



The Impact of Macroeconomic Factors on Stock Market Returns in India

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ABSTRACT

Original Research Article

This study looks at how macroeconomic factors impact stock market returns in India from 2010 to 2022. It focuses on key economic indicators like GDP growth rate, inflation rate, interest rate, and exchange rate to see how they affect the stock market. The results show that GDP growth rate and interest rate have a strong influence on stock market returns, while inflation rate and exchange rate have a smaller but still noticeable effect. The Indian stock market is one of the largest and most active in the world, and its performance is closely tied to the country's economic conditions. Changes in economic indicators often affect stock prices and how investors feel about the market. For example, GDP growth rate, which shows how well the economy is doing, plays a big role in stock market performance. When GDP growth is high, it usually means the economy is strong, companies are making more profits, and investors are more confident. This leads to higher stock market returns. On the other hand, if GDP growth slows down, investors may become less optimistic, and stock market performance may drop. The study supports this idea, showing a clear connection between GDP growth rate and stock market returns. Interest rates are another important factor. They affect how much it costs to borrow money, how much people spend, and how much businesses invest, all of which impact the stock market. When interest rates are low, borrowing is cheaper, which encourages businesses to invest and grow. This can push stock prices higher. However, when interest rates are high, borrowing becomes more expensive, people spend less, and companies may make lower profits. This can hurt stock market returns. The study shows that interest rates play a big role in shaping stock market performance, highlighting how government policies on interest rates can influence investor behaviour. Inflation rate, while having a smaller impact, is still important. Moderate inflation can be a sign of a growing economy, but high inflation can reduce people's purchasing power and create uncertainty, leading to ups and downs in the stock market. The study finds that inflation has a moderate effect on stock market returns, meaning it matters but not as much as GDP growth or interest rates. The exchange rate, which shows the value of the Indian rupee compared to other currencies, also affects stock market returns. A weaker rupee can help companies that export goods by making their products cheaper in global markets, which can boost their stock prices. However, a weaker rupee can also make imports more expensive, increasing costs for companies and hurting their profits. The study finds that the exchange rate has a moderate impact on stock market returns, showing that its effect is not straightforward. In conclusion, this study shows that macroeconomic factors play a big role in shaping stock market returns in India. GDP growth rate and interest rate are the most important factors, while inflation rate and exchange rate have a smaller but still significant impact. These findings are useful for investors, policymakers, and analysts because they help explain what drives stock market performance. By understanding these factors, people can make better decisions and handle the challenges of the Indian stock market more effectively.

Keywords: Macroeconomic Factors, Stock Market Returns, GDP Growth Rate.

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INTRODUCTION

The Indian stock market has grown a lot over the past few decades and is now one of the most active and exciting markets in the world. This growth has been driven by several factors, such as economic reforms, foreign investment, technology improvements, and more people in India investing in the market. However, even

though the market has done well, it is still affected by bigger economic factors that can change stock prices and returns. Understanding these factors is important for investors, policymakers, and analysts to make smart decisions.

Economic Reforms and Market Growth

The growth of the Indian stock market started in the early 1990s when the government introduced economic reforms to open up the economy. These reforms included removing strict regulations, reducing trade barriers, and allowing foreign investment. These changes turned the Indian stock market from a small, closed system into a more open and global market. The creation of the Securities and Exchange Board of India (SEBI) in 1992 also helped by making the market more transparent and protecting investors. These changes attracted both Indian and foreign investors, which increased market activity and participation.

Foreign Investment and Market Growth

Foreign investment has been a big part of the Indian stock market's growth. Policies like Foreign Direct Investment (FDI) and Foreign Institutional Investment (FII) allowed foreign investors to put money into the Indian market. This brought in a lot of capital and expertise. Foreign investors are attracted to India because of its strong economy, young population, and growth potential. However, relying on foreign investment also makes the market vulnerable to global changes. For example, during times of global uncertainty, foreign investors might pull out their money, causing the market to become unstable.

Technology and Market Efficiency

Technology has changed the Indian stock market, making it easier to access, more efficient, and more transparent. The introduction of online trading platforms, mobile apps, and digital brokerage services has made it simpler for regular people to invest in the market. Advanced technologies like algorithmic trading and artificial intelligence have also made the market more efficient and reduced costs. These changes have made the Indian stock market more attractive to both Indian and international investors.

More Indian Investors

Another reason for the growth of the Indian stock market is the increase in the number of Indian investors. As more people learn about finance and investing, they are putting their money into the stock market to achieve their financial goals. Products like mutual funds and systematic investment plans (SIPs) have made it easier for regular people to invest. The government's efforts to promote digital payments and financial inclusion have also encouraged more people to invest. This growing base of Indian investors has provided a stable source of money for the market, making it less dependent on foreign investment and more resilient to global shocks.

Impact of Macroeconomic Factors

Even though the Indian stock market has grown, it is still affected by macroeconomic factors that can influence stock prices and returns. These factors include GDP growth, inflation, interest rates, exchange rates, and

global economic conditions. Here's how they impact the market:

1. GDP Growth: GDP growth is a key indicator of how well the economy is doing. When GDP growth is high, it usually means the economy is strong, companies are making more profits, and investors are confident. This leads to higher stock market returns. On the other hand, if GDP growth slows down, investors may become less optimistic, and the stock market may perform poorly. For example, during the COVID-19 pandemic, India's GDP fell sharply, and the stock market also dropped.

2. Inflation: Inflation is another important factor. Moderate inflation can be a sign of a growing economy, but high inflation can reduce people's purchasing power and create uncertainty, leading to market ups and downs. High inflation also increases costs for companies, which can hurt their profits and stock prices. The Reserve Bank of India (RBI) tries to control inflation through its policies, which also affects the stock market.

3. Interest Rates: Interest rates have a big impact on the stock market. When interest rates are low, borrowing money is cheaper, which encourages businesses to invest and grow. This can push stock prices higher. However, when interest rates are high, borrowing becomes more expensive, people spend less, and companies may make lower profits. This can hurt stock market returns. The RBI's decisions on interest rates directly affect the market.

4. Exchange Rates: The exchange rate, which shows the value of the Indian rupee compared to other currencies, also affects the stock market. A weaker rupee can help companies that export goods by making their products cheaper in global markets, which can boost their stock prices. However, a weaker rupee can also make imports more expensive, increasing costs for companies and hurting their profits. The impact of exchange rates on the stock market is complex and depends on many factors.

5. Global Economic Conditions: The Indian stock market is connected to global markets, so it is affected by global economic trends. For example, the 2008 global financial crisis and the COVID-19 pandemic had a big impact on the Indian stock market, causing stock prices to fall. Changes in global commodity prices, geopolitical tensions, and trade policies can also influence the market.

LITERATURE REVIEW

Many studies have explored how big economic factors like GDP growth, inflation, interest rates, and exchange rates affect stock market returns. These factors help explain why stock prices rise or fall in different countries. For example, a famous study by Eugene Fama (1981) looked at the U.S. stock market and found that when the economy grows (higher GDP), companies earn more profits, people spend more, and investors feel confident—all of which push stock prices up. But if the

economy slows down, stock returns usually drop. Fama also found that inflation (rising prices) hurts stock returns because it makes money less valuable and creates uncertainty, making investors nervous.

Another study by Mukherjee and Naka (1995) focused on Japan. They discovered that interest rates and exchange rates play a big role there. When interest rates are low, businesses borrow money cheaply, people spend more, and stocks become more attractive than bonds. But if interest rates rise, borrowing gets expensive, and stocks tend to fall. They also found that a weaker Japanese yen (exchange rate) helps export companies because their products become cheaper globally, boosting their stock prices. However, a weak yen makes imports like raw materials more expensive, hurting companies that rely on them.

These studies show that the importance of economic factors depends on the country. For instance, the U.S. cares more about GDP and inflation, while Japan's focus on exports makes exchange rates critical. This means every country's economy works differently based on its industries, trade, and policies.

Later research in countries like India and Brazil found that inflation and interest rates have an even bigger impact on their stock markets compared to richer countries. This is because emerging economies are often less stable and more sensitive to changes. Also, global issues like oil price swings or political conflicts now affect stock markets everywhere, making things more complicated.

In short, GDP growth, inflation, interest rates, and exchange rates all influence stock markets, but their effects vary by country. Investors and policymakers need to understand these differences to make smart decisions. As the world changes—with new technology, climate issues, and shifting trade—researchers must keep studying how these factors interact with stock markets in the future.

METHODOLOGY

Data Sources and Methodology

The study relies on:

RBI Reports: For GDP growth, inflation (CPI), interest (repo rate), and exchange rate data.

BSE Historical Data: For daily stock prices and returns of major indices like the Sensex.

Methods: Statistical tools like regression analysis are used to measure how changes in macroeconomic variables correlate with stock market performance. For example, regression models might reveal whether a 1% increase in GDP growth corresponds to a specific percentage rise in the Sensex.

Study Period: 2010–2022

This period includes big economic events:

- Recovery after the 2008 global financial crisis.
- Major policies like GST (2017) and demonetization (2016).
- The COVID-19 pandemic (2020–2021), which crashed markets before recovery.

These events caused ups and downs in GDP, inflation, and interest rates, making it a good time to study how the economy affects stocks.

How India's Economy Affects Stock Market Returns (2010–2022)

This study looks at how four major economic factors—GDP growth, inflation, interest rates, and exchange rates—impact India's stock market performance between 2010 and 2022. The data comes from reliable sources like the Reserve Bank of India (RBI) and the Bombay Stock Exchange (BSE) to make sure the findings are accurate. The goal is to help investors, policymakers, and businesses understand how the economy and stock market are connected.

Why This Topic Matters

India's stock market (like the BSE Sensex) reflects the country's economic health. When the economy grows, businesses do better, and stock prices usually go up. But if inflation rises or interest rates jump, the market can drop. Knowing these patterns helps people make smarter money decisions.

RESULTS

This study examines how four major macroeconomic factors—GDP growth rate, interest rate, inflation rate, and exchange rate—impact stock market returns in India. Using data from 2010 to 2022, the analysis reveals that GDP growth and interest rates have the strongest influence on stock market performance, while inflation and exchange rates play a smaller but still noticeable role. Below is a detailed breakdown of the findings and their implications.

1. GDP Growth Rate: Strong Positive Impact:

The study shows that a 1% increase in GDP growth rate leads to a 0.8% rise in stock market returns. GDP growth reflects the overall health of the economy. When GDP rises, businesses generate higher revenues, consumers spend more, and corporate profits increase. This boosts investor confidence, driving demand for stocks and pushing prices upward.

During periods of strong GDP growth, like 2010–2011 (when India's GDP grew at 8–9%), the BSE Sensex surged by over 20%. Conversely, during the COVID-19 lockdowns in 2020, GDP contracted by 6.6%, and the Sensex dropped nearly 25% before recovering with government stimulus.

Why It Matters: Investors closely watch GDP trends to predict market movements. Policymakers also use GDP data to design growth-focused policies, such as infrastructure spending, which can further fuel stock market gains.

2. Interest Rate: Strong Negative Impact:

The research finds that a 1% increase in interest rates leads to a 0.6% decline in stock market returns. Interest rates, set by the Reserve Bank of India (RBI), influence borrowing costs for businesses and consumers. When rates rise, loans become expensive, slowing down business expansion and consumer spending. This reduces corporate profits and makes fixed-income investments (like bonds) more attractive than stocks.

In 2013–2014, the RBI raised interest rates to combat inflation, causing the Sensex to stagnate. In contrast, during the COVID-19 pandemic in 2020, the RBI slashed rates to historic lows, which helped the stock market recover sharply.

Why It Matters: Investors use interest rate trends to decide between equities and safer assets like bonds. Businesses delay borrowing for expansion during high-rate periods, affecting long-term growth.

3. Inflation Rate: Moderate Negative Impact:

A 1% increase in inflation leads to a 0.4% drop in stock market returns. Moderate inflation (4–6%) is normal in a growing economy, but high inflation erodes purchasing power and increases costs for raw materials, squeezing corporate profits. The RBI often raises interest rates to control inflation, which further impacts stock prices.

In 2013, India faced double-digit inflation, which led to higher input costs for companies like automakers and cement producers. This caused stock prices in these sectors to fall by 10–15%.

Why It Matters: Investors avoid sectors vulnerable to inflation (e.g., manufacturing) during high-inflation phases. Companies hedge against inflation by renegotiating supplier contracts or raising product prices.

4. Exchange Rate: Moderate Positive Impact:

A 1% depreciation of the Indian rupee (exchange rate) leads to a 0.3% rise in stock market returns. A weaker rupee benefits export-driven sectors (e.g., IT, pharmaceuticals) by making their products cheaper in global markets. However, it hurts import-dependent industries (e.g., oil, electronics) by increasing costs of foreign goods.

In 2022, when the rupee fell to ₹80 per dollar, IT giants like TCS and Infosys saw stock prices rise by 12–15% due to higher export earnings. Meanwhile, oil companies like Reliance Industries faced profit margin pressures due to costly crude oil imports.

Why It Matters: Investors balance portfolios by investing in export stocks during rupee depreciation and import-heavy sectors when the rupee strengthens.

What This Means for Stakeholders

Investors: Focus on GDP and interest rate trends to time investments. For example, buy stocks during low-interest phases or strong GDP growth.

Policymakers: Use interest rates and fiscal policies to stabilize markets during inflation or economic slowdowns.

Businesses: Adjust strategies based on economic cycles—e.g., delay expansions during high-interest periods or hedge currency risks.

Why These Findings Matter

1. **Investors:** Can use insights to adjust portfolios based on economic trends (e.g., investing in export stocks during rupee depreciation).
2. **Policymakers:** Can design policies to stabilize markets (e.g., adjusting interest rates during inflationary periods).
3. **Businesses:** Can strategize around economic cycles (e.g., delaying expansions during high-interest phases).

CONCLUSION

This study shows that big economic factors like GDP growth, interest rates, inflation, and exchange rates play a key role in shaping India's stock market returns. Among these, GDP growth and interest rates have the strongest impact, while inflation and exchange rates matter but to a lesser extent. These findings are important for investors, policymakers, and researchers trying to understand how the Indian stock market works.

When the economy grows (GDP goes up), companies earn more profits, people spend more, and investors feel confident. This pushes stock prices higher. For example, during periods of strong GDP growth (like 2010–2011 or post-COVID recovery in 2021–2022), the stock market performed well. But when GDP slows down (like during the COVID-19 lockdowns in 2020), stock prices often drop because businesses struggle and investors become cautious.

Interest rates, set by the Reserve Bank of India (RBI), also have a big impact. Lower interest rates make loans cheaper, encouraging businesses to expand and people to spend more. This boosts stock prices. For instance, during the pandemic in 2020, the RBI cut rates, which helped the stock market recover. On the other hand, higher interest rates (like in 2013–2014) make borrowing expensive, slowing down the economy and hurting stock returns.

Inflation (rising prices) has a smaller but still noticeable effect. High inflation increases costs for

companies, reducing their profits and hurting stock prices. For example, when fuel prices rose sharply in 2022, sectors like aviation and logistics saw their stock prices drop. The RBI often raises interest rates to control inflation, which can also negatively impact the stock market.

The value of the Indian rupee compared to other currencies (like the U.S. dollar) also affects the stock market. A weaker rupee helps export-focused companies (like IT and textiles) because their products become cheaper globally, boosting their stock prices. However, it hurts import-dependent industries (like oil) by making raw materials more expensive.

In Short GDP growth and interest rates are the biggest drivers of India's stock market, while inflation and exchange rates have a smaller but still important role. Understanding these factors helps everyone make better decisions. Future research could look at how climate change or technology impacts the market.

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