Online Appendix for

The International Spillovers of Synchronous Monetary Tightening*

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Appendix

A Data Sources

The sample runs from 1980Q1 through 2019Q4. Due to missing data coverage for some countries, the panel is unbalanced, with the initial period varying by country. The sample includes 21 advanced economies, and, for the specification with emerging economies, 9 additional emerging economies. The list of countries and data coverage for each country/variable is summarized in Table A.1. To create world aggregates for any variable, we weigh country-specific variables using nominal GDP (expressed in USD) from the World Bank's World Development Indicators.

Below, we discuss data construction for advanced economies.

- GDP is taken from each country's national statistical office, through Haver, and is quadratically detrended separately for each country.

- The unemployment rate is taken in each country from the national statistical offices through Haver, the OECD statistical database, or FRED, and is linearly detrended by country. For Finland, the original series (lrhuttttfim156s@FRED) was available starting in 1988Q1. The series was extended back to 1980Q1 using the predicted values of an auxiliary regression of the unemployment rate on current and four lags of the unemployment level (finurtotqdsmei@FRED), which is available since 1960. For Norway, we use the same procedure. The original series starts in 1989Q1. The unemployment level (lmunrlttnom647s@FRED) goes back to 1960. For Italy, the Netherlands, and Spain, quarterly data on the unemployment rate start in 1983Q1, 1983Q1, and 1986Q2, respectively. They were extended back to 1980 using interpolated values from annual unemployment data going back to 1960. The procedure is as follows. First, we convert the annual unemployment levels to quarterly by assigning the annual value to each quarter. Second, at the quarterly frequency, we take 5-period centered moving averages. Third, wherever the original quarterly unemployment data are missing, we fill it in with the moving average plus the first value of the original unemployment minus the value of the smoothed unemployment in that same period.

- For interest rates, we use the following sources, in order of first preference to last preference: the central bank interest rate from the IMF International Financial Statistics (IFS), the treasury bill rate from the IFS, the short-term interest rate from the OECD Main Economic Indicators, and the overnight interest rate from the OECD Main Economic Indicators.

  Australia: 1969Q3-2019Q4 from IFS/central bank, then extended back until 1968Q1 by OECD/short-term.

  Austria: 1960Q1-1998Q4 from IFS/central bank, then extended forward through 2019Q4 by OECD/short-term.

Belgium: 1960Q1-1998Q4 from IFS/central bank, then extended forward through 2017Q4 by IFS/treasury bill, then through 2019Q4 by OECD/short-term.

Canada: 1992Q4-2019Q4 from IFS/central bank, then extended back until 1960Q1 by IFS/treasury bill.

Denmark: 1960Q1-2019Q4 from IFS/central bank.

Finland: 1960Q1-1998Q4, and 2004Q1-2005Q4 from IFS/central bank, then the gap from 1999Q1-2003Q4 and forward through 2019Q4 by OECD/short-term.

France: 1970Q1-2017Q2 from IFS/treasury bill, then extended forward through 2019Q4 by OECD/short-term, then extended backward until 1960Q1 by OECD/overnight.

Germany: 1960Q1-1998Q4 from IFS/central bank, then extended forward through 2007Q3 by IFS/treasury bill, then extended forward through 2019Q4 by OECD/short-term.

Ireland: 1960Q1-1998Q4 from IFS/central bank, then extended forward by one quarter (1999Q1) by IFS/treasury bill, then extended forward through 2019Q4 by OECD/short-term.

Italy: 1964Q1-1998Q4 from IFS/central bank, then extended forward through 2019Q4 by IFS/treasury bill.

Japan: 1960Q1-2015Q2 from IFS/central bank, then extended forward through 2017Q2 by IFS/treasury bill, then extended forward through 2019Q4 by OECD/short-term.

Netherlands: 1964Q1-1993Q4 from IFS/central bank, then extended forward through 2019Q4 by OECD/short-term.

New Zealand: 1999Q1-2019Q4 from IFS/central bank, then extended back until 1978Q1 by IFS/treasury bill, then back again until 1974Q1 by OECD/short-term.

Norway: 1964Q1-2017Q2 from IFS/central bank, then extended forward through 2019Q4 by OECD/short-term.

Poland: 1998Q1-2013Q2 from IFS/central bank, then extended backward until 1992Q1 by IFS/treasury bill, back again until 1991Q2 by OECD/short-term, and back again until 1990Q1 by OECD/overnight. Extended forward through 2019Q4 by OECD/short-term, with IFS/treasury bill data in 2016Q1 and 2017Q1.

Portugal: 1960Q1-1998Q4 from IFS/central bank, then 1991Q1 from IFS/treasury bill, then forward through 2019Q4 by OECD/short-term.

Spain: 1964Q1-1998Q4 from IFS/central bank, then extended forward through 2019Q4 by IFS/treasury bill.

Sweden: 2002Q3-2017Q2 from IFS/central bank, then extended back until 1960Q1 by IFS/treasury bill, and then extended forward through 2019Q4 by OECD/short-term.

Switzerland: 2000Q1-2019Q2 from IFS/central bank, then extended forward through 2019Q4 by OECD/short-term. Extended backward until 1980Q1 by IFS/treasury bill, then back to 1974Q1 by OECD/short-term, then back to 1972Q1 by OECD/overnight.

United Kingdom: 1960Q1-2016Q3 from IFS/central bank, then extended forward through 2019Q4 by OECD/short-term.

United States: 1982Q3-2019Q4 from IFS/central bank, then extended backward until 1960Q1 by IFS/treasury bill.

- Inflation is measured by the year-to-year change in quarterly core CPI (or core PCE) constructed as follows. We use core CPI from each country's national statistical offices, provided by Haver. For some countries, we extend the data back with inflation data from the Global Database of Inflation from the World Bank. Specifically, we fill in 1972Q2-1987Q3 for Australia, 1971Q1-1990Q4 for Austria, 1977Q3-1991Q4 for Belgium, 1971Q1- 1990Q4 for Finland, 1971Q1-1990Q4 for Italy, 1971Q1-1971Q4 for Japan, 1971Q1-1990Q4 for the Netherlands, 1971Q1-1989Q3 for New Zealand, 1977Q1-1986Q3 for Spain, 1971Q1-1990Q4 for Sweden, and 1971Q1-1988Q4 for the UK. For some other countries, we extend the data back using the coefficients of a regression of core inflation on contemporaneous values and four lags of headline inflation and oil price inflation, two variables which were available over a longer sample. Specifically, we fill in 1962Q2-1990Q4 for France, 1962Q2-1994Q2 for Switzerland, 1962Q2-1995Q4 for Norway, and 1968Q1-1990Q4 for Denmark.

- Measures of credit spreads are not available for all countries. For each country, we calculate spreads as follows.

  Canada: 5-year BBB-rated industrial yield minus 5-year government bond yield, from Bloomberg.

  France: From 1991Q1 onward, we use corporate spreads from Gilchrist and Mojon (2018). We supplement this with the difference between French corporate bond yields and 10-year German government bond yields, reaching back until 1983Q4. The supplementary data comes from Global Financial Data (GFD).

  Germany: Corporate bond yields minus 10-year government bond yields, from GFD.

  Italy: Italian corporate bond yields minus 10-year German government bond yields, from GFD.

  Japan: Corporate bond yields minus 10-year government bond yields, from GFD.

  Spain: Corporate spreads from Gilchrist and Mojon (2018).

  Switzerland: Corporate bond yield minus 10-year government bond yield, from GFD.

  UK: Corporate bond yields minus 10-year government bond yields, from GFD.

  USA: Corporate bond yields minus 10-year government bond yields, from GFD.

- Net worth of global banks is available for Canada, France, Germany, Japan, Spain, Switzerland, United Kingdom and the United States. Net worth is constructed using a weighted stock price index of banks in each country that are global, using the definition of global banks in Acalin (2022). Specifically, the U.S. bank net worth is the weighted stock market index (using market capitalization share as a weight) of JPMorgan, Citi, Wells Fargo, Bank of America, Goldman Sachs, Morgan Stanley; the French index is the weighted index of BNP Paribas and Societe Generale; the UK index is the weighed index of HSBC, Barclays, NatWest, Lloyd's; the Japan index is the weighted index of Sumitomo Mitsui FG and Mitsubishi UFJ FG. The German index is the Deutsche Bank price index; the Spain index is the weighted index of Banco Santander and BBVA; the Switzerland index is the Credit Suisse price index; and the Canada index is the weighted index of Royal Bank of Canada and Toronto Dominion.

- In each country, the construction of the monetary shocks is based on a Taylor rule regression in which the real exchange rate and oil prices are used as additional controls. The real exchange rate is expressed in logs and is the effective measure described in Darvas (2012) and is available online. Oil prices are expressed in one year percent changes and measured by the WTI Spot dollar price.

- The last six panels of Figure 2 show the responses to tightening episodes of real consumption, real private investment, the real exchange rate, (real) net exports divided by trend GDP, (real) net exports divided by exports plus imports, and exports plus imports divided by trend GDP. Consumption and investment are log detrended by country using a quadratic trend. Real net exports are detrended by country using a quadratic trend. In general, we have fewer observations in total (about 10 percent less) in our panel for the components of GDP than we have for GDP.

For emerging economies, we followed a similar approach, with the following exceptions:

- We use total inflation instead of core inflation.

- We use dollar corporate spreads for Chile and Mexico and local currency spreads for Korea, both from the Intercontinental Exchange (ICE). For the Philippines, we use sovereign spreads from JPMorgan. Finally, we use corporate blended spreads from JPMorgan for Hong Kong, Indonesia, Israel, South Africa, and Taiwan.

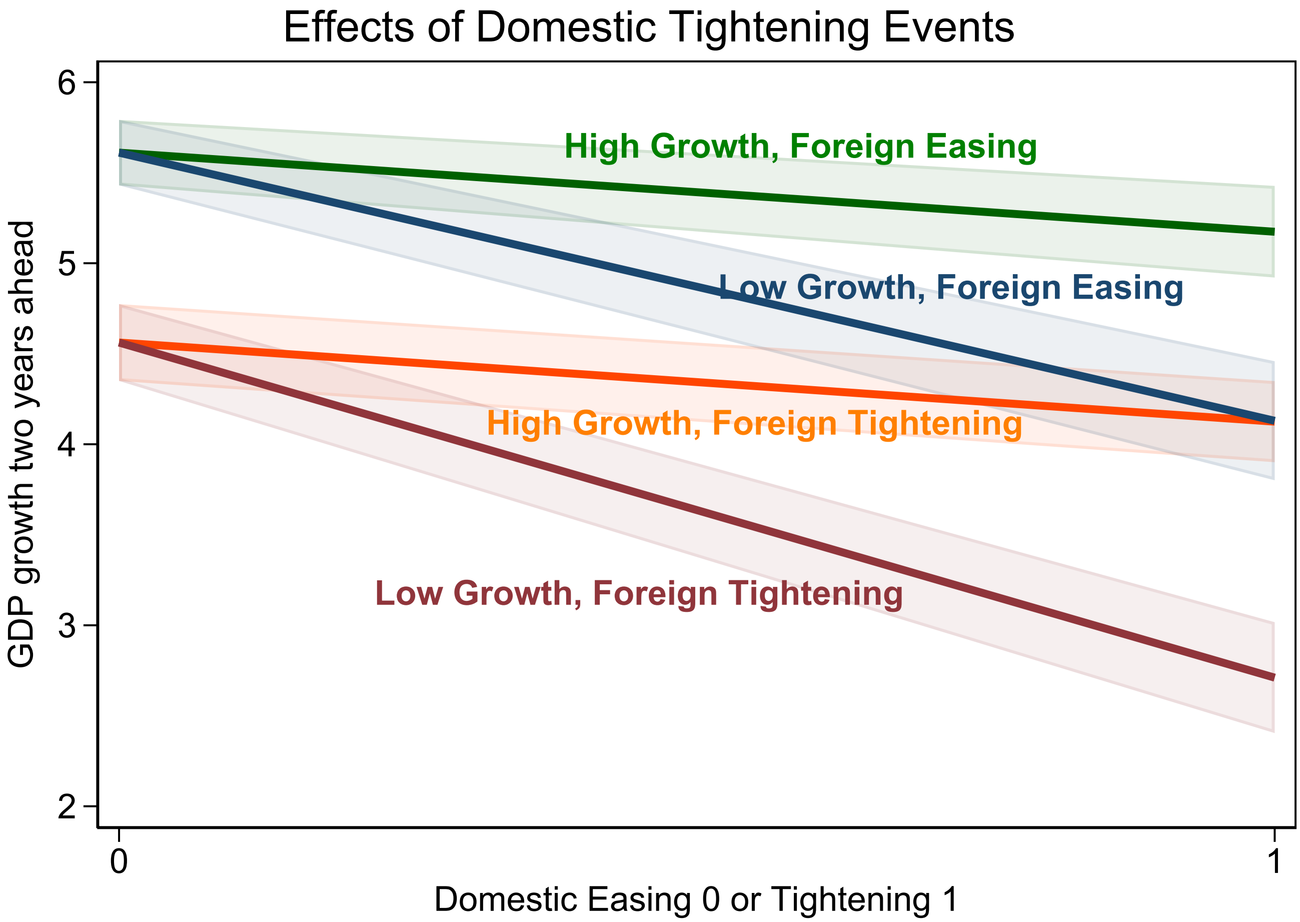
- In some cases, unemployment was not available in the early part of the sample. We use the predicted values of a regression of unemployment on four lags of GDP to fill in the missing data by country.

Table A.1: Data Coverage

Country	Unempl.	Inflation	Int.Rate	GDP	Spreads	BankEq.
Australia	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4		
Austria	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4		
Belgium	1983q1 2019q4	1983q1 2019q4	1983q1 2019q4	1980q1 2019q4		
Canada	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1992q1 2019q4	1980q1 2019q4
Denmark	1983q1 2019q4	1983q1 2019q4	1983q1 2019q4	1980q1 2019q4		
Finland	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4		
France	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1983q4 2019q4	1992q1 2019q4
Germany	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1992q1 2019q4
Ireland	1984q1 2019q4	1984q1 2019q4	1984q1 2019q4	1980q1 2019q4		
Italy	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	
Japan	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	2001q2 2019q4
Netherlands	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4		
New Zealand	1986q1 2019q4	1986q1 2019q4	1986q1 2019q4	1980q1 2019q4		
Norway	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4		
Poland	1999q1 2019q4	1999q1 2019q4	1999q1 2019q4	1995q1 2019q4		
Portugal	1983q1 2019q4	1983q1 2019q4	1983q1 2019q4	1980q1 2019q4		
Spain	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1999q1 2019q4	1980q4 2019q4
Sweden	1983q1 2019q4	1983q1 2019q4	1983q1 2019q4	1980q1 2019q4		
Switzerland	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1997q2 2019q4	1992q1 2019q4
United Kingdom	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4
United States	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4
Chile	1995q2 2019q4	1995q2 2019q4	1995q2 2019q4	1986q1 2019q4	1998q4 2019q4	
Hong Kong	1992q2 2019q4	1992q2 2019q4	1992q2 2019q4	1990q1 2019q4	2001q4 2019q4	
Indonesia	1990q1 2019q4	1990q1 2019q4	1990q1 2019q4	1983q1 2019q4	2001q4 2019q4	
Israel	1995q1 2019q4	1995q1 2019q4	1995q1 2019q4	1995q1 2019q4	2001q4 2019q4	
Korea	1991q1 2019q4	1991q1 2019q4	1991q1 2019q4	1980q1 2019q4	1999q1 2019q4	
Mexico	1987q1 2019q4	1987q1 2019q4	1987q1 2019q4	1980q1 2019q4	1998q4 2019q4	
Philippines	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1981q1 2019q4	1993q4 2019q4	
South Africa	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	2001q4 2019q4	
Taiwan	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	1980q1 2019q4	2005q2 2019q4	

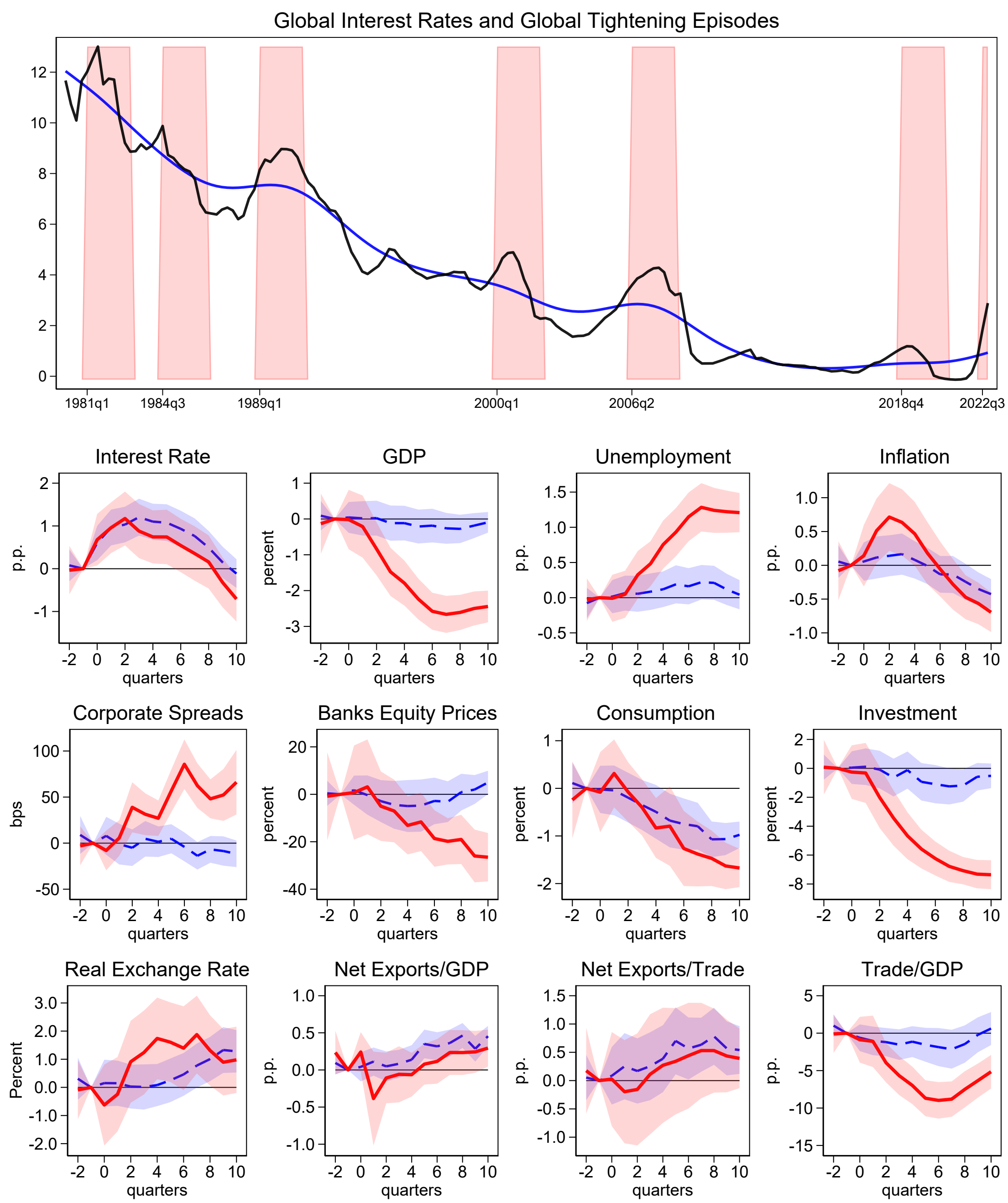
Data Coverage for the variables shown in the event-study analysis of Figure 2. The top group denotes advanced economies, the bottom group emerging economies.

Figure A.1: Marginal Effects of Tight Monetary Policies



Note: How the effects of tight monetary policy at home depend on foreign stance and economic conditions.

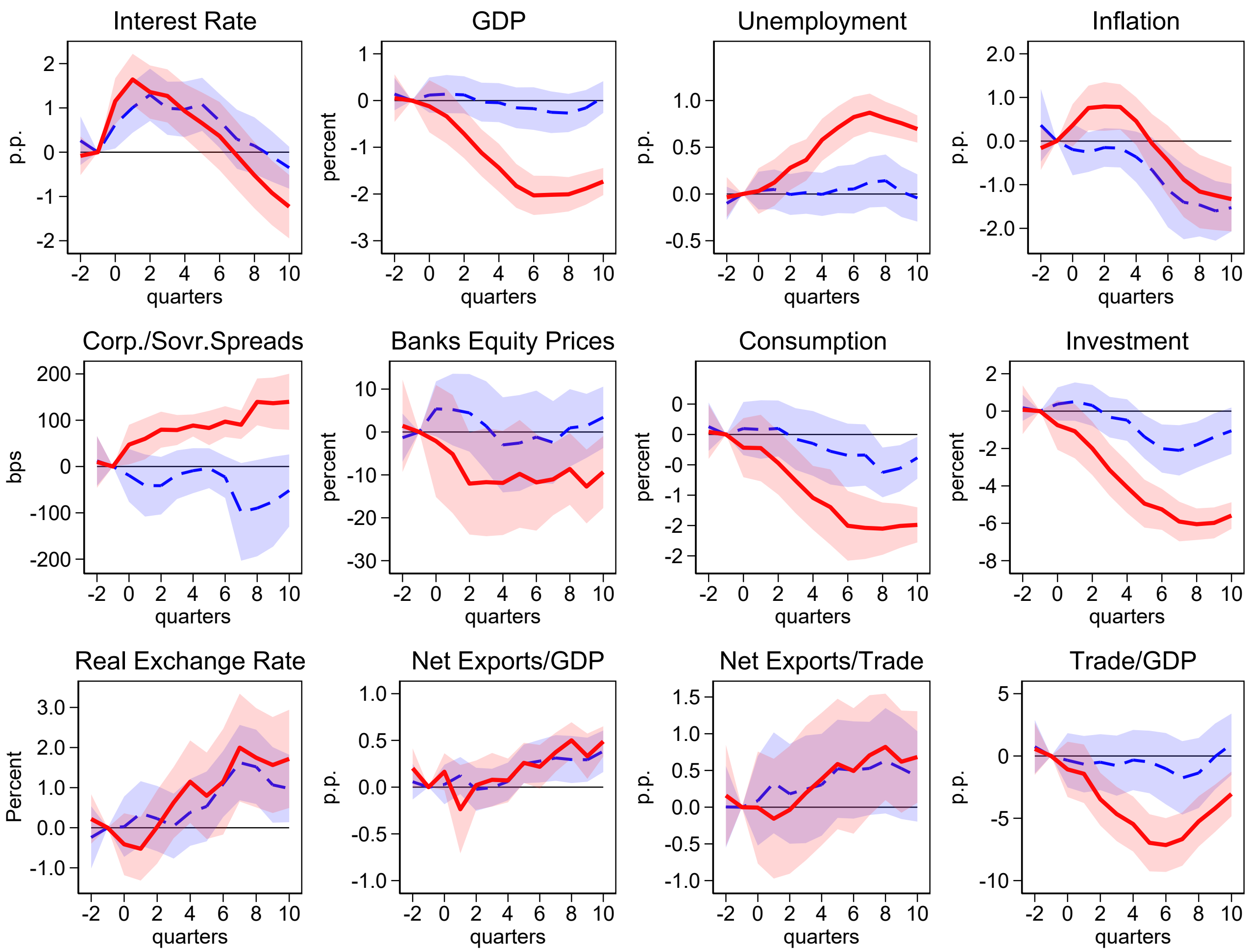
Figure A.2: Behavior around Tightening Episodes: HP-filtered Criterion for Global Tightening



Note: The top chart plots global interest rates and global tightening episodes in the shaded areas. Global tightening episodes are assumed to start when the HP-filtered global interest rate (the difference between the global interest rate—black line—and its trend—blue line, estimated using a smoothing parameter of 1,600—) exceeds 0.5 percent, and are assumed to last no more than eight quarters. This criterion identifies seven global tightening events starting in 1981q1, 1984q3, 1989q1, 2000q1, 2006q2, 2018q4, 2022q3.

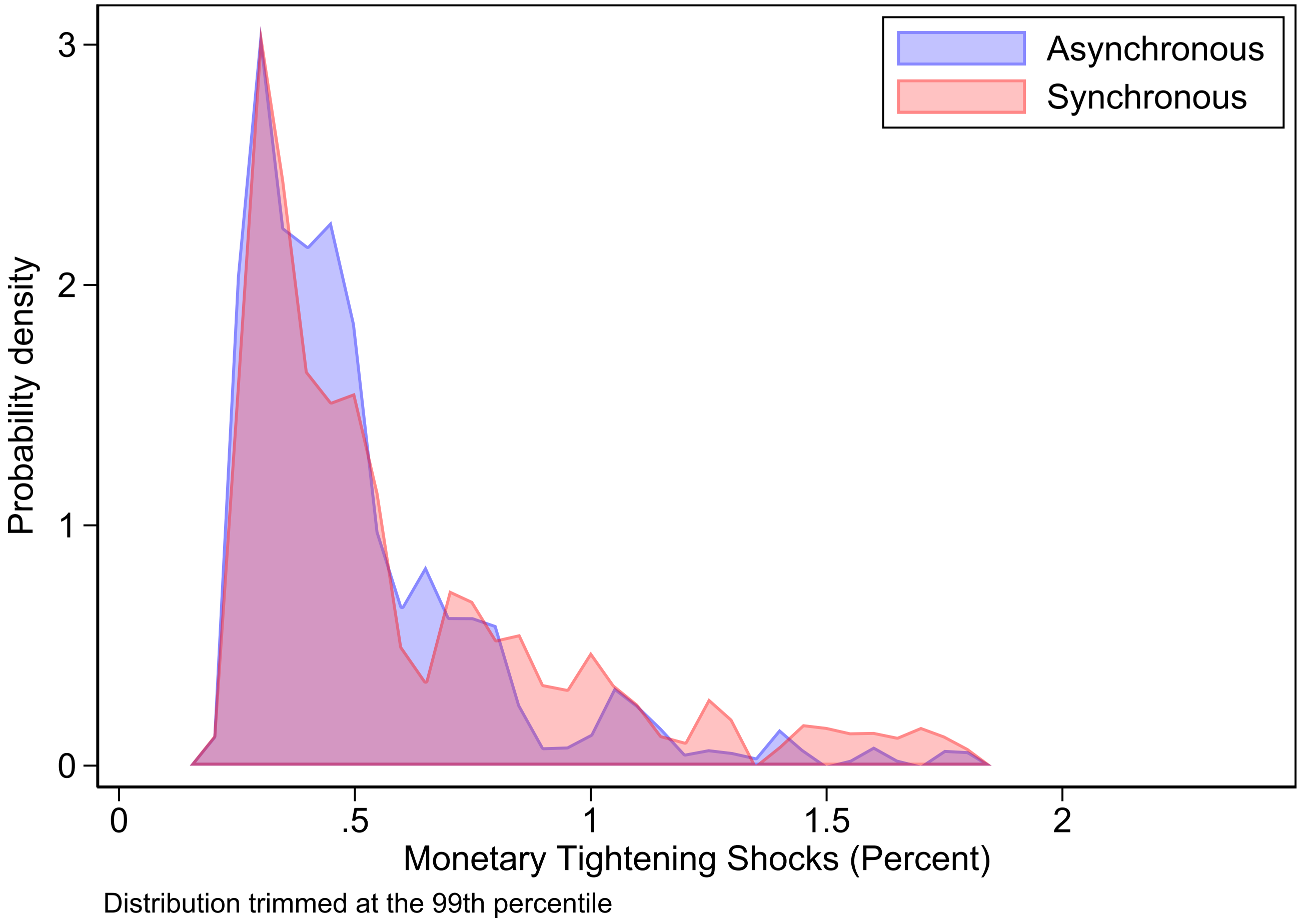
The panels at the bottom show the event-study analysis around tightening episodes constructed using HP-filtered criterion described above. Synchronous episodes are in red and asynchronous ones are blue. The lines are constructed using event-study regressions. The shaded regions show 70% confidence intervals.

Figure A.3: Behavior around Tightening Episodes: Sample Including Advanced and Emerging Economies



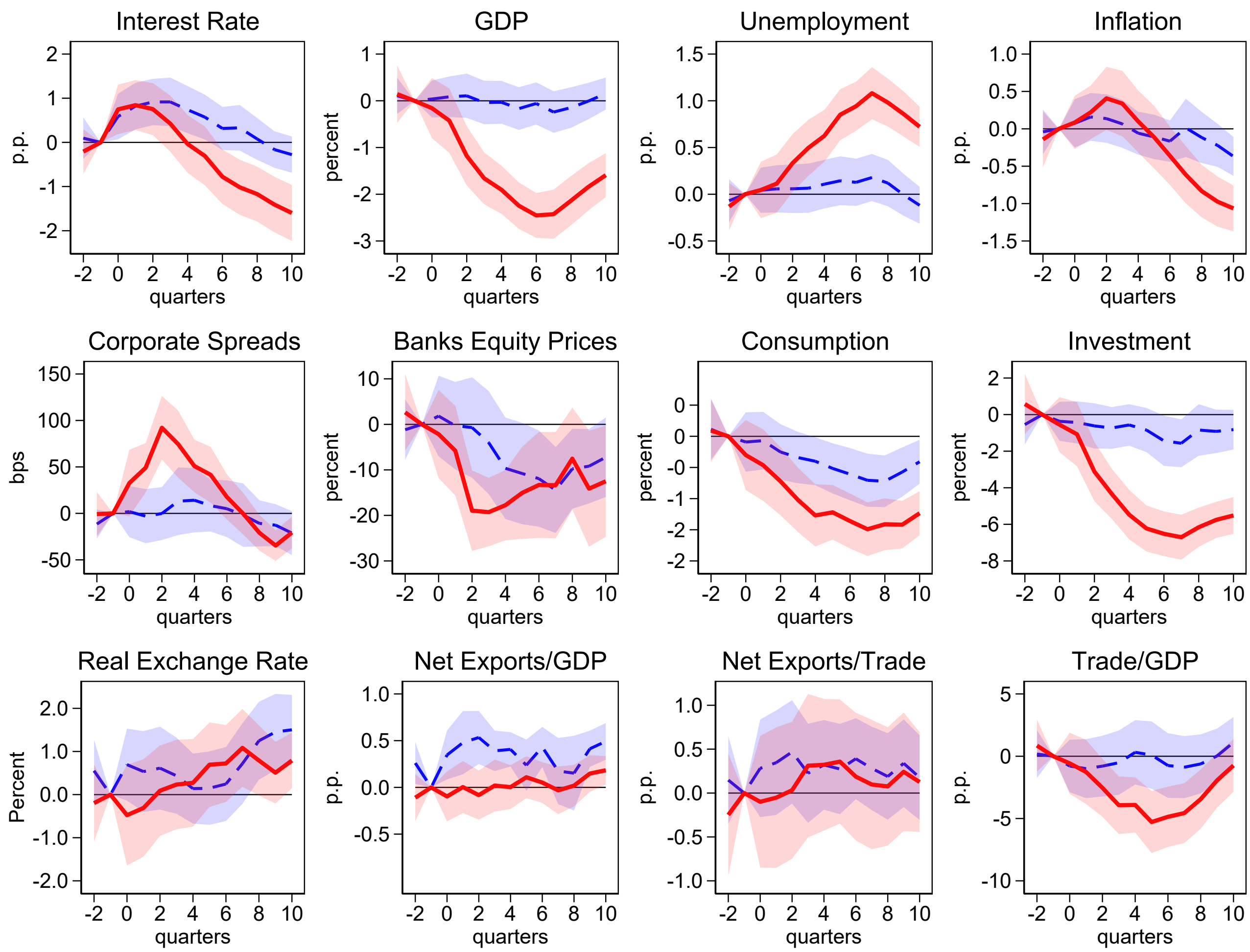
Note: Evolution over time of macroeconomic variables around interest rate tightening episodes in a sample that includes both advanced and emerging economies. Synchronous episodes are in red and asynchronous ones are blue. The lines are constructed using event-study regressions. The shaded regions show 70% confidence intervals.

Figure A.4: Distribution of Monetary Shocks across Synchronous and Asynchronous Episodes



Note: Estimated Distributions of Contractionary Monetary Shocks across Synchronous and Asynchronous Episodes.

Figure A.5: Behavior around Tightening Episodes: Using Global Variables to Estimate Country-Specific Monetary Shocks

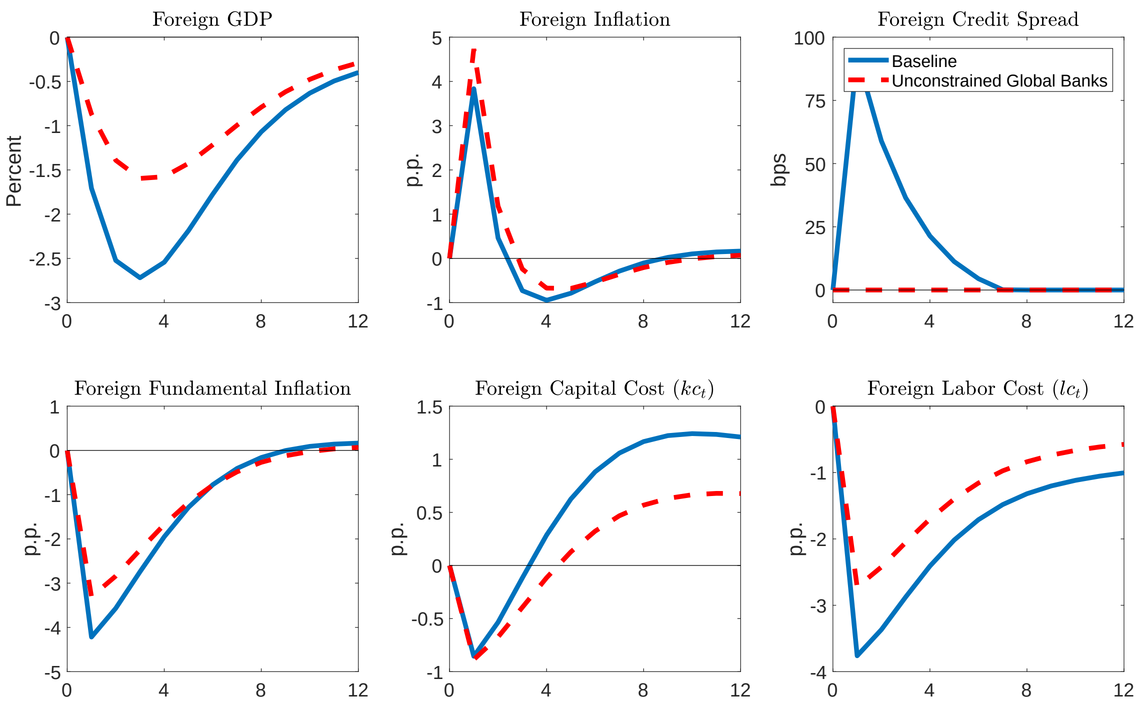


Note: Evolution over time of macroeconomic variables around interest rate tightening episodes estimated adding global controls in each country's reaction function when estimating monetary shocks. Synchronous episodes are in red and asynchronous ones are blue. The lines are constructed using event-study regressions. The shaded regions show 70% confidence intervals.

B Additional Model Results

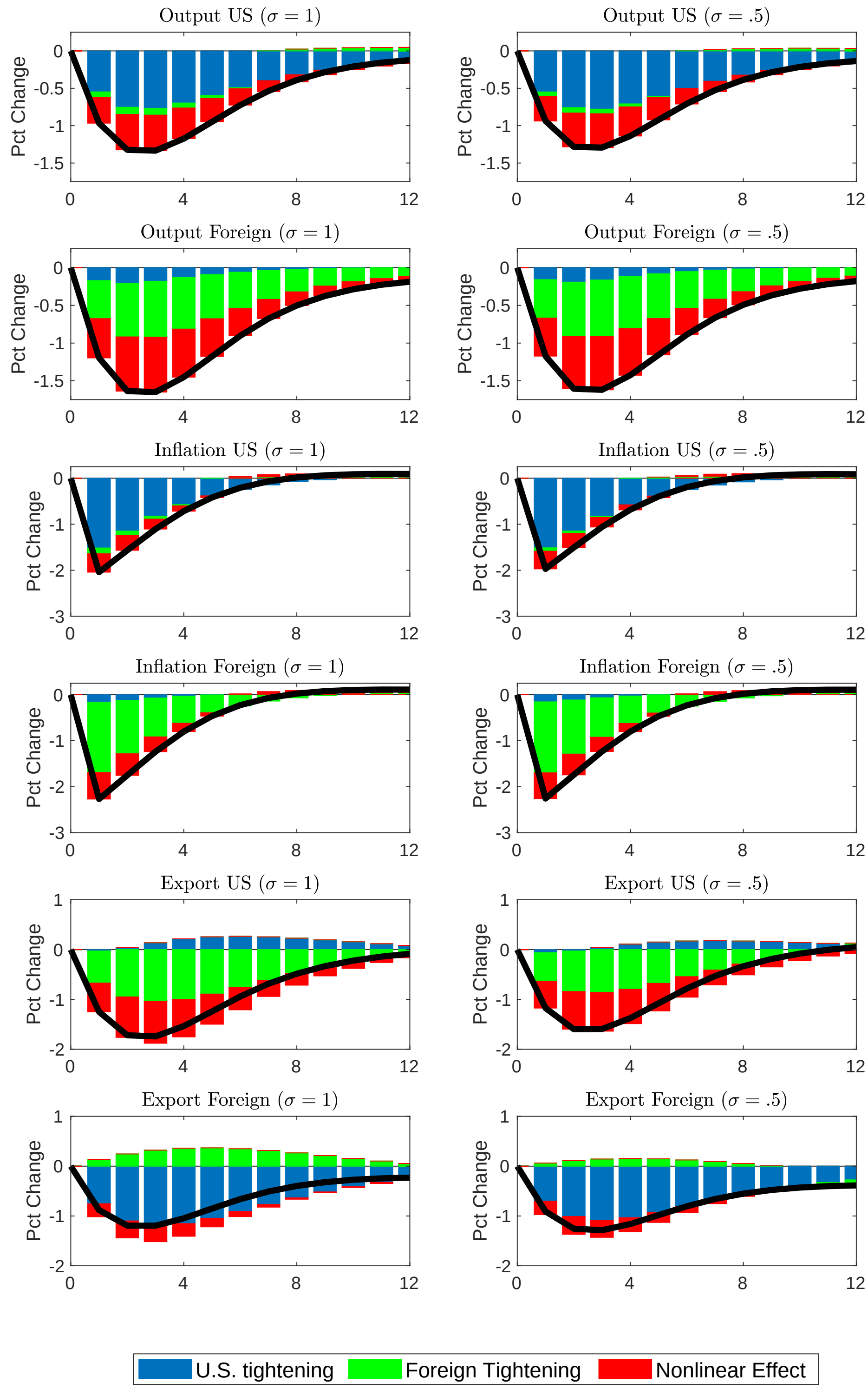
B.1 Additional Impulse Responses from Baseline Experiments

Figure B.1: Model Simulation of a Global Markup Shock, Foreign Variables



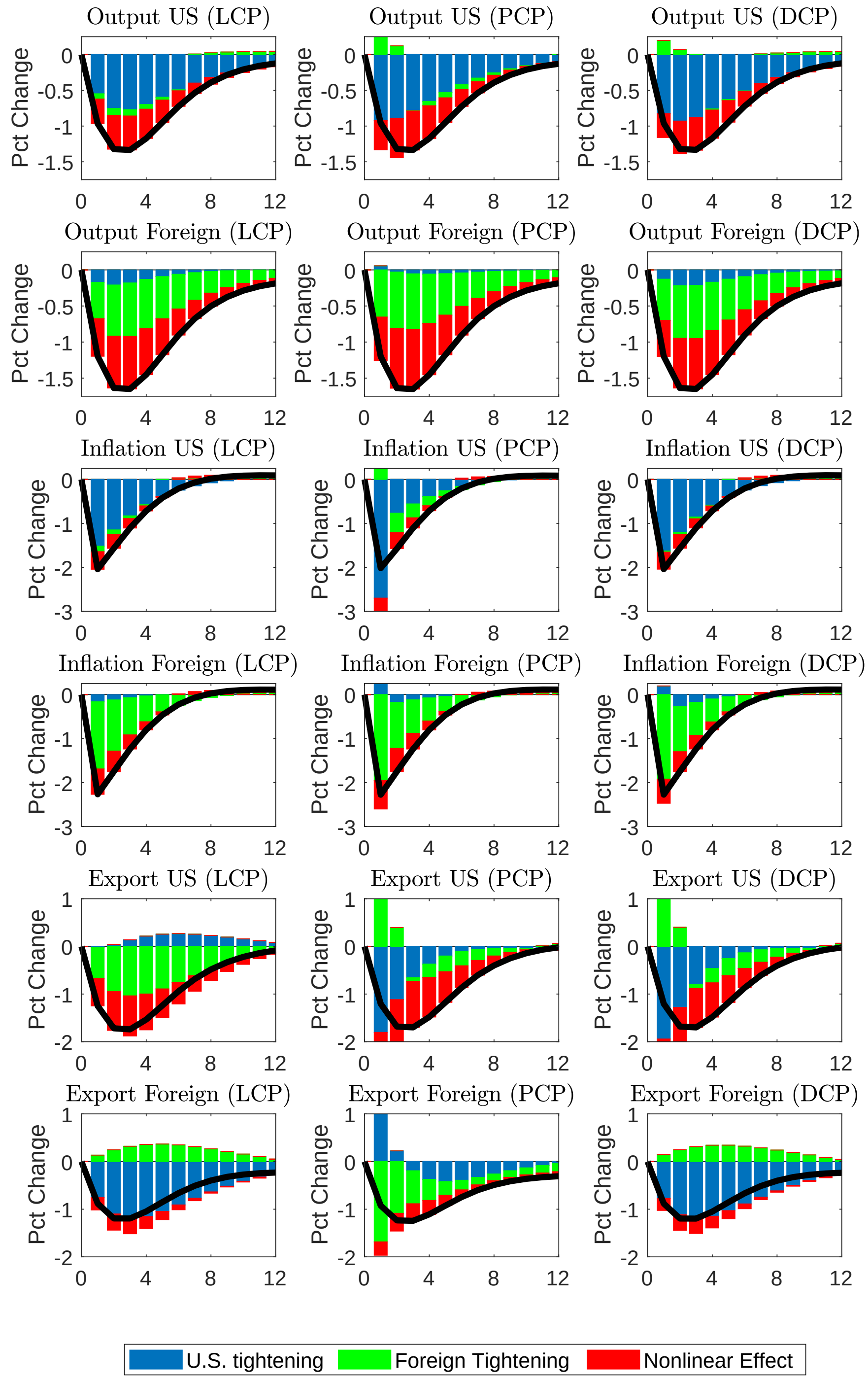
Note: All variables are in deviation from steady state.

Figure B.2: Impulse Responses to Monetary Tightening: Robustness to Calibration of Trade Elasticity



Note: The figure plots impulse responses of selected variables for the baseline model with unitary trade elasticity ($\sigma = 1$) and an alternative with a lower trade elasticity ($\sigma = -0.5$).

Figure B.3: Impulse Responses to a Monetary Tightening: Robustness to Firms Choice of Currency Invoicing



Note: The figure plots impulse responses of selected variables for three alternative assumptions regarding firms choice of currency invoicing: Local Currency Pricing (LCP), the assumption adopted in the benchmark model; Producer Currency Pricing (PCP); and Dominant Currency Pricing (DCP). The three models differ in their degree of exchange rate pass-through to prices.

B.2 Business Cycle Moments

The two-country model described in the main text is designed to study the nonlinear amplification of global tightening shocks arising from the interaction between the financial accelerator mechanism and the global exposure of financial intermediaries. However, the model can have broader applicability. In this section, we show that a version of the model augmented with a broad set of shocks performs well in generating business cycle moments in line with the data.

To test the quantitative performance of our model, we introduce a large set of shocks and calibrate the exogenous processes using evidence available in the literature. Specifically, we rely on the analysis in Bodenstein et al. (2023), who estimate a two-country New-Keynesian model using full information Bayesian techniques. We do so as the model in Bodenstein et al. (2023) includes financial frictions, as well as key nominal and real rigidities, as those used in our framework.[2]

We introduce in our model a subset of the shocks considered by Bodenstein et al. (2023)—focusing on the ten shocks that account for most of the variation in domestic and foreign output: two demand shocks in each country—a monetary policy shock and the risk-premium shock; two supply shocks in each country—a total factor productivity (TFP) shock and a markup shock; a global risk-premium shock and a UIP shock, meant to capture shifts in global preferences for dollar-denominated securities.

These shocks are commonly present in medium-scale estimated macroeconomic models. The demand and supply shocks affect each economy just as, for instance, in the (Smets and Wouters, 2007) model. Versions of the global risk premium shock and the UIP shock have also been extensively studied in the international quantitative macro literature.[3]

Below we describe how each shock enters the equations of the baseline model. The country-specific monetary shocks are already present in the model described in the main text. The country-specific risk premium shocks, ξ_{it}^{RP}, and the global risk-premium shock, ξ_t^{GRP},affect households' demand for government bonds by entering equation (27) as follows:

$$\xi_{it}^{RP}\xi_t^{GRP} = \beta E_t \Lambda_{i,t+1} \frac{R_{it+1}^g}{\pi_{it+1}}. \tag{A.1}$$

TFP shocks, ξ_{it}^{TFP}, enter the production function of intermediate goods producers, equation (32), as follows:

[2] The model of Bodenstein et al. (2023) features financial frictions at the country level and abstracts from frictions in international credit flows. Moreover, it does not include an occasionally binding constraint on global financial intermediaries and also differs on other details. However it is the closest model to ours that we are aware of. Other papers estimating two countries new Keynesian models are De Walque, Smets, and Wouters (2005) and Lubik and Schorfheide (2005), who use U.S. and Euro area data to estimate models which focus on different quantitative features than the ones we emphasize here.

[3] Kekre and Lenel (2021) and Bodenstein, Cuba Borda, Goernemann, Presno, Prestipino, Queralto, and Raffo (2023) study flight to safety shocks that combine elements of our global risk premium and UIP shock. Devereux and Engel (2002) and Eichenbaum, Johannsen, and Rebelo (2021) are two examples of papers that study UIP shocks. Itskhoki and Mukhin (2021) provide the micro-foundations of these shocks and discuss their empirical relevance.

$$\bar{Y}_{it} = \xi_{it}^{TFP} l_{it}^{1-\alpha} k_{it-1}^{\alpha}. \tag{A.2}$$

We replace the global markup shock, μ_t, in the Phillips curves equations in the home and foreign country, (33) and (34), with country-specific markup shocks, ξ_{it}^{MUP}, as follows:

$$(\pi_{ii,t} - 1)\,\pi_{ii,t} = s_t\left[mc_{i,t}\xi_{it}^{MUP} - p_{ii,t}\right] + \beta E_t \Lambda_{H,t+1}\left(\pi_{iit+1} - 1\right)\pi_{iit+1}\frac{Y_{iit+1}}{Y_{ii,t}} \tag{A.3}$$

$$(\pi_{ij,t} - 1)\,\pi_{ij,t} = s_t\left[mc_{i,t}\xi_{it}^{MUP} - X_{ji,t}p_{ij,t}\right] + \beta E_t \Lambda_{t,t+1}\left(\pi_{ijt+1} - 1\right)\pi_{ijt+1}\frac{Y_{ijt+1}}{Y_{ij,t}}. \tag{A.4}$$

Finally, the UIP shock, ξ_{it}^{UIP} affects the foreign country demand for dollar deposits, equation (27)

$$\xi_{it}^{UIP} = \beta E_t \Lambda_{i,t+1}\frac{X_{Hi,t+1}}{X_{Hi,t}} R_t^d, \tag{A.5}$$

and the banker's marginal value of investing in the foreign subsidiary in equation (15)

$$\mu_{F,t} = \beta E_t \Lambda_{H,t+1}\left[1 - \sigma + \sigma\psi_{t+1}^{*}\right]\left(R_{Ft+t}^{s}\xi_{it}^{UIP} - R_t^d\right). \tag{A.6}$$

Each shock j is assumed to follow an AR1 process

$$log(\xi_{it}^{j}) = \rho_i^j log(\xi_{it-1}^{j}) + \sigma^j \epsilon_t^j, \tag{A.7}$$

where ρ^j governs the persistence and σ^j governs the standard deviation of the shock.

Table B.1 reports the calibrated values for the standard deviations and persistence parameters of the exogenous processes. The values of the shocks' standard deviations coincide with the posterior mode estimates in Bodenstein et al. (2023), scaled by a common factor to generate an output volatility in line with the data. The markup shocks and the monetary policy shocks have the same persistence parameters as in the main text, which is smaller than in Bodenstein et al. (2023). Accordingly, we adjust the standard deviations of the innovations to obtain unconditional standard deviations of the markup and monetary policy processes in line with Bodenstein et al. (2023).

Table B.2 reports business cycle moments from the model and compares them with their counterpart in the data.[4] We calculate moments simulating the model for 10000 periods. In our simulations the economy enters in a constrained region with a probability of about 3.5 percent. For comparison, using historical data from Schularick and Taylor (2012), Boissay, Collard, and Smets (2016) estimate the frequency of "financial recessions" to be around 2.5 percent.

As shown in Table B.2, the model implied standard deviation and correlation with U.S. output are close to the values in the data for domestic and foreign variables. One exception is the higher

[4] We calculate the empirical moments using the data described in Section 2 after applying the HP filter. Foreign GDP is constructed as a GDP-weighed aggregate of the output series in our sample of advanced foreign economies.

variance of inflation relative to the data. This is due to a relatively steep Phillips curve in our paper combined with the assumption of flexible wages. Given that our model is designed to study periods of large inflation and wage volatility, a steeper Phillips curve is appropriate for the main application of the paper. The volatility of net worth of GFIs, the variable at the core of the nonlinear financial amplification in the model, is somewhat lower than in the data while net worth correlation with U.S. GDP is higher than in the data. While we abstract from pure financial shocks, introducing a financial shocks, such as an exogenous shock to GFIs net worth, could help to simultaneously increase the variance of net worth and reduce its correlation with output. A financial shock would induce autonomous variation in net worth, hence increasing its variance, and it would reduce the correlation with output because output is not sensitive to net worth fluctuations if the financial constraint does not bind (and the constraint only binds infrequently).

Overall, these results suggest that our framework could be of broader use for quantitative business cycle analysis.

Table B.1: Shocks Parameter Values

Parameter	**Symbol**	**Value**
U.S. Shocks		
Std. dev. risk premium shock	σ_h^{RP}	0.0004
Std. dev. TFP shock	σ_h^{TFP}	0.0015
Std. dev. markup shock	σ_h^{MUP}	0.5
Std. dev. monetary shock	σ_h^{MP}	0.0005
Persistence risk premium shock	ρ_h^{RP}	0.97
Persistence TFP shock	ρ_h^{TFP}	0.97
Persistence markup shock	ρ_h^{MUP}	0.6
Persistence monetary shock	ρ_h^{MP}	0
Foreign Shocks		
Std. dev. risk premium shock	σ_f^{RP}	0.0002
Std. dev. TFP shock	σ_f^{TFP}	0.0036
Std. dev. markup shock	σ_f^{MUP}	0.54
Std. dev. monetary shock	σ_f^{MP}	0.0007
Persistence risk premium shock	ρ_h^{RP}	0.57
Persistence TFP shock	ρ_h^{TFP}	0.7
Persistence markup shock	ρ_h^{MUP}	0.5
Persistence monetary shock	ρ_h^{MP}	0
Global Shocks		
Std. dev. global risk premium shock	σ^{GRP}	0.0004
Persistence global risk premium shock	ρ^{GRP}	0.94
Std. dev. UIP shock	σ_f^{UIP}	0.0006
Persistence UIP shock	ρ_f^{UIP}	0.97

Note: The table reports the values for the standard deviations and persistence parameters of the ten shocks used in the model simulations. The values of the shocks' standard deviations coincide with the posterior mode estimates in Bodenstein et al. (2023), scaled by a common factor to generate an output volatility in line with the data. In addition, the markup shocks and for the monetary policy shocks have the same persistence parameters as in the main text, which is smaller than in Bodenstein et al. (2023). Accordingly, we adjust the standard deviations of the innovations to obtain unconditional standard deviations of the markup process in line with Bodenstein et al. (2023).

Table B.2: Business Cycle Moments

Moment	**Data**	**Model**
Standard Deviation		
U.S. GDP	1.26	1.31
U.S. Net Export/GDP	0.33	0.28
U.S. Real Exchange Rate	3.68	2.95
U.S. Inflation	0.57	1.43
U.S. Investment	3.44	3.36
U.S. Consumption	0.99	1.19
U.S. GFI Net Worth	14.66	10.47
Foreign GDP	1.05	1.03
Correlation with U.S. GDP		
U.S. GDP	1	1
U.S. Net Export/GDP	-0.51	-0.48
U.S. Real Exchange Rate	-0.19	-0.22
U.S. Inflation	0.36	0.32
U.S. Investment	0.92	0.84
U.S. Consumption	0.87	0.58
U.S. GFI Net Worth	0.33	0.64
Foreign GDP	0.63	0.32

Note: The table compares business cycle moments for selected variables calculated using data and simulating the model. We calculate the empirical moments using the data described in Section 2 after applying the HP filter. Foreign GDP is constructed as a GDP-weighed aggregate of the output series in our sample of advanced foreign economies. We calculate moments in the model by simulating the economy for 10000 periods.

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