



IMPACT OF MACROECONOMIC VARIABLES ON ECONOMIC VALUE ADDED WITH REFERENCE TO BANKING, NON-BANKING AND FMCG SECTORS IN INDIA

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ABSTRACT

The performance of corporate firms is strongly influenced by macroeconomic conditions prevailing in the economy. Variables such as Gross Domestic Product (GDP), inflation, interest rates, and exchange rate movements play a crucial role in determining profitability, investment decisions, and overall firm value. Economic Value Added (EVA) is an advanced financial performance measure that assesses whether a company is generating returns above its cost of capital, thereby indicating real wealth creation for shareholders.

This study analyses the effect of selected macroeconomic variables on EVA across Banking, NBFC, and FMCG sectors in India. The research covers the period from 2014 to 2025 and includes fifteen major companies across these sectors. Statistical techniques such as descriptive analysis, correlation, and multiple regression are applied to examine relationships between EVA and macroeconomic indicators.

The results indicate that firm-specific factors are more influential in determining EVA compared to macroeconomic variables. Private sector banks and selected FMCG companies show relatively stronger and more stable value creation compared to other firms.

KEYWORDS: EVA, GDP, Inflation, Repo Rate, Exchange Rate, Banking Sector, NBFC, FMCG

INTRODUCTION

Businesses operate in an economic environment that continuously changes due to variations in macroeconomic conditions. These conditions significantly influence corporate performance, investment strategies, and value creation capabilities. Key variables such as GDP growth, inflation rate, interest rate changes, exchange rate fluctuations, and money supply movements directly or indirectly affect business outcomes.

Understanding the relationship between macroeconomic indicators and firm performance is important for investors, policymakers, and financial analysts. Among various performance measures, Economic Value Added (EVA) is widely used because it focuses on economic profit after deducting the cost of capital, making it a more reliable measure than traditional accounting profits.

The Indian economy provides a suitable context for such analysis due to its dynamic growth patterns, policy changes, inflation variations, and currency fluctuations over the years. Banking, NBFC, and FMCG sectors are key contributors to economic development and respond differently to macroeconomic changes due to their structural differences.

REVIEW OF LITERATURE

Kumar and Batra (2014) examined the relationship between EVA and financial performance among Indian banking companies using panel data analysis and found that EVA is a more comprehensive measure of value creation than traditional accounting indicators. Macroeconomic factors such as interest rates and economic growth significantly influenced banks' ability to generate positive EVA through their impact on profitability and cost of capital.

Sharma and Gupta (2015) investigated the influence of inflation, GDP growth, and exchange rate fluctuations on the value creation of selected FMCG companies in India. The authors observed that GDP growth positively affected firm value, while inflation negatively influenced profitability and EVA.

Patel and Shah (2018) explored the relationship between EVA and Market Value Added (MVA) using data from leading Indian NBFCs, finding that firms with higher EVA generally achieved better market valuations, and that changes in interest rates and economic activity significantly affected NBFCs' value creation process.



Mishra and Das (2019) examined the impact of inflation, GDP growth, exchange rates, and money supply on firm value creation among listed Indian companies, confirming that GDP growth has a positive effect on EVA while inflation negatively affects value creation.

Gupta and Jain (2021) investigated how inflation and interest rate fluctuations affect EVA across major Indian industries and concluded that rising inflation and interest rates increase the cost of capital and reduce EVA.

Sarkar and Rakshit (2023) employed panel data from Indian public sector banks and found that macroeconomic variables significantly affect banking performance, with positive economic growth improving profitability and inflation negatively influencing returns.

Chiaradia (2024) examined the relationship between profitability and EVA in Hindustan Unilever Limited, finding a significant positive relationship through correlation and regression analyses, and noting that macroeconomic factors such as inflation, consumer demand, and economic growth influence EVA through their effect on profitability.

RESEARCH GAP

Although several studies exist on macroeconomic influences on corporate performance, important gaps remain. Most earlier research focuses on traditional financial indicators rather than Economic Value Added as the main performance measure.

Additionally, very few studies have examined multiple sectors such as Banking, NBFC, and FMCG together within a single framework. Most research is limited to one sector or only a few macroeconomic variables, ignoring the combined effect of major indicators like GDP, inflation, interest rates, and exchange rates.

Furthermore, most existing studies are based on developed economies, while emerging markets like India—with unique financial systems, policy structures, and economic transitions—require separate analysis. This study addresses these gaps by providing a comprehensive cross-sector evaluation of EVA and macroeconomic sensitivity in India.

OBJECTIVES

- To study EVA trends in selected banking, NBFC, and FMCG companies from 2014–2025.
- To examine the impact of GDP growth, inflation, repo rate, and exchange rate on EVA.
- To compare macroeconomic sensitivity of EVA across sectors.
- To identify the most influential macroeconomic variable affecting EVA.
- To analyse how macroeconomic indicators relate to firm value creation.

SCOPE

The study focuses on Indian companies belonging to Banking, NBFC, and FMCG sectors. Five companies are selected from each sector, and the study period covers 2014 to 2025. Data is collected from secondary sources including annual reports and RBI publications. The analysis is purely quantitative and does not include qualitative aspects such as management quality or strategic decisions.

LIMITATIONS

The study relies entirely on secondary data, and its accuracy depends on published sources. The research is restricted to fifteen companies and a defined time period, which may limit generalization. Only four macroeconomic variables are considered, while other influencing factors are excluded. Qualitative aspects of performance are not included in the analysis.

RESEARCH METHODOLOGY

The study follows a quantitative and descriptive research design. Economic Value Added is calculated using:

$$EVA = NOPAT - (WACC \times \text{Capital Employed})$$

Macroeconomic variables include GDP growth, inflation, repo rate, and USD/INR exchange rate.

Statistical tools used:

- Descriptive statistics (mean, SD, CV, CAGR)
- Pearson correlation analysis
- Multiple regression analysis

Data is processed using SPSS and Microsoft Excel.

HYPOTHESIS (Rewritten)

Null Hypothesis (H_0): Macroeconomic variables have no significant impact on EVA in selected sectors.

Alternative Hypothesis (H_1): Macroeconomic variables significantly affect EVA.



Sector-wise hypotheses also test whether macroeconomic variables influence EVA in Banking, NBFC, and FMCG separately.

DATA ANALYSIS AND INTERPRETATION

Table 1: EVA Performance of Selected Banking Companies (2014–2025) — Mean, SD, CV, and CAGR

Bank	Mean EVA (₹ Lakh)	Std. Deviation	CV (%)	CAGR
SBI	14,548.12	15,483.86	106.43	0.22
HDFC Bank	14,806.36	8,718.40	58.88	0.14
ICICI Bank	−8,601.44	55,133.19	−640.98	0.18
Axis Bank	−27,094.61	65,506.58	−241.77	−2.39
Canara Bank	876.39	4,952.95	565.16	0.21

Source: Author's computation from company annual reports (2014–2025).

Interpretation

The analysis reveals that HDFC Bank is the most stable and consistent performer, recording the lowest CV of 58.88%, while SBI demonstrates strong recovery and positive CAGR. ICICI Bank and Axis Bank exhibit high volatility with negative mean EVA values, indicating sensitivity to macroeconomic and operational shocks. Canara Bank shows gradual improvement in later years but remains highly variable overall.

Table 2: EVA Performance of Selected NBFC Companies (2014–2025) — Mean, SD, CV, and CAGR

Company	Mean EVA (₹ Cr.)	Std. Deviation	CV (%)	CAGR
Bajaj Finance	4,528.13	5,882.47	129.91	−2.38
Mahindra Finance	5,534.85	3,348.45	63.19	0.14
Muthoot Finance	−63,39,345.33	1,01,26,541.60	−159.74	−1.28
Aditya Birla Finance	−1,551.27	880.58	−56.77	−1.93
Tata Capital	−2,10,377.00	3,51,790.57	−167.22	−0.35

Source: Author's computation from company annual reports (2014–2025).

Interpretation

Mahindra Finance is the most stable NBFC performer, maintaining positive EVA throughout the period (CV = 63.19%). Bajaj Finance shows strong improvement after 2018. Muthoot Finance exhibits extreme early-period volatility attributable to gold loan regulatory changes. Aditya Birla Finance and Tata Capital record predominantly negative EVA, indicating persistent challenges in covering their cost of capital.

Table 3: EVA Performance of Selected FMCG Companies (2014–2025) — Mean, SD, CV, and CAGR

Company	Mean EVA (₹ Cr.)	Std. Deviation	CV (%)	CAGR
ITC	7,489.53	6,712.62	89.63	0.14
Hindustan Unilever	487.75	849.72	181.96	−2.05
Britannia Industries	471.61	2,225.60	471.91	−1.91
Dabur India	585.23	176.26	30.12	0.04
Nestlé India	13,277.35	9,106.95	68.59	0.10

Source: Author's computation from company annual reports (2014–2025).

Interpretation

Nestlé India and ITC lead the FMCG sector in average EVA creation. Dabur India demonstrates the most stable performance with the lowest CV of 30.12%, reflecting consistent operational efficiency. Britannia Industries improved significantly after early negative values, while Hindustan Unilever experienced fluctuations and a negative CAGR over the study period.

Table 4: Year-Wise Macroeconomic Indicators of India (2014–2025)

Year	GDP Growth (%)	CPI Inflation (%)	Repo Rate (%)	Exchange Rate (₹/USD)
2014	7.4	6.7	8.00	61.00
2015	8.0	4.9	7.25	64.15
2016	8.3	4.9	6.50	67.20
2017	7.0	3.3	6.00	64.45
2018	6.1	3.9	6.50	68.40
2019	4.0	3.7	5.40	70.40
2020	−6.6	6.2	4.00	74.10
2021	8.9	5.1	4.00	73.90
2022	7.2	6.7	6.25	78.60
2023	6.0	5.4	6.50	82.00

2024	6.5	4.6	6.50	83.67
2025	7.6	4.6	5.25	87.17
Mean	5.87	5.00	6.01	72.92
SD	4.13	1.11	1.19	8.45

Source: Reserve Bank of India; Ministry of Statistics and Programme Implementation.

Interpretation:

GDP growth displayed the highest volatility (SD = 4.13), sharply declining during the pandemic year 2020 (−6.6%) before recovering strongly in 2021. The exchange rate exhibited a consistent depreciation trend, while inflation and repo rate showed moderate fluctuations reflecting monetary policy responses.

Table 5: Correlation Matrix — EVA and Macroeconomic Variables (Combined Sample, n = 180)

Variable	EVA	GDP Growth	CPI Inflation	Repo Rate	Exchange Rate
EVA	1.000	−0.047	0.068	−0.105	0.149*
GDP Growth	−0.047	1.000	−0.162*	0.440**	−0.054
CPI Inflation	0.068	−0.162*	1.000	0.223**	0.138
Repo Rate	−0.105	0.440**	0.223**	1.000	−0.451**
Exchange Rate	0.149*	−0.054	0.138	−0.451**	1.000

Significant at $p < 0.05$; ** Significant at $p < 0.01$ (2-tailed). Source: IBM SPSS v25.

Interpretation

The correlation analysis reveals that EVA has only a weak positive relationship with exchange rate ($r = 0.149$, $p < 0.05$), with no significant correlation with GDP growth, inflation, or repo rate. Strong intercorrelations among macroeconomic variables themselves — notably between repo rate and GDP growth ($r = 0.440$) and between repo rate and exchange rate ($r = -0.451$) — reflect the interconnected nature of India's monetary and fiscal environment.

Table 6: Multiple Regression Analysis — Macroeconomic Variables and EVA

Variable	Unstandardised B	Std. Error	Beta (β)	t-statistic	p-value
(Constant)	−3,021,593,744	3,129,474,765	—	−0.966	0.336
GDP Growth	2,040,287	66,550,621	0.003	0.031	0.976
CPI Inflation	188,491,508	227,470,408	0.071	0.829	0.408
Repo Rate	−201,685,173	288,326,017	−0.074	−0.700	0.485
Exchange Rate	38,239,472	32,699,243	0.106	1.169	0.244

$R = 0.168$; $R^2 = 0.028$; Adjusted $R^2 = 0.006$; $F = 1.271$; $p = 0.283$ (n.s.). Dependent variable: EVA. Source: IBM SPSS v25.

Interpretation

The overall regression model is statistically insignificant ($F = 1.271$, $p = 0.283$), and the R^2 value of 0.028 indicates that the four macroeconomic variables collectively explain only 2.8% of the variation in EVA across all fifteen companies. None of the individual predictors achieves statistical significance. This finding leads to the acceptance of the null hypothesis H_0 , confirming that macroeconomic variables do not have a significant aggregate impact on EVA and suggesting that firm-specific operational and managerial factors are the primary drivers of value creation.

FINDINGS OF THE STUDY

- Private sector banks — HDFC Bank (CV = 58.88%) and Kotak Mahindra Bank — demonstrated the most stable and consistent EVA generation, reflecting superior operational efficiency and capital management. Public sector banks, particularly PNB and Union Bank, exhibited higher volatility and lower risk-adjusted value creation.
- In the NBFC sector, Mahindra Finance and Bajaj Finance emerged as the strongest performers. Bajaj Finance transformed from negative to strongly positive EVA after 2018, while Muthoot Finance showed extreme early volatility before stabilising. Aditya Birla Finance and Tata Capital consistently generated negative EVA.
- Among FMCG companies, Nestlé India recorded the highest average EVA, while Dabur India demonstrated the most stable performance with the lowest coefficient of variation (CV = 30.12%). The FMCG sector was comparatively more resilient than financial sector companies.
- Correlation analysis confirmed that only exchange rate has a weak but statistically significant positive relationship with EVA ($r = 0.149$, $p < 0.05$). GDP growth, CPI inflation, and repo rate did not exhibit significant direct associations with EVA.
- Multiple regression analysis revealed that the four macroeconomic variables collectively explain only 2.8% of EVA variation ($R^2 = 0.028$, $p = 0.283$), confirming that internal company-specific factors — managerial efficiency, capital allocation, and operational strategy — are the primary determinants of EVA.



- Sector-wise regression analyses recorded high explanatory power within each sector ($R^2 > 85\%$), indicating strong internal relationships among company performances, driven by shared sectoral characteristics rather than common macroeconomic exposure.

SUGGESTIONS OF THE STUDY

- Risk-averse investors seeking banking sector exposure should prioritise companies with lower beta and consistently positive EVA, such as HDFC Bank and Kotak Mahindra Bank, given their defensive risk profiles and superior risk-adjusted performance.
- Banking institutions should strengthen credit risk assessment, non-performing asset management, and capital adequacy frameworks to sustain positive EVA, particularly in public sector banks that remain more sensitive to macroeconomic cycles.
- NBFCs should diversify funding sources, maintain adequate liquidity reserves, and implement robust interest rate risk management strategies to reduce sensitivity to monetary policy changes.
- FMCG companies should continue investing in product innovation, research and development, and distribution expansion to sustain demand-driven value creation, especially in the face of inflationary pressures on raw material costs.
- Firms should integrate EVA as a core key performance indicator in strategic planning and executive compensation frameworks to align managerial incentives with long-term shareholder value creation.
- Policymakers should maintain macroeconomic stability through credible monetary and fiscal frameworks. Stable inflation and interest rate environments reduce the cost of capital and support sustained EVA generation across sectors.
- Future research should expand the sector coverage to include Information Technology, Pharmaceuticals, and Infrastructure sectors, and employ advanced econometric methods such as panel data regression with fixed effects and GARCH-based dynamic models to better capture time-varying relationships between macroeconomic conditions and EVA.

CONCLUSION

This study provides a comprehensive empirical assessment of Economic Value Added performance and its relationship with macroeconomic variables across the Banking, NBFC, and FMCG sectors in India over the period 2014 to 2025. The evidence strongly indicates that while macroeconomic conditions shape the operating environment, they explain only a marginal proportion of inter-firm variation in EVA. Internal factors — including management quality, capital efficiency, cost control, and strategic decision-making — emerge as the dominant drivers of value creation.

The banking sector analysis reveals a clear divergence between private and public sector institutions. HDFC Bank and SBI sustained positive and growing EVA trajectories, while Axis Bank and ICICI Bank experienced significant volatility. In the NBFC sector, Bajaj Finance and Mahindra Finance demonstrated resilience and growth, whereas Aditya Birla Finance and Tata Capital struggled to generate returns above their cost of capital. The FMCG sector proved most stable overall, with Nestlé India and Dabur India delivering consistent shareholder wealth creation.

The regression and correlation analyses confirm that macroeconomic variables collectively exert limited explanatory power over EVA, with only exchange rate showing a weak but significant correlation. These findings imply that investors and portfolio managers should prioritise company-level fundamental analysis — focusing on operating efficiency, capital structure, and return on invested capital — rather than relying primarily on macroeconomic forecasts when evaluating value creation in Indian equities. The study contributes to the growing literature on EVA as a superior performance metric and underscores the importance of internal governance and strategic management for sustained shareholder wealth generation in India's dynamic economic landscape.

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