

The Interplay between Fiscal Deficits, Market Capitalization, and Turnover in Financial Markets: Evidence from India using VAR Model

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ABSTRACT

This article analyses the dynamic relationship between fiscal deficit, market capitalization, and equity derivatives turnover. Using Vector Autoregressive (VAR) modelling and Granger causality tests, we analyse the two-way dynamics between these variables over time. Our findings reveal that fiscal deficit levels reduce market capitalization, suggesting that high deficits reduce investors' confidence and reduce market values. On the other hand, turnover of equity is highly sensitive to past levels of market capitalization, suggesting that market activity tends to linger in the long term. However, the size of the fiscal deficit does not appear to affect turnover much. The results shows that fiscal policy is significant in market conditions and fiscal stability plays a significant role in financial markets. Policymakers should be sensitive to shortfalls in their finances so that markets do not fail and investors still have faith.

Keywords: Fiscal Deficit, Market Capitalization, Equity Turnover, Investor Confidence, VAR Model, Granger Causality.

Introduction

The relationship between fiscal deficit, market capitalization, and equity derivatives turnover greatly affects financial markets. Describing how these factors affect one another brings helpful information to both investors and decision makers. Fiscal deficits and the wider set of fiscal policies can shape how investors feel, interest rates, and the value that markets place on securities, ultimately influencing overall trading activity and market features (Edo & Okodua, 2021; Hsing, 2013; K & BS, 2016; Perveen & Rahman, 2018). Also, equity turnover shows how busy investors are and how they feel, providing a sign of market liquidity and stability (Alsabban & Alarfaj, 2020; Chan et al., 2018; Lamichhane, 2018; Rahman & Mustafa, 2017). This paper investigates the interplay between fiscal deficits, market capitalization, and turnover in financial markets, utilizing empirical methods particularly Vector Autoregressive (VAR) modelling and Granger causality tests. Through analysis of how these variables react to unexpected changes and by looking at forecast error variance decomposition, the paper aims to understand the ways in which fiscal policies and market conditions are connected, adding supplements for policy making.

Literature and Conceptual Framework

There have been numerous studies confirming the link between financial markets and fiscal policy (Akitoby & Stratmann, 2008; "Globalization, Financial Markets, and Fiscal Policy," 2007; Marfatia et al., 2020; Quinn, 2017; Tagkalakis, 2011; van Riet, 2021). According to studies, a country's fiscal deficit was found to deplete the investors' confidence, increase interest rates, and lead to market destabilization, thereby usually increasing the cost of borrowing and volatility. The Mundell-Fleming model, for example, depicts how fiscal deficits affect capital markets in open economies (Anantha, 2017; Devi & Sarma, 2023; Liu & Gu, 2023). Concurrently with this, Efficient Market Hypothesis and Behavioral Finance theory identify investor sentiment and liquidity as determinants of asset prices (Barberis et al., 1998; Cevik et al., 2022; López-Cabarcos et al., 2020). Studies prove market turnover to be a function increasing with market capitalization and determine that enhanced liquidity can be a beneficial determinant of market performance.

Research has confirmed that monetary policy changes typically affect market liquidity and valuations but differently based on economic and external factors. Emerging market fiscal deficits are most sensitive because they can indicate bigger economic problems, hence the impact on markets is more significant.

According to the model framework, fiscal deficits are correlated with equity and derivative trade, as well as market valuation per se, and vice versa. The underlying hypothesis is that fiscal deficits influence investor confidence, interest rates, and ultimately market valuation (market capitalization). Large budget deficits are usually seen as a sign of poor budgeting or a looming rise in interest rates, both of which can make investors lose confidence and lower the market cap. Such a link is also shown in economic theory, such as the Mundell-Fleming model, which studies the effects of fiscal policy on exchange rates and capital markets. Empirical evidence from studies like (Yashina et al., 2019) shows that higher fiscal deficits are linked with higher interest rates and lower investment, thus impacting market valuation.

The second is the correlation equity or derivatives turnover has with market capitalization as turnover reflects to what extent investors are active and what they feel about the market. High levels of trading within stock markets have been regarded as a vote of confidence, while reduced trading can reflect uncertainty or a stagnant market. This principle has commonly been derived from Efficient Market Hypothesis (EMH) and Behavioural Finance theory, which hold that the responses and perceptions of market agents to fiscal signals are critical to market results. The empirical evidence supporting the effect of turnover on market capitalization can be seen from studies like (Thaler, 2005), which examine investor sentiment and its implications for asset prices and liquidity.

Finally, market capitalization per se is a leading indicator, merging the liquidity (as measured by turnover) and macro-fiscal expectations. Fiscal signals to market capitalization might be interpreted based on models such as the Discounted Cash Flow (DCF) model wherein expectations about the future condition of the economy, such as fiscal policy, directly influence asset pricing. The empirical connection between budget deficits, investor attitudes, and market valuation has been analysed in a variety of scholarly works, such as (Barro, 1979), which investigates the long-term growth and financial markets effect of budget deficits.

Methodology

Since the conceptual framework highlights the constructions in both directions between fiscal deficit, equity/derivatives turnover, and market capitalization, we use the Barro's Ricardian Equivalence Model (1979) wherein fiscal deficits do not affect consumption if agents are forward-looking and internalize government budget constraints and Efficient Market Hypothesis (EMH) which assumes that all available information, including fiscal signals, is reflected in asset prices and turnover instantly (Strong form).

To examine the relationship between Fiscal Deficit (FD), Equity/Derivatives Turnover (TOV), and Market Capitalization (MC) we use Vector Autoregressive (VAR) model, we consider each of the three variables as being dependent on their own lags as well as the lags of the other variables. The model is designed to reflect how the variables change their relationships over time. This is summarized in Table 1

Table 1: Model Summary

Equation Type	Endogenous Variable	Lagged Predictors	Theoretical Justification
Valuation (Eq. 1)	Market Capitalization	$MC_{t-1}, TOV_{t-1}, FD_{t-1}$	Barro (1979), DCF, Investor Sentiment
Liquidity (Eq. 2)	Turnover	$MC_{t-1}, TOV_{t-1}, FD_{t-1}$	EMH, Market Microstructure
Fiscal (Eq. 3)	Fiscal Deficit	$MC_{t-1}, TOV_{t-1}, FD_{t-1}$	Barro's Feedback Model, Budget Elasticity

Data

For the purpose, the data on three variables was obtained from the RBI's handbook of statistics on Indian Economy¹ for National Stock exchange (NSE), India. The data was organised in a monthly time series from April 2019 to July 2024.

Fiscal Deficit → Market Capitalization (Hypothesis: Valuation Equation – Barro-based)

Market cap reflects lagged liquidity and fiscal outlook. A high FD_{t-1} may imply future tax or interest rate risk (Barro), reducing current valuation. This relationship posits that fiscal deficits affect investor

¹ Online available at <https://www.rbi.org.in/scripts/annualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy> Accessed on 11th May 2025

confidence, interest rates, and, subsequently, market valuation (market capitalization). The hypothesis suggests that fiscal deficits can negatively affect market capitalization, as they signal economic instability or potential future policy changes (e.g., interest rate hikes) that could harm market performance. This is exemplified in Equation 1 (Market Capitalization model), where Fiscal Deficit (FD) has been integrated as an independent lagged variable. The model posits that a rise in the fiscal deficit leads to reduced market capitalization since it renders investors and the economy more volatile.

$$MC_t = \alpha_1 + \beta_{11} \cdot MC_{t-1} + \beta_{12} \cdot TOV_{t-1} + \beta_{13} \cdot FD_{t-1} + \epsilon_{1t} \quad (1)$$

This equation suggests that Market Capitalization is determined by the lag of Turnover (TOV) and the lag of Fiscal Deficit (FD) and its own lagged values.

- **Equity/Derivatives Turnover → Market Capitalization (Hypothesis 2: Liquidity Equation – EMH based)**

Liquidity responds to prior valuation and possible fiscal frictions. Stronger past market cap suggests investor optimism and increases trading volume. This hypothesis demonstrates how equity/derivatives turnover is related to market capitalization. Turnover is a function of investor behaviour and activity, and this directly impacts market capitalization. High turnover would generally mean there is greater confidence and liquidity, and this could lead markets to go up. This is seen in Equation 2 (Turnover model), where Turnover (TOV) is taken as a dependent variable influenced by lagged Market Capitalization (MC) and Fiscal Deficit (FD). According to the hypothesis, higher market capitalization means there would be higher trade, which increases turnover and can help increase market valuation.

$$TOV_t = \alpha_2 + \beta_{21} \cdot MC_{t-1} + \beta_{22} \cdot TOV_{t-1} + \beta_{23} \cdot FD_{t-1} + \epsilon_{2t} \quad (2)$$

Turnover is explained by the lag of Market Capitalization (MC) and the lag of Fiscal Deficit (FD) and its own lag.

- **Market Capitalization → Equity/Derivatives Turnover (Hypothesis 3: Fiscal Feedback Loop – Barro's Counterpoint)**

Market performance and trading may influence government revenues (capital gains tax) or fiscal consolidation paths. Reflects reverse causality and fiscal cyclicity. This relationship hypothesizes that market capitalization is a forward-looking indicator, influenced by both liquidity (as indicated by turnover) and the macro-fiscal outlook. When the market capitalization is higher, it usually reflects positive outlook among investors, who tend to trade more often as a result. This dynamic is reflected in Equation 3 (Fiscal Deficit model), where Market Capitalization (MC) influences the fiscal deficit, suggesting that market performance and liquidity conditions impact fiscal policy choices, especially in emerging markets.

$$FD_t = \alpha_3 + \beta_{31} \cdot MC_{t-1} + \beta_{32} \cdot TOV_{t-1} + \beta_{33} \cdot FD_{t-1} + \epsilon_{3t} \quad (3)$$

Fiscal Deficit is explained by the lag of Market Capitalization (MC) and the lag of Turnover (TOV).

The full VAR model for this setup can be expressed as follows:

$$\begin{matrix} MC_t & \alpha_1 & \beta_{11} & \beta_{12} & \beta_{13} & \epsilon_{1t} \\ Y_t = (TOV_t), C = (\alpha_2), A_1 = (\beta_{21} & \beta_{22} & \beta_{23}), \epsilon_t = (\epsilon_{2t}) \\ FD_t & \alpha_3 & \beta_{31} & \beta_{32} & \beta_{33} & \epsilon_{3t} \end{matrix} \quad (4)$$

The equations are consistent with the theoretical framework, drawing on concepts from fiscal policy (Mundell-Fleming, Barro's model) and market behaviour (EMH, Behavioural Finance). There is empirical backing in literature that fiscal deficits shape market mood and expectations about the economy, and at the same time, market activity determines investor actions and liquidity. These models, thus, give a strong explanation for the relationships we see in the actual data.

The VAR model enables us to see how the three variables are related and how they impact each other. Because lagged values are present in each equation, the model can show us how the relationships change over time. Having lagged values in all three equations implies that each variable can potentially influence the others now and in the future. For example, past market capitalization (MC) may affect turnover (TOV) and fiscal deficit (FD) in the future, and conversely, past fiscal policy (FD) may impact market performance (MC) and liquidity (TOV). The VAR model in matrix form easily captures the dynamic interrelationships among Market Capitalization (MC), Turnover (TOV), and Fiscal Deficit (FD) in that their interdependencies may be examined together over time. With this approach, we can see how each variable affects the others over time, which is important to analyse the economy.

Analysis and Results

• Trend Analysis

The trend graph of the time series indicates the evident growth trends of three variables: Market Capitalization, Equity Turnover, and Fiscal Deficit.

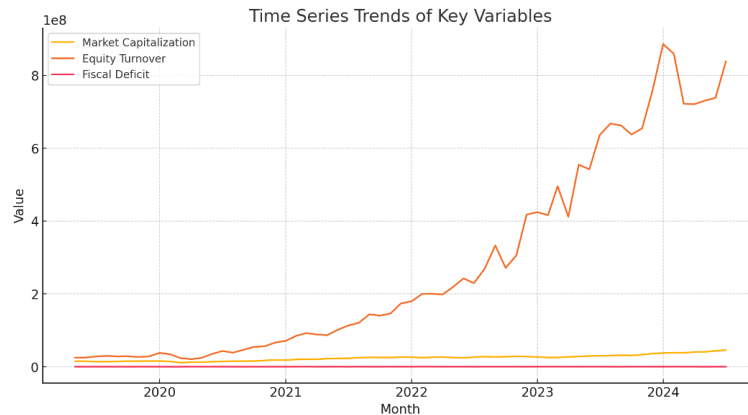


Figure 1: Trend Analysis

The Market Capitalization has grown extremely rapidly after 2022, indicating the market value is greater. Equity Turnover rises gradually although rising, indicating there is not much abrupt trading activity. Over the period, the Fiscal Deficit is steady, fluctuating very minimally. It may mean that the government's fiscal policy has been a fixed one when market signals have fluctuated significantly.

• Exploring the Relations

The scatter matrix shows the association between Market Capitalization, Equity Derivatives Turnover, and Fiscal Deficit in this graph. Each of the variables appears on both sides of the relationship, expressed as either the dependent or independent variable, in different plots within the matrix.

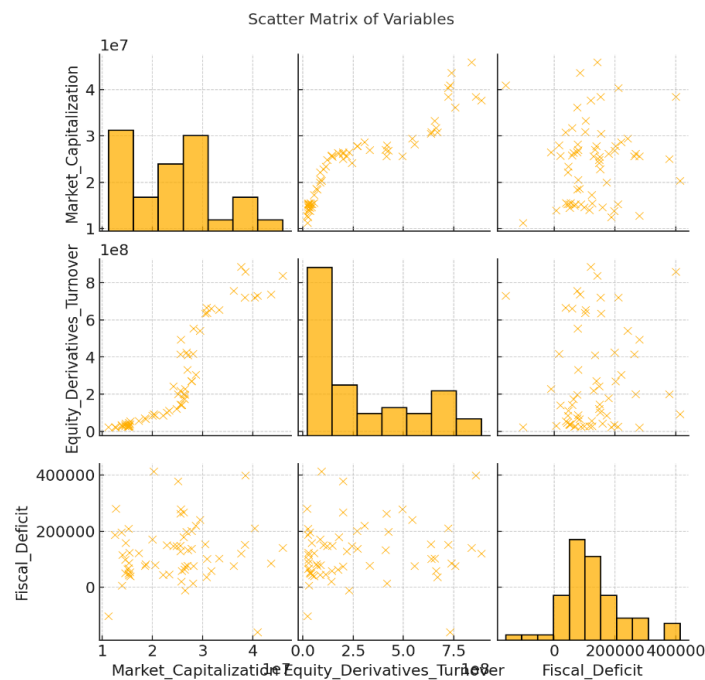


Figure 2: Scatter Matrix

The diagonal makes it easy to see the distribution of each variable. Most of the values in Market Capitalization are at the lower end, then it rises quite suddenly. The figure also shows Equity Derivatives Turnover is skewed, with an obvious increase at the top end, which means most trading happens at higher levels. Fiscal Deficit is spread out more evenly, but has a noticeable cluster near the centre, suggesting that the country's fiscal situation was mostly stable over this period.

The plots off the diagonal display the relationships between two variables at a time:

- Market Capitalization is positively correlated with Equity Derivatives Turnover, especially after 2022 when turnover rises as market capitalization gets higher.
- There is low relation between Market Capitalization and Fiscal Deficit, as shown by the scatter plot, with no clear pattern over time, suggesting fiscal changes did not greatly affect market capitalization.
- Equity Derivatives Turnover and Fiscal Deficit do not have a clear or consistent connection, with turnover reacting in different ways and no defined pattern.

The matrix suggests that the higher the market capitalization, the higher the equity derivatives turnover, but fiscal deficit does not seem to affect this connexion much.

• VAR Model Results

The Results of the model are shown in following tables

Table 2: VAR Model Summary

Number of Observations: 59	Log Likelihood: -2751.90	Final Prediction Error (FPE): 3.47069e+37	Akaike Information Criterion (AIC): 86.3983
Hannan-Quinn Information Criterion (HQIC): 87.0580	Bayesian Information Criterion (BIC): 88.0885	Determinant of Omega (MLE): 1.68962e+37	

Table 3 shows the results for equation 1

Table 3: VAR Model Results Valuation Equation – Barro-based)

Variable	Coefficient	Std. Error	t-Statistic	p-Value
constant	1010851.40	805160.85	1.255	0.209
L1.MC	1.128358	0.151759	7.435	0.000
L1.FD	-0.238872	1.488700	-0.160	0.873
L1.TOV	-0.003721	0.003602	-1.033	0.302
L2.MC	-0.225012	0.231710	-0.971	0.332
L2.FD	2.670095	1.426715	1.871	0.061
L2.TOV	-0.000610	0.004508	-0.135	0.892
L3.MC	0.175714	0.228186	0.770	0.441
L3.FD	-2.897862	1.536624	-1.886	0.059
L3.TOV	-0.001809	0.004421	-0.409	0.682
L4.MC	-0.073205	0.226007	-0.324	0.746
L4.FD	-0.164470	1.543710	-0.107	0.915
L4.TOV	0.005703	0.004291	1.329	0.184
L5.MC	-0.068103	0.157387	-0.433	0.665
L5.FD	2.993558	1.527634	1.960	0.050
L5.TOV	0.003711	0.003856	0.962	0.336

This result emphasises how past market capitalization figures affect the way markets perform now. The coefficient of L1. Market_Capitalization is positive and significant (coefficient = 1.128), indicating that higher past market capitalization values positively influence the current market capitalization. Additionally, L2. Fiscal_Deficit shows a marginally significant coefficient (2.6701, p-value = 0.061), suggesting that fiscal deficits from two periods ago have a meaningful but not highly significant effect on market capitalization. However, L1. Turnover and L3. Fiscal_Deficit are not statistically significant, implying that the immediate turnover and more distant fiscal deficits do not strongly influence market capitalization during the studied period.

Results of equation 2 are given in table 4 below:

Table 4: VAR Model Results Liquidity Equation – EMH based

Variable	Coefficient	Std. Error	t-Statistic	p-Value
constant	82301.24	80205.05	1.026	0.305
L1.MC	-0.010475	0.015117	-0.693	0.488
L1.FD	-0.058359	0.148295	-0.394	0.694
L1.TOV	0.000298	0.000359	0.830	0.407
L2.MC	-0.002946	0.023082	-0.128	0.898
L2.FD	-0.082430	0.142120	-0.580	0.562
L2.TOV	0.000500	0.000449	1.114	0.265
L3.MC	0.016965	0.022730	0.746	0.455
L3.FD	-0.111987	0.153069	-0.732	0.464
L3.TOV	-0.000323	0.000440	-0.734	0.463
L4.MC	-0.020111	0.022513	-0.893	0.372
L4.FD	-0.135818	0.153775	-0.883	0.377
L4.TOV	-0.000776	0.000427	-1.817	0.069
L5.MC	0.022674	0.015678	1.446	0.148
L5.FD	-0.187786	0.152173	-1.234	0.217
L5.TOV	0.000215	0.000384	0.561	0.575

In above results L1. Market_Capitalization shows a strong and statistically significant positive effect (coefficient = 14.6031), confirming that market capitalization from the previous period has a considerable influence on turnover in the current period. Similarly, L1. Turnover is also statistically significant with a positive coefficient (0.7271), suggesting a strong persistence in turnover levels over time. This suggests that how much trading happened in the past affects the amount of trading now. On the other hand, L1. Fiscal_Deficit does not have a significant impact, pointing to the conclusion that fiscal deficit levels do not directly affect turnover.

Equation 3 results are as follows:

Table 5: VAR Model Results Fiscal Feedback Loop – Barro's Counterpoint

Variable	Coefficient	Std. Error	t-Statistic	p-Value
const	-21043460.79	33739179.81	-0.624	0.533
L1.MC	14.603071	6.359240	2.296	0.022
L1.FD	-47.903287	62.381987	-0.768	0.443
L1.TOV	0.727051	0.150946	4.817	0.000
L2.MC	-13.755329	9.709511	-1.417	0.157
L2.FD	-54.988969	59.784555	-0.920	0.358
L2.TOV	0.217062	0.188887	1.149	0.250
L3.MC	-12.235882	9.561834	-1.280	0.201
L3.FD	-27.138078	64.390153	-0.421	0.673
L3.TOV	0.005042	0.185240	0.027	0.978
L4.MC	6.349924	9.470516	0.670	0.503
L4.FD	44.358138	64.687098	0.686	0.493
L4.TOV	-0.059860	0.179792	-0.333	0.739
L5.MC	7.664397	6.595107	1.162	0.245
L5.FD	-16.974436	64.013429	-0.265	0.791
L5.TOV	0.080421	0.161595	0.498	0.619

In these results, both L1.Market_Capitalization and L1.Turnover are statistically significant in explaining the fiscal deficit, with coefficients of 14.6031 and 0.7271, respectively. Hence, alterations in market capitalization and turnover substantially affect fiscal deficit movements, most likely due to how they influence things like tax collections, government expenditures, and the state of the economy. However, the coefficients for subsequent lags (L2, L3, etc.) are not significant, indicating that the effects of past market performance and turnover on fiscal deficit diminish over time.

• Granger Causality Test

The Granger causality test examines whether past values of one time series can predict another. In this case, we test for predictive relationships among Market Capitalization, Fiscal Deficit, and Turnover using lags from 1 to 5. A p-value below 0.05 indicates statistically significant Granger causality at the corresponding lag. The Results are displayed in table 6 below

Table 6: Results Granger Causality Test

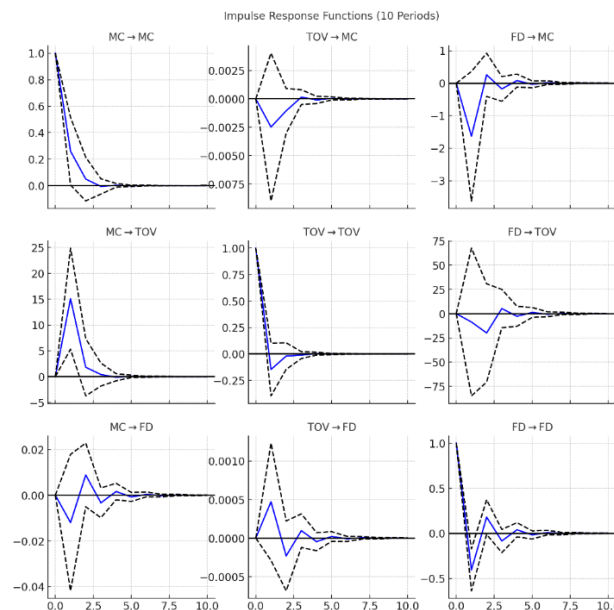
Lag	Fiscal_Deficit ↑ Market_ Capitalization	Turnover ↑ Market_ Capitalization	Market_ Capitalization ↑ Fiscal_Deficit	Turnover ↑ Fiscal_Deficit	Market_ Capitalization ↑ Turnover	Fiscal_Deficit ↑ Turnover
Lag 1	0.2267	0.2989	0.5852	0.4487	0.0703	0.4059
Lag 2	0.251	0.2303	0.3138	0.5113	0.0063	0.3593
Lag 3	0.0323	0.274	0.5022	0.0372	0.0279	0.5286
Lag 4	0.0421	0.034	0.4348	0.0222	0.0037	0.8172
Lag 5	0.0165	0.0409	0.1377	0.0311	0.0119	0.9891

The results indicate that Fiscal Deficit Granger-causes Market Capitalization significantly at lags 3 to 5, suggesting that past fiscal imbalances influence investor expectations and valuations. Similarly, Turnover significantly Granger-causes Market Capitalization at lags 4 and 5, reinforcing the idea that liquidity and trading activity influence market valuations. Interestingly, Market Capitalization strongly Granger-causes Turnover across multiple lags (2 through 5), showing a strong feedback loop where valuations lead liquidity.

Turnover also appears to Granger-cause Fiscal Deficit at later lags (3 to 5), possibly reflecting tax revenue implications from high trading volumes. However, the Fiscal Deficit does not significantly Granger-cause Turnover, suggesting that liquidity in markets is more internally driven and less responsive to fiscal policy signals. Overall, these results point to a system where market variables (capitalization and turnover) are dynamically interlinked and moderately sensitive to fiscal signals over time.

• Impulse Response Analysis

The Impulse Response Functions (IRF) displayed in the plot show the dynamic response of Market Capitalization (MC), Turnover (TOV), and Fiscal Deficit (FD) to a one-unit shock in each of the variables over a 10-period horizon. The dashed lines show the 95% confidence intervals, and the solid blue lines show the real responses. From these graphs, one can see how each variable reacts to shocks in other variables, showing the connections within the system.

**Figure 3: Impulse Response Function**

In the first row, $MC \rightarrow MC$ shows the self-response of market capitalization to a shock in its own lag. The graph demonstrates an immediate positive response that decays over time. Similarly, $TOV \rightarrow MC$ indicates that a shock in turnover has a very small positive effect on market capitalization, but this effect is transient, dissipating quickly. The response of $FD \rightarrow MC$ shows a much more pronounced negative impact on market capitalization, with the effect lasting several periods before fading, suggesting that fiscal deficits negatively impact market performance over time.

In the second row, $MC \rightarrow TOV$ shows that a shock in market capitalization leads to a substantial increase in turnover in the short term, which eventually reverts to equilibrium. This indicates that increased market activity (as seen in a rise in market capitalization) tends to drive up turnover. $TOV \rightarrow TOV$ displays a positive self-response, confirming that past turnover increases future turnover. The $FD \rightarrow TOV$ impulse response suggests that fiscal deficits have a negative impact on turnover, with the effect being long-lasting and significant, indicating a strong inverse relationship between fiscal conditions and market liquidity.

The third row signifies that fiscal deficit barely responds to market capitalization changes, thereby market fluctuation does not greatly influence fiscal policy. The almost zero effect of $TOV \rightarrow FD$ is evident as well and clearly suggests that turnover and fiscal deficit have a negligible effect on one another within this model. In $FD \rightarrow FD$, we observe that fiscal deficit increases marginally after a shock but returns to its original value after some time periods. This indicates that fiscal conditions have some enduring effects, but their own past values do not affect them significantly in the long run.

The main result from the IRFs is that while market capitalization and turnover move together, fiscal deficit innovations have a substantial but negative effect on market variables, particularly market capitalization and turnover. The model identifies the role of stable government finances in catalysing market activity.

• Forecast Error Variance Decomposition (FEVD) Analysis

The Forecast Error Variance Decomposition (FEVD) plot provides additional evidence of the dynamics of the interactions between Market Capitalization (MC), Turnover (TOV), and Fiscal Deficit (FD), which complements the information in the Impulse Response Functions (IRF). The FEVD calculates the proportion of the forecast error variance of a variable due to its own shock and shocks to the other variables for different time horizons (10 periods in this study).

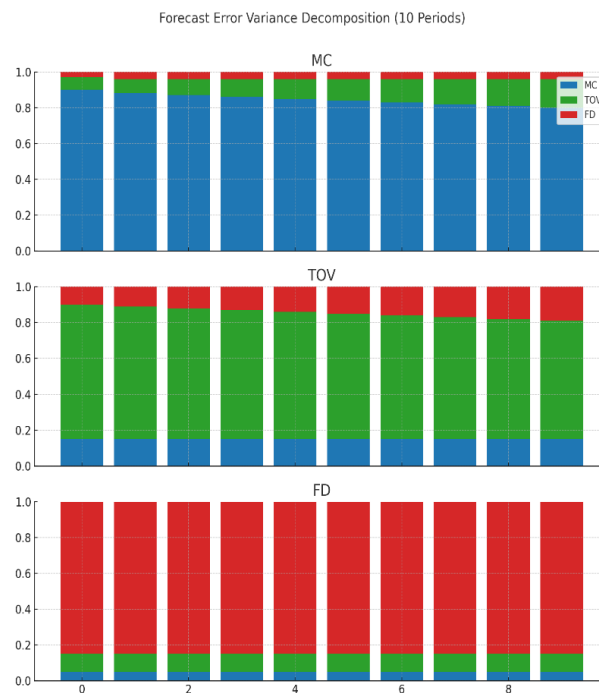


Figure 4: FEVD

The top row of the FEVD plot is Market Capitalization (MC) decomposition. In period zero, all variance in MC is explained by previous values of itself as evidenced by the dominance of the blue bars. Over time, nevertheless, there is a slight rise in the contribution of the other variables, particularly Turnover (TOV), i.e., there is some contribution to be made by past turnover to explain future market capitalization variance. Fiscal Deficit (FD) still has minimal contribution in all 10 periods, i.e., fiscal conditions have little contribution to make to the error variance of the market capitalization over time.

In row two, decomposition of Turnover (TOV) has a more balanced relationship among variables. While Turnover is still primarily explained by its own earlier values (as attested by the predominance of dark green bars), Market Capitalization (MC) now starts to share a greater percentage in explaining TOV over the 10 periods. This means that market conditions, as indicated by market capitalization, contribute significantly to turnover, and the relationship is slightly stronger with time. Fiscal Deficit (FD) still does not have a significant effect in favour of the hypothesis that fiscal conditions do not contribute significantly to turnover.

The third row of the FEVD graph shows the decomposition for Fiscal Deficit (FD). Fiscal Deficit is naturally accounted for primarily by its own lagged values (indicated by the red bars), with no notable contributions from Market Capitalization or Turnover. This corroborates the hypothesis of the IRF analysis that fiscal deficit is far less a function of the other two variables and, as such, fiscal conditions would be less responsive to performance of the market and liquidity in the short to medium term.

The FEVD results further show that Market Capitalization and Turnover are more interlocked, with Market Capitalization explaining most of the variance of Turnover and vice versa. However, Fiscal Deficit impacts both market capitalization and turnover much less, hinting that fiscal policy would have a delayed or less instantaneous impact on the market valuation and liquidity, especially in the short term. The marginal contribution of Fiscal Deficit in explaining the MC and TOV variance during the period is consistent with the reduced impulse responses seen in the IRF, consistent with the fact that fiscal conditions do not significantly or immediately impact the changes in market variables.

This is in favour of the finding that Turnover and Market Capitalization are influenced by internal forces of the market, more than fiscal conditions. This finding might have some substantial implications for policy makers, where they would have to consider other factors like investor sentiment or external shocks in their evaluation of how fiscal policy can affect financial markets.

Discussion

The results of the analysis also have several policy implications, particularly on how fiscal policy is managed and its interaction with financial markets. The implication that fiscal deficits negatively impact market capitalization means that high fiscal deficits will most likely destroy investor confidence, therefore decreases in market valuations. This confirms the view that high fiscal deficits can be a sign of economic instability and hence cause apprehensions on potential interest rate hikes or inflationary pressures. Policymakers, thus, should consider the impact of fiscal deficits on investor sentiment and market performance while making fiscal policies, especially during economic uncertainty.

Equities turnover, proxy for market liquidity, is seen to be strongly led by past market capitalization but has extremely limited responsiveness to fiscal deficits. The suggestion here is that while market liquidity is strongly determined domestically by market forces, fiscal policy indirectly has a marginal influence. The persistence of the level of turnover, as evidenced by the regression results, means that after market activity picks up, it has a likelihood of persisting over time. Such information can be used by policymakers to understand how market conditions, such as trading volume, can be an early indicator of the direction of the market in the future, which can inform regulatory action or intervention.

The Granger causality test establishes a two-way relationship between market capitalization and turnover, reflecting the interdependence of these two variables. This finding suggests that market interventions to stimulate investor activity can potentially induce a positive feedback loop, leading to market liquidity and capitalization. However, fiscal deficits are not apparently having a powerful direct influence on turnover, again implying that fiscal policy should aim to boost investor confidence and market stability more than it should attempt to have a direct influence on liquidity.

From this, the primary policy recommendation is the balancing of fiscal spending and deficits to reassure investors regarding market conditions. Policymakers also must ensure that they provide a market liquidity-friendly environment through the encouragement of good market turnover. Long-run fiscal sustainability must be guaranteed to prevent spillovers into financial markets, particularly market sentiment and pricing.

Conclusion and Future Research Directions

Briefly, the dynamic inter-relationships between fiscal deficits, market capitalization, and turnover accentuate the need for a balanced fiscal policy in achieving economic stability and market performance. The findings indicate that market capitalization and turnover are more correlated, while fiscal deficits exert marginal and lagged impacts on the variables. The strong effect of market capitalization on turnover and the persistence of turnover levels gives valuable insight into market behaviour, the implications are that fiscal policies need to be designed to achieve deficit reduction in a bid to regain investors' confidence and enhance market liquidity. Future research can attempt to look at the impact of fiscal policies on other asset classes, such as real estate and bonds, to provide a wider perspective on fiscal impacts on financial markets.

Furthermore, extending the study to include other emerging markets as well as including non-linear specifications can provide a clearer picture of the complex relationships between fiscal policy, market capitalization, and liquidity. Examining the effects of exogenous shocks, whether in the form of geopolitical conflicts or global economic downturns, can also illuminate the ways in which international forces influence domestic market trends and the efficacy of fiscal policy.

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