

ONLINE APPENDIX FOR
“THE DOLLAR AND EMERGING MARKET ECONOMIES:
CHANNELS AND IMPACTS”

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June 2026

A. DATA

The dataset used in this study comprises quarterly data for the following countries: Argentina, Brazil, Chile, Colombia, Czech Republic, Hungary, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, South Africa, Thailand, Turkey, and the United States.

The sample periods vary across countries as follows:

- Argentina, Brazil, Mexico, Philippines, Poland, South Africa, and the United States: 1996:Q1–2019:Q4
- Turkey: 1996:Q2–2019:Q4
- Malaysia: 1996:Q4–2019:Q4
- Colombia and Peru: 1997:Q1–2019:Q4
- Korea and Thailand: 1998:Q1–2019:Q4
- Hungary: 1999:Q1–2019:Q4
- Chile: 1999:Q2–2019:Q4
- Czech Republic: 2000:Q2–2019:Q4
- Indonesia: 2004:Q2–2019:Q4

Below are the data sources for all variables utilized in this paper:

- (i) **U.S. Real GDP, U.S. Real Interest Rate, VIX, and Broad U.S. Dollar:** FRED. The U.S. real interest rate is measured by the interest rate on the 2-year U.S. Treasury bond minus a measure of U.S. expected inflation.

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- (ii) **Real GDP, Real Investment, Real Exports, and Real Imports:** National accounts, deflated by each own deflator and seasonally adjusted using ARIMA X-12.
- (iii) **Real Credit:** Obtained by dividing nominal credit to the non-financial private sector by the CPI and seasonally adjusted using ARIMA X-12. For Argentina, Brazil, Chile, Czech Republic, Hungary, Indonesia, Korea, Malaysia, Mexico, Poland, South Africa, Thailand, and Turkey, nominal credit to the non-financial sector is obtained from the [BIS Data Portal](#). For Colombia, Peru, and Philippines, nominal credit to the non-financial sector is obtained from each country's central bank. CPI is obtained from national statistical agencies.
- (iv) **Real Interest Rate:** Country specific interest rate in the international financial markets is measured as the sum of J. P. Morgan's EMBI+ sovereign spread and the U.S. real interest rate. EMBI+ is a composite index of different dollar-denominated bonds on four markets: Brady bonds, Eurobonds, U.S. dollar local markets, and loans. The spreads are computed as an arithmetic, market-capitalization-weighted average of bond spreads over the U.S. Treasury bonds of comparable duration.
- (v) **Real Exchange Rates:** Obtained from the BIS effective exchange rate indices database, particularly the quarterly average of the broad indices. Real EERs are calculated as geometric weighted averages of bilateral exchange rates adjusted by relative consumer prices. The weighting pattern is time-varying, and the most recent weights are based on trade in the 2008-10 period (see broad and narrow weights at [BIS Data Portal](#)). An increase in the index indicates an appreciation.
- (vi) **Import Content of Exports:** VAX ratio, which represents the value-added ratio in international trade, defined as the domestic value-added in gross exports divided by total gross exports, obtained from [Johnson and Noguera \(2012\)](#); [Johnson and Noguera \(2017\)](#).
- (vii) **Share of Dollar in Trade Invoicing:** For Argentina, Czech Republic, Hungary, Peru and Poland, we obtain the data from [Boz et al. \(2022\)](#). For Brazil, Colombia, Indone-

sia, Korea, and Thailand, we obtain the data from national sources complemented by [Boz et al. \(2022\)](#). For Chile, we obtain the data from [Labbe \(2018\)](#), [Giuliano and Luttini \(2020\)](#) and [Boz et al. \(2022\)](#). For Malaysia and South Africa, we obtain the data from [Kamps \(2006\)](#). For Turkey, we obtain the data from Turkstat. For Mexico, the shares are proxied by data provided by the Bank of Thailand for trade flows between Mexico and Thailand.

- (viii) **Share of Credit to Non-Financial Private Sector Denominated in Dollars:** Nominal credit to non-financial private sector denominated in dollars divided by total nominal credit to the non-financial private sector. For the credit denominated in dollars, we obtain the data for Argentina, Brazil, Chile, Indonesia, Korea, Malaysia, Mexico, South Africa, Thailand, and Turkey from the [BIS Global Liquidity Indicators](#). For Colombia, Czech Republic, Hungary, Peru, Philippines, and Poland nominal credit to the non-financial sector denominated in dollars is obtained from each country's central bank. Total nominal credit to the non-financial private sector is obtained from the same sources used in the construction of real credit.
- (ix) **Inflation Expectations' Anchoring Index:** For South Africa, we use the deviation of long-term forecasts from target from [Bems, Caselli, Grigoli, Gruss, and Lian \(2018\)](#) and [Bureau for Economic Research](#). For all other countries, the indices are obtained from [Bems, Caselli, Grigoli, and Gruss, 2021](#).

B. BUILDING THE EXPOSURES BALANCED PANEL

As mentioned in the body of this article, the estimation of the nested-form setting was conducted using a balanced panel of exposure indices related to each transmission channel of the dollar shock on the real economy. To accomplish this, a two-step procedure was employed. Firstly, the annual panel of exposure measures, some of which were discontinuous, needed to be balanced. To address this, a widely employed method of

multivariate imputation was adopted. Subsequently, a quarterly panel of those measures was constructed using a state-space model.

B.1. *Balancing the Yearly Panel*

To construct a balanced annual panel of the exposure measures, it was necessary to address missing observations for certain countries. There is an extensive literature proposing various methods to accurately tackle this task, with seminal references tracing back to Rubin (1978) and including Little and Rubin (2014).

Following the approach adopted by similar studies in the field of economics (e.g., Wakamori and Welte, 2017; Esteves and Tovar-Jalles, 2016; Wantchekon et al., 2015; Carlson and Rose, 2015; Black et al., 2007; Schank et al., 2007; Imbens et al., 2001; Scheve and Slaughter, 2001), we balanced the yearly panel using the Multivariate Imputation by Chained Equation (MICE) (Meghanadh et al., 2019). Assume that the complete data $\mathbf{Y}$ is a partially observed random sample from a multivariate distribution fully specified by a vector of unknown parameters $\boldsymbol{\theta}$, $P(\mathbf{Y}|\boldsymbol{\theta})$. The MICE algorithm obtains the posterior distribution of $\boldsymbol{\theta}$ by sampling iteratively from conditional distributions, and then, drawing from observed marginal distributions, the t^{th} iteration of chained equations works as a Gibbs sampler that successively draws

$$\boldsymbol{\theta}^{*(t)} \sim P_{\boldsymbol{\theta}}(\boldsymbol{\theta}, \mathbf{y}^{(t-1)}) \quad \text{and} \quad \mathbf{y}^{*(t)} \sim P_{\mathbf{y}}(\mathbf{y}^{(t-1)}, \boldsymbol{\theta}^{*(t)})$$

where $y_1^t \equiv y_1^{\text{obs}}$, and $y_j^{*(t)}$ is the j^{th} imputed variable at iteration t .

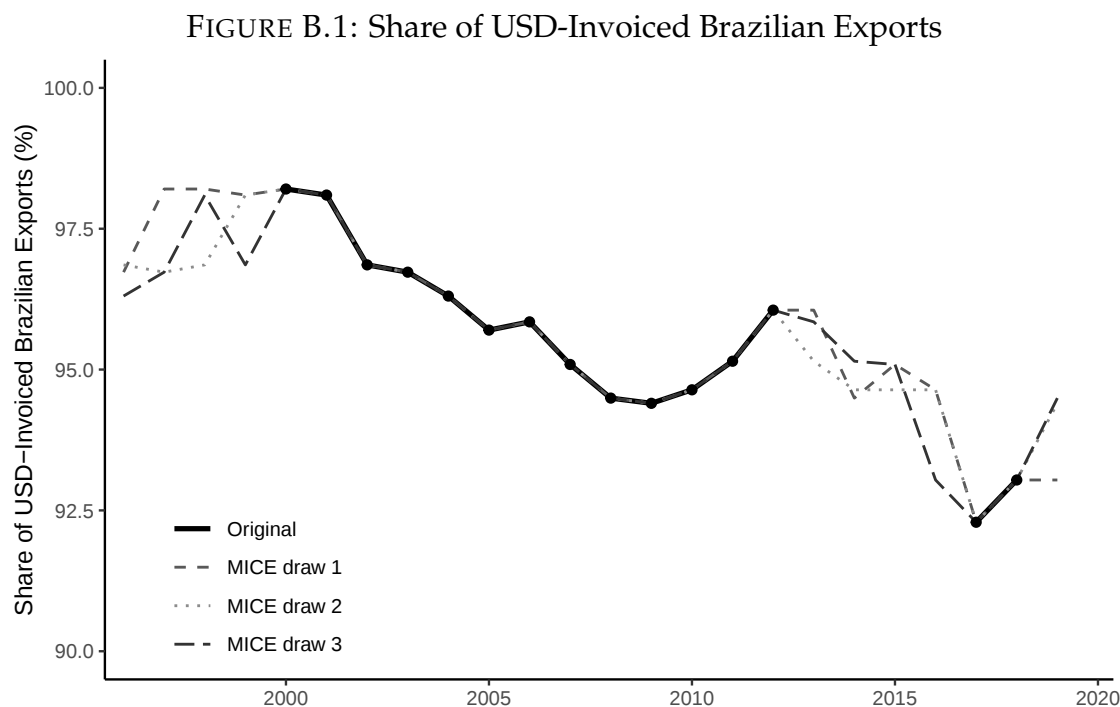
In other words, each iteration includes two steps. Firstly, the current estimate is used to calculate the expectation of the complete data. Subsequently, the updated data from the previous step is utilized to obtain the maximum-likelihood estimate. The iteration process continues until convergence is achieved,¹ which indicates that the two steps have

¹It is worth noting that previous imputations $y_j^{*(t-1)}$ only enter $y_j^{*(t)}$ through their relationship with other variables and not in a direct manner. As a result, unlike many other Markov Chain Monte Carlo

reached a sufficiently close estimation of the parameter.

It is important to emphasize that the estimation of missing observations relies on the complete data available for each country, encompassing the set of variables employed in the baseline panel VAR model, as well as the measures for the four channels under consideration. By utilizing all of these covariates, the MICE implementation ensures convergence for all the relevant variables. An arbitrary example illustrating the process of balancing the time series for the share of USD-invoiced Brazilian exports is presented in [Figure B.1](#).

The black solid line represents the original-observed series, while the three colored dashed lines depict three independent implementations of the MICE method. Each of the algorithm applications aim to equivalently complete the yearly panel for the years spanning from 1996 to 1999, 2012 to 2016, and 2019. Upon achieving convergence in the MICE procedure, the sample average of the values for each time period was adopted to build the balanced annual panel.



(MCMC) methods, the convergence of the MICE procedure can be relatively rapid.

B.2. From Yearly to Quarterly

In order to construct a quarterly series of each channel measure for every country in the panel, departing from the balanced annual frequency data, we employ a local-level trend state-space model incorporating a seasonal component of the form

$$\begin{aligned} \mathbf{y}_t &= \mathbf{F}_t' \boldsymbol{\alpha}_t + \mathbf{S}_t \boldsymbol{\epsilon}_t, & \boldsymbol{\epsilon}_t &\sim N(\mathbf{0}, \mathbf{V}_\epsilon) \\ \boldsymbol{\alpha}_t &= \mathbf{G}_t \boldsymbol{\alpha}_{t-1} + \mathbf{R}_t \boldsymbol{\eta}_t, & \boldsymbol{\eta}_t &\sim N(\mathbf{0}, \mathbf{W}_\eta) \end{aligned}$$

where, imposing that $\mathbf{S}_t = 1$, $\boldsymbol{\epsilon}_t = \varepsilon_t$, and

$$\mathbf{F}_t = \begin{pmatrix} 1 \\ 0 \\ 1 \\ 0 \\ 0 \end{pmatrix}, \quad \boldsymbol{\alpha}_t = \begin{pmatrix} \mu_t \\ v_t \\ \gamma_{1,t} \\ \gamma_{2,t} \\ \gamma_{3,t} \end{pmatrix}, \quad \mathbf{G}_t = \begin{pmatrix} 1 & 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 \\ 0 & 0 & -1 & -1 & -1 \\ 0 & 0 & 1 & 0 & 0 \\ 0 & 0 & 0 & 1 & 0 \end{pmatrix}, \quad \mathbf{R}_t = \begin{pmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{pmatrix}$$

it collapses to

$$\begin{aligned} y_t &= \mu_t + \gamma_{1,t} + \varepsilon_t, & \varepsilon_t &\sim N(0, V_\varepsilon) \\ \mu_t &= \mu_{t-1} + v_{t-1} + \tilde{\zeta}_t, & \tilde{\zeta}_t &\sim N(0, W_{\tilde{\zeta}}) \\ v_t &= v_{t-1} + \zeta_t, & \zeta_t &\sim N(0, W_\zeta) \\ \gamma_{1,t} &= -\gamma_{1,t-1} - \gamma_{2,t-1} - \gamma_{3,t-1} + \omega_t, & \omega_t &\sim N(0, W_\omega) \\ \gamma_{2,t} &= \gamma_{1,t-1}, \\ \gamma_{3,t} &= \gamma_{2,t-1} \end{aligned}$$

In words, the variable of interest follows a trend and three seasonal components, in addition to a Gaussian error term. The trend slope, v_{t-1} , differs to the slope of the regression line. Simultaneously, γ 's refers to the seasonal components and the disturbance ω_t

allows for them to change over time. Finally, the last two equations in the model, which are identities, indicate that γ_1 follows γ_2 , and γ_2 follows γ_3 .

By accounting for variations in both the level and slope of each exposure index, in addition to including a seasonal variable for quarterly data, we are able to generate the necessary balanced quarterly panel data. This data is essential for estimating the nested-form framework outlined in the exposure-factor analysis.

C. ROBUSTNESS VERIFICATION THROUGH SVAR APPROACH

C.1. *EME Feedback Effects on the Dollar*

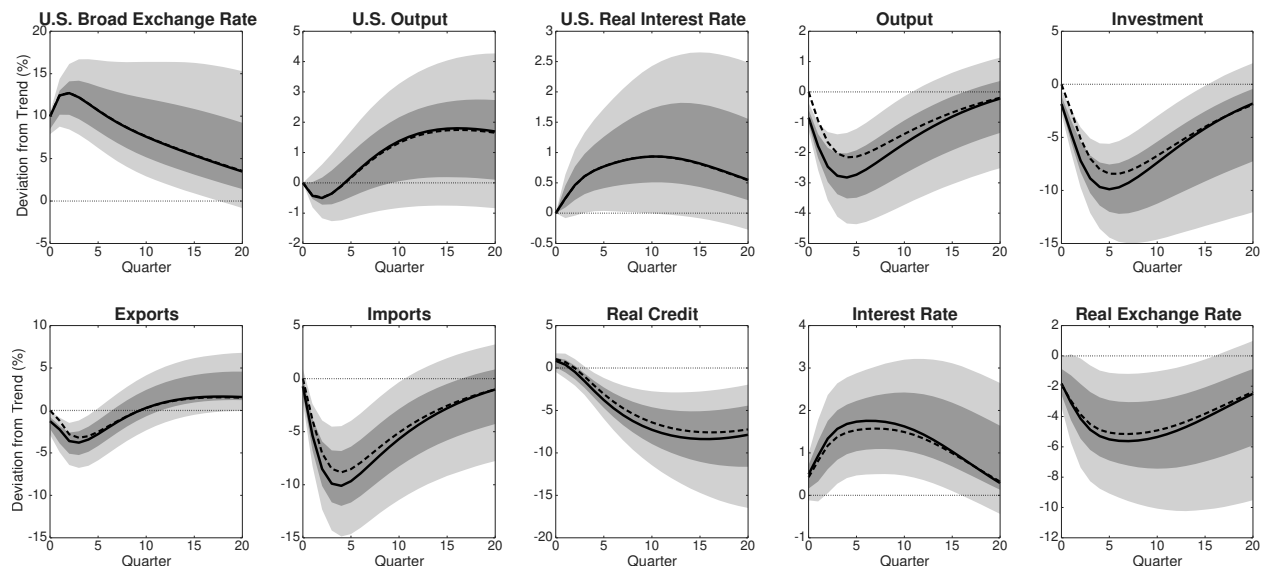
To further analyze potential feedback effects from EMEs to the dollar, we estimate the panel VAR model by allowing for contemporary effects of EMEs' real variables (i.e., output and investment) on the dollar. First, we check if the results of dollar shocks differ when EME variables are ordered before the dollar. The impulse responses for all variables are nearly identical, with a slightly smaller effect in the short run on EME GDP and investment, as the initial impact is zero (Figure C.1). However, both impulse responses end up mostly at the same level of the baseline estimation. Second, we investigate whether EMEs' output shocks have any significant effect on the dollar. Confirming the findings obtained for the dollar shock, we observe that EMEs' GDP shocks have a negligible effect on the dollar (Figure C.2).

These results provide further support that the impact of broad dollar shocks on EMEs, as well as the limited influence of EMEs' output shocks on the dollar.

C.2. *Pre-Global Financial Crisis (GFC) Analysis*

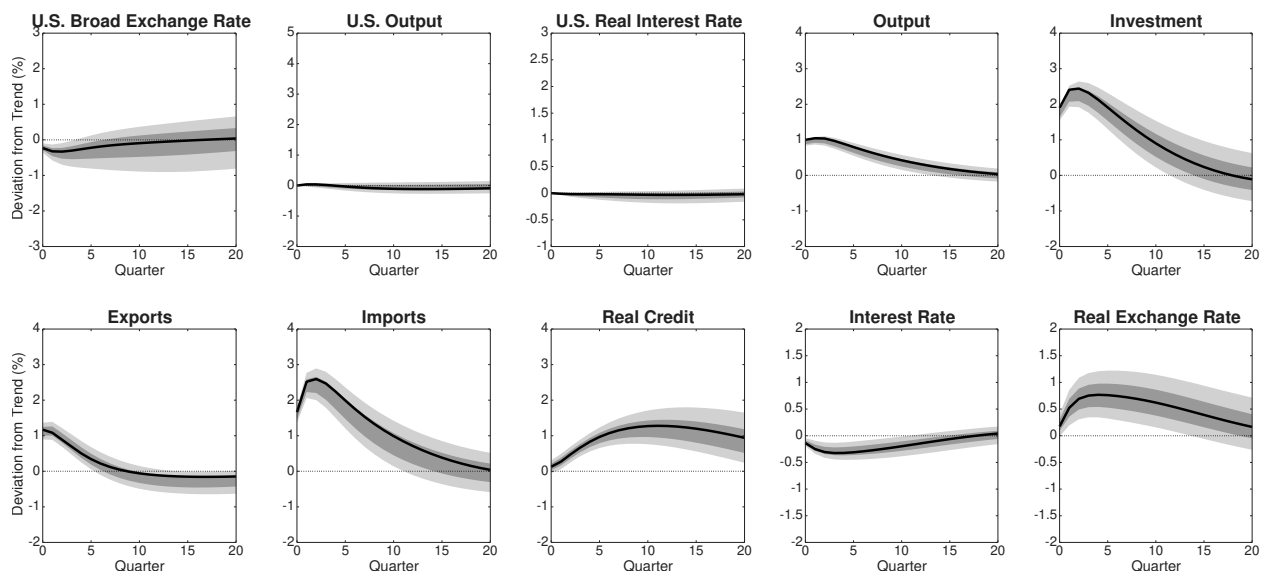
Lilley et al. (2022) document a correlation between changes in U.S. foreign bond holdings and the dollar that emerges since the GFC. Additionally, several proxies for global risk factors start to co-move strongly with the dollar and changes in U.S. foreign bond

FIGURE C.1: Impulse Response to a 10% Dollar Shock – Allowing Feedback Effects from EMEs



Notes: Solid and dashed lines show point estimates of impulse responses, respectively, for the baseline panel VAR and the panel VAR allowing for contemporary effects of EME real variables on the dollar; 1 standard deviation and 95% confidence bands are depicted with dark-gray and light-gray shaded areas, respectively. Bootstrap confidence bands are based on 100,000 repetitions.

FIGURE C.2: Impulse Response to a 1% EME GDP Shock



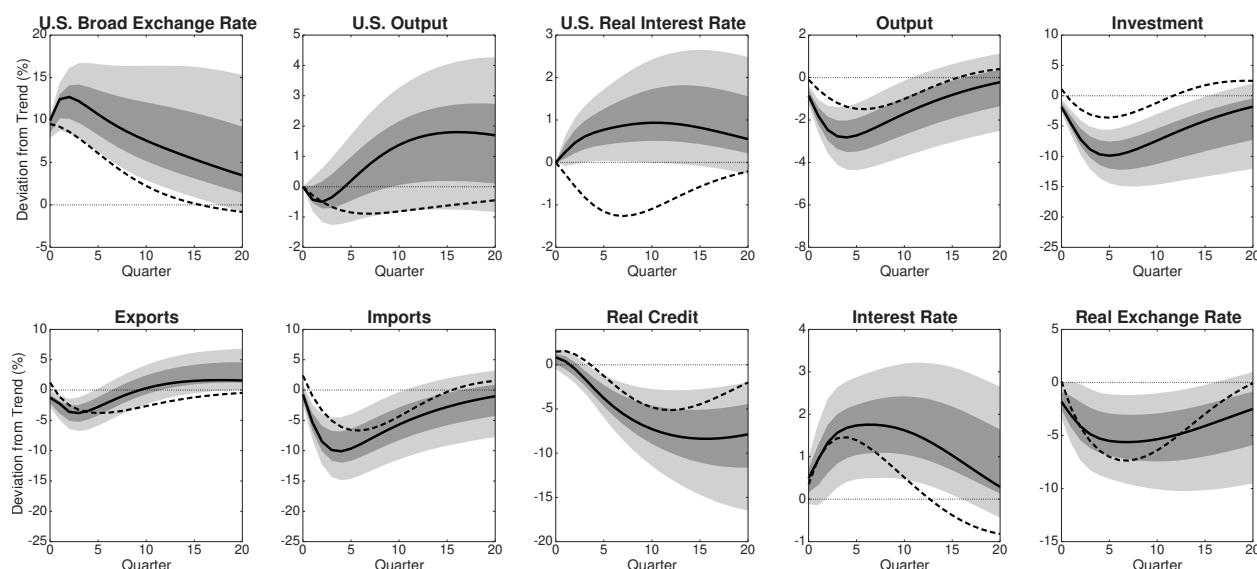
Notes: Solid and dashed lines show point estimates of impulse responses for the panel VAR allowing for contemporary effects of EME real variables on the dollar; 1 standard deviation and 95% confidence bands are depicted with dark-gray and light-gray shaded areas, respectively. Bootstrap confidence bands are based on 100,000 repetitions.

holdings around 2007, suggesting that risk plays a key role in this finding.²

To further validate our findings, we conduct a robustness check by estimating the model solely up to the pre-GFC period, during which this co-movement is not present. For this analysis, we exclude Indonesia from the sample due to the relatively short duration of available data for the country.

Despite observing a reversal in the results for U.S. GDP and U.S. real interest rate, the results for EME variables consistently align with the baseline scenario, albeit with quantitatively smaller effects for EME GDP, investment, imports, and real credit (see [Figure C.3](#)). These results indicate that even when the sources of dollar movements differ, dollar appreciations remain contractionary for EMEs.

FIGURE C.3: Impulse Response to a 10% Dollar Shock – Pre-GFC Period



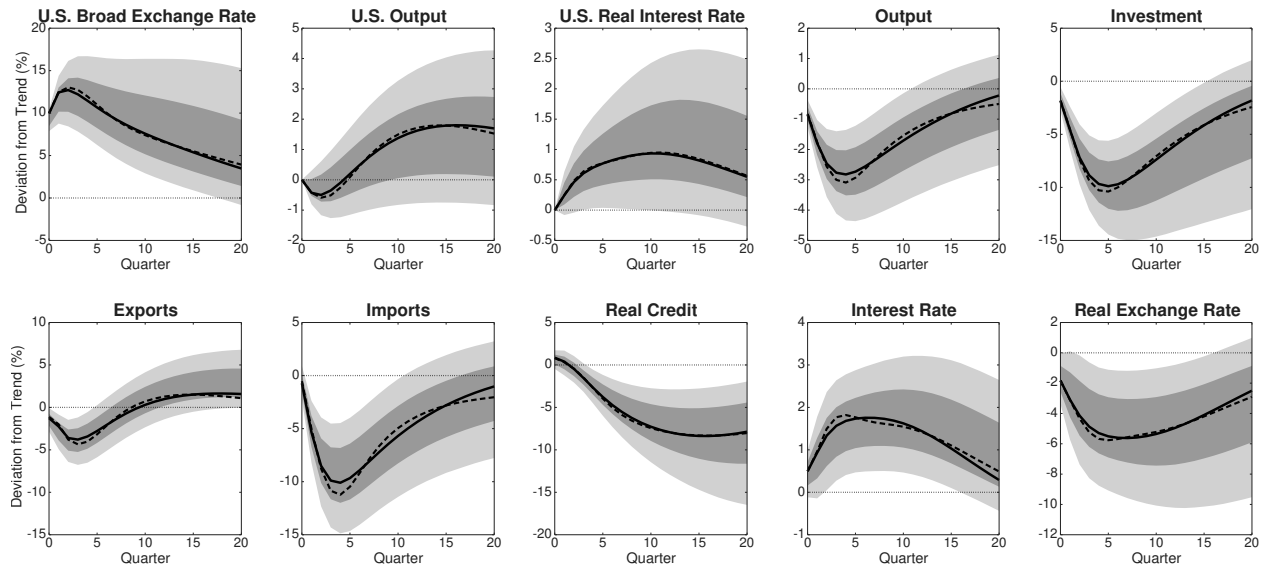
Notes: Solid and dashed lines show point estimates of impulse responses, respectively, for the baseline panel VAR and the panel VAR estimated only for the pre-global financial crisis period; 1 standard deviation and 95% confidence bands are depicted with dark-gray and light-gray shaded areas, respectively. Bootstrap confidence bands are based on 100,000 repetitions.

²As we mentioned in the main text, we thank Stephanie Curcuru and Friederike Niepmann for pointing out this fact and suggesting this robustness exercise.

C.3. Commodity Prices and the Dollar

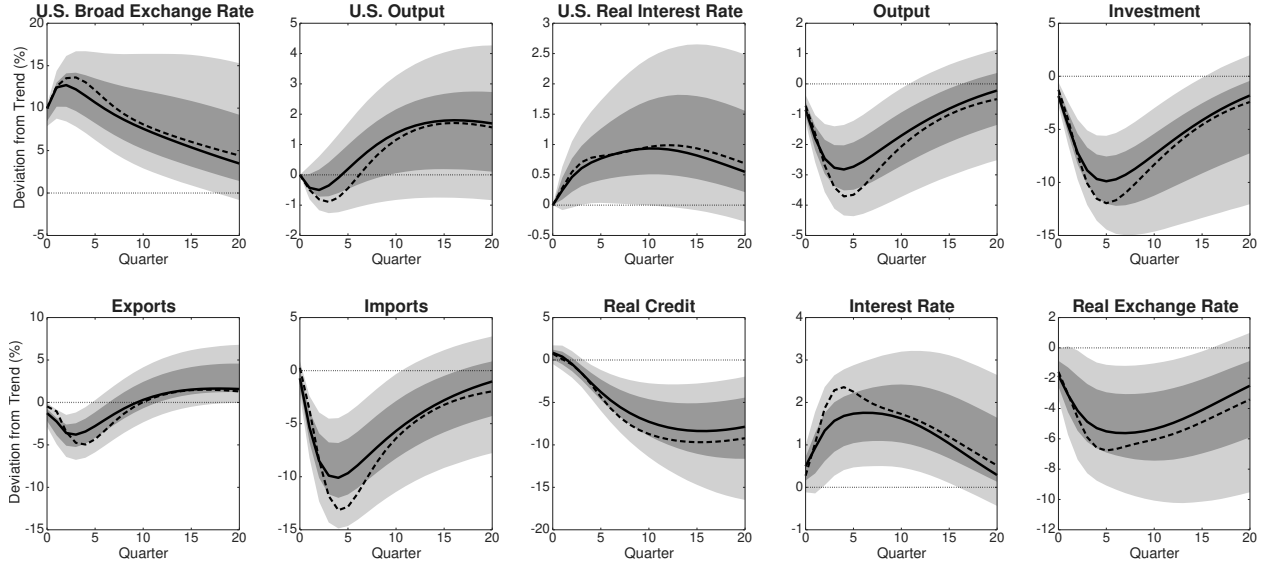
The subgroup analysis indicated that commodity exporters experience more significant contractions after dollar appreciations, suggesting that the connection between commodity prices and the dollar may be crucial to explain the contractionary effects of dollar appreciations, given the negative relation between commodity prices and the dollar. To investigate this further, we include commodity prices in the panel VAR. The impulse responses are very similar to the baseline estimation, regardless of whether the dollar is placed before commodity prices in the causal ordering (Figure C.4) or the reverse (Figure C.5). This indicates that the inclusion of commodity prices in the model does not significantly alter the overall findings.

FIGURE C.4: Impulse Response to a 10% Dollar Shock – Commodity Prices After the Dollar



Notes: Solid and dashed lines show point estimates of impulse responses, respectively, for the baseline panel VAR and the panel VAR including commodity prices with the dollar before commodity prices in the causal ordering; 1 standard deviation and 95% confidence bands are depicted with dark-gray and light-gray shaded areas, respectively. Bootstrap confidence bands are based on 100,000 repetitions.

FIGURE C.5: Impulse Response to a 10% Dollar Shock – Commodity Prices Before the Dollar

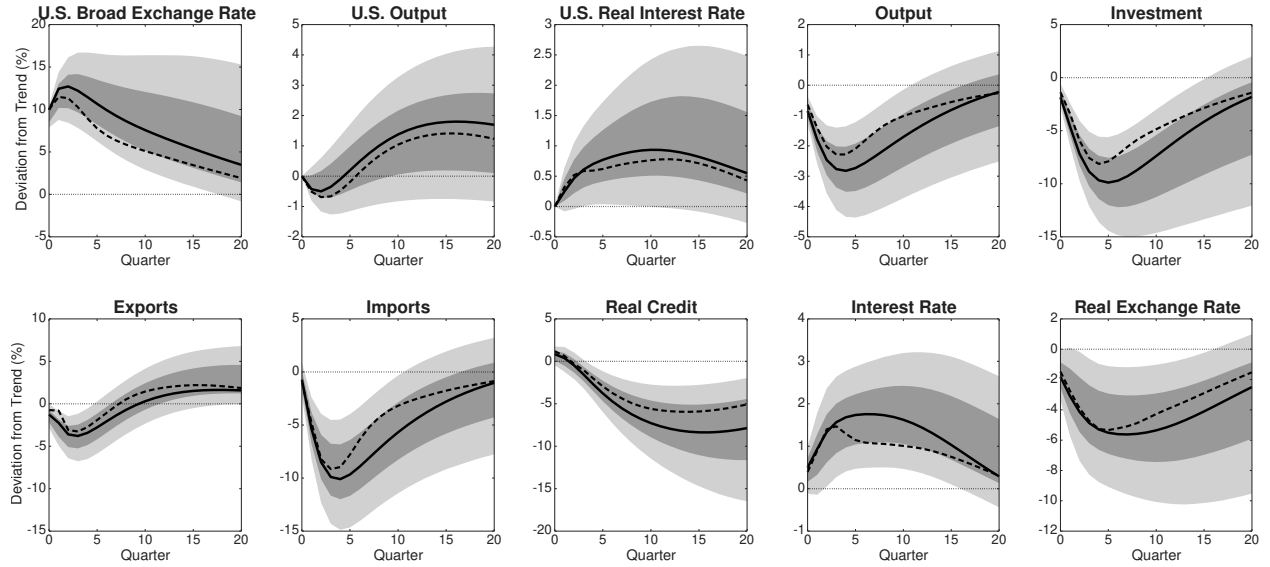


Notes: Solid and dashed lines show point estimates of impulse responses, respectively, for the baseline panel VAR and the panel VAR including commodity prices with commodity prices before the dollar in the causal ordering; 1 standard deviation and 95% confidence bands are depicted with dark-gray and light-gray shaded areas, respectively. Bootstrap confidence bands are based on 100,000 repetitions.

C.4. Country-specific VARs

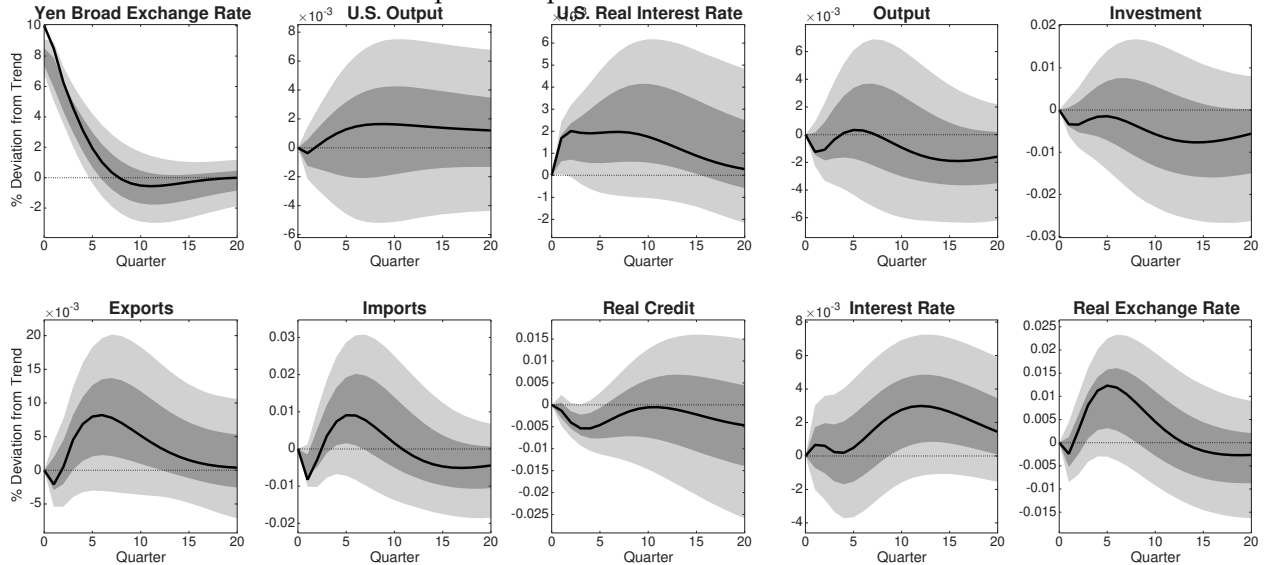
To further examine the cross-section of countries and assess the relationship between long-run effects on real activity and trade variables, we estimate country-specific VARs. The average impulse response functions obtained from these individual VARs are very similar to the ones obtained in the panel analysis (Figure C.6). This suggests that the effects observed at the aggregate level hold true for individual countries as well.

FIGURE C.6: Impulse Response to a 10% Dollar Shock – Panel vs Individual VARs



Notes: Solid and dashed lines show point estimates of impulse responses, respectively, for the baseline panel VAR and the average across the country-specific (individual) VARs; 1 standard deviation and 95% confidence bands are depicted with dark-gray and light-gray shaded areas, respectively. Bootstrap confidence bands are based on 100,000 repetitions.

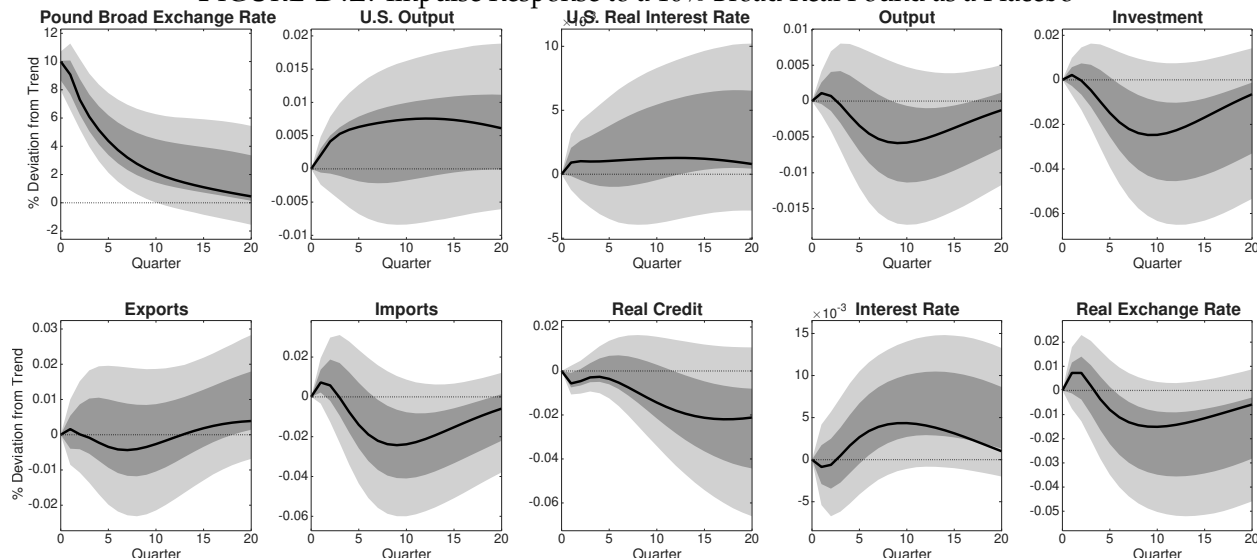
FIGURE D.1: Impulse Response to a 10% Broad Real Yen as a Placebo



Notes: Solid lines show point estimates of impulse responses for a broad real yen shock; 1 standard deviation and 95% confidence bands are depicted with dark-gray and light-gray shaded areas, respectively. Bootstrap confidence bands are based on 100,000 repetitions.

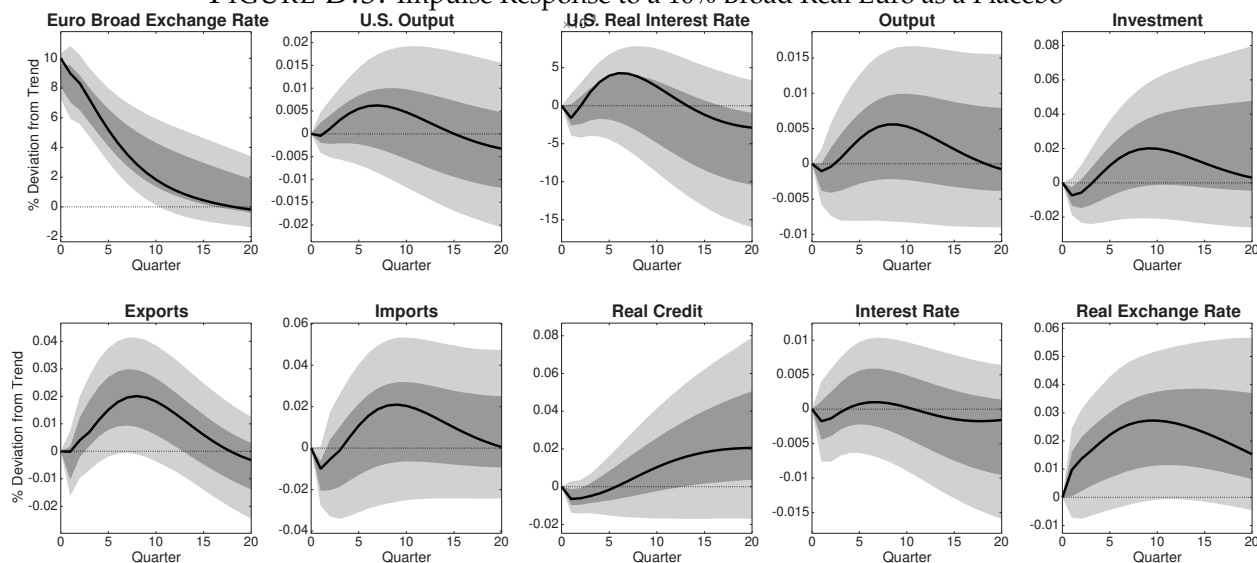
D. PLACEBO TESTS WITH ALTERNATIVE CURRENCIES

FIGURE D.2: Impulse Response to a 10% Broad Real Pound as a Placebo



Notes: Solid lines show point estimates of impulse responses for a broad real pound shock; 1 standard deviation and 95% confidence bands are depicted with dark-gray and light-gray shaded areas, respectively. Bootstrap confidence bands are based on 100,000 repetitions.

FIGURE D.3: Impulse Response to a 10% Broad Real Euro as a Placebo



Notes: Solid lines show point estimates of impulse responses for a broad real euro shock; 1 standard deviation and 95% confidence bands are depicted with dark-gray and light-gray shaded areas, respectively. Bootstrap confidence bands are based on 100,000 repetitions.

E. VARIANCE DECOMPOSITION BY CHANNEL AND GROUP

TABLE E.1: Variance Decomposition by Exposure Group, Horizon, and Mechanism

	H	<i>High Exposure</i>							<i>Low Exposure</i>						
		Y	I	Exp	Imp	Crt	R	REER	Y	I	Exp	Imp	Crt	R	REER
DCP	1	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	4	11%	11%	1%	11%	0%	2%	2%	9%	7%	5%	13%	2%	6%	5%
	8	23%	28%	2%	24%	4%	6%	7%	9%	12%	6%	15%	9%	6%	8%
	24	31%	35%	10%	33%	37%	9%	20%	12%	13%	11%	17%	18%	8%	10%
	60	31%	34%	14%	33%	41%	12%	21%	14%	13%	12%	17%	18%	9%	11%
GVC	1	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	4	6%	5%	6%	3%	1%	5%	2%	16%	14%	4%	16%	0%	2%	3%
	8	5%	7%	6%	3%	3%	5%	4%	32%	33%	6%	37%	4%	5%	11%
	24	12%	7%	11%	10%	10%	8%	7%	42%	39%	9%	47%	39%	8%	25%
	60	14%	8%	11%	11%	11%	8%	8%	42%	38%	12%	46%	43%	13%	26%
BS	1	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	4	10%	11%	1%	11%	1%	2%	1%	11%	7%	6%	13%	1%	5%	4%
	8	18%	23%	1%	21%	7%	6%	4%	12%	13%	7%	17%	8%	8%	7%
	24	22%	26%	7%	22%	36%	9%	12%	12%	14%	10%	16%	22%	10%	10%
	60	22%	25%	11%	23%	40%	12%	13%	13%	14%	11%	16%	22%	11%	10%
MPC	1	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	4	12%	7%	6%	9%	0%	7%	1%	10%	10%	1%	11%	1%	3%	3%
	8	16%	14%	8%	14%	5%	8%	2%	21%	21%	2%	22%	8%	8%	7%
	24	15%	19%	9%	15%	26%	12%	5%	26%	23%	5%	26%	37%	12%	17%
	60	15%	19%	9%	15%	30%	13%	5%	26%	23%	6%	26%	38%	15%	17%

Notes: The table reports the forecast error variance decomposition of macroeconomic variables at horizons $H \in \{1, 4, 8, 24, 60\}$ quarters. Columns labeled Y, I, Exp, Imp, Crt, R, and REER refer to detrended GDP, investment, exports, imports, private sector credit, interest rates, and the real effective exchange rate, respectively. For each transmission mechanism, we contrast countries with high *versus* low exposure, as constructed in [Section B](#).

F. CONSTRUCTION OF THE EXPOSURE INDICES

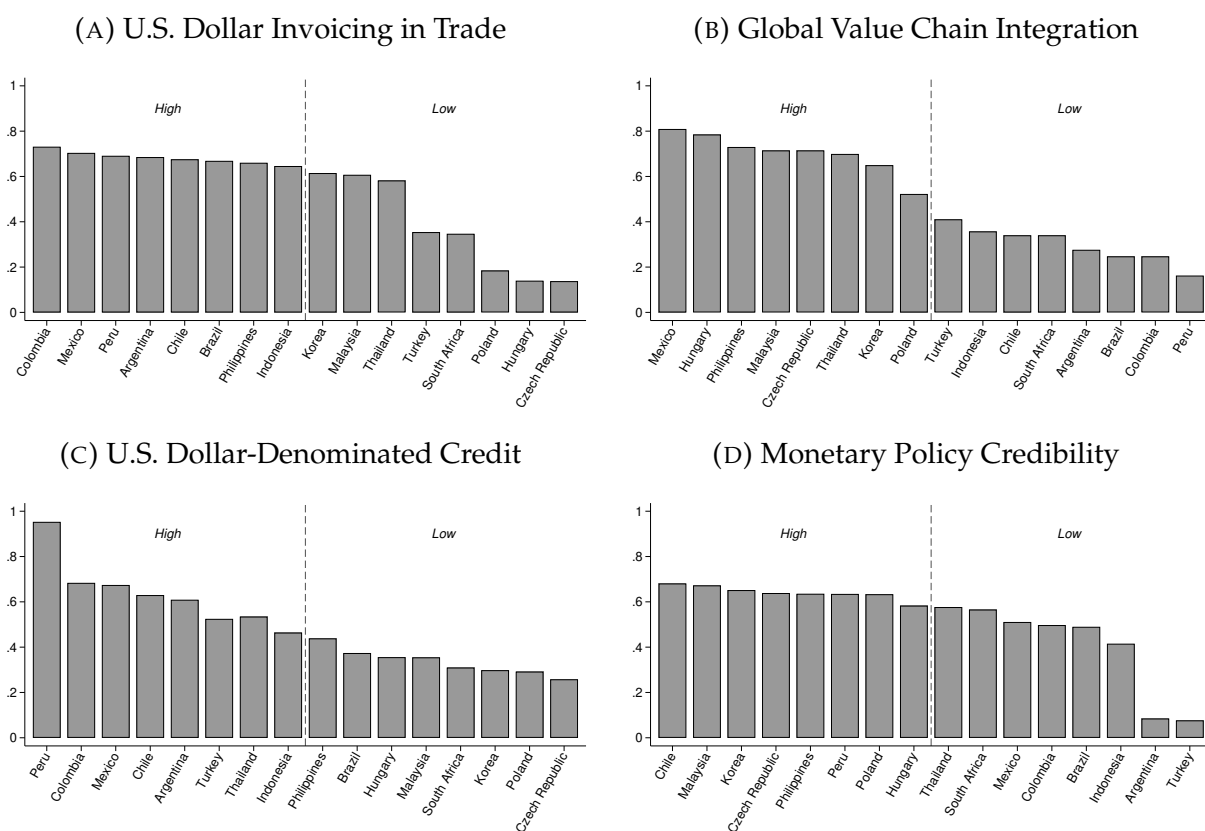
Let $k_{i,t} \in \{DCP_{i,t}, GVC_{i,t}, BS_{i,t}, MP_{i,t}\}$ denote the exposure variable for country i at period t . We construct each exposure index using a two-step procedure in order to make them comparable, as in [Iacoviello and Navarro \(2019\)](#). First, we standardize each exposure variable $k_{i,t}$ by subtracting its mean and dividing by its standard deviation, resulting in $v_{i,t}^k$. Then, we perform a logistic transformation of the standardized measure, $l_{it}^k = \frac{\exp(v_{it}^k)}{1 + \exp(v_{it}^k)}$, to map the standardized-exposure variables into the unit interval, and allow us to consider them in distributional terms.

The data used to compute the exposure variables for each channel are: (i) *dominant*

currency channel: share of exports invoiced in dollars; (ii) *global value chain integration*: import content of exports, constructed by [Johnson and Noguera \(2012\)](#) and expanded by [Johnson and Noguera \(2017\)](#); (iii) *balance sheet channel*: share of credit to the non-financial private sector denominated in dollars; (iv) *monetary policy credibility*: index of inflation expectations' anchoring, constructed by [Bems, Caselli, Grigoli, and Gruss \(2021\)](#).

[Figure F.1](#) illustrates the distribution of countries for each index constructed. The detailed data sources are listed in [Online Appendix A.I](#).

FIGURE F.1: Exposure Indices

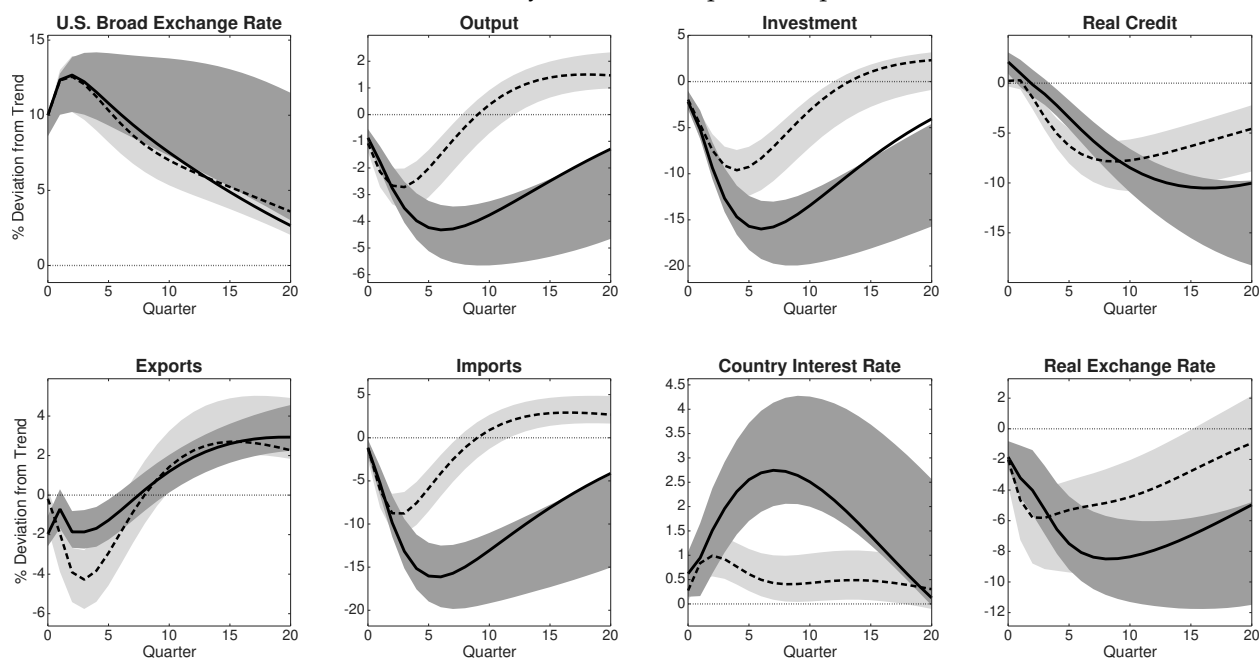


Sources: Authors' calculations based on national sources, BIS, [Johnson and Noguera \(2012\)](#), [Kamps \(2006\)](#), [Goldberg and Tille \(2009\)](#), [Gopinath \(2016\)](#), [Johnson and Noguera \(2017\)](#), [Labbe \(2018\)](#), [Giuliano and Luttini \(2020\)](#), [Bems, Caselli, Grigoli, and Gruss \(2021\)](#), and [Boz et al. \(2022\)](#).

G. SUBGROUP ANALYSIS

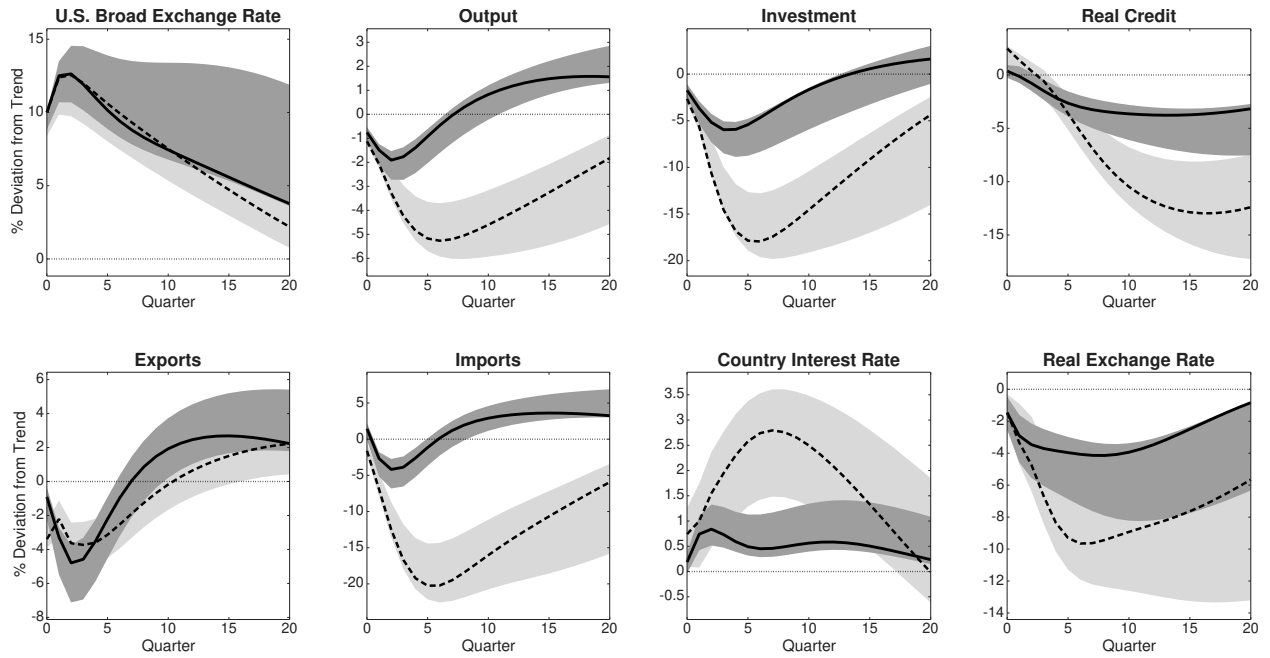
We evaluate the effects of each channel by doing a subgroup analysis, using the sample divided into relatively-high and relatively-low exposure groups. Figure G.1–Figure G.4 show the results for each channel. Countries with higher dollar trade invoicing exhibit more significant contractions in imports (Figure G.1), while higher global value chain integration dampens the import response (Figure G.2). Countries with higher balance sheet vulnerabilities experience more pronounced contractions in GDP, investment, and credit (Figure G.3), and those with lower monetary policy credibility face amplified effects across all variables (Figure G.4). Bootstrap confidence bands are based on 100,000 repetitions; solid blue and dashed red lines show point estimates for high and low exposure groups, respectively.

FIGURE G.1: Dominant Currency Channel – Impulse Response to a 10% Dollar Shock



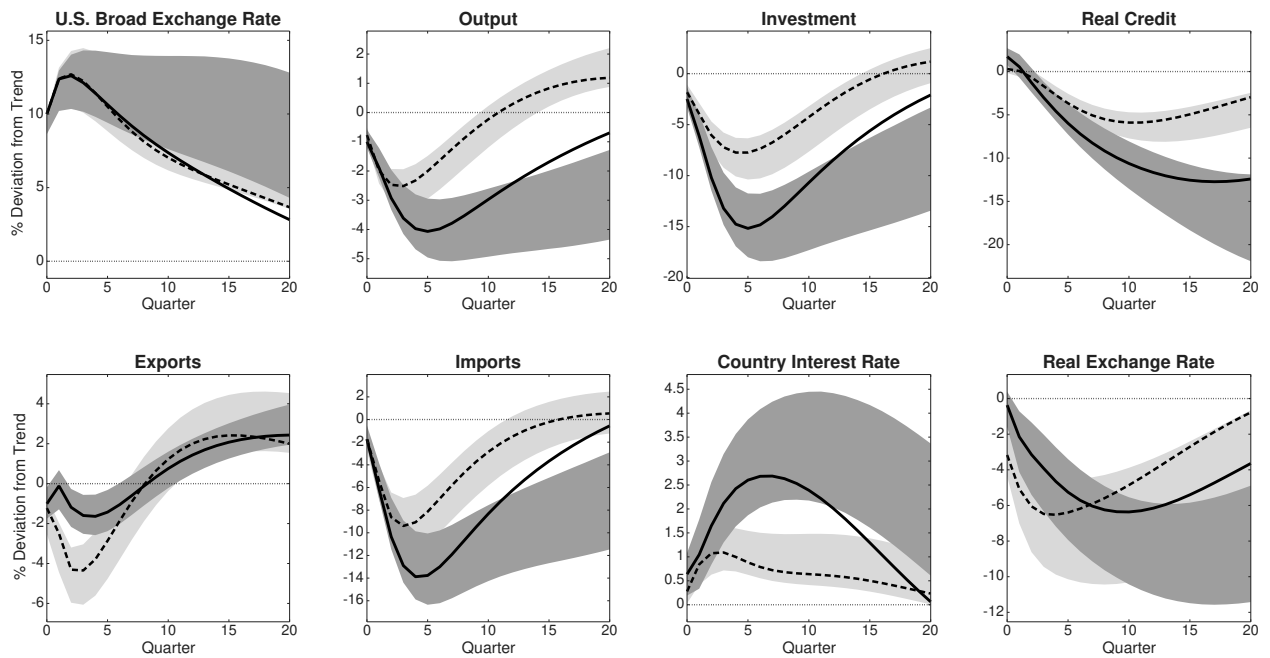
Notes: Solid and dashed lines show point estimates of impulse responses respectively for the high- and low-exposure groups; light-blue and light-red shaded areas represent 1 standard deviation confidence bands. Bootstrap confidence bands are based on 100,000 repetitions.

FIGURE G.2: Global Value Chain Channel – Impulse Response to a 10% Dollar Shock



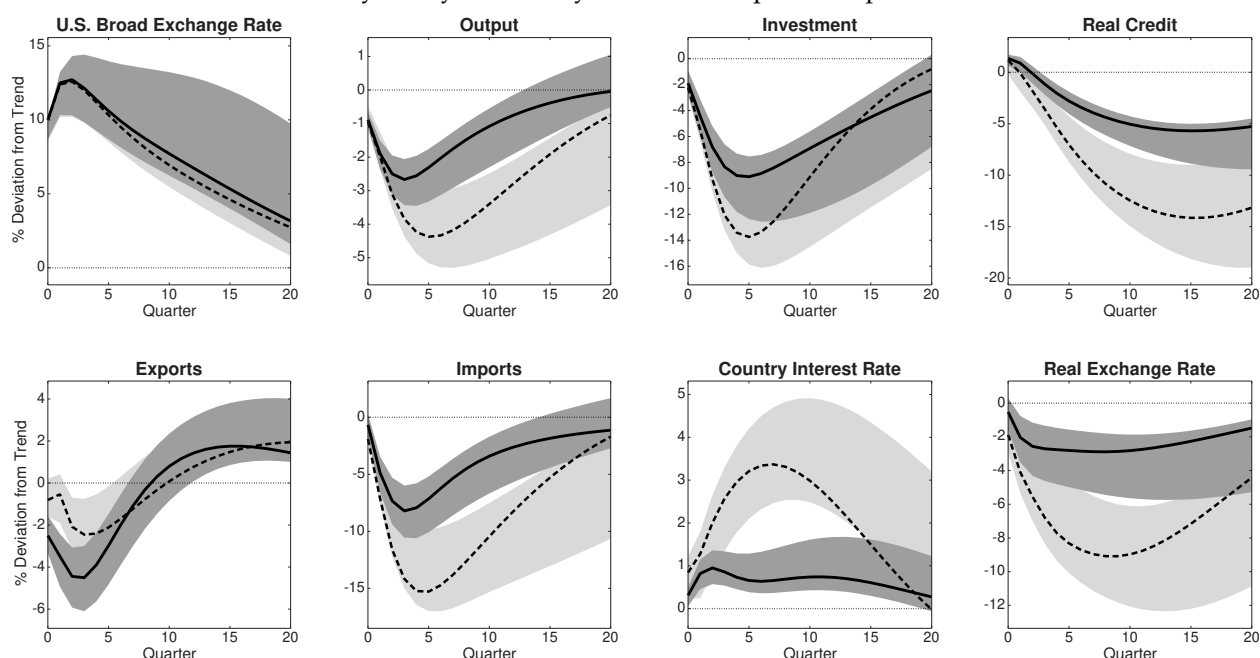
Notes: Solid and dashed lines show point estimates of impulse responses respectively for the high- and low-exposure groups; light-blue and light-red shaded areas represent 1 standard deviation confidence bands. Bootstrap confidence bands are based on 100,000 repetitions.

FIGURE G.3: Balance Sheet Channel – Impulse Response to a 10% Dollar Shock



Notes: Solid and dashed lines show point estimates of impulse responses respectively for the high- and low-exposure groups; light-blue and light-red shaded areas represent 1 standard deviation confidence bands. Bootstrap confidence bands are based on 100,000 repetitions.

FIGURE G.4: Monetary Policy Credibility Channel – Impulse Response to a 10% Dollar Shock



Notes: Solid and dashed lines show point estimates of impulse responses respectively for the high- and low-exposure groups; light-blue and light-red shaded areas represent 1 standard deviation confidence bands. Bootstrap confidence bands are based on 100,000 repetitions.

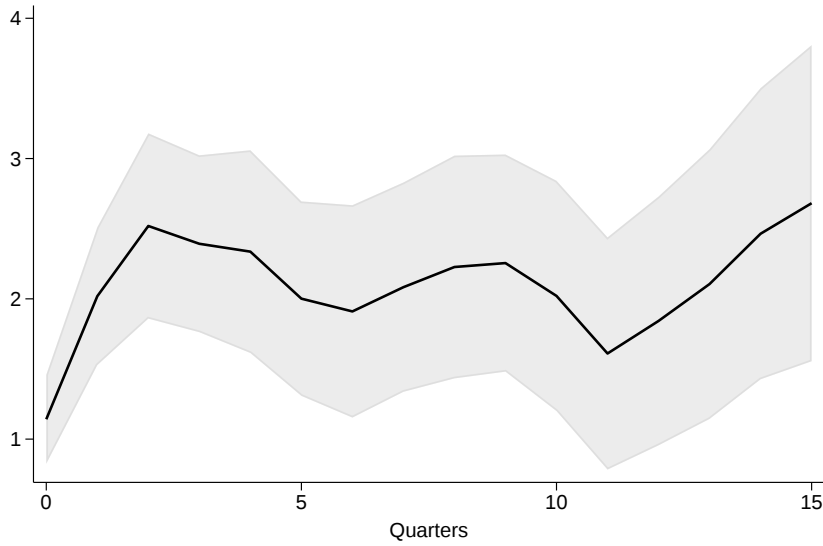
H. NOMINAL EXCHANGE RATE RESPONSE

To provide a sanity check on the magnitude and persistence of the dollar shock, we estimate the impulse response of the nominal bilateral exchange rate (local currency per USD) using the local projections framework. [Figure H.1](#) shows the response of the log nominal exchange rate to a one standard deviation dollar shock. EME currencies depreciate in nominal terms following a dollar appreciation, with the effect building over the first few quarters and persisting through the 15-quarter horizon.

I. EXCHANGE RATE REGIME HETEROGENEITY

To test whether the standard Mundell-Fleming predictions hold – that floaters should exhibit a larger trade surplus and smaller GDP contraction following a dollar appreciation – we estimate the panel SVAR separately for countries with pegged and floating exchange

FIGURE H.1: Nominal Exchange Rate Response to a 1 SD Dollar Shock



Notes: Solid line shows the point estimate of the impulse response of the log nominal bilateral exchange rate (local currency per USD); shaded area represents 1 standard deviation confidence bands. An increase indicates a depreciation of the local currency.

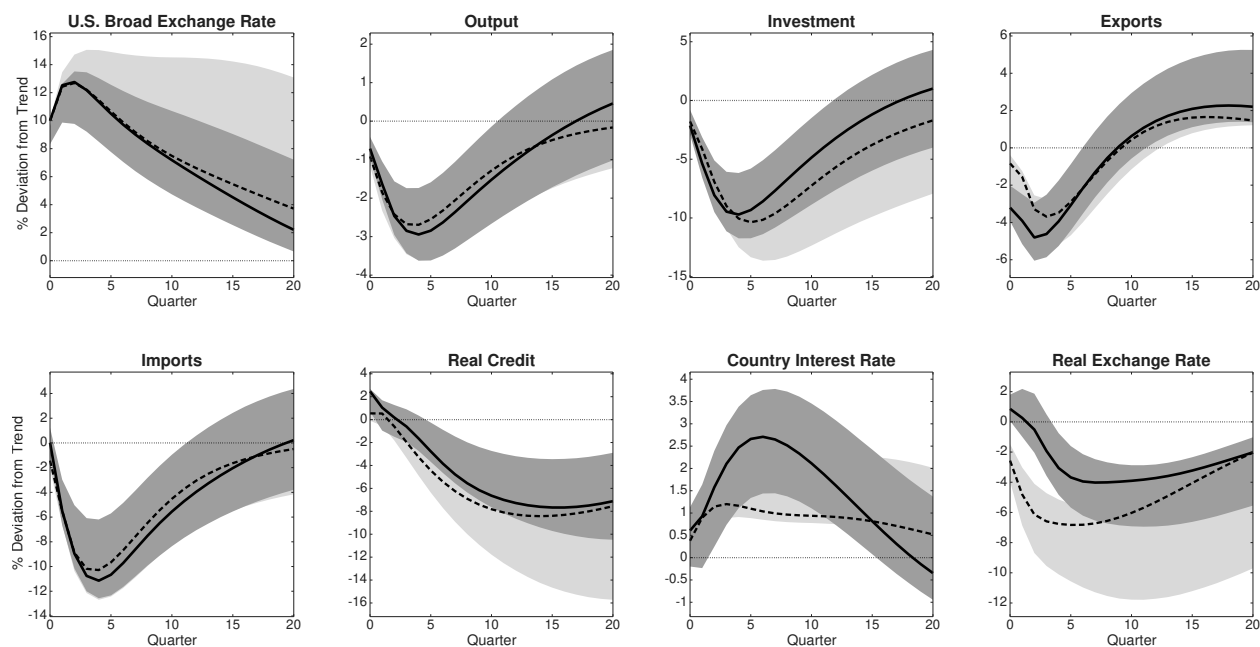
rate regimes, based on the [Ilzetzi et al. \(2019\)](#) classification.³

Figure I.1 presents the impulse responses of key macroeconomic variables to a 10% dollar shock, estimated separately for each group. By construction, the dollar appreciation is nearly identical across the two groups. For the remaining variables, the confidence bands of the two groups overlap throughout the response horizon, and the differences in point estimates between regimes are not statistically significant. Both groups display significant contractions in output, investment, and trade flows, accompanied by a tightening of credit conditions. Notably, the Mundell-Fleming prediction that floaters should experience a smaller output contraction and a more favorable net export response following a dollar appreciation receives no support in these estimates: the exchange rate regime does not generate statistically detectable differences in the transmission of dollar shocks. This null result motivates the complementary LP-based exposure-factor analysis reported

³Countries with hard pegs and crawling pegs are classified as peggers (Argentina, Hungary, Indonesia, Peru, Philippines); those with managed and free floats as floaters (Brazil, Chile, Colombia, Czech Republic, Korea, Malaysia, Mexico, Poland, South Africa, Thailand, Turkey).

in [Online Appendix A.X](#), which estimates the exposure-factor model separately for each regime group and is consistent with the interpretation that monetary policy credibility, rather than the exchange rate regime *per se*, constitutes the relevant margin of heterogeneity. This finding also bears on the interpretation of the pooled SVAR results: because the baseline specification does not partition countries along institutional lines, it may obscure the distinct mechanisms through which dollar shocks propagate across exchange rate arrangements.

FIGURE I.1: Pegged vs. Floating Regimes – Impulse Response to a 10% Dollar Shock

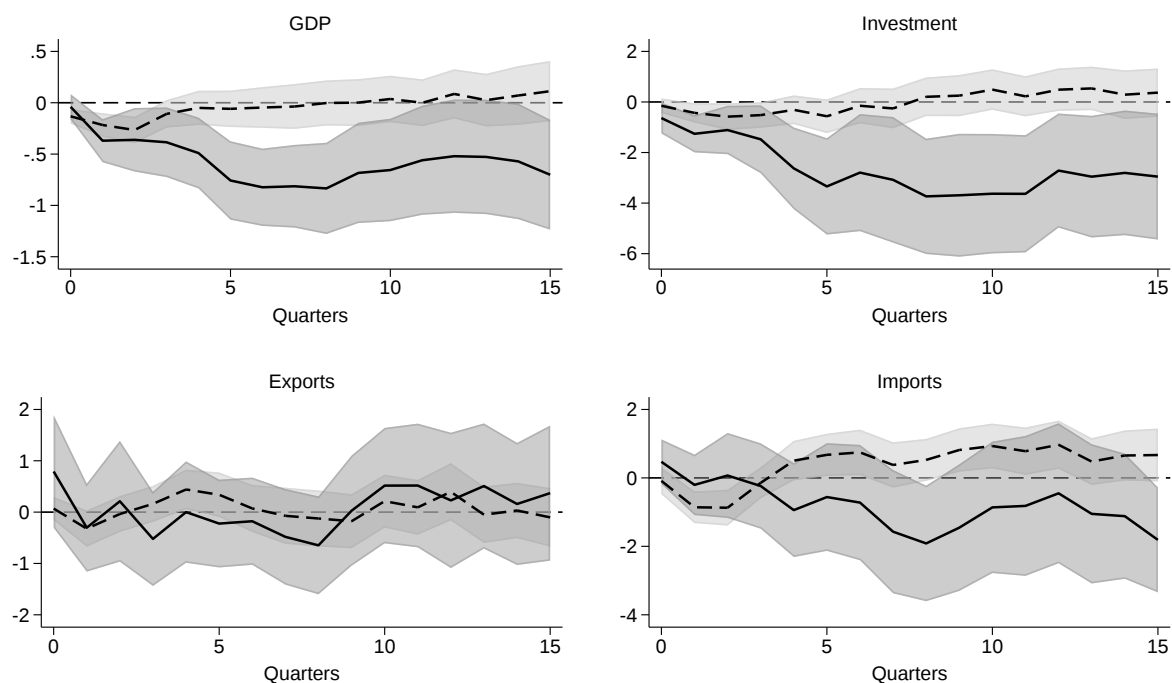


Notes: Red and blue lines show point estimates of impulse responses for pegged and floating exchange rate regimes, respectively. Light-red and light-blue shaded areas represent 1 standard deviation confidence bands. Exchange rate regime classification follows [Ilzetzi et al. \(2019\)](#). Bootstrap confidence bands are based on 100,000 repetitions. **Notes:** Solid and dashed lines show point estimates of impulse responses for pegged and floating exchange rate regimes, respectively. Light-red and light-blue shaded areas represent 1 standard deviation confidence bands. Exchange rate regime classification follows [Ilzetzi et al. \(2019\)](#). Bootstrap confidence bands are based on 100,000 repetitions.

J. FACTOR EXPOSURE AND EXCHANGE RATE REGIMES

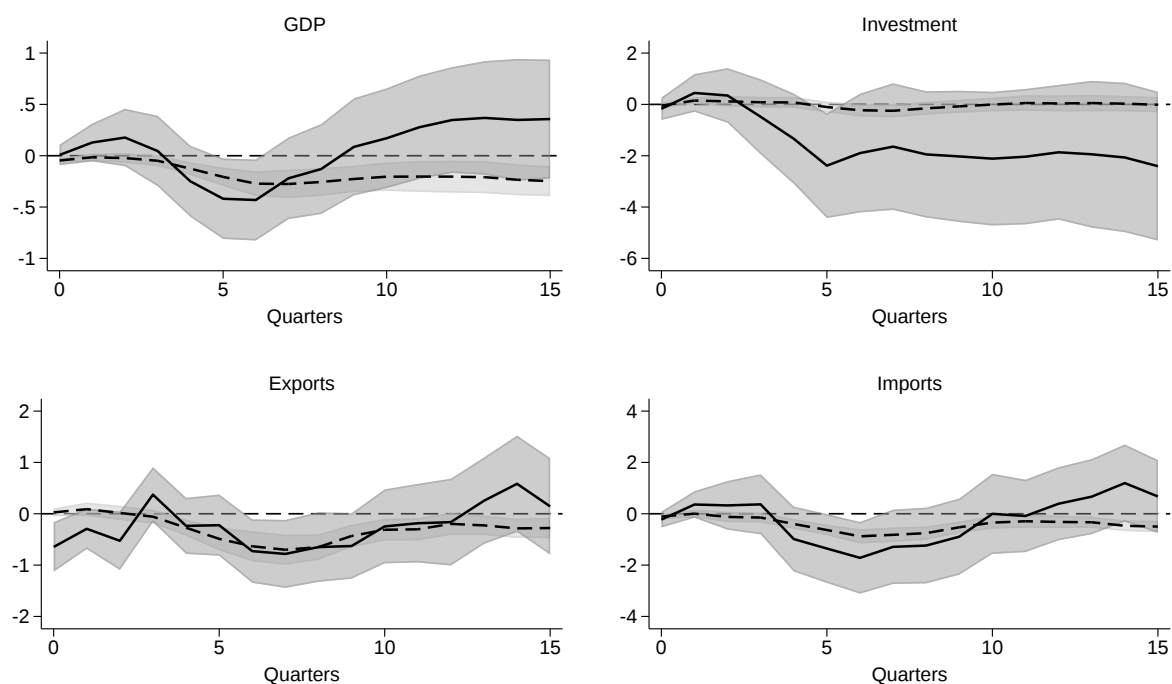
This section presents the exposure-factor LP analysis estimated separately for pegged and floating exchange rate regimes. Among the four channels, monetary policy credibility (Figure J.1) displays the most consistent pattern of differential point estimates across regimes, particularly for GDP and investment at short horizons, although confidence bands overlap throughout. The remaining channels—balance sheet vulnerabilities (Figure J.2), dominant currency pricing (Figure J.3), and global value chain integration (Figure J.4)—show statistically equivalent effects across regimes, with confidence bands consistently overlapping. These results support the interpretation that, where exchange rate regime effects are discernible, they operate primarily through monetary policy credibility rather than through the exchange rate regime *per se*.

FIGURE J.1: MPC: Pegged *versus* Floaters – Dynamic Multipliers to 1 SD U.S. Dollar Shock



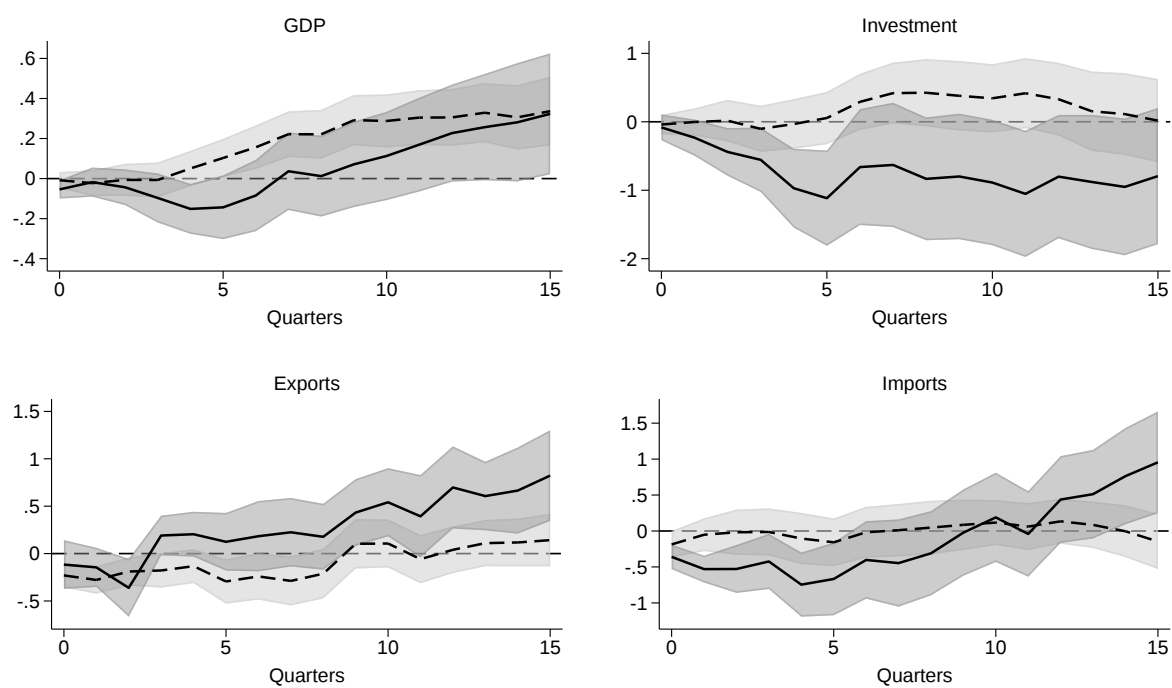
Notes: Solid blue and red lines show estimates of impulse responses for the baseline LP using floaters and pegged countries, respectively; 1 SD confidence bands are depicted with shaded areas.

FIGURE J.2: BS: Pegged *versus* Floaters – Dynamic Multipliers to 1 SD U.S. Dollar Shock



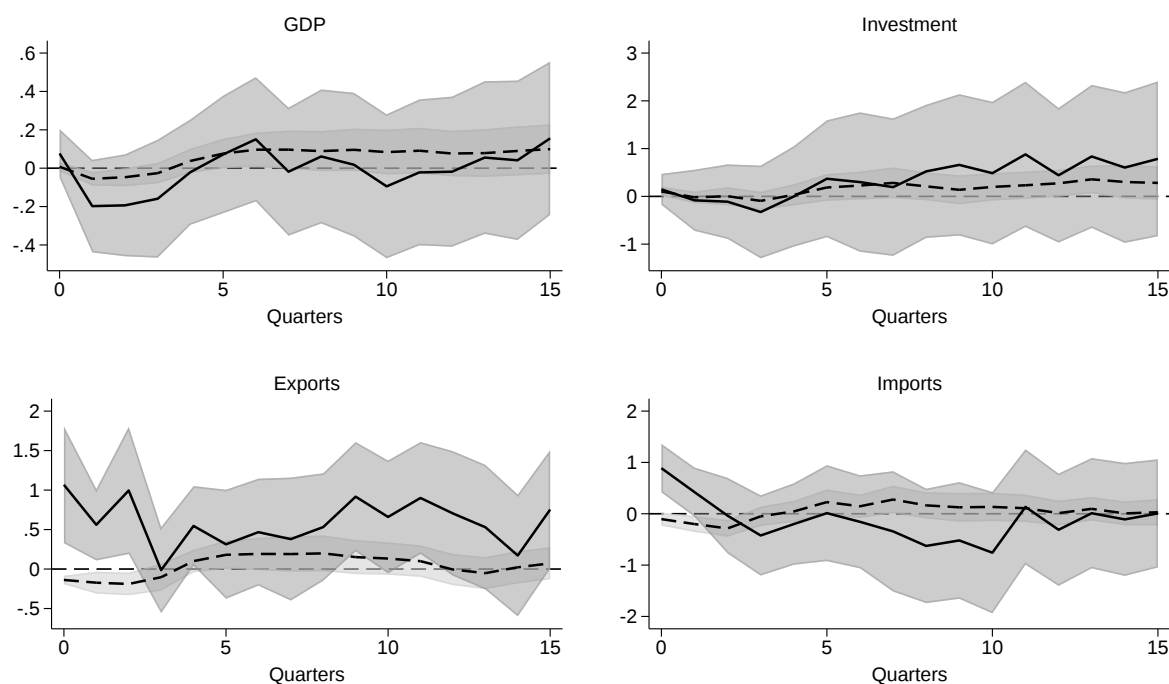
Notes: Solid blue and red lines show estimates of impulse responses for the baseline LP using floaters and pegged countries, respectively; 1 SD confidence bands are depicted with shaded areas.

FIGURE J.3: DCP: Pegged *versus* Floaters – Dynamic Multipliers to 1 SD U.S. Dollar Shock



Notes: Solid blue and red lines show estimates of impulse responses for the baseline LP using floaters and pegged countries, respectively; 1 SD confidence bands are depicted with shaded areas.

FIGURE J.4: GVC: Pegged *versus* Floaters – Dynamic Multipliers to 1 SD U.S. Dollar Shock



Notes: Solid blue and red lines show estimates of impulse responses for the baseline LP using floaters and pegged countries, respectively; 1 SD confidence bands are depicted with shaded areas.

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