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THE IMPACT OF MONETARY POLICY ON INFLATION AND PRODUCTION: A COMPARATIVE STUDY ON SRI LANKA, INDIA, AND THE USA

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ABSTRACT

Monetary policy is a critical tool used by the Central banks to stabilize inflation and foster economic growth. Over the past few years, the Sri Lankan economy faced significant economic challenges, such as economic downturn, and rising inflation. This led the Central Bank of Sri Lanka to execute various monetary policy changes to stabilize the economy. This study examines the effects of monetary policy transmission mechanisms (MTM) on production and inflation in the USA, India, and Sri Lanka, using monthly data from 1980 to 2023, to provide a comparative understanding of how monetary policy adjustments influence each of these economies. The analysis employs the Vector Error Correction Model (VECM) to understand the short-term and long-term effects of monetary policy adjustments on Gross Domestic Production (GDP) and the Consumer Price Index (CPI). The results of this study indicate major differences in the magnitude and timing of the policy implementation and its effects across the three economies: where the USA economy indicates quicker adjustments to monetary policy changes, which reflects their advanced financial infrastructure. In contrast, India and Sri Lanka demonstrate delayed responses, suggesting inefficiencies in their policy transmission mechanisms. In addition to this, the results also indicated that in the USA, interest rates and money supply have predictive power over both CPI and GDP. This implies that policymakers can use these channels to manage inflation and economic growth. In India, none of the independent variables showed a correlation between CPI and GDP, while in Sri Lanka, domestic credit to the private sector and money supply significantly impacts GDP and CPI. These results imply that it is vital to have tailored monetary policies for each economy considering their unique structural and temporal characteristics. For the USA, the results affirm the effectiveness of its current policy framework, while India and Sri Lanka may require enhanced policy strategies to improve transmission efficiency.

Keywords: Inflation, Monetary policy, Production, VECM

1. Introduction

Monetary policy enables central banks to navigate fluctuations in economic conditions, maintain price stability, and foster sustainable growth (International Monetary Fund [IMF], 2023). However, it is imperative to recognize that monetary policy implementation can lead to unforeseen or undesirable consequences if monetary authorities lack a precise understanding of the timing and impact of their policies on the economy (Mishkin, 1995). The global economy, with its complex and interconnected nature, offers numerous examples of monetary policy's far-reaching implications. For instance, during interest rate hikes in the USA, the S&P 500 initially declined by 18% in 2022, only to recover with a significant 26% surge in 2023, illustrating the dynamic interplay between monetary actions and market behavior (United States Bank, 2024).

Transitioning from basic insights on monetary policy, attention should also be given to the prevailing economic landscape. The recent years reveal a recurrent pattern of disruptions in the global economy, underscoring the reality of its abnormality. For instance, the global economy faced a substantial setback owing to the impact of the COVID-19 pandemic, resulting in an actual output contraction of -4.9 % in 2020. The Russo-Ukrainian war added to these challenges in 2022, causing significant economic slowdowns, with global growth dipping from an estimated 6.1% to 3.6% (World Economics Outlook, 2022). These events highlight the abnormality of recent economic conditions and the critical need for effective monetary policy measures to manage inflation and production amidst uncertainty.

Given the complex and diverse economic landscapes worldwide, this study examines how monetary policy impacts inflation and production across three distinct economies: Sri Lanka, India, and the USA. These countries represent a spectrum of economic structures and development stages. The USA, as an advanced economy, provides insights into how monetary policy influences a globally significant and highly developed economy. India, a rapidly growing emerging market, serves as a case study of inflation and production management in a dynamic, increasingly integrated global context. Sri Lanka offers a contrasting perspective as a small developing economy with unique vulnerabilities, including financial crises, high external debt, and weak fiscal discipline.

The USA was significantly impacted by the Great Recession of 2008 to 2009, resulting in a 4.3% decline in GDP, an unemployment rate of over 10%, and a 30% drop in home prices (Duggan & Adams, 2023). More recently, the COVID-19 pandemic inflicted unparalleled economic losses, totaling \$14 trillion by the end of 2023 due to revenue declines,

shifts in consumer behavior, and disruptions across industries like air travel and health services (Hlávka & Rose, 2023).

India, with a GDP of \$3,737 billion and a growth rate of 7.2% in 2023, has also faced significant hurdles, including the economic fallout from natural disasters and the COVID-19 pandemic (Forbes India, 2024). Between 1980 and 2010, natural disasters caused annual average losses of \$1.55 billion, equating to 2% of GDP (Bahinipati et al., 2016). The pandemic exacerbated inflation, peaking at 14.23% in November 2022, and pushed urban unemployment beyond 9%, severely impacting micro, small, and medium enterprises (Majumdar, 2024).

While Sri Lanka is also classified as an emerging economy, its economic trajectory is markedly distinct. Emerging from a 30-year civil war in 2009, which cost an estimated \$200 billion, the nation has grappled with economic instability, political turmoil, and financial crises. The COVID-19 pandemic further eroded critical economic sectors, with merchandise exports and imports declining by 15.6% and 19.5%, respectively (Rishandani, 2021). By August 2022, inflation had skyrocketed to 64.3%, and the economy contracted by 4.8% in the year's first half (The World Bank, 2022). These challenges were compounded by Sri Lanka's total outstanding foreign debt of \$34.8 billion as of April 2022 (Central Bank of Sri Lanka [CBSL], 2022).

Amid this global economic turmoil, it is crucial to examine how monetary policy influences inflation and production in diverse contexts. This study focuses on understanding these impacts and the lessons that can be drawn from advanced economies for emerging markets. The research seeks to answer: *"How do the monetary policy transmission mechanisms in Sri Lanka, India, and the USA distinctly influence inflation and production outcomes within each respective economy?"*. The objectives of this study are fourfold: (i) To investigate the impact of monetary policy implementation on inflation and production levels, (ii) To examine whether monetary policy changes have distinct effects in each economy, (iii) To determine the temporal lag between a monetary policy alteration and its outcomes and (iv) To ascertain the causal relationships between monetary policy adjustments and their effects on inflation and production.

The analysis covers data from 1980 to 2023, emphasizing monthly trends. The dependent variables are GDP (as the measure of production) and CPI (as the measure of inflation). Four monetary policy transmission channels serve as independent variables: the short-term interest rate (INT), the exchange rate against the Euro (EXC), Money supply (M2), and domestic credit to the private sector (DCP). These variables capture the mechanisms through which monetary policy influences economic outcomes, offering comprehensive insights across diverse economic landscapes.

This study makes several notable contributions to the field of monetary policy research. This study offers valuable contributions by analyzing over four decades of data (1980–2023), far exceeding the typical 10–15-year focus of most research. The inclusion of three distinct economies—Sri Lanka, India, and the USA—enables a comparative analysis of monetary policy transmission mechanisms in advanced, rapidly developing, and emerging market contexts. Methodologically, the study stands out by utilizing three econometric models—VAR, VECM, and Jordà’s 2005 Local Projection model—allowing for a more robust and multifaceted examination of the dynamic and long-term impacts of monetary policy. Furthermore, its focus on key transmission channels, such as short-term interest rates, exchange rates, and domestic credit to the private sector, enhances the understanding of their roles in influencing inflation and production. These contributions not only enrich academic literature but also offer practical guidance for policymakers.

2. Literature Review

In Nigeria, studies exploring inflation determinants have yielded complementary insights. An analysis of data from 1970 to 2010, using the Error Correction Model (ECM), showed that the money supply significantly influenced inflation, while trade openness, income level, exchange rate, and interest rate were less impactful (Ndidi, 2013). Another study, spanning 1980 to 2012 and employing the OLS method, confirmed the positive relationship between money supply and inflation while highlighting the negative influence of government expenditure and exchange rates on inflation (Iya & Aminu, 2014).

In Pakistan, data from 1980 to 2009 was analyzed to assess the impact of monetary policy on GDP. The study revealed a modest correlation between interest rates and GDP while emphasizing the significant role of money supply (M2) expansion in driving economic output (Hameed & Amen, 2011). A study in the USA examined the relationship between monetary policy changes and CPI inflation from 1967Q1 to 2007Q4 using OLS models. It found that while commodity prices strongly influenced CPI inflation during the 1970s and early 1980s, this relationship has weakened over time, suggesting that commodity prices have become less reliable as indicators for monetary policy in recent years (Verheyen, 2010).

In Sri Lanka, research focused on the credit and exchange rate channels of monetary policy. Using monthly data from 2003 to 2019 and a VAR model, it found that tighter monetary policy reduced inflation in the post-conflict period, with interest rate and exchange rate channels playing key roles, while the credit channel exhibited a lagged response (Musthafa et al., 2023). Another study, using quarterly data from 2000Q1 to 2013Q3 and a VAR model, demonstrated that the interest rate

channel had the most significant impact on output, causing a 0.6% decrease within three years of policy changes, while the bank lending channel showed effects with a lag of five quarters. Exchange rate and asset price channels had no significant impact (Ghazanchyan, 2014).

In conclusion, existing literature highlights notable gaps. Most studies focus on single economies and short timeframes, limiting broader insights. This study addresses these gaps by comparing the monetary policy transmission mechanisms of Sri Lanka, India, and the USA, spanning over 40 years (1980–2023). By analyzing diverse economic contexts and employing three econometric models—VAR, VECM, and Jordà's Local Projection model—this research offers a robust and comparative long-term perspective.

3. Methodology

This study will utilize a quantitative approach to systematically analyze the influence of monetary policy transmission mechanisms on inflation and production across Sri Lanka, India, and the USA. The data utilized in this study are from reputable sources including FRED (Federal Reserve Economic Data), Trading Economics, the International Monetary Fund database, and the OECD database known for their reliability and comprehensive coverage of economic indicators.

The study encompasses a comprehensive data analysis from 1980 to 2023, focusing on monthly trends. The two main dependent variables of the study are the Gross Domestic Production (GDP) and all items Consumer Price Index (CPI). While GDP is the measure of production, CPI is the measure of inflation. Four monetary policy transmission channels are considered the independent variables to understand the impact of policy changes on inflation and production. Firstly, the short-term interest rate (INT) was chosen because the central banks use INT to align open-market operations with short-term money market rates to influence the borrowing costs, and to achieve price stability and economic growth. The exchange rate against the Euro (EXC) was chosen as it is one of the most used exchange rates after USD, which cannot be used in this study as the USA is one of the economies being analyzed. Money supply (M2) is a primary metric used by policymakers to formulate monetary policy. Lastly, the domestic credit to the private sector variable (DCP), offers context for the country's financial development.

The study will employ the VECM model, a widely recognized model in economic research, that provides a structured framework for investigating dynamic interactions among multiple variables over time. However, VECM models may face challenges due to the curse of dimensionality where computational complexity increases as the number of variables grows. Additionally, identifying structural shocks in VECM models presents a significant challenge, often requiring additional

assumptions or external information to achieve accurate results (Zhu & Liu, 2020). The VECM is a model that bridges the gap between models that analyze stationary processes and differenced series. It also allows the analysis of short-term and underlying long-term relationships in non-stationary cointegrated data. (Abduvaliev & Bustillo, 2020).

The research integrates two additional analytical tools to achieve a comprehensive understanding of the relationships and temporal effects resulting from policy changes. Firstly, the Granger causality test will be utilized to identify correlations between variables, which aligns with the study's objective of determining relationships among various factors. Furthermore, the study utilizes the Impulse Response Function (IRF) to delve into the temporal aspects associated with policy execution and the realization of its effects, aligning to determine the temporal lag of policy alterations and their outcomes. (Stern, 2016).

4. Results/Analysis and Discussion

The analysis of India's time series data involved tests for heteroscedasticity, stationarity, cointegration, and optimal lag selection, followed by the estimation of a VECM model, Granger causality testing, and impulse response function (IRF) analysis. The Breusch-Pagan test revealed heteroscedasticity in GDP, exchange rates (EXC), and domestic credit to the private sector (DCP). To address this, robust standard errors were estimated using the Newey-West method, mitigating the effects of heteroscedasticity and autocorrelation. Stationarity tests showed that while most variables were stationary, EXC, interest rates (INT), and DCP required differencing for stationarity.

Table 1: Short-Term Relationships (India).

Variable	Lagged Term	Coeff	P> z	95% CI
GDP	L1.GDP	0.7460	0.000	[0.689, 0.803]
EXC	L1.EXC	-0.4225	0.000	[-0.500, -0.345]
DCP	L1.EXC	2.8505	0.047	[0.039, 5.662]
DCP	L1.DCP	0.6504	0.000	[0.586, 0.715]

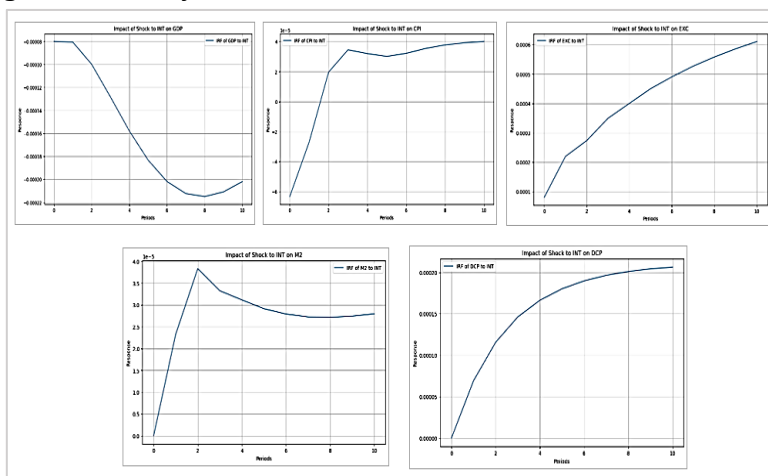
The Johansen cointegration test identified four cointegrating relationships, highlighting long-term equilibrium interactions among the variables. Based on model selection criteria (MAIC and MSBIC), the optimal lag length was determined to be 1. A VECM model with a cointegration rank of 4 and a lag order of 1 was estimated, producing significant results. Lagged GDP was positively correlated with current GDP, as a 1% increase in lagged GDP corresponded to a 0.746% increase in current GDP ($p < 0.001$). Lagged EXC harmed its current values, with a coefficient of -0.4225 ($p < 0.001$), while lagged DCP positively influenced both EXC and its current values, with coefficients of 2.8505 ($p = 0.047$) and 0.6504 ($p < 0.001$), respectively.

Table 2: Long-Term Equilibrium Relationships (India).

Variable	CoInt. Relation	Coeff	P> z	95% CI
GDP	ec1	-0.1234	0.000	[-0.145, -0.102]
CPI	ec2	-0.8446	0.000	[-0.941, -0.748]
EXC	ec3	-0.1478	0.000	[-0.204, -0.092]
EXC	ec4	0.0663	0.000	[0.040, 0.093]

Cointegration analysis further revealed critical long-term adjustments. GDP exhibited a moderate negative adjustment to deviations from the first long-term equilibrium (coefficient = -0.1234, $p < 0.001$). CPI showed a rapid correction to deviations from its equilibrium relationship (coefficient=-0.8446, $p < 0.001$). For EXC, two distinct adjustment processes were observed: a moderate negative adjustment (coefficient = -0.1478, $p < 0.001$) and a slower positive adjustment (coefficient = 0.0663, $p < 0.001$).

Granger causality tests found no significant predictive relationships between independent variables and GDP or CPI, indicating limited short-term predictive power in this context. However, IRF analysis showed that a one-standard deviation shock to INT caused a gradual rise across all variables over time, demonstrating the dynamic influence of monetary policy. These results underscore the complex interplay between credit, exchange rates, and economic growth in India, emphasizing the importance of managing monetary factors to maintain long-term stability.

**Figure 1: IRF (India).**

The USA dataset underwent the same analytical process as the Indian dataset, encompassing heteroscedasticity tests, stationarity assessment, cointegration analysis, optimal lag selection, and VECM estimation. The Breusch-Pagan test revealed heteroscedasticity in GDP,

exchange rates (EXC), and interest rates (INT). To address this, the Newey-West method was employed to obtain robust standard errors. Stationarity testing using the ADF test indicated that all variables, except EXC and domestic credit to the private sector (DCP), were stationary. Cointegration analysis using the Johansen test identified five long-term equilibrium relationships. Based on model selection criteria, the MSBIC-optimal lag length of 1 was prioritized, and a VECM model fit with a cointegrating rank of 5 and a lag order of 1.

Table 3: Short-Term Relationships (USA)

Variable	Lagged Term	Coeff	P> z	95% CI
GDP	L1.GDP	0.7701	0.000	[0.718, 0.822]
CPI	L1.CPI	0.1246	0.004	[0.039, 0.210]
EXC	L1.EXC	0.2707	0.000	[0.187, 0.355]
INT	L1. INT	0.2858	0.000	[0.203, 0.369]

Lagged variables in the VECM model exhibited significant positive relationships. Lagged GDP (coefficient=0.7701, $p < 0.001$), CPI (coefficient=0.1246, $p = 0.004$), EXC (coefficient=0.2707, $p < 0.001$), and INT (coefficient=0.2858, $p < 0.001$) were strong predictors of their current values. Cointegration analysis revealed significant long-term adjustments. GDP had a moderate negative adjustment to deviations in the first equilibrium relationship (coefficient=-0.1686, $p < 0.001$), while CPI exhibited rapid corrections to deviations in two relationships (coefficients = -0.5944, $p < 0.001$, and 2.0146, $p < 0.001$). For EXC, one moderate negative adjustment (coefficient = -0.0114, $p = 0.031$) and one slower positive adjustment (coefficient = 0.0681, $p = 0.046$) were observed. Notably, INT and M2 played key roles in long-term equilibrium adjustments, with significant coefficients in multiple cointegration relationships.

Table 4: Long-Term Equilibrium Relationship (USA)

Variable	Coint. Relation	Coeff	P> z	95% CI
GDP	ec1	-0.1686	0.000	[-0.191, -0.146]
CPI	ec2	-0.5944	0.000	[-0.683, -0.506]
CPI	ec4	2.0146	0.000	[1.272, 2.757]
EXC	ec3	-0.0114	0.031	[-0.022, -0.001]
EXC	ec4	0.0681	0.046	[0.001, 0.135]
INT	ec1	0.0166	0.005	[0.005, 0.028]
INT	ec4	-0.0240	0.003	[-0.040, -0.008]
M2	ec5	-1.1150	0.000	[-1.241, -0.989]
DCP	ec3	0.0062	0.001	[0.003, 0.010]

Granger causality analysis demonstrated predictive relationships between lagged INT and both GDP and CPI, as well as between lagged M2 and CPI. This suggests that monetary variables exert a significant influence on production and inflation. IRF analysis showed that a one-standard-deviation shock to INT caused an initial spike in GDP, CPI, EXC,

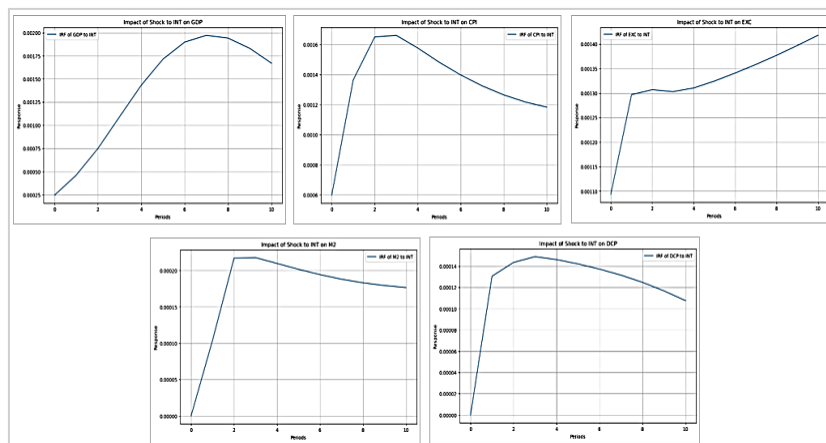


Figure 2: IRF (USA).

M2, and DCP. Over time, all variables, except EXC, decayed and stabilized; EXC exhibited a prolonged increase, reflecting its distinct response dynamics. These findings underscore the complex interplay of economic variables in the USA, highlighting the influential role of interest rates and monetary aggregates in shaping short- and long-term economic adjustments.

The Sri Lankan dataset underwent a comprehensive analysis following the same methodology. The Breusch-Pagan test identified GDP, exchange rates (EXC), money supply (M2), and domestic credit to the private sector (DCP) as heteroscedastic, necessitating the use of the Newey-West standard errors for robust coefficient estimation. The stationarity assessment using the ADF test revealed that interest rates (INT) and DCP were non-stationary. Cointegration analysis using the Johansen test detected four long-term equilibrium relationships based on both the trace and maximum eigenvalue tests. The optimal lag length was determined to be 1, leading to the estimation of a VECM model with a cointegrating rank of 4 and a lag period of 1.

Table 5: Short-Term Relationships (Sri Lanka).

Variable	Lagged Term	Coeff	P> z	95% CI
GDP	L1.GDP	0.7744	0.000	[0.721, 0.828]
GDP	L1.M2	-0.0007	0.016	[-0.001, -0.000]
CPI	L1.CPI	-0.1721	0.000	[-0.256, -0.088]
CPI	L1.M2	-0.1351	0.026	[-0.254, -0.016]
DCP	L1.DCP	0.9186	0.000	[0.885, 0.952]

The VECM results indicate significant influences of lagged variables. GDP was impacted by its lagged values (coefficient = 0.7744, $p < 0.001$) and the lagged money supply (coefficient = -0.0007, $p = 0.016$). Similarly, CPI responded to its lagged value (coefficient = -0.1721, $p < 0.001$) and lagged M2 (coefficient = -0.1351, $p = 0.026$). DCP showed strong self-dependency, as evidenced by its significant lagged coefficient (coefficient = 0.9186, $p < 0.001$). These findings highlight the dynamic relationships among macroeconomic variables over time.

Table 6: Long-Term Equilibrium Relationships (USA).

Variable	Coint. Relation	Coeff	P> z	95% CI
GDP	ec1	-0.1400	0.000	[-0.161, -0.119]
GDP	ec4	0.0264	0.000	[0.020, 0.033]
CPI	ec2	-0.3810	0.000	[-0.462, -0.300]
CPI	ec3	-24.1884	0.000	[-35.273, -13.103]
CPI	ec4	4.5011	0.000	[3.107, 5.895]
EXC	ec1	0.0009	0.043	[2.92e-05, 0.002]
EXC	ec3	-0.0087	0.000	[-0.011, -0.007]
EXC	ec4	0.0003	0.016	[6.11e-05, 0.001]
M2	ec1	5.4150	0.001	[2.154, 8.676]
M2	ec3	11.2812	0.006	[3.266, 19.296]
M2	ec4	3.1484	0.000	[2.141, 4.156]

Cointegration analysis further illustrates long-term adjustments to equilibrium relationships. For GDP, a negative coefficient in the first relationship (ec1, coefficient = -0.1400, $p < 0.001$) suggests that it decreases by 14% per period to return to equilibrium when above it. CPI exhibited complex dynamics, with significant adjustments in multiple relationships (e.g., ec2 coefficient = -0.3810, $p < 0.001$; ec3 coefficient = -24.1884, $p < 0.001$). M2 showed significant roles in three cointegration relations, with coefficients indicating both short- and long-term equilibrium adjustments. These results underscore the interplay among GDP, CPI, EXC, and M2 in achieving long-run economic stability.

Granger causality tests revealed numerous uni-directional relationships. For example, CPI Granger-caused EXC, and EXC influenced DCP. The only bi-directional causality was observed between EXC and M2, indicating mutual predictive influence between these variables. This interaction suggests that exchange rate changes impact the money supply and vice versa.

Impulse response analysis showed that a one-standard-deviation shock to INT or M2 produced distinct patterns of adjustment. GDP, CPI, and EXC exhibited initial spikes followed by gradual decay toward equilibrium. These findings provide valuable insights into Sri Lanka's economic dynamics, emphasizing the critical roles of monetary aggregates and policy variables in shaping short- and long-term adjustments.

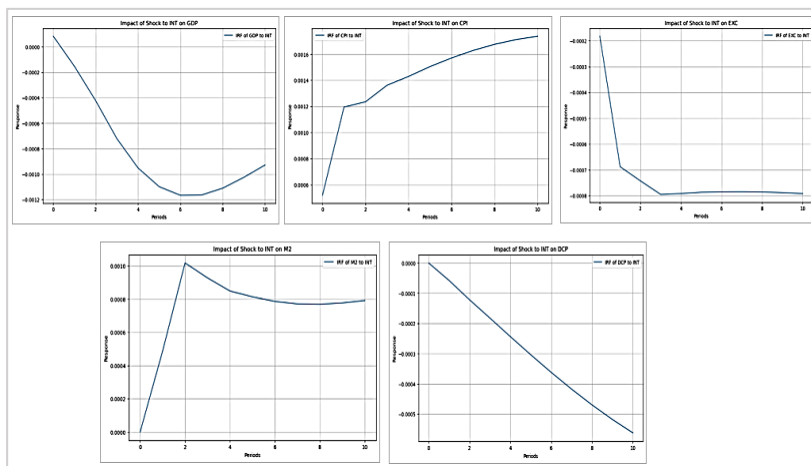


Figure 3: IRF (Sri Lanka).

5. Conclusions and Implications

This study explores the critical role of monetary transmission mechanisms (MTM) in shaping economic outcomes, particularly inflation and production levels, across three distinct economies: the USA, India, and Sri Lanka. The findings underscore the differences in how these economies respond to monetary policy changes, with the USA showing quicker adjustments, while India and Sri Lanka exhibit delayed responses. This suggests that advanced economies, like the USA, can rapidly integrate policy changes, whereas emerging economies face longer delays in realizing the effects of these shifts.

The results from the VECM model revealed that the USA's economy is more responsive to monetary policy changes, adjusting more quickly to both inflation and production shifts. In contrast, India and Sri Lanka face delays, which could be indicative of structural challenges or policy frameworks that are less effective in these emerging markets. Additionally, the IRF and Granger Causality analyses highlighted significant differences in the channels through which monetary policy affects GDP and CPI. In the USA, both interest rates (INT) and money supply (M2) have direct and significant effects on inflation and growth. For India, exchange rates (EXC) were found to be influential over interest rates, while Sri Lanka's economic performance was primarily driven by credit conditions (DCP) and the money supply (M2).

While these findings contribute valuable insights into the economic behavior of the USA, India, and Sri Lanka, they also come with important caveats. The datasets for all three economies exhibited heteroscedasticity and stationarity issues, which were mitigated using the Newey-West SE method to produce robust standard errors. However, it is crucial to acknowledge that the model's generalizations may not fully capture the intricate financial and economic structures of each country. For example, political instability in Sri Lanka and shifting trade dynamics in India are factors that influence the effectiveness of monetary policy beyond the scope of this study's model.

The theoretical and practical implications of these results are significant for policymakers. First, the study suggests that advanced economies, like the USA, can rely on well-established monetary policy tools (e.g., interest rates and money supply) to manage inflation and economic growth efficiently. However, for emerging economies like India and Sri Lanka, the delayed responses to policy changes signal a need for stronger and more adaptable monetary policy frameworks. Policymakers in these countries should focus on improving the transmission mechanisms to better align their economies with global economic trends. For future research, it is recommended that further studies incorporate additional factors, such as geopolitical events and technological advancements, to assess how these elements could influence MTM effectiveness. A deeper understanding of these dynamics could provide a more comprehensive view of how monetary policy operates across different economic contexts and inform the design of more globally relevant economic policies.

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References

- Abduvaliev, M., & Bustillo, R. (2020). Patterns of Official Development Assistance in Tajikistan: effects on growth and poverty. 60-63.
- Bahinipati, C. S., Patnaik, U., & Viswanathan, P. (2016). What Causes Economic Losses from Natural Disasters in India? *Advances in Environmental Engineering and Green Technologies*, 157-171.
- Central Bank of Sri Lanka [CBSL]. (2022, September). Foreign Debt Summary. Retrieved from Department of External Resources: https://www.erd.gov.lk/index.php?option=com_content&view=article

- Duggan, W., & Adams, M. (2023, June 21). A Short History of The Great Recession. Retrieved from Forbes Advisor: <https://www.forbes.com/advisor/investing/great-recession/#:~:text=The%20Great%20Recession%20of%202008,down>
- Forbes India. (2024, March 11). GDP of India: Current and historical growth rate, India's rank in the world. Retrieved from Forbes India: <https://www.forbesindia.com/article/explainers/gdp-india/85337/1>
- Ghazanchyan, M. (2014). Unraveling the Monetary Policy Transmission Mechanism in Sri Lanka. IMF Working Paper, 4-29.
- Hameed, I., & Amen, U. (2011). Impact of monetary policy on gross domestic production. *International Journal of Academic Research and Social Sciences*, 1348-1361.
- Hlávka, J., & Rose, A. (2023, May 16). COVID-19's Total Cost to the U.S. Economy Will Reach \$14 Trillion by End of 2023. Retrieved from University of South California: <https://healthpolicy.usc.edu/article/covid-19s-total-cost-to-the-economy-in-us-will-reach-14-trillion-by-end-of-2023-new-research/>
- International Monetary Fund [IMF]. (2023, January). Monetary Policy and Central Banking. Retrieved from International Monetary Fund: <https://www.imf.org/en/About/Factsheets/Sheets/2023/monetary-policy-and-central-banking>
- Iya, I. B., & Aminu, U. (2014). An Empirical Analysis of the Determinants of Inflation in Nigeria. *Journal of Economics and Sustainable Development*.
- Majumdar, D. (2024, January). India's economic outlook. Retrieved from Deloitte Global Economics Research Center: <https://www2.deloitte.com/us/en/insights/economy/asia-pacific/india-economic-outlook.html>
- Mishkin, F. S. (1995). Symposium on the Monetary Transmission Mechanism. *Journal of Economic Perspectives*, 3-10.
- Musthafa, M. T., Le, T., & Suard, S. (2023). Monetary policy transmission in Sri Lanka. *Applied Economics*, 3-5.
- Ndidi, D. E. (2013). Determinants of inflation in Nigeria (1970 – 2010). *The Business Management Review*, 106-114.
- Rankin, G. (2016, October). Brexit and the US - impact on economy, trade, and business. Retrieved from The Smart Cube: <https://www.thesmartcube.com/resources/blog/brexit-and-the-us-impact-on-economy-trade-and-business/>
- Rishandani, D. (2021). COVID-19 and its impact on the Sri Lankan economy. 1-14.
- Smith, J., & McAleer, M. (2006). Newey–West covariance matrix estimates for models with generated regressors. *Applied Economics*, 26(6), 635-640. <https://doi.org/https://doi.org/d292z8>
- Stern, D. I. (2016). Economic Growth and Energy. Reference Module in Earth Systems and Environmental Sciences. 35-51.
- The World Bank. (2022, October 06). The World Bank in Sri Lanka. Retrieved from The World Bank: <https://www.worldbank.org/en/country/srilanka/overview>
- United States Bank. (2024, February 15). How do changing interest rates affect

- the stock market? Retrieved from U.S. Bank:
<https://www.usbank.com/investing/financial-perspectives/market-news/how-do-rising-interest-rates-affect-the-stock-market.html>
- Verheyen, F. (2010). Monetary Policy, Commodity Prices and Inflation – Empirical Evidence from the US. *Ruhr Economic Papers*, 4-27.
- World Economic Outlook. (2022, April). War slows recovery. Retrieved from International Monetary Fund:
<https://www.imf.org/en/Publications/WEO/Issues/2022/04/19/world-economic-outlook-april-2022>
- Zhang, J., Hu, W., & Zhang, X. (2011). The Relative Performance of VAR and VECM Model. 2010 3rd International Conference on Information Management, Innovation Management and Industrial Engineering. Kunming: IEEE. <https://doi.org/10.1109/ICIII.2010.195>