28	13.31962	5.33	86.97	13.55	14.66	13.56323
_GGUNIEA	<b>Q2</b>	2.13	13.36128	5.33	94.88	8.28	17.89	13.59142
_GGUNIEA	<b>Q3</b>	2.25	13.39333	5.33	94.88	2.24	23.88	13.59413
_GGUNIEA	<b>Q4</b>	2.25	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_GGUNIEA	<b>2000Q1</b>	2.25	13.58676	5.29	100.93	-1.43	29.89	13.96831
_GGUNIEA	<b>Q2</b>	2.25	13.71475	5.29	101.83	5.87	31.83	13.95028
_GGUNIEA	<b>Q3</b>	2.25	13.77754	5.29	102.36	15.51	33.88	13.93296
_GGUNIEA	<b>Q4</b>	2.25	13.85095	5.29	106.71	14.53	28.46	13.95365
_GGUNIEA	<b>2001Q1</b>	1.5	14.0577	5.49	110.66	18.20	27.24	13.96758
_GGUNIEA	<b>Q2</b>	0.87	14.04913	5.49	112.48	16.06	26.60	13.98321
_GGUNIEA	<b>Q3</b>	0.93	14.0989	5.49	111.60	19.12	25.88	13.98187
_GGUNIEA	<b>Q4</b>	1	14.16852	5.49	112.99	16.49	19.33	13.99556

_GGUNIEA	<b>2002Q1</b>	0.74	14.22234	4.15	116.04	17.42	24.42	14.30135
_GGUNIEA	<b>Q2</b>	0.6	14.4063	4.15	118.49	12.25	25.52	14.36687
_GGUNIEA	<b>Q3</b>	0.56	14.2852	4.15	126.45	9.96	29.67	14.39904
_GGUNIEA	<b>Q4</b>	0.54	14.46728	4.15	126.88	12.14	29.42	14.38019
_GGUNIEA	<b>2003Q1</b>	0.68	14.56896	4.11	127.16	5.80	33.55	14.52822
_GGUNIEA	<b>Q2</b>	0.68	14.49915	4.11	127.83	13.98	30.72	14.57055
_GGUNIEA	<b>Q3</b>	0.68	14.50123	4.11	128.58	18.37	28.29	14.59097
_GGUNIEA	<b>Q4</b>	0.54	14.56136	4.11	137.22	23.84	32.15	14.58016
_GGUNIEA	<b>2004Q1</b>	0.68	14.56375	4.19	134.43	22.47	36.76	14.78297
_GGUNIEA	<b>Q2</b>	0.68	14.58508	4.19	132.75	14.07	38.02	14.76805
_GGUNIEA	<b>Q3</b>	0.68	14.64126	4.19	132.84	9.17	45.95	14.90929
_GGUNIEA	<b>Q4</b>	0.54	14.75866	4.19	132.86	10.01	43.33	14.97929
_GGUNIEA	<b>2005Q1</b>	0.68	14.80553	3.83	132.85	16.28	54.31	14.96912
_GGUNIEA	<b>Q2</b>	0.68	14.83542	3.83	132.87	18.58	56.26	15.0391
_GGUNIEA	<b>Q3</b>	0.68	14.85042	3.83	130.81	24.31	65.57	15.18282
_GGUNIEA	<b>Q4</b>	0.68	14.84242	3.83	130.29	11.57	59.43	15.22124
_GGUNIEA	<b>2006Q1</b>	0.68	15.01175	3.13	128.70	12.07	62.90	15.19837
_GGUNIEA	<b>Q2</b>	0.68	15.17951	3.13	128.45	8.50	70.96	15.30303
_GGUNIEA	<b>Q3</b>	0.68	15.27892	3.13	128.29	6.24	63.87	15.42224
_GGUNIEA	<b>Q4</b>	0.54	15.20876	3.13	128.29	8.57	62.03	15.45756
_GGUNIEA	<b>2007Q1</b>	0.68	15.38378	3.55	128.15	5.22	60.56	15.37172
_GGUNIEA	<b>Q2</b>	0.68	15.44832	3.55	127.41	6.41	67.48	15.39528
_GGUNIEA	<b>Q3</b>	0.68	15.58581	3.55	125.88	4.10	79.93	15.52468
_GGUNIEA	<b>Q4</b>	0.68	15.57506	3.55	118.21	6.56	91.73	15.5272
_GGUNIEA	<b>2008Q1</b>	0.68	15.89473	3.43	117.92	7.79	105.56	15.50585
_GGUNIEA	<b>Q2</b>	0.68	15.88848	3.43	117.73	12.05	133.93	15.55675
_GGUNIEA	<b>Q3</b>	0.68	16.01054	3.43	112.47	13.04	103.90	15.66242
_GGUNIEA	<b>Q4</b>	0.68	16.03331	3.43	126.48	15.10	41.02	15.66809
_GGUNIEA	<b>2009Q1</b>	0.68	16.01249	3.11	126.48	15.1	47.98	15.44102
_GGUNIEA	<b>Q2</b>	0.68	16.02126	3.11	126.48	15.1	69.68	15.47927
_GGUNIEA	<b>Q3</b>	0.68	16.06242	3.11	126.48	15.1	69.46	15.59592
_GGUNIEA	<b>Q4</b>	0.54	16.19203	3.11	126.48	15.1	74.30	15.60012
_NROPE	<b>1985Q1</b>	0.71	10.04524	9.50	1.03	20.00	28.24	9.658034
_NROPE	<b>Q2</b>	0.8	10.08231	9.50	1.06	3.77	27.14	9.747728
_NROPE	<b>Q3</b>	0.78	10.15195	9.50	1.10	-4.98	28.23	9.746658
_NROPE	<b>Q4</b>	0.89	10.17647	9.50	1.01	1.03	27.23	9.800862
_NROPE	<b>1986Q1</b>	0.93	10.18833	9.50	1.11	-3.45	12.62	9.672463
_NROPE	<b>Q2</b>	1.03	7.867489	9.50	1.12	2.95	13.47	9.767674
_NROPE	<b>Q3</b>	0.99	10.29246	9.50	4.64	12.89	14.91	9.764903
_NROPE	<b>Q4</b>	0.97	10.21793	9.50	3.18	13.67	16.08	9.819758
_NROPE	<b>1987Q1</b>	0.99	10.18574	14.00	3.92	14.50	18.31	10.12646
_NROPE	<b>Q2</b>	0.7	10.22061	14.00	4.05	8.97	20.03	10.18309
_NROPE	<b>Q3</b>	0.6	10.27855	14.00	4.21	6.42	19.53	10.18175
_NROPE	<b>Q4</b>	0.5	10.42429	14.00	4.17	9.69	17.24	10.21678

_NROPE	<b>1988Q1</b>	0.5	10.51156	14.00	4.32	43.09	16.22	10.38074
_NROPE	<b>Q2</b>	0.53	10.57748	14.00	4.19	62.72	16.53	10.46199
_NROPE	<b>Q3</b>	0.53	10.60232	14.00	4.72	65.72	14.47	10.47246
_NROPE	<b>Q4</b>	0.58	10.7243	14.00	5.35	61.21	16.27	10.50676
_NROPE	<b>1989Q1</b>	0.64	10.80769	16.40	7.59	56.73	19.45	10.88285
_NROPE	<b>Q2</b>	0.67	10.78155	16.40	7.35	60.36	20.01	10.90298
_NROPE	<b>Q3</b>	0.87	10.69684	16.40	7.34	44.97	19.59	10.89292
_NROPE	<b>Q4</b>	1.03	10.75907	16.40	7.62	44.67	21.09	10.92252
_NROPE	<b>1990Q1</b>	1.01	10.82487	18.00	7.94	14.20	20.42	11.09634
_NROPE	<b>Q2</b>	0.88	10.79856	18.00	7.94	0.40	16.87	11.114
_NROPE	<b>Q3</b>	0.67	10.94928	18.00	7.97	2.79	33.69	11.10135
_NROPE	<b>Q4</b>	0.62	11.13725	18.00	8.71	3.61	27.34	11.13102
_NROPE	<b>1991Q1</b>	0.5	11.17084	14.29	9.45	6.93	19.86	11.24438
_NROPE	<b>Q2</b>	0.5	11.2915	14.29	10.17	12.66	20.20	11.26758
_NROPE	<b>Q3</b>	0.6	11.30472	14.29	10.24	15.92	21.86	11.25569
_NROPE	<b>Q4</b>	0.6	11.37925	14.29	9.87	22.96	19.52	11.29138
_NROPE	<b>1992Q1</b>	0.66	11.53943	16.10	17.61	32.51	18.92	11.80505
_NROPE	<b>Q2</b>	0.67	11.65174	16.10	18.46	48.47	22.38	11.80006
_NROPE	<b>Q3</b>	0.8	11.70874	16.10	19.35	54.88	21.90	11.78074
_NROPE	<b>Q4</b>	0.87	11.76823	16.10	19.66	48.80	19.41	11.81092
_NROPE	<b>1993Q1</b>	1.08	11.89527	16.66	24.88	55.85	20.35	12.02422
_NROPE	<b>Q2</b>	0.95	11.97949	16.66	21.89	56.34	19.07	12.05078
_NROPE	<b>Q3</b>	0.67	12.07892	16.66	21.89	58.35	17.51	12.04731
_NROPE	<b>Q4</b>	1.2	12.19844	16.66	21.89	61.26	14.51	12.07398
_NROPE	<b>1994Q1</b>	1.5	12.24626	13.50	21.89	50.71	14.66	12.26337
_NROPE	<b>Q2</b>	1.63	12.33826	13.50	21.89	41.57	19.07	12.32513
_NROPE	<b>Q3</b>	1.42	12.39999	13.50	21.89	60.18	17.46	12.33586
_NROPE	<b>Q4</b>	1.46	12.4948	13.50	21.89	76.76	17.16	12.36762
_NROPE	<b>1995Q1</b>	1.46	12.44715	12.61	21.89	81.30	18.55	13.07136
_NROPE	<b>Q2</b>	1.46	12.57994	12.61	21.89	89.57	18.42	13.08772
_NROPE	<b>Q3</b>	1.26	12.6179	12.61	21.89	69.88	18.23	13.08387
_NROPE	<b>Q4</b>	1.26	12.6722	12.61	21.89	51.59	19.04	13.0898
_NROPE	<b>1996Q1</b>	1.45	12.70295	11.69	21.89	41.90	21.36	13.41596
_NROPE	<b>Q2</b>	1.06	12.77708	11.69	21.89	28.84	20.45	13.42268
_NROPE	<b>Q3</b>	1.06	12.77113	11.69	21.89	23.66	23.99	13.41604
_NROPE	<b>Q4</b>	1.06	12.82216	11.69	21.89	14.31	25.39	13.43901
_NROPE	<b>1997Q1</b>	1.05	12.88658	4.80	21.89	13.75	20.99	13.43914
_NROPE	<b>Q2</b>	1.29	12.92529	4.80	21.89	11.65	19.17	13.4596
_NROPE	<b>Q3</b>	1.23	12.96096	4.80	21.89	6.53	19.79	13.45873
_NROPE	<b>Q4</b>	1.36	12.97092	4.80	21.89	10.21	18.32	13.48027
_NROPE	<b>1998Q1</b>	1.7	13.05632	5.49	21.89	6.96	15.02	13.38158
_NROPE	<b>Q2</b>	1.68	13.07587	5.49	21.89	6.34	13.66	13.42733
_NROPE	<b>Q3</b>	1.9	13.17501	5.49	21.89	6.98	14.95	13.43851
_NROPE	<b>Q4</b>	2.28	13.17237	5.49	21.89	11.91	11.28	13.45478

_NROPE	<b>1999Q1</b>	2.28	13.31962	5.33	86.97	13.55	14.66	13.56323
_NROPE	<b>Q2</b>	2.13	13.36128	5.33	94.88	8.28	17.89	13.59142
_NROPE	<b>Q3</b>	2.25	13.39333	5.33	94.88	2.24	23.88	13.59413
_NROPE	<b>Q4</b>	2.25	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_NROPE	<b>2000Q1</b>	2.25	13.58676	5.29	100.93	-1.43	29.89	13.96831
_NROPE	<b>Q2</b>	2.25	13.71475	5.29	101.83	5.87	31.83	13.95028
_NROPE	<b>Q3</b>	2.25	13.77754	5.29	102.36	15.51	33.88	13.93296
_NROPE	<b>Q4</b>	2.25	13.85095	5.29	106.71	14.53	28.46	13.95365
_NROPE	<b>2001Q1</b>	1.5	14.0577	5.49	110.66	18.20	27.24	13.96758
_NROPE	<b>Q2</b>	0.87	14.04913	5.49	112.48	16.06	26.60	13.98321
_NROPE	<b>Q3</b>	0.93	14.0989	5.49	111.60	19.12	25.88	13.98187
_NROPE	<b>Q4</b>	1	14.16852	5.49	112.99	16.49	19.33	13.99556
_NROPE	<b>2002Q1</b>	0.74	14.22234	4.15	116.04	17.42	24.42	14.30135
_NROPE	<b>Q2</b>	0.6	14.4063	4.15	118.49	12.25	25.52	14.36687
_NROPE	<b>Q3</b>	0.56	14.2852	4.15	126.45	9.96	29.67	14.39904
_NROPE	<b>Q4</b>	0.54	14.46728	4.15	126.88	12.14	29.42	14.38019
_NROPE	<b>2003Q1</b>	0.68	14.56896	4.11	127.16	5.80	33.55	14.52822
_NROPE	<b>Q2</b>	0.68	14.49915	4.11	127.83	13.98	30.72	14.57055
_NROPE	<b>Q3</b>	0.68	14.50123	4.11	128.58	18.37	28.29	14.59097
_NROPE	<b>Q4</b>	0.54	14.56136	4.11	137.22	23.84	32.15	14.58016
_NROPE	<b>2004Q1</b>	0.68	14.56375	4.19	134.43	22.47	36.76	14.78297
_NROPE	<b>Q2</b>	0.68	14.58508	4.19	132.75	14.07	38.02	14.76805
_NROPE	<b>Q3</b>	0.68	14.64126	4.19	132.84	9.17	45.95	14.90929
_NROPE	<b>Q4</b>	0.54	14.75866	4.19	132.86	10.01	43.33	14.97929
_NROPE	<b>2005Q1</b>	0.68	14.80553	3.83	132.85	16.28	54.31	14.96912
_NROPE	<b>Q2</b>	0.68	14.83542	3.83	132.87	18.58	56.26	15.0391
_NROPE	<b>Q3</b>	0.68	14.85042	3.83	130.81	24.31	65.57	15.18282
_NROPE	<b>Q4</b>	0.68	14.84242	3.83	130.29	11.57	59.43	15.22124
_NROPE	<b>2006Q1</b>	0.68	15.01175	3.13	128.70	12.07	62.90	15.19837
_NROPE	<b>Q2</b>	0.68	15.17951	3.13	128.45	8.50	70.96	15.30303
_NROPE	<b>Q3</b>	0.68	15.27892	3.13	128.29	6.24	63.87	15.42224
_NROPE	<b>Q4</b>	0.54	15.20876	3.13	128.29	8.57	62.03	15.45756
_NROPE	<b>2007Q1</b>	0.68	15.38378	3.55	128.15	5.22	60.56	15.37172
_NROPE	<b>Q2</b>	0.68	15.44832	3.55	127.41	6.41	67.48	15.39528
_NROPE	<b>Q3</b>	0.68	15.58581	3.55	125.88	4.10	79.93	15.52468
_NROPE	<b>Q4</b>	0.68	15.57506	3.55	118.21	6.56	91.73	15.5272
_NROPE	<b>2008Q1</b>	0.68	15.89473	3.43	117.92	7.79	105.56	15.50585
_NROPE	<b>Q2</b>	0.68	15.88848	3.43	117.73	12.05	133.93	15.55675
_NROPE	<b>Q3</b>	0.68	16.01054	3.43	112.47	13.04	103.90	15.66242
_NROPE	<b>Q4</b>	0.68	16.03331	3.43	126.48	15.10	41.02	15.66809
_NROPE	<b>2009Q1</b>	0.68	16.01249	3.11	126.48	15.1	47.98	15.44102
_NROPE	<b>Q2</b>	0.68	16.02126	3.11	126.48	15.1	69.68	15.47927
_NROPE	<b>Q3</b>	0.68	16.06242	3.11	126.48	15.1	69.46	15.59592
_NROPE	<b>Q4</b>	0.54	16.19203	3.11	126.48	15.1	74.30	15.60012

_NWIRE	<b>1985Q1</b>	0.6	10.04524	9.50	1.03	20.00	28.24	9.658034
_NWIRE	<b>Q2</b>	0.6	10.08231	9.50	1.06	3.77	27.14	9.747728
_NWIRE	<b>Q3</b>	0.64	10.15195	9.50	1.10	-4.98	28.23	9.746658
_NWIRE	<b>Q4</b>	0.64	10.17647	9.50	1.01	1.03	27.23	9.800862
_NWIRE	<b>1986Q1</b>	0.65	10.18833	9.50	1.11	-3.45	12.62	9.672463
_NWIRE	<b>Q2</b>	0.63	7.867489	9.50	1.12	2.95	13.47	9.767674
_NWIRE	<b>Q3</b>	0.5	10.29246	9.50	4.64	12.89	14.91	9.764903
_NWIRE	<b>Q4</b>	0.44	10.21793	9.50	3.18	13.67	16.08	9.819758
_NWIRE	<b>1987Q1</b>	0.44	10.18574	14.00	3.92	14.50	18.31	10.12646
_NWIRE	<b>Q2</b>	0.44	10.22061	14.00	4.05	8.97	20.03	10.18309
_NWIRE	<b>Q3</b>	0.5	10.27855	14.00	4.21	6.42	19.53	10.18175
_NWIRE	<b>Q4</b>	0.5	10.42429	14.00	4.17	9.69	17.24	10.21678
_NWIRE	<b>1988Q1</b>	0.5	10.51156	14.00	4.32	43.09	16.22	10.38074
_NWIRE	<b>Q2</b>	0.5	10.57748	14.00	4.19	62.72	16.53	10.46199
_NWIRE	<b>Q3</b>	0.5	10.60232	14.00	4.72	65.72	14.47	10.47246
_NWIRE	<b>Q4</b>	0.5	10.7243	14.00	5.35	61.21	16.27	10.50676
_NWIRE	<b>1989Q1</b>	0.5	10.80769	16.40	7.59	56.73	19.45	10.88285
_NWIRE	<b>Q2</b>	0.55	10.78155	16.40	7.35	60.36	20.01	10.90298
_NWIRE	<b>Q3</b>	0.55	10.69684	16.40	7.34	44.97	19.59	10.89292
_NWIRE	<b>Q4</b>	0.7	10.75907	16.40	7.62	44.67	21.09	10.92252
_NWIRE	<b>1990Q1</b>	0.71	10.82487	18.00	7.94	14.20	20.42	11.09634
_NWIRE	<b>Q2</b>	0.8	10.79856	18.00	7.94	0.40	16.87	11.114
_NWIRE	<b>Q3</b>	0.77	10.94928	18.00	7.97	2.79	33.69	11.10135
_NWIRE	<b>Q4</b>	0.77	11.13725	18.00	8.71	3.61	27.34	11.13102
_NWIRE	<b>1991Q1</b>	0.72	11.17084	14.29	9.45	6.93	19.86	11.24438
_NWIRE	<b>Q2</b>	0.72	11.2915	14.29	10.17	12.66	20.20	11.26758
_NWIRE	<b>Q3</b>	0.82	11.30472	14.29	10.24	15.92	21.86	11.25569
_NWIRE	<b>Q4</b>	0.89	11.37925	14.29	9.87	22.96	19.52	11.29138
_NWIRE	<b>1992Q1</b>	0.95	11.53943	16.10	17.61	32.51	18.92	11.80505
_NWIRE	<b>Q2</b>	1	11.65174	16.10	18.46	48.47	22.38	11.80006
_NWIRE	<b>Q3</b>	1.72	11.70874	16.10	19.35	54.88	21.90	11.78074
_NWIRE	<b>Q4</b>	2.2	11.76823	16.10	19.66	48.80	19.41	11.81092
_NWIRE	<b>1993Q1</b>	2.68	11.89527	16.66	24.88	55.85	20.35	12.02422
_NWIRE	<b>Q2</b>	2.83	11.97949	16.66	21.89	56.34	19.07	12.05078
_NWIRE	<b>Q3</b>	2.97	12.07892	16.66	21.89	58.35	17.51	12.04731
_NWIRE	<b>Q4</b>	3.01	12.19844	16.66	21.89	61.26	14.51	12.07398
_NWIRE	<b>1994Q1</b>	2.83	12.24626	13.50	21.89	50.71	14.66	12.26337
_NWIRE	<b>Q2</b>	2.85	12.33826	13.50	21.89	41.57	19.07	12.32513
_NWIRE	<b>Q3</b>	2.63	12.39999	13.50	21.89	60.18	17.46	12.33586
_NWIRE	<b>Q4</b>	2.64	12.4948	13.50	21.89	76.76	17.16	12.36762
_NWIRE	<b>1995Q1</b>	2.64	12.44715	12.61	21.89	81.30	18.55	13.07136
_NWIRE	<b>Q2</b>	2.64	12.57994	12.61	21.89	89.57	18.42	13.08772
_NWIRE	<b>Q3</b>	2.64	12.6179	12.61	21.89	69.88	18.23	13.08387
_NWIRE	<b>Q4</b>	2.54	12.6722	12.61	21.89	51.59	19.04	13.0898

_NWIRE	<b>1996Q1</b>	2.26	12.70295	11.69	21.89	41.90	21.36	13.41596
_NWIRE	<b>Q2</b>	2.54	12.77708	11.69	21.89	28.84	20.45	13.42268
_NWIRE	<b>Q3</b>	2.54	12.77113	11.69	21.89	23.66	23.99	13.41604
_NWIRE	<b>Q4</b>	2.54	12.82216	11.69	21.89	14.31	25.39	13.43901
_NWIRE	<b>1997Q1</b>	2.54	12.88658	4.80	21.89	13.75	20.99	13.43914
_NWIRE	<b>Q2</b>	3.05	12.92529	4.80	21.89	11.65	19.17	13.4596
_NWIRE	<b>Q3</b>	3.05	12.96096	4.80	21.89	6.53	19.79	13.45873
_NWIRE	<b>Q4</b>	3	12.97092	4.80	21.89	10.21	18.32	13.48027
_NWIRE	<b>1998Q1</b>	3.05	13.05632	5.49	21.89	6.96	15.02	13.38158
_NWIRE	<b>Q2</b>	3.05	13.07587	5.49	21.89	6.34	13.66	13.42733
_NWIRE	<b>Q3</b>	3.05	13.17501	5.49	21.89	6.98	14.95	13.43851
_NWIRE	<b>Q4</b>	2.85	13.17237	5.49	21.89	11.91	11.28	13.45478
_NWIRE	<b>1999Q1</b>	2.65	13.31962	5.33	86.97	13.55	14.66	13.56323
_NWIRE	<b>Q2</b>	2.65	13.36128	5.33	94.88	8.28	17.89	13.59142
_NWIRE	<b>Q3</b>	2.55	13.39333	5.33	94.88	2.24	23.88	13.59413
_NWIRE	<b>Q4</b>	2.55	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_NWIRE	<b>2000Q1</b>	2.55	13.58676	5.29	100.93	-1.43	29.89	13.96831
_NWIRE	<b>Q2</b>	2.55	13.71475	5.29	101.83	5.87	31.83	13.95028
_NWIRE	<b>Q3</b>	2.55	13.77754	5.29	102.36	15.51	33.88	13.93296
_NWIRE	<b>Q4</b>	2.55	13.85095	5.29	106.71	14.53	28.46	13.95365
_NWIRE	<b>2001Q1</b>	2.55	14.0577	5.49	110.66	18.20	27.24	13.96758
_NWIRE	<b>Q2</b>	2.55	14.04913	5.49	112.48	16.06	26.60	13.98321
_NWIRE	<b>Q3</b>	2.55	14.0989	5.49	111.60	19.12	25.88	13.98187
_NWIRE	<b>Q4</b>	2.55	14.16852	5.49	112.99	16.49	19.33	13.99556
_NWIRE	<b>2002Q1</b>	2.55	14.22234	4.15	116.04	17.42	24.42	14.30135
_NWIRE	<b>Q2</b>	2.35	14.4063	4.15	118.49	12.25	25.52	14.36687
_NWIRE	<b>Q3</b>	2.35	14.2852	4.15	126.45	9.96	29.67	14.39904
_NWIRE	<b>Q4</b>	2.35	14.46728	4.15	126.88	12.14	29.42	14.38019
_NWIRE	<b>2003Q1</b>	2.24	14.56896	4.11	127.16	5.80	33.55	14.52822
_NWIRE	<b>Q2</b>	2.24	14.49915	4.11	127.83	13.98	30.72	14.57055
_NWIRE	<b>Q3</b>	2.24	14.50123	4.11	128.58	18.37	28.29	14.59097
_NWIRE	<b>Q4</b>	2.24	14.56136	4.11	137.22	23.84	32.15	14.58016
_NWIRE	<b>2004Q1</b>	2.24	14.56375	4.19	134.43	22.47	36.76	14.78297
_NWIRE	<b>Q2</b>	2.24	14.58508	4.19	132.75	14.07	38.02	14.76805
_NWIRE	<b>Q3</b>	2.24	14.64126	4.19	132.84	9.17	45.95	14.90929
_NWIRE	<b>Q4</b>	2.24	14.75866	4.19	132.86	10.01	43.33	14.97929
_NWIRE	<b>2005Q1</b>	2.24	14.80553	3.83	132.85	16.28	54.31	14.96912
_NWIRE	<b>Q2</b>	2.24	14.83542	3.83	132.87	18.58	56.26	15.0391
_NWIRE	<b>Q3</b>	2.24	14.85042	3.83	130.81	24.31	65.57	15.18282
_NWIRE	<b>Q4</b>	2.24	14.84242	3.83	130.29	11.57	59.43	15.22124
_NWIRE	<b>2006Q1</b>	2.24	15.01175	3.13	128.70	12.07	62.90	15.19837
_NWIRE	<b>Q2</b>	2.24	15.17951	3.13	128.45	8.50	70.96	15.30303
_NWIRE	<b>Q3</b>	2.24	15.27892	3.13	128.29	6.24	63.87	15.42224
_NWIRE	<b>Q4</b>	2.24	15.20876	3.13	128.29	8.57	62.03	15.45756

_NWIRE	<b>2007Q1</b>	2.24	15.38378	3.55	128.15	5.22	60.56	15.37172
_NWIRE	<b>Q2</b>	2.24	15.44832	3.55	127.41	6.41	67.48	15.39528
_NWIRE	<b>Q3</b>	2.24	15.58581	3.55	125.88	4.10	79.93	15.52468
_NWIRE	<b>Q4</b>	2.24	15.57506	3.55	118.21	6.56	91.73	15.5272
_NWIRE	<b>2008Q1</b>	2.26	15.89473	3.43	117.92	7.79	105.56	15.50585
_NWIRE	<b>Q2</b>	2.26	15.88848	3.43	117.73	12.05	133.93	15.55675
_NWIRE	<b>Q3</b>	2.26	16.01054	3.43	112.47	13.04	103.90	15.66242
_NWIRE	<b>Q4</b>	2.26	16.03331	3.43	126.48	15.10	41.02	15.66809
_NWIRE	<b>2009Q1</b>	2.58	16.01249	3.11	126.48	15.1	47.98	15.44102
_NWIRE	<b>Q2</b>	2.58	16.02126	3.11	126.48	15.1	69.68	15.47927
_NWIRE	<b>Q3</b>	2.58	16.06242	3.11	126.48	15.1	69.46	15.59592
_NWIRE	<b>Q4</b>	2.58	16.19203	3.11	126.48	15.1	74.30	15.60012
_BPAINT	<b>1985Q1</b>	0.95	10.04524	9.50	1.03	20.00	28.24	9.658034
_BPAINT	<b>Q2</b>	0.85	10.08231	9.50	1.06	3.77	27.14	9.747728
_BPAINT	<b>Q3</b>	0.85	10.15195	9.50	1.10	-4.98	28.23	9.746658
_BPAINT	<b>Q4</b>	0.95	10.17647	9.50	1.01	1.03	27.23	9.800862
_BPAINT	<b>1986Q1</b>	1.07	10.18833	9.50	1.11	-3.45	12.62	9.672463
_BPAINT	<b>Q2</b>	0.65	7.867489	9.50	1.12	2.95	13.47	9.767674
_BPAINT	<b>Q3</b>	0.69	10.29246	9.50	4.64	12.89	14.91	9.764903
_BPAINT	<b>Q4</b>	0.73	10.21793	9.50	3.18	13.67	16.08	9.819758
_BPAINT	<b>1987Q1</b>	0.66	10.18574	14.00	3.92	14.50	18.31	10.12646
_BPAINT	<b>Q2</b>	0.54	10.22061	14.00	4.05	8.97	20.03	10.18309
_BPAINT	<b>Q3</b>	0.58	10.27855	14.00	4.21	6.42	19.53	10.18175
_BPAINT	<b>Q4</b>	0.71	10.42429	14.00	4.17	9.69	17.24	10.21678
_BPAINT	<b>1988Q1</b>	0.73	10.51156	14.00	4.32	43.09	16.22	10.38074
_BPAINT	<b>Q2</b>	1.07	10.57748	14.00	4.19	62.72	16.53	10.46199
_BPAINT	<b>Q3</b>	0.9	10.60232	14.00	4.72	65.72	14.47	10.47246
_BPAINT	<b>Q4</b>	1.09	10.7243	14.00	5.35	61.21	16.27	10.50676
_BPAINT	<b>1989Q1</b>	1.11	10.80769	16.40	7.59	56.73	19.45	10.88285
_BPAINT	<b>Q2</b>	0.66	10.78155	16.40	7.35	60.36	20.01	10.90298
_BPAINT	<b>Q3</b>	1.05	10.69684	16.40	7.34	44.97	19.59	10.89292
_BPAINT	<b>Q4</b>	1.45	10.75907	16.40	7.62	44.67	21.09	10.92252
_BPAINT	<b>1990Q1</b>	1.59	10.82487	18.00	7.94	14.20	20.42	11.09634
_BPAINT	<b>Q2</b>	1.59	10.79856	18.00	7.94	0.40	16.87	11.114
_BPAINT	<b>Q3</b>	1.59	10.94928	18.00	7.97	2.79	33.69	11.10135
_BPAINT	<b>Q4</b>	1.59	11.13725	18.00	8.71	3.61	27.34	11.13102
_BPAINT	<b>1991Q1</b>	1.45	11.17084	14.29	9.45	6.93	19.86	11.24438
_BPAINT	<b>Q2</b>	1.42	11.2915	14.29	10.17	12.66	20.20	11.26758
_BPAINT	<b>Q3</b>	1.56	11.30472	14.29	10.24	15.92	21.86	11.25569
_BPAINT	<b>Q4</b>	1.65	11.37925	14.29	9.87	22.96	19.52	11.29138
_BPAINT	<b>1992Q1</b>	1.64	11.53943	16.10	17.61	32.51	18.92	11.80505
_BPAINT	<b>Q2</b>	1.44	11.65174	16.10	18.46	48.47	22.38	11.80006
_BPAINT	<b>Q3</b>	1.38	11.70874	16.10	19.35	54.88	21.90	11.78074
_BPAINT	<b>Q4</b>	1.38	11.76823	16.10	19.66	48.80	19.41	11.81092



_BPAINT	<b>1993Q1</b>	1.38	11.89527	16.66	24.88	55.85	20.35	12.02422
_BPAINT	<b>Q2</b>	1.18	11.97949	16.66	21.89	56.34	19.07	12.05078
_BPAINT	<b>Q3</b>	1.3	12.07892	16.66	21.89	58.35	17.51	12.04731
_BPAINT	<b>Q4</b>	1.3	12.19844	16.66	21.89	61.26	14.51	12.07398
_BPAINT	<b>1994Q1</b>	1.25	12.24626	13.50	21.89	50.71	14.66	12.26337
_BPAINT	<b>Q2</b>	1.82	12.33826	13.50	21.89	41.57	19.07	12.32513
_BPAINT	<b>Q3</b>	1.97	12.39999	13.50	21.89	60.18	17.46	12.33586
_BPAINT	<b>Q4</b>	2.66	12.4948	13.50	21.89	76.76	17.16	12.36762
_BPAINT	<b>1995Q1</b>	3.82	12.44715	12.61	21.89	81.30	18.55	13.07136
_BPAINT	<b>Q2</b>	5.8	12.57994	12.61	21.89	89.57	18.42	13.08772
_BPAINT	<b>Q3</b>	7.68	12.6179	12.61	21.89	69.88	18.23	13.08387
_BPAINT	<b>Q4</b>	7.6	12.6722	12.61	21.89	51.59	19.04	13.0898
_BPAINT	<b>1996Q1</b>	6.58	12.70295	11.69	21.89	41.90	21.36	13.41596
_BPAINT	<b>Q2</b>	6	12.77708	11.69	21.89	28.84	20.45	13.42268
_BPAINT	<b>Q3</b>	5.68	12.77113	11.69	21.89	23.66	23.99	13.41604
_BPAINT	<b>Q4</b>	4.8	12.82216	11.69	21.89	14.31	25.39	13.43901
_BPAINT	<b>1997Q1</b>	4.3	12.88658	4.80	21.89	13.75	20.99	13.43914
_BPAINT	<b>Q2</b>	4	12.92529	4.80	21.89	11.65	19.17	13.4596
_BPAINT	<b>Q3</b>	3.55	12.96096	4.80	21.89	6.53	19.79	13.45873
_BPAINT	<b>Q4</b>	3.6	12.97092	4.80	21.89	10.21	18.32	13.48027
_BPAINT	<b>1998Q1</b>	3.08	13.05632	5.49	21.89	6.96	15.02	13.38158
_BPAINT	<b>Q2</b>	3	13.07587	5.49	21.89	6.34	13.66	13.42733
_BPAINT	<b>Q3</b>	3.63	13.17501	5.49	21.89	6.98	14.95	13.43851
_BPAINT	<b>Q4</b>	3.8	13.17237	5.49	21.89	11.91	11.28	13.45478
_BPAINT	<b>1999Q1</b>	4.2	13.31962	5.33	86.97	13.55	14.66	13.56323
_BPAINT	<b>Q2</b>	4.29	13.36128	5.33	94.88	8.28	17.89	13.59142
_BPAINT	<b>Q3</b>	4.3	13.39333	5.33	94.88	2.24	23.88	13.59413
_BPAINT	<b>Q4</b>	4.3	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_BPAINT	<b>2000Q1</b>	3.71	13.58676	5.29	100.93	-1.43	29.89	13.96831
_BPAINT	<b>Q2</b>	3.1	13.71475	5.29	101.83	5.87	31.83	13.95028
_BPAINT	<b>Q3</b>	3.06	13.77754	5.29	102.36	15.51	33.88	13.93296
_BPAINT	<b>Q4</b>	2.92	13.85095	5.29	106.71	14.53	28.46	13.95365
_BPAINT	<b>2001Q1</b>	2.91	14.0577	5.49	110.66	18.20	27.24	13.96758
_BPAINT	<b>Q2</b>	2.65	14.04913	5.49	112.48	16.06	26.60	13.98321
_BPAINT	<b>Q3</b>	2.51	14.0989	5.49	111.60	19.12	25.88	13.98187
_BPAINT	<b>Q4</b>	2.6	14.16852	5.49	112.99	16.49	19.33	13.99556
_BPAINT	<b>2002Q1</b>	2.8	14.22234	4.15	116.04	17.42	24.42	14.30135
_BPAINT	<b>Q2</b>	2.24	14.4063	4.15	118.49	12.25	25.52	14.36687
_BPAINT	<b>Q3</b>	2.34	14.2852	4.15	126.45	9.96	29.67	14.39904
_BPAINT	<b>Q4</b>	2.4	14.46728	4.15	126.88	12.14	29.42	14.38019
_BPAINT	<b>2003Q1</b>	3.1	14.56896	4.11	127.16	5.80	33.55	14.52822
_BPAINT	<b>Q2</b>	2.41	14.49915	4.11	127.83	13.98	30.72	14.57055
_BPAINT	<b>Q3</b>	2.6	14.50123	4.11	128.58	18.37	28.29	14.59097
_BPAINT	<b>Q4</b>	2.94	14.56136	4.11	137.22	23.84	32.15	14.58016

_BPAINT	<b>2004Q1</b>	4.78	14.56375	4.19	134.43	22.47	36.76	14.78297
_BPAINT	<b>Q2</b>	3.9	14.58508	4.19	132.75	14.07	38.02	14.76805
_BPAINT	<b>Q3</b>	4.6	14.64126	4.19	132.84	9.17	45.95	14.90929
_BPAINT	<b>Q4</b>	4.4	14.75866	4.19	132.86	10.01	43.33	14.97929
_BPAINT	<b>2005Q1</b>	4.6	14.80553	3.83	132.85	16.28	54.31	14.96912
_BPAINT	<b>Q2</b>	3.28	14.83542	3.83	132.87	18.58	56.26	15.0391
_BPAINT	<b>Q3</b>	4.31	14.85042	3.83	130.81	24.31	65.57	15.18282
_BPAINT	<b>Q4</b>	3.84	14.84242	3.83	130.29	11.57	59.43	15.22124
_BPAINT	<b>2006Q1</b>	3.5	15.01175	3.13	128.70	12.07	62.90	15.19837
_BPAINT	<b>Q2</b>	3.1	15.17951	3.13	128.45	8.50	70.96	15.30303
_BPAINT	<b>Q3</b>	3.81	15.27892	3.13	128.29	6.24	63.87	15.42224
_BPAINT	<b>Q4</b>	3.85	15.20876	3.13	128.29	8.57	62.03	15.45756
_BPAINT	<b>2007Q1</b>	7.1	15.38378	3.55	128.15	5.22	60.56	15.37172
_BPAINT	<b>Q2</b>	7.45	15.44832	3.55	127.41	6.41	67.48	15.39528
_BPAINT	<b>Q3</b>	6.26	15.58581	3.55	125.88	4.10	79.93	15.52468
_BPAINT	<b>Q4</b>	9.5	15.57506	3.55	118.21	6.56	91.73	15.5272
_BPAINT	<b>2008Q1</b>	19.42	15.89473	3.43	117.92	7.79	105.56	15.50585
_BPAINT	<b>Q2</b>	13.98	15.88848	3.43	117.73	12.05	133.93	15.55675
_BPAINT	<b>Q3</b>	12.3	16.01054	3.43	112.47	13.04	103.90	15.66242
_BPAINT	<b>Q4</b>	8.12	16.03331	3.43	126.48	15.10	41.02	15.66809
_BPAINT	<b>2009Q1</b>	6.31	16.01249	3.11	126.48	15.1	47.98	15.44102
_BPAINT	<b>Q2</b>	5.26	16.02126	3.11	126.48	15.1	69.68	15.47927
_BPAINT	<b>Q3</b>	3.12	16.06242	3.11	126.48	15.1	69.46	15.59592
_BPAINT	<b>Q4</b>	3.36	16.19203	3.11	126.48	15.1	74.30	15.60012
_AGLEV	<b>1985Q1</b>	0.47	10.04524	9.50	1.03	20.00	28.24	9.658034
_AGLEV	<b>Q2</b>	0.49	10.08231	9.50	1.06	3.77	27.14	9.747728
_AGLEV	<b>Q3</b>	0.46	10.15195	9.50	1.10	-4.98	28.23	9.746658
_AGLEV	<b>Q4</b>	0.54	10.17647	9.50	1.01	1.03	27.23	9.800862
_AGLEV	<b>1986Q1</b>	0.54	10.18833	9.50	1.11	-3.45	12.62	9.672463
_AGLEV	<b>Q2</b>	0.57	7.867489	9.50	1.12	2.95	13.47	9.767674
_AGLEV	<b>Q3</b>	0.54	10.29246	9.50	4.64	12.89	14.91	9.764903
_AGLEV	<b>Q4</b>	0.56	10.21793	9.50	3.18	13.67	16.08	9.819758
_AGLEV	<b>1987Q1</b>	0.55	10.18574	14.00	3.92	14.50	18.31	10.12646
_AGLEV	<b>Q2</b>	0.6	10.22061	14.00	4.05	8.97	20.03	10.18309
_AGLEV	<b>Q3</b>	0.57	10.27855	14.00	4.21	6.42	19.53	10.18175
_AGLEV	<b>Q4</b>	0.56	10.42429	14.00	4.17	9.69	17.24	10.21678
_AGLEV	<b>1988Q1</b>	0.56	10.51156	14.00	4.32	43.09	16.22	10.38074
_AGLEV	<b>Q2</b>	0.57	10.57748	14.00	4.19	62.72	16.53	10.46199
_AGLEV	<b>Q3</b>	0.57	10.60232	14.00	4.72	65.72	14.47	10.47246
_AGLEV	<b>Q4</b>	0.64	10.7243	14.00	5.35	61.21	16.27	10.50676
_AGLEV	<b>1989Q1</b>	0.68	10.80769	16.40	7.59	56.73	19.45	10.88285
_AGLEV	<b>Q2</b>	0.75	10.78155	16.40	7.35	60.36	20.01	10.90298
_AGLEV	<b>Q3</b>	0.75	10.69684	16.40	7.34	44.97	19.59	10.89292
_AGLEV	<b>Q4</b>	0.84	10.75907	16.40	7.62	44.67	21.09	10.92252

_AGLEV	<b>1990Q1</b>	0.92	10.82487	18.00	7.94	14.20	20.42	11.09634
_AGLEV	<b>Q2</b>	0.91	10.79856	18.00	7.94	0.40	16.87	11.114
_AGLEV	<b>Q3</b>	0.83	10.94928	18.00	7.97	2.79	33.69	11.10135
_AGLEV	<b>Q4</b>	0.83	11.13725	18.00	8.71	3.61	27.34	11.13102
_AGLEV	<b>1991Q1</b>	0.83	11.17084	14.29	9.45	6.93	19.86	11.24438
_AGLEV	<b>Q2</b>	0.83	11.2915	14.29	10.17	12.66	20.20	11.26758
_AGLEV	<b>Q3</b>	0.72	11.30472	14.29	10.24	15.92	21.86	11.25569
_AGLEV	<b>Q4</b>	0.7	11.37925	14.29	9.87	22.96	19.52	11.29138
_AGLEV	<b>1992Q1</b>	0.62	11.53943	16.10	17.61	32.51	18.92	11.80505
_AGLEV	<b>Q2</b>	0.6	11.65174	16.10	18.46	48.47	22.38	11.80006
_AGLEV	<b>Q3</b>	0.7	11.70874	16.10	19.35	54.88	21.90	11.78074
_AGLEV	<b>Q4</b>	0.65	11.76823	16.10	19.66	48.80	19.41	11.81092
_AGLEV	<b>1993Q1</b>	1.34	11.89527	16.66	24.88	55.85	20.35	12.02422
_AGLEV	<b>Q2</b>	1.68	11.97949	16.66	21.89	56.34	19.07	12.05078
_AGLEV	<b>Q3</b>	1.51	12.07892	16.66	21.89	58.35	17.51	12.04731
_AGLEV	<b>Q4</b>	1.5	12.19844	16.66	21.89	61.26	14.51	12.07398
_AGLEV	<b>1994Q1</b>	1.5	12.24626	13.50	21.89	50.71	14.66	12.26337
_AGLEV	<b>Q2</b>	1.5	12.33826	13.50	21.89	41.57	19.07	12.32513
_AGLEV	<b>Q3</b>	1.5	12.39999	13.50	21.89	60.18	17.46	12.33586
_AGLEV	<b>Q4</b>	1.3	12.4948	13.50	21.89	76.76	17.16	12.36762
_AGLEV	<b>1995Q1</b>	1.3	12.44715	12.61	21.89	81.30	18.55	13.07136
_AGLEV	<b>Q2</b>	2.43	12.57994	12.61	21.89	89.57	18.42	13.08772
_AGLEV	<b>Q3</b>	3.52	12.6179	12.61	21.89	69.88	18.23	13.08387
_AGLEV	<b>Q4</b>	2.93	12.6722	12.61	21.89	51.59	19.04	13.0898
_AGLEV	<b>1996Q1</b>	1.83	12.70295	11.69	21.89	41.90	21.36	13.41596
_AGLEV	<b>Q2</b>	1.25	12.77708	11.69	21.89	28.84	20.45	13.42268
_AGLEV	<b>Q3</b>	1.45	12.77113	11.69	21.89	23.66	23.99	13.41604
_AGLEV	<b>Q4</b>	1.57	12.82216	11.69	21.89	14.31	25.39	13.43901
_AGLEV	<b>1997Q1</b>	2.52	12.88658	4.80	21.89	13.75	20.99	13.43914
_AGLEV	<b>Q2</b>	2.38	12.92529	4.80	21.89	11.65	19.17	13.4596
_AGLEV	<b>Q3</b>	2.09	12.96096	4.80	21.89	6.53	19.79	13.45873
_AGLEV	<b>Q4</b>	2	12.97092	4.80	21.89	10.21	18.32	13.48027
_AGLEV	<b>1998Q1</b>	1.82	13.05632	5.49	21.89	6.96	15.02	13.38158
_AGLEV	<b>Q2</b>	1.82	13.07587	5.49	21.89	6.34	13.66	13.42733
_AGLEV	<b>Q3</b>	1.48	13.17501	5.49	21.89	6.98	14.95	13.43851
_AGLEV	<b>Q4</b>	1.38	13.17237	5.49	21.89	11.91	11.28	13.45478
_AGLEV	<b>1999Q1</b>	1.25	13.31962	5.33	86.97	13.55	14.66	13.56323
_AGLEV	<b>Q2</b>	1.25	13.36128	5.33	94.88	8.28	17.89	13.59142
_AGLEV	<b>Q3</b>	1.25	13.39333	5.33	94.88	2.24	23.88	13.59413
_AGLEV	<b>Q4</b>	1.25	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_AGLEV	<b>2000Q1</b>	1.25	13.58676	5.29	100.93	-1.43	29.89	13.96831
_AGLEV	<b>Q2</b>	1.28	13.71475	5.29	101.83	5.87	31.83	13.95028
_AGLEV	<b>Q3</b>	1.28	13.77754	5.29	102.36	15.51	33.88	13.93296
_AGLEV	<b>Q4</b>	1.18	13.85095	5.29	106.71	14.53	28.46	13.95365

_AGLEV	<b>2001Q1</b>	1.18	14.0577	5.49	110.66	18.20	27.24	13.96758
_AGLEV	<b>Q2</b>	1.18	14.04913	5.49	112.48	16.06	26.60	13.98321
_AGLEV	<b>Q3</b>	1.1	14.0989	5.49	111.60	19.12	25.88	13.98187
_AGLEV	<b>Q4</b>	0.91	14.16852	5.49	112.99	16.49	19.33	13.99556
_AGLEV	<b>2002Q1</b>	0.9	14.22234	4.15	116.04	17.42	24.42	14.30135
_AGLEV	<b>Q2</b>	0.66	14.4063	4.15	118.49	12.25	25.52	14.36687
_AGLEV	<b>Q3</b>	0.52	14.2852	4.15	126.45	9.96	29.67	14.39904
_AGLEV	<b>Q4</b>	0.62	14.46728	4.15	126.88	12.14	29.42	14.38019
_AGLEV	<b>2003Q1</b>	0.98	14.56896	4.11	127.16	5.80	33.55	14.52822
_AGLEV	<b>Q2</b>	0.6	14.49915	4.11	127.83	13.98	30.72	14.57055
_AGLEV	<b>Q3</b>	0.65	14.50123	4.11	128.58	18.37	28.29	14.59097
_AGLEV	<b>Q4</b>	0.65	14.56136	4.11	137.22	23.84	32.15	14.58016
_AGLEV	<b>2004Q1</b>	1.51	14.56375	4.19	134.43	22.47	36.76	14.78297
_AGLEV	<b>Q2</b>	1.35	14.58508	4.19	132.75	14.07	38.02	14.76805
_AGLEV	<b>Q3</b>	0.91	14.64126	4.19	132.84	9.17	45.95	14.90929
_AGLEV	<b>Q4</b>	1.1	14.75866	4.19	132.86	10.01	43.33	14.97929
_AGLEV	<b>2005Q1</b>	0.91	14.80553	3.83	132.85	16.28	54.31	14.96912
_AGLEV	<b>Q2</b>	0.78	14.83542	3.83	132.87	18.58	56.26	15.0391
_AGLEV	<b>Q3</b>	1.02	14.85042	3.83	130.81	24.31	65.57	15.18282
_AGLEV	<b>Q4</b>	1.16	14.84242	3.83	130.29	11.57	59.43	15.22124
_AGLEV	<b>2006Q1</b>	1.24	15.01175	3.13	128.70	12.07	62.90	15.19837
_AGLEV	<b>Q2</b>	1.17	15.17951	3.13	128.45	8.50	70.96	15.30303
_AGLEV	<b>Q3</b>	1.45	15.27892	3.13	128.29	6.24	63.87	15.42224
_AGLEV	<b>Q4</b>	1.77	15.20876	3.13	128.29	8.57	62.03	15.45756
_AGLEV	<b>2007Q1</b>	4.15	15.38378	3.55	128.15	5.22	60.56	15.37172
_AGLEV	<b>Q2</b>	3.89	15.44832	3.55	127.41	6.41	67.48	15.39528
_AGLEV	<b>Q3</b>	3.3	15.58581	3.55	125.88	4.10	79.93	15.52468
_AGLEV	<b>Q4</b>	5.1	15.57506	3.55	118.21	6.56	91.73	15.5272
_AGLEV	<b>2008Q1</b>	14.43	15.89473	3.43	117.92	7.79	105.56	15.50585
_AGLEV	<b>Q2</b>	10.4	15.88848	3.43	117.73	12.05	133.93	15.55675
_AGLEV	<b>Q3</b>	9.03	16.01054	3.43	112.47	13.04	103.90	15.66242
_AGLEV	<b>Q4</b>	7.51	16.03331	3.43	126.48	15.10	41.02	15.66809
_AGLEV	<b>2009Q1</b>	6.79	16.01249	3.11	126.48	15.1	47.98	15.44102
_AGLEV	<b>Q2</b>	3.32	16.02126	3.11	126.48	15.1	69.68	15.47927
_AGLEV	<b>Q3</b>	2.45	16.06242	3.11	126.48	15.1	69.46	15.59592
_AGLEV	<b>Q4</b>	2.47	16.19203	3.11	126.48	15.1	74.30	15.60012
_CHRAMS	<b>1985Q1</b>	0.52	10.04524	9.50	1.03	20.00	28.24	9.658034
_CHRAMS	<b>Q2</b>	0.52	10.08231	9.50	1.06	3.77	27.14	9.747728
_CHRAMS	<b>Q3</b>	0.52	10.15195	9.50	1.10	-4.98	28.23	9.746658
_CHRAMS	<b>Q4</b>	0.5	10.17647	9.50	1.01	1.03	27.23	9.800862
_CHRAMS	<b>1986Q1</b>	0.52	10.18833	9.50	1.11	-3.45	12.62	9.672463
_CHRAMS	<b>Q2</b>	0.55	7.867489	9.50	1.12	2.95	13.47	9.767674
_CHRAMS	<b>Q3</b>	0.56	10.29246	9.50	4.64	12.89	14.91	9.764903
_CHRAMS	<b>Q4</b>	0.51	10.21793	9.50	3.18	13.67	16.08	9.819758

_CHRAMS	<b>1987Q1</b>	0.5	10.18574	14.00	3.92	14.50	18.31	10.12646
_CHRAMS	<b>Q2</b>	0.6	10.22061	14.00	4.05	8.97	20.03	10.18309
_CHRAMS	<b>Q3</b>	0.61	10.27855	14.00	4.21	6.42	19.53	10.18175
_CHRAMS	<b>Q4</b>	0.67	10.42429	14.00	4.17	9.69	17.24	10.21678
_CHRAMS	<b>1988Q1</b>	0.71	10.51156	14.00	4.32	43.09	16.22	10.38074
_CHRAMS	<b>Q2</b>	0.73	10.57748	14.00	4.19	62.72	16.53	10.46199
_CHRAMS	<b>Q3</b>	0.73	10.60232	14.00	4.72	65.72	14.47	10.47246
_CHRAMS	<b>Q4</b>	0.75	10.7243	14.00	5.35	61.21	16.27	10.50676
_CHRAMS	<b>1989Q1</b>	0.75	10.80769	16.40	7.59	56.73	19.45	10.88285
_CHRAMS	<b>Q2</b>	0.75	10.78155	16.40	7.35	60.36	20.01	10.90298
_CHRAMS	<b>Q3</b>	0.75	10.69684	16.40	7.34	44.97	19.59	10.89292
_CHRAMS	<b>Q4</b>	0.56	10.75907	16.40	7.62	44.67	21.09	10.92252
_CHRAMS	<b>1990Q1</b>	0.71	10.82487	18.00	7.94	14.20	20.42	11.09634
_CHRAMS	<b>Q2</b>	0.51	10.79856	18.00	7.94	0.40	16.87	11.114
_CHRAMS	<b>Q3</b>	0.71	10.94928	18.00	7.97	2.79	33.69	11.10135
_CHRAMS	<b>Q4</b>	0.68	11.13725	18.00	8.71	3.61	27.34	11.13102
_CHRAMS	<b>1991Q1</b>	0.68	11.17084	14.29	9.45	6.93	19.86	11.24438
_CHRAMS	<b>Q2</b>	0.68	11.2915	14.29	10.17	12.66	20.20	11.26758
_CHRAMS	<b>Q3</b>	0.76	11.30472	14.29	10.24	15.92	21.86	11.25569
_CHRAMS	<b>Q4</b>	0.81	11.37925	14.29	9.87	22.96	19.52	11.29138
_CHRAMS	<b>1992Q1</b>	0.86	11.53943	16.10	17.61	32.51	18.92	11.80505
_CHRAMS	<b>Q2</b>	0.86	11.65174	16.10	18.46	48.47	22.38	11.80006
_CHRAMS	<b>Q3</b>	0.86	11.70874	16.10	19.35	54.88	21.90	11.78074
_CHRAMS	<b>Q4</b>	0.91	11.76823	16.10	19.66	48.80	19.41	11.81092
_CHRAMS	<b>1993Q1</b>	0.77	11.89527	16.66	24.88	55.85	20.35	12.02422
_CHRAMS	<b>Q2</b>	0.75	11.97949	16.66	21.89	56.34	19.07	12.05078
_CHRAMS	<b>Q3</b>	0.7	12.07892	16.66	21.89	58.35	17.51	12.04731
_CHRAMS	<b>Q4</b>	0.67	12.19844	16.66	21.89	61.26	14.51	12.07398
_CHRAMS	<b>1994Q1</b>	0.5	12.24626	13.50	21.89	50.71	14.66	12.26337
_CHRAMS	<b>Q2</b>	0.5	12.33826	13.50	21.89	41.57	19.07	12.32513
_CHRAMS	<b>Q3</b>	0.5	12.39999	13.50	21.89	60.18	17.46	12.33586
_CHRAMS	<b>Q4</b>	0.48	12.4948	13.50	21.89	76.76	17.16	12.36762
_CHRAMS	<b>1995Q1</b>	0.42	12.44715	12.61	21.89	81.30	18.55	13.07136
_CHRAMS	<b>Q2</b>	0.45	12.57994	12.61	21.89	89.57	18.42	13.08772
_CHRAMS	<b>Q3</b>	0.4	12.6179	12.61	21.89	69.88	18.23	13.08387
_CHRAMS	<b>Q4</b>	0.4	12.6722	12.61	21.89	51.59	19.04	13.0898
_CHRAMS	<b>1996Q1</b>	0.5	12.70295	11.69	21.89	41.90	21.36	13.41596
_CHRAMS	<b>Q2</b>	0.5	12.77708	11.69	21.89	28.84	20.45	13.42268
_CHRAMS	<b>Q3</b>	0.5	12.77113	11.69	21.89	23.66	23.99	13.41604
_CHRAMS	<b>Q4</b>	0.5	12.82216	11.69	21.89	14.31	25.39	13.43901
_CHRAMS	<b>1997Q1</b>	0.5	12.88658	4.80	21.89	13.75	20.99	13.43914
_CHRAMS	<b>Q2</b>	0.5	12.92529	4.80	21.89	11.65	19.17	13.4596
_CHRAMS	<b>Q3</b>	0.5	12.96096	4.80	21.89	6.53	19.79	13.45873
_CHRAMS	<b>Q4</b>	0.5	12.97092	4.80	21.89	10.21	18.32	13.48027

_CHRAMS	<b>1998Q1</b>	0.5	13.05632	5.49	21.89	6.96	15.02	13.38158
_CHRAMS	<b>Q2</b>	0.5	13.07587	5.49	21.89	6.34	13.66	13.42733
_CHRAMS	<b>Q3</b>	0.5	13.17501	5.49	21.89	6.98	14.95	13.43851
_CHRAMS	<b>Q4</b>	0.5	13.17237	5.49	21.89	11.91	11.28	13.45478
_CHRAMS	<b>1999Q1</b>	0.5	13.31962	5.33	86.97	13.55	14.66	13.56323
_CHRAMS	<b>Q2</b>	0.5	13.36128	5.33	94.88	8.28	17.89	13.59142
_CHRAMS	<b>Q3</b>	0.5	13.39333	5.33	94.88	2.24	23.88	13.59413
_CHRAMS	<b>Q4</b>	0.52	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_CHRAMS	<b>2000Q1</b>	0.6	13.58676	5.29	100.93	-1.43	29.89	13.96831
_CHRAMS	<b>Q2</b>	0.66	13.71475	5.29	101.83	5.87	31.83	13.95028
_CHRAMS	<b>Q3</b>	0.71	13.77754	5.29	102.36	15.51	33.88	13.93296
_CHRAMS	<b>Q4</b>	0.68	13.85095	5.29	106.71	14.53	28.46	13.95365
_CHRAMS	<b>2001Q1</b>	0.81	14.0577	5.49	110.66	18.20	27.24	13.96758
_CHRAMS	<b>Q2</b>	0.99	14.04913	5.49	112.48	16.06	26.60	13.98321
_CHRAMS	<b>Q3</b>	1.25	14.0989	5.49	111.60	19.12	25.88	13.98187
_CHRAMS	<b>Q4</b>	1.95	14.16852	5.49	112.99	16.49	19.33	13.99556
_CHRAMS	<b>2002Q1</b>	2.19	14.22234	4.15	116.04	17.42	24.42	14.30135
_CHRAMS	<b>Q2</b>	2.2	14.4063	4.15	118.49	12.25	25.52	14.36687
_CHRAMS	<b>Q3</b>	2.19	14.2852	4.15	126.45	9.96	29.67	14.39904
_CHRAMS	<b>Q4</b>	1.95	14.46728	4.15	126.88	12.14	29.42	14.38019
_CHRAMS	<b>2003Q1</b>	1.6	14.56896	4.11	127.16	5.80	33.55	14.52822
_CHRAMS	<b>Q2</b>	1.76	14.49915	4.11	127.83	13.98	30.72	14.57055
_CHRAMS	<b>Q3</b>	1.84	14.50123	4.11	128.58	18.37	28.29	14.59097
_CHRAMS	<b>Q4</b>	1.93	14.56136	4.11	137.22	23.84	32.15	14.58016
_CHRAMS	<b>2004Q1</b>	2.2	14.56375	4.19	134.43	22.47	36.76	14.78297
_CHRAMS	<b>Q2</b>	2.09	14.58508	4.19	132.75	14.07	38.02	14.76805
_CHRAMS	<b>Q3</b>	1.9	14.64126	4.19	132.84	9.17	45.95	14.90929
_CHRAMS	<b>Q4</b>	1.8	14.75866	4.19	132.86	10.01	43.33	14.97929
_CHRAMS	<b>2005Q1</b>	1.71	14.80553	3.83	132.85	16.28	54.31	14.96912
_CHRAMS	<b>Q2</b>	1.81	14.83542	3.83	132.87	18.58	56.26	15.0391
_CHRAMS	<b>Q3</b>	1.82	14.85042	3.83	130.81	24.31	65.57	15.18282
_CHRAMS	<b>Q4</b>	0.83	14.84242	3.83	130.29	11.57	59.43	15.22124
_CHRAMS	<b>2006Q1</b>	0.87	15.01175	3.13	128.70	12.07	62.90	15.19837
_CHRAMS	<b>Q2</b>	0.83	15.17951	3.13	128.45	8.50	70.96	15.30303
_CHRAMS	<b>Q3</b>	1.32	15.27892	3.13	128.29	6.24	63.87	15.42224
_CHRAMS	<b>Q4</b>	1.59	15.20876	3.13	128.29	8.57	62.03	15.45756
_CHRAMS	<b>2007Q1</b>	1.96	15.38378	3.55	128.15	5.22	60.56	15.37172
_CHRAMS	<b>Q2</b>	2.25	15.44832	3.55	127.41	6.41	67.48	15.39528
_CHRAMS	<b>Q3</b>	4.35	15.58581	3.55	125.88	4.10	79.93	15.52468
_CHRAMS	<b>Q4</b>	17.08	15.57506	3.55	118.21	6.56	91.73	15.5272
_CHRAMS	<b>2008Q1</b>	29.82	15.89473	3.43	117.92	7.79	105.56	15.50585
_CHRAMS	<b>Q2</b>	22.8	15.88848	3.43	117.73	12.05	133.93	15.55675
_CHRAMS	<b>Q3</b>	23.53	16.01054	3.43	112.47	13.04	103.90	15.66242
_CHRAMS	<b>Q4</b>	21.36	16.03331	3.43	126.48	15.10	41.02	15.66809

_CHRAMS	<b>2009Q1</b>	19.19	16.01249	3.11	126.48	15.1	47.98	15.44102
_CHRAMS	<b>Q2</b>	16.47	16.02126	3.11	126.48	15.1	69.68	15.47927
_CHRAMS	<b>Q3</b>	14.13	16.06242	3.11	126.48	15.1	69.46	15.59592
_CHRAMS	<b>Q4</b>	13.78	16.19203	3.11	126.48	15.1	74.30	15.60012
_SCOA	<b>1985Q1</b>	0.57	10.04524	9.50	1.03	20.00	28.24	9.658034
_SCOA	<b>Q2</b>	0.66	10.08231	9.50	1.06	3.77	27.14	9.747728
_SCOA	<b>Q3</b>	0.75	10.15195	9.50	1.10	-4.98	28.23	9.746658
_SCOA	<b>Q4</b>	0.93	10.17647	9.50	1.01	1.03	27.23	9.800862
_SCOA	<b>1986Q1</b>	1.23	10.18833	9.50	1.11	-3.45	12.62	9.672463
_SCOA	<b>Q2</b>	1.17	7.867489	9.50	1.12	2.95	13.47	9.767674
_SCOA	<b>Q3</b>	1.19	10.29246	9.50	4.64	12.89	14.91	9.764903
_SCOA	<b>Q4</b>	1.19	10.21793	9.50	3.18	13.67	16.08	9.819758
_SCOA	<b>1987Q1</b>	1.1	10.18574	14.00	3.92	14.50	18.31	10.12646
_SCOA	<b>Q2</b>	1.1	10.22061	14.00	4.05	8.97	20.03	10.18309
_SCOA	<b>Q3</b>	1.1	10.27855	14.00	4.21	6.42	19.53	10.18175
_SCOA	<b>Q4</b>	1.09	10.42429	14.00	4.17	9.69	17.24	10.21678
_SCOA	<b>1988Q1</b>	1.08	10.51156	14.00	4.32	43.09	16.22	10.38074
_SCOA	<b>Q2</b>	0.85	10.57748	14.00	4.19	62.72	16.53	10.46199
_SCOA	<b>Q3</b>	0.83	10.60232	14.00	4.72	65.72	14.47	10.47246
_SCOA	<b>Q4</b>	0.86	10.7243	14.00	5.35	61.21	16.27	10.50676
_SCOA	<b>1989Q1</b>	0.87	10.80769	16.40	7.59	56.73	19.45	10.88285
_SCOA	<b>Q2</b>	0.85	10.78155	16.40	7.35	60.36	20.01	10.90298
_SCOA	<b>Q3</b>	0.6	10.69684	16.40	7.34	44.97	19.59	10.89292
_SCOA	<b>Q4</b>	0.6	10.75907	16.40	7.62	44.67	21.09	10.92252
_SCOA	<b>1990Q1</b>	0.6	10.82487	18.00	7.94	14.20	20.42	11.09634
_SCOA	<b>Q2</b>	1.05	10.79856	18.00	7.94	0.40	16.87	11.114
_SCOA	<b>Q3</b>	0.96	10.94928	18.00	7.97	2.79	33.69	11.10135
_SCOA	<b>Q4</b>	0.55	11.13725	18.00	8.71	3.61	27.34	11.13102
_SCOA	<b>1991Q1</b>	0.57	11.17084	14.29	9.45	6.93	19.86	11.24438
_SCOA	<b>Q2</b>	0.61	11.2915	14.29	10.17	12.66	20.20	11.26758
_SCOA	<b>Q3</b>	0.6	11.30472	14.29	10.24	15.92	21.86	11.25569
_SCOA	<b>Q4</b>	0.6	11.37925	14.29	9.87	22.96	19.52	11.29138
_SCOA	<b>1992Q1</b>	0.53	11.53943	16.10	17.61	32.51	18.92	11.80505
_SCOA	<b>Q2</b>	0.5	11.65174	16.10	18.46	48.47	22.38	11.80006
_SCOA	<b>Q3</b>	0.53	11.70874	16.10	19.35	54.88	21.90	11.78074
_SCOA	<b>Q4</b>	0.55	11.76823	16.10	19.66	48.80	19.41	11.81092
_SCOA	<b>1993Q1</b>	0.5	11.89527	16.66	24.88	55.85	20.35	12.02422
_SCOA	<b>Q2</b>	0.5	11.97949	16.66	21.89	56.34	19.07	12.05078
_SCOA	<b>Q3</b>	0.52	12.07892	16.66	21.89	58.35	17.51	12.04731
_SCOA	<b>Q4</b>	1.25	12.19844	16.66	21.89	61.26	14.51	12.07398
_SCOA	<b>1994Q1</b>	1.4	12.24626	13.50	21.89	50.71	14.66	12.26337
_SCOA	<b>Q2</b>	1.1	12.33826	13.50	21.89	41.57	19.07	12.32513
_SCOA	<b>Q3</b>	1.08	12.39999	13.50	21.89	60.18	17.46	12.33586
_SCOA	<b>Q4</b>	1.08	12.4948	13.50	21.89	76.76	17.16	12.36762

_SCOA	<b>1995Q1</b>	0.92	12.44715	12.61	21.89	81.30	18.55	13.07136
_SCOA	<b>Q2</b>	0.86	12.57994	12.61	21.89	89.57	18.42	13.08772
_SCOA	<b>Q3</b>	1.55	12.6179	12.61	21.89	69.88	18.23	13.08387
_SCOA	<b>Q4</b>	1.87	12.6722	12.61	21.89	51.59	19.04	13.0898
_SCOA	<b>1996Q1</b>	2.02	12.70295	11.69	21.89	41.90	21.36	13.41596
_SCOA	<b>Q2</b>	2.1	12.77708	11.69	21.89	28.84	20.45	13.42268
_SCOA	<b>Q3</b>	2.33	12.77113	11.69	21.89	23.66	23.99	13.41604
_SCOA	<b>Q4</b>	2.33	12.82216	11.69	21.89	14.31	25.39	13.43901
_SCOA	<b>1997Q1</b>	2.05	12.88658	4.80	21.89	13.75	20.99	13.43914
_SCOA	<b>Q2</b>	1.86	12.92529	4.80	21.89	11.65	19.17	13.4596
_SCOA	<b>Q3</b>	1.69	12.96096	4.80	21.89	6.53	19.79	13.45873
_SCOA	<b>Q4</b>	1.63	12.97092	4.80	21.89	10.21	18.32	13.48027
_SCOA	<b>1998Q1</b>	1.48	13.05632	5.49	21.89	6.96	15.02	13.38158
_SCOA	<b>Q2</b>	1.31	13.07587	5.49	21.89	6.34	13.66	13.42733
_SCOA	<b>Q3</b>	1.31	13.17501	5.49	21.89	6.98	14.95	13.43851
_SCOA	<b>Q4</b>	1.2	13.17237	5.49	21.89	11.91	11.28	13.45478
_SCOA	<b>1999Q1</b>	1.2	13.31962	5.33	86.97	13.55	14.66	13.56323
_SCOA	<b>Q2</b>	0.77	13.36128	5.33	94.88	8.28	17.89	13.59142
_SCOA	<b>Q3</b>	0.7	13.39333	5.33	94.88	2.24	23.88	13.59413
_SCOA	<b>Q4</b>	0.8	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_SCOA	<b>2000Q1</b>	0.8	13.58676	5.29	100.93	-1.43	29.89	13.96831
_SCOA	<b>Q2</b>	0.92	13.71475	5.29	101.83	5.87	31.83	13.95028
_SCOA	<b>Q3</b>	1.34	13.77754	5.29	102.36	15.51	33.88	13.93296
_SCOA	<b>Q4</b>	2.41	13.85095	5.29	106.71	14.53	28.46	13.95365
_SCOA	<b>2001Q1</b>	2.06	14.0577	5.49	110.66	18.20	27.24	13.96758
_SCOA	<b>Q2</b>	1.91	14.04913	5.49	112.48	16.06	26.60	13.98321
_SCOA	<b>Q3</b>	2.84	14.0989	5.49	111.60	19.12	25.88	13.98187
_SCOA	<b>Q4</b>	2.65	14.16852	5.49	112.99	16.49	19.33	13.99556
_SCOA	<b>2002Q1</b>	2.59	14.22234	4.15	116.04	17.42	24.42	14.30135
_SCOA	<b>Q2</b>	2.52	14.4063	4.15	118.49	12.25	25.52	14.36687
_SCOA	<b>Q3</b>	2.6	14.2852	4.15	126.45	9.96	29.67	14.39904
_SCOA	<b>Q4</b>	2.65	14.46728	4.15	126.88	12.14	29.42	14.38019
_SCOA	<b>2003Q1</b>	2.14	14.56896	4.11	127.16	5.80	33.55	14.52822
_SCOA	<b>Q2</b>	2.04	14.49915	4.11	127.83	13.98	30.72	14.57055
_SCOA	<b>Q3</b>	3.1	14.50123	4.11	128.58	18.37	28.29	14.59097
_SCOA	<b>Q4</b>	3.1	14.56136	4.11	137.22	23.84	32.15	14.58016
_SCOA	<b>2004Q1</b>	3.09	14.56375	4.19	134.43	22.47	36.76	14.78297
_SCOA	<b>Q2</b>	2.3	14.58508	4.19	132.75	14.07	38.02	14.76805
_SCOA	<b>Q3</b>	1.29	14.64126	4.19	132.84	9.17	45.95	14.90929
_SCOA	<b>Q4</b>	1	14.75866	4.19	132.86	10.01	43.33	14.97929
_SCOA	<b>2005Q1</b>	0.91	14.80553	3.83	132.85	16.28	54.31	14.96912
_SCOA	<b>Q2</b>	0.76	14.83542	3.83	132.87	18.58	56.26	15.0391
_SCOA	<b>Q3</b>	0.7	14.85042	3.83	130.81	24.31	65.57	15.18282
_SCOA	<b>Q4</b>	1.02	14.84242	3.83	130.29	11.57	59.43	15.22124



_SCOA	<b>2006Q1</b>	0.68	15.01175	3.13	128.70	12.07	62.90	15.19837
_SCOA	<b>Q2</b>	0.43	15.17951	3.13	128.45	8.50	70.96	15.30303
_SCOA	<b>Q3</b>	0.44	15.27892	3.13	128.29	6.24	63.87	15.42224
_SCOA	<b>Q4</b>	0.99	15.20876	3.13	128.29	8.57	62.03	15.45756
_SCOA	<b>2007Q1</b>	1.85	15.38378	3.55	128.15	5.22	60.56	15.37172
_SCOA	<b>Q2</b>	3.26	15.44832	3.55	127.41	6.41	67.48	15.39528
_SCOA	<b>Q3</b>	2.6	15.58581	3.55	125.88	4.10	79.93	15.52468
_SCOA	<b>Q4</b>	4.63	15.57506	3.55	118.21	6.56	91.73	15.5272
_SCOA	<b>2008Q1</b>	18.9	15.89473	3.43	117.92	7.79	105.56	15.50585
_SCOA	<b>Q2</b>	12.51	15.88848	3.43	117.73	12.05	133.93	15.55675
_SCOA	<b>Q3</b>	13.39	16.01054	3.43	112.47	13.04	103.90	15.66242
_SCOA	<b>Q4</b>	12.1	16.03331	3.43	126.48	15.10	41.02	15.66809
_SCOA	<b>2009Q1</b>	11.5	16.01249	3.11	126.48	15.1	47.98	15.44102
_SCOA	<b>Q2</b>	10.26	16.02126	3.11	126.48	15.1	69.68	15.47927
_SCOA	<b>Q3</b>	8.81	16.06242	3.11	126.48	15.1	69.46	15.59592
_SCOA	<b>Q4</b>	8.37	16.19203	3.11	126.48	15.1	74.30	15.60012
_JBERGER	<b>1985Q1</b>	0.54	10.04524	9.50	1.03	20.00	28.24	9.658034
_JBERGER	<b>Q2</b>	0.51	10.08231	9.50	1.06	3.77	27.14	9.747728
_JBERGER	<b>Q3</b>	0.51	10.15195	9.50	1.10	-4.98	28.23	9.746658
_JBERGER	<b>Q4</b>	0.54	10.17647	9.50	1.01	1.03	27.23	9.800862
_JBERGER	<b>1986Q1</b>	0.54	10.18833	9.50	1.11	-3.45	12.62	9.672463
_JBERGER	<b>Q2</b>	0.54	7.867489	9.50	1.12	2.95	13.47	9.767674
_JBERGER	<b>Q3</b>	0.52	10.29246	9.50	4.64	12.89	14.91	9.764903
_JBERGER	<b>Q4</b>	0.52	10.21793	9.50	3.18	13.67	16.08	9.819758
_JBERGER	<b>1987Q1</b>	0.52	10.18574	14.00	3.92	14.50	18.31	10.12646
_JBERGER	<b>Q2</b>	0.53	10.22061	14.00	4.05	8.97	20.03	10.18309
_JBERGER	<b>Q3</b>	0.54	10.27855	14.00	4.21	6.42	19.53	10.18175
_JBERGER	<b>Q4</b>	0.55	10.42429	14.00	4.17	9.69	17.24	10.21678
_JBERGER	<b>1988Q1</b>	0.56	10.51156	14.00	4.32	43.09	16.22	10.38074
_JBERGER	<b>Q2</b>	0.6	10.57748	14.00	4.19	62.72	16.53	10.46199
_JBERGER	<b>Q3</b>	0.57	10.60232	14.00	4.72	65.72	14.47	10.47246
_JBERGER	<b>Q4</b>	0.66	10.7243	14.00	5.35	61.21	16.27	10.50676
_JBERGER	<b>1989Q1</b>	0.67	10.80769	16.40	7.59	56.73	19.45	10.88285
_JBERGER	<b>Q2</b>	0.7	10.78155	16.40	7.35	60.36	20.01	10.90298
_JBERGER	<b>Q3</b>	0.72	10.69684	16.40	7.34	44.97	19.59	10.89292
_JBERGER	<b>Q4</b>	1.15	10.75907	16.40	7.62	44.67	21.09	10.92252
_JBERGER	<b>1990Q1</b>	1.16	10.82487	18.00	7.94	14.20	20.42	11.09634
_JBERGER	<b>Q2</b>	1.2	10.79856	18.00	7.94	0.40	16.87	11.114
_JBERGER	<b>Q3</b>	1.68	10.94928	18.00	7.97	2.79	33.69	11.10135
_JBERGER	<b>Q4</b>	1.18	11.13725	18.00	8.71	3.61	27.34	11.13102
_JBERGER	<b>1991Q1</b>	1.52	11.17084	14.29	9.45	6.93	19.86	11.24438
_JBERGER	<b>Q2</b>	2.1	11.2915	14.29	10.17	12.66	20.20	11.26758
_JBERGER	<b>Q3</b>	1.92	11.30472	14.29	10.24	15.92	21.86	11.25569
_JBERGER	<b>Q4</b>	1.92	11.37925	14.29	9.87	22.96	19.52	11.29138

_JBERGER	<b>1992Q1</b>	2.28	11.53943	16.10	17.61	32.51	18.92	11.80505
_JBERGER	<b>Q2</b>	2.78	11.65174	16.10	18.46	48.47	22.38	11.80006
_JBERGER	<b>Q3</b>	4.6	11.70874	16.10	19.35	54.88	21.90	11.78074
_JBERGER	<b>Q4</b>	5.95	11.76823	16.10	19.66	48.80	19.41	11.81092
_JBERGER	<b>1993Q1</b>	7.03	11.89527	16.66	24.88	55.85	20.35	12.02422
_JBERGER	<b>Q2</b>	7.65	11.97949	16.66	21.89	56.34	19.07	12.05078
_JBERGER	<b>Q3</b>	4.92	12.07892	16.66	21.89	58.35	17.51	12.04731
_JBERGER	<b>Q4</b>	5.57	12.19844	16.66	21.89	61.26	14.51	12.07398
_JBERGER	<b>1994Q1</b>	6	12.24626	13.50	21.89	50.71	14.66	12.26337
_JBERGER	<b>Q2</b>	6	12.33826	13.50	21.89	41.57	19.07	12.32513
_JBERGER	<b>Q3</b>	5.68	12.39999	13.50	21.89	60.18	17.46	12.33586
_JBERGER	<b>Q4</b>	5.76	12.4948	13.50	21.89	76.76	17.16	12.36762
_JBERGER	<b>1995Q1</b>	5.83	12.44715	12.61	21.89	81.30	18.55	13.07136
_JBERGER	<b>Q2</b>	7	12.57994	12.61	21.89	89.57	18.42	13.08772
_JBERGER	<b>Q3</b>	7.77	12.6179	12.61	21.89	69.88	18.23	13.08387
_JBERGER	<b>Q4</b>	7.82	12.6722	12.61	21.89	51.59	19.04	13.0898
_JBERGER	<b>1996Q1</b>	8.2	12.70295	11.69	21.89	41.90	21.36	13.41596
_JBERGER	<b>Q2</b>	9.26	12.77708	11.69	21.89	28.84	20.45	13.42268
_JBERGER	<b>Q3</b>	9.31	12.77113	11.69	21.89	23.66	23.99	13.41604
_JBERGER	<b>Q4</b>	7.32	12.82216	11.69	21.89	14.31	25.39	13.43901
_JBERGER	<b>1997Q1</b>	10	12.88658	4.80	21.89	13.75	20.99	13.43914
_JBERGER	<b>Q2</b>	10.1	12.92529	4.80	21.89	11.65	19.17	13.4596
_JBERGER	<b>Q3</b>	9.37	12.96096	4.80	21.89	6.53	19.79	13.45873
_JBERGER	<b>Q4</b>	9.37	12.97092	4.80	21.89	10.21	18.32	13.48027
_JBERGER	<b>1998Q1</b>	9.37	13.05632	5.49	21.89	6.96	15.02	13.38158
_JBERGER	<b>Q2</b>	9.37	13.07587	5.49	21.89	6.34	13.66	13.42733
_JBERGER	<b>Q3</b>	9.03	13.17501	5.49	21.89	6.98	14.95	13.43851
_JBERGER	<b>Q4</b>	9.03	13.17237	5.49	21.89	11.91	11.28	13.45478
_JBERGER	<b>1999Q1</b>	9.7	13.31962	5.33	86.97	13.55	14.66	13.56323
_JBERGER	<b>Q2</b>	10.5	13.36128	5.33	94.88	8.28	17.89	13.59142
_JBERGER	<b>Q3</b>	10.38	13.39333	5.33	94.88	2.24	23.88	13.59413
_JBERGER	<b>Q4</b>	12.39	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_JBERGER	<b>2000Q1</b>	20.3	13.58676	5.29	100.93	-1.43	29.89	13.96831
_JBERGER	<b>Q2</b>	23.7	13.71475	5.29	101.83	5.87	31.83	13.95028
_JBERGER	<b>Q3</b>	28.2	13.77754	5.29	102.36	15.51	33.88	13.93296
_JBERGER	<b>Q4</b>	29	13.85095	5.29	106.71	14.53	28.46	13.95365
_JBERGER	<b>2001Q1</b>	50.66	14.0577	5.49	110.66	18.20	27.24	13.96758
_JBERGER	<b>Q2</b>	49.46	14.04913	5.49	112.48	16.06	26.60	13.98321
_JBERGER	<b>Q3</b>	47	14.0989	5.49	111.60	19.12	25.88	13.98187
_JBERGER	<b>Q4</b>	43	14.16852	5.49	112.99	16.49	19.33	13.99556
_JBERGER	<b>2002Q1</b>	37	14.22234	4.15	116.04	17.42	24.42	14.30135
_JBERGER	<b>Q2</b>	20.95	14.4063	4.15	118.49	12.25	25.52	14.36687
_JBERGER	<b>Q3</b>	20.5	14.2852	4.15	126.45	9.96	29.67	14.39904
_JBERGER	<b>Q4</b>	43.25	14.46728	4.15	126.88	12.14	29.42	14.38019

_JBERGER	<b>2003Q1</b>	23.5	14.56896	4.11	127.16	5.80	33.55	14.52822
_JBERGER	<b>Q2</b>	19.37	14.49915	4.11	127.83	13.98	30.72	14.57055
_JBERGER	<b>Q3</b>	21.75	14.50123	4.11	128.58	18.37	28.29	14.59097
_JBERGER	<b>Q4</b>	19.97	14.56136	4.11	137.22	23.84	32.15	14.58016
_JBERGER	<b>2004Q1</b>	23	14.56375	4.19	134.43	22.47	36.76	14.78297
_JBERGER	<b>Q2</b>	16.67	14.58508	4.19	132.75	14.07	38.02	14.76805
_JBERGER	<b>Q3</b>	15.51	14.64126	4.19	132.84	9.17	45.95	14.90929
_JBERGER	<b>Q4</b>	17.46	14.75866	4.19	132.86	10.01	43.33	14.97929
_JBERGER	<b>2005Q1</b>	14.44	14.80553	3.83	132.85	16.28	54.31	14.96912
_JBERGER	<b>Q2</b>	21.21	14.83542	3.83	132.87	18.58	56.26	15.0391
_JBERGER	<b>Q3</b>	16	14.85042	3.83	130.81	24.31	65.57	15.18282
_JBERGER	<b>Q4</b>	21.74	14.84242	3.83	130.29	11.57	59.43	15.22124
_JBERGER	<b>2006Q1</b>	19.99	15.01175	3.13	128.70	12.07	62.90	15.19837
_JBERGER	<b>Q2</b>	22	15.17951	3.13	128.45	8.50	70.96	15.30303
_JBERGER	<b>Q3</b>	44.5	15.27892	3.13	128.29	6.24	63.87	15.42224
_JBERGER	<b>Q4</b>	47	15.20876	3.13	128.29	8.57	62.03	15.45756
_JBERGER	<b>2007Q1</b>	54	15.38378	3.55	128.15	5.22	60.56	15.37172
_JBERGER	<b>Q2</b>	63	15.44832	3.55	127.41	6.41	67.48	15.39528
_JBERGER	<b>Q3</b>	56	15.58581	3.55	125.88	4.10	79.93	15.52468
_JBERGER	<b>Q4</b>	82	15.57506	3.55	118.21	6.56	91.73	15.5272
_JBERGER	<b>2008Q1</b>	122.74	15.89473	3.43	117.92	7.79	105.56	15.50585
_JBERGER	<b>Q2</b>	126.33	15.88848	3.43	117.73	12.05	133.93	15.55675
_JBERGER	<b>Q3</b>	72.06	16.01054	3.43	112.47	13.04	103.90	15.66242
_JBERGER	<b>Q4</b>	55.6	16.03331	3.43	126.48	15.10	41.02	15.66809
_JBERGER	<b>2009Q1</b>	24.16	16.01249	3.11	126.48	15.1	47.98	15.44102
_JBERGER	<b>Q2</b>	29.43	16.02126	3.11	126.48	15.1	69.68	15.47927
_JBERGER	<b>Q3</b>	26.7	16.06242	3.11	126.48	15.1	69.46	15.59592
_JBERGER	<b>Q4</b>	24.61	16.19203	3.11	126.48	15.1	74.30	15.60012
_COSTAIN	<b>1985Q1</b>	0.49	10.04524	9.50	1.03	20.00	28.24	9.658034
_COSTAIN	<b>Q2</b>	0.5	10.08231	9.50	1.06	3.77	27.14	9.747728
_COSTAIN	<b>Q3</b>	0.5	10.15195	9.50	1.10	-4.98	28.23	9.746658
_COSTAIN	<b>Q4</b>	0.42	10.17647	9.50	1.01	1.03	27.23	9.800862
_COSTAIN	<b>1986Q1</b>	0.34	10.18833	9.50	1.11	-3.45	12.62	9.672463
_COSTAIN	<b>Q2</b>	0.33	7.867489	9.50	1.12	2.95	13.47	9.767674
_COSTAIN	<b>Q3</b>	0.33	10.29246	9.50	4.64	12.89	14.91	9.764903
_COSTAIN	<b>Q4</b>	0.33	10.21793	9.50	3.18	13.67	16.08	9.819758
_COSTAIN	<b>1987Q1</b>	0.29	10.18574	14.00	3.92	14.50	18.31	10.12646
_COSTAIN	<b>Q2</b>	0.28	10.22061	14.00	4.05	8.97	20.03	10.18309
_COSTAIN	<b>Q3</b>	0.28	10.27855	14.00	4.21	6.42	19.53	10.18175
_COSTAIN	<b>Q4</b>	0.26	10.42429	14.00	4.17	9.69	17.24	10.21678
_COSTAIN	<b>1988Q1</b>	0.26	10.51156	14.00	4.32	43.09	16.22	10.38074
_COSTAIN	<b>Q2</b>	0.26	10.57748	14.00	4.19	62.72	16.53	10.46199
_COSTAIN	<b>Q3</b>	0.26	10.60232	14.00	4.72	65.72	14.47	10.47246
_COSTAIN	<b>Q4</b>	0.26	10.7243	14.00	5.35	61.21	16.27	10.50676

_COSTAIN	<b>1989Q1</b>	0.26	10.80769	16.40	7.59	56.73	19.45	10.88285
_COSTAIN	<b>Q2</b>	0.26	10.78155	16.40	7.35	60.36	20.01	10.90298
_COSTAIN	<b>Q3</b>	0.27	10.69684	16.40	7.34	44.97	19.59	10.89292
_COSTAIN	<b>Q4</b>	0.42	10.75907	16.40	7.62	44.67	21.09	10.92252
_COSTAIN	<b>1990Q1</b>	0.46	10.82487	18.00	7.94	14.20	20.42	11.09634
_COSTAIN	<b>Q2</b>	0.52	10.79856	18.00	7.94	0.40	16.87	11.114
_COSTAIN	<b>Q3</b>	0.56	10.94928	18.00	7.97	2.79	33.69	11.10135
_COSTAIN	<b>Q4</b>	0.6	11.13725	18.00	8.71	3.61	27.34	11.13102
_COSTAIN	<b>1991Q1</b>	0.8	11.17084	14.29	9.45	6.93	19.86	11.24438
_COSTAIN	<b>Q2</b>	0.85	11.2915	14.29	10.17	12.66	20.20	11.26758
_COSTAIN	<b>Q3</b>	0.85	11.30472	14.29	10.24	15.92	21.86	11.25569
_COSTAIN	<b>Q4</b>	0.85	11.37925	14.29	9.87	22.96	19.52	11.29138
_COSTAIN	<b>1992Q1</b>	1.38	11.53943	16.10	17.61	32.51	18.92	11.80505
_COSTAIN	<b>Q2</b>	1.31	11.65174	16.10	18.46	48.47	22.38	11.80006
_COSTAIN	<b>Q3</b>	1.03	11.70874	16.10	19.35	54.88	21.90	11.78074
_COSTAIN	<b>Q4</b>	1.05	11.76823	16.10	19.66	48.80	19.41	11.81092
_COSTAIN	<b>1993Q1</b>	0.96	11.89527	16.66	24.88	55.85	20.35	12.02422
_COSTAIN	<b>Q2</b>	1	11.97949	16.66	21.89	56.34	19.07	12.05078
_COSTAIN	<b>Q3</b>	0.92	12.07892	16.66	21.89	58.35	17.51	12.04731
_COSTAIN	<b>Q4</b>	0.77	12.19844	16.66	21.89	61.26	14.51	12.07398
_COSTAIN	<b>1994Q1</b>	0.95	12.24626	13.50	21.89	50.71	14.66	12.26337
_COSTAIN	<b>Q2</b>	0.95	12.33826	13.50	21.89	41.57	19.07	12.32513
_COSTAIN	<b>Q3</b>	0.76	12.39999	13.50	21.89	60.18	17.46	12.33586
_COSTAIN	<b>Q4</b>	1.05	12.4948	13.50	21.89	76.76	17.16	12.36762
_COSTAIN	<b>1995Q1</b>	1	12.44715	12.61	21.89	81.30	18.55	13.07136
_COSTAIN	<b>Q2</b>	1.12	12.57994	12.61	21.89	89.57	18.42	13.08772
_COSTAIN	<b>Q3</b>	1.6	12.6179	12.61	21.89	69.88	18.23	13.08387
_COSTAIN	<b>Q4</b>	1.6	12.6722	12.61	21.89	51.59	19.04	13.0898
_COSTAIN	<b>1996Q1</b>	1.6	12.70295	11.69	21.89	41.90	21.36	13.41596
_COSTAIN	<b>Q2</b>	1.35	12.77708	11.69	21.89	28.84	20.45	13.42268
_COSTAIN	<b>Q3</b>	1.52	12.77113	11.69	21.89	23.66	23.99	13.41604
_COSTAIN	<b>Q4</b>	1.95	12.82216	11.69	21.89	14.31	25.39	13.43901
_COSTAIN	<b>1997Q1</b>	3.25	12.88658	4.80	21.89	13.75	20.99	13.43914
_COSTAIN	<b>Q2</b>	2.87	12.92529	4.80	21.89	11.65	19.17	13.4596
_COSTAIN	<b>Q3</b>	2.6	12.96096	4.80	21.89	6.53	19.79	13.45873
_COSTAIN	<b>Q4</b>	2.6	12.97092	4.80	21.89	10.21	18.32	13.48027
_COSTAIN	<b>1998Q1</b>	2.45	13.05632	5.49	21.89	6.96	15.02	13.38158
_COSTAIN	<b>Q2</b>	2.45	13.07587	5.49	21.89	6.34	13.66	13.42733
_COSTAIN	<b>Q3</b>	2.45	13.17501	5.49	21.89	6.98	14.95	13.43851
_COSTAIN	<b>Q4</b>	2.25	13.17237	5.49	21.89	11.91	11.28	13.45478
_COSTAIN	<b>1999Q1</b>	2.25	13.31962	5.33	86.97	13.55	14.66	13.56323
_COSTAIN	<b>Q2</b>	1.18	13.36128	5.33	94.88	8.28	17.89	13.59142
_COSTAIN	<b>Q3</b>	0.9	13.39333	5.33	94.88	2.24	23.88	13.59413
_COSTAIN	<b>Q4</b>	0.5	#VALUE!	5.33	97.60	0.22	26.08	13.61258

_COSTAIN	<b>2000Q1</b>	0.68	13.58676	5.29	100.93	-1.43	29.89	13.96831
_COSTAIN	<b>Q2</b>	0.61	13.71475	5.29	101.83	5.87	31.83	13.95028
_COSTAIN	<b>Q3</b>	2.17	13.77754	5.29	102.36	15.51	33.88	13.93296
_COSTAIN	<b>Q4</b>	1.28	13.85095	5.29	106.71	14.53	28.46	13.95365
_COSTAIN	<b>2001Q1</b>	1	14.0577	5.49	110.66	18.20	27.24	13.96758
_COSTAIN	<b>Q2</b>	1.42	14.04913	5.49	112.48	16.06	26.60	13.98321
_COSTAIN	<b>Q3</b>	0.96	14.0989	5.49	111.60	19.12	25.88	13.98187
_COSTAIN	<b>Q4</b>	0.7	14.16852	5.49	112.99	16.49	19.33	13.99556
_COSTAIN	<b>2002Q1</b>	0.6	14.22234	4.15	116.04	17.42	24.42	14.30135
_COSTAIN	<b>Q2</b>	0.56	14.4063	4.15	118.49	12.25	25.52	14.36687
_COSTAIN	<b>Q3</b>	0.5	14.2852	4.15	126.45	9.96	29.67	14.39904
_COSTAIN	<b>Q4</b>	0.68	14.46728	4.15	126.88	12.14	29.42	14.38019
_COSTAIN	<b>2003Q1</b>	0.8	14.56896	4.11	127.16	5.80	33.55	14.52822
_COSTAIN	<b>Q2</b>	0.58	14.49915	4.11	127.83	13.98	30.72	14.57055
_COSTAIN	<b>Q3</b>	0.51	14.50123	4.11	128.58	18.37	28.29	14.59097
_COSTAIN	<b>Q4</b>	0.66	14.56136	4.11	137.22	23.84	32.15	14.58016
_COSTAIN	<b>2004Q1</b>	1.74	14.56375	4.19	134.43	22.47	36.76	14.78297
_COSTAIN	<b>Q2</b>	1.64	14.58508	4.19	132.75	14.07	38.02	14.76805
_COSTAIN	<b>Q3</b>	1.29	14.64126	4.19	132.84	9.17	45.95	14.90929
_COSTAIN	<b>Q4</b>	1.29	14.75866	4.19	132.86	10.01	43.33	14.97929
_COSTAIN	<b>2005Q1</b>	0.86	14.80553	3.83	132.85	16.28	54.31	14.96912
_COSTAIN	<b>Q2</b>	0.8	14.83542	3.83	132.87	18.58	56.26	15.0391
_COSTAIN	<b>Q3</b>	1.15	14.85042	3.83	130.81	24.31	65.57	15.18282
_COSTAIN	<b>Q4</b>	1.04	14.84242	3.83	130.29	11.57	59.43	15.22124
_COSTAIN	<b>2006Q1</b>	0.99	15.01175	3.13	128.70	12.07	62.90	15.19837
_COSTAIN	<b>Q2</b>	1.58	15.17951	3.13	128.45	8.50	70.96	15.30303
_COSTAIN	<b>Q3</b>	2.07	15.27892	3.13	128.29	6.24	63.87	15.42224
_COSTAIN	<b>Q4</b>	1.46	15.20876	3.13	128.29	8.57	62.03	15.45756
_COSTAIN	<b>2007Q1</b>	6.63	15.38378	3.55	128.15	5.22	60.56	15.37172
_COSTAIN	<b>Q2</b>	19	15.44832	3.55	127.41	6.41	67.48	15.39528
_COSTAIN	<b>Q3</b>	19	15.58581	3.55	125.88	4.10	79.93	15.52468
_COSTAIN	<b>Q4</b>	18.89	15.57506	3.55	118.21	6.56	91.73	15.5272
_COSTAIN	<b>2008Q1</b>	63.53	15.89473	3.43	117.92	7.79	105.56	15.50585
_COSTAIN	<b>Q2</b>	27.65	15.88848	3.43	117.73	12.05	133.93	15.55675
_COSTAIN	<b>Q3</b>	15.4	16.01054	3.43	112.47	13.04	103.90	15.66242
_COSTAIN	<b>Q4</b>	12.88	16.03331	3.43	126.48	15.10	41.02	15.66809
_COSTAIN	<b>2009Q1</b>	4.4	16.01249	3.11	126.48	15.1	47.98	15.44102
_COSTAIN	<b>Q2</b>	7.73	16.02126	3.11	126.48	15.1	69.68	15.47927
_COSTAIN	<b>Q3</b>	4.37	16.06242	3.11	126.48	15.1	69.46	15.59592
_COSTAIN	<b>Q4</b>	3.7	16.19203	3.11	126.48	15.1	74.30	15.60012
_ARBICO	<b>1985Q1</b>	0.5	10.04524	9.50	1.03	20.00	28.24	9.658034
_ARBICO	<b>Q2</b>	0.5	10.08231	9.50	1.06	3.77	27.14	9.747728
_ARBICO	<b>Q3</b>	0.48	10.15195	9.50	1.10	-4.98	28.23	9.746658
_ARBICO	<b>Q4</b>	0.25	10.17647	9.50	1.01	1.03	27.23	9.800862

_ARBICO	<b>1986Q1</b>	0.25	10.18833	9.50	1.11	-3.45	12.62	9.672463
_ARBICO	<b>Q2</b>	0.25	7.867489	9.50	1.12	2.95	13.47	9.767674
_ARBICO	<b>Q3</b>	0.25	10.29246	9.50	4.64	12.89	14.91	9.764903
_ARBICO	<b>Q4</b>	0.47	10.21793	9.50	3.18	13.67	16.08	9.819758
_ARBICO	<b>1987Q1</b>	0.46	10.18574	14.00	3.92	14.50	18.31	10.12646
_ARBICO	<b>Q2</b>	0.5	10.22061	14.00	4.05	8.97	20.03	10.18309
_ARBICO	<b>Q3</b>	0.51	10.27855	14.00	4.21	6.42	19.53	10.18175
_ARBICO	<b>Q4</b>	0.51	10.42429	14.00	4.17	9.69	17.24	10.21678
_ARBICO	<b>1988Q1</b>	0.51	10.51156	14.00	4.32	43.09	16.22	10.38074
_ARBICO	<b>Q2</b>	0.51	10.57748	14.00	4.19	62.72	16.53	10.46199
_ARBICO	<b>Q3</b>	0.51	10.60232	14.00	4.72	65.72	14.47	10.47246
_ARBICO	<b>Q4</b>	0.51	10.7243	14.00	5.35	61.21	16.27	10.50676
_ARBICO	<b>1989Q1</b>	0.51	10.80769	16.40	7.59	56.73	19.45	10.88285
_ARBICO	<b>Q2</b>	0.5	10.78155	16.40	7.35	60.36	20.01	10.90298
_ARBICO	<b>Q3</b>	0.5	10.69684	16.40	7.34	44.97	19.59	10.89292
_ARBICO	<b>Q4</b>	0.63	10.75907	16.40	7.62	44.67	21.09	10.92252
_ARBICO	<b>1990Q1</b>	0.63	10.82487	18.00	7.94	14.20	20.42	11.09634
_ARBICO	<b>Q2</b>	0.6	10.79856	18.00	7.94	0.40	16.87	11.114
_ARBICO	<b>Q3</b>	0.59	10.94928	18.00	7.97	2.79	33.69	11.10135
_ARBICO	<b>Q4</b>	0.5	11.13725	18.00	8.71	3.61	27.34	11.13102
_ARBICO	<b>1991Q1</b>	0.5	11.17084	14.29	9.45	6.93	19.86	11.24438
_ARBICO	<b>Q2</b>	0.6	11.2915	14.29	10.17	12.66	20.20	11.26758
_ARBICO	<b>Q3</b>	0.59	11.30472	14.29	10.24	15.92	21.86	11.25569
_ARBICO	<b>Q4</b>	0.65	11.37925	14.29	9.87	22.96	19.52	11.29138
_ARBICO	<b>1992Q1</b>	0.69	11.53943	16.10	17.61	32.51	18.92	11.80505
_ARBICO	<b>Q2</b>	0.76	11.65174	16.10	18.46	48.47	22.38	11.80006
_ARBICO	<b>Q3</b>	0.84	11.70874	16.10	19.35	54.88	21.90	11.78074
_ARBICO	<b>Q4</b>	1	11.76823	16.10	19.66	48.80	19.41	11.81092
_ARBICO	<b>1993Q1</b>	1	11.89527	16.66	24.88	55.85	20.35	12.02422
_ARBICO	<b>Q2</b>	1.18	11.97949	16.66	21.89	56.34	19.07	12.05078
_ARBICO	<b>Q3</b>	1.18	12.07892	16.66	21.89	58.35	17.51	12.04731
_ARBICO	<b>Q4</b>	1.1	12.19844	16.66	21.89	61.26	14.51	12.07398
_ARBICO	<b>1994Q1</b>	1.19	12.24626	13.50	21.89	50.71	14.66	12.26337
_ARBICO	<b>Q2</b>	1.26	12.33826	13.50	21.89	41.57	19.07	12.32513
_ARBICO	<b>Q3</b>	1.28	12.39999	13.50	21.89	60.18	17.46	12.33586
_ARBICO	<b>Q4</b>	1.43	12.4948	13.50	21.89	76.76	17.16	12.36762
_ARBICO	<b>1995Q1</b>	1.45	12.44715	12.61	21.89	81.30	18.55	13.07136
_ARBICO	<b>Q2</b>	1.55	12.57994	12.61	21.89	89.57	18.42	13.08772
_ARBICO	<b>Q3</b>	1.75	12.6179	12.61	21.89	69.88	18.23	13.08387
_ARBICO	<b>Q4</b>	2.35	12.6722	12.61	21.89	51.59	19.04	13.0898
_ARBICO	<b>1996Q1</b>	1.12	12.70295	11.69	21.89	41.90	21.36	13.41596
_ARBICO	<b>Q2</b>	1.17	12.77708	11.69	21.89	28.84	20.45	13.42268
_ARBICO	<b>Q3</b>	1.25	12.77113	11.69	21.89	23.66	23.99	13.41604
_ARBICO	<b>Q4</b>	1.36	12.82216	11.69	21.89	14.31	25.39	13.43901

_ARBICO	<b>1997Q1</b>	1.38	12.88658	4.80	21.89	13.75	20.99	13.43914
_ARBICO	<b>Q2</b>	1.4	12.92529	4.80	21.89	11.65	19.17	13.4596
_ARBICO	<b>Q3</b>	1.47	12.96096	4.80	21.89	6.53	19.79	13.45873
_ARBICO	<b>Q4</b>	1.51	12.97092	4.80	21.89	10.21	18.32	13.48027
_ARBICO	<b>1998Q1</b>	1.51	13.05632	5.49	21.89	6.96	15.02	13.38158
_ARBICO	<b>Q2</b>	1.51	13.07587	5.49	21.89	6.34	13.66	13.42733
_ARBICO	<b>Q3</b>	0.94	13.17501	5.49	21.89	6.98	14.95	13.43851
_ARBICO	<b>Q4</b>	0.94	13.17237	5.49	21.89	11.91	11.28	13.45478
_ARBICO	<b>1999Q1</b>	0.94	13.31962	5.33	86.97	13.55	14.66	13.56323
_ARBICO	<b>Q2</b>	0.98	13.36128	5.33	94.88	8.28	17.89	13.59142
_ARBICO	<b>Q3</b>	0.98	13.39333	5.33	94.88	2.24	23.88	13.59413
_ARBICO	<b>Q4</b>	0.98	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_ARBICO	<b>2000Q1</b>	1.13	13.58676	5.29	100.93	-1.43	29.89	13.96831
_ARBICO	<b>Q2</b>	1.21	13.71475	5.29	101.83	5.87	31.83	13.95028
_ARBICO	<b>Q3</b>	1.21	13.77754	5.29	102.36	15.51	33.88	13.93296
_ARBICO	<b>Q4</b>	1.21	13.85095	5.29	106.71	14.53	28.46	13.95365
_ARBICO	<b>2001Q1</b>	1.21	14.0577	5.49	110.66	18.20	27.24	13.96758
_ARBICO	<b>Q2</b>	1.27	14.04913	5.49	112.48	16.06	26.60	13.98321
_ARBICO	<b>Q3</b>	1.25	14.0989	5.49	111.60	19.12	25.88	13.98187
_ARBICO	<b>Q4</b>	1.25	14.16852	5.49	112.99	16.49	19.33	13.99556
_ARBICO	<b>2002Q1</b>	1.25	14.22234	4.15	116.04	17.42	24.42	14.30135
_ARBICO	<b>Q2</b>	1.25	14.4063	4.15	118.49	12.25	25.52	14.36687
_ARBICO	<b>Q3</b>	1.25	14.2852	4.15	126.45	9.96	29.67	14.39904
_ARBICO	<b>Q4</b>	1.25	14.46728	4.15	126.88	12.14	29.42	14.38019
_ARBICO	<b>2003Q1</b>	1.25	14.56896	4.11	127.16	5.80	33.55	14.52822
_ARBICO	<b>Q2</b>	1.25	14.49915	4.11	127.83	13.98	30.72	14.57055
_ARBICO	<b>Q3</b>	1.25	14.50123	4.11	128.58	18.37	28.29	14.59097
_ARBICO	<b>Q4</b>	1.25	14.56136	4.11	137.22	23.84	32.15	14.58016
_ARBICO	<b>2004Q1</b>	1.25	14.56375	4.19	134.43	22.47	36.76	14.78297
_ARBICO	<b>Q2</b>	1.25	14.58508	4.19	132.75	14.07	38.02	14.76805
_ARBICO	<b>Q3</b>	1.25	14.64126	4.19	132.84	9.17	45.95	14.90929
_ARBICO	<b>Q4</b>	1.25	14.75866	4.19	132.86	10.01	43.33	14.97929
_ARBICO	<b>2005Q1</b>	1.25	14.80553	3.83	132.85	16.28	54.31	14.96912
_ARBICO	<b>Q2</b>	1.25	14.83542	3.83	132.87	18.58	56.26	15.0391
_ARBICO	<b>Q3</b>	1.25	14.85042	3.83	130.81	24.31	65.57	15.18282
_ARBICO	<b>Q4</b>	1.25	14.84242	3.83	130.29	11.57	59.43	15.22124
_ARBICO	<b>2006Q1</b>	1.25	15.01175	3.13	128.70	12.07	62.90	15.19837
_ARBICO	<b>Q2</b>	1.31	15.17951	3.13	128.45	8.50	70.96	15.30303
_ARBICO	<b>Q3</b>	1.62	15.27892	3.13	128.29	6.24	63.87	15.42224
_ARBICO	<b>Q4</b>	1.7	15.20876	3.13	128.29	8.57	62.03	15.45756
_ARBICO	<b>2007Q1</b>	1.86	15.38378	3.55	128.15	5.22	60.56	15.37172
_ARBICO	<b>Q2</b>	1.95	15.44832	3.55	127.41	6.41	67.48	15.39528
_ARBICO	<b>Q3</b>	2.28	15.58581	3.55	125.88	4.10	79.93	15.52468
_ARBICO	<b>Q4</b>	2.88	15.57506	3.55	118.21	6.56	91.73	15.5272

_ARBICO	<b>2008Q1</b>	18.84	15.89473	3.43	117.92	7.79	105.56	15.50585
_ARBICO	<b>Q2</b>	26	15.88848	3.43	117.73	12.05	133.93	15.55675
_ARBICO	<b>Q3</b>	24.7	16.01054	3.43	112.47	13.04	103.90	15.66242
_ARBICO	<b>Q4</b>	24.7	16.03331	3.43	126.48	15.10	41.02	15.66809
_ARBICO	<b>2009Q1</b>	24.7	16.01249	3.11	126.48	15.1	47.98	15.44102
_ARBICO	<b>Q2</b>	24.7	16.02126	3.11	126.48	15.1	69.68	15.47927
_ARBICO	<b>Q3</b>	24.7	16.06242	3.11	126.48	15.1	69.46	15.59592
_ARBICO	<b>Q4</b>	24.7	16.19203	3.11	126.48	15.1	74.30	15.60012
_UNILEV	<b>1985Q1</b>	0.94	10.04524	9.50	1.03	20.00	28.24	9.658034
_UNILEV	<b>Q2</b>	0.94	10.08231	9.50	1.06	3.77	27.14	9.747728
_UNILEV	<b>Q3</b>	0.8	10.15195	9.50	1.10	-4.98	28.23	9.746658
_UNILEV	<b>Q4</b>	1.13	10.17647	9.50	1.01	1.03	27.23	9.800862
_UNILEV	<b>1986Q1</b>	1.32	10.18833	9.50	1.11	-3.45	12.62	9.672463
_UNILEV	<b>Q2</b>	1.35	7.867489	9.50	1.12	2.95	13.47	9.767674
_UNILEV	<b>Q3</b>	1.4	10.29246	9.50	4.64	12.89	14.91	9.764903
_UNILEV	<b>Q4</b>	1.47	10.21793	9.50	3.18	13.67	16.08	9.819758
_UNILEV	<b>1987Q1</b>	1.44	10.18574	14.00	3.92	14.50	18.31	10.12646
_UNILEV	<b>Q2</b>	1.6	10.22061	14.00	4.05	8.97	20.03	10.18309
_UNILEV	<b>Q3</b>	1.54	10.27855	14.00	4.21	6.42	19.53	10.18175
_UNILEV	<b>Q4</b>	1.57	10.42429	14.00	4.17	9.69	17.24	10.21678
_UNILEV	<b>1988Q1</b>	1.71	10.51156	14.00	4.32	43.09	16.22	10.38074
_UNILEV	<b>Q2</b>	1.75	10.57748	14.00	4.19	62.72	16.53	10.46199
_UNILEV	<b>Q3</b>	1.71	10.60232	14.00	4.72	65.72	14.47	10.47246
_UNILEV	<b>Q4</b>	1.75	10.7243	14.00	5.35	61.21	16.27	10.50676
_UNILEV	<b>1989Q1</b>	1.96	10.80769	16.40	7.59	56.73	19.45	10.88285
_UNILEV	<b>Q2</b>	1.56	10.78155	16.40	7.35	60.36	20.01	10.90298
_UNILEV	<b>Q3</b>	2.15	10.69684	16.40	7.34	44.97	19.59	10.89292
_UNILEV	<b>Q4</b>	3.85	10.75907	16.40	7.62	44.67	21.09	10.92252
_UNILEV	<b>1990Q1</b>	4.04	10.82487	18.00	7.94	14.20	20.42	11.09634
_UNILEV	<b>Q2</b>	3.27	10.79856	18.00	7.94	0.40	16.87	11.114
_UNILEV	<b>Q3</b>	3.57	10.94928	18.00	7.97	2.79	33.69	11.10135
_UNILEV	<b>Q4</b>	3.965	11.13725	18.00	8.71	3.61	27.34	11.13102
_UNILEV	<b>1991Q1</b>	4.71	11.17084	14.29	9.45	6.93	19.86	11.24438
_UNILEV	<b>Q2</b>	4.48	11.2915	14.29	10.17	12.66	20.20	11.26758
_UNILEV	<b>Q3</b>	4.87	11.30472	14.29	10.24	15.92	21.86	11.25569
_UNILEV	<b>Q4</b>	5.4	11.37925	14.29	9.87	22.96	19.52	11.29138
_UNILEV	<b>1992Q1</b>	5.76	11.53943	16.10	17.61	32.51	18.92	11.80505
_UNILEV	<b>Q2</b>	5.8	11.65174	16.10	18.46	48.47	22.38	11.80006
_UNILEV	<b>Q3</b>	7.05	11.70874	16.10	19.35	54.88	21.90	11.78074
_UNILEV	<b>Q4</b>	7.485	11.76823	16.10	19.66	48.80	19.41	11.81092
_UNILEV	<b>1993Q1</b>	8.06	11.89527	16.66	24.88	55.85	20.35	12.02422
_UNILEV	<b>Q2</b>	7.1	11.97949	16.66	21.89	56.34	19.07	12.05078
_UNILEV	<b>Q3</b>	7.17	12.07892	16.66	21.89	58.35	17.51	12.04731
_UNILEV	<b>Q4</b>	9.47	12.19844	16.66	21.89	61.26	14.51	12.07398



_UNILEV	<b>1994Q1</b>	1.15	12.24626	13.50	21.89	50.71	14.66	12.26337
_UNILEV	<b>Q2</b>	7.88	12.33826	13.50	21.89	41.57	19.07	12.32513
_UNILEV	<b>Q3</b>	8.22	12.39999	13.50	21.89	60.18	17.46	12.33586
_UNILEV	<b>Q4</b>	9.82	12.4948	13.50	21.89	76.76	17.16	12.36762
_UNILEV	<b>1995Q1</b>	12.02	12.44715	12.61	21.89	81.30	18.55	13.07136
_UNILEV	<b>Q2</b>	16.52	12.57994	12.61	21.89	89.57	18.42	13.08772
_UNILEV	<b>Q3</b>	24	12.6179	12.61	21.89	69.88	18.23	13.08387
_UNILEV	<b>Q4</b>	25.97	12.6722	12.61	21.89	51.59	19.04	13.0898
_UNILEV	<b>1996Q1</b>	28.2	12.70295	11.69	21.89	41.90	21.36	13.41596
_UNILEV	<b>Q2</b>	22.5	12.77708	11.69	21.89	28.84	20.45	13.42268
_UNILEV	<b>Q3</b>	25.6	12.77113	11.69	21.89	23.66	23.99	13.41604
_UNILEV	<b>Q4</b>	22.3	12.82216	11.69	21.89	14.31	25.39	13.43901
_UNILEV	<b>1997Q1</b>	26.7	12.88658	4.80	21.89	13.75	20.99	13.43914
_UNILEV	<b>Q2</b>	28	12.92529	4.80	21.89	11.65	19.17	13.4596
_UNILEV	<b>Q3</b>	15	12.96096	4.80	21.89	6.53	19.79	13.45873
_UNILEV	<b>Q4</b>	11.5	12.97092	4.80	21.89	10.21	18.32	13.48027
_UNILEV	<b>1998Q1</b>	13.1	13.05632	5.49	21.89	6.96	15.02	13.38158
_UNILEV	<b>Q2</b>	6.6	13.07587	5.49	21.89	6.34	13.66	13.42733
_UNILEV	<b>Q3</b>	7.3	13.17501	5.49	21.89	6.98	14.95	13.43851
_UNILEV	<b>Q4</b>	6.8	13.17237	5.49	21.89	11.91	11.28	13.45478
_UNILEV	<b>1999Q1</b>	7	13.31962	5.33	86.97	13.55	14.66	13.56323
_UNILEV	<b>Q2</b>	7.79	13.36128	5.33	94.88	8.28	17.89	13.59142
_UNILEV	<b>Q3</b>	6.92	13.39333	5.33	94.88	2.24	23.88	13.59413
_UNILEV	<b>Q4</b>	6.7	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_UNILEV	<b>2000Q1</b>	6.97	13.58676	5.29	100.93	-1.43	29.89	13.96831
_UNILEV	<b>Q2</b>	7.32	13.71475	5.29	101.83	5.87	31.83	13.95028
_UNILEV	<b>Q3</b>	14.36	13.77754	5.29	102.36	15.51	33.88	13.93296
_UNILEV	<b>Q4</b>	16.38	13.85095	5.29	106.71	14.53	28.46	13.95365
_UNILEV	<b>2001Q1</b>	21.5	14.0577	5.49	110.66	18.20	27.24	13.96758
_UNILEV	<b>Q2</b>	25.01	14.04913	5.49	112.48	16.06	26.60	13.98321
_UNILEV	<b>Q3</b>	24.52	14.0989	5.49	111.60	19.12	25.88	13.98187
_UNILEV	<b>Q4</b>	27.3	14.16852	5.49	112.99	16.49	19.33	13.99556
_UNILEV	<b>2002Q1</b>	33.26	14.22234	4.15	116.04	17.42	24.42	14.30135
_UNILEV	<b>Q2</b>	18.61	14.4063	4.15	118.49	12.25	25.52	14.36687
_UNILEV	<b>Q3</b>	18.21	14.2852	4.15	126.45	9.96	29.67	14.39904
_UNILEV	<b>Q4</b>	27.27	14.46728	4.15	126.88	12.14	29.42	14.38019
_UNILEV	<b>2003Q1</b>	12.87	14.56896	4.11	127.16	5.80	33.55	14.52822
_UNILEV	<b>Q2</b>	15	14.49915	4.11	127.83	13.98	30.72	14.57055
_UNILEV	<b>Q3</b>	16.15	14.50123	4.11	128.58	18.37	28.29	14.59097
_UNILEV	<b>Q4</b>	18.5	14.56136	4.11	137.22	23.84	32.15	14.58016
_UNILEV	<b>2004Q1</b>	17.5	14.56375	4.19	134.43	22.47	36.76	14.78297
_UNILEV	<b>Q2</b>	17	14.58508	4.19	132.75	14.07	38.02	14.76805
_UNILEV	<b>Q3</b>	14.51	14.64126	4.19	132.84	9.17	45.95	14.90929
_UNILEV	<b>Q4</b>	15.2	14.75866	4.19	132.86	10.01	43.33	14.97929

_UNILEV	<b>2005Q1</b>	15	14.80553	3.83	132.85	16.28	54.31	14.96912
_UNILEV	<b>Q2</b>	15	14.83542	3.83	132.87	18.58	56.26	15.0391
_UNILEV	<b>Q3</b>	19.22	14.85042	3.83	130.81	24.31	65.57	15.18282
_UNILEV	<b>Q4</b>	21.53	14.84242	3.83	130.29	11.57	59.43	15.22124
_UNILEV	<b>2006Q1</b>	18.25	15.01175	3.13	128.70	12.07	62.90	15.19837
_UNILEV	<b>Q2</b>	14.27	15.17951	3.13	128.45	8.50	70.96	15.30303
_UNILEV	<b>Q3</b>	15.5	15.27892	3.13	128.29	6.24	63.87	15.42224
_UNILEV	<b>Q4</b>	12.45	15.20876	3.13	128.29	8.57	62.03	15.45756
_UNILEV	<b>2007Q1</b>	13	15.38378	3.55	128.15	5.22	60.56	15.37172
_UNILEV	<b>Q2</b>	18	15.44832	3.55	127.41	6.41	67.48	15.39528
_UNILEV	<b>Q3</b>	16.7	15.58581	3.55	125.88	4.10	79.93	15.52468
_UNILEV	<b>Q4</b>	20.99	15.57506	3.55	118.21	6.56	91.73	15.5272
_UNILEV	<b>2008Q1</b>	23.2	15.89473	3.43	117.92	7.79	105.56	15.50585
_UNILEV	<b>Q2</b>	22.6	15.88848	3.43	117.73	12.05	133.93	15.55675
_UNILEV	<b>Q3</b>	21.63	16.01054	3.43	112.47	13.04	103.90	15.66242
_UNILEV	<b>Q4</b>	10.38	16.03331	3.43	126.48	15.10	41.02	15.66809
_UNILEV	<b>2009Q1</b>	8.02	16.01249	3.11	126.48	15.1	47.98	15.44102
_UNILEV	<b>Q2</b>	13.77	16.02126	3.11	126.48	15.1	69.68	15.47927
_UNILEV	<b>Q3</b>	14.89	16.06242	3.11	126.48	15.1	69.46	15.59592
_UNILEV	<b>Q4</b>	18.54	16.19203	3.11	126.48	15.1	74.30	15.60012
_CADBURY	<b>1985Q1</b>	1.17	10.04524	9.50	1.03	20.00	28.24	9.658034
_CADBURY	<b>Q2</b>	1.12	10.08231	9.50	1.06	3.77	27.14	9.747728
_CADBURY	<b>Q3</b>	1.16	10.15195	9.50	1.10	-4.98	28.23	9.746658
_CADBURY	<b>Q4</b>	1.27	10.17647	9.50	1.01	1.03	27.23	9.800862
_CADBURY	<b>1986Q1</b>	1.32	10.18833	9.50	1.11	-3.45	12.62	9.672463
_CADBURY	<b>Q2</b>	1.21	7.867489	9.50	1.12	2.95	13.47	9.767674
_CADBURY	<b>Q3</b>	1.29	10.29246	9.50	4.64	12.89	14.91	9.764903
_CADBURY	<b>Q4</b>	1.33	10.21793	9.50	3.18	13.67	16.08	9.819758
_CADBURY	<b>1987Q1</b>	1.41	10.18574	14.00	3.92	14.50	18.31	10.12646
_CADBURY	<b>Q2</b>	1.31	10.22061	14.00	4.05	8.97	20.03	10.18309
_CADBURY	<b>Q3</b>	1.32	10.27855	14.00	4.21	6.42	19.53	10.18175
_CADBURY	<b>Q4</b>	1.33	10.42429	14.00	4.17	9.69	17.24	10.21678
_CADBURY	<b>1988Q1</b>	1.34	10.51156	14.00	4.32	43.09	16.22	10.38074
_CADBURY	<b>Q2</b>	1.42	10.57748	14.00	4.19	62.72	16.53	10.46199
_CADBURY	<b>Q3</b>	1.25	10.60232	14.00	4.72	65.72	14.47	10.47246
_CADBURY	<b>Q4</b>	1.46	10.7243	14.00	5.35	61.21	16.27	10.50676
_CADBURY	<b>1989Q1</b>	1.48	10.80769	16.40	7.59	56.73	19.45	10.88285
_CADBURY	<b>Q2</b>	1.36	10.78155	16.40	7.35	60.36	20.01	10.90298
_CADBURY	<b>Q3</b>	1.61	10.69684	16.40	7.34	44.97	19.59	10.89292
_CADBURY	<b>Q4</b>	1.92	10.75907	16.40	7.62	44.67	21.09	10.92252
_CADBURY	<b>1990Q1</b>	1.92	10.82487	18.00	7.94	14.20	20.42	11.09634
_CADBURY	<b>Q2</b>	2.02	10.79856	18.00	7.94	0.40	16.87	11.114
_CADBURY	<b>Q3</b>	2.02	10.94928	18.00	7.97	2.79	33.69	11.10135
_CADBURY	<b>Q4</b>	2.46	11.13725	18.00	8.71	3.61	27.34	11.13102

_CADBURY	<b>1991Q1</b>	3.21	11.17084	14.29	9.45	6.93	19.86	11.24438
_CADBURY	<b>Q2</b>	3.18	11.2915	14.29	10.17	12.66	20.20	11.26758
_CADBURY	<b>Q3</b>	4.56	11.30472	14.29	10.24	15.92	21.86	11.25569
_CADBURY	<b>Q4</b>	5.38	11.37925	14.29	9.87	22.96	19.52	11.29138
_CADBURY	<b>1992Q1</b>	6.06	11.53943	16.10	17.61	32.51	18.92	11.80505
_CADBURY	<b>Q2</b>	5.19	11.65174	16.10	18.46	48.47	22.38	11.80006
_CADBURY	<b>Q3</b>	7.3	11.70874	16.10	19.35	54.88	21.90	11.78074
_CADBURY	<b>Q4</b>	7.87	11.76823	16.10	19.66	48.80	19.41	11.81092
_CADBURY	<b>1993Q1</b>	8.11	11.89527	16.66	24.88	55.85	20.35	12.02422
_CADBURY	<b>Q2</b>	8.6	11.97949	16.66	21.89	56.34	19.07	12.05078
_CADBURY	<b>Q3</b>	8.6	12.07892	16.66	21.89	58.35	17.51	12.04731
_CADBURY	<b>Q4</b>	8.6	12.19844	16.66	21.89	61.26	14.51	12.07398
_CADBURY	<b>1994Q1</b>	9.66	12.24626	13.50	21.89	50.71	14.66	12.26337
_CADBURY	<b>Q2</b>	6.12	12.33826	13.50	21.89	41.57	19.07	12.32513
_CADBURY	<b>Q3</b>	6.47	12.39999	13.50	21.89	60.18	17.46	12.33586
_CADBURY	<b>Q4</b>	8.3	12.4948	13.50	21.89	76.76	17.16	12.36762
_CADBURY	<b>1995Q1</b>	10.72	12.44715	12.61	21.89	81.30	18.55	13.07136
_CADBURY	<b>Q2</b>	14	12.57994	12.61	21.89	89.57	18.42	13.08772
_CADBURY	<b>Q3</b>	18.87	12.6179	12.61	21.89	69.88	18.23	13.08387
_CADBURY	<b>Q4</b>	19.45	12.6722	12.61	21.89	51.59	19.04	13.0898
_CADBURY	<b>1996Q1</b>	22.45	12.70295	11.69	21.89	41.90	21.36	13.41596
_CADBURY	<b>Q2</b>	21	12.77708	11.69	21.89	28.84	20.45	13.42268
_CADBURY	<b>Q3</b>	26.4	12.77113	11.69	21.89	23.66	23.99	13.41604
_CADBURY	<b>Q4</b>	24.75	12.82216	11.69	21.89	14.31	25.39	13.43901
_CADBURY	<b>1997Q1</b>	39	12.88658	4.80	21.89	13.75	20.99	13.43914
_CADBURY	<b>Q2</b>	35.9	12.92529	4.80	21.89	11.65	19.17	13.4596
_CADBURY	<b>Q3</b>	26.1	12.96096	4.80	21.89	6.53	19.79	13.45873
_CADBURY	<b>Q4</b>	22.9	12.97092	4.80	21.89	10.21	18.32	13.48027
_CADBURY	<b>1998Q1</b>	18.5	13.05632	5.49	21.89	6.96	15.02	13.38158
_CADBURY	<b>Q2</b>	18	13.07587	5.49	21.89	6.34	13.66	13.42733
_CADBURY	<b>Q3</b>	17	13.17501	5.49	21.89	6.98	14.95	13.43851
_CADBURY	<b>Q4</b>	18.1	13.17237	5.49	21.89	11.91	11.28	13.45478
_CADBURY	<b>1999Q1</b>	19.05	13.31962	5.33	86.97	13.55	14.66	13.56323
_CADBURY	<b>Q2</b>	14.4	13.36128	5.33	94.88	8.28	17.89	13.59142
_CADBURY	<b>Q3</b>	13.13	13.39333	5.33	94.88	2.24	23.88	13.59413
_CADBURY	<b>Q4</b>	15	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_CADBURY	<b>2000Q1</b>	13.8	13.58676	5.29	100.93	-1.43	29.89	13.96831
_CADBURY	<b>Q2</b>	14	13.71475	5.29	101.83	5.87	31.83	13.95028
_CADBURY	<b>Q3</b>	15.9	13.77754	5.29	102.36	15.51	33.88	13.93296
_CADBURY	<b>Q4</b>	19.7	13.85095	5.29	106.71	14.53	28.46	13.95365
_CADBURY	<b>2001Q1</b>	29.8	14.0577	5.49	110.66	18.20	27.24	13.96758
_CADBURY	<b>Q2</b>	25.5	14.04913	5.49	112.48	16.06	26.60	13.98321
_CADBURY	<b>Q3</b>	23.2	14.0989	5.49	111.60	19.12	25.88	13.98187
_CADBURY	<b>Q4</b>	32.99	14.16852	5.49	112.99	16.49	19.33	13.99556

_CADBURY	<b>2002Q1</b>	25	14.22234	4.15	116.04	17.42	24.42	14.30135
_CADBURY	<b>Q2</b>	26.5	14.4063	4.15	118.49	12.25	25.52	14.36687
_CADBURY	<b>Q3</b>	29.44	14.2852	4.15	126.45	9.96	29.67	14.39904
_CADBURY	<b>Q4</b>	31.35	14.46728	4.15	126.88	12.14	29.42	14.38019
_CADBURY	<b>2003Q1</b>	32.21	14.56896	4.11	127.16	5.80	33.55	14.52822
_CADBURY	<b>Q2</b>	37	14.49915	4.11	127.83	13.98	30.72	14.57055
_CADBURY	<b>Q3</b>	43	14.50123	4.11	128.58	18.37	28.29	14.59097
_CADBURY	<b>Q4</b>	64.11	14.56136	4.11	137.22	23.84	32.15	14.58016
_CADBURY	<b>2004Q1</b>	89.89	14.56375	4.19	134.43	22.47	36.76	14.78297
_CADBURY	<b>Q2</b>	71.99	14.58508	4.19	132.75	14.07	38.02	14.76805
_CADBURY	<b>Q3</b>	55.2	14.64126	4.19	132.84	9.17	45.95	14.90929
_CADBURY	<b>Q4</b>	59.5	14.75866	4.19	132.86	10.01	43.33	14.97929
_CADBURY	<b>2005Q1</b>	39.99	14.80553	3.83	132.85	16.28	54.31	14.96912
_CADBURY	<b>Q2</b>	48.49	14.83542	3.83	132.87	18.58	56.26	15.0391
_CADBURY	<b>Q3</b>	56.49	14.85042	3.83	130.81	24.31	65.57	15.18282
_CADBURY	<b>Q4</b>	63.02	14.84242	3.83	130.29	11.57	59.43	15.22124
_CADBURY	<b>2006Q1</b>	60.2	15.01175	3.13	128.70	12.07	62.90	15.19837
_CADBURY	<b>Q2</b>	55	15.17951	3.13	128.45	8.50	70.96	15.30303
_CADBURY	<b>Q3</b>	63.5	15.27892	3.13	128.29	6.24	63.87	15.42224
_CADBURY	<b>Q4</b>	30.84	15.20876	3.13	128.29	8.57	62.03	15.45756
_CADBURY	<b>2007Q1</b>	37	15.38378	3.55	128.15	5.22	60.56	15.37172
_CADBURY	<b>Q2</b>	34.1	15.44832	3.55	127.41	6.41	67.48	15.39528
_CADBURY	<b>Q3</b>	31	15.58581	3.55	125.88	4.10	79.93	15.52468
_CADBURY	<b>Q4</b>	33.85	15.57506	3.55	118.21	6.56	91.73	15.5272
_CADBURY	<b>2008Q1</b>	43.81	15.89473	3.43	117.92	7.79	105.56	15.50585
_CADBURY	<b>Q2</b>	34	15.88848	3.43	117.73	12.05	133.93	15.55675
_CADBURY	<b>Q3</b>	34.51	16.01054	3.43	112.47	13.04	103.90	15.66242
_CADBURY	<b>Q4</b>	23.89	16.03331	3.43	126.48	15.10	41.02	15.66809
_CADBURY	<b>2009Q1</b>	9.95	16.01249	3.11	126.48	15.1	47.98	15.44102
_CADBURY	<b>Q2</b>	13.54	16.02126	3.11	126.48	15.1	69.68	15.47927
_CADBURY	<b>Q3</b>	13.54	16.06242	3.11	126.48	15.1	69.46	15.59592
_CADBURY	<b>Q4</b>	10.49	16.19203	3.11	126.48	15.1	74.30	15.60012
_POLYPRD	<b>1985Q1</b>	0.35	10.04524	9.50	1.03	20.00	28.24	9.658034
_POLYPRD	<b>Q2</b>	0.35	10.08231	9.50	1.06	3.77	27.14	9.747728
_POLYPRD	<b>Q3</b>	0.52	10.15195	9.50	1.10	-4.98	28.23	9.746658
_POLYPRD	<b>Q4</b>	0.55	10.17647	9.50	1.01	1.03	27.23	9.800862
_POLYPRD	<b>1986Q1</b>	0.61	10.18833	9.50	1.11	-3.45	12.62	9.672463
_POLYPRD	<b>Q2</b>	0.62	7.867489	9.50	1.12	2.95	13.47	9.767674
_POLYPRD	<b>Q3</b>	0.63	10.29246	9.50	4.64	12.89	14.91	9.764903
_POLYPRD	<b>Q4</b>	0.53	10.21793	9.50	3.18	13.67	16.08	9.819758
_POLYPRD	<b>1987Q1</b>	0.52	10.18574	14.00	3.92	14.50	18.31	10.12646
_POLYPRD	<b>Q2</b>	0.5	10.22061	14.00	4.05	8.97	20.03	10.18309
_POLYPRD	<b>Q3</b>	0.53	10.27855	14.00	4.21	6.42	19.53	10.18175
_POLYPRD	<b>Q4</b>	0.5	10.42429	14.00	4.17	9.69	17.24	10.21678

_POLYPRD	<b>1988Q1</b>	0.5	10.51156	14.00	4.32	43.09	16.22	10.38074
_POLYPRD	<b>Q2</b>	0.56	10.57748	14.00	4.19	62.72	16.53	10.46199
_POLYPRD	<b>Q3</b>	0.52	10.60232	14.00	4.72	65.72	14.47	10.47246
_POLYPRD	<b>Q4</b>	0.6	10.7243	14.00	5.35	61.21	16.27	10.50676
_POLYPRD	<b>1989Q1</b>	0.62	10.80769	16.40	7.59	56.73	19.45	10.88285
_POLYPRD	<b>Q2</b>	0.55	10.78155	16.40	7.35	60.36	20.01	10.90298
_POLYPRD	<b>Q3</b>	0.61	10.69684	16.40	7.34	44.97	19.59	10.89292
_POLYPRD	<b>Q4</b>	0.7	10.75907	16.40	7.62	44.67	21.09	10.92252
_POLYPRD	<b>1990Q1</b>	0.66	10.82487	18.00	7.94	14.20	20.42	11.09634
_POLYPRD	<b>Q2</b>	0.66	10.79856	18.00	7.94	0.40	16.87	11.114
_POLYPRD	<b>Q3</b>	0.68	10.94928	18.00	7.97	2.79	33.69	11.10135
_POLYPRD	<b>Q4</b>	0.6	11.13725	18.00	8.71	3.61	27.34	11.13102
_POLYPRD	<b>1991Q1</b>	0.6	11.17084	14.29	9.45	6.93	19.86	11.24438
_POLYPRD	<b>Q2</b>	0.6	11.2915	14.29	10.17	12.66	20.20	11.26758
_POLYPRD	<b>Q3</b>	0.6	11.30472	14.29	10.24	15.92	21.86	11.25569
_POLYPRD	<b>Q4</b>	0.51	11.37925	14.29	9.87	22.96	19.52	11.29138
_POLYPRD	<b>1992Q1</b>	0.56	11.53943	16.10	17.61	32.51	18.92	11.80505
_POLYPRD	<b>Q2</b>	0.71	11.65174	16.10	18.46	48.47	22.38	11.80006
_POLYPRD	<b>Q3</b>	0.96	11.70874	16.10	19.35	54.88	21.90	11.78074
_POLYPRD	<b>Q4</b>	1.2	11.76823	16.10	19.66	48.80	19.41	11.81092
_POLYPRD	<b>1993Q1</b>	1.2	11.89527	16.66	24.88	55.85	20.35	12.02422
_POLYPRD	<b>Q2</b>	1.17	11.97949	16.66	21.89	56.34	19.07	12.05078
_POLYPRD	<b>Q3</b>	1.05	12.07892	16.66	21.89	58.35	17.51	12.04731
_POLYPRD	<b>Q4</b>	0.79	12.19844	16.66	21.89	61.26	14.51	12.07398
_POLYPRD	<b>1994Q1</b>	0.76	12.24626	13.50	21.89	50.71	14.66	12.26337
_POLYPRD	<b>Q2</b>	0.93	12.33826	13.50	21.89	41.57	19.07	12.32513
_POLYPRD	<b>Q3</b>	0.93	12.39999	13.50	21.89	60.18	17.46	12.33586
_POLYPRD	<b>Q4</b>	0.96	12.4948	13.50	21.89	76.76	17.16	12.36762
_POLYPRD	<b>1995Q1</b>	1.02	12.44715	12.61	21.89	81.30	18.55	13.07136
_POLYPRD	<b>Q2</b>	1.95	12.57994	12.61	21.89	89.57	18.42	13.08772
_POLYPRD	<b>Q3</b>	2.35	12.6179	12.61	21.89	69.88	18.23	13.08387
_POLYPRD	<b>Q4</b>	2.38	12.6722	12.61	21.89	51.59	19.04	13.0898
_POLYPRD	<b>1996Q1</b>	2.38	12.70295	11.69	21.89	41.90	21.36	13.41596
_POLYPRD	<b>Q2</b>	2.38	12.77708	11.69	21.89	28.84	20.45	13.42268
_POLYPRD	<b>Q3</b>	2.38	12.77113	11.69	21.89	23.66	23.99	13.41604
_POLYPRD	<b>Q4</b>	2.38	12.82216	11.69	21.89	14.31	25.39	13.43901
_POLYPRD	<b>1997Q1</b>	2.18	12.88658	4.80	21.89	13.75	20.99	13.43914
_POLYPRD	<b>Q2</b>	1.85	12.92529	4.80	21.89	11.65	19.17	13.4596
_POLYPRD	<b>Q3</b>	1.55	12.96096	4.80	21.89	6.53	19.79	13.45873
_POLYPRD	<b>Q4</b>	1.35	12.97092	4.80	21.89	10.21	18.32	13.48027
_POLYPRD	<b>1998Q1</b>	1.47	13.05632	5.49	21.89	6.96	15.02	13.38158
_POLYPRD	<b>Q2</b>	1.4	13.07587	5.49	21.89	6.34	13.66	13.42733
_POLYPRD	<b>Q3</b>	1.4	13.17501	5.49	21.89	6.98	14.95	13.43851
_POLYPRD	<b>Q4</b>	0.64	13.17237	5.49	21.89	11.91	11.28	13.45478

_POLYPRD	<b>1999Q1</b>	0.95	13.31962	5.33	86.97	13.55	14.66	13.56323
_POLYPRD	<b>Q2</b>	1.04	13.36128	5.33	94.88	8.28	17.89	13.59142
_POLYPRD	<b>Q3</b>	0.81	13.39333	5.33	94.88	2.24	23.88	13.59413
_POLYPRD	<b>Q4</b>	0.93	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_POLYPRD	<b>2000Q1</b>	0.67	13.58676	5.29	100.93	-1.43	29.89	13.96831
_POLYPRD	<b>Q2</b>	0.59	13.71475	5.29	101.83	5.87	31.83	13.95028
_POLYPRD	<b>Q3</b>	0.55	13.77754	5.29	102.36	15.51	33.88	13.93296
_POLYPRD	<b>Q4</b>	0.62	13.85095	5.29	106.71	14.53	28.46	13.95365
_POLYPRD	<b>2001Q1</b>	0.51	14.0577	5.49	110.66	18.20	27.24	13.96758
_POLYPRD	<b>Q2</b>	0.5	14.04913	5.49	112.48	16.06	26.60	13.98321
_POLYPRD	<b>Q3</b>	0.48	14.0989	5.49	111.60	19.12	25.88	13.98187
_POLYPRD	<b>Q4</b>	0.48	14.16852	5.49	112.99	16.49	19.33	13.99556
_POLYPRD	<b>2002Q1</b>	0.4	14.22234	4.15	116.04	17.42	24.42	14.30135
_POLYPRD	<b>Q2</b>	0.37	14.4063	4.15	118.49	12.25	25.52	14.36687
_POLYPRD	<b>Q3</b>	0.35	14.2852	4.15	126.45	9.96	29.67	14.39904
_POLYPRD	<b>Q4</b>	0.48	14.46728	4.15	126.88	12.14	29.42	14.38019
_POLYPRD	<b>2003Q1</b>	0.5	14.56896	4.11	127.16	5.80	33.55	14.52822
_POLYPRD	<b>Q2</b>	0.44	14.49915	4.11	127.83	13.98	30.72	14.57055
_POLYPRD	<b>Q3</b>	0.5	14.50123	4.11	128.58	18.37	28.29	14.59097
_POLYPRD	<b>Q4</b>	0.44	14.56136	4.11	137.22	23.84	32.15	14.58016
_POLYPRD	<b>2004Q1</b>	0.85	14.56375	4.19	134.43	22.47	36.76	14.78297
_POLYPRD	<b>Q2</b>	0.42	14.58508	4.19	132.75	14.07	38.02	14.76805
_POLYPRD	<b>Q3</b>	0.42	14.64126	4.19	132.84	9.17	45.95	14.90929
_POLYPRD	<b>Q4</b>	0.36	14.75866	4.19	132.86	10.01	43.33	14.97929
_POLYPRD	<b>2005Q1</b>	0.36	14.80553	3.83	132.85	16.28	54.31	14.96912
_POLYPRD	<b>Q2</b>	0.93	14.83542	3.83	132.87	18.58	56.26	15.0391
_POLYPRD	<b>Q3</b>	0.55	14.85042	3.83	130.81	24.31	65.57	15.18282
_POLYPRD	<b>Q4</b>	0.55	14.84242	3.83	130.29	11.57	59.43	15.22124
_POLYPRD	<b>2006Q1</b>	0.56	15.01175	3.13	128.70	12.07	62.90	15.19837
_POLYPRD	<b>Q2</b>	0.56	15.17951	3.13	128.45	8.50	70.96	15.30303
_POLYPRD	<b>Q3</b>	0.52	15.27892	3.13	128.29	6.24	63.87	15.42224
_POLYPRD	<b>Q4</b>	2.9	15.20876	3.13	128.29	8.57	62.03	15.45756
_POLYPRD	<b>2007Q1</b>	3.8	15.38378	3.55	128.15	5.22	60.56	15.37172
_POLYPRD	<b>Q2</b>	3.6	15.44832	3.55	127.41	6.41	67.48	15.39528
_POLYPRD	<b>Q3</b>	3.12	15.58581	3.55	125.88	4.10	79.93	15.52468
_POLYPRD	<b>Q4</b>	2.42	15.57506	3.55	118.21	6.56	91.73	15.5272
_POLYPRD	<b>2008Q1</b>	9.3	15.89473	3.43	117.92	7.79	105.56	15.50585
_POLYPRD	<b>Q2</b>	6.39	15.88848	3.43	117.73	12.05	133.93	15.55675
_POLYPRD	<b>Q3</b>	6.6	16.01054	3.43	112.47	13.04	103.90	15.66242
_POLYPRD	<b>Q4</b>	6.33	16.03331	3.43	126.48	15.10	41.02	15.66809
_POLYPRD	<b>2009Q1</b>	5.17	16.01249	3.11	126.48	15.1	47.98	15.44102
_POLYPRD	<b>Q2</b>	5.17	16.02126	3.11	126.48	15.1	69.68	15.47927
_POLYPRD	<b>Q3</b>	4.68	16.06242	3.11	126.48	15.1	69.46	15.59592
_POLYPRD	<b>Q4</b>	4.45	16.19203	3.11	126.48	15.1	74.30	15.60012

_STDPRES	<b>1985Q1</b>	0.4	10.04524	9.50	1.03	20.00	28.24	9.658034
_STDPRES	<b>Q2</b>	0.5	10.08231	9.50	1.06	3.77	27.14	9.747728
_STDPRES	<b>Q3</b>	0.6	10.15195	9.50	1.10	-4.98	28.23	9.746658
_STDPRES	<b>Q4</b>	0.71	10.17647	9.50	1.01	1.03	27.23	9.800862
_STDPRES	<b>1986Q1</b>	0.84	10.18833	9.50	1.11	-3.45	12.62	9.672463
_STDPRES	<b>Q2</b>	0.8	7.867489	9.50	1.12	2.95	13.47	9.767674
_STDPRES	<b>Q3</b>	0.84	10.29246	9.50	4.64	12.89	14.91	9.764903
_STDPRES	<b>Q4</b>	0.85	10.21793	9.50	3.18	13.67	16.08	9.819758
_STDPRES	<b>1987Q1</b>	0.83	10.18574	14.00	3.92	14.50	18.31	10.12646
_STDPRES	<b>Q2</b>	0.5	10.22061	14.00	4.05	8.97	20.03	10.18309
_STDPRES	<b>Q3</b>	0.63	10.27855	14.00	4.21	6.42	19.53	10.18175
_STDPRES	<b>Q4</b>	0.67	10.42429	14.00	4.17	9.69	17.24	10.21678
_STDPRES	<b>1988Q1</b>	0.69	10.51156	14.00	4.32	43.09	16.22	10.38074
_STDPRES	<b>Q2</b>	0.62	10.57748	14.00	4.19	62.72	16.53	10.46199
_STDPRES	<b>Q3</b>	0.69	10.60232	14.00	4.72	65.72	14.47	10.47246
_STDPRES	<b>Q4</b>	0.6	10.7243	14.00	5.35	61.21	16.27	10.50676
_STDPRES	<b>1989Q1</b>	0.6	10.80769	16.40	7.59	56.73	19.45	10.88285
_STDPRES	<b>Q2</b>	0.52	10.78155	16.40	7.35	60.36	20.01	10.90298
_STDPRES	<b>Q3</b>	0.62	10.69684	16.40	7.34	44.97	19.59	10.89292
_STDPRES	<b>Q4</b>	0.71	10.75907	16.40	7.62	44.67	21.09	10.92252
_STDPRES	<b>1990Q1</b>	0.71	10.82487	18.00	7.94	14.20	20.42	11.09634
_STDPRES	<b>Q2</b>	0.72	10.79856	18.00	7.94	0.40	16.87	11.114
_STDPRES	<b>Q3</b>	0.72	10.94928	18.00	7.97	2.79	33.69	11.10135
_STDPRES	<b>Q4</b>	0.72	11.13725	18.00	8.71	3.61	27.34	11.13102
_STDPRES	<b>1991Q1</b>	0.66	11.17084	14.29	9.45	6.93	19.86	11.24438
_STDPRES	<b>Q2</b>	0.5	11.2915	14.29	10.17	12.66	20.20	11.26758
_STDPRES	<b>Q3</b>	0.5	11.30472	14.29	10.24	15.92	21.86	11.25569
_STDPRES	<b>Q4</b>	0.5	11.37925	14.29	9.87	22.96	19.52	11.29138
_STDPRES	<b>1992Q1</b>	0.5	11.53943	16.10	17.61	32.51	18.92	11.80505
_STDPRES	<b>Q2</b>	0.5	11.65174	16.10	18.46	48.47	22.38	11.80006
_STDPRES	<b>Q3</b>	0.59	11.70874	16.10	19.35	54.88	21.90	11.78074
_STDPRES	<b>Q4</b>	0.7	11.76823	16.10	19.66	48.80	19.41	11.81092
_STDPRES	<b>1993Q1</b>	0.64	11.89527	16.66	24.88	55.85	20.35	12.02422
_STDPRES	<b>Q2</b>	0.62	11.97949	16.66	21.89	56.34	19.07	12.05078
_STDPRES	<b>Q3</b>	0.62	12.07892	16.66	21.89	58.35	17.51	12.04731
_STDPRES	<b>Q4</b>	0.67	12.19844	16.66	21.89	61.26	14.51	12.07398
_STDPRES	<b>1994Q1</b>	0.67	12.24626	13.50	21.89	50.71	14.66	12.26337
_STDPRES	<b>Q2</b>	0.94	12.33826	13.50	21.89	41.57	19.07	12.32513
_STDPRES	<b>Q3</b>	1.01	12.39999	13.50	21.89	60.18	17.46	12.33586
_STDPRES	<b>Q4</b>	1.32	12.4948	13.50	21.89	76.76	17.16	12.36762
_STDPRES	<b>1995Q1</b>	1.6	12.44715	12.61	21.89	81.30	18.55	13.07136
_STDPRES	<b>Q2</b>	1.97	12.57994	12.61	21.89	89.57	18.42	13.08772
_STDPRES	<b>Q3</b>	2.1	12.6179	12.61	21.89	69.88	18.23	13.08387
_STDPRES	<b>Q4</b>	2.1	12.6722	12.61	21.89	51.59	19.04	13.0898

_STDPRES	<b>1996Q1</b>	2.1	12.70295	11.69	21.89	41.90	21.36	13.41596
_STDPRES	<b>Q2</b>	1.69	12.77708	11.69	21.89	28.84	20.45	13.42268
_STDPRES	<b>Q3</b>	1.18	12.77113	11.69	21.89	23.66	23.99	13.41604
_STDPRES	<b>Q4</b>	0.88	12.82216	11.69	21.89	14.31	25.39	13.43901
_STDPRES	<b>1997Q1</b>	0.68	12.88658	4.80	21.89	13.75	20.99	13.43914
_STDPRES	<b>Q2</b>	0.68	12.92529	4.80	21.89	11.65	19.17	13.4596
_STDPRES	<b>Q3</b>	0.63	12.96096	4.80	21.89	6.53	19.79	13.45873
_STDPRES	<b>Q4</b>	0.62	12.97092	4.80	21.89	10.21	18.32	13.48027
_STDPRES	<b>1998Q1</b>	0.52	13.05632	5.49	21.89	6.96	15.02	13.38158
_STDPRES	<b>Q2</b>	0.52	13.07587	5.49	21.89	6.34	13.66	13.42733
_STDPRES	<b>Q3</b>	0.52	13.17501	5.49	21.89	6.98	14.95	13.43851
_STDPRES	<b>Q4</b>	0.52	13.17237	5.49	21.89	11.91	11.28	13.45478
_STDPRES	<b>1999Q1</b>	0.52	13.31962	5.33	86.97	13.55	14.66	13.56323
_STDPRES	<b>Q2</b>	0.6	13.36128	5.33	94.88	8.28	17.89	13.59142
_STDPRES	<b>Q3</b>	0.68	13.39333	5.33	94.88	2.24	23.88	13.59413
_STDPRES	<b>Q4</b>	0.73	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_STDPRES	<b>2000Q1</b>	0.93	13.58676	5.29	100.93	-1.43	29.89	13.96831
_STDPRES	<b>Q2</b>	0.96	13.71475	5.29	101.83	5.87	31.83	13.95028
_STDPRES	<b>Q3</b>	0.92	13.77754	5.29	102.36	15.51	33.88	13.93296
_STDPRES	<b>Q4</b>	1.37	13.85095	5.29	106.71	14.53	28.46	13.95365
_STDPRES	<b>2001Q1</b>	1.5	14.0577	5.49	110.66	18.20	27.24	13.96758
_STDPRES	<b>Q2</b>	1.5	14.04913	5.49	112.48	16.06	26.60	13.98321
_STDPRES	<b>Q3</b>	1.45	14.0989	5.49	111.60	19.12	25.88	13.98187
_STDPRES	<b>Q4</b>	1.45	14.16852	5.49	112.99	16.49	19.33	13.99556
_STDPRES	<b>2002Q1</b>	1.5	14.22234	4.15	116.04	17.42	24.42	14.30135
_STDPRES	<b>Q2</b>	1.55	14.4063	4.15	118.49	12.25	25.52	14.36687
_STDPRES	<b>Q3</b>	1.7	14.2852	4.15	126.45	9.96	29.67	14.39904
_STDPRES	<b>Q4</b>	1.45	14.46728	4.15	126.88	12.14	29.42	14.38019
_STDPRES	<b>2003Q1</b>	1.7	14.56896	4.11	127.16	5.80	33.55	14.52822
_STDPRES	<b>Q2</b>	1.7	14.49915	4.11	127.83	13.98	30.72	14.57055
_STDPRES	<b>Q3</b>	1.7	14.50123	4.11	128.58	18.37	28.29	14.59097
_STDPRES	<b>Q4</b>	1.7	14.56136	4.11	137.22	23.84	32.15	14.58016
_STDPRES	<b>2004Q1</b>	1.62	14.56375	4.19	134.43	22.47	36.76	14.78297
_STDPRES	<b>Q2</b>	1.62	14.58508	4.19	132.75	14.07	38.02	14.76805
_STDPRES	<b>Q3</b>	1.62	14.64126	4.19	132.84	9.17	45.95	14.90929
_STDPRES	<b>Q4</b>	1.62	14.75866	4.19	132.86	10.01	43.33	14.97929
_STDPRES	<b>2005Q1</b>	1.62	14.80553	3.83	132.85	16.28	54.31	14.96912
_STDPRES	<b>Q2</b>	1.62	14.83542	3.83	132.87	18.58	56.26	15.0391
_STDPRES	<b>Q3</b>	1.62	14.85042	3.83	130.81	24.31	65.57	15.18282
_STDPRES	<b>Q4</b>	1.62	14.84242	3.83	130.29	11.57	59.43	15.22124
_STDPRES	<b>2006Q1</b>	1.54	15.01175	3.13	128.70	12.07	62.90	15.19837
_STDPRES	<b>Q2</b>	0.5	15.17951	3.13	128.45	8.50	70.96	15.30303
_STDPRES	<b>Q3</b>	1.06	15.27892	3.13	128.29	6.24	63.87	15.42224
_STDPRES	<b>Q4</b>	1.54	15.20876	3.13	128.29	8.57	62.03	15.45756



_STDPRES	<b>2007Q1</b>	1.54	15.38378	3.55	128.15	5.22	60.56	15.37172
_STDPRES	<b>Q2</b>	1.62	15.44832	3.55	127.41	6.41	67.48	15.39528
_STDPRES	<b>Q3</b>	1.7	15.58581	3.55	125.88	4.10	79.93	15.52468
_STDPRES	<b>Q4</b>	1.62	15.57506	3.55	118.21	6.56	91.73	15.5272
_STDPRES	<b>2008Q1</b>	2.83	15.89473	3.43	117.92	7.79	105.56	15.50585
_STDPRES	<b>Q2</b>	2.95	15.88848	3.43	117.73	12.05	133.93	15.55675
_STDPRES	<b>Q3</b>	3.07	16.01054	3.43	112.47	13.04	103.90	15.66242
_STDPRES	<b>Q4</b>	2.92	16.03331	3.43	126.48	15.10	41.02	15.66809
_STDPRES	<b>2009Q1</b>	2.78	16.01249	3.11	126.48	15.1	47.98	15.44102
_STDPRES	<b>Q2</b>	2.78	16.02126	3.11	126.48	15.1	69.68	15.47927
_STDPRES	<b>Q3</b>	2.78	16.06242	3.11	126.48	15.1	69.46	15.59592
_STDPRES	<b>Q4</b>	2.78	16.19203	3.11	126.48	15.1	74.30	15.60012
_TOTAL	<b>1985Q1</b>	1.16	10.04524	9.50	1.03	20.00	28.24	9.658034
_TOTAL	<b>Q2</b>	1.08	10.08231	9.50	1.06	3.77	27.14	9.747728
_TOTAL	<b>Q3</b>	1.12	10.15195	9.50	1.10	-4.98	28.23	9.746658
_TOTAL	<b>Q4</b>	1.46	10.17647	9.50	1.01	1.03	27.23	9.800862
_TOTAL	<b>1986Q1</b>	1.53	10.18833	9.50	1.11	-3.45	12.62	9.672463
_TOTAL	<b>Q2</b>	1.45	7.867489	9.50	1.12	2.95	13.47	9.767674
_TOTAL	<b>Q3</b>	1.52	10.29246	9.50	4.64	12.89	14.91	9.764903
_TOTAL	<b>Q4</b>	1.64	10.21793	9.50	3.18	13.67	16.08	9.819758
_TOTAL	<b>1987Q1</b>	1.66	10.18574	14.00	3.92	14.50	18.31	10.12646
_TOTAL	<b>Q2</b>	1.91	10.22061	14.00	4.05	8.97	20.03	10.18309
_TOTAL	<b>Q3</b>	1.99	10.27855	14.00	4.21	6.42	19.53	10.18175
_TOTAL	<b>Q4</b>	2.01	10.42429	14.00	4.17	9.69	17.24	10.21678
_TOTAL	<b>1988Q1</b>	2.02	10.51156	14.00	4.32	43.09	16.22	10.38074
_TOTAL	<b>Q2</b>	1.82	10.57748	14.00	4.19	62.72	16.53	10.46199
_TOTAL	<b>Q3</b>	1.6	10.60232	14.00	4.72	65.72	14.47	10.47246
_TOTAL	<b>Q4</b>	1.86	10.7243	14.00	5.35	61.21	16.27	10.50676
_TOTAL	<b>1989Q1</b>	1.92	10.80769	16.40	7.59	56.73	19.45	10.88285
_TOTAL	<b>Q2</b>	1.83	10.78155	16.40	7.35	60.36	20.01	10.90298
_TOTAL	<b>Q3</b>	2.01	10.69684	16.40	7.34	44.97	19.59	10.89292
_TOTAL	<b>Q4</b>	2.16	10.75907	16.40	7.62	44.67	21.09	10.92252
_TOTAL	<b>1990Q1</b>	2.16	10.82487	18.00	7.94	14.20	20.42	11.09634
_TOTAL	<b>Q2</b>	2.11	10.79856	18.00	7.94	0.40	16.87	11.114
_TOTAL	<b>Q3</b>	2.29	10.94928	18.00	7.97	2.79	33.69	11.10135
_TOTAL	<b>Q4</b>	2.98	11.13725	18.00	8.71	3.61	27.34	11.13102
_TOTAL	<b>1991Q1</b>	3.58	11.17084	14.29	9.45	6.93	19.86	11.24438
_TOTAL	<b>Q2</b>	2.71	11.2915	14.29	10.17	12.66	20.20	11.26758
_TOTAL	<b>Q3</b>	3.27	11.30472	14.29	10.24	15.92	21.86	11.25569
_TOTAL	<b>Q4</b>	3.63	11.37925	14.29	9.87	22.96	19.52	11.29138
_TOTAL	<b>1992Q1</b>	3.92	11.53943	16.10	17.61	32.51	18.92	11.80505
_TOTAL	<b>Q2</b>	3.76	11.65174	16.10	18.46	48.47	22.38	11.80006
_TOTAL	<b>Q3</b>	6.05	11.70874	16.10	19.35	54.88	21.90	11.78074
_TOTAL	<b>Q4</b>	6.97	11.76823	16.10	19.66	48.80	19.41	11.81092

_TOTAL	<b>1993Q1</b>	7.98	11.89527	16.66	24.88	55.85	20.35	12.02422
_TOTAL	<b>Q2</b>	7.62	11.97949	16.66	21.89	56.34	19.07	12.05078
_TOTAL	<b>Q3</b>	7.7	12.07892	16.66	21.89	58.35	17.51	12.04731
_TOTAL	<b>Q4</b>	9.15	12.19844	16.66	21.89	61.26	14.51	12.07398
_TOTAL	<b>1994Q1</b>	10.4	12.24626	13.50	21.89	50.71	14.66	12.26337
_TOTAL	<b>Q2</b>	7.42	12.33826	13.50	21.89	41.57	19.07	12.32513
_TOTAL	<b>Q3</b>	7.6	12.39999	13.50	21.89	60.18	17.46	12.33586
_TOTAL	<b>Q4</b>	8.32	12.4948	13.50	21.89	76.76	17.16	12.36762
_TOTAL	<b>1995Q1</b>	6.85	12.44715	12.61	21.89	81.30	18.55	13.07136
_TOTAL	<b>Q2</b>	16.55	12.57994	12.61	21.89	89.57	18.42	13.08772
_TOTAL	<b>Q3</b>	25.1	12.6179	12.61	21.89	69.88	18.23	13.08387
_TOTAL	<b>Q4</b>	29.62	12.6722	12.61	21.89	51.59	19.04	13.0898
_TOTAL	<b>1996Q1</b>	29.2	12.70295	11.69	21.89	41.90	21.36	13.41596
_TOTAL	<b>Q2</b>	40.92	12.77708	11.69	21.89	28.84	20.45	13.42268
_TOTAL	<b>Q3</b>	46	12.77113	11.69	21.89	23.66	23.99	13.41604
_TOTAL	<b>Q4</b>	53.6	12.82216	11.69	21.89	14.31	25.39	13.43901
_TOTAL	<b>1997Q1</b>	53.6	12.88658	4.80	21.89	13.75	20.99	13.43914
_TOTAL	<b>Q2</b>	73.05	12.92529	4.80	21.89	11.65	19.17	13.4596
_TOTAL	<b>Q3</b>	58.2	12.96096	4.80	21.89	6.53	19.79	13.45873
_TOTAL	<b>Q4</b>	48.98	12.97092	4.80	21.89	10.21	18.32	13.48027
_TOTAL	<b>1998Q1</b>	46.5	13.05632	5.49	21.89	6.96	15.02	13.38158
_TOTAL	<b>Q2</b>	45.8	13.07587	5.49	21.89	6.34	13.66	13.42733
_TOTAL	<b>Q3</b>	43.8	13.17501	5.49	21.89	6.98	14.95	13.43851
_TOTAL	<b>Q4</b>	43.5	13.17237	5.49	21.89	11.91	11.28	13.45478
_TOTAL	<b>1999Q1</b>	41.5	13.31962	5.33	86.97	13.55	14.66	13.56323
_TOTAL	<b>Q2</b>	39.15	13.36128	5.33	94.88	8.28	17.89	13.59142
_TOTAL	<b>Q3</b>	25.5	13.39333	5.33	94.88	2.24	23.88	13.59413
_TOTAL	<b>Q4</b>	36.75	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_TOTAL	<b>2000Q1</b>	47.01	13.58676	5.29	100.93	-1.43	29.89	13.96831
_TOTAL	<b>Q2</b>	53.35	13.71475	5.29	101.83	5.87	31.83	13.95028
_TOTAL	<b>Q3</b>	59.84	13.77754	5.29	102.36	15.51	33.88	13.93296
_TOTAL	<b>Q4</b>	61.42	13.85095	5.29	106.71	14.53	28.46	13.95365
_TOTAL	<b>2001Q1</b>	63.75	14.0577	5.49	110.66	18.20	27.24	13.96758
_TOTAL	<b>Q2</b>	65	14.04913	5.49	112.48	16.06	26.60	13.98321
_TOTAL	<b>Q3</b>	67.1	14.0989	5.49	111.60	19.12	25.88	13.98187
_TOTAL	<b>Q4</b>	72.5	14.16852	5.49	112.99	16.49	19.33	13.99556
_TOTAL	<b>2002Q1</b>	65.5	14.22234	4.15	116.04	17.42	24.42	14.30135
_TOTAL	<b>Q2</b>	63.5	14.4063	4.15	118.49	12.25	25.52	14.36687
_TOTAL	<b>Q3</b>	68.2	14.2852	4.15	126.45	9.96	29.67	14.39904
_TOTAL	<b>Q4</b>	70	14.46728	4.15	126.88	12.14	29.42	14.38019
_TOTAL	<b>2003Q1</b>	74	14.56896	4.11	127.16	5.80	33.55	14.52822
_TOTAL	<b>Q2</b>	87.75	14.49915	4.11	127.83	13.98	30.72	14.57055
_TOTAL	<b>Q3</b>	104	14.50123	4.11	128.58	18.37	28.29	14.59097
_TOTAL	<b>Q4</b>	180	14.56136	4.11	137.22	23.84	32.15	14.58016

_TOTAL	<b>2004Q1</b>	227.25	14.56375	4.19	134.43	22.47	36.76	14.78297
_TOTAL	<b>Q2</b>	210	14.58508	4.19	132.75	14.07	38.02	14.76805
_TOTAL	<b>Q3</b>	180	14.64126	4.19	132.84	9.17	45.95	14.90929
_TOTAL	<b>Q4</b>	199.6	14.75866	4.19	132.86	10.01	43.33	14.97929
_TOTAL	<b>2005Q1</b>	168	14.80553	3.83	132.85	16.28	54.31	14.96912
_TOTAL	<b>Q2</b>	163.89	14.83542	3.83	132.87	18.58	56.26	15.0391
_TOTAL	<b>Q3</b>	182.55	14.85042	3.83	130.81	24.31	65.57	15.18282
_TOTAL	<b>Q4</b>	184.99	14.84242	3.83	130.29	11.57	59.43	15.22124
_TOTAL	<b>2006Q1</b>	184.99	15.01175	3.13	128.70	12.07	62.90	15.19837
_TOTAL	<b>Q2</b>	184.99	15.17951	3.13	128.45	8.50	70.96	15.30303
_TOTAL	<b>Q3</b>	185.2	15.27892	3.13	128.29	6.24	63.87	15.42224
_TOTAL	<b>Q4</b>	185.2	15.20876	3.13	128.29	8.57	62.03	15.45756
_TOTAL	<b>2007Q1</b>	180	15.38378	3.55	128.15	5.22	60.56	15.37172
_TOTAL	<b>Q2</b>	170	15.44832	3.55	127.41	6.41	67.48	15.39528
_TOTAL	<b>Q3</b>	155.5	15.58581	3.55	125.88	4.10	79.93	15.52468
_TOTAL	<b>Q4</b>	175.84	15.57506	3.55	118.21	6.56	91.73	15.5272
_TOTAL	<b>2008Q1</b>	218	15.89473	3.43	117.92	7.79	105.56	15.50585
_TOTAL	<b>Q2</b>	238.01	15.88848	3.43	117.73	12.05	133.93	15.55675
_TOTAL	<b>Q3</b>	241.56	16.01054	3.43	112.47	13.04	103.90	15.66242
_TOTAL	<b>Q4</b>	193.51	16.03331	3.43	126.48	15.10	41.02	15.66809
_TOTAL	<b>2009Q1</b>	37	16.01249	3.11	126.48	15.1	47.98	15.44102
_TOTAL	<b>Q2</b>	172.25	16.02126	3.11	126.48	15.1	69.68	15.47927
_TOTAL	<b>Q3</b>	150.48	16.06242	3.11	126.48	15.1	69.46	15.59592
_TOTAL	<b>Q4</b>	141.55	16.19203	3.11	126.48	15.1	74.30	15.60012
_AP	<b>1985Q1</b>	1.24	10.04524	9.50	1.03	20.00	28.24	9.658034
_AP	<b>Q2</b>	1.28	10.08231	9.50	1.06	3.77	27.14	9.747728
_AP	<b>Q3</b>	1.12	10.15195	9.50	1.10	-4.98	28.23	9.746658
_AP	<b>Q4</b>	1.33	10.17647	9.50	1.01	1.03	27.23	9.800862
_AP	<b>1986Q1</b>	1.36	10.18833	9.50	1.11	-3.45	12.62	9.672463
_AP	<b>Q2</b>	1.44	7.867489	9.50	1.12	2.95	13.47	9.767674
_AP	<b>Q3</b>	1.18	10.29246	9.50	4.64	12.89	14.91	9.764903
_AP	<b>Q4</b>	1.25	10.21793	9.50	3.18	13.67	16.08	9.819758
_AP	<b>1987Q1</b>	1.43	10.18574	14.00	3.92	14.50	18.31	10.12646
_AP	<b>Q2</b>	1.66	10.22061	14.00	4.05	8.97	20.03	10.18309
_AP	<b>Q3</b>	1.59	10.27855	14.00	4.21	6.42	19.53	10.18175
_AP	<b>Q4</b>	1.66	10.42429	14.00	4.17	9.69	17.24	10.21678
_AP	<b>1988Q1</b>	1.74	10.51156	14.00	4.32	43.09	16.22	10.38074
_AP	<b>Q2</b>	1.62	10.57748	14.00	4.19	62.72	16.53	10.46199
_AP	<b>Q3</b>	1.46	10.60232	14.00	4.72	65.72	14.47	10.47246
_AP	<b>Q4</b>	1.83	10.7243	14.00	5.35	61.21	16.27	10.50676
_AP	<b>1989Q1</b>	1.84	10.80769	16.40	7.59	56.73	19.45	10.88285
_AP	<b>Q2</b>	1.7	10.78155	16.40	7.35	60.36	20.01	10.90298
_AP	<b>Q3</b>	1.7	10.69684	16.40	7.34	44.97	19.59	10.89292
_AP	<b>Q4</b>	2.42	10.75907	16.40	7.62	44.67	21.09	10.92252

_AP	<b>1990Q1</b>	2.58	10.82487	18.00	7.94	14.20	20.42	11.09634
_AP	<b>Q2</b>	1.88	10.79856	18.00	7.94	0.40	16.87	11.114
_AP	<b>Q3</b>	2.35	10.94928	18.00	7.97	2.79	33.69	11.10135
_AP	<b>Q4</b>	2.67	11.13725	18.00	8.71	3.61	27.34	11.13102
_AP	<b>1991Q1</b>	3.13	11.17084	14.29	9.45	6.93	19.86	11.24438
_AP	<b>Q2</b>	3.28	11.2915	14.29	10.17	12.66	20.20	11.26758
_AP	<b>Q3</b>	3.5	11.30472	14.29	10.24	15.92	21.86	11.25569
_AP	<b>Q4</b>	3.5	11.37925	14.29	9.87	22.96	19.52	11.29138
_AP	<b>1992Q1</b>	3.5	11.53943	16.10	17.61	32.51	18.92	11.80505
_AP	<b>Q2</b>	3.63	11.65174	16.10	18.46	48.47	22.38	11.80006
_AP	<b>Q3</b>	4.35	11.70874	16.10	19.35	54.88	21.90	11.78074
_AP	<b>Q4</b>	4.73	11.76823	16.10	19.66	48.80	19.41	11.81092
_AP	<b>1993Q1</b>	5.08	11.89527	16.66	24.88	55.85	20.35	12.02422
_AP	<b>Q2</b>	4.78	11.97949	16.66	21.89	56.34	19.07	12.05078
_AP	<b>Q3</b>	4.78	12.07892	16.66	21.89	58.35	17.51	12.04731
_AP	<b>Q4</b>	4.78	12.19844	16.66	21.89	61.26	14.51	12.07398
_AP	<b>1994Q1</b>	5	12.24626	13.50	21.89	50.71	14.66	12.26337
_AP	<b>Q2</b>	4.8	12.33826	13.50	21.89	41.57	19.07	12.32513
_AP	<b>Q3</b>	4.85	12.39999	13.50	21.89	60.18	17.46	12.33586
_AP	<b>Q4</b>	5.96	12.4948	13.50	21.89	76.76	17.16	12.36762
_AP	<b>1995Q1</b>	7.68	12.44715	12.61	21.89	81.30	18.55	13.07136
_AP	<b>Q2</b>	9.18	12.57994	12.61	21.89	89.57	18.42	13.08772
_AP	<b>Q3</b>	17.85	12.6179	12.61	21.89	69.88	18.23	13.08387
_AP	<b>Q4</b>	20.6	12.6722	12.61	21.89	51.59	19.04	13.0898
_AP	<b>1996Q1</b>	21.65	12.70295	11.69	21.89	41.90	21.36	13.41596
_AP	<b>Q2</b>	26.7	12.77708	11.69	21.89	28.84	20.45	13.42268
_AP	<b>Q3</b>	31.2	12.77113	11.69	21.89	23.66	23.99	13.41604
_AP	<b>Q4</b>	40.9	12.82216	11.69	21.89	14.31	25.39	13.43901
_AP	<b>1997Q1</b>	58.75	12.88658	4.80	21.89	13.75	20.99	13.43914
_AP	<b>Q2</b>	55.9	12.92529	4.80	21.89	11.65	19.17	13.4596
_AP	<b>Q3</b>	41	12.96096	4.80	21.89	6.53	19.79	13.45873
_AP	<b>Q4</b>	30.55	12.97092	4.80	21.89	10.21	18.32	13.48027
_AP	<b>1998Q1</b>	30.55	13.05632	5.49	21.89	6.96	15.02	13.38158
_AP	<b>Q2</b>	30.3	13.07587	5.49	21.89	6.34	13.66	13.42733
_AP	<b>Q3</b>	30	13.17501	5.49	21.89	6.98	14.95	13.43851
_AP	<b>Q4</b>	26.5	13.17237	5.49	21.89	11.91	11.28	13.45478
_AP	<b>1999Q1</b>	22	13.31962	5.33	86.97	13.55	14.66	13.56323
_AP	<b>Q2</b>	20.05	13.36128	5.33	94.88	8.28	17.89	13.59142
_AP	<b>Q3</b>	11.9	13.39333	5.33	94.88	2.24	23.88	13.59413
_AP	<b>Q4</b>	16	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_AP	<b>2000Q1</b>	22.34	13.58676	5.29	100.93	-1.43	29.89	13.96831
_AP	<b>Q2</b>	19.34	13.71475	5.29	101.83	5.87	31.83	13.95028
_AP	<b>Q3</b>	19.34	13.77754	5.29	102.36	15.51	33.88	13.93296
_AP	<b>Q4</b>	19.34	13.85095	5.29	106.71	14.53	28.46	13.95365

_AP	<b>2001Q1</b>	19.34	14.0577	5.49	110.66	18.20	27.24	13.96758
_AP	<b>Q2</b>	19.34	14.04913	5.49	112.48	16.06	26.60	13.98321
_AP	<b>Q3</b>	19.34	14.0989	5.49	111.60	19.12	25.88	13.98187
_AP	<b>Q4</b>	19.34	14.16852	5.49	112.99	16.49	19.33	13.99556
_AP	<b>2002Q1</b>	19.34	14.22234	4.15	116.04	17.42	24.42	14.30135
_AP	<b>Q2</b>	19.34	14.4063	4.15	118.49	12.25	25.52	14.36687
_AP	<b>Q3</b>	19.34	14.2852	4.15	126.45	9.96	29.67	14.39904
_AP	<b>Q4</b>	19.34	14.46728	4.15	126.88	12.14	29.42	14.38019
_AP	<b>2003Q1</b>	18.76	14.56896	4.11	127.16	5.80	33.55	14.52822
_AP	<b>Q2</b>	17.1	14.49915	4.11	127.83	13.98	30.72	14.57055
_AP	<b>Q3</b>	12.87	14.50123	4.11	128.58	18.37	28.29	14.59097
_AP	<b>Q4</b>	42.8	14.56136	4.11	137.22	23.84	32.15	14.58016
_AP	<b>2004Q1</b>	42.87	14.56375	4.19	134.43	22.47	36.76	14.78297
_AP	<b>Q2</b>	42.87	14.58508	4.19	132.75	14.07	38.02	14.76805
_AP	<b>Q3</b>	60.3	14.64126	4.19	132.84	9.17	45.95	14.90929
_AP	<b>Q4</b>	66.03	14.75866	4.19	132.86	10.01	43.33	14.97929
_AP	<b>2005Q1</b>	66.03	14.80553	3.83	132.85	16.28	54.31	14.96912
_AP	<b>Q2</b>	53.01	14.83542	3.83	132.87	18.58	56.26	15.0391
_AP	<b>Q3</b>	54.45	14.85042	3.83	130.81	24.31	65.57	15.18282
_AP	<b>Q4</b>	35.82	14.84242	3.83	130.29	11.57	59.43	15.22124
_AP	<b>2006Q1</b>	37.25	15.01175	3.13	128.70	12.07	62.90	15.19837
_AP	<b>Q2</b>	42.05	15.17951	3.13	128.45	8.50	70.96	15.30303
_AP	<b>Q3</b>	37	15.27892	3.13	128.29	6.24	63.87	15.42224
_AP	<b>Q4</b>	47	15.20876	3.13	128.29	8.57	62.03	15.45756
_AP	<b>2007Q1</b>	62.51	15.38378	3.55	128.15	5.22	60.56	15.37172
_AP	<b>Q2</b>	63.6	15.44832	3.55	127.41	6.41	67.48	15.39528
_AP	<b>Q3</b>	77.26	15.58581	3.55	125.88	4.10	79.93	15.52468
_AP	<b>Q4</b>	207	15.57506	3.55	118.21	6.56	91.73	15.5272
_AP	<b>2008Q1</b>	300.98	15.89473	3.43	117.92	7.79	105.56	15.50585
_AP	<b>Q2</b>	293.98	15.88848	3.43	117.73	12.05	133.93	15.55675
_AP	<b>Q3</b>	293.98	16.01054	3.43	112.47	13.04	103.90	15.66242
_AP	<b>Q4</b>	279.29	16.03331	3.43	126.48	15.10	41.02	15.66809
_AP	<b>2009Q1</b>	65.52	16.01249	3.11	126.48	15.1	47.98	15.44102
_AP	<b>Q2</b>	99.55	16.02126	3.11	126.48	15.1	69.68	15.47927
_AP	<b>Q3</b>	31	16.06242	3.11	126.48	15.1	69.46	15.59592
_AP	<b>Q4</b>	32.99	16.19203	3.11	126.48	15.1	74.30	15.60012
_PHADEC	<b>1985Q1</b>	0.46	10.04524	9.50	1.03	20.00	28.24	9.658034
_PHADEC	<b>Q2</b>	0.57	10.08231	9.50	1.06	3.77	27.14	9.747728
_PHADEC	<b>Q3</b>	0.62	10.15195	9.50	1.10	-4.98	28.23	9.746658
_PHADEC	<b>Q4</b>	0.8	10.17647	9.50	1.01	1.03	27.23	9.800862
_PHADEC	<b>1986Q1</b>	0.87	10.18833	9.50	1.11	-3.45	12.62	9.672463
_PHADEC	<b>Q2</b>	0.53	7.867489	9.50	1.12	2.95	13.47	9.767674
_PHADEC	<b>Q3</b>	0.54	10.29246	9.50	4.64	12.89	14.91	9.764903
_PHADEC	<b>Q4</b>	0.56	10.21793	9.50	3.18	13.67	16.08	9.819758

_PHADEC	<b>1987Q1</b>	0.57	10.18574	14.00	3.92	14.50	18.31	10.12646
_PHADEC	<b>Q2</b>	0.6	10.22061	14.00	4.05	8.97	20.03	10.18309
_PHADEC	<b>Q3</b>	0.51	10.27855	14.00	4.21	6.42	19.53	10.18175
_PHADEC	<b>Q4</b>	0.5	10.42429	14.00	4.17	9.69	17.24	10.21678
_PHADEC	<b>1988Q1</b>	0.51	10.51156	14.00	4.32	43.09	16.22	10.38074
_PHADEC	<b>Q2</b>	0.4	10.57748	14.00	4.19	62.72	16.53	10.46199
_PHADEC	<b>Q3</b>	0.4	10.60232	14.00	4.72	65.72	14.47	10.47246
_PHADEC	<b>Q4</b>	0.4	10.7243	14.00	5.35	61.21	16.27	10.50676
_PHADEC	<b>1989Q1</b>	0.4	10.80769	16.40	7.59	56.73	19.45	10.88285
_PHADEC	<b>Q2</b>	0.3	10.78155	16.40	7.35	60.36	20.01	10.90298
_PHADEC	<b>Q3</b>	0.2	10.69684	16.40	7.34	44.97	19.59	10.89292
_PHADEC	<b>Q4</b>	0.15	10.75907	16.40	7.62	44.67	21.09	10.92252
_PHADEC	<b>1990Q1</b>	0.15	10.82487	18.00	7.94	14.20	20.42	11.09634
_PHADEC	<b>Q2</b>	0.15	10.79856	18.00	7.94	0.40	16.87	11.114
_PHADEC	<b>Q3</b>	0.54	10.94928	18.00	7.97	2.79	33.69	11.10135
_PHADEC	<b>Q4</b>	0.66	11.13725	18.00	8.71	3.61	27.34	11.13102
_PHADEC	<b>1991Q1</b>	0.66	11.17084	14.29	9.45	6.93	19.86	11.24438
_PHADEC	<b>Q2</b>	0.85	11.2915	14.29	10.17	12.66	20.20	11.26758
_PHADEC	<b>Q3</b>	1.08	11.30472	14.29	10.24	15.92	21.86	11.25569
_PHADEC	<b>Q4</b>	1.45	11.37925	14.29	9.87	22.96	19.52	11.29138
_PHADEC	<b>1992Q1</b>	1.45	11.53943	16.10	17.61	32.51	18.92	11.80505
_PHADEC	<b>Q2</b>	1.33	11.65174	16.10	18.46	48.47	22.38	11.80006
_PHADEC	<b>Q3</b>	1.35	11.70874	16.10	19.35	54.88	21.90	11.78074
_PHADEC	<b>Q4</b>	1.38	11.76823	16.10	19.66	48.80	19.41	11.81092
_PHADEC	<b>1993Q1</b>	1.38	11.89527	16.66	24.88	55.85	20.35	12.02422
_PHADEC	<b>Q2</b>	1.4	11.97949	16.66	21.89	56.34	19.07	12.05078
_PHADEC	<b>Q3</b>	1.4	12.07892	16.66	21.89	58.35	17.51	12.04731
_PHADEC	<b>Q4</b>	1.4	12.19844	16.66	21.89	61.26	14.51	12.07398
_PHADEC	<b>1994Q1</b>	1.4	12.24626	13.50	21.89	50.71	14.66	12.26337
_PHADEC	<b>Q2</b>	1.36	12.33826	13.50	21.89	41.57	19.07	12.32513
_PHADEC	<b>Q3</b>	1.3	12.39999	13.50	21.89	60.18	17.46	12.33586
_PHADEC	<b>Q4</b>	1.35	12.4948	13.50	21.89	76.76	17.16	12.36762
_PHADEC	<b>1995Q1</b>	1.35	12.44715	12.61	21.89	81.30	18.55	13.07136
_PHADEC	<b>Q2</b>	1.55	12.57994	12.61	21.89	89.57	18.42	13.08772
_PHADEC	<b>Q3</b>	2.5	12.6179	12.61	21.89	69.88	18.23	13.08387
_PHADEC	<b>Q4</b>	2.6	12.6722	12.61	21.89	51.59	19.04	13.0898
_PHADEC	<b>1996Q1</b>	2.68	12.70295	11.69	21.89	41.90	21.36	13.41596
_PHADEC	<b>Q2</b>	3.15	12.77708	11.69	21.89	28.84	20.45	13.42268
_PHADEC	<b>Q3</b>	3.4	12.77113	11.69	21.89	23.66	23.99	13.41604
_PHADEC	<b>Q4</b>	3.54	12.82216	11.69	21.89	14.31	25.39	13.43901
_PHADEC	<b>1997Q1</b>	4.67	12.88658	4.80	21.89	13.75	20.99	13.43914
_PHADEC	<b>Q2</b>	4.76	12.92529	4.80	21.89	11.65	19.17	13.4596
_PHADEC	<b>Q3</b>	4.51	12.96096	4.80	21.89	6.53	19.79	13.45873
_PHADEC	<b>Q4</b>	4.51	12.97092	4.80	21.89	10.21	18.32	13.48027

_PHADEC	<b>1998Q1</b>	4.4	13.05632	5.49	21.89	6.96	15.02	13.38158
_PHADEC	<b>Q2</b>	4.4	13.07587	5.49	21.89	6.34	13.66	13.42733
_PHADEC	<b>Q3</b>	4.1	13.17501	5.49	21.89	6.98	14.95	13.43851
_PHADEC	<b>Q4</b>	4.1	13.17237	5.49	21.89	11.91	11.28	13.45478
_PHADEC	<b>1999Q1</b>	4.1	13.31962	5.33	86.97	13.55	14.66	13.56323
_PHADEC	<b>Q2</b>	3.6	13.36128	5.33	94.88	8.28	17.89	13.59142
_PHADEC	<b>Q3</b>	3.13	13.39333	5.33	94.88	2.24	23.88	13.59413
_PHADEC	<b>Q4</b>	3.13	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_PHADEC	<b>2000Q1</b>	2.96	13.58676	5.29	100.93	-1.43	29.89	13.96831
_PHADEC	<b>Q2</b>	2.93	13.71475	5.29	101.83	5.87	31.83	13.95028
_PHADEC	<b>Q3</b>	2.91	13.77754	5.29	102.36	15.51	33.88	13.93296
_PHADEC	<b>Q4</b>	2.75	13.85095	5.29	106.71	14.53	28.46	13.95365
_PHADEC	<b>2001Q1</b>	2.65	14.0577	5.49	110.66	18.20	27.24	13.96758
_PHADEC	<b>Q2</b>	2.64	14.04913	5.49	112.48	16.06	26.60	13.98321
_PHADEC	<b>Q3</b>	2.64	14.0989	5.49	111.60	19.12	25.88	13.98187
_PHADEC	<b>Q4</b>	2.63	14.16852	5.49	112.99	16.49	19.33	13.99556
_PHADEC	<b>2002Q1</b>	2.63	14.22234	4.15	116.04	17.42	24.42	14.30135
_PHADEC	<b>Q2</b>	2.63	14.4063	4.15	118.49	12.25	25.52	14.36687
_PHADEC	<b>Q3</b>	2.63	14.2852	4.15	126.45	9.96	29.67	14.39904
_PHADEC	<b>Q4</b>	2.63	14.46728	4.15	126.88	12.14	29.42	14.38019
_PHADEC	<b>2003Q1</b>	2.63	14.56896	4.11	127.16	5.80	33.55	14.52822
_PHADEC	<b>Q2</b>	1.8	14.49915	4.11	127.83	13.98	30.72	14.57055
_PHADEC	<b>Q3</b>	1.6	14.50123	4.11	128.58	18.37	28.29	14.59097
_PHADEC	<b>Q4</b>	2.44	14.56136	4.11	137.22	23.84	32.15	14.58016
_PHADEC	<b>2004Q1</b>	4.85	14.56375	4.19	134.43	22.47	36.76	14.78297
_PHADEC	<b>Q2</b>	5.19	14.58508	4.19	132.75	14.07	38.02	14.76805
_PHADEC	<b>Q3</b>	4.05	14.64126	4.19	132.84	9.17	45.95	14.90929
_PHADEC	<b>Q4</b>	6.39	14.75866	4.19	132.86	10.01	43.33	14.97929
_PHADEC	<b>2005Q1</b>	6.39	14.80553	3.83	132.85	16.28	54.31	14.96912
_PHADEC	<b>Q2</b>	2.86	14.83542	3.83	132.87	18.58	56.26	15.0391
_PHADEC	<b>Q3</b>	3.7	14.85042	3.83	130.81	24.31	65.57	15.18282
_PHADEC	<b>Q4</b>	4.14	14.84242	3.83	130.29	11.57	59.43	15.22124
_PHADEC	<b>2006Q1</b>	3.23	15.01175	3.13	128.70	12.07	62.90	15.19837
_PHADEC	<b>Q2</b>	2.65	15.17951	3.13	128.45	8.50	70.96	15.30303
_PHADEC	<b>Q3</b>	4.19	15.27892	3.13	128.29	6.24	63.87	15.42224
_PHADEC	<b>Q4</b>	2.97	15.20876	3.13	128.29	8.57	62.03	15.45756
_PHADEC	<b>2007Q1</b>	5.15	15.38378	3.55	128.15	5.22	60.56	15.37172
_PHADEC	<b>Q2</b>	5.94	15.44832	3.55	127.41	6.41	67.48	15.39528
_PHADEC	<b>Q3</b>	6	15.58581	3.55	125.88	4.10	79.93	15.52468
_PHADEC	<b>Q4</b>	4.95	15.57506	3.55	118.21	6.56	91.73	15.5272
_PHADEC	<b>2008Q1</b>	14.95	15.89473	3.43	117.92	7.79	105.56	15.50585
_PHADEC	<b>Q2</b>	11.17	15.88848	3.43	117.73	12.05	133.93	15.55675
_PHADEC	<b>Q3</b>	11.06	16.01054	3.43	112.47	13.04	103.90	15.66242
_PHADEC	<b>Q4</b>	10.62	16.03331	3.43	126.48	15.10	41.02	15.66809

_PHADEC	<b>2009Q1</b>	9.59	16.01249	3.11	126.48	15.1	47.98	15.44102
_PHADEC	<b>Q2</b>	9.59	16.02126	3.11	126.48	15.1	69.68	15.47927
_PHADEC	<b>Q3</b>	5.78	16.06242	3.11	126.48	15.1	69.46	15.59592
_PHADEC	<b>Q4</b>	4.73	16.19203	3.11	126.48	15.1	74.30	15.60012
_GLAXO	<b>1985Q1</b>	0.96	10.04524	9.50	1.03	20.00	28.24	9.658034
_GLAXO	<b>Q2</b>	0.9	10.08231	9.50	1.06	3.77	27.14	9.747728
_GLAXO	<b>Q3</b>	0.8	10.15195	9.50	1.10	-4.98	28.23	9.746658
_GLAXO	<b>Q4</b>	0.76	10.17647	9.50	1.01	1.03	27.23	9.800862
_GLAXO	<b>1986Q1</b>	0.68	10.18833	9.50	1.11	-3.45	12.62	9.672463
_GLAXO	<b>Q2</b>	0.7	7.867489	9.50	1.12	2.95	13.47	9.767674
_GLAXO	<b>Q3</b>	0.71	10.29246	9.50	4.64	12.89	14.91	9.764903
_GLAXO	<b>Q4</b>	0.86	10.21793	9.50	3.18	13.67	16.08	9.819758
_GLAXO	<b>1987Q1</b>	0.57	10.18574	14.00	3.92	14.50	18.31	10.12646
_GLAXO	<b>Q2</b>	0.61	10.22061	14.00	4.05	8.97	20.03	10.18309
_GLAXO	<b>Q3</b>	0.75	10.27855	14.00	4.21	6.42	19.53	10.18175
_GLAXO	<b>Q4</b>	0.86	10.42429	14.00	4.17	9.69	17.24	10.21678
_GLAXO	<b>1988Q1</b>	1.1	10.51156	14.00	4.32	43.09	16.22	10.38074
_GLAXO	<b>Q2</b>	1.55	10.57748	14.00	4.19	62.72	16.53	10.46199
_GLAXO	<b>Q3</b>	1.41	10.60232	14.00	4.72	65.72	14.47	10.47246
_GLAXO	<b>Q4</b>	1.03	10.7243	14.00	5.35	61.21	16.27	10.50676
_GLAXO	<b>1989Q1</b>	1.03	10.80769	16.40	7.59	56.73	19.45	10.88285
_GLAXO	<b>Q2</b>	1.11	10.78155	16.40	7.35	60.36	20.01	10.90298
_GLAXO	<b>Q3</b>	1	10.69684	16.40	7.34	44.97	19.59	10.89292
_GLAXO	<b>Q4</b>	1.42	10.75907	16.40	7.62	44.67	21.09	10.92252
_GLAXO	<b>1990Q1</b>	1.42	10.82487	18.00	7.94	14.20	20.42	11.09634
_GLAXO	<b>Q2</b>	1.53	10.79856	18.00	7.94	0.40	16.87	11.114
_GLAXO	<b>Q3</b>	1.6	10.94928	18.00	7.97	2.79	33.69	11.10135
_GLAXO	<b>Q4</b>	1.5	11.13725	18.00	8.71	3.61	27.34	11.13102
_GLAXO	<b>1991Q1</b>	1.5	11.17084	14.29	9.45	6.93	19.86	11.24438
_GLAXO	<b>Q2</b>	1.42	11.2915	14.29	10.17	12.66	20.20	11.26758
_GLAXO	<b>Q3</b>	1.33	11.30472	14.29	10.24	15.92	21.86	11.25569
_GLAXO	<b>Q4</b>	1.25	11.37925	14.29	9.87	22.96	19.52	11.29138
_GLAXO	<b>1992Q1</b>	1.25	11.53943	16.10	17.61	32.51	18.92	11.80505
_GLAXO	<b>Q2</b>	1.19	11.65174	16.10	18.46	48.47	22.38	11.80006
_GLAXO	<b>Q3</b>	0.8	11.70874	16.10	19.35	54.88	21.90	11.78074
_GLAXO	<b>Q4</b>	0.75	11.76823	16.10	19.66	48.80	19.41	11.81092
_GLAXO	<b>1993Q1</b>	0.78	11.89527	16.66	24.88	55.85	20.35	12.02422
_GLAXO	<b>Q2</b>	0.7	11.97949	16.66	21.89	56.34	19.07	12.05078
_GLAXO	<b>Q3</b>	0.5	12.07892	16.66	21.89	58.35	17.51	12.04731
_GLAXO	<b>Q4</b>	0.77	12.19844	16.66	21.89	61.26	14.51	12.07398
_GLAXO	<b>1994Q1</b>	1.36	12.24626	13.50	21.89	50.71	14.66	12.26337
_GLAXO	<b>Q2</b>	3.21	12.33826	13.50	21.89	41.57	19.07	12.32513
_GLAXO	<b>Q3</b>	3.35	12.39999	13.50	21.89	60.18	17.46	12.33586
_GLAXO	<b>Q4</b>	3.92	12.4948	13.50	21.89	76.76	17.16	12.36762



_GLAXO	<b>1995Q1</b>	4.69	12.44715	12.61	21.89	81.30	18.55	13.07136
_GLAXO	<b>Q2</b>	4.6	12.57994	12.61	21.89	89.57	18.42	13.08772
_GLAXO	<b>Q3</b>	5.85	12.6179	12.61	21.89	69.88	18.23	13.08387
_GLAXO	<b>Q4</b>	6.25	12.6722	12.61	21.89	51.59	19.04	13.0898
_GLAXO	<b>1996Q1</b>	7.35	12.70295	11.69	21.89	41.90	21.36	13.41596
_GLAXO	<b>Q2</b>	8.78	12.77708	11.69	21.89	28.84	20.45	13.42268
_GLAXO	<b>Q3</b>	8.44	12.77113	11.69	21.89	23.66	23.99	13.41604
_GLAXO	<b>Q4</b>	8.44	12.82216	11.69	21.89	14.31	25.39	13.43901
_GLAXO	<b>1997Q1</b>	6.8	12.88658	4.80	21.89	13.75	20.99	13.43914
_GLAXO	<b>Q2</b>	5.8	12.92529	4.80	21.89	11.65	19.17	13.4596
_GLAXO	<b>Q3</b>	4.3	12.96096	4.80	21.89	6.53	19.79	13.45873
_GLAXO	<b>Q4</b>	3.95	12.97092	4.80	21.89	10.21	18.32	13.48027
_GLAXO	<b>1998Q1</b>	4.4	13.05632	5.49	21.89	6.96	15.02	13.38158
_GLAXO	<b>Q2</b>	3.7	13.07587	5.49	21.89	6.34	13.66	13.42733
_GLAXO	<b>Q3</b>	3.4	13.17501	5.49	21.89	6.98	14.95	13.43851
_GLAXO	<b>Q4</b>	2.8	13.17237	5.49	21.89	11.91	11.28	13.45478
_GLAXO	<b>1999Q1</b>	2.45	13.31962	5.33	86.97	13.55	14.66	13.56323
_GLAXO	<b>Q2</b>	3	13.36128	5.33	94.88	8.28	17.89	13.59142
_GLAXO	<b>Q3</b>	2.14	13.39333	5.33	94.88	2.24	23.88	13.59413
_GLAXO	<b>Q4</b>	2.14	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_GLAXO	<b>2000Q1</b>	2.66	13.58676	5.29	100.93	-1.43	29.89	13.96831
_GLAXO	<b>Q2</b>	2.35	13.71475	5.29	101.83	5.87	31.83	13.95028
_GLAXO	<b>Q3</b>	3.12	13.77754	5.29	102.36	15.51	33.88	13.93296
_GLAXO	<b>Q4</b>	3.32	13.85095	5.29	106.71	14.53	28.46	13.95365
_GLAXO	<b>2001Q1</b>	3.15	14.0577	5.49	110.66	18.20	27.24	13.96758
_GLAXO	<b>Q2</b>	2.64	14.04913	5.49	112.48	16.06	26.60	13.98321
_GLAXO	<b>Q3</b>	2	14.0989	5.49	111.60	19.12	25.88	13.98187
_GLAXO	<b>Q4</b>	2.05	14.16852	5.49	112.99	16.49	19.33	13.99556
_GLAXO	<b>2002Q1</b>	1.68	14.22234	4.15	116.04	17.42	24.42	14.30135
_GLAXO	<b>Q2</b>	1.7	14.4063	4.15	118.49	12.25	25.52	14.36687
_GLAXO	<b>Q3</b>	2.55	14.2852	4.15	126.45	9.96	29.67	14.39904
_GLAXO	<b>Q4</b>	2	14.46728	4.15	126.88	12.14	29.42	14.38019
_GLAXO	<b>2003Q1</b>	4.95	14.56896	4.11	127.16	5.80	33.55	14.52822
_GLAXO	<b>Q2</b>	4.2	14.49915	4.11	127.83	13.98	30.72	14.57055
_GLAXO	<b>Q3</b>	5.96	14.50123	4.11	128.58	18.37	28.29	14.59097
_GLAXO	<b>Q4</b>	8.39	14.56136	4.11	137.22	23.84	32.15	14.58016
_GLAXO	<b>2004Q1</b>	9.44	14.56375	4.19	134.43	22.47	36.76	14.78297
_GLAXO	<b>Q2</b>	8.58	14.58508	4.19	132.75	14.07	38.02	14.76805
_GLAXO	<b>Q3</b>	7.89	14.64126	4.19	132.84	9.17	45.95	14.90929
_GLAXO	<b>Q4</b>	8	14.75866	4.19	132.86	10.01	43.33	14.97929
_GLAXO	<b>2005Q1</b>	4.09	14.80553	3.83	132.85	16.28	54.31	14.96912
_GLAXO	<b>Q2</b>	4.98	14.83542	3.83	132.87	18.58	56.26	15.0391
_GLAXO	<b>Q3</b>	4	14.85042	3.83	130.81	24.31	65.57	15.18282
_GLAXO	<b>Q4</b>	11	14.84242	3.83	130.29	11.57	59.43	15.22124

_GLAXO	<b>2006Q1</b>	4.18	15.01175	3.13	128.70	12.07	62.90	15.19837
_GLAXO	<b>Q2</b>	3.61	15.17951	3.13	128.45	8.50	70.96	15.30303
_GLAXO	<b>Q3</b>	3.51	15.27892	3.13	128.29	6.24	63.87	15.42224
_GLAXO	<b>Q4</b>	17.5	15.20876	3.13	128.29	8.57	62.03	15.45756
_GLAXO	<b>2007Q1</b>	26.6	15.38378	3.55	128.15	5.22	60.56	15.37172
_GLAXO	<b>Q2</b>	20.03	15.44832	3.55	127.41	6.41	67.48	15.39528
_GLAXO	<b>Q3</b>	19.51	15.58581	3.55	125.88	4.10	79.93	15.52468
_GLAXO	<b>Q4</b>	24.77	15.57506	3.55	118.21	6.56	91.73	15.5272
_GLAXO	<b>2008Q1</b>	22.6	15.89473	3.43	117.92	7.79	105.56	15.50585
_GLAXO	<b>Q2</b>	23.3	15.88848	3.43	117.73	12.05	133.93	15.55675
_GLAXO	<b>Q3</b>	22.67	16.01054	3.43	112.47	13.04	103.90	15.66242
_GLAXO	<b>Q4</b>	15.45	16.03331	3.43	126.48	15.10	41.02	15.66809
_GLAXO	<b>2009Q1</b>	14.8	16.01249	3.11	126.48	15.1	47.98	15.44102
_GLAXO	<b>Q2</b>	17.2	16.02126	3.11	126.48	15.1	69.68	15.47927
_GLAXO	<b>Q3</b>	25	16.06242	3.11	126.48	15.1	69.46	15.59592
_GLAXO	<b>Q4</b>	21.5	16.19203	3.11	126.48	15.1	74.30	15.60012
_UNIPRES	<b>1985Q1</b>	0.45	10.04524	9.50	1.03	20.00	28.24	9.658034
_UNIPRES	<b>Q2</b>	0.4	10.08231	9.50	1.06	3.77	27.14	9.747728
_UNIPRES	<b>Q3</b>	0.43	10.15195	9.50	1.10	-4.98	28.23	9.746658
_UNIPRES	<b>Q4</b>	0.53	10.17647	9.50	1.01	1.03	27.23	9.800862
_UNIPRES	<b>1986Q1</b>	0.53	10.18833	9.50	1.11	-3.45	12.62	9.672463
_UNIPRES	<b>Q2</b>	0.55	7.867489	9.50	1.12	2.95	13.47	9.767674
_UNIPRES	<b>Q3</b>	0.55	10.29246	9.50	4.64	12.89	14.91	9.764903
_UNIPRES	<b>Q4</b>	0.55	10.21793	9.50	3.18	13.67	16.08	9.819758
_UNIPRES	<b>1987Q1</b>	0.54	10.18574	14.00	3.92	14.50	18.31	10.12646
_UNIPRES	<b>Q2</b>	0.54	10.22061	14.00	4.05	8.97	20.03	10.18309
_UNIPRES	<b>Q3</b>	0.51	10.27855	14.00	4.21	6.42	19.53	10.18175
_UNIPRES	<b>Q4</b>	0.5	10.42429	14.00	4.17	9.69	17.24	10.21678
_UNIPRES	<b>1988Q1</b>	0.5	10.51156	14.00	4.32	43.09	16.22	10.38074
_UNIPRES	<b>Q2</b>	0.5	10.57748	14.00	4.19	62.72	16.53	10.46199
_UNIPRES	<b>Q3</b>	0.5	10.60232	14.00	4.72	65.72	14.47	10.47246
_UNIPRES	<b>Q4</b>	0.5	10.7243	14.00	5.35	61.21	16.27	10.50676
_UNIPRES	<b>1989Q1</b>	0.45	10.80769	16.40	7.59	56.73	19.45	10.88285
_UNIPRES	<b>Q2</b>	0.45	10.78155	16.40	7.35	60.36	20.01	10.90298
_UNIPRES	<b>Q3</b>	0.74	10.69684	16.40	7.34	44.97	19.59	10.89292
_UNIPRES	<b>Q4</b>	0.49	10.75907	16.40	7.62	44.67	21.09	10.92252
_UNIPRES	<b>1990Q1</b>	0.53	10.82487	18.00	7.94	14.20	20.42	11.09634
_UNIPRES	<b>Q2</b>	0.51	10.79856	18.00	7.94	0.40	16.87	11.114
_UNIPRES	<b>Q3</b>	0.57	10.94928	18.00	7.97	2.79	33.69	11.10135
_UNIPRES	<b>Q4</b>	0.89	11.13725	18.00	8.71	3.61	27.34	11.13102
_UNIPRES	<b>1991Q1</b>	0.92	11.17084	14.29	9.45	6.93	19.86	11.24438
_UNIPRES	<b>Q2</b>	0.93	11.2915	14.29	10.17	12.66	20.20	11.26758
_UNIPRES	<b>Q3</b>	0.9	11.30472	14.29	10.24	15.92	21.86	11.25569
_UNIPRES	<b>Q4</b>	0.95	11.37925	14.29	9.87	22.96	19.52	11.29138

_UNIPRES	<b>1992Q1</b>	0.95	11.53943	16.10	17.61	32.51	18.92	11.80505
_UNIPRES	<b>Q2</b>	0.95	11.65174	16.10	18.46	48.47	22.38	11.80006
_UNIPRES	<b>Q3</b>	0.95	11.70874	16.10	19.35	54.88	21.90	11.78074
_UNIPRES	<b>Q4</b>	0.95	11.76823	16.10	19.66	48.80	19.41	11.81092
_UNIPRES	<b>1993Q1</b>	0.8	11.89527	16.66	24.88	55.85	20.35	12.02422
_UNIPRES	<b>Q2</b>	0.76	11.97949	16.66	21.89	56.34	19.07	12.05078
_UNIPRES	<b>Q3</b>	0.66	12.07892	16.66	21.89	58.35	17.51	12.04731
_UNIPRES	<b>Q4</b>	0.6	12.19844	16.66	21.89	61.26	14.51	12.07398
_UNIPRES	<b>1994Q1</b>	1	12.24626	13.50	21.89	50.71	14.66	12.26337
_UNIPRES	<b>Q2</b>	1	12.33826	13.50	21.89	41.57	19.07	12.32513
_UNIPRES	<b>Q3</b>	1	12.39999	13.50	21.89	60.18	17.46	12.33586
_UNIPRES	<b>Q4</b>	0.94	12.4948	13.50	21.89	76.76	17.16	12.36762
_UNIPRES	<b>1995Q1</b>	0.7	12.44715	12.61	21.89	81.30	18.55	13.07136
_UNIPRES	<b>Q2</b>	0.6	12.57994	12.61	21.89	89.57	18.42	13.08772
_UNIPRES	<b>Q3</b>	0.93	12.6179	12.61	21.89	69.88	18.23	13.08387
_UNIPRES	<b>Q4</b>	0.94	12.6722	12.61	21.89	51.59	19.04	13.0898
_UNIPRES	<b>1996Q1</b>	0.94	12.70295	11.69	21.89	41.90	21.36	13.41596
_UNIPRES	<b>Q2</b>	1	12.77708	11.69	21.89	28.84	20.45	13.42268
_UNIPRES	<b>Q3</b>	1.38	12.77113	11.69	21.89	23.66	23.99	13.41604
_UNIPRES	<b>Q4</b>	1.3	12.82216	11.69	21.89	14.31	25.39	13.43901
_UNIPRES	<b>1997Q1</b>	1.55	12.88658	4.80	21.89	13.75	20.99	13.43914
_UNIPRES	<b>Q2</b>	1.57	12.92529	4.80	21.89	11.65	19.17	13.4596
_UNIPRES	<b>Q3</b>	1.5	12.96096	4.80	21.89	6.53	19.79	13.45873
_UNIPRES	<b>Q4</b>	1.5	12.97092	4.80	21.89	10.21	18.32	13.48027
_UNIPRES	<b>1998Q1</b>	1.45	13.05632	5.49	21.89	6.96	15.02	13.38158
_UNIPRES	<b>Q2</b>	1.45	13.07587	5.49	21.89	6.34	13.66	13.42733
_UNIPRES	<b>Q3</b>	1.35	13.17501	5.49	21.89	6.98	14.95	13.43851
_UNIPRES	<b>Q4</b>	1.35	13.17237	5.49	21.89	11.91	11.28	13.45478
_UNIPRES	<b>1999Q1</b>	1.35	13.31962	5.33	86.97	13.55	14.66	13.56323
_UNIPRES	<b>Q2</b>	1.3	13.36128	5.33	94.88	8.28	17.89	13.59142
_UNIPRES	<b>Q3</b>	1.1	13.39333	5.33	94.88	2.24	23.88	13.59413
_UNIPRES	<b>Q4</b>	1.1	#VALUE!	5.33	97.60	0.22	26.08	13.61258
_UNIPRES	<b>2000Q1</b>	1.64	13.58676	5.29	100.93	-1.43	29.89	13.96831
_UNIPRES	<b>Q2</b>	2.7	13.71475	5.29	101.83	5.87	31.83	13.95028
_UNIPRES	<b>Q3</b>	2.7	13.77754	5.29	102.36	15.51	33.88	13.93296
_UNIPRES	<b>Q4</b>	2.7	13.85095	5.29	106.71	14.53	28.46	13.95365
_UNIPRES	<b>2001Q1</b>	3.95	14.0577	5.49	110.66	18.20	27.24	13.96758
_UNIPRES	<b>Q2</b>	4	14.04913	5.49	112.48	16.06	26.60	13.98321
_UNIPRES	<b>Q3</b>	3.01	14.0989	5.49	111.60	19.12	25.88	13.98187
_UNIPRES	<b>Q4</b>	3.42	14.16852	5.49	112.99	16.49	19.33	13.99556
_UNIPRES	<b>2002Q1</b>	3.23	14.22234	4.15	116.04	17.42	24.42	14.30135
_UNIPRES	<b>Q2</b>	2.35	14.4063	4.15	118.49	12.25	25.52	14.36687
_UNIPRES	<b>Q3</b>	2.12	14.2852	4.15	126.45	9.96	29.67	14.39904
_UNIPRES	<b>Q4</b>	3.42	14.46728	4.15	126.88	12.14	29.42	14.38019

_UNIPRES	<b>2003Q1</b>	1.85	14.56896	4.11	127.16	5.80	33.55	14.52822
_UNIPRES	<b>Q2</b>	1.5	14.49915	4.11	127.83	13.98	30.72	14.57055
_UNIPRES	<b>Q3</b>	1.45	14.50123	4.11	128.58	18.37	28.29	14.59097
_UNIPRES	<b>Q4</b>	1.41	14.56136	4.11	137.22	23.84	32.15	14.58016
_UNIPRES	<b>2004Q1</b>	1.83	14.56375	4.19	134.43	22.47	36.76	14.78297
_UNIPRES	<b>Q2</b>	2.2	14.58508	4.19	132.75	14.07	38.02	14.76805
_UNIPRES	<b>Q3</b>	1.19	14.64126	4.19	132.84	9.17	45.95	14.90929
_UNIPRES	<b>Q4</b>	1.32	14.75866	4.19	132.86	10.01	43.33	14.97929
_UNIPRES	<b>2005Q1</b>	1.35	14.80553	3.83	132.85	16.28	54.31	14.96912
_UNIPRES	<b>Q2</b>	1.39	14.83542	3.83	132.87	18.58	56.26	15.0391
_UNIPRES	<b>Q3</b>	1.48	14.85042	3.83	130.81	24.31	65.57	15.18282
_UNIPRES	<b>Q4</b>	1.45	14.84242	3.83	130.29	11.57	59.43	15.22124
_UNIPRES	<b>2006Q1</b>	1.45	15.01175	3.13	128.70	12.07	62.90	15.19837
_UNIPRES	<b>Q2</b>	1.49	15.17951	3.13	128.45	8.50	70.96	15.30303
_UNIPRES	<b>Q3</b>	3.2	15.27892	3.13	128.29	6.24	63.87	15.42224
_UNIPRES	<b>Q4</b>	3.2	15.20876	3.13	128.29	8.57	62.03	15.45756
_UNIPRES	<b>2007Q1</b>	3.2	15.38378	3.55	128.15	5.22	60.56	15.37172
_UNIPRES	<b>Q2</b>	11.25	15.44832	3.55	127.41	6.41	67.48	15.39528
_UNIPRES	<b>Q3</b>	6.13	15.58581	3.55	125.88	4.10	79.93	15.52468
_UNIPRES	<b>Q4</b>	8.08	15.57506	3.55	118.21	6.56	91.73	15.5272
_UNIPRES	<b>2008Q1</b>	12.95	15.89473	3.43	117.92	7.79	105.56	15.50585
_UNIPRES	<b>Q2</b>	8.71	15.88848	3.43	117.73	12.05	133.93	15.55675
_UNIPRES	<b>Q3</b>	7.11	16.01054	3.43	112.47	13.04	103.90	15.66242
_UNIPRES	<b>Q4</b>	5.81	16.03331	3.43	126.48	15.10	41.02	15.66809
_UNIPRES	<b>2009Q1</b>	3.82	16.01249	3.11	126.48	15.1	47.98	15.44102
_UNIPRES	<b>Q2</b>	7.66	16.02126	3.11	126.48	15.1	69.68	15.47927
_UNIPRES	<b>Q3</b>	4	16.06242	3.11	126.48	15.1	69.46	15.59592
_UNIPRES	<b>Q4</b>	5	16.19203	3.11	126.48	15.1	74.30	15.60012
_UNTEX	<b>1985Q1</b>	0.5	10.04524	9.50	1.03	20.00	28.24	9.658034
_UNTEX	<b>Q2</b>	0.5	10.08231	9.50	1.06	3.77	27.14	9.747728
_UNTEX	<b>Q3</b>	0.56	10.15195	9.50	1.10	-4.98	28.23	9.746658
_UNTEX	<b>Q4</b>	0.82	10.17647	9.50	1.01	1.03	27.23	9.800862
_UNTEX	<b>1986Q1</b>	1	10.18833	9.50	1.11	-3.45	12.62	9.672463
_UNTEX	<b>Q2</b>	1.03	7.867489	9.50	1.12	2.95	13.47	9.767674
_UNTEX	<b>Q3</b>	0.7	10.29246	9.50	4.64	12.89	14.91	9.764903
_UNTEX	<b>Q4</b>	0.74	10.21793	9.50	3.18	13.67	16.08	9.819758
_UNTEX	<b>1987Q1</b>	0.74	10.18574	14.00	3.92	14.50	18.31	10.12646
_UNTEX	<b>Q2</b>	1.05	10.22061	14.00	4.05	8.97	20.03	10.18309
_UNTEX	<b>Q3</b>	1.02	10.27855	14.00	4.21	6.42	19.53	10.18175
_UNTEX	<b>Q4</b>	0.995	10.42429	14.00	4.17	9.69	17.24	10.21678
_UNTEX	<b>1988Q1</b>	1	10.51156	14.00	4.32	43.09	16.22	10.38074
_UNTEX	<b>Q2</b>	1.06	10.57748	14.00	4.19	62.72	16.53	10.46199
_UNTEX	<b>Q3</b>	1.05	10.60232	14.00	4.72	65.72	14.47	10.47246
_UNTEX	<b>Q4</b>	1.12	10.7243	14.00	5.35	61.21	16.27	10.50676

_UNTEX	<b>1989Q1</b>	1.2	10.80769	16.40	7.59	56.73	19.45	10.88285
_UNTEX	<b>Q2</b>	1.5	10.78155	16.40	7.35	60.36	20.01	10.90298
_UNTEX	<b>Q3</b>	1.65	10.69684	16.40	7.34	44.97	19.59	10.89292
_UNTEX	<b>Q4</b>	2.51	10.75907	16.40	7.62	44.67	21.09	10.92252
_UNTEX	<b>1990Q1</b>	2.66	10.82487	18.00	7.94	14.20	20.42	11.09634
_UNTEX	<b>Q2</b>	3.13	10.79856	18.00	7.94	0.40	16.87	11.114
_UNTEX	<b>Q3</b>	3.03	10.94928	18.00	7.97	2.79	33.69	11.10135
_UNTEX	<b>Q4</b>	3.22	11.13725	18.00	8.71	3.61	27.34	11.13102
_UNTEX	<b>1991Q1</b>	3.34	11.17084	14.29	9.45	6.93	19.86	11.24438
_UNTEX	<b>Q2</b>	3.56	11.2915	14.29	10.17	12.66	20.20	11.26758
_UNTEX	<b>Q3</b>	3.26	11.30472	14.29	10.24	15.92	21.86	11.25569
_UNTEX	<b>Q4</b>	3.47	11.37925	14.29	9.87	22.96	19.52	11.29138
_UNTEX	<b>1992Q1</b>	3.62	11.53943	16.10	17.61	32.51	18.92	11.80505
_UNTEX	<b>Q2</b>	3.63	11.65174	16.10	18.46	48.47	22.38	11.80006
_UNTEX	<b>Q3</b>	3.27	11.70874	16.10	19.35	54.88	21.90	11.78074
_UNTEX	<b>Q4</b>	4	11.76823	16.10	19.66	48.80	19.41	11.81092
_UNTEX	<b>1993Q1</b>	4.22	11.89527	16.66	24.88	55.85	20.35	12.02422
_UNTEX	<b>Q2</b>	4.2	11.97949	16.66	21.89	56.34	19.07	12.05078
_UNTEX	<b>Q3</b>	3.18	12.07892	16.66	21.89	58.35	17.51	12.04731
_UNTEX	<b>Q4</b>	4.2	12.19844	16.66	21.89	61.26	14.51	12.07398
_UNTEX	<b>1994Q1</b>	4.45	12.24626	13.50	21.89	50.71	14.66	12.26337
_UNTEX	<b>Q2</b>	4.45	12.33826	13.50	21.89	41.57	19.07	12.32513
_UNTEX	<b>Q3</b>	3.51	12.39999	13.50	21.89	60.18	17.46	12.33586
_UNTEX	<b>Q4</b>	3.51	12.4948	13.50	21.89	76.76	17.16	12.36762
_UNTEX	<b>1995Q1</b>	3.53	12.44715	12.61	21.89	81.30	18.55	13.07136
_UNTEX	<b>Q2</b>	3.55	12.57994	12.61	21.89	89.57	18.42	13.08772
_UNTEX	<b>Q3</b>	3.95	12.6179	12.61	21.89	69.88	18.23	13.08387
_UNTEX	<b>Q4</b>	4.3	12.6722	12.61	21.89	51.59	19.04	13.0898
_UNTEX	<b>1996Q1</b>	5.35	12.70295	11.69	21.89	41.90	21.36	13.41596
_UNTEX	<b>Q2</b>	5.94	12.77708	11.69	21.89	28.84	20.45	13.42268
_UNTEX	<b>Q3</b>	7	12.77113	11.69	21.89	23.66	23.99	13.41604
_UNTEX	<b>Q4</b>	6.9	12.82216	11.69	21.89	14.31	25.39	13.43901
_UNTEX	<b>1997Q1</b>	6.7	12.88658	4.80	21.89	13.75	20.99	13.43914
_UNTEX	<b>Q2</b>	5.7	12.92529	4.80	21.89	11.65	19.17	13.4596
_UNTEX	<b>Q3</b>	4.4	12.96096	4.80	21.89	6.53	19.79	13.45873
_UNTEX	<b>Q4</b>	4.2	12.97092	4.80	21.89	10.21	18.32	13.48027
_UNTEX	<b>1998Q1</b>	1.5	13.05632	5.49	21.89	6.96	15.02	13.38158
_UNTEX	<b>Q2</b>	4.1	13.07587	5.49	21.89	6.34	13.66	13.42733
_UNTEX	<b>Q3</b>	2.99	13.17501	5.49	21.89	6.98	14.95	13.43851
_UNTEX	<b>Q4</b>	3.7	13.17237	5.49	21.89	11.91	11.28	13.45478
_UNTEX	<b>1999Q1</b>	1.55	13.31962	5.33	86.97	13.55	14.66	13.56323
_UNTEX	<b>Q2</b>	5.1	13.36128	5.33	94.88	8.28	17.89	13.59142
_UNTEX	<b>Q3</b>	2.85	13.39333	5.33	94.88	2.24	23.88	13.59413
_UNTEX	<b>Q4</b>	2.9	#VALUE!	5.33	97.60	0.22	26.08	13.61258

_UNTEX	<b>2000Q1</b>	3.5	13.58676	5.29	100.93	-1.43	29.89	13.96831
_UNTEX	<b>Q2</b>	4.68	13.71475	5.29	101.83	5.87	31.83	13.95028
_UNTEX	<b>Q3</b>	4.5	13.77754	5.29	102.36	15.51	33.88	13.93296
_UNTEX	<b>Q4</b>	2.9	13.85095	5.29	106.71	14.53	28.46	13.95365
_UNTEX	<b>2001Q1</b>	3.41	14.0577	5.49	110.66	18.20	27.24	13.96758
_UNTEX	<b>Q2</b>	3.15	14.04913	5.49	112.48	16.06	26.60	13.98321
_UNTEX	<b>Q3</b>	4	14.0989	5.49	111.60	19.12	25.88	13.98187
_UNTEX	<b>Q4</b>	4	14.16852	5.49	112.99	16.49	19.33	13.99556
_UNTEX	<b>2002Q1</b>	4	14.22234	4.15	116.04	17.42	24.42	14.30135
_UNTEX	<b>Q2</b>	2.5	14.4063	4.15	118.49	12.25	25.52	14.36687
_UNTEX	<b>Q3</b>	2.55	14.2852	4.15	126.45	9.96	29.67	14.39904
_UNTEX	<b>Q4</b>	3.26	14.46728	4.15	126.88	12.14	29.42	14.38019
_UNTEX	<b>2003Q1</b>	4.17	14.56896	4.11	127.16	5.80	33.55	14.52822
_UNTEX	<b>Q2</b>	4.2	14.49915	4.11	127.83	13.98	30.72	14.57055
_UNTEX	<b>Q3</b>	3.54	14.50123	4.11	128.58	18.37	28.29	14.59097
_UNTEX	<b>Q4</b>	3.25	14.56136	4.11	137.22	23.84	32.15	14.58016
_UNTEX	<b>2004Q1</b>	3.07	14.56375	4.19	134.43	22.47	36.76	14.78297
_UNTEX	<b>Q2</b>	4.2	14.58508	4.19	132.75	14.07	38.02	14.76805
_UNTEX	<b>Q3</b>	1.99	14.64126	4.19	132.84	9.17	45.95	14.90929
_UNTEX	<b>Q4</b>	2.08	14.75866	4.19	132.86	10.01	43.33	14.97929
_UNTEX	<b>2005Q1</b>	1.9	14.80553	3.83	132.85	16.28	54.31	14.96912
_UNTEX	<b>Q2</b>	2.19	14.83542	3.83	132.87	18.58	56.26	15.0391
_UNTEX	<b>Q3</b>	2.4	14.85042	3.83	130.81	24.31	65.57	15.18282
_UNTEX	<b>Q4</b>	2.35	14.84242	3.83	130.29	11.57	59.43	15.22124
_UNTEX	<b>2006Q1</b>	2.35	15.01175	3.13	128.70	12.07	62.90	15.19837
_UNTEX	<b>Q2</b>	2	15.17951	3.13	128.45	8.50	70.96	15.30303
_UNTEX	<b>Q3</b>	0.91	15.27892	3.13	128.29	6.24	63.87	15.42224
_UNTEX	<b>Q4</b>	0.91	15.20876	3.13	128.29	8.57	62.03	15.45756
_UNTEX	<b>2007Q1</b>	2.14	15.38378	3.55	128.15	5.22	60.56	15.37172
_UNTEX	<b>Q2</b>	4.96	15.44832	3.55	127.41	6.41	67.48	15.39528
_UNTEX	<b>Q3</b>	2.88	15.58581	3.55	125.88	4.10	79.93	15.52468
_UNTEX	<b>Q4</b>	2.85	15.57506	3.55	118.21	6.56	91.73	15.5272
_UNTEX	<b>2008Q1</b>	6.5	15.89473	3.43	117.92	7.79	105.56	15.50585
_UNTEX	<b>Q2</b>	4.66	15.88848	3.43	117.73	12.05	133.93	15.55675
_UNTEX	<b>Q3</b>	3.83	16.01054	3.43	112.47	13.04	103.90	15.66242
_UNTEX	<b>Q4</b>	3.1	16.03331	3.43	126.48	15.10	41.02	15.66809
_UNTEX	<b>2009Q1</b>	3.1	16.01249	3.11	126.48	15.1	47.98	15.44102
_UNTEX	<b>Q2</b>	2.81	16.02126	3.11	126.48	15.1	69.68	15.47927
_UNTEX	<b>Q3</b>	2.3	16.06242	3.11	126.48	15.1	69.46	15.59592
_UNTEX	<b>Q4</b>	1.9	16.19203	3.11	126.48	15.1	74.30	15.60012

## APPENDIX 2

### Quarterly Data on All Share Index and Macroeconomic Variables in Nigeria (1985-2009)

Year/Quart	ALS	BRDM	INTR	ECHR	INF	OIL	GDP
1985Q1	113.4	23045.90	9.50	1.03	20.00	28.24	15647.00
Q2	116.3	23916.10	9.50	1.06	3.77	27.14	17115.30
Q3	116.9	25641.00	9.50	1.10	-4.98	28.23	17097.00
Q4	127.3	26277.60	9.50	1.01	1.03	27.23	18049.30
1986Q1	140.8	26591.00	9.50	1.11	-3.45	12.62	15874.40
Q2	147.4	2611.00	9.50	1.12	2.95	13.47	17460.10
Q3	155	29509.20	9.50	4.64	12.89	14.91	17411.80
Q4	163.8	27389.80	9.50	3.18	13.67	16.08	18393.60
1987Q1	161.7	26522.20	14.00	3.92	14.50	18.31	24995.70
Q2	196.1	27463.30	14.00	4.05	8.97	20.03	26452.00
Q3	194.9	29101.60	14.00	4.21	6.42	19.53	26416.60
Q4	190.9	33667.40	14.00	4.17	9.69	17.24	27358.30
1988Q1	195.5	36737.70	14.00	4.32	43.09	16.22	32232.70
Q2	206	39241.00	14.00	4.19	62.72	16.53	34961.20
Q3	224.1	40228.10	14.00	4.72	65.72	14.47	35329.00
Q4	233.6	45446.90	14.00	5.35	61.21	16.27	36561.70
1989Q1	256.9	49399.30	16.40	7.59	56.73	19.45	53255.40
Q2	259.2	48124.80	16.40	7.35	60.36	20.01	54337.80
Q3	279.9	44216.00	16.40	7.34	44.97	19.59	53793.90
Q4	325.3	47055.00	16.40	7.62	44.67	21.09	55410.50
1990Q1	356	50255.40	18.00	7.94	14.20	20.42	65929.70
Q2	417.4	48950.50	18.00	7.94	0.40	16.87	67103.80
Q3	468.2	56912.90	18.00	7.97	2.79	33.69	66260.80
Q4	513.8	68682.50	18.00	8.71	3.61	27.34	68255.90
1991Q1	601	71028.60	14.29	9.45	6.93	19.86	76449.40
Q2	651.8	80137.50	14.29	10.17	12.66	20.20	78243.70
Q3	737.3	81204.10	14.29	10.24	15.92	21.86	77318.50
Q4	783	87487.60	14.29	9.87	22.96	19.52	80128.20
1992Q1	839.1	102685.80	16.10	17.61	32.51	18.92	133927.10
Q2	870.8	114891.00	16.10	18.46	48.47	22.38	133260.60
Q3	1.022	121630.60	16.10	19.35	54.88	21.90	130710.20
Q4	1107.6	129085.50	16.10	19.66	48.80	19.41	134716.00
1993Q1	1130.5	146571.90	16.66	24.88	55.85	20.35	166745.60
Q2	1187.5	159451.40	16.66	21.89	56.34	19.07	171233.10
Q3	1217.3	176119.30	16.66	21.89	58.35	17.51	170640.00
Q4	1543.8	198479.20	16.66	21.89	61.26	14.51	175251.10
1994Q1	1792.8	208201.80	13.50	21.89	50.71	14.66	211794.30
Q2	1919.1	228264.80	13.50	21.89	41.57	19.07	225286.20
Q3	1956	242799.20	13.50	21.89	60.18	17.46	227716.20

Q4	2205	266944.90	13.50	21.89	76.76	17.16	235066.40
1995Q1	2551.1	254523.10	12.61	21.89	81.30	18.55	475135.40
Q2	3586.5	290668.70	12.61	21.89	89.57	18.42	482976.80
Q3	4858.1	301913.40	12.61	21.89	69.88	18.23	481117.30
Q4	5092.2	318763.50	12.61	21.89	51.59	19.04	483982.00
1996Q1	5266.2	328714.70	11.69	21.89	41.90	21.36	670619.00
Q2	5796.7	354011.50	11.69	21.89	28.84	20.45	675141.60
Q3	6501.9	351911.30	11.69	21.89	23.66	23.99	670676.40
Q4	6992.1	370333.50	11.69	21.89	14.31	25.39	686260.40
1997Q1	8561.4	394976.40	4.80	21.89	13.75	20.99	686351.00
Q2	8459.3	410565.50	4.80	21.89	11.65	19.17	700532.30
Q3	7130.8	425473.70	4.80	21.89	6.53	19.79	699923.50
Q4	6440.5	429731.30	4.80	21.89	10.21	18.32	715165.30
1998Q1	6298.5	468043.30	5.49	21.89	6.96	15.02	647960.40
Q2	5892.1	477287.80	5.49	21.89	6.34	13.66	678288.70
Q3	5697.7	527028.80	5.49	21.89	6.98	14.95	685915.50
Q4	5672.7	525637.70	5.49	21.89	11.91	11.28	697166.20
1999Q1	5456.2	609030.10	5.33	86.97	13.55	14.66	777023.90
Q2	5977.9	634937.40	5.33	94.88	8.28	17.89	799246.20
Q3	4890.8	655615.40	5.33	94.88	2.24	23.88	801411.10
Q4	5266.4	899.733.7	5.33	97.60	0.22	26.08	816333.70
2000Q1	5966.2	795529.00	5.29	100.93	-1.43	29.89	1165093.30
Q2	6466.7	904154.00	5.29	101.83	5.87	31.83	1144268.20
Q3	7298.9	962743.80	5.29	102.36	15.51	33.88	1124629.80
Q4	8111	1036079.50	5.29	106.71	14.53	28.46	1148136.00
2001Q1	9159.8	1274030.40	5.49	110.66	18.20	27.24	1164239.00
Q2	10937.3	1263161.20	5.49	112.48	16.06	26.60	1182576.20
Q3	10274.2	1327624.70	5.49	111.60	19.12	25.88	1181000.00
Q4	10963.1	1423345.50	5.49	112.99	16.49	19.33	1197270.80
2002Q1	11214.4	1502054.90	4.15	116.04	17.42	24.42	1625546.20
Q2	12440.7	1805419.10	4.15	118.49	12.25	25.52	1735602.90
Q3	11811.6	1599494.60	4.15	126.45	9.96	29.67	1792349.40
Q4	12137.7	1918925.70	4.15	126.88	12.14	29.42	1758882.80
2003Q1	13531.1	2124315.70	4.11	127.16	5.80	33.55	2039515.90
Q2	14565.5	1981068.50	4.11	127.83	13.98	30.72	2127693.30
Q3	16500.5	1985191.80	4.11	128.58	18.37	28.29	2171579.10
Q4	20128.9	2108238.00	4.11	137.22	23.84	32.15	2148243.20
2004Q1	22896.4	2113281.40	4.19	134.43	22.47	36.76	2631255.60
Q2	28887.4	2158836.10	4.19	132.75	14.07	38.02	2592273.20
Q3	22739.7	2283587.90	4.19	132.84	9.17	45.95	2985541.80
Q4	23844.5	2568065.30	4.19	132.86	10.01	43.33	3201996.40
2005Q1	20682.4	2691297.00	3.83	132.85	16.28	54.31	3169613.40
Q2	21564.8	2772933.10	3.83	132.87	18.58	56.26	3399351.80
Q3	24635.9	2814846.10	3.83	130.81	24.31	65.57	3924775.00



<b>Q4</b>	24085.8	2792433.90	3.83	130.29	11.57	59.43	4078498.80
<b>2006Q1</b>	23336.6	3307667.90	3.13	128.70	12.07	62.90	3986279.50
<b>Q2</b>	26316.1	3911821.50	3.13	128.45	8.50	70.96	4426083.80
<b>Q3</b>	32554.6	4320672.30	3.13	128.29	6.24	63.87	4986489.40
<b>Q4</b>	33189.3	4027901.70	3.13	128.29	8.57	62.03	5165742.00
<b>2007Q1</b>	43456.1	4798317.40	3.55	128.15	5.22	60.56	4740806.80
<b>Q2</b>	51330.5	5118248.70	3.55	127.41	6.41	67.48	4853839.30
<b>Q3</b>	50229	5872622.40	3.55	125.88	4.10	79.93	5524363.80
<b>Q4</b>	57990.2	5809826.50	3.55	118.21	6.56	91.73	5538294.60
<b>2008Q1</b>	63016.56	7998232.80	3.43	117.92	7.79	105.56	5421316.80
<b>Q2</b>	55949	7948368.80	3.43	117.73	12.05	133.93	5704400.30
<b>Q3</b>	46216	8980287.70	3.43	112.47	13.04	103.90	6340199.40
<b>Q4</b>	31450.78	9187067.60	3.43	126.48	15.10	41.02	6376225.20
<b>2009Q1</b>	53236.4	8997817.25	3.11	126.48	15.1	47.98	5081012.00
<b>Q2</b>	53639.8	9077026.53	3.11	126.48	15.1	69.68	5279120.00
<b>Q3</b>	48222.5	9458490.25	3.11	126.48	15.1	69.46	5932281.50
<b>Q4</b>	44720.5	10767377.80	3.11	126.48	15.1	74.30	5957260.00

### APPENDIX 3

#### Model One Results

##### GLS Results (Common Coefficient Method)

Dependent Variable: STK?				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-19.52653	3.094665	-6.309742	0.0000
BRDM?	0.043373	0.583305	0.074358	0.9407
INTR? **	-0.310920	0.073740	-4.216455	0.0000
ECHR? **	-0.027050	0.008216	-3.292300	0.0010
INF?	0.002880	0.010837	0.265757	0.7904
OIL? **	0.190954	0.011227	17.00821	0.0000
GDP? *	2.164148	1.330631	1.626408	0.1040
Weighted Statistics				
R-squared	0.409607	Mean dependent var		18.25929
Adjusted R-squared	0.408612	S.D. dependent var		30.20697
S.E. of regression	23.22970	Sum squared resid		1919424.
Log likelihood	-13887.90	F-statistic		411.3009
Durbin-Watson stat	0.804683	Prob(F-statistic)		0.000000

**Note:** \*\*(\*) significant at 5% and 10% respectively

**Source:** Author's Computation

##### GLS Results (cross section specific coefficient method)

Dependent Variable: STK?				
Method: GLS (Cross Section Weights)				
Sample: 1985:1 2009:4				
Included observations: 99				
Number of cross-sections used: 36				
Total panel (balanced) observations: 3564				
One-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-10.54118	0.714341	-14.75650	0.0000
_DUN--BRDM_DUN*	-3.196986	0.609859	-5.242170	0.0000
_FBN--BRDM_FBN	-2.612196	1.566111	-1.667950	0.0954
_UBA--BRDM_UBA	-1.271944	1.702812	-0.746967	0.4551
_UBN--BRDM_UBN	-0.962054	1.738369	-0.553423	0.5800
_GUIN--BRDM_GUIN	-2.065600	5.192668	-0.397792	0.6908
_NBL--BRDM_NBL	-0.536393	2.038292	-0.263158	0.7924
_JHT--BRDM_JHT	1.005076	0.738110	1.361689	0.1734
_PZ--BRDM_PZ*	-6.086093	1.373269	-4.431829	0.0000
_UAC--BRDM_UAC	0.820819	1.359226	0.603887	0.5460
_CAP--BRDM_CAP*	22.84675	4.992112	4.576571	0.0000
_NBC--BRDM_NBC*	-13.99583	3.138607	-4.459249	0.0000
_MOB--BRDM_MOB	-10.72132	9.824076	-1.091331	0.2752
_FLMILL--BRDM_FLMILL	-2.167682	2.840688	-0.763084	0.4455

_NNFMILL--BRDM_NNFMILL	-0.773784	0.893578	-0.865938	0.3866
_INCAR--BRDM_INCAR*	2.237872	0.535644	4.177910	0.0000
_BRCODE--BRDM_BRCODE	0.311814	1.169669	0.266583	0.7898
_GGUNIEA--BRDM_GGUNIEA	0.635370	0.486941	1.304818	0.1920
_NROPE--BRDM_NROPE	0.635370	0.486941	1.304818	0.1920
_NWIRE--BRDM_NWIRE	0.511656	0.391885	1.305629	0.1918
_BPAINT--BRDM_BPAINT	-0.324732	0.566766	-0.572957	0.5667
_AGLEV--BRDM_AGLEV*	1.318547	0.512059	2.574988	0.0101
_CHRAMS--BRDM_CHRAMS*	4.985781	1.017860	4.898295	0.0000
_SCOA--BRDM_SCOA	3.278041	0.691339	4.741585	0.0000
_JBERGER--BRDM_JBERGER	4.220575	3.840908	1.098848	0.2719
_COSTAIN--BRDM_COSTAIN	1.905477	1.580842	1.205356	0.2282
_ARBICO--BRDM_ARBICO*	6.634355	1.245798	5.325387	0.0000
_UNILEV--BRDM_UNILEV*	-4.633250	1.623125	-2.854525	0.0043
_CADBURY-- BRDM_CADBURY*	-14.87859	3.337310	-4.458260	0.0000
_POLYPRD--BRDM_POLYPRD*	1.382629	0.432339	3.198019	0.0014
_STDPRES--BRDM_STDPRES*	0.956939	0.468910	2.040773	0.0414
_TOTAL--BRDM_TOTAL*	-23.60523	8.084405	-2.919847	0.0035
_AP--BRDM_AP	5.675473	10.77140	0.526902	0.5983
_PHADEC--BRDM_PHADEC*	1.294298	0.489733	2.642865	0.0083
_GLAXO--BRDM_GLAXO	1.301267	0.987334	1.317961	0.1876
_UNIPRES--BRDM_UNIPRES*	1.749406	0.538341	3.249627	0.0012
_UNTEX--BRDM_UNTEX	-0.321761	0.400403	-0.803592	0.4217
_DUN--INTR_DUN*	-0.188490	0.066850	-2.819598	0.0048
_FBN--INTR_FBN*	-0.401463	0.170433	-2.355539	0.0186
_UBA--INTR_UBA*	-0.356340	0.185273	-1.923325	0.0545
_UBN--INTR_UBN*	-0.394497	0.189133	-2.085815	0.0371
_GUIN--INTR_GUIN	-0.613800	0.564428	-1.087473	0.2769
_NBL--INTR_NBL*	-0.745878	0.221701	-3.364346	0.0008
_JHT--INTR_JHT*	-0.543544	0.080691	-6.736156	0.0000
_PZ--INTR_PZ*	-0.738747	0.149506	-4.941265	0.0000
_UAC--INTR_UAC*	-0.840518	0.147982	-5.679869	0.0000
_CAP--INTR_CAP*	-2.323357	0.542633	-4.281633	0.0000
_NBC--INTR_NBC*	-1.660511	0.341228	-4.866282	0.0000
_MOB--INTR_MOB*	-4.279175	1.067757	-4.007629	0.0001
_FLMILL--INTR_FLMILL*	-1.106157	0.308860	-3.581415	0.0003
_NNFMILL--INTR_NNFMILL*	-0.437990	0.097506	-4.491917	0.0000
_INCAR--INTR_INCAR	0.026707	0.058862	0.453725	0.6501
_BRCODE--INTR_BRCODE	-0.147532	0.127421	-1.157823	0.2470
_GGUNIEA--INTR_GGUNIEA*	0.110653	0.053632	2.063179	0.0392
_NROPE--INTR_NROPE*	0.110653	0.053632	2.063179	0.0392
_NWIRE--INTR_NWIRE	0.028622	0.043470	0.658439	0.5103
_BPAINT--INTR_BPAINT*	-0.119573	0.062209	-1.922114	0.0547
_AGLEV--INTR_AGLEV	-0.025202	0.056328	-0.447414	0.6546
_CHRAMS--INTR_CHRAMS	-0.154255	0.110966	-1.390106	0.1646
_SCOA--INTR_SCOA	-0.074478	0.075639	-0.984657	0.3249
_JBERGER--INTR_JBERGER*	-0.787197	0.417537	-1.885336	0.0595

_COSTAIN--INTR_COSTAIN	-0.216466	0.172032	-1.258287	0.2084
_ARBICO--INTR_ARBICO*	-0.314584	0.135677	-2.318616	0.0205
_UNILEV--INTR_UNILEV*	-0.589885	0.176622	-3.339816	0.0008
_CADBURY--INTR_CADBURY	-0.650327	0.362817	-1.792438	0.0732
_POLYPRD--INTR_POLYPRD	-0.001362	0.047786	-0.028492	0.9773
_STDPRES--INTR_STDPRES*	0.121680	0.051699	2.353611	0.0186
_TOTAL--INTR_TOTAL*	-3.028632	0.878690	-3.446758	0.0006
_AP--INTR_AP*	-4.328431	1.170714	-3.697259	0.0002
_PHADEC--INTR_PHADEC*	-0.171401	0.053932	-3.178126	0.0015
_GLAXO--INTR_GLAXO*	-0.353127	0.107659	-3.280049	0.0010
_UNIPRES--INTR_UNIPRES	0.038285	0.059151	0.647241	0.5175
_UNTEX--INTR_UNTEX*	0.107195	0.044377	2.415527	0.0158
_DUN--ECHR_DUN*	-0.061425	0.008311	-7.390400	0.0000
_FBN--ECHR_FBN*	0.081213	0.021312	3.810692	0.0001
_UBA--ECHR_UBA	-0.037339	0.023171	-1.611425	0.1072
_UBN--ECHR_UBN*	0.079383	0.023655	3.355863	0.0008
_GUIN--ECHR_GUIN*	0.453992	0.070646	6.426303	0.0000
_NBL--ECHR_NBL*	0.158962	0.027735	5.731566	0.0000
_JHT--ECHR_JHT*	-0.113774	0.010054	-11.31664	0.0000
_PZ--ECHR_PZ*	-0.090506	0.018689	-4.842653	0.0000
_UAC--ECHR_UAC*	-0.107618	0.018498	-5.817715	0.0000
_CAP--ECHR_CAP*	-0.249944	0.067918	-3.680113	0.0002
_NBC--ECHR_NBC	0.022609	0.042702	0.529459	0.5965
_MOB--ECHR_MOB	0.250996	0.133654	1.877955	0.0605
_FLMILL--ECHR_FLMILL*	-0.076125	0.038650	-1.969621	0.0490
_NNFMILL--ECHR_NNFMILL	0.002169	0.012167	0.178235	0.8585
_INCAR--ECHR_INCAR*	-0.018917	0.007304	-2.590045	0.0096
_BRCODE--ECHR_BRCODE*	-0.039865	0.015920	-2.504029	0.0123
_GGUNIEA--ECHR_GGUNIEA*	-0.018616	0.006643	-2.802429	0.0051
_NROPE--ECHR_NROPE*	-0.018616	0.006643	-2.802429	0.0051
_NWIRE--ECHR_NWIRE*	-0.017017	0.005354	-3.178419	0.0015
_BPAINT--ECHR_BPAINT*	-0.039914	0.007726	-5.166000	0.0000
_AGLEV--ECHR_AGLEV*	-0.038053	0.006984	-5.448829	0.0000
_CHRAMS--ECHR_CHRAMS*	-0.047688	0.013856	-3.441604	0.0006
_SCOA--ECHR_SCOA*	-0.035398	0.009418	-3.758445	0.0002
_JBERGER--ECHR_JBERGER	0.022184	0.052256	0.424517	0.6712
_CSTAIN--ECHR_CSTAIN*	-0.078893	0.021512	-3.667326	0.0002
_ARBICO--ECHR_ARBICO*	-0.059401	0.016956	-3.503315	0.0005
_UNILEV--ECHR_UNILEV	-0.004988	0.022087	-0.225837	0.8213
_CADBURY--ECHR_CADBURY*	0.170033	0.045405	3.744772	0.0002
_POLYPRD--ECHR_POLYPRD*	-0.034952	0.005902	-5.921833	0.0000
_STDPRES--ECHR_STDPRES	-0.010632	0.006398	-1.661720	0.0967
_TOTAL--ECHR_TOTAL*	0.444623	0.109986	4.042530	0.0001
_AP--ECHR_AP*	-0.495326	0.146542	-3.380105	0.0007
_PHADEC--ECHR_PHADEC*	-0.036568	0.006681	-5.473737	0.0000
_GLAXO--ECHR_GLAXO*	-0.052096	0.013441	-3.875856	0.0001
_UNIPRES--ECHR_UNIPRES*	-0.018570	0.007340	-2.529885	0.0115
_UNTEX--ECHR_UNTEX*	-0.020396	0.005469	-3.729026	0.0002

_DUN--INF_DUN*	0.022721	0.011066	2.053277	0.0401
_FBN--INF_FBN	-0.017774	0.028386	-0.626142	0.5313
_UBA--INF_UBA	-0.032430	0.030863	-1.050764	0.2934
_UBN--INF_UBN	-0.029823	0.031507	-0.946536	0.3439
_GUIN--INF_GUIN	0.092009	0.094103	0.977749	0.3283
_NBL--INF_NBL*	0.085791	0.036942	2.322314	0.0203
_JHT--INF_JHT*	0.050724	0.013387	3.788946	0.0002
_PZ--INF_PZ*	0.047947	0.024892	1.926159	0.0542
_UAC--INF_UAC*	0.067679	0.024638	2.746925	0.0060
_CAP--INF_CAP	0.131381	0.090469	1.452230	0.1465
_NBC--INF_NBC	0.055769	0.056880	0.980462	0.3269
_MOB--INF_MOB	0.105903	0.178032	0.594852	0.5520
_FLMILL--INF_FLMILL	0.040303	0.051482	0.782852	0.4338
_NNFMILL--INF_NNFMILL	0.015084	0.016203	0.930924	0.3520
_INCAR--INF_INCAR	-0.011160	0.009723	-1.147835	0.2511
_BRCODE--INF_BRCODE	-0.000802	0.021204	-0.037827	0.9698
_GGUNIEA--INF_GGUNIEA	-0.015955	0.008842	-1.804544	0.0712
_NROPE--INF_NROPE	-0.015955	0.008842	-1.804544	0.0712
_NWIRE--INF_NWIRE	-0.001420	0.007123	-0.199418	0.8419
_BPAINT--INF_BPAINT	0.011585	0.010286	1.126316	0.2601
_AGLEV--INF_AGLEV	0.002494	0.009296	0.268265	0.7885
_CHRAMS--INF_CHRAMS	0.014350	0.018454	0.777629	0.4368
_SCOA--INF_SCOA	-2.97E-05	0.012541	-0.002372	0.9981
_JBERGER--INF_JBERGER	0.048241	0.069607	0.693051	0.4883
_COSTAIN--INF_COSTAIN	0.006152	0.028653	0.214719	0.8300
_ARBICO--INF_ARBICO	0.031934	0.022583	1.414063	0.1574
_UNILEV--INF_UNILEV*	0.076074	0.029419	2.585848	0.0098
_CADBURY--INF_CADBURY	0.044217	0.060481	0.731090	0.4648
_POLYPRD--INF_POLYPRD	-0.001638	0.007854	-0.208584	0.8348
_STDPRES--INF_STDPRES	-0.006603	0.008515	-0.775390	0.4382
_TOTAL--INF_TOTAL	0.156404	0.146506	1.067557	0.2858
_AP--INF_AP	0.238206	0.195200	1.220320	0.2224
_PHADEC--INF_PHADEC	-0.005987	0.008892	-0.673355	0.5008
_GLAXO--INF_GLAXO	0.023914	0.017901	1.335913	0.1817
_UNIPRES--INF_UNIPRES	-0.012928	0.009771	-1.323043	0.1859
_UNTEX--INF_UNTEX	-0.009062	0.007277	-1.245362	0.2131
_DUN--OIL_DUN	-0.011325	0.012066	-0.938608	0.3480
_FBN--OIL_FBN*	0.214482	0.031021	6.914137	0.0000
_UBA--OIL_UBA*	0.291609	0.033730	8.645510	0.0000
_UBN--OIL_UBN*	0.135773	0.034434	3.942975	0.0001
_GUIN--OIL_GUIN*	1.018029	0.102873	9.895966	0.0000
_NBL--OIL_NBL*	0.108912	0.040377	2.697381	0.0070
_JHT--OIL_JHT*	0.083314	0.014609	5.702747	0.0000
_PZ--OIL_PZ*	0.192892	0.027199	7.091811	0.0000
_UAC--OIL_UAC*	0.461243	0.026921	17.13318	0.0000
_CAP--OIL_CAP*	0.775202	0.098900	7.838263	0.0000
_NBC--OIL_NBC*	0.213746	0.062178	3.437667	0.0006
_MOB--OIL_MOB*	1.547627	0.194630	7.951654	0.0000

_FLMILL—OIL_FLMILL*	0.698782	0.056275	12.41726	0.0000
_NNFMILL--OIL_NNFMILL*	0.177718	0.017692	10.04515	0.0000
_INCAR—OIL_INCAR*	0.064873	0.010593	6.124029	0.0000
_BRCODE--OIL_BRCODE*	0.216256	0.023164	9.335716	0.0000
_GGUNIEA--OIL_GGUNIEA*	-0.022874	0.009626	-2.376225	0.0175
_NROPE—OIL_NROPE*	-0.022874	0.009626	-2.376225	0.0175
_NWIRE—OIL_NWIRE*	-0.022082	0.007738	-2.853642	0.0043
_BPAINT—OIL_BPAINT*	0.081910	0.011211	7.306383	0.0000
_AGLEV—OIL_AGLEV*	0.061220	0.010125	6.046380	0.0000
_CHRAMS--OIL_CHRAMS*	0.168381	0.020156	8.354070	0.0000
_SCOA--OIL_SCOA*	0.065395	0.013682	4.779664	0.0000
_JBERGER--OIL_JBERGER*	0.627025	0.076092	8.240366	0.0000
_COSTAIN--OIL_COSTAIN*	0.262610	0.031313	8.386714	0.0000
_ARBICO--OIL_ARBICO*	0.145105	0.024673	5.881094	0.0000
_UNILEV--OIL_UNILEV	0.011274	0.032150	0.350674	0.7259
_CADBURY--OIL_CADBURY	0.065013	0.066114	0.983342	0.3255
_POLYPRD--OIL_POLYPRD*	0.041156	0.008542	4.818131	0.0000
_STDPRES--OIL_STDPRES	-0.000130	0.009268	-0.014053	0.9888
_TOTAL--OIL_TOTAL*	1.648683	0.160164	10.29373	0.0000
_AP--OIL_AP*	2.086665	0.213398	9.778288	0.0000
_PHADEC--OIL_PHADEC*	0.047021	0.009682	4.856624	0.0000
_GLAXO--OIL_GLAXO*	0.202213	0.019550	10.34314	0.0000
_UNIPRES--OIL_UNIPRES*	0.048774	0.010647	4.581150	0.0000
_UNTEX--OIL_UNTEX	-0.013966	0.007907	-1.766148	0.0775
_DUN--GDP_DUN*	4.704579	0.583927	8.056795	0.0000
_FBN--GDP_FBN*	3.888602	1.504084	2.585362	0.0098
_UBA--GDP_UBA	2.515643	1.635507	1.538142	0.1241
_UBN--GDP_UBN	2.368479	1.669690	1.418514	0.1561
_GUIN--GDP_GUIN	1.443456	4.989465	0.289301	0.7724
_NBL--GDP_NBL	2.272461	1.957999	1.160604	0.2459
_JHT--GDP_JHT	0.745445	0.707530	1.053587	0.2921
_PZ--GDP_PZ*	8.093300	1.318665	6.137496	0.0000
_UAC--GDP_UAC	0.638246	1.305161	0.489017	0.6249
_CAP--GDP_CAP*	-20.17666	4.796737	-4.206330	0.0000
_NBC--GDP_NBC*	16.84878	3.015527	5.587343	0.0000
_MOB--GDP_MOB	14.22937	9.439969	1.507354	0.1318
_FLMILL--GDP_FLMILL	3.436149	2.729210	1.259027	0.2081
_NNFMILL--GDP_NNFMILL*	2.062303	0.857223	2.405794	0.0162
_INCAR--GDP_INCAR*	-1.346771	0.512321	-2.628765	0.0086
_BRCODE--GDP_BRCODE	0.578599	1.122861	0.515290	0.6064
_GGUNIEA--GDP_GGUNIEA	0.346845	0.465282	0.745452	0.4561
_NROPE--GDP_NROPE	0.346845	0.465282	0.745452	0.4561
_NWIRE--GDP_NWIRE	0.565924	0.373298	1.516009	0.1296
_BPAINT--GDP_BPAINT*	1.434169	0.542358	2.644323	0.0082
_AGLEV--GDP_AGLEV	-0.331890	0.489547	-0.677953	0.4978
_CHRAMS--GDP_CHRAMS*	-4.056891	0.976823	-4.153150	0.0000
_SCOA--GDP_SCOA*	-2.225023	0.662469	-3.358681	0.0008
_JBERGER--GDP_JBERGER	-3.211429	3.690453	-0.870199	0.3843

_COSTAIN--GDP_COSTAIN	-1.005246	1.518247	-0.662109	0.5079
_ARBICO--GDP_ARBICO*	-5.482440	1.196081	-4.583670	0.0000
_UNILEV--GDP_UNILEV*	6.592735	1.558898	4.229099	0.0000
_CADBURY--GDP_CADBURY*	16.58681	3.206487	5.172891	0.0000
_POLYPRD--GDP_POLYPRD	-0.395153	0.412480	-0.957993	0.3381
_STDPRES--GDP_STDPRES	-0.074332	0.447854	-0.165975	0.8682
_TOTAL--GDP_TOTAL*	24.93183	7.768265	3.209447	0.0013
_AP--GDP_AP	-2.537786	10.35028	-0.245190	0.8063
_PHADEC--GDP_PHADEC	-0.070334	0.467979	-0.150292	0.8805
_GLAXO--GDP_GLAXO	-0.122710	0.947451	-0.129516	0.8970
_UNIPRES--GDP_UNIPRES	-0.815715	0.514924	-1.584145	0.1133
_UNTEX--GDP_UNTEX*	1.436216	0.381554	3.764124	0.0002
Weighted Statistics				
R-squared	0.775596	Mean dependent var	17.94272	
Adjusted R-squared	0.761114	S.D. dependent var	21.69102	
S.E. of regression	10.60168	Sum squared resid	376188.5	
Log likelihood	-9780.794	F-statistic	53.55599	
Durbin-Watson stat	2.155811	Prob(F-statistic)	0.000000	

**Note:** \* significant at 5%

**Source:** Computation Using E-Views Statistical Package, Version 7.0

#### PAIRWISE CORRELATION MATRIX

	BRDM	INTR	ECHR	INF	OIL	GDP
BRDM	1					
INTR	0.7819	1				
ECHR	0.9027	0.8919	1			
INF	0.8862	0.8633	0.9339	1		
OIL	0.2173	0.0955	0.0327	0.1368	1	
GDP	0.9130	0.8813	0.9480	0.9753	0.7601	1

**STK AND BRDM**

Dependent Variable: STK?				
Method: GLS (Cross Section Weights)				
Sample: 1985:1 2009:4				
Included observations: 100				
Number of cross-sections used: 36				
Total panel (balanced) observations: 3600				
One-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-26.38603	0.593278	-44.47502	0.0000
_DUN--BRDM_DUN**	2.308145	0.076153	30.30934	0.0000
_FBN--BRDM_FBN**	3.193371	0.064068	49.84354	0.0000
_UBA--BRDM_UBA**	2.755534	0.069121	39.86511	0.0000
_UBN--BRDM_UBN**	3.082987	0.064341	47.91618	0.0000
_GUIN--BRDM_GUIN**	5.348591	0.236187	22.64557	0.0000
_NBL--BRDM_NBL**	3.718926	0.071863	51.75016	0.0000
_JHT--BRDM_JHT**	2.335249	0.072542	32.19166	0.0000
_PZ--BRDM_PZ**	2.911029	0.067042	43.42101	0.0000
_UAC--BRDM_UAC**	2.911091	0.070653	41.20276	0.0000
_CAP--BRDM_CAP**	3.284394	0.155219	21.15977	0.0000
_NBC--BRDM_NBC**	3.868676	0.096946	39.90554	0.0000
_MOB--BRDM_MOB**	7.622859	0.387898	19.65171	0.0000
_FLMILL--BRDM_FLMILL**	3.308811	0.104797	31.57348	0.0000
_NNFMILL--BRDM_NNFMILL**	2.727405	0.055214	49.39689	0.0000
_INCAR--BRDM_INCAR**	2.155718	0.065847	32.73841	0.0000
_BRCODE--BRDM_BRCODE**	2.364672	0.065808	35.93301	0.0000
_GGUNIEA--BRDM_GGUNIEA**	2.071226	0.072796	28.45257	0.0000
_NROPE--BRDM_NROPE**	2.071226	0.072796	28.45257	0.0000
_NWIRE--BRDM_NWIRE**	2.150608	0.070366	30.56335	0.0000
_BPAINT--BRDM_BPAINT**	2.272527	0.066881	33.97875	0.0000
_AGLEV--BRDM_AGLEV**	2.139546	0.068955	31.02797	0.0000
_CHRAMS--BRDM_CHRAMS**	2.233396	0.067025	33.32172	0.0000
_SCOA--BRDM_SCOA**	2.185108	0.067313	32.46168	0.0000
_JBERGER--BRDM_JBERGER**	3.540457	0.118720	29.82185	0.0000
_COSTAIN--BRDM_COSTAIN**	2.257166	0.074216	30.41351	0.0000
_ARBICO--BRDM_ARBICO**	2.256169	0.068101	33.12970	0.0000
_UNILEV--BRDM_UNILEV**	2.953904	0.066553	44.38397	0.0000
_CADBURY--BRDM_CADBURY**	3.699417	0.097726	37.85491	0.0000
_POLYPRD--BRDM_POLYPRD**	2.111136	0.069423	30.40955	0.0000
_STDPRES--BRDM_STDPRES**	2.092501	0.070375	29.73353	0.0000
_TOTAL--BRDM_TOTAL**	7.623579	0.378737	20.12895	0.0000
_AP--BRDM_AP**	4.963898	0.342302	14.50151	0.0000
_PHADEC--BRDM_PHADEC**	2.242323	0.065103	34.44244	0.0000
_GLAXO--BRDM_GLAXO**	2.461505	0.062506	39.38001	0.0000
_UNIPRES--BRDM_UNIPRES**	2.164872	0.066880	32.36933	0.0000
_UNTEX--BRDM_UNTEX**	2.232979	0.072252	30.90526	0.0000
Weighted Statistics				
R-squared	0.532225	Mean dependent var	16.15719	
Adjusted R-squared	0.527451	S.D. dependent var	24.19280	
S.E. of regression	16.63067	Sum squared resid	1951265.	
Log likelihood	-24621.66	F-statistic	111.4864	
Durbin-Watson stat	0.230015	Prob(F-statistic)	0.000000	



**STK AND INTR**

Dependent Variable: STK?				
Method: GLS (Cross Section Weights)				
Sample: 1985:1 2009:4				
Included observations: 100				
Number of cross-sections used: 36				
Total panel (balanced) observations: 3600				
One-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	16.00034	0.241913	66.14077	0.0000
_DUN--INTR_DUN**	-1.003870	0.107231	-9.361750	0.0000
_FBN--INTR_FBN**	-0.672261	0.071988	-9.338480	0.0000
_UBA--INTR_UBA**	-0.889307	0.078143	-11.38056	0.0000
_UBN--INTR_UBN**	-0.745539	0.065030	-11.46462	0.0000
_GUIN--INTR_GUIN	0.206478	0.405025	0.509791	0.6102
_NBL--INTR_NBL**	-0.299011	0.115852	-2.580967	0.0099
_JHT--INTR_JHT**	-1.026879	0.103359	-9.935110	0.0000
_PZ--INTR_PZ**	-0.615676	0.076526	-8.045270	0.0000
_UAC--INTR_UAC**	-0.770198	0.093745	-8.215848	0.0000
_CAP--INTR_CAP**	-0.778487	0.214452	-3.630131	0.0003
_NBC--INTR_NBC	-0.222381	0.145717	-1.526110	0.1270
_MOB--INTR_MOB**	1.390875	0.703865	1.976055	0.0482
_FLMILL--INTR_FLMILL**	-0.685616	0.144271	-4.752284	0.0000
_NNFMILL--INTR_NNFMILL**	-0.934380	0.060536	-15.43507	0.0000
_INCAR--INTR_INCAR**	-1.263587	0.104236	-12.12234	0.0000
_BRCODE--INTR_BRCODE**	-1.141345	0.094143	-12.12349	0.0000
_GGUNIEA--INTR_GGUNIEA**	-1.268114	0.115585	-10.97132	0.0000
_NROPE--INTR_NROPE**	-1.268114	0.115585	-10.97132	0.0000
_NWIRE--INTR_NWIRE**	-1.209223	0.108657	-11.12881	0.0000
_BPAIN--INTR_BPAIN**	-1.133815	0.098288	-11.53564	0.0000
_AGLEV--INTR_AGLEV**	-1.239320	0.109002	-11.36972	0.0000
_CHRAMS--INTR_CHRAMS**	-1.230064	0.103514	-11.88305	0.0000
_SCOA--INTR_SCOA**	-1.226225	0.104242	-11.76328	0.0000
_JBERGER--INTR_JBERGER**	-0.525811	0.170073	-3.091683	0.0020
_COSTAIN--INTR_COSTAIN**	-1.211321	0.109962	-11.01581	0.0000
_ARBICO--INTR_ARBICO**	-1.213790	0.104400	-11.62630	0.0000
_UNILEV--INTR_UNILEV**	-0.589275	0.071250	-8.270484	0.0000
_CADBURY--INTR_CADBURY**	-0.286263	0.136525	-2.096777	0.0360
_POLYPRD--INTR_POLYPRD**	-1.258605	0.111264	-11.31187	0.0000
_STDPRES--INTR_STDPRES**	-1.267954	0.112531	-11.26762	0.0000
_TOTAL--INTR_TOTAL**	1.403870	0.694161	2.022400	0.0432
_AP--INTR_AP	0.128357	0.501593	0.255899	0.7980
_PHADEC--INTR_PHADEC**	-1.189067	0.096499	-12.32209	0.0000
_GLAXO--INTR_GLAXO**	-1.063427	0.086454	-12.30050	0.0000
_UNIPRES--INTR_UNIPRES**	-1.241734	0.104230	-11.91340	0.0000
_UNTEX--INTR_UNTEX**	-1.098639	0.107293	-10.23964	0.0000
Weighted Statistics				
R-squared	0.242671	Mean dependent var	16.86645	
Adjusted R-squared	0.235020	S.D. dependent var	26.07227	
S.E. of regression	22.80362	Sum squared resid	3706077.	
Log likelihood	-27508.89	F-statistic	31.71810	
Durbin-Watson stat	0.138060	Prob(F-statistic)	0.000000	

**STK AND ECHR**

Dependent Variable: STK?				
Method: GLS (Cross Section Weights)				
Sample: 1985:1 2009:4				
Included observations: 100				
Number of cross-sections used: 36				
Total panel (balanced) observations: 3600				
One-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.100904	0.029797	36.94654	0.0000
_DUN--ECHR_DUN**	0.023369	0.004767	4.902389	0.0000
_FBN--ECHR_FBN**	0.213167	0.008135	26.20210	0.0000
_UBA--ECHR_UBA**	0.123322	0.009730	12.67443	0.0000
_UBN--ECHR_UBN**	0.193648	0.007824	24.75126	0.0000
_GUIN--ECHR_GUIN**	0.673270	0.031273	21.52855	0.0000
_NBL--ECHR_NBL**	0.305142	0.009826	31.05585	0.0000
_JHT--ECHR_JHT**	0.029404	0.005668	5.187506	0.0000
_PZ--ECHR_PZ**	0.124922	0.010239	12.20060	0.0000
_UAC--ECHR_UAC**	0.143565	0.012700	11.30459	0.0000
_CAP--ECHR_CAP**	0.228612	0.030726	7.440401	0.0000
_NBC--ECHR_NBC**	0.317971	0.017359	18.31764	0.0000
_MOB--ECHR_MOB**	1.076861	0.055233	19.49684	0.0000
_FLMILL--ECHR_FLMILL**	0.234273	0.019667	11.91219	0.0000
_NNFMILL--ECHR_NNFMILL**	0.123387	0.005938	20.77822	0.0000
_INCAR--ECHR_INCAR**	0.019096	0.002858	6.681924	0.0000
_BRCODE--ECHR_BRCODE**	0.055681	0.006991	7.965144	0.0000
_GGUNIEA--ECHR_GGUNIEA	-0.001353	0.000733	-1.844735	0.0651
_NROPE--ECHR_NROPE	-0.001353	0.000733	-1.844735	0.0651
_NWIRE--ECHR_NWIRE**	0.011440	0.000979	11.67976	0.0000
_BPAINT--ECHR_BPAINT**	0.031950	0.003197	9.992195	0.0000
_AGLEV--ECHR_AGLEV**	0.011155	0.002481	4.496028	0.0000
_CHRAMS--ECHR_CHRAMS**	0.033318	0.006400	5.205924	0.0000
_SCOA--ECHR_SCOA**	0.020960	0.003524	5.947270	0.0000
_JBERGER--ECHR_JBERGER**	0.281632	0.021414	13.15174	0.0000
_COSTAIN--ECHR_COSTAIN**	0.034973	0.008931	3.916013	0.0001
_ARBICO--ECHR_ARBICO**	0.036050	0.007251	4.971635	0.0000
_UNILEV--ECHR_UNILEV**	0.137640	0.009324	14.76176	0.0000
_CADBURY--ECHR_CADBURY**	0.296485	0.015794	18.77218	0.0000
_POLYPRD--ECHR_POLYPRD**	0.006398	0.001955	3.271775	0.0011
_STDPRES--ECHR_STDPRES**	0.004434	0.000907	4.887236	0.0000
_TOTAL--ECHR_TOTAL**	1.089618	0.049855	21.85596	0.0000
_AP--ECHR_AP**	0.523828	0.065407	8.008772	0.0000
_PHADEC--ECHR_PHADEC**	0.030213	0.002655	11.37846	0.0000
_GLAXO--ECHR_GLAXO**	0.069388	0.006710	10.34060	0.0000
_UNIPRES--ECHR_UNIPRES**	0.018800	0.002373	7.922007	0.0000
_UNTEX--ECHR_UNTEX**	0.019167	0.002214	8.656661	0.0000
Weighted Statistics				
R-squared	0.509385	Mean dependent var	20.66807	
Adjusted R-squared	0.504429	S.D. dependent var	22.90921	
S.E. of regression	16.12736	Sum squared resid	1853674.	
Log likelihood	-22273.92	F-statistic	102.7732	
Durbin-Watson stat	0.287219	Prob(F-statistic)	0.000000	

**STK AND INF**

Dependent Variable: STK?				
Method: GLS (Cross Section Weights)				
Sample: 1985:1 2009:4				
Included observations: 100				
Number of cross-sections used: 36				
Total panel (balanced) observations: 3600				
One-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.185945	0.162066	44.33963	0.0000
_DUN--INF_DUN**	-0.057459	0.025884	-2.219879	0.0265
_FBN--INF_FBN	0.045184	0.032830	1.376278	0.1688
_UBA--INF_UBA	-0.038032	0.025987	-1.463496	0.1434
_UBN--INF_UBN	0.020778	0.030030	0.691902	0.4890
_GUIN--INF_GUIN	0.157024	0.089086	1.762613	0.0780
_NBL--INF_NBL	-0.019137	0.089086	-0.214817	0.8299
_JHT--INF_JHT**	-0.059076	0.026116	-2.262031	0.0237
_PZ--INF_PZ	-0.151726	0.089086	-1.703140	0.0886
_UAC--INF_UAC	0.021703	0.032650	0.664707	0.5063
_CAP--INF_CAP	0.033178	0.073542	0.451137	0.6519
_NBC--INF_NBC	-0.006698	0.089086	-0.075190	0.9401
_MOB--INF_MOB**	0.739353	0.232766	3.176376	0.0015
_FLMILL--INF_FLMILL	0.044369	0.053002	0.837120	0.4026
_NNFMILL--INF_NNFMILL	-0.030002	0.022792	-1.316341	0.1881
_INCAR--INF_INCAR**	-0.140513	0.026696	-5.263500	0.0000
_BRCODE--INF_BRCODE**	-0.103595	0.025995	-3.985165	0.0001
_GGUNIEA--INF_GGUNIEA**	-0.143596	0.028746	-4.995325	0.0000
_NROPE--INF_NROPE**	-0.143596	0.028746	-4.995325	0.0000
_NWIRE--INF_NWIRE**	-0.121130	0.027140	-4.463119	0.0000
_BPAINT--INF_BPAINT**	-0.097470	0.024834	-3.924906	0.0001
_AGLEV--INF_AGLEV**	-0.131254	0.027575	-4.759900	0.0000
_CHRAMS--INF_CHRAMS**	-0.126079	0.028092	-4.488137	0.0000
_SCOA--INF_SCOA**	-0.127512	0.026720	-4.772064	0.0000
_JBERGER--INF_JBERGER	0.099117	0.061536	1.610699	0.1073
_COSTAIN--INF_COSTAIN**	-0.126288	0.030175	-4.185157	0.0000
_ARBICO--INF_ARBICO**	-0.115721	0.029048	-3.983743	0.0001
_UNILEV--INF_UNILEV	-0.126016	0.089086	-1.414547	0.1572
_CADBURY--INF_CADBURY	-0.023464	0.089086	-0.263382	0.7923
_POLYPRD--INF_POLYPRD**	-0.137718	0.028076	-4.905173	0.0000
_STDPRES--INF_STDPRES**	-0.140038	0.028366	-4.936788	0.0000
_TOTAL--INF_TOTAL**	0.767930	0.229397	3.347600	0.0008
_AP--INF_AP	0.314310	0.165167	1.902980	0.0571
_PHADEC--INF_PHADEC**	-0.116954	0.024566	-4.760814	0.0000
_GLAXO--INF_GLAXO**	-0.072814	0.024747	-2.942401	0.0033
_UNIPRES--INF_UNIPRES**	-0.134711	0.026338	-5.114688	0.0000
_UNTEX--INF_UNTEX**	-0.093247	0.025561	-3.648016	0.0003
Weighted Statistics				
R-squared	-0.007526	Mean dependent var	15.89030	
Adjusted R-squared	-0.017705	S.D. dependent var	22.62204	
S.E. of regression	22.82142	Sum squared resid	3711864.	
Log likelihood	-26594.31	Durbin-Watson stat	0.121739	

**STK AND OIL**

Dependent Variable: STK?				
Method: GLS (Cross Section Weights)				
Sample: 1985:1 2009:4				
Included observations: 100				
Number of cross-sections used: 36				
Total panel (balanced) observations: 3600				
One-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.188098	0.067552	-2.784504	0.0054
_DUN--OIL_DUN**	0.080884	0.012598	6.420197	0.0000
_FBN--OIL_FBN**	0.446222	0.018759	23.78748	0.0000
_UBA--OIL_UBA**	0.306455	0.013742	22.30057	0.0000
_UBN--OIL_UBN**	0.397760	0.019680	20.21168	0.0000
_GUIN--OIL_GUIN**	1.371471	0.061925	22.14725	0.0000
_NBL--OIL_NBL**	0.597937	0.030291	19.73953	0.0000
_JHT--OIL_JHT**	0.112191	0.011412	9.830940	0.0000
_PZ--OIL_PZ**	0.308214	0.018010	17.11389	0.0000
_UAC--OIL_UAC**	0.381133	0.013576	28.07488	0.0000
_CAP--OIL_CAP**	0.601850	0.045994	13.08541	0.0000
_NBC--OIL_NBC**	0.643025	0.038383	16.75264	0.0000
_MOB--OIL_MOB**	2.214608	0.103724	21.35095	0.0000
_FLMILL--OIL_FLMILL**	0.572877	0.025273	22.66780	0.0000
_NNFMILL--OIL_NNFMILL**	0.280704	0.010672	26.30279	0.0000
_INCAR--OIL_INCAR**	0.072413	0.004488	16.13531	0.0000
_BRCODE--OIL_BRCODE**	0.166187	0.009248	17.96943	0.0000
_GGUNIEA--OIL_GGUNIEA**	0.021951	0.005854	3.749961	0.0002
_NROPE--OIL_NROPE**	0.021951	0.005854	3.749961	0.0002
_NWIRE--OIL_NWIRE**	0.046517	0.006639	7.007011	0.0000
_BPAINT--OIL_BPAINT**	0.103468	0.006652	15.55500	0.0000
_AGLEV--OIL_AGLEV**	0.060383	0.005132	11.76579	0.0000
_CHRAMS--OIL_CHRAMS**	0.119382	0.008662	13.78206	0.0000
_SCOA--OIL_SCOA**	0.079817	0.006219	12.83361	0.0000
_JBERGER--OIL_JBERGER**	0.646979	0.032082	20.16672	0.0000
_COSTAIN--OIL_COSTAIN**	0.139232	0.012804	10.87393	0.0000
_ARBICO--OIL_ARBICO**	0.122830	0.011065	11.10047	0.0000
_UNILEV--OIL_UNILEV**	0.294437	0.021912	13.43719	0.0000
_CADBURY--OIL_CADBURY**	0.565783	0.039926	14.17070	0.0000
_POLYPRD--OIL_POLYPRD**	0.047827	0.004878	9.804730	0.0000
_STDPRES--OIL_STDPRES**	0.034952	0.005002	6.987708	0.0000
_TOTAL--OIL_TOTAL**	2.227848	0.096329	23.12760	0.0000
_AP--OIL_AP**	1.373018	0.093756	14.64457	0.0000
_PHADEC--OIL_PHADEC**	0.092959	0.006074	15.30329	0.0000
_GLAXO--OIL_GLAXO**	0.192747	0.008911	21.62978	0.0000
_UNIPRES--OIL_UNIPRES**	0.070199	0.004826	14.54616	0.0000
_UNTEX--OIL_UNTEX**	0.067550	0.008656	7.804309	0.0000
Weighted Statistics				
R-squared	0.566413	Mean dependent var	16.47791	
Adjusted R-squared	0.562032	S.D. dependent var	20.83807	
S.E. of regression	13.79045	Sum squared resid	1355389.	
Log likelihood	-22106.55	F-statistic	129.3095	
Durbin-Watson stat	0.411996	Prob(F-statistic)	0.000000	

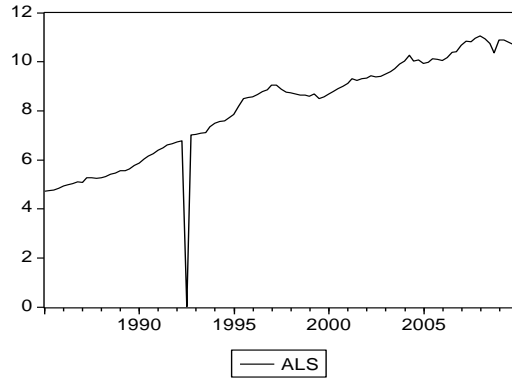
**STK AND GDP**

Dependent Variable: STK?				
Method: GLS (Cross Section Weights)				
Sample: 1985:1 2009:4				
Included observations: 100				
Number of cross-sections used: 36				
Total panel (balanced) observations: 3600				
One-step weighting matrix				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-25.45343	0.595788	-42.72226	0.0000
_DUN--GDP_DUN**	2.228475	0.072615	30.68899	0.0000
_FBN--GDP_FBN**	3.098840	0.064549	48.00722	0.0000
_UBA--GDP_UBA**	2.665650	0.069018	38.62227	0.0000
_UBN--GDP_UBN**	2.989678	0.064744	46.17664	0.0000
_GUIN--GDP_GUIN**	5.207884	0.238410	21.84425	0.0000
_NBL--GDP_NBL**	3.618917	0.073144	49.47658	0.0000
_JHT--GDP_JHT**	2.250951	0.070675	31.84920	0.0000
_PZ--GDP_PZ**	2.822837	0.063771	44.26531	0.0000
_UAC--GDP_UAC**	2.811891	0.072285	38.90028	0.0000
_CAP--GDP_CAP**	3.166569	0.159053	19.90894	0.0000
_NBC--GDP_NBC**	3.771719	0.093239	40.45231	0.0000
_MOB--GDP_MOB**	7.469487	0.386802	19.31090	0.0000
_FLMILL--GDP_FLMILL**	3.205622	0.106198	30.18540	0.0000
_NNFMILL--GDP_NNFMILL**	2.638122	0.055180	47.80978	0.0000
_INCAR--GDP_INCAR**	2.070218	0.065146	31.77833	0.0000
_BRCODE--GDP_BRCODE**	2.276252	0.065526	34.73836	0.0000
_GGUNIEA--GDP_GGUNIEA**	1.990704	0.070778	28.12594	0.0000
_NROPE--GDP_NROPE**	1.990704	0.070778	28.12594	0.0000
_NWIRE--GDP_NWIRE**	2.069075	0.068349	30.27209	0.0000
_BPAINTE--GDP_BPAINTE**	2.189876	0.065168	33.60377	0.0000
_AGLEV--GDP_AGLEV**	2.055789	0.067641	30.39259	0.0000
_CHRAMS--GDP_CHRAMS**	2.143598	0.067814	31.61013	0.0000
_SCOA--GDP_SCOA**	2.098737	0.066809	31.41415	0.0000
_JBERGER--GDP_JBERGER**	3.431335	0.121404	28.26383	0.0000
_COSTAIN--GDP_COSTAIN**	2.168286	0.074170	29.23408	0.0000
_ARBICO--GDP_ARBICO**	2.165688	0.069188	31.30166	0.0000
_UNILEV--GDP_UNILEV**	2.865380	0.063149	45.37512	0.0000
_CADBURY--GDP_CADBURY**	3.608364	0.093403	38.63232	0.0000
_POLYPRD--GDP_POLYPRD**	2.027769	0.068009	29.81610	0.0000
_STDPRES--GDP_STDPRES**	2.009790	0.068698	29.25536	0.0000
_TOTAL--GDP_TOTAL**	7.463466	0.377436	19.77412	0.0000
_AP--GDP_AP**	4.820370	0.341878	14.09967	0.0000
_PHADEC--GDP_PHADEC**	2.158420	0.063848	33.80544	0.0000
_GLAXO--GDP_GLAXO**	2.371352	0.062568	37.90053	0.0000
_UNIPRES--GDP_UNIPRES**	2.080098	0.065858	31.58439	0.0000
_UNTEX--GDP_UNTEX**	2.150981	0.069926	30.76082	0.0000
Weighted Statistics				
R-squared	0.521947	Mean dependent var	16.27293	
Adjusted R-squared	0.517117	S.D. dependent var	24.12385	
S.E. of regression	16.76361	Sum squared resid	2002820.	
Log likelihood	-24817.89	F-statistic	108.0747	
Durbin-Watson stat	0.212912	Prob(F-statistic)	0.000000	

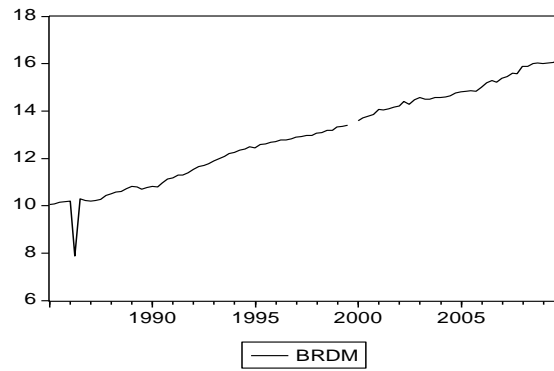
## APPENDIX 4

### Trend Analyses of the Variables Used in the Study

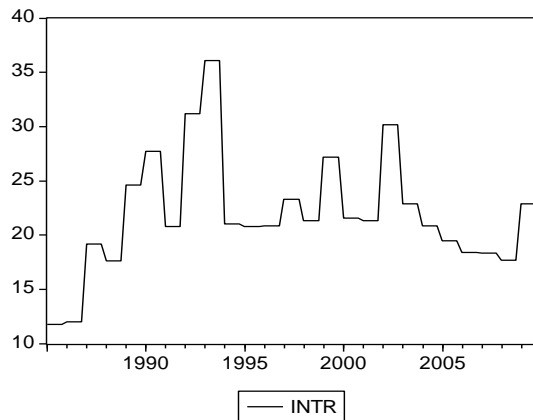
**Fig. 4.1: Graph of ALS**



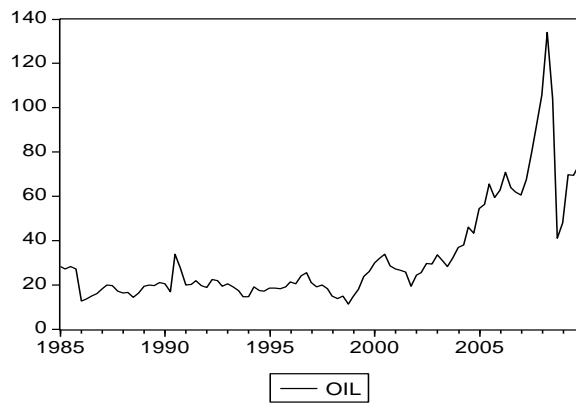
**Fig. 4.2: Graph of BRDM**



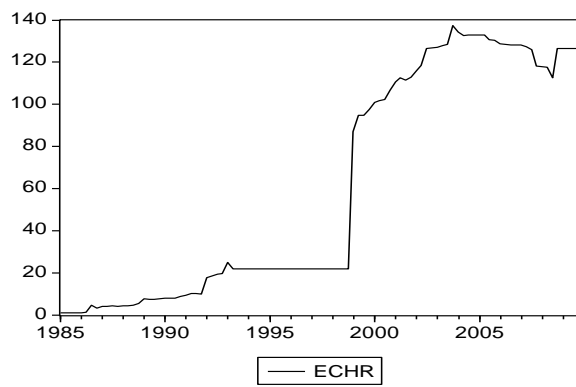
**Fig. 4.3: Graph of INTR**



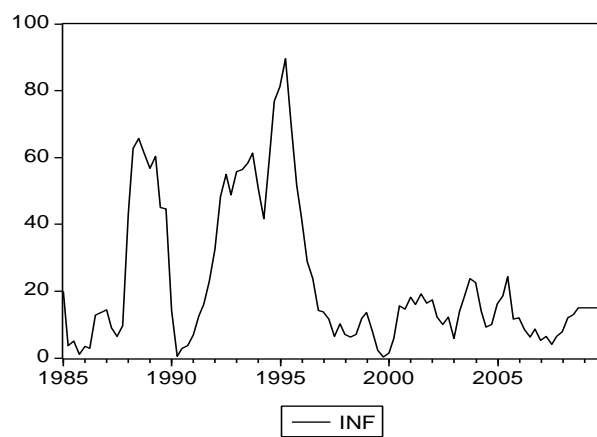
**Fig. 4.4: Graph of OIL**



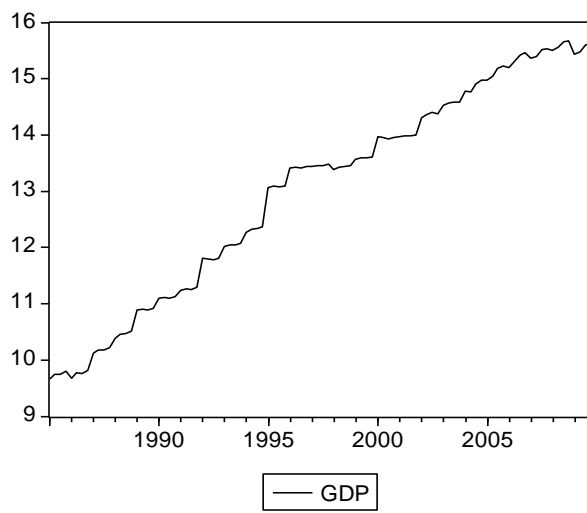
**Fig. 4.5: Graph of ECHR**



**Fig. 4.6: Graph of INF**



**Fig. 4.7: Graph of GDP**





## APPENDIX 5

### Unit Root Tests

#### AUGMENTED DICKEN-FULLER (ADF) TEST FOR UNIT ROOT

##### ADF TEST FOR ALL SHARE INDEX (ALS) AT LEVEL

ADF Test Statistic	-1.695518	1% Critical Value*	-4.0550
		5% Critical Value	-3.4561
		10% Critical Value	-3.1536
*MacKinnon critical values for rejection of hypothesis of a unit root.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(ALS)			
Method: Least Squares			
Sample(adjusted): 1985:4 2009:4			
Included observations: 97 after adjusting endpoints			
Variable	Coefficient	Std. Error	t-Statistic
ALS(-1)	-0.073594	0.043405	-1.695518
D(ALS(-1))	0.005267	0.104583	0.050361
D(ALS(-2))	-0.149707	0.106871	-1.400814
C	-1159.900	922.9093	-1.256786
@TREND(1985:1)	50.90084	24.00727	2.120226
R-squared	0.074155	Mean dependent var	459.8309
Adjusted R-squared	0.033901	S.D. dependent var	3689.169
S.E. of regression	3626.096	Akaike info criterion	19.27987
Sum squared resid	1.21E+09	Schwarz criterion	19.41259
Log likelihood	-930.0738	F-statistic	1.842182
Durbin-Watson stat	2.020433	Prob(F-statistic)	0.127440

##### ADF TEST FOR ALL SHARE INDEX (ALS) AT FIRST DIFFERENCE

ADF Test Statistic	-7.003644	1% Critical Value*	-4.0560
		5% Critical Value	-3.4566
		10% Critical Value	-3.1539
*MacKinnon critical values for rejection of hypothesis of a unit root.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(ALS,2)			
Method: Least Squares			
Sample(adjusted): 1986:1 2009:4			
Included observations: 96 after adjusting endpoints			
Variable	Coefficient	Std. Error	t-Statistic
D(ALS(-1))	-1.415735	0.202143	-7.003644
D(ALS(-1),2)	0.351780	0.155057	2.268710
D(ALS(-2),2)	0.147900	0.106945	1.382963
C	-388.7876	794.0514	-0.489625
@TREND(1985:1)	20.98760	14.02001	1.496974
R-squared	0.535901	Mean dependent var	-36.58750
Adjusted R-squared	0.515501	S.D. dependent var	5264.048
S.E. of regression	3664.090	Akaike info criterion	19.30123
Sum squared resid	1.22E+09	Schwarz criterion	19.43479
Log likelihood	-921.4588	F-statistic	26.26974
Durbin-Watson stat	1.977792	Prob(F-statistic)	0.000000

**ADF TEST FOR BROAD MONEY (BRDM) AT LEVEL**

ADF Test Statistic	2.793349	1% Critical Value*	-4.0550	
		5% Critical Value	-3.4561	
		10% Critical Value	-3.1536	
*MacKinnon critical values for rejection of hypothesis of a unit root.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(BRDM)				
Method: Least Squares				
Sample(adjusted): 1985:4 2009:4				
Included observations: 97 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic Prob.	
BRDM(-1)	0.060383	0.021617	2.793349	0.0063
D(BRDM(-1))	-0.320473	0.115211	-2.781614	0.0066
D(BRDM(-2))	0.120220	0.113149	1.062493	0.2908
C	-42148.39	68575.44	-0.614628	0.5403
@TREND(1985:1)	1504.406	1629.600	0.923175	0.3583
R-squared	0.311542	Mean dependent var	110739.6	
Adjusted R-squared	0.281609	S.D. dependent var	328786.1	
S.E. of regression	278672.3	Akaike info criterion	27.96363	
Sum squared resid	7.14E+12	Schwarz criterion	28.09635	
Log likelihood	-1351.236	F-statistic	10.40800	
Durbin-Watson stat	1.892434	Prob(F-statistic)	0.000001	

**ADF TEST FOR BROAD MONEY (BRDM) AT FIRST DIFFERENCE**

ADF Test Statistic	-4.755602	1% Critical Value*	-4.0560	
		5% Critical Value	-3.4566	
		10% Critical Value	-3.1539	
*MacKinnon critical values for rejection of hypothesis of a unit root.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(BRDM,2)				
Method: Least Squares				
Sample(adjusted): 1986:1 2009:4				
Included observations: 96 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic Prob.	
D(BRDM(-1))	-0.957460	0.201333	-4.755602	0.0000
D(BRDM(-1),2)	-0.222328	0.172822	-1.286455	0.2015
D(BRDM(-2),2)	0.016972	0.113373	0.149700	0.8813
C	-134171.5	66914.30	-2.005124	0.0479
@TREND(1985:1)	4713.468	1351.653	3.487188	0.0008
R-squared	0.615166	Mean dependent var	13627.61	
Adjusted R-squared	0.598251	S.D. dependent var	459973.5	
S.E. of regression	291548.3	Akaike info criterion	28.05448	
Sum squared resid	7.74E+12	Schwarz criterion	28.18804	
Log likelihood	-1341.615	F-statistic	36.36646	
Durbin-Watson stat	1.863387	Prob(F-statistic)	0.000000	

### ADF TEST FOR INTEREST RATE (INTR) AT LEVEL

ADF Test Statistic	-0.683243	1% Critical Value*	-3.4986	
		5% Critical Value	-2.8912	
		10% Critical Value	-2.5824	
*MacKinnon critical values for rejection of hypothesis of a unit root.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(INTR)				
Method: Least Squares				
Sample(adjusted): 1985:4 2009:4				
Included observations: 97 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic Prob.	
INTR(-1)	-0.014641	0.021429	-0.683243	0.4962
D(INTR(-1))	0.005748	0.104398	0.055062	0.9562
D(INTR(-2))	0.005748	0.104398	0.055062	0.9562
C	0.065671	0.222150	0.295617	0.7682
R-squared	0.005025	Mean dependent var	-0.065876	
Adjusted R-squared	-0.027071	S.D. dependent var	1.059966	
S.E. of regression	1.074218	Akaike info criterion	3.021425	
Sum squared resid	107.3168	Schwarz criterion	3.127599	
Log likelihood	-142.5391	F-statistic	0.156560	
Durbin-Watson stat	2.000113	Prob(F-statistic)	0.925214	

### ADF TEST FOR INTEREST RATE (INTR) AT FIRST DIFFERENCE

ADF Test Statistic	-5.581774	1% Critical Value*	-3.4993	
		5% Critical Value	-2.8915	
		10% Critical Value	-2.5826	
*MacKinnon critical values for rejection of hypothesis of a unit root.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(INTR,2)				
Method: Least Squares				
Sample(adjusted): 1986:1 2009:4				
Included observations: 96 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic Prob.	
D(INTR(-1))	-1.011925	0.181291	-5.581774	0.0000
D(INTR(-1),2)	0.007950	0.147732	0.053813	0.9572
D(INTR(-2),2)	0.003975	0.104256	0.038127	0.9697
C	-0.067356	0.111161	-0.605933	0.5461
R-squared	0.501987	Mean dependent var	1.66E-17	
Adjusted R-squared	0.485748	S.D. dependent var	1.509825	
S.E. of regression	1.082716	Akaike info criterion	3.037597	
Sum squared resid	107.8493	Schwarz criterion	3.144445	
Log likelihood	-141.8047	F-statistic	30.91144	
Durbin-Watson stat	2.000383	Prob(F-statistic)	0.000000	

### ADF TEST FOR EXCHANGE RATE (ECHR) AT LEVEL

ADF Test Statistic	-1.796200	1% Critical Value*	-4.0550
		5% Critical Value	-3.4561
		10% Critical Value	-3.1536
*MacKinnon critical values for rejection of hypothesis of a unit root.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(ECHR)			
Method: Least Squares			
Sample(adjusted): 1985:4 2009:4			
Included observations: 97 after adjusting endpoints			
Variable	Coefficient	Std. Error	t-Statistic
ECHR(-1)	-0.062083	0.034564	-1.796200
D(ECHR(-1))	0.100170	0.103543	0.967419
D(ECHR(-2))	0.008553	0.103902	0.082320
C	-0.757532	1.819166	-0.416417
@TREND(1985:1)	0.111766	0.066014	1.693067
R-squared	0.039437	Mean dependent var	1.292577
Adjusted R-squared	-0.002327	S.D. dependent var	7.052440
S.E. of regression	7.060640	Akaike info criterion	6.797119
Sum squared resid	4586.443	Schwarz criterion	6.929836
Log likelihood	-324.6603	F-statistic	0.944284
Durbin-Watson stat	1.999825	Prob(F-statistic)	0.442113

### ADF TEST FOR EXCHANGE RATE (ECHR) AT FIRST DIFFERENCE

ADF Test Statistic	-5.288057	1% Critical Value*	-4.0560
		5% Critical Value	-3.4566
		10% Critical Value	-3.1539
*MacKinnon critical values for rejection of hypothesis of a unit root.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(ECHR,2)			
Method: Least Squares			
Sample(adjusted): 1986:1 2009:4			
Included observations: 96 after adjusting endpoints			
Variable	Coefficient	Std. Error	t-Statistic
D(ECHR(-1))	-0.920521	0.174075	-5.288057
D(ECHR(-1),2)	-0.005719	0.142915	-0.040020
D(ECHR(-2),2)	-0.030459	0.104813	-0.290602
C	1.126354	1.565207	0.719620
@TREND(1985:1)	0.001491	0.026602	0.056065
R-squared	0.465027	Mean dependent var	0.000937
Adjusted R-squared	0.441511	S.D. dependent var	9.658832
S.E. of regression	7.218248	Akaike info criterion	6.841780
Sum squared resid	4741.383	Schwarz criterion	6.975340
Log likelihood	-323.4054	F-statistic	19.77548
Durbin-Watson stat	2.000451	Prob(F-statistic)	0.000000

### ADF TEST FOR INFLATION (INF) AT LEVEL

ADF Test Statistic	-3.173876	1% Critical Value*	-3.4986
		5% Critical Value	-2.8912
		10% Critical Value	-2.5824
*MacKinnon critical values for rejection of hypothesis of a unit root.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(INF)			
Method: Least Squares			
Sample(adjusted): 1985:4 2009:4			
Included observations: 97 after adjusting endpoints			
Variable	Coefficient	Std. Error	t-Statistic
INF(-1)	-0.118651	0.037384	-3.173876
D(INF(-1))	0.381282	0.098627	3.865892
D(INF(-2))	0.084081	0.101118	0.831512
C	2.884076	1.148297	2.511611
R-squared	0.213785	Mean dependent var	0.207010
Adjusted R-squared	0.188423	S.D. dependent var	8.355171
S.E. of regression	7.526969	Akaike info criterion	6.915225
Sum squared resid	5268.939	Schwarz criterion	7.021398
Log likelihood	-331.3884	F-statistic	8.429430
Durbin-Watson stat	1.971960	Prob(F-statistic)	0.000052

### ADF TEST FOR INFLATION (INF) AT FIRST DIFFERENCE

ADF Test Statistic	-5.325272	1% Critical Value*	-3.4993
		5% Critical Value	-2.8915
		10% Critical Value	-2.5826
*MacKinnon critical values for rejection of hypothesis of a unit root.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(INF,2)			
Method: Least Squares			
Sample(adjusted): 1986:1 2009:4			
Included observations: 96 after adjusting endpoints			
Variable	Coefficient	Std. Error	t-Statistic
D(INF(-1))	-0.703868	0.132175	-5.325272
D(INF(-1),2)	0.067800	0.119551	0.567124
D(INF(-2),2)	0.123059	0.100668	1.222422
C	0.057637	0.801265	0.071933
R-squared	0.328055	Mean dependent var	-0.062604
Adjusted R-squared	0.306144	S.D. dependent var	9.421169
S.E. of regression	7.847645	Akaike info criterion	6.999078
Sum squared resid	5665.870	Schwarz criterion	7.105926
Log likelihood	-331.9557	F-statistic	14.97202
Durbin-Watson stat	2.000165	Prob(F-statistic)	0.000000

### ADF TEST FOR OIL (OIL) AT LEVEL

ADF Test Statistic	-0.995682	1% Critical Value*	-3.4986
		5% Critical Value	-2.8912
		10% Critical Value	-2.5824
*MacKinnon critical values for rejection of hypothesis of a unit root.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(OIL)			
Method: Least Squares			
Sample(adjusted): 1985:4 2009:4			
Included observations: 97 after adjusting endpoints			
Variable	Coefficient	Std. Error	t-Statistic
OIL(-1)	-0.039677	0.039849	-0.995682
D(OIL(-1))	0.250374	0.095638	2.617940
D(OIL(-2))	-0.393214	0.097513	-4.032441
C	1.802555	1.516710	1.188464
R-squared	0.206297	Mean dependent var	0.474948
Adjusted R-squared	0.180693	S.D. dependent var	9.255883
S.E. of regression	8.378015	Akaike info criterion	7.129462
Sum squared resid	6527.775	Schwarz criterion	7.235635
Log likelihood	-341.7789	F-statistic	8.057415
Durbin-Watson stat	1.932416	Prob(F-statistic)	0.000079

### ADF TEST FOR OIL (OIL) AT FIRST DIFFERENCE

ADF Test Statistic	-6.448156	1% Critical Value*	-3.4993
		5% Critical Value	-2.8915
		10% Critical Value	-2.5826
*MacKinnon critical values for rejection of hypothesis of a unit root.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(OIL,2)			
Method: Least Squares			
Sample(adjusted): 1986:1 2009:4			
Included observations: 96 after adjusting endpoints			
Variable	Coefficient	Std. Error	t-Statistic
D(OIL(-1))	-1.153306	0.178858	-6.448156
D(OIL(-1),2)	0.397859	0.126087	3.155424
D(OIL(-2),2)	-0.029553	0.108919	-0.271332
C	0.568602	0.865813	0.656727
R-squared	0.520983	Mean dependent var	0.060833
Adjusted R-squared	0.505363	S.D. dependent var	12.03104
S.E. of regression	8.461481	Akaike info criterion	7.149699
Sum squared resid	6586.892	Schwarz criterion	7.256547
Log likelihood	-339.1856	F-statistic	33.35334
Durbin-Watson stat	1.937366	Prob(F-statistic)	0.000000

### ADF TEST FOR GROSS DOMESTIC PRODUCT (GDP) AT LEVEL

ADF Test Statistic	-0.528285	1% Critical Value*	-4.0550
		5% Critical Value	-3.4561
		10% Critical Value	-3.1536
*MacKinnon critical values for rejection of hypothesis of a unit root.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(GDP)			
Method: Least Squares			
Sample(adjusted): 1985:4 2009:4			
Included observations: 97 after adjusting endpoints			
Variable	Coefficient	Std. Error	t-Statistic
GDP(-1)	-0.010926	0.020683	-0.528285
D(GDP(-1))	-0.005027	0.086701	-0.057975
D(GDP(-2))	-0.581524	0.088881	-6.542761
C	-63787.74	48805.34	-1.306983
@TREND(1985:1)	3400.115	1362.961	2.494654
R-squared	0.361631	Mean dependent var	61238.79
Adjusted R-squared	0.333876	S.D. dependent var	223271.8
S.E. of regression	182226.5	Akaike info criterion	27.11406
Sum squared resid	3.05E+12	Schwarz criterion	27.24678
Log likelihood	-1310.032	F-statistic	13.02931
Durbin-Watson stat	1.987786	Prob(F-statistic)	0.000000

### ADF TEST FOR GROSS DOMESTIC PRODUCT (GDP) AT FIRST DIFFERENCE

ADF Test Statistic	-7.598305	1% Critical Value*	-4.0560
		5% Critical Value	-3.4566
		10% Critical Value	-3.1539
*MacKinnon critical values for rejection of hypothesis of a unit root.			
Augmented Dickey-Fuller Test Equation			
Dependent Variable: D(GDP,2)			
Method: Least Squares			
Sample(adjusted): 1986:1 2009:4			
Included observations: 96 after adjusting endpoints			
Variable	Coefficient	Std. Error	t-Statistic
D(GDP(-1))	-1.587861	0.208976	-7.598305
D(GDP(-1),2)	0.579737	0.140498	4.126295
D(GDP(-2),2)	-0.006951	0.108136	-0.064276
C	-49568.97	40025.69	-1.238429
@TREND(1985:1)	2790.823	762.7557	3.658869
R-squared	0.665492	Mean dependent var	250.2729
Adjusted R-squared	0.650788	S.D. dependent var	310428.0
S.E. of regression	183444.8	Akaike info criterion	27.12789
Sum squared resid	3.06E+12	Schwarz criterion	27.26145
Log likelihood	-1297.139	F-statistic	45.26032
Durbin-Watson stat	2.002846	Prob(F-statistic)	0.000000

## PHILLIP – PERRON (PP) TESTS FOR UNIT ROOT

### PP TEST FOR ALL SHARE INDEX (ALS) AT LEVEL

PP Test Statistic	-1.932666	1% Critical Value*	-4.0530	
		5% Critical Value	-3.4552	
		10% Critical Value	-3.1531	
*MacKinnon critical values for rejection of hypothesis of a unit root.				
Lag truncation for Bartlett kernel: 4 ( Newey-West suggests: 4 )				
Residual variance with no correction			12509921	
Residual variance with correction			10588744	
Phillips-Perron Test Equation				
Dependent Variable: D(ALS)				
Method: Least Squares				
Sample(adjusted): 1985:2 2009:4				
Included observations: 99 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ALS(-1)	-0.083397	0.040125	-2.078447	0.0403
C	-1121.683	857.6802	-1.307810	0.1941
@TREND(1985:1)	51.35054	22.53610	2.278591	0.0249
R-squared	0.052401	Mean dependent var	450.5768	
Adjusted R-squared	0.032659	S.D. dependent var	3651.905	
S.E. of regression	3591.776	Akaike info criterion	19.24052	
Sum squared resid	1.24E+09	Schwarz criterion	19.31916	
Log likelihood	-949.4055	F-statistic	2.654320	
Durbin-Watson stat	1.956766	Prob(F-statistic)	0.075507	

### PP TEST FOR ALL SHARE INDEX (ALS) AT FIRST DIFFERENCE

PP Test Statistic	-10.05385	1% Critical Value*	-4.0540	
		5% Critical Value	-3.4557	
		10% Critical Value	-3.1534	
*MacKinnon critical values for rejection of hypothesis of a unit root.				
Lag truncation for Bartlett kernel: 4 ( Newey-West suggests: 4 )				
Residual variance with no correction			13197435	
Residual variance with correction			9328088.	
Phillips-Perron Test Equation				
Dependent Variable: D(ALS,2)				
Method: Least Squares				
Sample(adjusted): 1985:3 2009:4				
Included observations: 98 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(ALS(-1))	-1.025620	0.103436	-9.915537	0.0000
C	-191.9042	763.2350	-0.251435	0.8020
@TREND(1985:1)	13.06191	13.27207	0.984165	0.3275
R-squared	0.508694	Mean dependent var	-35.76429	
Adjusted R-squared	0.498351	S.D. dependent var	5209.500	
S.E. of regression	3689.742	Akaike info criterion	19.29463	
Sum squared resid	1.29E+09	Schwarz criterion	19.37377	
Log likelihood	-942.4371	F-statistic	49.18116	
Durbin-Watson stat	1.992018	Prob(F-statistic)	0.000000	



### PP TEST FOR BROAD MONEY (BRDM) AT LEVEL

PP Test Statistic	3.756797	1% Critical Value*		-4.0530
		5% Critical Value		-3.4552
		10% Critical Value		-3.1531
*MacKinnon critical values for rejection of hypothesis of a unit root.				
Lag truncation for Bartlett kernel: 4 ( Newey-West suggests: 4 )				
Residual variance with no correction				8.24E+10
Residual variance with correction				4.75E+10
Phillips-Perron Test Equation				
Dependent Variable: D(BRDM)				
Method: Least Squares				
Sample(adjusted): 1985:2 2009:4				
Included observations: 99 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
BRDM(-1)	0.047512	0.019373	2.452468	0.0160
C	-40528.54	67936.03	-0.596569	0.5522
@TREND(1985:1)	1498.742	1637.315	0.915366	0.3623
R-squared	0.215747	Mean dependent var		108528.6
Adjusted R-squared	0.199408	S.D. dependent var		325781.6
S.E. of regression	291495.7	Akaike info criterion		28.03327
Sum squared resid	8.16E+12	Schwarz criterion		28.11191
Log likelihood	-1384.647	F-statistic		13.20472
Durbin-Watson stat	2.575895	Prob(F-statistic)		0.000009

### PP TEST FOR BROAD MONEY (BRDM) AT FIRST DIFFERENCE

PP Test Statistic	-11.63116	1% Critical Value*		-4.0540
		5% Critical Value		-3.4557
		10% Critical Value		-3.1534
*MacKinnon critical values for rejection of hypothesis of a unit root.				
Lag truncation for Bartlett kernel: 4 ( Newey-West suggests: 4 )				
Residual variance with no correction				8.37E+10
Residual variance with correction				1.14E+11
Phillips-Perron Test Equation				
Dependent Variable: D(BRDM,2)				
Method: Least Squares				
Sample(adjusted): 1985:3 2009:4				
Included observations: 98 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(BRDM(-1))	-1.242686	0.106013	-11.72207	0.0000
C	-153815.3	61769.87	-2.490134	0.0145
@TREND(1985:1)	5679.372	1132.229	5.016097	0.0000
R-squared	0.591993	Mean dependent var		13347.12
Adjusted R-squared	0.583403	S.D. dependent var		455211.0
S.E. of regression	293812.8	Akaike info criterion		28.04941
Sum squared resid	8.20E+12	Schwarz criterion		28.12854
Log likelihood	-1371.421	F-statistic		68.91957
Durbin-Watson stat	1.777586	Prob(F-statistic)		0.000000

### PP TEST FOR INTEREST RATE (INTR) AT LEVEL

PP Test Statistic	-2.443235	1% Critical Value*	-4.0530	
		5% Critical Value	-3.4552	
		10% Critical Value	-3.1531	
*MacKinnon critical values for rejection of hypothesis of a unit root.				
Lag truncation for Bartlett kernel: 4 ( Newey-West suggests: 4 )				
Residual variance with no correction			1.017828	
Residual variance with correction			1.012225	
Phillips-Perron Test Equation				
Dependent Variable: D(INTR)				
Method: Least Squares				
Sample(adjusted): 1985:2 2009:4				
Included observations: 99 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
INTR(-1)	-0.083868	0.034292	-2.445702	0.0163
C	1.455873	0.593840	2.451626	0.0160
@TREND(1985:1)	-0.015406	0.006158	-2.501744	0.0141
R-squared	0.065843	Mean dependent var	-0.064545	
Adjusted R-squared	0.046381	S.D. dependent var	1.049136	
S.E. of regression	1.024517	Akaike info criterion	2.916154	
Sum squared resid	100.7650	Schwarz criterion	2.994794	
Log likelihood	-141.3496	F-statistic	3.383219	
Durbin-Watson stat	1.976535	Prob(F-statistic)	0.038033	

### PP TEST FOR INTEREST RATE (INTR) AT FIRST DIFFERENCE

PP Test Statistic	-9.862951	1% Critical Value*	-4.0540	
		5% Critical Value	-3.4557	
		10% Critical Value	-3.1534	
*MacKinnon critical values for rejection of hypothesis of a unit root.				
Lag truncation for Bartlett kernel: 4 ( Newey-West suggests: 4 )				
Residual variance with no correction			1.092036	
Residual variance with correction			1.038828	
Phillips-Perron Test Equation				
Dependent Variable: D(INTR,2)				
Method: Least Squares				
Sample(adjusted): 1985:3 2009:4				
Included observations: 98 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(INTR(-1))	-1.011832	0.102611	-9.860872	0.0000
C	0.100157	0.219636	0.456013	0.6494
@TREND(1985:1)	-0.003290	0.003805	-0.864488	0.3895
R-squared	0.505819	Mean dependent var	1.62E-17	
Adjusted R-squared	0.495415	S.D. dependent var	1.494179	
S.E. of regression	1.061377	Akaike info criterion	2.987146	
Sum squared resid	107.0195	Schwarz criterion	3.066277	
Log likelihood	-143.3701	F-statistic	48.61863	
Durbin-Watson stat	1.999900	Prob(F-statistic)	0.000000	

### PP TEST FOR EXCHANGE RATE (ECHR) AT LEVEL

PP Test Statistic	-1.864439	1% Critical Value*	-4.0530
		5% Critical Value	-3.4552
		10% Critical Value	-3.1531
*MacKinnon critical values for rejection of hypothesis of a unit root.			
Lag truncation for Bartlett kernel: 4	( Newey-West suggests: 4 )		
Residual variance with no correction	46.81032		
Residual variance with correction	56.62850		
Phillips-Perron Test Equation			
Dependent Variable: D(ECHR)			
Method: Least Squares			
Sample(adjusted): 1985:2 2009:4			
Included observations: 99 after adjusting endpoints			
Variable	Coefficient	Std. Error	t-Statistic
ECHR(-1)	-0.056033	0.032634	-1.717022
C	-0.433504	1.656330	-0.261726
@TREND(1985:1)	0.101078	0.061585	1.641270
R-squared	0.030060	Mean dependent var	1.267172
Adjusted R-squared	0.009853	S.D. dependent var	6.982370
S.E. of regression	6.947888	Akaike info criterion	6.744587
Sum squared resid	4634.222	Schwarz criterion	6.823227
Log likelihood	-330.8571	F-statistic	1.487577
Durbin-Watson stat	1.808573	Prob(F-statistic)	0.231080

### PP TEST FOR EXCHANGE RATE (ECHR) AT FIRST DIFFERENCE

PP Test Statistic	-9.067458	1% Critical Value*	-4.0540
		5% Critical Value	-3.4557
		10% Critical Value	-3.1534
*MacKinnon critical values for rejection of hypothesis of a unit root.			
Lag truncation for Bartlett kernel: 4	( Newey-West suggests: 4 )		
Residual variance with no correction	48.47647		
Residual variance with correction	48.41975		
Phillips-Perron Test Equation			
Dependent Variable: D(ECHR,2)			
Method: Least Squares			
Sample(adjusted): 1985:3 2009:4			
Included observations: 98 after adjusting endpoints			
Variable	Coefficient	Std. Error	t-Statistic
D(ECHR(-1))	-0.928046	0.102344	-9.067929
C	1.036072	1.465459	0.706995
@TREND(1985:1)	0.003002	0.025257	0.118871
R-squared	0.463977	Mean dependent var	-0.000306
Adjusted R-squared	0.452692	S.D. dependent var	9.558747
S.E. of regression	7.071584	Akaike info criterion	6.780180
Sum squared resid	4750.694	Schwarz criterion	6.859312
Log likelihood	-329.2288	F-statistic	41.11562
Durbin-Watson stat	1.996663	Prob(F-statistic)	0.000000

### PP TEST FOR INFLATION (INF) AT LEVEL

PP Test Statistic	-2.509769	1% Critical Value*	-3.4972
		5% Critical Value	-2.8906
		10% Critical Value	-2.5821
*MacKinnon critical values for rejection of hypothesis of a unit root.			
Lag truncation for Bartlett kernel: 4 ( Newey-West suggests: 4 )			
Residual variance with no correction			68.50288
Residual variance with correction			116.3417
Phillips-Perron Test Equation			
Dependent Variable: D(INF)			
Method: Least Squares			
Sample(adjusted): 1985:2 2009:4			
Included observations: 99 after adjusting endpoints			
Variable	Coefficient	Std. Error	t-Statistic
INF(-1)	-0.075408	0.038824	-1.942301
C	1.660714	1.217172	1.364404
R-squared	0.037436	Mean dependent var	-0.049495
Adjusted R-squared	0.027513	S.D. dependent var	8.478991
S.E. of regression	8.361538	Akaike info criterion	7.105157
Sum squared resid	6781.785	Schwarz criterion	7.157584
Log likelihood	-349.7053	F-statistic	3.772534
Durbin-Watson stat	1.189940	Prob(F-statistic)	0.055001

### PP TEST FOR INFLATION (INF) AT FIRST DIFFERENCE

PP Test Statistic	-6.766556	1% Critical Value*	-3.4979
		5% Critical Value	-2.8909
		10% Critical Value	-2.5822
*MacKinnon critical values for rejection of hypothesis of a unit root.			
Lag truncation for Bartlett kernel: 4 ( Newey-West suggests: 4 )			
Residual variance with no correction			59.69158
Residual variance with correction			55.37499
Phillips-Perron Test Equation			
Dependent Variable: D(INF,2)			
Method: Least Squares			
Sample(adjusted): 1985:3 2009:4			
Included observations: 98 after adjusting endpoints			
Variable	Coefficient	Std. Error	t-Statistic
D(INF(-1))	-0.636433	0.092999	-6.843459
C	0.133791	0.788549	0.169667
R-squared	0.327886	Mean dependent var	0.165612
Adjusted R-squared	0.320885	S.D. dependent var	9.472448
S.E. of regression	7.806097	Akaike info criterion	6.967884
Sum squared resid	5849.775	Schwarz criterion	7.020639
Log likelihood	-339.4263	F-statistic	46.83293
Durbin-Watson stat	2.004308	Prob(F-statistic)	0.000000

### PP TEST FOR OIL (OIL) AT LEVEL

PP Test Statistic	-1.334342	1% Critical Value*	-3.4972
		5% Critical Value	-2.8906
		10% Critical Value	-2.5821
*MacKinnon critical values for rejection of hypothesis of a unit root.			
Lag truncation for Bartlett kernel: 4	( Newey-West suggests: 4 )		
Residual variance with no correction	81.02255		
Residual variance with correction	65.51910		
Phillips-Perron Test Equation			
Dependent Variable: D(OIL)			
Method: Least Squares			
Sample(adjusted): 1985:2 2009:4			
Included observations: 99 after adjusting endpoints			
Variable	Coefficient	Std. Error	t-Statistic
OIL(-1)	-0.063762	0.040391	-1.578599
C	2.498808	1.579478	1.582047
R-squared	0.025047	Mean dependent var	0.465253
Adjusted R-squared	0.014996	S.D. dependent var	9.162536
S.E. of regression	9.093576	Akaike info criterion	7.273009
Sum squared resid	8021.232	Schwarz criterion	7.325435
Log likelihood	-358.0139	F-statistic	2.491975
Durbin-Watson stat	1.610456	Prob(F-statistic)	0.117684

### PP TEST FOR OIL (OIL) AT FIRST DIFFERENCE

PP Test Statistic	-8.224683	1% Critical Value*	-3.4979
		5% Critical Value	-2.8909
		10% Critical Value	-2.5822
*MacKinnon critical values for rejection of hypothesis of a unit root.			
Lag truncation for Bartlett kernel: 4	( Newey-West suggests: 4 )		
Residual variance with no correction	81.70654		
Residual variance with correction	45.62010		
Phillips-Perron Test Equation			
Dependent Variable: D(OIL,2)			
Method: Least Squares			
Sample(adjusted): 1985:3 2009:4			
Included observations: 98 after adjusting endpoints			
Variable	Coefficient	Std. Error	t-Statistic
D(OIL(-1))	-0.837184	0.100806	-8.304870
C	0.412742	0.923530	0.446918
R-squared	0.418079	Mean dependent var	0.060612
Adjusted R-squared	0.412017	S.D. dependent var	11.91032
S.E. of regression	9.132839	Akaike info criterion	7.281827
Sum squared resid	8007.241	Schwarz criterion	7.334582
Log likelihood	-354.8095	F-statistic	68.97086
Durbin-Watson stat	1.860643	Prob(F-statistic)	0.000000

**PP TEST FOR GROSS DOMESTIC PRODUCT (GDP) AT LEVEL**

PP Test Statistic	-0.623639	1% Critical Value*	-4.0530	
		5% Critical Value	-3.4552	
		10% Critical Value	-3.1531	
*MacKinnon critical values for rejection of hypothesis of a unit root.				
Lag truncation for Bartlett kernel: 4	( Newey-West suggests: 4 )			
Residual variance with no correction	4.53E+10			
Residual variance with correction	2.49E+10			
Phillips-Perron Test Equation				
Dependent Variable: D(GDP)				
Method: Least Squares				
Sample(adjusted): 1985:2 2009:4				
Included observations: 99 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP(-1)	-0.023138	0.023608	-0.980107	0.3295
C	-61815.86	54324.84	-1.137893	0.2580
@TREND(1985:1)	3122.247	1543.131	2.023320	0.0458
R-squared	0.064384	Mean dependent var	60016.29	
Adjusted R-squared	0.044892	S.D. dependent var	221147.4	
S.E. of regression	216126.6	Akaike info criterion	27.43495	
Sum squared resid	4.48E+12	Schwarz criterion	27.51359	
Log likelihood	-1355.030	F-statistic	3.303079	
Durbin-Watson stat	1.994911	Prob(F-statistic)	0.040992	

**PP TEST FOR GROSS DOMESTIC PRODUCT (GDP) AT FIRST DIFFERENCE**

PP Test Statistic	-10.41494	1% Critical Value*	-4.0540	
		5% Critical Value	-3.4557	
		10% Critical Value	-3.1534	
*MacKinnon critical values for rejection of hypothesis of a unit root.				
Lag truncation for Bartlett kernel: 4	( Newey-West suggests: 4 )			
Residual variance with no correction	4.62E+10			
Residual variance with correction	2.33E+10			
Phillips-Perron Test Equation				
Dependent Variable: D(GDP,2)				
Method: Least Squares				
Sample(adjusted): 1985:3 2009:4				
Included observations: 98 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1))	-1.012529	0.102760	-9.853365	0.0000
C	-31980.15	45263.83	-0.706528	0.4816
@TREND(1985:1)	1848.520	803.2220	2.301381	0.0236
R-squared	0.505452	Mean dependent var	239.9000	
Adjusted R-squared	0.495040	S.D. dependent var	307211.1	
S.E. of regression	218305.8	Akaike info criterion	27.45532	
Sum squared resid	4.53E+12	Schwarz criterion	27.53445	
Log likelihood	-1342.310	F-statistic	48.54727	
Durbin-Watson stat	2.010946	Prob(F-statistic)	0.000000	

### ADF UNIT ROOT TEST ON ECM AT LEVEL

Null Hypothesis: ECM has a unit root				
Exogenous: Constant				
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)				
			t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic			-10.03248	0.0000
Test critical values:	1% level		-3.499167	
	5% level		-2.891550	
	10% level		-2.582846	
*MacKinnon (1996) one-sided p-values.				
Augmented Dickey-Fuller Test Equation				
Dependent Variable: D(ECM)				
Method: Least Squares				
Sample(adjusted): 1985:2 2009:4				
Included observations: 97				
Excluded observations: 2 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECM(-1)	-1.028154	0.102483	-10.03248	0.0000
C	0.004729	0.071275	0.066348	0.9472
R-squared	0.514441	Mean dependent var		0.001773
Adjusted R-squared	0.509329	S.D. dependent var		1.002136
S.E. of regression	0.701975	Akaike info criterion		2.150564
Sum squared resid	46.81300	Schwarz criterion		2.203651
Log likelihood	-102.3024	F-statistic		100.6506
Durbin-Watson stat	2.024932	Prob(F-statistic)		0.000000

### PP UNIT ROOT TEST ON ECM AT LEVEL

Null Hypothesis: ECM has a unit root				
Exogenous: Constant				
Bandwidth: 4 (Newey-West using Bartlett kernel)				
			Adj. t-Stat	Prob.*
Phillips-Perron test statistic			-10.08077	0.0000
Test critical values:	1% level		-3.499167	
	5% level		-2.891550	
	10% level		-2.582846	
*MacKinnon (1996) one-sided p-values.				
Residual variance (no correction)				
				0.482608
HAC corrected variance (Bartlett kernel)				
				0.410777
Phillips-Perron Test Equation				
Dependent Variable: D(ECM)				
Method: Least Squares				
Sample(adjusted): 1985:2 2009:4				
Included observations: 97				
Excluded observations: 2 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ECM(-1)	-1.028154	0.102483	-10.03248	0.0000
C	0.004729	0.071275	0.066348	0.9472
R-squared	0.514441	Mean dependent var		0.001773
Adjusted R-squared	0.509329	S.D. dependent var		1.002136
S.E. of regression	0.701975	Akaike info criterion		2.150564
Sum squared resid	46.81300	Schwarz criterion		2.203651
Log likelihood	-102.3024	F-statistic		100.6506
Durbin-Watson stat	2.024932	Prob(F-statistic)		0.000000



## APPENDIX 6

### COINTEGRATION TEST

Sample(adjusted): 1985:4 2009:4						
Included observations: 93						
Excluded observations: 4 after adjusting endpoints						
Trend assumption: Linear deterministic trend						
Series: ALS BRDM INTR ECHR INF OIL GDP						
Lags interval (in first differences): 1 to 2						
Unrestricted Cointegration Rank Test						
Hypothesized		Trace	5 Percent	1 Percent		
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Critical Value		
None **	0.389952	146.7813	124.24	133.57		
At most 1 *	0.333722	100.8190	94.15	103.18		
At most 2	0.240958	63.05661	68.52	76.07		
At most 3	0.170189	37.41671	47.21	54.46		
At most 4	0.120296	20.06688	29.68	35.65		
At most 5	0.053052	8.147062	15.41	20.04		
At most 6	0.032550	3.077505	3.76	6.65		
(**) denotes rejection of the hypothesis at the 5%(1%) level						
Trace test indicates 2 cointegrating equation(s) at the 5% level						
Trace test indicates 1 cointegrating equation(s) at the 1% level						
Hypothesized		Max-Eigen	5 Percent	1 Percent		
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Critical Value		
None **	0.389952	55.96224	41.28	49.57		
At most 1*	0.333722	39.37243	37.76	45.10		
At most 2	0.240958	25.63990	33.46	38.77		
At most 3	0.170189	17.34983	27.07	32.24		
At most 4	0.120296	11.91982	20.97	25.52		
At most 5	0.053052	5.069557	14.07	18.63		
At most 6	0.032550	3.077505	3.76	6.65		
(**) denotes rejection of the hypothesis at the 5%(1%) level						
Max-eigenvalue test indicates 2 cointegrating equation(s) at the 5% level						
Max-eigenvalue test indicates 1 cointegration equation(s) at the 1% level						

Unrestricted Cointegrating Coefficients (normalized by b*S11*b=l):							
ALS	BRDM	INTR	ECHR	INF	OIL	GDP	
-2.661484	2.382982	-0.162728	-0.017503	-0.010501	-0.040793	1.126773	
-0.278791	2.053623	0.021008	-0.026809	-0.064198	-0.013408	-1.036333	
-0.769555	-3.734051	0.100069	0.009189	-0.010619	0.062323	3.817143	
-0.017312	1.301691	0.189431	-0.001040	-0.008197	-0.016174	-1.289072	
-0.332400	-1.359858	-0.032634	0.001093	-0.006586	-0.046414	2.341467	
-0.090207	0.594510	-0.010746	-0.043954	0.004523	0.011613	0.517981	
-0.028084	2.211941	0.026133	-0.004384	0.015270	0.013109	-1.716106	
Unrestricted Adjustment Coefficients (alpha):							
D(ALS)	0.371463	-0.136591	0.125874	0.104889	0.021572	-0.011237	0.005848
D(BRDM)	-0.057730	-0.023286	0.089688	-0.011388	0.024355	-0.000139	-0.030582
D(INTR)	0.759339	0.016597	-0.302999	-0.752952	-0.013374	0.045708	-0.247920
D(ECHR)	0.653081	1.166362	-0.969117	0.411335	1.248805	0.976339	-0.475174
D(INF)	-0.248656	2.719884	-0.149254	0.698717	-0.812657	-0.688154	-0.654782

D(OIL)	0.426411	-0.252622	-1.006151	0.133540	1.757093	-1.394902	-0.045814
D(GDP)	-0.000148	-0.041030	-0.028613	0.007731	-0.005982	-1.06E-05	-0.009354
1 Cointegrating Equation(s):		Log likelihood	-1187.007				
Normalized cointegrating coefficients (std.err. in parentheses)							
ALS	BRDM	INTR	ECHR	INF	OIL	GDP	
1.000000	-0.895358	0.061142	0.006576	0.003946	0.015327	-0.423363	
	(0.29753)	(0.01294)	(0.00280)	(0.00352)	(0.00469)	(0.25158)	
Adjustment coefficients (std.err. in parentheses)							
D(ALS)	-0.988643						
	(0.19408)						
D(BRDM)	0.153649						
	(0.08287)						
D(INTR)	-2.020968						
	(0.77591)						
D(ECHR)	-1.738164						
	(2.09047)						
D(INF)	0.661794						
	(2.20419)						
D(OIL)	-1.134886						
	(2.48612)						
D(GDP)	0.000394						
	(0.03292)						
2 Cointegrating Equation(s):		Log likelihood	-1168.126				
Normalized cointegrating coefficients (std.err. in parentheses)							
ALS	BRDM	INTR	ECHR	INF	OIL	GDP	
1.000000	0.000000	0.080029	-0.005819	-0.027371	0.010794	-0.996292	
		(0.02400)	(0.00455)	(0.00653)	(0.00763)	(0.13067)	
0.000000	1.000000	0.021094	-0.013844	-0.034976	-0.005063	-0.639889	
		(0.02141)	(0.00406)	(0.00582)	(0.00681)	(0.11654)	
Adjustment coefficients (std.err. in parentheses)							
D(ALS)	-0.950563	0.604684					
	(0.19065)	(0.22411)					
D(BRDM)	0.160141	-0.185392					
	(0.08302)	(0.09759)					
D(INTR)	-2.025595	1.843574					
	(0.78014)	(0.91708)					
D(ECHR)	-2.063335	3.951547					
	(2.07159)	(2.43523)					
D(INF)	-0.096484	4.993073					
	(2.05518)	(2.41593)					
D(OIL)	-1.064458	0.497339					
	(2.49853)	(2.93711)					
D(GDP)	0.011833	-0.084612					
	(0.03064)	(0.03602)					
3 Cointegrating Equation(s):		Log likelihood	-1155.306				
Normalized cointegrating coefficients (std.err. in parentheses)							
ALS	BRDM	INTR	ECHR	INF	OIL	GDP	
1.000000	0.000000	0.000000	0.009821	0.026649	-0.006423	-1.216339	
			(0.00415)	(0.00569)	(0.00656)	(0.11611)	
0.000000	1.000000	0.000000	-0.009722	-0.020738	-0.009601	-0.697890	

			(0.00260)	(0.00356)	(0.00411)	(0.07272)	
0.000000	0.000000	1.000000	-0.195426	-0.675006	0.215130	2.749595	
			(0.08477)	(0.11616)	(0.13402)	(2.37115)	
Adjustment coefficients (std.err. in parentheses)							
D(ALS)	-1.047430	0.134665	-0.050721				
	(0.19431)	(0.34072)	(0.01341)				
D(BRDM)	0.091121	-0.520291	0.017880				
	(0.08156)	(0.14301)	(0.00563)				
D(INTR)	-1.792421	2.974988	-0.153538				
	(0.80604)	(1.41336)	(0.05563)				
D(ECHR)	-1.317547	7.570278	-0.178750				
	(2.13350)	(3.74103)	(0.14725)				
D(INF)	0.018375	5.550395	0.082668				
	(2.13795)	(3.74882)	(0.14756)				
D(OIL)	-0.290170	4.254357	-0.175381				
	(2.58011)	(4.52414)	(0.17808)				
D(GDP)	0.033852	0.022229	-0.003701				
	(0.03056)	(0.05359)	(0.00211)				
4 Cointegrating Equation(s):	Log likelihood	-1146.631					
Normalized cointegrating coefficients (std.err. in parentheses)							
ALS	BRDM	INTR	ECHR	INF	OIL	GDP	
1.000000	0.000000	0.000000	0.000000	-0.002956	0.002539	-1.030702	
				(0.00492)	(0.00590)	(0.06511)	
0.000000	1.000000	0.000000	0.000000	0.008570	-0.018474	-0.881663	
				(0.00420)	(0.00504)	(0.05554)	
0.000000	0.000000	1.000000	0.000000	-0.085878	0.036782	-0.944521	
				(0.06189)	(0.07425)	(0.81873)	
0.000000	0.000000	0.000000	1.000000	3.014578	-0.912611	-18.90285	
				(0.57897)	(0.69464)	(7.65935)	
Adjustment coefficients (std.err. in parentheses)							
D(ALS)	-1.049246	0.271198	-0.030852	-0.001792			
	(0.19144)	(0.34741)	(0.01855)	(0.00229)			
D(BRDM)	0.091318	-0.535114	0.015723	0.002471			
	(0.08148)	(0.14786)	(0.00790)	(0.00098)			
D(INTR)	-1.779386	1.994877	-0.296171	-0.015737			
	(0.76983)	(1.39699)	(0.07460)	(0.00921)			
D(ECHR)	-1.324668	8.105710	-0.100830	-0.052033			
	(2.12955)	(3.86444)	(0.20637)	(0.02549)			
D(INF)	0.006279	6.459908	0.215027	-0.070663			
	(2.12646)	(3.85884)	(0.20608)	(0.02545)			
D(OIL)	-0.292481	4.428185	-0.150084	-0.010075			
	(2.57981)	(4.68153)	(0.25001)	(0.03088)			
D(GDP)	0.033718	0.032293	-0.002237	0.000832			
	(0.03046)	(0.05528)	(0.00295)	(0.00036)			
5 Cointegrating Equation(s):	Log likelihood	-1140.671					
Normalized cointegrating coefficients (std.err. in parentheses)							
ALS	BRDM	INTR	ECHR	INF	OIL	GDP	
1.000000	0.000000	0.000000	0.000000	0.000000	0.103127	-2.190528	
					(0.03307)	(0.37805)	
0.000000	1.000000	0.000000	0.000000	0.000000	-0.310120	2.481178	
					(0.09508)	(1.08698)	
0.000000	0.000000	1.000000	0.000000	0.000000	2.959315	-34.64287	

					(0.92727)	(10.6008)	
0.000000	0.000000	0.000000	1.000000	0.000000	-103.5024	1164.012	
					(33.0409)	(377.731)	
0.000000	0.000000	0.000000	0.000000	1.000000	34.03122	-392.3980	
					(10.9136)	(124.767)	
Adjustment coefficients (std.err. in parentheses)							
D(ALS)	-1.056417	0.241863	-0.031556	-0.001769	0.002529		
	(0.19268)	(0.35954)	(0.01868)	(0.00229)	(0.00459)		
D(BRDM)	0.083222	-0.568233	0.014928	0.002497	0.001082		
	(0.08169)	(0.15243)	(0.00792)	(0.00097)	(0.00194)		
D(INTR)	-1.774940	2.013064	-0.295734	-0.015752	0.000438		
	(0.77528)	(1.44667)	(0.07515)	(0.00922)	(0.01845)		
D(ECHR)	-1.739770	6.407513	-0.141583	-0.050667	-0.083041		
	(2.10721)	(3.93203)	(0.20425)	(0.02505)	(0.05015)		
D(INF)	0.276406	7.565006	0.241547	-0.071551	-0.170790		
	(2.12575)	(3.96664)	(0.20604)	(0.02528)	(0.05059)		
D(OIL)	-0.876539	2.038789	-0.207424	-0.008154	0.009758		
	(2.53672)	(4.73351)	(0.24588)	(0.03016)	(0.06038)		
D(GDP)	0.035707	0.040428	-0.002041	0.000825	0.002915		
	(0.03062)	(0.05714)	(0.00297)	(0.00036)	(0.00073)		
6 Cointegrating Equation(s):	Log likelihood	-1138.137					
Normalized cointegrating coefficients (std.err. in parentheses)							
ALS	BRDM	INTR	ECHR	INF	OIL	GDP	
1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	-1.003421	
						(0.04407)	
0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	-1.088662	
						(0.04892)	
0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	-0.577800	
						(0.67747)	
0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-27.41842	
						(6.22026)	
0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	-0.659999	
						(2.58385)	
0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	-11.51114	
						(2.58137)	
Adjustment coefficients (std.err. in parentheses)							
D(ALS)	-1.055403	0.235183	-0.031435	-0.001275	0.002479	-0.008305	
	(0.19275)	(0.36179)	(0.01869)	(0.00379)	(0.00460)	(0.00625)	
D(BRDM)	0.083235	-0.568316	0.014930	0.002503	0.001081	0.007309	
	(0.08173)	(0.15341)	(0.00792)	(0.00161)	(0.00195)	(0.00265)	
D(INTR)	-1.779063	2.040238	-0.296225	-0.017761	0.000644	-0.036752	
	(0.77554)	(1.45572)	(0.07519)	(0.01525)	(0.01849)	(0.02515)	
D(ECHR)	-1.827843	6.987956	-0.152075	-0.093581	-0.078624	-0.155955	
	(2.08505)	(3.91370)	(0.20215)	(0.04100)	(0.04971)	(0.06762)	
D(INF)	0.338482	7.155891	0.248941	-0.041304	-0.173902	-0.017199	
	(2.11544)	(3.97073)	(0.20510)	(0.04160)	(0.05044)	(0.06860)	
D(OIL)	-0.750709	1.209506	-0.192434	0.053157	0.003448	-0.176626	
	(2.49854)	(4.68982)	(0.24224)	(0.04913)	(0.05957)	(0.08102)	
D(GDP)	0.035707	0.040422	-0.002041	0.000826	0.002915	-0.001075	
	(0.03064)	(0.05751)	(0.00297)	(0.00060)	(0.00073)	(0.00099)	

## APPENDIX 7

### Error Correction Model Results

#### OVERPARAMETERIZED ECM

Dependent Variable: D(ALS,2)				
Method: Least Squares				
Sample(adjusted): 1985:4 2009:4				
Included observations: 97 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	24.34988	262.2704	0.092843	0.9263
D(ALS(-1),2)	-0.465903	0.078676	-5.921796	0.0000
D(BRDM,2)	0.000788	0.000846	0.931747	0.3542
D(BRDM(-1),2)	-0.001150	0.000897	-1.280920	0.2038
D(INTR,2)	-302.7013	206.1559	-1.468313	0.1458
D(INTR(-1),2)	-102.1493	205.3810	-0.497365	0.6203
D(ECHR,2)	-5.547827	32.02536	-0.173232	0.8629
D(ECHR(-1),2)	16.54718	31.60729	0.523524	0.6020
D(INF,2)	-23.64973	29.44095	-0.803294	0.4241
D(INF(-1),2)	2.917501	29.66995	0.098332	0.9219
D(OIL,2)	206.7887	28.58490	7.234194	0.0000
D(OIL(-1),2)	97.82880	32.02009	3.055232	0.0030
D(GDP,2)	-0.006007	0.001235	-4.866223	0.0000
D(GDP(-1),2)	-0.001971	0.001364	-1.444874	0.1523
ECM(-1)	-0.541290	0.083935	-6.448958	0.0000
R-squared	0.847521	Durbin-Watson stat		2.071219
Adjusted R-squared	0.822430	Mean dependent var		-0.004326
S.E. of regression	0.742658	S.D. dependent var		1.762398
Sum squared resid	43.57170	Akaike info criterion		2.380761
Log likelihood	-96.70537	Schwarz criterion		2.762012

#### PARSIMONIOUS ECM

Dependent Variable: D(ALS,2)				
Method: Least Squares				
Sample(adjusted): 1985:4 2009:4				
Included observations: 97 after adjusting endpoints				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	36.04430	267.8049	0.134592	0.8932
D(ALS(-1),2)	-0.505958	0.077835	-6.500363	0.0000
D(OIL,2)	188.8185	27.88766	6.770682	0.0000
D(OIL(-1),2)	113.8710	29.52045	3.857358	0.0002
D(GDP,2)	-0.006408	0.001243	-5.154515	0.0000
D(GDP(-1),2)	-0.003070	0.001339	-2.293425	0.0242
ECM(-1)	-0.550377	0.081041	-6.791348	0.0000
R-squared	0.762791	Mean dependent var		-36.10928
Adjusted R-squared	0.746977	S.D. dependent var		5236.561
S.E. of regression	2634.063	Akaike info criterion		18.65987
Sum squared resid	6.24E+08	Schwarz criterion		18.84568
Log likelihood	-898.0038	F-statistic		48.23535
Durbin-Watson stat	2.268692	Prob(F-statistic)		0.000000