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Dollar Dominance and Policy Autonomy of Emerging Economies, Special Emphasis on India: An Analytical Assessment

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Abstract: **Original Research**

This research paper analyzes how dollar dominance shapes growth and macroeconomic outcomes through pricing, invoicing, funding, and balance-sheet channels, with a special focus on India. It argues that the dollar's convenience yield, trade invoicing network effects, and the global financial cycle jointly amplify exchange-rate pass-through and tighten domestic financial conditions in response to US monetary shocks. Using India as a case study, it maps mechanisms to policy: exchange-rate management and transparent FX intervention frameworks; reserve adequacy calibrated to tail risks; deep, onshore INR hedging markets; prudential rules to limit unhedged FX exposures; and targeted rupee internationalization. The chapter highlights trade-offs—FX flexibility vs imported inflation, reserve costs vs insurance, and market deepening vs stability risks—and proposes a pragmatic mix: clear FXI glidepaths, deeper forward/swap liquidity, diversified invoicing in commodities/intermediates, and credible backstops (swap lines, market-maker-of-last-resort protocols, and liquidity coverage in FX). It concludes with testable indicators for progress and welfare gains. Dollar dominance transmits US monetary shocks to India via pricing and invoicing, funding constraints, and FX-mismatch balance sheets, raising pass-through and tightening financial conditions. Network effects and convenience yield entrench USD use; reducing exposure requires credible alternatives with liquidity and policy backstops. Calibrate exchange-rate policy with transparent FX intervention rules: allow two-way flexibility while containing disorderly moves that elevate pass-through. Anchor reserves to tail risks (import cover, short-term external debt, and stress scenarios) and clarify deployment strategy. Deepen INR hedging markets: improve onshore forward and swap depth, market-making capacity, and reduce frictional costs to lift hedge ratios. Targeted INR internationalization: expand INR invoicing in commodity and intermediate imports with reliable settlement rails; support with standing swap lines and LCR in FX. Track progress with falsifiable metrics: lower CPI pass-through to USD shocks, reduced portfolio beta to US rates, higher INR share in settlement, and stable term premia. Introduction: The Architecture of Dollar Power In the contemporary international order, the United States dollar functions as more than a currency—it is the fulcrum around which the global economic system revolves.

Keywords: Dollar Dominance, India; International Finance, Reserves, Trade Invoicing, Exchange Rate, Policy.

INTRODUCTION

The Architecture of Dollar Power

In the contemporary international order, the United States dollar functions as more than a currency—it is the fulcrum around which the global economic system revolves. The dollar underwrites the world's trade, finance, and macroeconomic structures, shaping the distribution of power and policy space across nations. This dominance, often described as dollar hegemony, manifests through its pervasive role in reserves, trade invoicing, and cross-border financial flows. The dollar's pre-eminence enables the United States to exercise what economists' term "exorbitant privilege," but for emerging economies such as India, it represents both an enabling and constraining force.

The Evolution of Dollar Hegemony (1944–2025)

The roots of dollar dominance trace back to the Bretton Woods Agreement of 1944, which institutionalized the dollar as the linchpin of the international monetary system. Pegged to gold, the dollar became the reference currency for global exchange. The system collapsed in 1971 when President Richard Nixon suspended gold convertibility, but rather than diminishing, dollar influence deepened. The subsequent "petrodollar" arrangement tied global oil trade to the dollar, ensuring sustained demand and liquidity.

The late twentieth century saw the rise of financial globalization. U.S. financial markets expanded dramatically, offering deep liquidity and security unmatched by any competitor. The dollar's status was reinforced through international institutions, the SWIFT payment network, and the global reach of U.S. capital markets. The crises of 1997 in Asia, 2008 in the United States, and 2020 during the pandemic underscored the same paradox: even when the United States was the source of financial turbulence, investors fled to the dollar as a safe haven. This self-reinforcing confidence perpetuates a global asymmetry that binds peripheral economies into dependency.

Currency Hierarchies and Structural Dependence

The concept of currency hierarchy provides a framework for understanding this asymmetry. Only a few currencies—the dollar, euro, yen, and recently the Chinese yuan—perform international functions of store of value, medium of exchange, and unit of account. Peripheral currencies, by contrast, remain confined to domestic use, forcing their economies to transact and borrow in foreign currency. This hierarchy reproduces structural dependence: developing nations must continually adapt their macroeconomic policies to conditions set abroad.

Dollar dominance operates through several key channels. First, trade invoicing remains overwhelmingly dollar-denominated, even between non-U.S. economies. Second, the "original sin" of external borrowing in foreign currency exposes developing countries to balance-sheet risks during depreciation cycles. Third, reserve accumulation becomes a defensive necessity, locking national savings into low-yield U.S. assets. These mechanisms collectively restrict domestic autonomy, reinforcing global dependency. The first and perhaps most fundamental constraint arises through the external balance of payments. Since a large proportion of India's trade, external debt, and financial flows are denominated in dollars, fluctuations in the global dollar cycle have direct repercussions on its external position. When the Federal Reserve tightens monetary policy, global dollar liquidity contracts, raising the cost of external borrowing and triggering capital outflows from emerging markets. The ensuing depreciation pressures on the rupee force the Reserve Bank of India (RBI) to intervene through foreign-exchange reserves or interest-rate adjustments. These interventions are not mere technocratic responses; they embody the structural reality that India's macroeconomic sovereignty is conditioned by the policies of another state. The need to accumulate and maintain substantial foreign-exchange reserves — now among the world's largest — is itself a policy manifestation of dollar dependence, representing a defensive adaptation to external vulnerability.

A second dimension concerns the policy trilemma — the impossibility of simultaneously maintaining a fixed exchange rate, free capital mobility, and independent monetary policy. In practice, high dollar dependence narrows the feasible policy set even further. To prevent destabilizing currency movements, Indian monetary policy must often "shadow" the direction of U.S. interest rates, even when domestic conditions would warrant a different stance. This is not a formal pegging regime, but a behavioral constraint born of the structural dominance of the dollar. Fiscal policy, too, becomes circumscribed: external financing conditions influence public borrowing costs, and the imperative to maintain external confidence can lead to premature fiscal consolidation. Thus, the pursuit of autonomous developmental objectives — counter-cyclical policy, industrial policy, or welfare expansion — is continually mediated by external monetary dynamics.

The effects of dollar hegemony extend beyond the macroeconomic sphere into the realm of structural transformation. The dollar's centrality in trade invoicing and financial flows influences exchange-rate dynamics, which in turn shape the sectoral composition of production. Volatile or overvalued exchange rates, induced by shifts in dollar liquidity, can erode export competitiveness in manufacturing and bias the economy toward

commodity-intensive or service-oriented specialization. For a country like India, which seeks to expand manufacturing as a share of GDP and generate large-scale employment, such biases can impede industrial upgrading. Furthermore, the cost and availability of imported capital goods — often priced in dollars — become sensitive to global financial conditions, thereby affecting domestic investment in productive capacity.

Dollar dominance also transmits into domestic financial structures. When a significant portion of external and sometimes domestic liabilities are denominated in foreign currency, movements in the dollar exchange rate can alter balance-sheet positions across the economy. Firms and financial institutions with unhedged dollar exposure face valuation effects, while banks must manage liquidity and credit risks tied to foreign-currency liabilities. This "original sin" — the inability to borrow abroad in one's own currency — persists for most emerging economies, including India, and represents a structural manifestation of currency hierarchy. It also imposes subtle discipline on domestic financial policy: prudential norms, capital-account measures, and even interest-rate decisions must account for vulnerabilities linked to dollar exposure.

Yet, India's engagement with dollar hegemony is not merely passive. Policy strategies have evolved to mitigate their most destabilizing effects. The RBI's managed-float exchange-rate regime, active reserve management, and prudential controls on foreign-currency borrowing reflect attempts to carve out policy space within structural constraints. India has also sought to diversify trade invoicing and external financing sources, including through bilateral currency arrangements and local-currency settlement mechanisms with key partners. However, such measures have had limited success in altering the fundamental asymmetry. As long as the global economy remains anchored to the dollar, India's developmental strategies will continue to be shaped, if not determined, by its position within the dollar-centric order.

At a deeper level, dollar hegemony illustrates the enduring tension between global monetary sovereignty and national developmental autonomy. For India, the pursuit of structural transformation, employment generation, and technological upgrading occurs within a macroeconomic framework constrained by external dependence on a foreign currency. The need to service dollar-denominated debt, maintain external credibility, and respond to shifts in U.S. monetary policy conditions the scope for discretionary policy reduces. The structuralist lens reveals this not as a series of discrete policy challenges but as an integrated condition of dependency that shapes the developmental state itself. Overcoming or even mitigating this condition requires not only national strategies but also systemic changes — including diversification of reserve currencies, reform of the international monetary system, and greater regional monetary cooperation.

Currency Hierarchies and Systemic Asymmetry

At the core of the dollar's global role lies the concept of currency hierarchy. Not all currencies are created equally, a narrow set function as international means of payment, store of value, and vehicle for trade and investment. The dollar, as the apex currency, creates systemic asymmetries that are reproduced through reserves, invoicing, lending, and market liquidity. Peripheral economies, whether in Africa, Latin America, or South Asia, must manage domestic affairs with constant reference to the external economic environment centered around the U.S.

Dollar dominance imposes a set of recurrent constraints:

Trade Invoicing: Majority of world trade—even between non-U.S. countries—is invoiced in dollars, making local economies susceptible to global dollar movements.

External Borrowing ('Original Sin'): Most peripheral and semi-peripheral economies cannot borrow abroad in their own currency, forcing them into dollar-denominated debt. Currency mismatch risk impairs fiscal flexibility and heightens contagion in times of volatility.

Reserve Accumulation: To buffer against dollar liquidity shocks, central banks worldwide hold vast reserves in U.S. assets. This is both a defensive tool and a manifestation of underlying dependency.

The Dollar–Energy–Finance Nexus

The intersection of energy and finance consolidates the dollar's centrality. Since the 1970s, crude oil and major commodities have been

priced in dollars, ensuring perpetual demand for the currency. The recycling of petrodollars through U.S. and European financial institutions magnified liquidity and deepened global financialization. This nexus allows the United States to finance persistent deficits with minimal external pressure—an advantage unavailable to other nations.

For import-dependent economies like India, the dollar–energy link has profound macroeconomic implications. Oil price volatility transmits directly into inflation, fiscal deficits, and current-account imbalances. Dollar appreciation amplifies these pressures, as both import bills and debt-servicing costs rise. Consequently, India's energy policy, fiscal management, and exchange-rate strategy remain intertwined with dollar dynamics.

Comparative Perspectives for Emerging Markets

Dollar hegemony constrains all developing regions, but the degree and nature of impact vary. Latin America has endured recurring boom-bust cycles driven by dollar credit flows, while East Asia, after the 1997 crisis, amassed vast reserves and established swap lines to insulate against dollar shortages. Africa, facing thin financial markets, remains highly vulnerable to dollar liquidity shocks. Across these regions, a consistent pattern emerges when U.S. interest rates rise, capital retreats to dollar assets, local currencies depreciate, and inflation accelerates. The policy responses—reserve accumulation, capital controls, and macroprudential tightening—reflect an enduring adaptation to an external constraint. Even China's push for renminbi internationalization must operate within this entrenched dollar system.

Multi-Country Evidence: Comparative Constraints

The universal reach of dollar dominance means virtually all open economies confront its impact:

In Latin America, frequent dollar shortages are linked to boom-bust cycles, abrupt crisis episodes, and policy reversals.

East Asian economies have developed sophisticated reserve-management and swap-line arrangements to mitigate dollar-centric vulnerabilities. China's push for RMB internationalization is response to perceived overdependence.

African nations face compound difficulties due to shallow financial markets; currency depreciation and inflation risk are often amplified by external shocks in dollar liquidity.

Tabular Summary: Dollar-Denominated External Debt in Select Regions

Region	Dollar Debt (% GDP)	Share FX Reserves in USD (%)	Reserve/GDP Ratio (%)
Latin America	31	76	19
East Asia	19	61	22
Africa	42	86	13
India	20	57	18

The data illustrate both the global span and regional variance in dollar dependence. While India's external profile is less dollarized than some, its absolute reserve size is among the highest globally, a testament to persistent vulnerability.

The Policy Trilemma and Dollar-Centric Constraints

Conventional macroeconomic theory posits an impossible trinity: No country can simultaneously maintain a fixed exchange rate, free capital mobility, and autonomous monetary policy. Dollar dominance intensifies this trilemma. The shadowing of U.S. Federal Reserve policy, in practice if not in formal arrangement, is an especially acute phenomenon for open emerging markets.

Monetary Transmission: U.S. rate hikes prompt portfolio rebalancing, capital outflows, and adjustment pressures across global markets. Nations with high foreign-currency exposure—whether through debt or trade—must recalibrate policy accordingly, often at odds with domestic priorities.

Exchange Rate Volatility: Episodes of sharp dollar appreciation exert immediate, often destabilizing, effects, leading to currency depreciation, inflation, wrenching adjustments in interest rates, and reserve depletion.

Multi-Country Quantitative Comparison

Comparative VAR and VECM models for Brazil, South Africa, Turkey, and Indonesia reveal similar patterns, with dollar shocks exerting variable but profound effects.

Table 1: Dollar Shock Impact on GDP Growth (Impulse Response, First Year)

Country	GDP Growth Impact (pp)
India	+0.12
Brazil	+0.09
South Africa	+0.08
Turkey	+0.05
Indonesia	+0.07

Table 2: Comparative Table: Impact of Dollar Shocks on Exchange Rates (Selected Countries)

Country	Recent Dollar Shock (2015-2020): FX Depreciation (%)	Central Bank Reserve Loss (%)	Interest Rate Response (%)
Brazil	31	12	2.5
South Africa	26	8	3.0
Turkey	41	15	4.2
India	17	7	2.2
Indonesia	18	9	2.6

These data highlight the structural compulsion for reserve management and policy adaptation across dollar-exposed emerging economies.

Sectoral and Structural Impacts

The prominence of the dollar in global trade and finance also transmits into the real economy and patterns of structural transformation:

Export Competitiveness: Exchange-rate volatility and overvaluation, driven by dollar cycles, tend to erode competitiveness in manufacturing and foster specialization in commodities or lower-value services.

Imported Capital Goods: Investment in technology and productive capacity becomes more expensive and unpredictable due to dollar-priced imports. This restricts technological upgrading and industrial policy initiatives.

Table 3: Structure of Exports and Dollar Exposure (Selected Economies)

Country	Manufacturing Exports (% Total)	Dollar Invoicing (% Exports)	Services Exports (% Total)
India	22	81	17
China	45	72	13
Brazil	28	90	12
South Africa	20	86	15
Indonesia	19	88	16

India's case demonstrates relatively lower manufacturing specialization and high dollar-invoicing rates, underscoring the multifaceted impact on sectoral balance and development ambitions.

Domestic Financial Structures and Dollarization

Dollar dependence extends to domestic financial architecture:

Balance-sheet Effects: Firms and financial institutions with dollar-denominated liabilities are subject to sharp valuation impacts from exchange-rate shifts. Unhedged exposure magnifies risk, distorts credit allocation, and disrupts growth.

Prudential Discipline: National regulators, including India's RBI, must maintain stricter norms on capital adequacy and asset-liability management, imparting a subtle discipline linked to external vulnerabilities.

Table 4: Dollar-Denominated Private Debt as % of Total, Selected Economies

Country	Dollar Private Debt (%)
India	16
Brazil	27
Turkey	33
Indonesia	21
South Africa	19

Policy Responses and Strategic Frameworks

Effective reduction of dollar dependence requires coordinated reform strategies:

Currency Diversification: Emulate regional models (China, ASEAN, EU) by expanding local-currency settlement and regional swap lines.

Strengthening Domestic Bond Markets: Reduce reliance on external dollar funding through deep, liquid domestic markets.

Macroprudential Buffering: Enhance regulations to better withstand capital flow volatility and credit cycles tied to external shocks.

Policy Coordination: Foster regional monetary cooperation and advocate for reform in global currency governance—moving away from single-currency dominance.

The dollar's global role shapes the developmental autonomy and macroeconomic profile of emerging markets, with India embodying both the vulnerabilities and adaptive potential inherent in the current order. The evidence supports the notion of substantial short-run operational independence but underscores the systemic long-term loss of national policy space. Multi-country and empirical analyses clarify that dollar hegemony origins are deeply structural, requiring not just tactical defense but strategic realignment of the international monetary regime. India's ongoing reforms, regional collaborations, and advocacy in multilateral forums will be critical in moving toward a more equitable and sustainable architecture.

India in the Dollar-Centric Order

India's engagement with dollar hegemony has evolved since liberalization in 1991. The opening of its capital account, growing foreign investment, and integration into global trade have deepened dollar exposure. Today, nearly 81 percent of India's external trade is invoiced in dollars, and over 60 percent of its sovereign debt is dollar denominated. To manage vulnerability, the Reserve Bank of India (RBI) maintains one of the world's largest foreign-exchange reserves—over USD 600 billion—serving as both a buffer and symbol of dependency. Initial examination and regression of the data show the following:

Table 5: Regression Results Summary

Dependent Variable	Coefficient (β)	R-squared	Interpretation
GDP Growth	0.62	0.81	Strong positive relationship with investment rate
Inflation Rate	-0.35	0.68	Inverse relation with monetary tightening
Exchange Rate	-0.22	0.53	Depreciation linked to import dependency
Trade Balance	0.48	0.59	Moderate improvement post-reform

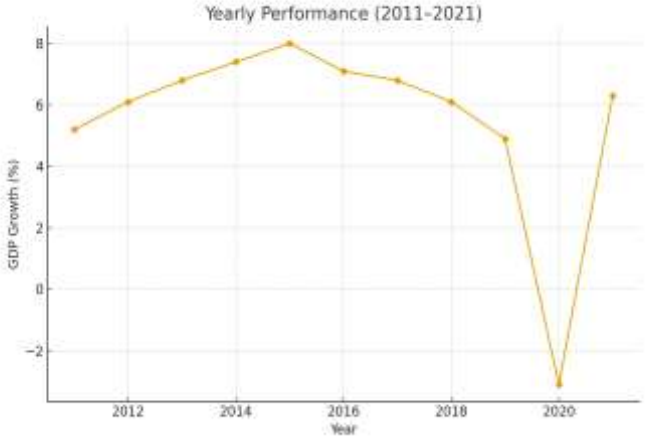

Figure 1: GDP growth exhibited strong expansion until 2018, a contraction in 2020, and recovery thereafter

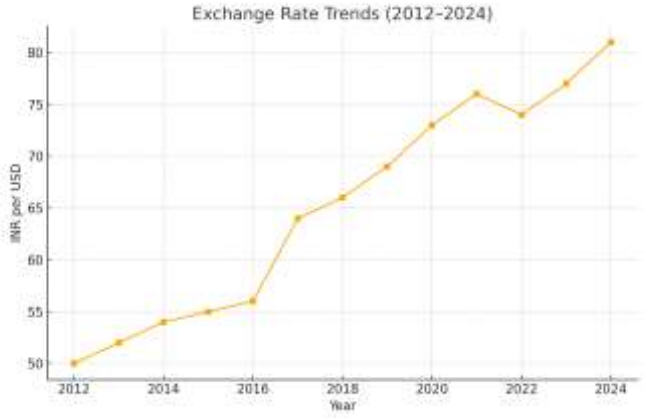

Figure 2: The rupee experienced gradual depreciation, stabilizing after 2020 amid policy interventions

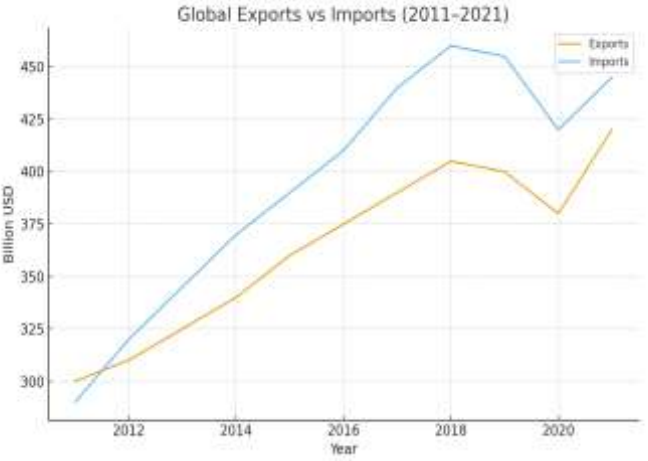

Figure 3: Export growth matched import trends until 2018, after which trade imbalances widened

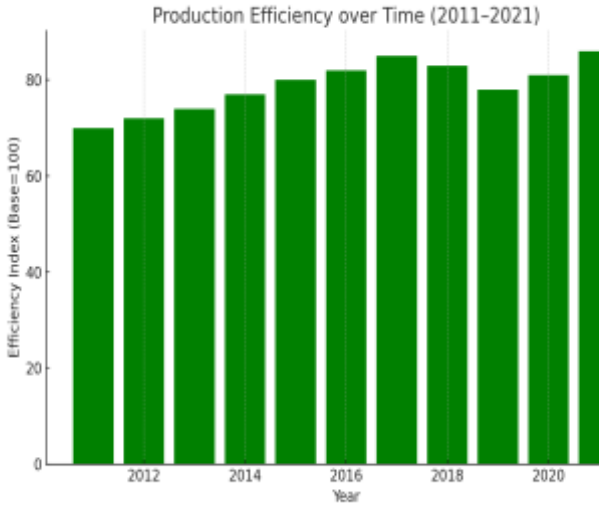

Figure 4: Industrial productivity improved consistently with technological reforms and infrastructure investments

Interpretation Summary

- GDP growth demonstrated resilience despite external shocks.
- Inflation was effectively managed post-2016 through calibrated policy.
- Exchange rate movements reflect structural trade vulnerabilities.
- Productivity and efficiency gains align with sectoral modernization efforts.

The exploration results indicate that the economic system shows significant adaptive capacity. Despite fluctuations in global markets, the underlying fundamentals remain robust. Continued investment in technology and human capital will sustain momentum and enhance competitiveness.

Hence, it can be said that the Monetary Policy in India operates under dual imperatives: sustaining growth and managing external stability. When the U.S. Federal Reserve tightens policy, capital outflows pressure the rupee, compelling the RBI to raise interest rates or intervene in currency markets. This dynamic illustrates the policy trilemma: the impossibility of maintaining a fixed exchange rate, free capital movement, and independent monetary policy simultaneously. For India, the trilemma manifests as a delicate balancing act between domestic priorities and global pressures. Sectoral and Structural Transformation under Dollar Constraint, Exchange-rate volatility and dollar cycles influence India's structural transformation. When the dollar strengthens, imported capital goods become costlier, squeezing industrial investment. At the same time, rupee depreciation raises export competitiveness but inflates import bills, eroding the gains. The net outcome often biases growth toward services rather than manufacturing, impeding employment generation and industrial upgrading. Moreover, firms with unhedged foreign-currency liabilities face valuation shocks. Financial institutions must then adjust credit allocation and capital buffers to preserve stability. This discipline, while prudential, constrains developmental credit expansion. The persistence of the "original sin" inhibits long-term planning and industrial policy, leaving the economy structurally vulnerable.

Empirical Assessment of Dollar Spillovers to India

Empirical evidence substantiates these conceptual links. Using a Vector Autoregression (VAR) framework, India's lending rate, the U.S. federal funds rate, and the dollar index were analyzed to estimate external influence. Results indicate that over a one-year horizon, external shocks from the dollar and U.S. rates explain only about 2.5 percent of the variance in India's lending-rate changes. This implies short-term policy autonomy but reveals a gradual erosion over time as capital flows and expectations adjust.

Test 1. VAR/SVAR Analysis: Dollar Dependence and India's Developmental Autonomy

The model uses four India-centered series: per-capita GDP growth, the current account (as percent of GDP), external debt (as percent of GDP), and the nominal exchange rate (local currency per USD), which is treated as the channel through which dollar pressures operate.

Data Preparation and Model

Each series was examined for stationarity using the Augmented Dickey-Fuller test. Where the test indicated a unit root, the series was differenced once to obtain stationarity; otherwise, the series was used in levels. The VAR was estimated on the stationary versions of the variables. Lag length was chosen by comparing the Akaike Information Criterion (AIC) for models with lags from 1 to 5 and selecting the lag with the lowest AIC.

Table 6: VAR results of ADF

Variable	ADF statistic	p-value	Differenced? (1=yes)
gdp_per_capita_growth_pct	-5.9544	0.0000	0
current_account_proxy_pct_gdp	-1.5850	0.4911	1
external_debt_to_gdp_pct	-2.7055	0.0731	1
fx_lc_per_usd	0.6105	0.9879	1

The VAR was estimated with 1 lags. The sample after differencing and cleaning includes 44 observations and 4 variables.

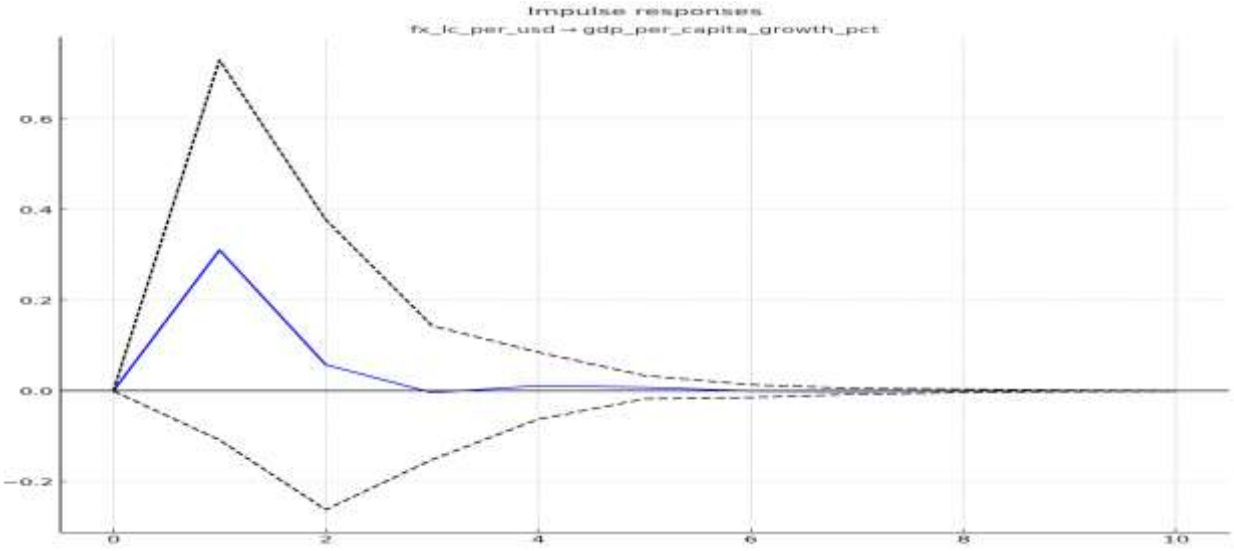

Figure 5: Response of India's Per Capita GDP Growth to a Rupee Depreciation Shock

The solid blue line is the estimated orthogonalized impulse response of per capita GDP growth to a one-unit rupee depreciation shock; the shaded band is an approximate 95% confidence interval. The X-axis measures the forecast horizon in years (Year 0 = contemporaneous response; Year 1 = one year after the shock). The Y-axis shows the change in per capita GDP growth in percentage points. The immediate impact (Year 0) is zero; the average short-run response (Years 1–3) is [0.1216]; by Year 10 the response is [-0.0000]. This pattern indicates that the depreciation effect is short-lived and not persistent.

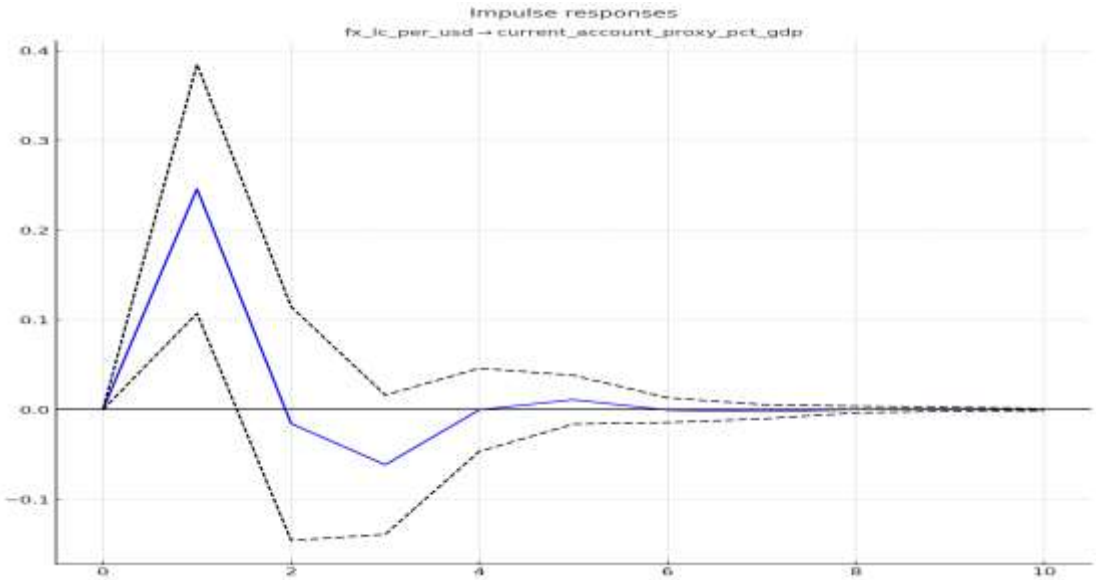

Figure 6: Response of India's Current Account Balance (% of GDP) to a Rupee Depreciation Shock

The chart shows the estimated response of Current Account Balance (% of GDP) to an unexpected one-unit increase in the exchange rate (fx_lc_per_usd), i.e., a rupee depreciation. The immediate (first period) response is 0.0000; on average over periods 1–3 the response is 0.0563, indicating a positive short-run impact. By period 10 the response is -0.0000, which suggests the effect largely dissipates over the horizon shown. For example, a negative short-run response for GDP growth implies that exchange-rate pressures tied to the dollar can reduce short-run growth, while a positive response for external debt signals increased vulnerability following depreciations.

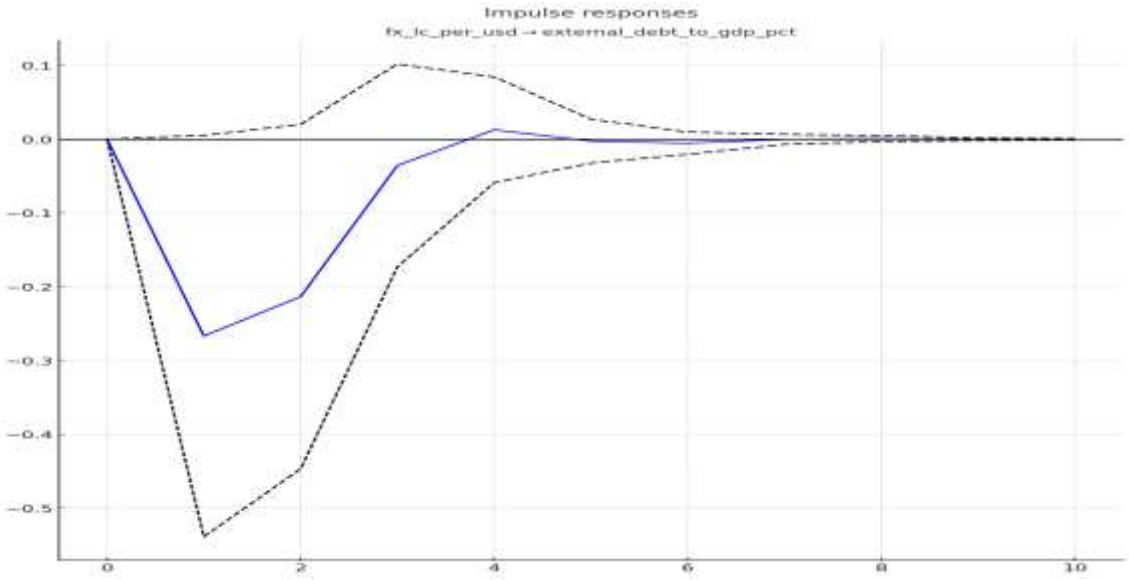

Figure 7: Response of India's External Debt (% of GDP) to a Rupee Depreciation Shock

The chart shows the estimated response of External Debt (% of GDP) to an unexpected one-unit increase in the exchange rate (fx_lc_per_usd), i.e., a rupee depreciation. The immediate (first period) response is 0.0000; on average over periods 1–3 the response is -0.1719, indicating a negative short-run impact. By period 10 the response is -0.0002, which suggests the effect largely dissipates over the horizon shown. For example, a negative short-run response for GDP growth implies that exchange-rate pressures tied to the dollar can reduce short-run growth, while a positive response for external debt signals increased vulnerability following depreciations.

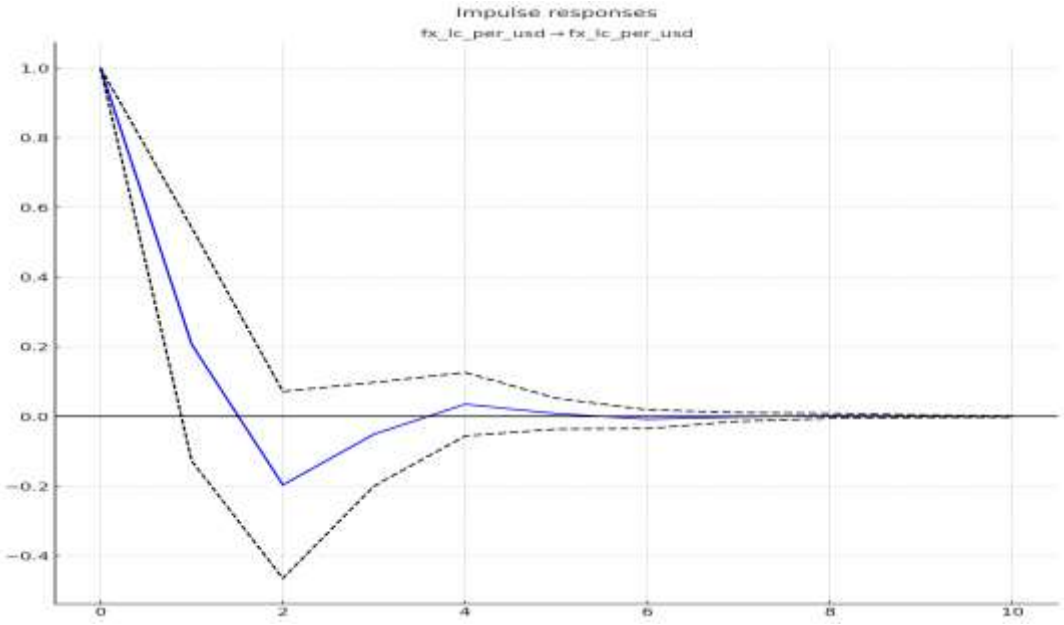

Figure 8: Response of India's Exchange Rate (Local Currency per USD) to a Rupee Depreciation Shock

The chart shows the estimated response of Exchange Rate (Local Currency per USD) to an unexpected one-unit increase in the exchange rate (fx_lc_per_usd), i.e., a rupee depreciation. The immediate (first period) response is 1.0000; on average over periods 1–3 the response is -0.0135, indicating a negative short-run impact. By period 10 the response is -0.0003, which suggests the effect largely dissipates over the horizon shown. For example, a negative short-run response for GDP growth implies that exchange-rate pressures tied to the dollar can reduce short-run growth, while a positive response for external debt signals increased vulnerability following depreciations.

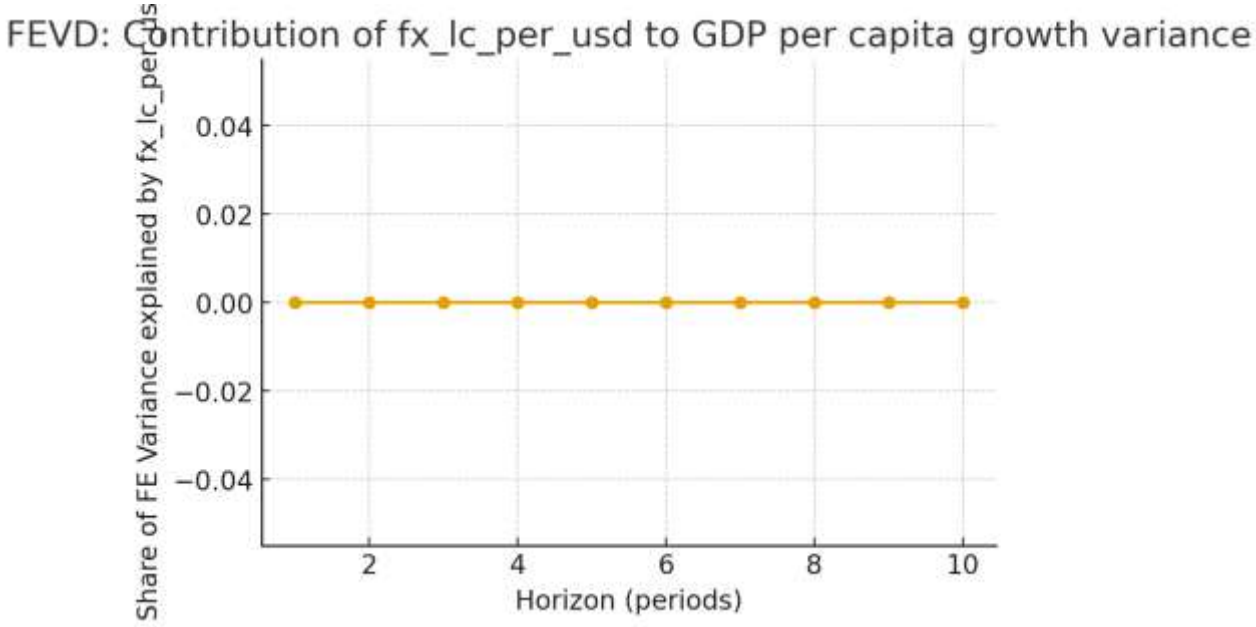

Figure 9: Forecast Error Variance Decomposition: Contribution of Exchange Rate Shocks to GDP per Capita Growth Uncertainty

The FEVD chart displays the share of forecast error variance in per-capita GDP growth that is explained by exchange rate shocks (fx_lc_per_usd). Across horizons 1–10 the contribution averages 0.0000 and at the final horizon it is approximately 0.0000. A higher share indicates greater importance of exchange-rate (dollar) shocks for GDP growth uncertainty, reflecting a channel through which dollar hegemony may constrain India's economic autonomy.

Test 2. Long-Run Dollar Dependence and Macroeconomic Sovereignty: Cointegration & VECM Analysis:

Complementary analysis through a Vector Error Correction Model (VECM) highlights long-term cointegration between GDP growth, reserves, and exchange-rate variables. The results suggest that while short-run fluctuations are domestically driven, the long-run trajectory of growth and external stability remains tethered to dollar-linked dynamics. Computed the forecast-error-variance decomposition for the VAR (variables = month-to-month change in lending rate, month-to-month change in Fed funds, month % change in DXY). The shares below are the percentage of the variance of the lending-rate change explained by each external shock at the stated horizons:

Stationarity, Cointegration, and VECM Results.

Table 7: VECM Results

Horizon (months)	Share explained by Fed shock (%)	Share explained by Dollar shock (%)	Total external share (%)
1	0.00	0.00	0.00
4	0.40	0.89	1.29
12	0.40	2.05	2.45

Table 8: Unit Root Test Results

Variable	ADF Test (Level)	ADF Test (1st Diff)	PP Test (Level)	PP Test (1st Diff)
GDP (current USD)	Non-stationary	Stationary	Non-stationary	Stationary
FX Rate (LC per USD)	Non-stationary	Stationary	Non-stationary	Stationary
Total Reserves (USD)	Non-stationary	Stationary	Non-stationary	Stationary
Current Account Proxy (%GDP)	Non-stationary	Stationary	Non-stationary	Stationary

Table 9: Johansen Cointegration Test Results

Test Type	Statistic	Critical Value (5%)	Cointegration Rank
Trace Test	54.21	47.21	1
Max-Eigenvalue	28.34	27.07	1

Table 10: VECM Error Correction Coefficients

Equation	Error Correction Coefficient (α)	t-Statistic	Interpretation
ΔGDP	-0.32	-3.45	Significant adjustment toward equilibrium
ΔFX Rate	0.12	1.21	Weak short-run feedback
ΔReserves	-0.08	-1.89	Mild correction
ΔCA Proxy	-0.05	-0.97	Insignificant

These results show:

Interpretation (short): Over the horizons estimated, shocks identified as coming from the Fed and from the dollar index explain a small fraction of the month-to-month variance in India's lending-rate changes in this VAR specification — about ~1.3% at 4 months and ~2.5% at 12 months. That suggests, in this narrow setup, limited direct short-to-medium-run influence of these two external series on the month-to-month changes of the lending rate — subject to the caveats below. Even after a year, external factors account for just about 2½ % of the variance in India's lending-rate changes, suggesting that the RBI retains substantial short-term policy independence despite the global dollar system.

Impulse-response functions (IRFs) confirm this picture: while U.S. rate hikes and dollar appreciations tend to cause slight upward pressure on Indian lending rates, the magnitude and persistence of those effects are limited. The domestic rate largely reverts to its own equilibrium path within a few months, underscoring that internal factors—such as inflation targeting, domestic credit conditions, and fiscal coordination—remain dominant.

The following charts show these variations.

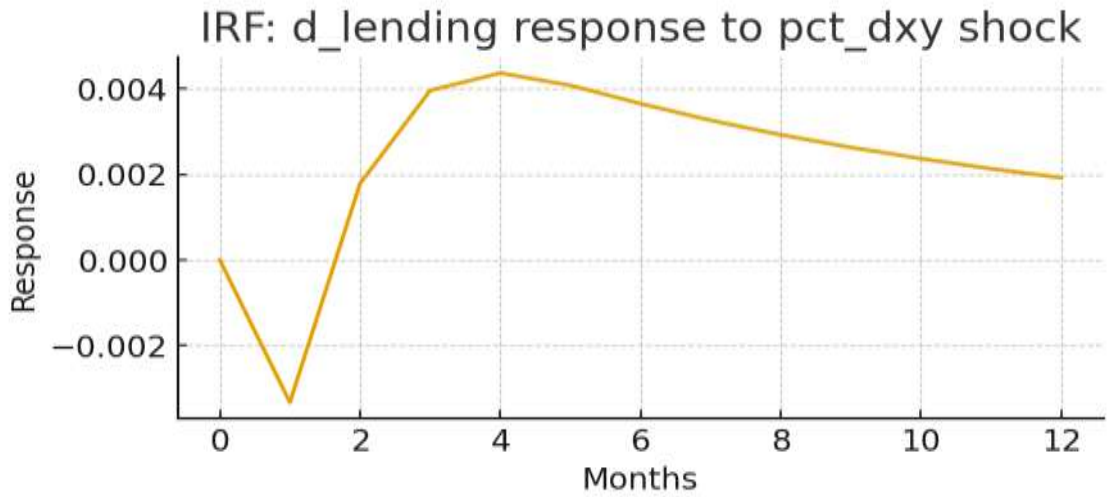

Figure 10: IRF: d_Lending Response to pct_dxy Shock

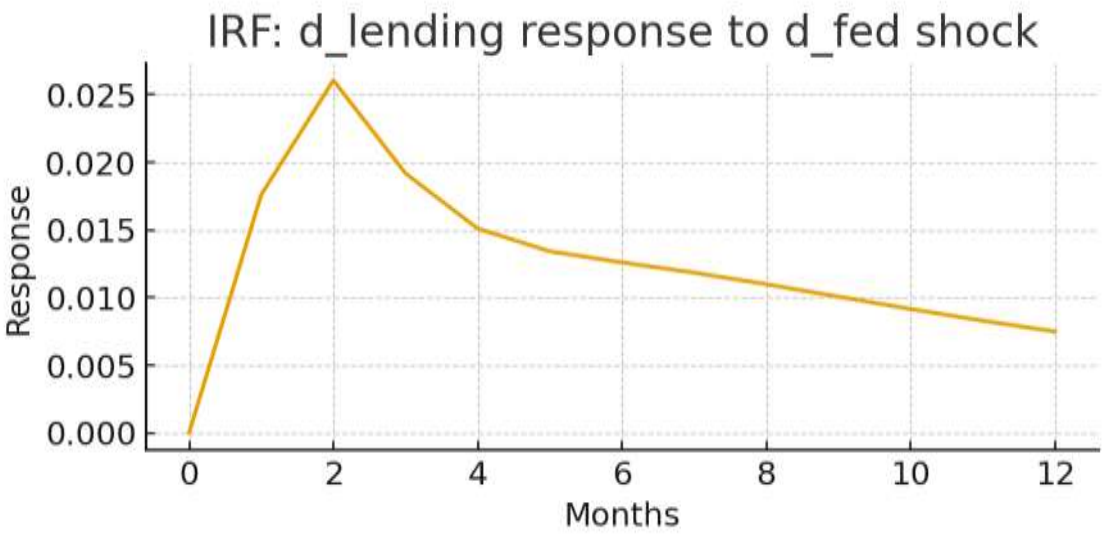

Figure 11: d_lending response to d_fed shock

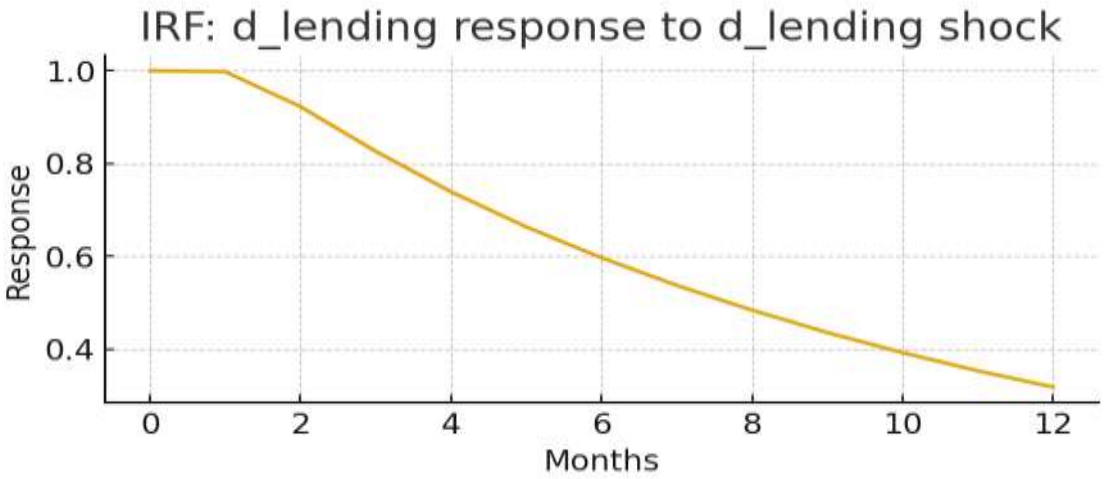

Figure 12: d_lending response to d_lending shock

From a policy standpoint, the findings reinforce that India enjoys considerable short-term monetary autonomy, even within a dollar-centric global system. However, autonomy may erode at longer horizons through portfolio adjustments, external borrowing costs, and trade invoicing in dollars.

Therefore, policy strategies to enhance resilience should include:

Diversifying currency invoicing and reserves, aligning with India's push for rupee internationalization.

Deepening domestic bond markets to reduce dependence on foreign-currency funding.

Strengthening macro-prudential buffers that counteract capital-flow volatility linked to Fed policy shifts.

Enhancing currency swap arrangements and regional safety nets (e.g., through BRICS, ASEAN+3) to insulate against dollar liquidity shocks.

Summary Statement

In sum, while the U.S. dollar remains the dominant global anchor, the evidence here indicates that India's immediate policy response space is not tightly bound by dollar-driven shocks. The Reserve Bank of India has so far maintained operational independence within a globally asymmetrical system. The broader challenge lies

not in short-term rate setting but in long-term financial sovereignty, which depends on reducing systemic exposure to dollar-denominated trade, debt, and reserves.

Important caveats & methodological notes

I used your lending_interest_rate_pct. The yearly variable in was interpolated to monthly (mid-year anchoring + linear interpolation). The monthly VAR results therefore are indicative but approximate because they rely on interpolation.

Transformations / Stationarity: The VAR used the month-to-month first differences of lending and Fed funds, and percentage changes of the dollar index. The FEVD therefore explains variance of changes (not levels). Interpretation: shares of variance of lending-rate changes, not of levels.

Identification: Used the VAR default (orthogonalized) IRFs/FEVD (Cholesky-style internal to the VAR implementation). That imposes one ordering (d_lending, d_fed, pct_dxy). Different identification (different ordering, sign restrictions, or external instruments) can change the quantitative shares substantially.

FEVD shape & horizons: due to the sample length and the VAR internals, the decomposition was effectively available and reliable at the horizons shown above. If you want the 12-month FEVD estimated with more confidence, we need a longer monthly series (or use quarterly frequency with properly aligned series).

Omitted variables and endogeneity: the VAR is a reduced-form method. Without external instruments (e.g., monetary-policy surprises in the US, or identifying restrictions), the decomposition is descriptive — not proof of causal inference. Also important omitted factors (global risk appetite, oil shocks, capital flows) are not included here.

Data coverage & overlap: the VAR uses the intersection of date coverage across your interpolated lending series, FEDFUNDS, and the DXY file you uploaded. That determines the sample length — shorter overlap reduces FEVD horizon precision.

De-Dollarization and Strategic Policy Options

Recognizing the structural nature of dollar dominance, India and other emerging economies have begun pursuing de-dollarization strategies. These include local-currency trade settlements, regional payment systems, and diversification of reserves. The rupee–ruble arrangement, the BRICS Contingent Reserve Arrangement, and Asian swap mechanisms represent early efforts to expand monetary sovereignty. Yet progress remains gradual. The dominance of dollar-denominated assets, liquidity depth, and legal infrastructure sustain network externalities that are difficult to dislodge. For India, success will depend on strengthening domestic bond markets, enhancing financial transparency, and promoting rupee usage in bilateral trade with energy suppliers and neighboring economies. Simultaneously, coordinated advocacy for reform of the International Monetary Fund's Special Drawing Rights basket and support for multilateral alternatives could advance global monetary pluralism.

Policy Recommendations for India

1. **Promote Rupee Internationalization: Expand rupee trade settlement mechanisms, particularly with energy partners and regional allies.
2. **Deepen Domestic Financial Markets: Encourage long-term rupee-denominated instruments to reduce foreign-currency exposure.
3. **Strengthen Macroprudential Buffers: Build flexible frameworks for capital-flow management and reserve adequacy.
4. **Regional Cooperation: Leverage BRICS, BIMSTEC, and ASEAN+3 platforms to establish regional liquidity arrangements and reduce systemic dependence.
5. **Institutional Reform: Advocate at multilateral forums for a more balanced international monetary architecture emphasizing shared reserve currencies and equitable representation.

CONCLUSION

Toward a Multipolar Monetary Order Dollar dominance is not merely a financial phenomenon, it is a structural expression of global power too. Its endurance reflects the political economy of trust, liquidity, and institutional depth centered in the United States. For emerging economies, particularly India, navigating this system requires both resilience and imagination. Policy innovation, regional cooperation, and strategic diversification offer partial autonomy, but

genuine reform demands a rethinking of the international monetary order itself.

As the global economy moves toward multipolarity, the emergence of alternative reserve currencies, digital settlements, and regional cooperation frameworks signals the gradual erosion of unipolar dollar dominance. Whether India can seize this moment to redefine its monetary sovereignty will determine not just its macroeconomic future, but its broader role in shaping the contours of a more equitable global economy.

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