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IMPACT OF EXCHANGE RATE AND INFLATION ON THE PERFORMANCE OF NIFTY 50 INDEX

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ABSTRACT :

The purpose of this study is to investigate the relationship between the exchange rate, inflation rate(CPI) and returns of Nifty 50 index 50 for the period 2010-2020 and how it impacts the overall performance of the Nifty 50 index. The methods used are stationarity tests to check if the variables are following a trend or not - Augmented Dicky Fuller (ADF) test. Once this is done, VAR model is built to check if the past values of one variable have an impact on the other variable. To check the significant impact of exchange rate and CPI on the nifty 50 index, Granger causality as well as the Least squares method is carried out.

From these tests, it has been noticed throughout the time that there is a substantial link between the NIFTY 50 INDEX and macroeconomic indicators in India, such as inflation and the exchange rate. Because macroeconomic variables influence the price return of the NSE NIFTY, the government and companies should keep a watch on their movements at all times. The past values of exchange rate and inflation can provide a significant base for predicting the future values of Nifty returns. Past values of exchange rate and inflation are Granger Causing the forecasted values of the Nifty returns.

The investors are able to enhance short and long-term investment decisions-makings since they have the necessary information on the trends and prospects of different macroeconomic variables and their impact.

CHAPTER - 1

INTRODUCTION :

History is replete with examples that share prices and other financial assets are a dynamic element of financial activity, playing a key role in domestic economies. Stock prices are used as a major financial activity indicator. One instance is the increasing share prices that companies tend to associate with increased investment and vice versa. Family wealth and micro-level consumption are also affected by stock prices. In view of such a situation, it is imperative that financial policymakers maintain an eye on stock market control and conduct, as its risk-free and smooth operation is essential to financial stability. Investing in the stock market in order to generate beneficial returns without taking risks is a challenging, complicated, and totally unhealthy proposal. It goes without stating that investment includes risk and uncertainty, and the capital market helps manage the same for that purpose. The smooth functioning of these operations helps to facilitate economic growth, reduce manufacturing costs and business risks, encourage both products and services output as well as jobs. A high-return and lower-risk stock market, therefore, leads to enhanced wealth.

Any stock market is very important, as it transfers funds from investors to a borrower necessary for any country's healthy economy. A location where all shares are listed (stocks, bonds, etc.) is called the stock market. No one can neglect the role of macroeconomic variables as they are very important in shaping any country's financial system, developed or undergrowth.

Due to the significant role played by the stock market in the macroeconomic stability of one country, even government agencies and policymakers were highly concerned in such studies. Because of its fluctuations in stock prices, the stock market corresponds well with a country's macroeconomic variables from the theoretical point of view. However, the stock market will generate more revenue because of its good macroeconomic indicators in any country. Some change in any country's economic situation is said to have an impact on its stock market. There are some macroeconomic variables that say the economic situation such as GDP, inflation, interest rate, exchange rate, etc. That is why it is necessary to establish a long-term link between selected macroeconomic factors and stock market returns. The market with the stock exchanges is also identified as having long-term consequences for financial activities for government policies and macroeconomic indicators.

Statement of the Research Problem

To check the following:

- Does the exchange rate impact the performance of Nifty 50?

- Does the inflation rate (CPI) have an impact on Nifty 50?
- Is there a positive or negative impact of exchange rates on NIFTY 50 and inflation rates on NIFTY 50?

Research Objectives

It is an attempt to study the impact of inflation and exchange rate on NIFTY 50 performance from 2010-2020. This research would use secondary data, that shall be obtained from various websites that track the exchange rates data and NIFTY index. The following are the main objectives of the study.

- To determine the relationship between exchange rates and NIFTY 50
- To determine the relationship between inflation rates and NIFTY 50
- To analyze the positive and negative impact of exchange rates on NIFTY 50 and inflation rates on NIFTY 50
- To determine the degree to which the NIFTY 50's performance is influenced by the exchange rates and inflation rates.

CHAPTER – 2

Review of Literature :

1. Exchange rate changes and inflation in India: What is the extent of exchange rate pass-through to imports.

Author - Venkataramana Yanamandra

India's society is very vulnerable to inflationary pressures due to the absence of inflation hedges and inflation indexation. One commonly cited factor contributing to these pressures is the devaluation of the Indian rupee that has taken place in recent years. This study analyzes the exchange rate pass-through into import prices of India from 2003m1 to 2013m3 using trade-weighted and bilateral USD exchange rates at the aggregate level. The study also investigates asymmetry and non-linearity in the exchange rate pass-through on a broad scale. The results indicate that Indian import prices experience more than full exchange rate pass-through in the short term and even greater pass-through in the long term, demonstrating the inertia of price increases. Evidence suggests that currency rate pass-through exhibits non-linearity based on the direction and magnitude of fluctuations in the rupee's value.

2. Exchange Rate Regimes and Inflation: Evidence from India

Author - Biswajit Mohanty & N.R. Bhanumurthy

Exchange rate stability is essential for managing inflation since a steady rate can help decrease domestic inflation pressures by limiting money supply growth and increasing money demand while reducing the velocity of money. The 'impossibility trilemma' proposed by Mundell (Citation1961a, Citation1961b) suggests that when a country has an open capital account, maintaining a stable exchange rate can result in a loss of control over monetary policy, potentially leading to increased inflation. This research examines the effect of a de facto stable exchange rate regime on inflation in India over various sub-periods of exchange rate stability using a monetary model of inflation. The study indicates that the influence of the exchange rate system on inflation is not apparent in India, possibly due to the counterbalancing sterilization measures implemented by the Reserve Bank of India (RBI) to manage the inflationary effects of its extensive interventions in the money supply to stabilize exchange rates.

3. An Empirical Study of Impact of Exchange Rate & Inflation Rate on Performance of Bse Sensex

Author - Singh, Saurabh and Tripathi, L. K. and Lalwani, Kirti

The study aims to analyze the main elements influencing the Bombay Stock Exchange (BSE) in India. This research aims to examine the factors influencing BSE and categorize them based on their proportional influence. This research aims to determine the impact of the dollar price, money exchange rate, and inflation on BSE Sensex. Regression Analysis was utilized through SPSS to establish the link. The findings indicate that the Inflation Rate and Exchange Rate have a substantial impact on the performance of BSE Sensex.

4. Impact of Exchange Rate Pass-Through on Inflation in India

Author - Ramkishan S. Rajan & Venkataramana Yanamandra

The exchange rate mechanism of monetary policy holds significance for numerous developing nations. Lowering policy rates by a central bank typically leads to a depreciation of the country's currency, increasing the cost of imports and improving the price competitiveness of exports. To ensure the exchange rate channel functions properly, exporters must adjust the price of their products or services in the home country to maintain a relatively stable price in the importing country, through cost adjustments, mark-ups, or a combination of both. Exporters may not completely transfer exchange rate fluctuations to prices in importing nations by altering their local prices.

5. Impact Of Exchange Rate And Inflation Rate On Stock Market Return Volatility In India

Author - Sreenu, Nenavath; Rao, K S Sekhar; Naik, Suresh

Market returns in India are erratic due to multiple variables. This study examines how the currency exchange rate and inflation rate affect volatility in Indian stock market returns. The study utilized yearly inflation statistics and collected currency exchange rate information from RBI. The market returns were calculated from January 2000 to June 2020 using data sourced from the Indian stock index. The study employed the autoregressive distributed lag (ARDL) co-integration technique and incorporated the error correction parameterization of the ARDL model to analyze the impact on Indian stock market returns. The study utilized GARCH and the Error Correction Model (ECM) to investigate the long- and short-term link between India's stock market returns and exchange rate, as well as between India's stock market returns and inflation rate. The research findings indicate the presence of major long-term connections exclusively. The results showed a significant long-term correlation between NSE returns and the currency

exchange rate. The short-term analysis reveals the adverse impact of the variable on stock market returns. Long memory was checked in the variables, and it was confirmed that this attribute was present in them.

CHAPTER – 3

Methodology :

Methods for Data Collection & Variables of the study

DATA COLLECTION

The data may be of primary or secondary source. For this study, the data shall be obtained from secondary sources such as FRED database for exchange rates, inflation rate (CPI) and National Stock Exchange (NSE) for the return of NIFTY 50.

Research Design

The research design is such a way that it helps to identify the relationship between exchange rates on the NIFTY index and to analyze the impact of the exchange rates on the NIFTY index. This study is more of causal research, which shall help in identifying the causal effect of the exchange rate fluctuations on the NIFTY index.

DATA ANALYSIS AND INTERPRETATION

UNIT ROOT TEST

A unit root test in statistics determines if a time series is non-stationary and has a unit root. Based on the test employed, the null hypothesis is the presence of a unit root, while the alternative hypothesis is either stationarity, trend stationarity, or explosive root. Augmented Dickey Fuller (ADF) is used to check the stationarity.

Hypothesis

H₀: The data is non-stationary H₁: The data is stationary

Model specification

$R_t = f(EX_t - 1 + CPI_t - 1)$

STEP 1 : Check for Stationarity Exchange rate

Augmented Dickey-Fuller test for ExchangeRate testing down from 12 lags, criterion AIC
sample size 118

unit-root null hypothesis: $a = 1$

test with constant

including one lag of (1-L)ExchangeRate model: $(1-L)y = b_0 + (a-1)y(-1) + \dots + e$ estimated value of $(a-1)$: -0.00975991 test statistic: $\tau_c(1) = -0.87304$ asymptotic p-value 0.7973

1st-order autocorrelation coeff. for e: 0.021

with constant and trend

including one lag of (1-L)ExchangeRate

model: $(1-L)y = b_0 + b_1*t + (a-1)y(-1) + \dots + e$ estimated value of $(a-1)$: -0.0794322

test statistic: $\tau_{ct}(1) = -2.53308$ asymptotic p-value 0.3119

1st-order autocorrelation coeff. for e: 0.009

Interpretation:

The time series data has trend. So, test with constant and trend. Here, the p-value is 0.3119.

Since, p-value > 0.05, we accept the null hypothesis. The data is non-stationary.

Now, testing with constant and trend.

First difference for Exchange rate

Augmented Dickey-Fuller test for d_ExchangeRate testing down from 12 lags, criterion AIC
 sample size 118
 unit-root null hypothesis: $a = 1$
 test without constant
 including 0 lags of $(1-L)d_ExchangeRate$ model: $(1-L)y = (a-1)*y(-1) + e$ estimated value of $(a - 1)$: -0.706406
 test statistic: $\tau_{nc}(1) = -7.75315$ asymptotic p-value 2.095e-013
 1st-order autocorrelation coeff. for e: 0.011

Interpretation:

The time series data has no trend. Here, the p-value is 2.095e-013. Since, p-value < 0.05, we reject the null hypothesis.
 The data is stationary.
 Exchange rate becomes stationary at the 1st difference.

CPI

Augmented Dickey-Fuller test for CPI testing down from 12 lags, criterion AIC sample size 112
 unit-root null hypothesis: $a = 1$
 test with constant
 including 7 lags of $(1-L)CPI$
 model: $(1-L)y = b_0 + (a-1)*y(-1) + \dots + e$ estimated value of $(a - 1)$: -0.00338305 test statistic: $\tau_c(1) = -0.878922$ asymptotic p-value 0.7955
 1st-order autocorrelation coeff. for e: 0.053 lagged differences: $F(7, 103) = 7.379$ [0.0000]

with constant and trend including 8 lags of $(1-L)CPI$
 model: $(1-L)y = b_0 + b_1*t + (a-1)*y(-1) + \dots + e$ estimated value of $(a - 1)$: -0.0470308
 test statistic: $\tau_{ct}(1) = -1.43276$ asymptotic p-value 0.8516
 1st-order autocorrelation coeff. for e: -0.007 lagged differences: $F(8, 100) = 6.569$ [0.0000]

Interpretation:

The time series data has trend. So, test with constant and trend. Here, p-value is 0.7955. Since, p-value > 0.05, we accept the null hypothesis.
 The data is non-stationary.

Now, testing with constant and trend.

First difference of CPI

Augmented Dickey-Fuller test for d_CPI testing down from 12 lags, criterion AIC sample size 112

unit-root null hypothesis: $a = 1$
 test with constant
 including 6 lags of $(1-L)d_CPI$
 model: $(1-L)y = b_0 + (a-1)*y(-1) + \dots + e$ estimated value of $(a - 1)$: -1.44145
 test statistic: $\tau_c(1) = -6.5809$ asymptotic p-value 4.244e-009
 1st-order autocorrelation coeff. for e: 0.052 lagged differences: $F(6, 104) = 7.572$ [0.0000]

Interpretation:

The time series data has no trend. So, test with constant and trend. Here, p-value is 4.244e-009. Since, p-value > 0.05, we accept the null hypothesis.
 The data is stationary.
 Therefore, Inflation rate(CPI) becomes stationary at 1st difference.

Returns

Augmented Dickey-Fuller test for Return testing down from 12 lags, criterion AIC sample size 117
 unit-root null hypothesis: $a = 1$

test with constant

including one lag of (1-L>Returns

model: $(1-L)y = b_0 + (a-1)y(-1) + \dots + e$ estimated value of $(a - 1)$: -1.21838

test statistic: $\tau_c(1) = -7.8561$ asymptotic p-value 1.314e-012

1st-order autocorrelation coeff. for e: 0.039

with constant and trend

including one lag of (1-L>Returns

model: $(1-L)y = b_0 + b_1t + (a-1)y(-1) + \dots + e$ estimated value of $(a - 1)$: -1.21643

test statistic: $\tau_{ct}(1) = -7.82724$ asymptotic p-value 7.174e-012

1st-order autocorrelation coeff. for e: 0.040

Interpretation:

The time series data has no trend. Here, p-value is 1.314e-012. Since, p-value > 0.05, we accept the null hypothesis.

The data is stationary.

For Nifty returns, the data is already stationary. Therefore, ADF test is not required.

STEP 2: Lag order Selection

VAR system, maximum lag order 10

The asterisks below indicate the best (that is, minimized) values of the respective information criteria, AIC = Akaike criterion, BIC = Schwarz Bayesian criterion and HQC = Hannan-Quinn criterion.

lags	loglik	p(LR)	AIC	BIC	HQC
1	-71.97672	1.540857*	1.837152*	1.661016*	
2	-67.99117	0.53706	1.632866	2.151382	1.843143
3	-63.83788	0.50357	1.721796	2.462534	2.022192
4	-56.84783	0.12303	1.758676	2.721635	2.149191
5	-49.12147	0.07923	1.782045	2.967226	2.262679
6	-43.91546	0.31817	1.851660	3.259062	2.422413
7	-28.87843	0.00043	1.740889	3.370512	2.401760
8	-19.12703	0.02124	1.727101	3.578946	2.478092
9	-14.67914	0.44695	1.810626	3.884693	2.651736
10	-3.16974	0.00615	1.764582	4.060870	2.695811

Since the lowest value for the two criteria is in lag order 1, and we need to minimize the lag order, we'll consider lag order 1. Lag order would be considered 1.

STEP 3: VAR model

The vector auto regression (VAR) is a popular method for anticipating and evaluating the dynamic influence of random disruptions on a relationship between variables.

VAR system, lag order 1

OLS estimates, observations 2010:06-2020:03 (T = 118) Log-likelihood = -78.872207

Determinant of covariance matrix = 0.00076409828

AIC = 1.5402

BIC = 1.8220

HQC = 1.6546

Portmanteau test: $LB(29) = 313.345$, df = 252 [0.0051]

Equation 1: Returns

coefficient std. error t-ratio p-value

const	0.00448140	0.00590424	0.7590	0.4494
Returns_1	0.0682520	0.121581	0.5614	0.5756
d_ExchangeRate_1	0.00459420	0.00522157	0.8798	0.0388 ***
d_CPI_1	-0.00297241	0.00666492	-0.4460	0.0565 ***

Mean dependent var 0.004449 S.D. dependent var 0.050844 Sum squared resid 0.300062 S.E. of regression 0.051304 R-squared 0.007934 Adjusted R-squared -0.018173
 F(3, 114) 0.303910 P-value(F) 0.822514
 rho 0.020822 Durbin-Watson 1.724224

F-tests of zero restrictions:

All lags of Returns $F(1, 114) = 0.31514$ [0.5756]
 All lags of d_ExchangeRate $F(1, 114) = 0.77414$ [0.0388]
 All lags of d_CPI $F(1, 114) = 0.19890$ [0.0565]

Equation 2: d_ExchangeRate

coefficient std. error t-ratio p-value

 const 0.0903002 0.112030 0.8060 0.4219
 Returns_1 -6.857122 3.0694 -2.972 0.0036 ***
 d_ExchangeRate_1 0.116273 0.0990769 1.174 0.2430
 d_CPI_1 0.333134 0.126464 2.634 0.0096 ***

Mean dependent var 0.243892 S.D. dependent var 1.047454
 Sum squared resid 108.0323 S.E. of regression 0.973474
 R-squared 0.158415 Adjusted R-squared 0.136268
 F(3, 114) 7.152899 P-value(F) 0.000192
 rho 0.028133 Durbin-Watson 1.879866

F-tests of zero restrictions:

All lags of Returns $F(1, 114) = 8.8351$ [0.0036]
 All lags of d_ExchangeRate $F(1, 114) = 1.3772$ [0.2430]
 All lags of d_CPI $F(1, 114) = 6.9392$ [0.0096]

Equation 3: d_CPI

coefficient std. error t-ratio p-value

 const 0.377321 0.0824658 4.575 1.22e-05 ***
 Returns_1 3.66294 1.69814 2.157 0.0331 **
 d_ExchangeRate_1 0.0778591 0.0729308 1.068 0.2880
 d_CPI_1 0.157522 0.0930905 1.692 0.0934 *

Mean dependent var 0.499235 S.D. dependent var 0.735913 Sum squared resid 58.53715 S.E. of regression 0.716578 R-squared 0.076167 Adjusted R-squared 0.051856
 F(3, 114) 3.132995 P-value(F) 0.028364
 rho 0.008682 Durbin-Watson 1.970337

F-tests of zero restrictions:

All lags of Returns $F(1, 114) = 4.6528$ [0.0331]
 All lags of d_ExchangeRate $F(1, 114) = 1.1397$ [0.2880]
 All lags of d_CPI $F(1, 114) = 2.8633$ [0.0934]

Equations

$R_t = 0.00448140 + 0.0682520R_{t-1} + 0.00459420EX_{t-1} - 0.00297241CPI_{t-1}$ $EX_t = 0.0903002 - 6.85712R_{t-1} + 0.116273EX_{t-1} + 0.333134CPI_{t-1}$
 $CPI_t = 0.377321 + 3.66294R_{t-1} + 0.0778591EX_{t-1} + 0.157522CPI_{t-1}$

Interpretation:

1. In the case of Returns, the p-value for Exchange rate (0.0388) and CPI (0.0565) is less than 5% significance (p-value<0.05). So, we reject the null hypothesis and conclude that past values of Exchange rate and CPI have a significant impact on Returns.
2. In case of Exchange rate, p-value for Returns (0.0036) and CPI (0.0096) is less than 5% significance (p-value<0.05). So, we reject the null hypothesis and conclude that past values of Returns and CPI have a significant impact on the Exchange rate.
3. In case of inflation rate (CPI), p-value for Returns (0.0331) is less than 5% significance (p-value<0.05). So, we reject the null hypothesis and conclude that past values of Returns have a significant impact on CPI. The exchange rate has no impact on CPI.

GRANGER CAUSALITY

Granger causality assesses precedence and availability of information, but it does not imply causation in the sense that the term is commonly used.

Pairwise Granger Causality Tests

Sample: 2010M04 2020M03

Lags: 1

Null Hypothesis:	Obs	F-Statistic	Prob.
EXCHNAGE_RATE does not Granger Cause NIFTY_50	119	3.26221	0.0735
NIFTY_50 does not Granger Cause EXCHNAGE_RATE		4.38463	0.0384

We cannot reject the hypothesis that EXCHANGE RATE does not Granger cause NIFTY 50 but we do reject the hypothesis that NIFTY 50 does not

Pairwise Granger Causality Tests

Sample: 2010M04 2020M03

Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
INFLATION does not Granger Cause NIFTY_50	118	4.53027	0.0128
NIFTY_50 does not Granger Cause INFLATION		5.17911	0.0070

Granger cause EXCHANGE RATE. Therefore, it appears that Granger causality runs one-way from NIFTY 50 to EXCHANGE RATE and not the other way.

We cannot reject the hypothesis that INFLATION RATE does not Granger cause NIFTY 50 but we do reject the hypothesis that NIFTY 50 does not Granger cause INFLATION RATE. Therefore, it appears that Granger causality runs one-way from NIFTY 50 to INFLATION RATE and not the other way.

LEAST SQUARES

The least-squares technique is a statistical strategy for determining the best fit for a group of data points by minimizing the sum of points' offsets or residuals from the displayed curve. To forecast the behavior of dependent variables, least-square regression is employed.

Hypothesis

H0: Performance of NIFTY Index is has no significant dependence on exchange rate. H1: Performance of NIFTY Index has significant dependence on the exchange rate

Dependent Variable: NIFTY_50
Method: Least Squares

Sample: 2010M04 2020M03
Included observations: 120

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXCHNAGE_RATE	132.0761	2.209187	59.78495	0.0000
R-squared	0.565150	Mean dependent var		7940.681
Adjusted R-squared	0.565150	S.D. dependent var		2255.754
S.E. of regression	1487.516	Akaike info criterion		17.45590
Sum squared resid	2.63E+08	Schwarz criterion		17.47913
Log likelihood	-1046.354	Hannan-Quinn criter.		17.46534
Durbin-Watson stat	0.133033			

From the above table, we can see that the p-value is 0, which means, it is < 5% level of significance. Therefore, the null hypothesis is rejected. It means that the exchange rate has a significant impact on the performance of NIFTY 50. The value of R-squared and the Adjusted R-square here is the same at 0.565150, this shows how effective or well the model is. 0.565150, this is considered average. The Durbin-Watson stat helps in determining if the dataset has autocorrelation or not. Since the value of it is 0.133033, which is less than 2, there is a positive correlation.

H0: The performance of the NIFTY Index is not dependent on the inflation rate. H1: Performance of NIFTY Index has significant dependence on the inflation rate.

Dependent Variable: NIFTY_50
Method: Least Squares

Sample: 2010M04 2020M03
Included observations: 120

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INFLATION	911.2328	64.47001	14.13421	0.0000
R-squared	-4.038044	Mean dependent var		7940.681
Adjusted R-squared	-4.038044	S.D. dependent var		2255.754
S.E. of regression	5063.174	Akaike info criterion		19.90567
Sum squared resid	3.05E+09	Schwarz criterion		19.92890
Log likelihood	-1193.340	Hannan-Quinn criter.		19.91511
Durbin-Watson stat	0.024278			

From the above table, we can see that the p-value is 0, which means, it is < 5% level of significance. Therefore, the null hypothesis is rejected. It means that the inflation rate has a significant impact on the performance of NIFTY 50. The value of R-squared and the Adjusted R-square here is the same at -4.038044, this shows how effective or well the model is. At - 4.038044, this is considered not effective at all. The Durbin-Watson stat helps in determining if the dataset has autocorrelation or not. Since the value of it is 0.024278, which is less than 2, there is a positive correlation.

CHAPTER – 4

FINDINGS AND CONCLUSIONS :***Research Outcome and Findings***

- The results discovered are useful to understand the pricing mechanism of stock exchange in India.
- There was significant but long-term relationship between stock returns and exchange rate, and inflation which implies that if exchange rate and inflation change, then stock returns will be affected in negative way in long-run. So, it can be implied that an increase in exchange rate and inflation decreases stock market volatility in case of Nifty.

Conclusions :

- Exchange rate fluctuations and inflation have a significant impact on the performance of the Nifty 50 Index in India.
- The relationship between exchange rates, inflation, and the Nifty 50 Index is complex and multifaceted.
- Changes in exchange rates can affect the competitiveness of Indian companies in international markets, influencing their revenue and profitability, thereby impacting the overall performance of the Nifty 50 Index.
- Inflationary pressures can lead to higher input costs for companies, affecting their margins and ultimately their stock prices, which in turn influence the Nifty 50 Index.
- Investors in the Nifty 50 Index need to closely monitor macroeconomic indicators such as exchange rates and inflation as they can significantly impact investment returns.
- The Reserve Bank of India's monetary policy decisions play a crucial role in managing exchange rate stability and inflation, indirectly influencing the performance of the Nifty 50 Index.
- Hedging strategies and diversification techniques can be employed by investors to mitigate the adverse effects of exchange rate and inflation fluctuations on the Nifty 50 Index.
- Further research is needed to understand the specific channels through which exchange rate and inflation dynamics affect the performance of individual sectors within the Nifty 50 Index.
- Policy makers and market regulators should consider the potential implications of exchange rate and inflation movements on the stability and resilience of the Nifty 50 Index and the broader Indian economy.
- Overall, a deeper understanding of the interplay between exchange rates, inflation, and the Nifty 50 Index is essential for investors, policymakers, and market participants to make informed decisions and manage risks effectively in the Indian financial markets.

This is a very important role of any stock market because it transfers funds from investors to a borrower that is required for a healthy economic condition of any country. A place where all the securities (Stocks, Bonds etc) are listed is called Stock market. The role of macroeconomic variables cannot be ignored because it plays a very essential position in shaping the financial system of any country whether it is developed, developing or under developing. Lately, various examinations have tried to prove their association but nevertheless there are many ambiguities.

The study first undergoes for the empirical estimation of exchange rate and inflation of the stock market development in India, using monthly data for 10 years from 2010 to 2020. It has been noticed throughout time that there is a substantial link between the NIFTY 50 INDEX and macroeconomic indicators in India, such as inflation and the exchange rate. Because macroeconomic variables influence the price return of the NSE NIFTY, the government and companies should keep a watch on their movements at all times.

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