China's financial spillovers to emerging markets*

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Abstract

This paper analyzes the financial spillovers of shocks originating in China to emerging markets. Using a high-frequency identification strategy based on sign, relative magnitude and narrative restrictions, we find that equity markets react strongly and persistently to Chinese macroeconomic shocks, while monetary policy shocks exhibit more modest and short-lived spillovers, with effects generally smaller than those of macro shocks. Our evidence suggests that a key transmission channel is the effect of Chinese shocks on international commodity prices. These spillovers extend to various financial variables, such as sovereign and corporate spreads and exchange rates, suggesting implications for business cycles and financial stability in emerging markets.

Keywords: China, emerging markets, financial spillovers

JEL codes: F31, F37, F62, F65, G15, N26

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1 Introduction

Global financial markets are interconnected, and market movements often reflect global economic conditions rather than events in individual countries. This interconnectedness has resulted in a high degree of correlation between stock markets, making it challenging to pinpoint the exact location of the events responsible for changes in equity prices. This has sparked a prolific economic literature that has attempted to identify the ultimate location of events responsible for movements in stock markets.

Events in the United States are seen as a major driver of movements in global financial markets. Miranda-Agrippino and Rey (2015), Miranda-Agrippino et al. (2020), and Boehm and Kroner (2023) have documented the importance of the business cycle and changes in economic policy in the United States in shaping the global financial cycle. This influence of the United States, particularly its monetary policy, is sometimes framed in terms of spillovers from events in the United States to emerging markets (e.g., Uribe and Yue, 2006; Canova, 2005; Maćkowiak, 2007).

More recently, the literature has also focused on China as a driver of the global financial cycle, as this country has undergone significant structural changes that have increased its importance for the global economy. China's GDP made up roughly 20% of global GDP in 2022, and its exports and imports comprised around 10% of total world trade. Moreover, China has emerged as a major importer of essential commodities such as oil and metals. Although capital controls remain in place, there has been a discernible easing of restrictions since 2012 and Chinese equities and bonds have been incorporated into benchmark indices of global markets such as the MSCI or JP Morgan's EMBI. In addition, China has increasingly positioned itself as a significant international investor. At the close of 2022, Chinese foreign assets and liabilities totaled $16 trillion-levels, on par with economies such as Japan and France, and exceeding the combined totals of several large emerging markets, including Russia, Mexico, Brazil, Indonesia, Saudi Arabia, and Turkey (Alonso et al., 2023).

The economic literature that studies the impact of shocks originating in China on the rest of the world includes the work by Miranda-Agrippino et al. (2020), who compare the global impact of US and Chinese monetary policy. They find that both countries have substantial spillovers on the global economy, but that the channels of transmission differ substantially. They argue that US monetary policy is mainly transmitted through financial markets, while Chinese monetary policy is mainly transmitted through trade and commodity prices. Barcelona et al. (2022) also find that China is a significant driver of the global business cycle, and that its impact is transmitted mainly through the effect on global GDP,

trade and commodity prices, as do Copestake et al. (2023), who identify domestic demand and supply shocks in China and find that these shocks are transmitted to the global economy mainly through global value added chains and are higher for countries with stronger trade links with China. Finally, Lodge et al. (2023) conclude that shocks originating in China play a significant role in developments in global financial markets, although the effect is smaller than that of the US or global risk shocks. Nevertheless, for the global commodity markets China appears as a more significant driver than the US.

The fact that China's influence on the global economy is primarily exerted through its effect on global GDP and mediated by trade relationships raises a crucial question: Should spillovers from shocks originating in China affect other countries immediately, or should there be a delay? Given that trade flows take time to materialize, their impact on global economic activity may not be felt immediately. Consequently, relying solely on actual trade flows for identification might overlook the anticipatory aspects of these developments, which should instead be captured by financial market reactions.

In this paper, we examine stock markets in emerging economies, and measure the size of spillovers from China. Using daily data, we show that shocks from China are transmitted almost instantaneously to emerging countries through financial markets. We find that spillovers from China are strongest for equity markets in Latin America. A macro-financial shock in China that produces a one-percent stock market return in China leads to return of about 0.22 percent in Latin American stock markets on the same day, compared to only 0.10 and 0.13 percent, respectively, in Emerging Asia and Emerging Europe. By contrast, monetary policy shocks from China tend to generate smaller and less persistent responses, though some short-lived effects on asset prices and exchange rates can be detected.

At first glance, the stronger spillovers for Latin America may be striking, given the geographical proximity and the stronger integration of the industrial sectors of countries in Emerging Asia with China. We show that the comparatively stronger impact on Latin American stock market returns can be rationalized by the stronger response of Latin American returns of firms linked to commodity markets, given that the Chinese economy is an important driver of commodity prices.

To derive these results, we first distinguish between shocks that originate in China and those that originate in the United States, or are more global in nature, using economic theory to tease apart the drivers of co-movement in global financial markets. To make our analysis comparable with Lodge et al. (2023), we follow their identification strategy, and use sign restrictions and narrative restrictions to decompose the movement of financial variables into drivers associated with China, the United States,

and a global risk factor. The identification strategy uses financial market data at daily frequency to estimate five structural shocks that drive global financial markets. In a second step we estimate the dynamic response of equity markets in individual emerging countries to the structural shocks related to China using local projections.

In addition to equity markets, we also quantify the impact that shocks originating in China have on other financial variables, such as sovereign and corporate spreads and exchange rates. We document that spillovers from China can be detected not only in equity markets but also in these other financial variables, suggesting that they may have important implications for business cycles and financial stability in emerging markets.

The paper is structured as follows. Section 2 presents a preliminary analysis of correlations between international stock markets. Our initial findings indicate that the co-movement of stock markets with China is most pronounced in Emerging Asia. Section 3 details the methodology employed to isolate shocks specifically related to China from the overall financial market joint dynamics, and how these shocks are used to measure spillovers to other emerging markets. In Section 4, we describe and validate the shocks we obtained. The results are discussed in Section 5, and our conclusions are summarized in Section 6.

2 The co-movement of stock market returns

To quantify to degree of co-movement in international stock market returns, we compute rolling correlation coefficients calculated over 5-year windows to assess the relationships between stock returns in three selected regions (Emerging Asia, Latin America, and Emerging Europe) and those of China and the United States. We use stock market indices expressed in local currency to calculate daily returns. Subsequently, we determine the correlation coefficient between the returns of each country and those of the stock markets in China and the United States.

The equity indices used are the main stock exchange index of each country, as described in Section 3. For China, we use the Shanghai ETF, which replicates the return of the Shanghai Composite Index, and for the United States, the S&P 500. The data range from January 2010 to August 2025, excluding observations from March 2020 to avoid a spike associated with the onset of the COVID-19 pandemic,

which would obscure the long-term trends.[1]

The results are shown in Figure 1. The analysis reveals that for Eastern Asia, the correlations of stock returns with both China and the United States exhibit similar magnitudes, with slightly higher correlations in the case of China for most countries. In the case of South Korea, the correlation with China is noticeably higher. Both correlations exhibit fluctuations over time, but there is no discernible trend.

In contrast, Latin America's stock markets exhibit higher correlations with the United States compared to China. This may be explained by the historical influence of economic cycles and investment flows from the United States, as most of these countries' currencies are linked or have been linked to the US dollar. However, a secular decline in this correlation over the examined time frames suggests a potential decoupling influenced by both domestic and global economic shifts. This decline is stronger in the case of the United States, although it can also be perceived for the correlation with China.

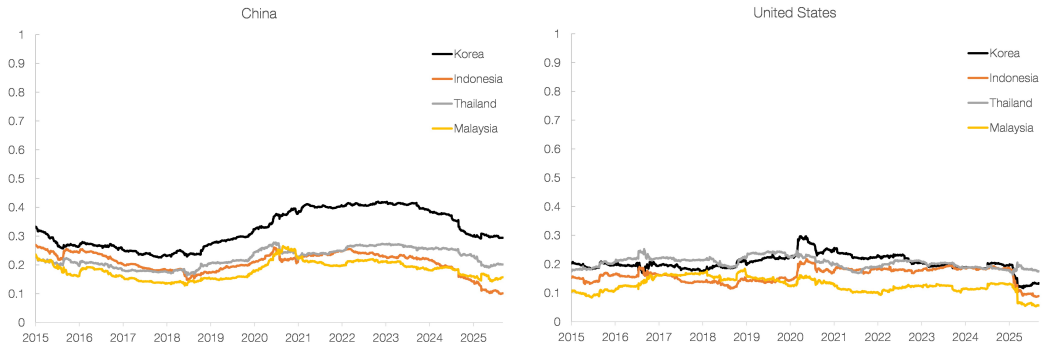
For markets in Emerging Europe, there is some heterogeneity. Correlations with China are on par with those of Latin America. Correlations with the United States are lower than those found for Latin America. This may be due to closer linkages with the financial cycle in the Euro Area.

The comparison across panels in a vertical direction shows that the correlation with China of Emerging Asian markets exceeds that of Latin America and Emerging Europe. For the case of Emerging Asia it fluctuates in the range of 0.2–0.4 whereas in the cases of Latin America and Emerging Europe the correlations fall below 0.2 in the more recent period.

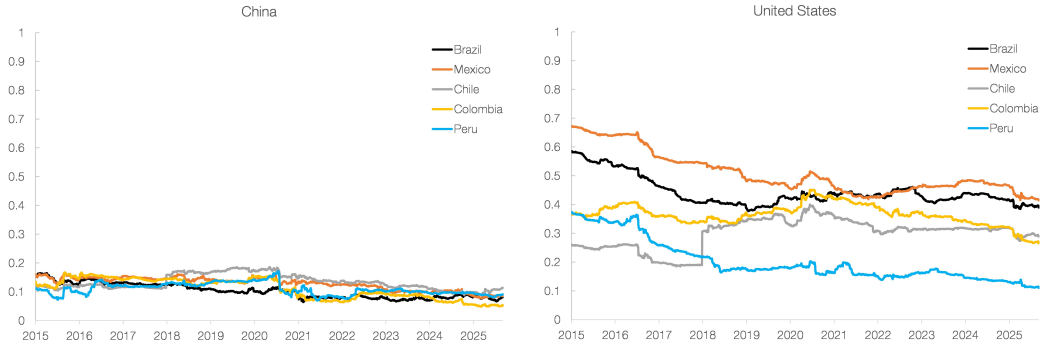
This initial analysis of unconditional correlations would seem to suggest a greater role for spillovers from China to stock markets in Emerging Asia. However, it is well known that correlations between stock market returns can arise from a variety of sources. Exposure to common external factors, such as interest rates set by major central banks (such as the Federal Reserve in the United States) or changes in global risk aversion, can have significant effects on multiple financial markets and create the illusion of strong spillovers between markets, while the real drivers may be unrelated to the specific economic realities of the countries under consideration.

As we will show in the remainder of the paper, despite lower unconditional correlations, shocks that truly originate in China seem to have a stronger impact on Latin American financial markets than on

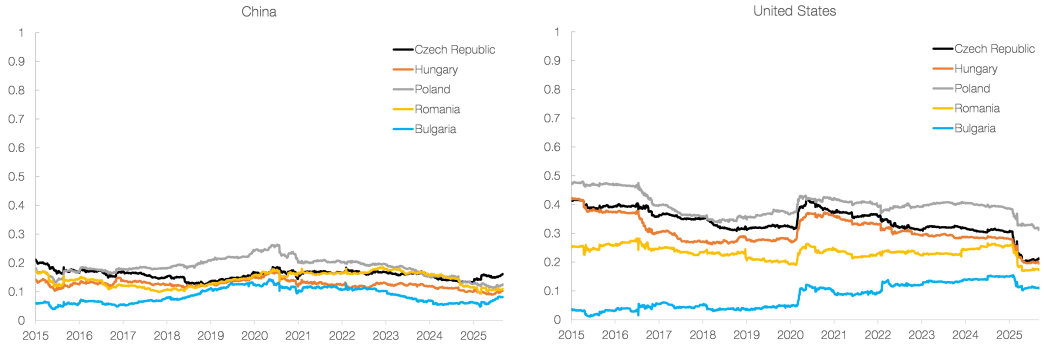
[1]We remove the data for March 2020 only for this preliminary exploratory analysis, but not for the empirical analyses in the rest of the paper.



(a) East Asia



(b) Latin America



(c) Eastern Europe

Figure 1: Co-movement of stock prices with China and the United States by region

Notes: The figure shows 5-year rolling correlations of equity market returns with China and the United States. Eastern Asia comprises South Korea, Indonesia, Thailand, and Malaysia, while Latin America comprises Brazil, Mexico, Chile, Colombia, and Peru. Emerging Europe encompasses the Czech Republic, Hungary, Poland, Romania, and Bulgaria.

financial markets in Emerging Asia or Emerging Europe.

3 Methodology

This section describes the methodology for identifying structural shocks, the assumptions underlying this identification, and the justification for these assumptions.

Identification of structural shocks. We estimate structural shocks that drive global financial markets following the methodology of Lodge et al. (2023) for the period from January 2017 to 18 August 2025. Specifically, we estimate a vector autoregression (VAR) using Bayesian methods using daily data on interest rates and other financial variables in the United States and China. The identification uses sign restrictions, relative magnitude restrictions that imply that US shocks affect US variables more than Chinese variables, and vice versa, and narrative restrictions to obtain structural shocks that drive the joint co-movement of financial variables.

The identification strategy is in the spirit of Brandt et al. (2021) and has the advantage of avoiding the data quality problem in Chinese GDP identified by previous work and discussed by, among others, Holz (2014); Clark et al. (2020); Nakamura et al. (2016); Fernald et al. (2021). The variables included in the VAR are short-term and long-term interest rates in China, stock returns in China and the United States, the China-US 10-year yield spread, and the renminbi-dollar exchange rate. The sign restrictions allow to identify five orthogonal structural shocks. Two of these shocks are specific to the China (our shocks of interest), two are specific to the United States, and the remaining shock represents a global risk shock.

The country-specific shocks emanating from China and the United States are separated into a monetary policy shock and a macro-financial shock. The key identifying assumption that separates a monetary policy from a macro-financial shock in China is that a monetary policy shock affects equity prices and interest rates in opposite directions, whereas a macro-financial shock moves them in the same direction. More precisely, a macroeconomic shock in China increases both the short term and the long term interest rate in China, pushes up equity prices in China, increases yield spread between China and the United States (because the yield in the United States is less affected) and appreciates the renminbi against the US dollar. A monetary policy shock, on the other hand, is defined as a shock that reduces the Chinese short term rate and leads to a depreciation of the currency. The long term interest rate increases because of the expansionary effect on the economy, and equity prices and the China-US yield spread

also increases.

Shocks originating in the United States are distinguished from shocks emanating in China because they move the exchange rate of the renminbi and the long term rate in China in opposite directions. A fifth shock, related to global risk aversion, is associated with higher US equity prices, with a narrowing of the US-China yield differential, and with an appreciation of the renminbi as safe assets flow out of the US dollar assets as global risk sentiment improves. The sign restrictions are shown in Table 1. The reasoning behind these sign restrictions are discussed at length by Lodge et al. (2023).

The identification strategy also makes use of relative magnitude restrictions, which impose that shocks emanating from China have a stronger effect on Chinese variables than on US variables, and vice versa: shocks originating in the US are imposed to have a stronger effect on the US variables. So a monetary policy shock in China will affect Chinese short-term and long-term rates, and the Chinese stock index, more than a US monetary policy shock.

Given the potential doubts on whether China's financial assets adequately reflect economic news, the identification is strengthened by considering events for which the impact of shocks can be identified ex ante. In addition to sign restrictions, two narrative sign restrictions are imposed, one for China (the initial lockdown of Wuhan in the early days of the Covid outbreak, which is interpreted as a negative macroeconomic shock) and one for the United States (the day after the announcement of the scaling back of assets purchases in September 2021, which is interpreted as a tightening of US monetary policy).

Because the VAR in the first stage is estimated using Bayesian methods and because identification by sign restrictions implied set identification, the procedure described generates a distribution of structural shocks. As is common practice, we use the median of each structural shock as our proxy for those shocks.

Identifying assumptions. The identification relies on three sets of assumptions: (i) sign restrictions shown in Table 1, (ii) relative magnitude restrictions, and (iii) narrative restrictions.

Having outlined the identification approach, we next describe how spillovers are measured and the data used in the analysis.

Measurement of spillovers. To measure the spillovers from China to emerging markets, we use the two structural shocks previously identified for China and estimate how financial variables in emerging markets respond to these shocks.

Our underlying assumption is that the countries within our sample are relatively small, exerting a

Table 1: Identification assumptions: sign restrictions

Variables	**Identified shocks (a)**				
	China Accomm. Monetary Policy (MP)	China Positive Macro	US Accomm. Monetary Policy (MP)	US Positive Macro	Positive Global Risk Aversion (GRA)
China short term interest rate	-	+			
China long term interest rate	-	+	-	+	
China equity index	+	+ (*)			
US equity index			+ (*)	+	+
China-US yield spread	-	+	+	-	-
Renminbi-USD exchange rate (b)	+	-	-	+	-

Notes: The identification is taken from Lodge et al. (2023).
(*) Additional narrative restrictions imposed to identify the shock are described in the text.
(a) The signs are for expansionary macro shocks, accommodative monetary policy shocks, and a decrease of global risk aversion.
(b) A positive "+" sign implies a depreciation of the renminbi against the US dollar.

negligible influence on the identification of these structural shocks individually. Therefore, we posit that causality runs from the structural shock to domestic financial variables. We estimate a separate local projection (Jordà, 2005) for each country and financial variable. The baseline specification is given by:

$$(y_{t+h} - y_t) = \alpha_h + \beta_h \text{Shock}_t + \sum_{j=1}^{3} \rho_{jh}(y_{t-j} - y_{t-j-1}) + \gamma_h' \mathbf{X}_t + \varepsilon_{t+h}, \quad h = 1, 2, \ldots, 20, \tag{1}$$

where y_t denotes the dependent variable at time t and $\mathbf{X}_t$ is a vector of controls. The coefficients of interest are the collection $\{\beta_h\}$, which trace out the response of the dependent variable y to a shock at different horizons.

For comparability across shocks, we scale the shocks from China in terms of their impact on equity prices in that country. Specifically, both the macroeconomic shock and the monetary policy shock originating in China are adjusted to result in a 1% increase in the Chinese stock market upon impact.

Variables and data sources. Our main dependent variables are stock returns. For each country, we use its primary stock market index: Brazil's Bovespa, Mexico's IPC, Chile's Selective 65 index, Colombia's MSCI, Peru's General Index of Lima, South Korea's Kospi, Malaysia's FTSE, Thailand's SET Bangkok, Indonesia's Jakarta Composite, the Czech Republic's Prague index, Hungary's BUX,

Poland's Warsaw General Index, Bulgaria's SOFIX, and Romania's BET index. All returns are measured in local currencies.

We also examine the effects of Chinese shocks on other variables, such as bilateral exchange rates against the US dollar, sovereign spreads, and corporate spreads. The exchange rates come from Reuters. Sovereign spreads, measured in basis points, are calculated using JP Morgan's Emerging Market Bond Index (EMBI)—specifically, its global variation. For the Czech Republic, South Korea, and Thailand, where an EMBI Global measure is unavailable, we use spreads implied by sovereign CDS. Additionally, the CEMBI is used as an analogous measure for the interest rate spread on external debt issued by firms in each country.

In our local projections, the control variables include the VIX—a measure of the 30-day expected volatility of the US stock market calculated from real-time, mid-quote prices of call and put options on the S&P 500 that proxies for global financial volatility—, and two economic surprise indices produced by Citigroup (one for the US and one for the global economy). These indices capture the daily deviations between expected and actual economic data.

Justification for China-specific assumptions. An implicit assumption underlying the identification strategy using sign restrictions is that Chinese financial asset prices since 2017 reflect economic shocks.

China's financial system has historically been characterized by underdeveloped markets, a largely closed capital account, and a tightly managed exchange rate. State-owned enterprises actively participated in equity markets, often without seeking profits as their only goal. These features limited the potential for Chinese asset prices to efficiently aggregate information about the underlying economic shocks.

However, China's financial markets have gradually undergone significant transformation. As documented by Koivu (2009) , He and Wang (2012), and Sun (2015), policymakers have shifted toward a more market-oriented approach, and monetary policy has evolved from relying primarily on quantitative targets to using market-based interest rates as a steering tool. The exchange rate, while still managed, has become more flexible, and gradual capital account liberalization has led to a substantial increase in cross-border financial flows. These changes support the assumption that asset prices aggregate economic information in Chinese markets.

Lodge et al. (2023) identified a small set of financial indicators for which it can be argued that markets are sufficiently liquid and government intervention sufficiently small, so that daily price fluctuations

can be argued to reflect market phenomena. One of these variables is the one-year interest rate swap (IRS) contract based on the interbank 7-day repo rate. The IMF (2017) judged that, by 2017, the 7-day interbank rate provided a good shadow measure of Chinese monetary policy. This is consistent with official PBoC communications (e.g., People's Bank of China, 2025) indicating that short-term money-market rates—most notably the 7-day repo—are used to signal policy stance. A second variable is the 10-year yield of government debt. Regarding long-term interest rates, as described by Schipke et al. (2019), China's government debt market has increased in depth and liquidity. According to NAFMII-ICMA (2021), it is now the second-largest government debt market in the world. Moreover, Kamber and Mohanty (2018) and Jones and Bowman (2019) have found that the whole term structure of yields responds to changes in monetary policy surprises. This implies that both short-term and long-term yields can be used to tease out the impact of monetary and, more generally, macroeconomic shocks on Chinese asset prices.

A similar argument applies to equity prices, which play a central role in our identification strategy. Although China's stock markets were historically limited by shallow liquidity, a series of reforms has progressively strengthened their capacity to incorporate economic information. Regulatory and institutional changes, such as enhancements to disclosure standards, stronger enforcement of securities laws, and the expansion of market-based trading mechanisms, have increased transparency and reduced frictions. The gradual opening of China's capital markets has also broadened the investor base: the introduction and expansion of the Stock Connect programs, the relaxation of quotas on foreign institutional investors, and China's inclusion in major global indices such as MSCI (from June 2018) have all facilitated greater foreign participation. A growing body of empirical work (e.g., Carpenter et al., 2021; Li et al., 2021; Meng et al., 2023; Dong et al., 2023) documents that these developments have been associated with improvements in market efficiency, including a stronger correspondence between equity price movements and fundamental news. Together, these trends support the assumption that equity prices since 2017 are sufficiently informative to help identify structural macro-financial and monetary shocks in China. However, it is important to note that while equity market movements generally reflect market forces and economic fundamentals, the authorities still occasionally intervene by directing state-owned enterprises to provide support to the equity market.[2]

[2]Interventions were documented for March 1994, May 1995, December 1996, May 2005, October 2007, September 2008, June-August 2015, January 2016, April 2020, and October 2024. Interventions were less frequent in the period of our sample. Moreover, Davis et al. (2025) argue that these interventions raised the implied stock market volatility but did not influence stock price levels.

Daily fluctuations in the exchange rate are also thought to reflect macroeconomic events to a greater extent than in the past. Lodge et al. (2023) document a substantial increase in the flexibility of China's exchange rate after 2015, based on standard definitions of 'de facto' exchange rate flexibility. Supporting this, they show that a simple metric—namely, the volatility of daily exchange rate movements—was three times higher in the post-2015 period compared to earlier years. This increase in volatility suggests that the exchange rate had greater capacity to respond to economic shocks.

These considerations suggest that the influence of non-economic factors on China's asset prices has decreased over time, opening up the possibility to extract economic shocks, especially from recent financial market data. Recent research that has made this assumption either explicitly or implicitly includes Lodge et al. (2023), who identify China-specific financial shocks using daily movements in domestic asset prices, Kamber and Mohanty (2018), who construct high-frequency monetary policy surprise measures from Chinese interest rate data, Lu et al. (2023), who use bond futures to isolate monetary surprises and link them to corporate investment responses, and Chen et al. (2018), who model the transmission of monetary shocks through China's shadow banking sector, relying on financial indicators to trace their effects.

Taken together, these points justify our identifying assumptions and acknowledge that, while occasional interventions remain, the overall environment since 2017 is consistent with our methodology.

4 Characterization of the structural shocks

Before presenting the results of our baseline estimation in (1), we characterize the structural shocks obtained from the Bayesian VAR estimation.

In Table 2 we show that the shocks obtained as medians of those shocks satisfying the sign restrictions exhibit properties that are expected of a random shock. They are mean zero, orthogonal, and uncorrelated with lagged economic surprise indicators. While the table shows that the estimated shocks exhibit low correlation with lagged control variables, Figure 9 in Appendix A indicates that some lags display statistically significant autocorrelation. This raises the question of whether the shocks are truly serially uncorrelated. However, two points mitigate this concern. First, the magnitude of autocorrelation at these lags is small, suggesting limited persistence. Second, the pattern is more pronounced for shocks related to the United States and global risk aversion, whereas shocks originating in China—our main focus—display

lower autocorrelation throughout. This provides reassurance that the identification of Chinese shocks is less affected by serial dependence, although we acknowledge that residual autocorrelation in other shocks may reflect overlapping information or gradual market adjustment.[3]

Table 2: Statistical properties of estimated shocks

	CN Macro	CN Monetary	US Monetary	US Macro	GRA
Mean	0.00	0.00	0.00	0.00	0.00
Standard deviation	0.82	0.79	0.80	0.74	0.75
Pairwise correlations between shocks					
China Macro	1.00				
China Monetary Policy	-0.15	1.00			
US Monetary Policy	0.04	-0.06	1.00		
US Macro	0.03	0.00	-0.18	1.00	
Global Risk Aversion	0.04	0.09	0.02	0.05	1.00
Pairwise correlations with lagged control variables					
Economic surprises (US)	0.02	-0.03	-0.01	-0.01	0.03
Economic surprises (World)	0.01	-0.03	-0.02	-0.01	0.04
Standard and Poor's VIX	-0.02	0.01	0.00	0.02	0.02

Notes: The sample period ranges from 4 January 2017 to 18 August 2025.

To assess whether the monetary shocks identified for China reflect underlying changes in the economic environment and the dissemination of economic information, we examine their behavior around well-documented policy events. Specifically, we focus on a 15-day window centered on the dates when the People's Bank of China announces changes to the reserve requirement ratio (RRR). These announcements are typically unexpected, as they are not issued according to a fixed schedule. Furthermore, the implementation of RRR changes is delayed (usually taking one to two weeks to take effect), meaning that any immediate financial market response can be attributable solely to the informational content of the announcement.

We use the list of RRR announcements provided in Table A.1 of Lu et al. (2023), which includes ten instances of RRR reductions within the timeframe of our sample. For the announcement, and for each day within the 15-day window, we compute the average of estimated monetary shock across the ten events. The results are presented in panel a in Figure 2.

On average, the monetary shock is one standard deviation above its mean on the day of the announcement.

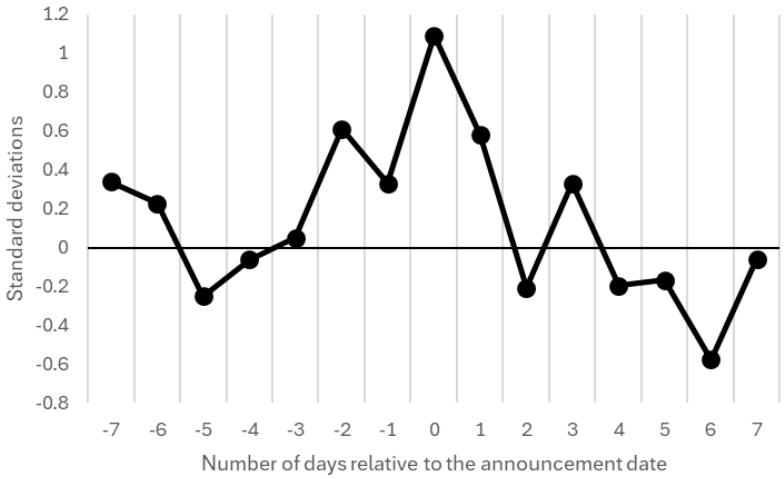
[3]Autocorrelation may reflect how markets process information. For example, investors often react gradually to major news or related announcements that occur close together, so the shock series can pick up these overlapping effects rather than indicating a problem with the identification.

Values higher than usual are also observed on the two days preceding the announcement, suggesting the possibility of information leakage. Additionally, the shock remains elevated on the day following the announcement, suggesting that markets might still be in the process of absorbing the new information.

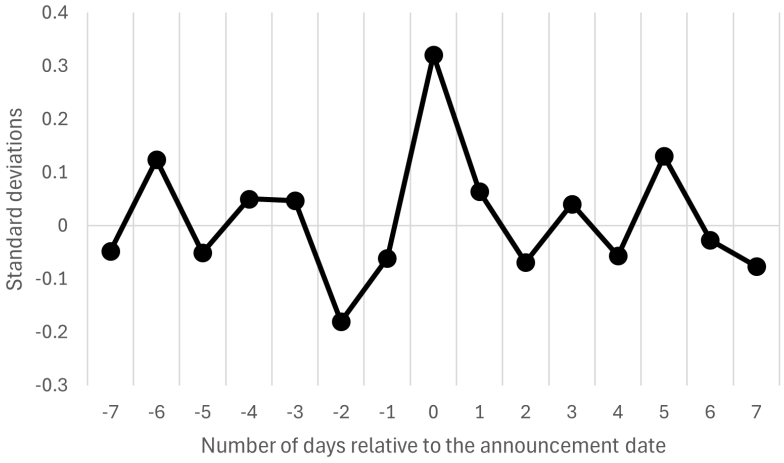
Panel b in Figure 2 presents a similar analysis, this time focusing on macroeconomic data releases. New data for industrial production, retail sales, and fixed asset investment, among other indicators, are announced simultaneously around the 15th of each month. These joint announcements can convey either positive or negative economic news about the macro economy. To distinguish between these two cases we use the return of the Chinese equity market in the 30 minutes following the data release. To ensure consistent comparison across periods of negative and positive news, we invert the sign of the shock series for instances of negative news. The figure displays the average magnitude of the macroeconomic shock—adjusted for sign—over a 15-day window centered on the announcement date.

On average, the macro shock deviates from its mean by approximately one third of a standard deviation on the day of the announcement. Notably, there are no above-average values immediately preceding the announcement, which suggests the absence of information leakage or anticipatory behavior in the days prior to the release of macro data.

In summary, this analysis provides evidence that both the monetary and macroeconomic shocks identified by our methodology correspond to observable monetary policy and macro events occurring in China on specific dates.



(a) Chinese monetary shock



(b) Chinese macro shock

Figure 2: Average of shocks around monetary policy and macro announcements

Notes: Panel a illustrates the average monetary shocks surrounding announcements of changes to China's reserve requirement ratio (RRR), based on a 15-day window centered on each announcement date. The data are derived from ten RRR reduction events listed in Table A.1 of Lu et al. (2023), which fall within the sample period. Panel b illustrates the average of macro shocks surrounding announcements of Chinese macroeconomic indicators. We use the Chinese stock market return in the 30 minutes following the announcement to identify whether macro announcements convey positive or negative news about the economy. For negative news the sign of the shock (for the whole 15-day period surrounding this event) is reversed. Chinese Macro and Monetary shocks are computed using the methodology described in Section 3, and values are standardized. The spike in shocks on the announcement day, as well as elevated levels on adjacent days, suggests that financial markets respond to the informational content of the announcements, with possible early leakage and continued absorption of information.

5 Results

5.1 Strength of spillovers from China by type of shock and region

Figure 3 presents the impulse responses of equity prices to both a macroeconomic shock and a monetary policy shock originating in China. Both shocks are normalized so that they lead to a 1% increase in equity prices in China. We average the country-level results for each of the three different regions: Latin America (LA), East Asia (EA), and Eastern Europe (EE).

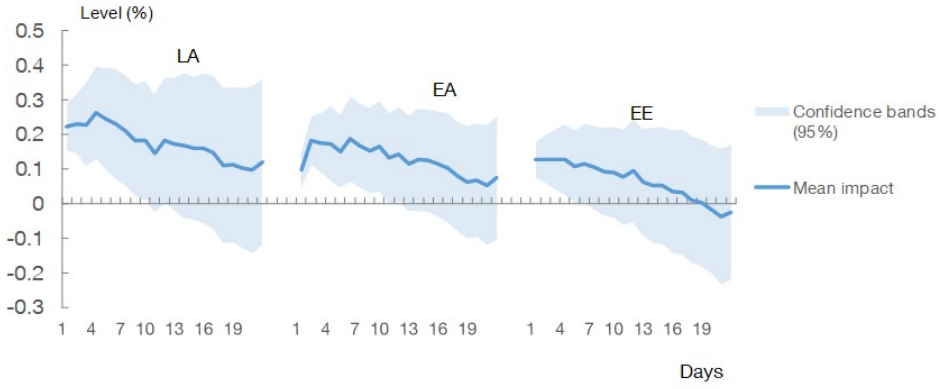
The figure shows that a macroeconomic shock corresponding to a 1% rise in Chinese equity prices triggers an immediate increase in emerging market equity prices ranging from 0.10% to 0.22%, with peak responses reaching up to 0.26%. These responses materialize on the same day the shock occurs and appear to be relatively long-lasting; in some cases, their effects persist for as many as 11 trading days.

To assess whether our results are driven by the extraordinary volatility during the COVID-19 pandemic, we re-estimate the local projections excluding the March–June 2020 period (Figure 29 in the appendix). The impulse responses remain qualitatively unchanged, with only minor differences in magnitude, suggesting that our findings are not driven by pandemic-related observations. This robustness check reinforces that the spillover patterns documented in the paper reflect broader dynamics rather than exceptional events.

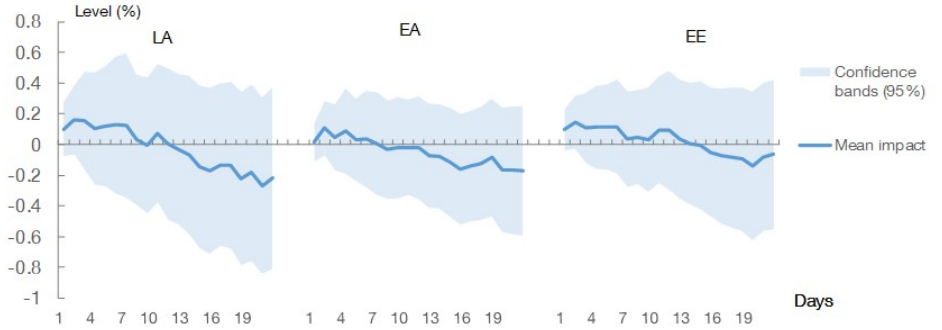
The lower panel of the figure shows the responses to a monetary policy shock in China. In this case, the point estimates indicate smaller responses on impact (i.e., the first element of the impulse response function) which are generally not statistically significant, although confidence bands are wide and some impact effects cannot be ruled out.[4]

Interestingly, given their strong economic and commercial ties with China, one might reasonably expect Asian economies to be more vulnerable to macroeconomic shocks originating in China. However, results in Figure 3 reveal an intriguing divergence from this expectation. Specifically, Latin American equity markets display a notably higher responsiveness to positive macroeconomic shocks from China than those in Asia or Eastern Europe. In fact, the average Latin American equity index records an immediate increase of 0.22%—almost double the average response observed in Asia (0.10%) and Eastern Europe

[4]Following a China macro shock, equity returns in all countries rise and are statistically significant for at least the first five days; Latin American markets—especially Brazil, Peru, and Colombia — show the largest effects. South Korea exhibits the greatest persistence. By contrast, after a China monetary policy shock, responses are statistically indistinguishable from zero for most countries. Country-specific impulse response functions (IRFs) are reported in Appendix B.



(a) Impulse responses of a China macro shock



(b) Impulse responses of a China monetary shock

Figure 3: Impulse responses of shocks from China on stock prices

Notes: The figures show averages for each region of impulse response functions of equity prices to a positive macroeconomic shock in China (panel a) and to a monetary policy shock in China (panel b). Both shocks are scaled so that they raise the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country and averaged by region. LA is the average for Brazil, Chile, Colombia, Mexico, and Peru. EA is the average for Korea, Malaysia, Indonesia, and Thailand. EE is the average for the Czech Republic, Bulgaria, Hungary, Poland, and Romania. Blue areas show averages by region of 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates. Country-level confidence intervals are shown in Appendix B.

(0.13%).

Among Latin American economies, the effects appear particularly pronounced for Brazil, Peru and Colombia (see Appendix B for impulse response functions for individual countries). The larger spillovers observed in Brazil are consistent with previous research on international shock transmission. Given Brazil's relatively deeper financial markets, prior studies have documented that external shocks—such as those originating in the United States—tend to have more pronounced effects on its financial variables, a phenomenon that may extend to shocks from other regions as well. For instance, Eichengreen and Gupta (2015) document the substantial volatility experienced by Brazilian (and Mexican) financial markets during the taper tantrum in May 2013, attributing this sensitivity to the depth of these markets. In contrast, Colombia and Peru exhibit strong responses, which, as we explore in the next section, could be largely due to their heavy reliance on commodity exports: fuel and mining products account for 51% of Colombia's export revenues, while minerals represent 70% of Peru's exports. In East Asia, the highest response is estimated for Korea, a country with closer ties to China through global value chains. Meanwhile, the responses in Eastern European stock markets are more muted, and the associated estimation uncertainty is considerably higher.

The lack of evidence for spillovers of monetary policy shocks from China to emerging markets suggests that China's capital controls continue to act as a barrier to the direct transmission of such shocks globally. Additionally, it underscores that China's monetary policy is often implemented using tools beyond short-term interest rates, such as reserve requirements for banks or mandatory investment ratios, for which it is less likely that they will affect financial markets in other countries.

However, an alternative explanation is that the identification of Chinese monetary policy shocks may remain imperfect even in the post-2017 period. For example, the elevated values observed in Figure 2 prior to monetary policy announcements could reflect anticipatory effects or other confounding factors, indicating that our shock measure might capture anticipatory effects or market expectations rather than pure policy surprises. This possibility warrants caution when interpreting the null results for monetary spillovers.

5.2 Commodity prices as a conduit for spillovers from China

Why are Latin American equity markets disproportionately affected by macro shocks from China? One explanation lies in the critical role commodity prices play in the region's equity markets—a point

supported by the academic literature. For instance, Lodge et al. (2023) document that macroeconomic shocks originating in China have a pronounced impact on international commodity prices, especially oil and metals, which are key exports for many Latin American countries. Colombia, for example, is a major oil exporter, while Chile and Peru are among the world's leading metal exporters.

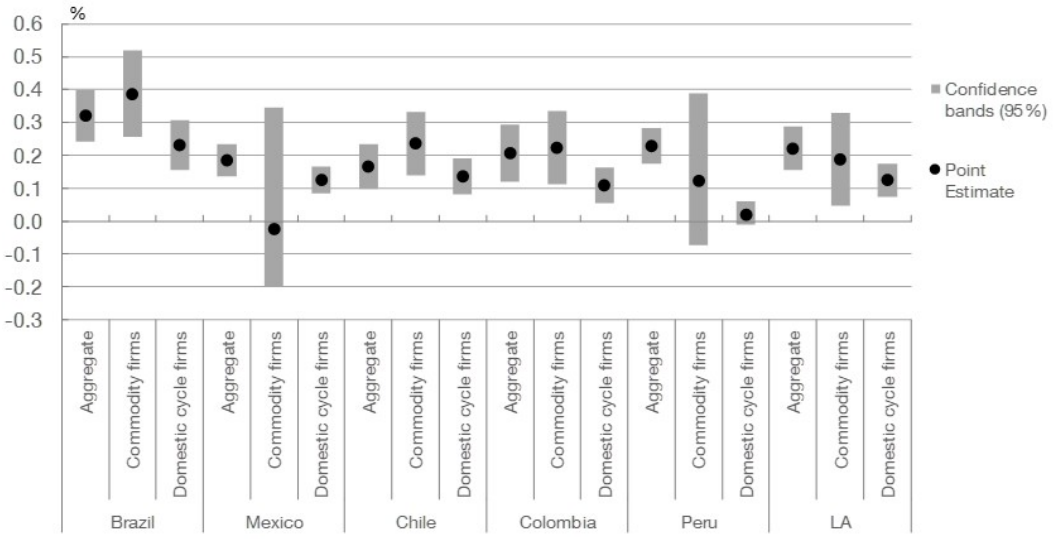
To explore this channel further, we assess the effects of Chinese macroeconomic shocks on two sets of stocks: those related to commodity-related firms and those from firms that are more closely tied to the domestic business cycle. For the commodity-related index, we use the Datastream aggregate for companies in the "Basic Resources" sector (primarily mining and industrial metals firms). For the domestic business cycle index, we compute a simple average of Datastream aggregates covering sectors such as real estate, automotive, consumer staples, chemicals, telecommunications, healthcare, retail, and banking.

Figure 4 illustrates the impulse responses of these indices to a macro shock in China, measured on impact. The findings indicate that, with the exception of Mexico, responses for commodity-related equities exceed those of non-commodity firms. This suggests that the rise in commodity stock prices is a key driver behind the strong spillovers observed in Latin American markets. The exception of Mexico can be explained by the fact that the country is not an important exporter of commodities demanded by China.

In a subsequent exercise, we introduce commodity prices—measured by metal and oil price indices from Refinitiv—as additional controls in the local projections specification. As shown in Figure 5, once commodity price fluctuations are accounted for, the impact on Latin American equity markets is substantially more muted, aligning the spillover magnitudes more closely with those observed in emerging Asia and Eastern Europe.

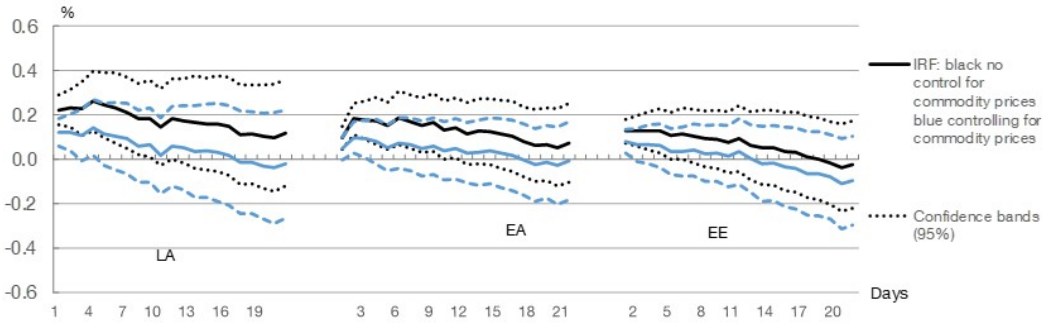
In summary, the evidence suggests that Latin America's heightened sensitivity to Chinese macro shocks can be explained to a large extents by its reliance on commodity exports and the significant presence of commodity-linked stocks in the equity market. Moreover, as Cheng and Xiong (2014) argue, commodity markets have experienced rapid financialization over recent decades, becoming a highly attractive asset class for portfolio investors—just like stocks and bonds. This increased popularity ensures that macroeconomic news is transmitted rapidly to these markets. In contrast, for Asian countries with closer industrial ties to China, there is no financial asset that plays the same pivotal role as commodities do in Latin America.

Figure 4: Spillovers of positive macroeconomic shocks in China on equity index by sector



Notes: Black dots represent the point estimate of the estimated response of a variable to a positive macroeconomic shock in China scaled so that it increases Chinese equities by 1%. This response is calculated on impact (i.e., the first element of the impulse response function). The impulse response functions are estimated using Local Projections. Gray areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. Commodity related firms are defined as mining and industrial metals companies. Domestic cycle firms belong to sectors comprising real estate, automobile, consumer staples, chemicals, telecommunications, health care, retailers, and banks.

Figure 5: Spillovers of positive macroeconomic shocks in China by region and controlling for commodity prices



Notes: The figures show averages for each region of impulse response functions of equity prices to a positive macroeconomic shock in China. The shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country and averaged by region. LA is the average for Brazil, Chile, Colombia, Mexico, and Peru. EA is the average for Korea, Malaysia, Indonesia, and Thailand. EE is the average for the Czech Republic, Bulgaria, Hungary, Poland, and Romania. Dotted and dashed lines are averages by region of the boundaries of 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.

5.3 Impact on other financial variables

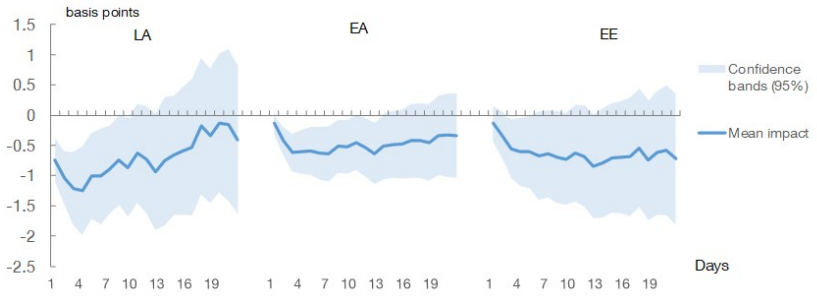
The evidence discussed so far indicates that macroeconomic shocks from China have a significant impact on equity prices in emerging economies. This observation raises the question of whether the impact of these shocks is limited to equities, or whether they extend to other financial variables as well. To address this question, we broaden our analysis to include additional financial variables, such as sovereign and corporate bond spreads, movements in exchange rates or long-term interest rates in local currency. This expanded scope allows us to comprehensively assess the broader financial implications of macroeconomic shocks originating from China.

As shown in Figure 6, a macro shock in China calibrated to induce a 1% increase in the Chinese stock market is associated with an immediate decline in the sovereign and corporate spreads, and a decline in average exchange rates, i.e., an appreciation of local currencies. Importantly, these responses are not only significant but also notably persistent, lasting for close to a month in some of the cases. The magnitude of the effects triggered by this shock varies by region, with Latin America and Emerging Asia experiencing similar impacts. In comparison, the responses for Emerging Europe are more muted, with the exception of the exchange rate.

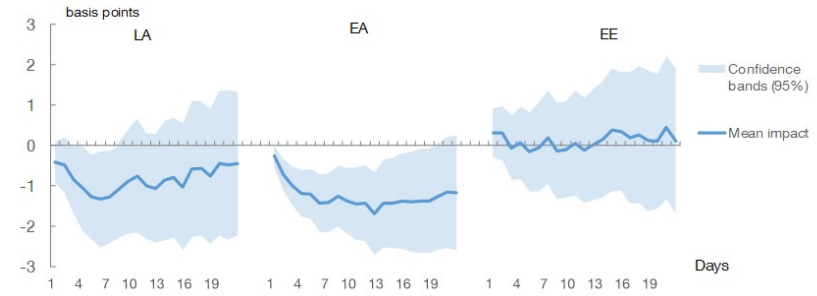
In Figure 7, we show the response of sovereign spreads, corporate spreads, and exchange rates to a monetary policy shock calibrated to induce a 1% increase in the Chinese stock market. For exchange rates, there is tentative evidence of short-lived depreciation against the dollar following Chinese monetary easing, especially in Asia and Eastern Europe. There also is tentative evidence of effects of monetary shocks on other asset prices, as point estimates are often large, although confidence bands are also relatively wide. In consequence, our analysis suggests a more uncertain role for monetary policy shocks in influencing these broader financial variables.

A further variable of direct relevance for financial stability is the sovereign borrowing cost in local markets—specifically, long-term local-currency yields.[5] We capture this using the yield on 10-year domestic-currency government bonds quoted in the onshore market, with the exception of Peru, for which we use the closest available maturity at 20 years. For these yields, the estimated effects of China's macroeconomic shocks are generally smaller and subject to greater statistical uncertainty; when present, the most pronounced effects are observed in Latin America. Monetary policy shocks from China are also typically not statistically significant.

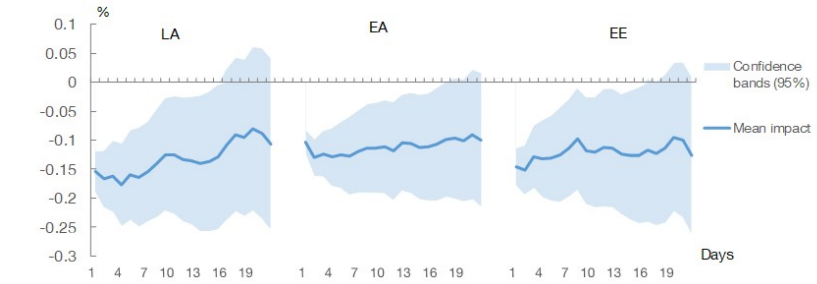
[5]We thank an anonymous referee for suggesting that we examine long-term yields.



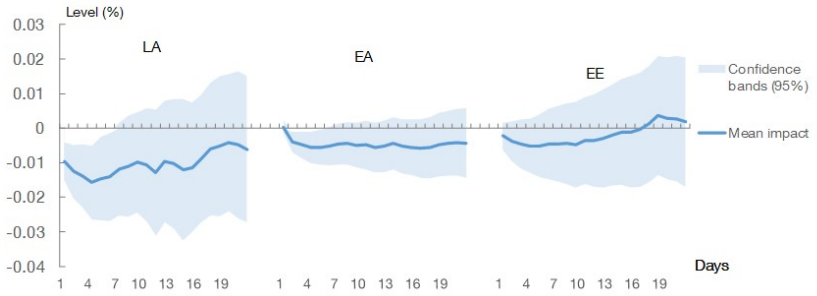
(a) Impact on sovereign spreads



(b) Impact on corporate spreads



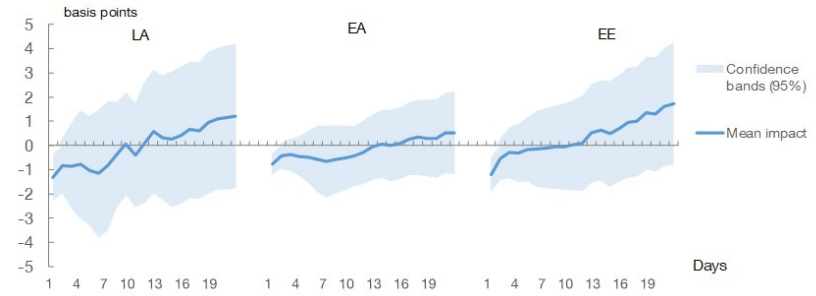
(c) Impact on exchange rates



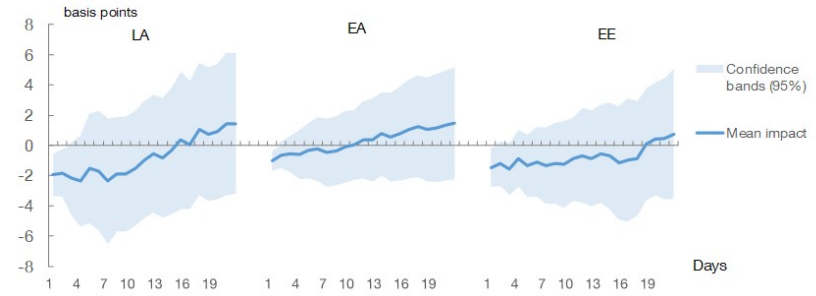
(d) Impact on long-term yields

Figure 6: Impulse responses of a macro shock from China on selected financial variables

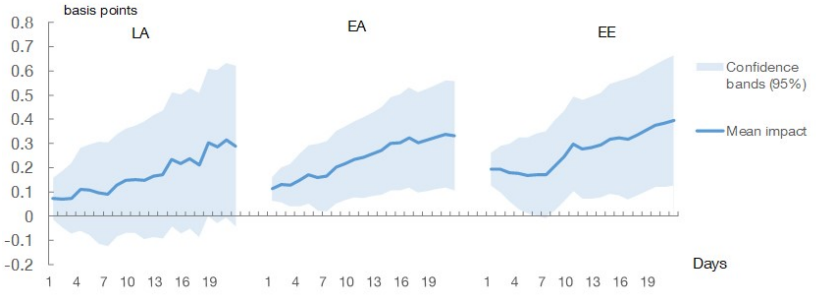
Notes: The figures show averages for each region of impulse response functions of sovereign spreads, corporate spreads, exchange rates versus the US dollar, and long-term yields in local currency to a positive macroeconomic shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country and averaged by region. LA is the average for Brazil, Chile, Colombia, Mexico, and Peru. EA is the average for Korea, Malaysia, Indonesia, and Thailand. EE is the average for the Czech Republic, Bulgaria, Hungary, Poland, and Romania. Blue areas show averages by region of 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates. Country-level confidence intervals for sovereign spreads, corporate spreads, and exchange rates are shown in Appendix B.



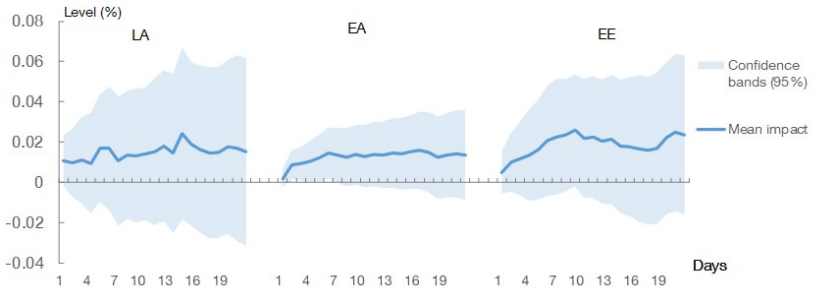
(a) Impact on sovereign spreads



(b) Impact on corporate spreads



(c) Impact on exchange rates



(d) Impact on long-term yields

Figure 7: Impulse responses of a monetary policy shock from China on selected financial variables

Notes: The figures show averages for each region of impulse response functions of sovereign spreads, corporate spreads, exchange rates versus the US dollar, and long-term yields in local currency to a positive monetary policy shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country and averaged by region. LA is the average for Brazil, Chile, Colombia, Mexico, and Peru. EA is the average for Korea, Malaysia, Indonesia, and Thailand. EE is the average for the Czech Republic, Bulgaria, Hungary, Poland, and Romania. Blue areas show averages by region of 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates. Country-level confidence intervals for sovereign spreads, corporate spreads, and exchange rates are shown in Appendix B.

5.4 Relative magnitude of spillovers from China and the United States

Our findings indicate that macroeconomic shocks originating from China exert a significant, immediate, and persistent influence on equity indices in emerging markets, with the effect being particularly pronounced in Latin America. Conversely, the preliminary calculations presented in Figure 1 reveal a strong correlation between equity markets in emerging economies and those in the United States.

To put the effects of the shocks from China in context, we compare the impact of shocks from China with those stemming from the United States. This comparison employs the same local projections framework used in estimating the effects of Chinese shocks.

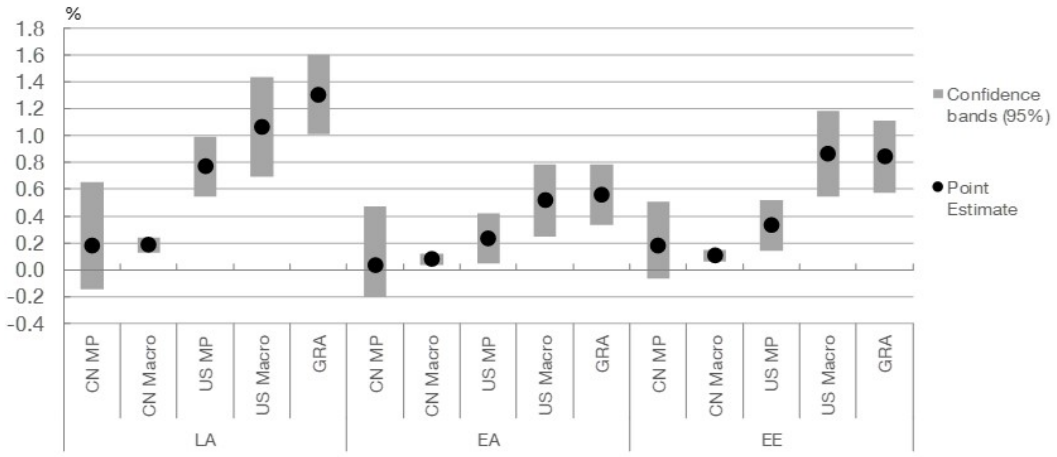
Figure 8 illustrates the response of equity prices to all five types of shocks. To make the shocks comparable, we normalize them to a one-standard deviation shock in all cases. The figure reveals a clear ordering: shocks originating in China tend to have a smaller impact than those from the United States or global risk aversion.

Among the shocks related to the United States is the macroeconomic shock the one that generally produce stronger effects than monetary policy shocks across all regions. Finally, global risk shocks also result in stronger spillovers on emerging markets economies. In East Asia and Eastern Europe, the U.S. macro-financial and the global risk aversion shocks elicit similar responses. However, in Latin America, global risk shocks appear to dominate macro-financial ones.

Furthermore, our analysis consistently shows that Latin American countries exhibit the strongest reactions to these shocks. This heightened sensitivity likely stems from deep trade and economic ties with the United States, extensive use of the U.S. dollar for external debt and export revenues, and a higher degree of financial openness to foreign capital compared to other regions.

Additional results pertaining sovereign, corporate bonds and exchange rates overall reflect smaller relative impact from shocks stemming from China as well, and are presented in Appendix D.

Figure 8: Spillovers of positive shocks in China, the US and global risk aversion, by region: equity index



Notes: Black dots represent the point estimate of the estimated response of a variable to positive one standard deviation shock in China, the US and global risk aversion, by region. The figure shows the response on impact (i.e., the first element of the impulse response function). The impulse response functions are estimated using Local Projections. Gray areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. LA is the average for Brazil, Chile, Colombia, Mexico and Peru. AS is the average for Korea, Malaysia, Indonesia and Thailand. EE is the average for the Czech Republic, Bulgaria, Hungary, Poland and Romania.

6 Conclusion

Our analysis reveals that macroeconomic shocks emanating from China significantly influence emerging markets. In general, a positive macroeconomic shock in China triggers an immediate—and at times persistent—increase in stock prices, a compression of sovereign and corporate external debt spreads, and an appreciation of local currencies. In contrast, spillovers from Chinese monetary policy shocks appear less persistent than those from macro shocks, though short-lived effects on asset prices and exchange rates suggest that monetary spillovers should not be disregarded.

Notably, when compared with Emerging Asian economies, which generally have closer trade ties with China, Latin American stock markets exhibit a more pronounced response to these macroeconomic shocks. We test whether the stronger effect on equities may be mediated by commodity prices and our results provide evidence supporting this hypothesis.

The presence of significant financial spillovers from China to other emerging markets indicates a connection that is commonly not taken into account in discussions analyzing the repercussions of Chinese events on emerging economies. Quantitative multi-country models employed by central banks do not frequently model financial spillovers from China to other emerging economies, but only trade linkages. Yet, whereas alterations in global value chains and trade relationships take time to materialize, financial spillovers can occur almost immediately, as evidenced in this study. Moreover, financial spillovers to emerging economies appear to be mediated by commodity prices. This raises the question of whether, given the increased financialization of commodity markets over the last decades, the apparent effects of commodity prices on real activity in emerging economies may, in fact, also be channeled through financial markets instead of only through trade linkages.

While our findings underscore the growing relevance of China as a source of macro-financial spillovers to emerging markets, it is important to contextualize these effects. In particular, our analysis reveals that shocks originating from the United States continue to exert a more substantial influence on emerging market financial conditions, especially in Latin America. U.S. monetary policy and macro shocks, for instance, tend to generate larger and more immediate responses in equity prices, sovereign spreads, and exchange rates than comparable shocks from China. This asymmetry likely reflects the dominant role of the U.S. dollar in global finance and the deeper financial integration of emerging economies—and in particular Latin American economies—with the United States. Thus, while China's role is increasingly significant, it does not yet rival the systemic impact of the United States on emerging markets.

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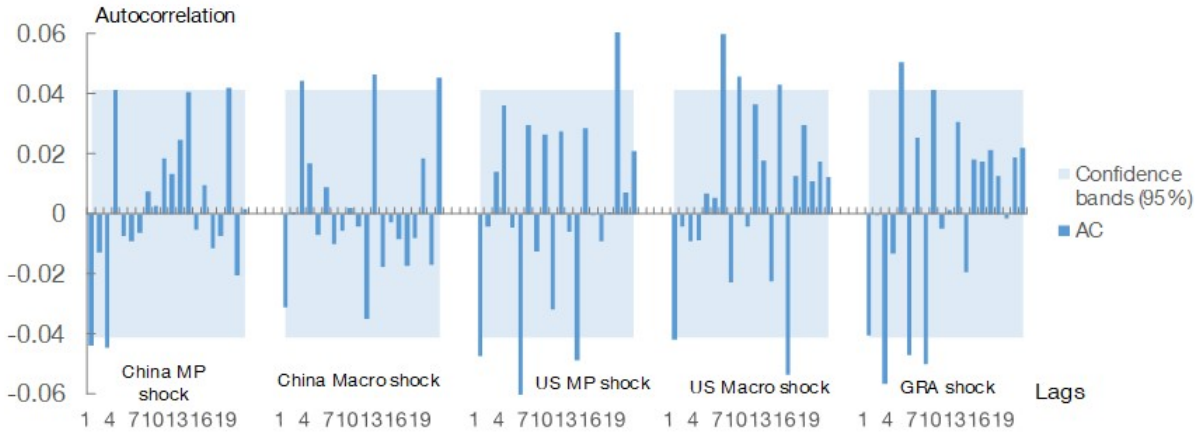
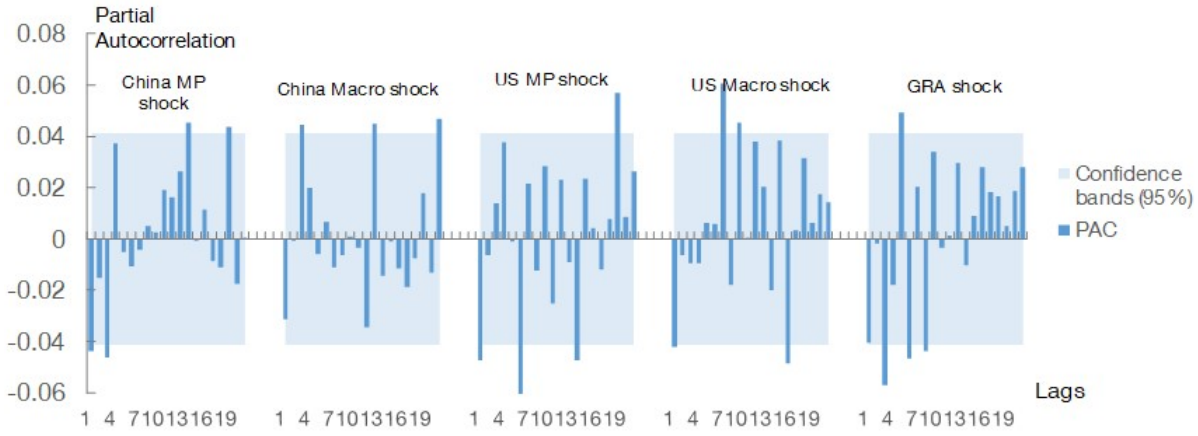
Appendices

A ACF and PACF for estimated structural shocks



(a) Autocorrelation Functions



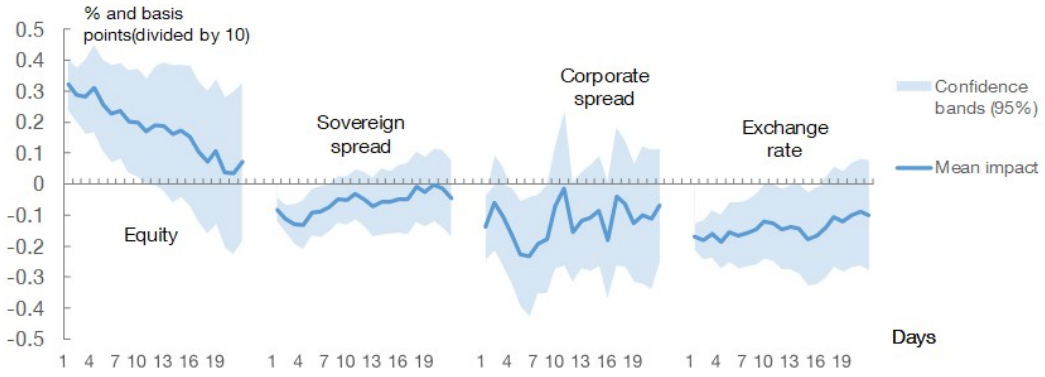
(b) Partial Autocorrelation Functions

Figure 9: ACF and PACF for the shocks estimated in the BVAR

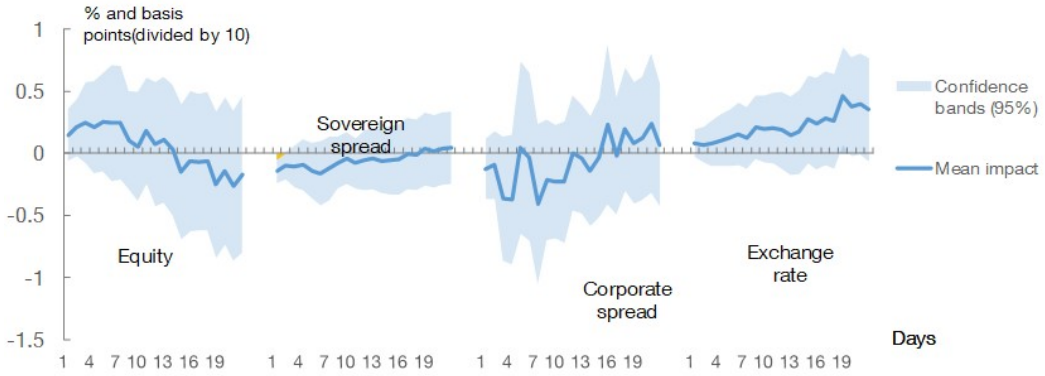
Notes: The figures show the autocorrelation and partial autocorrelation functions for the five structural shocks.

B Individual countries' IRF to Chinese shocks

B.1 Latin American markets



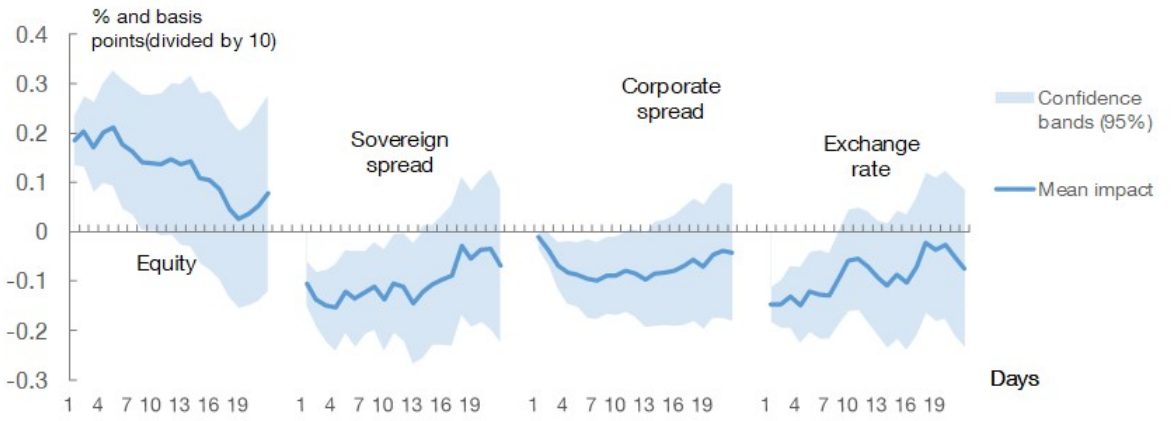
(a) Response of Brazilian financial variables to a Chinese macro shock



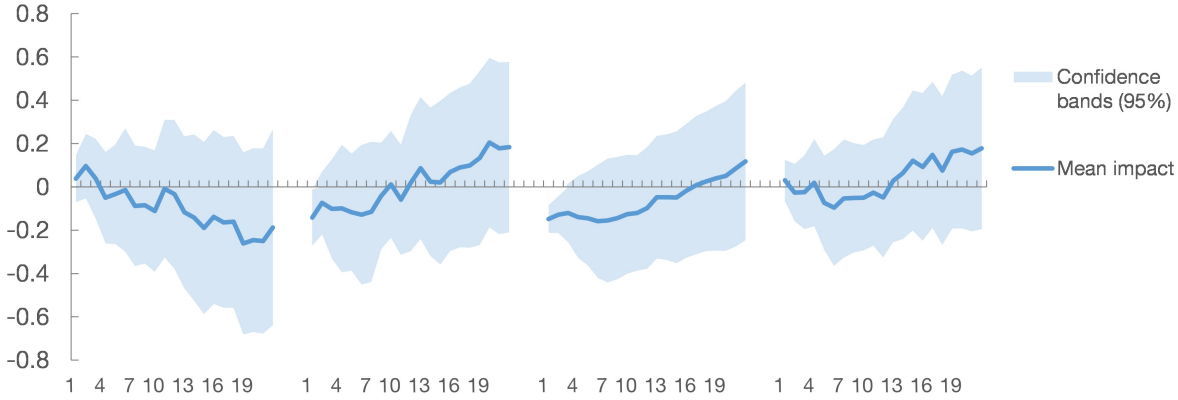
(b) Response of Brazilian financial variables to a Chinese monetary policy shock

Figure 10: Brazil: IRF to Chinese shocks

Notes: The figures show impulse response function of each financial variable to a positive macroeconomic or a positive monetary policy shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country. Blue areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.



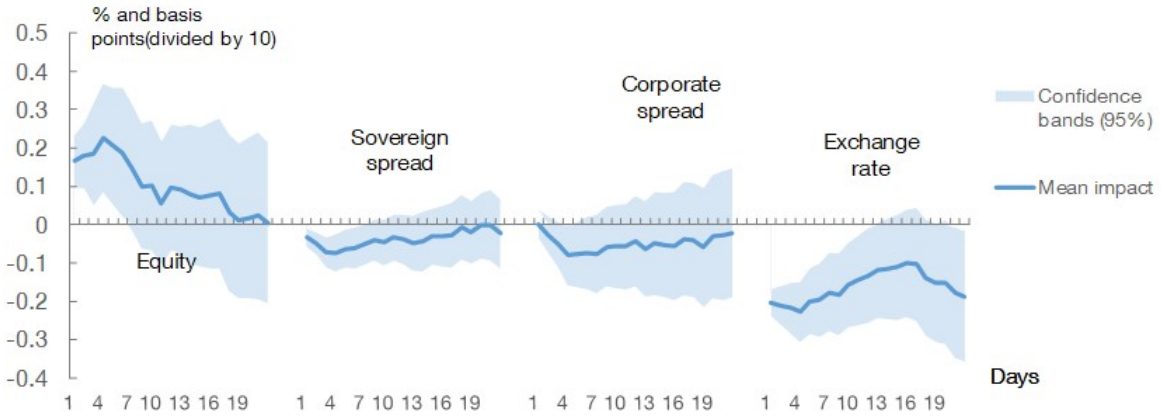
(a) Response of Mexican financial variables to a Chinese macro shock



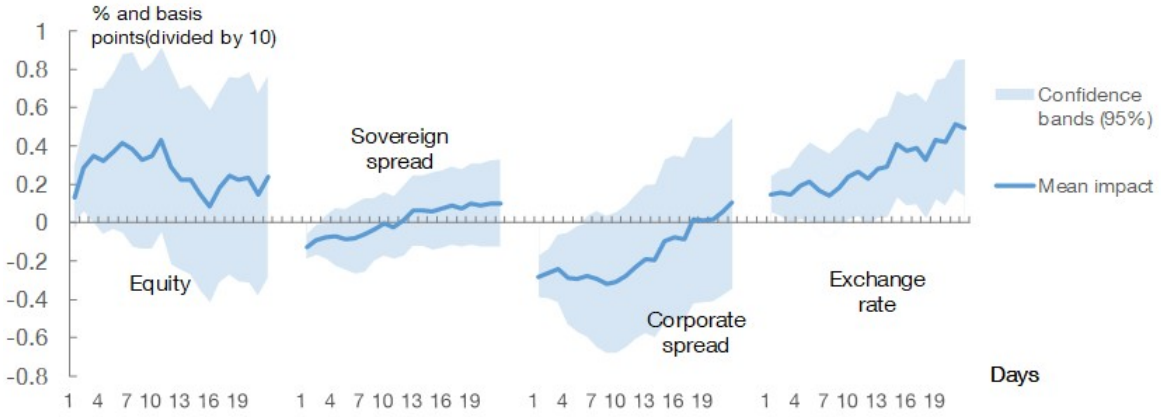
(b) Response of Mexican financial variables to a Chinese monetary policy shock

Figure 11: Mexico: IRF to Chinese shocks

Notes: The figures show impulse response function of each financial variable to a positive macroeconomic or a positive monetary policy shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country. Blue areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.



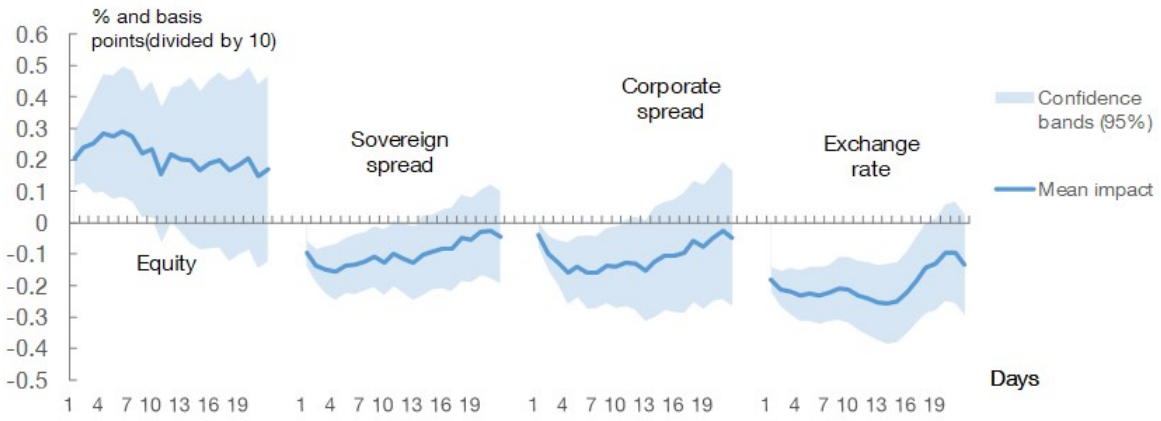
(a) Response of Chilean financial variables to a Chinese macro shock



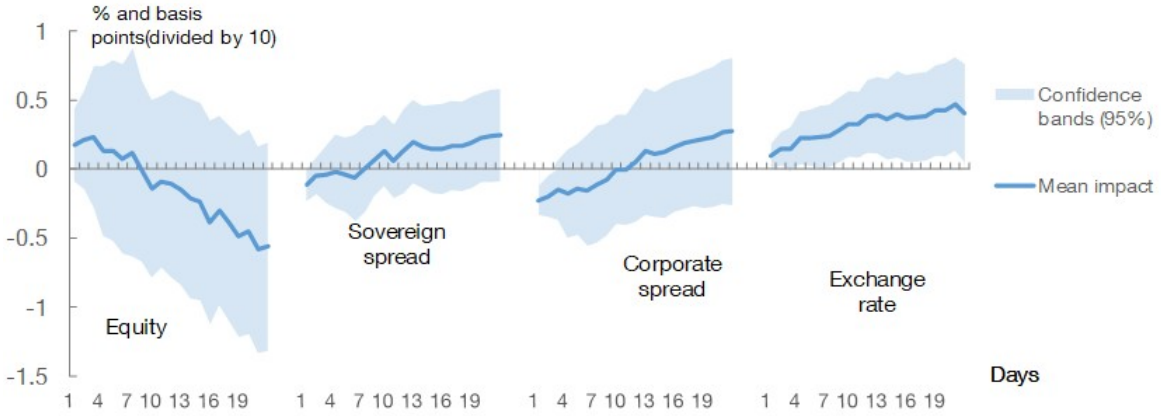
(b) Response of Chilean financial variables to a Chinese monetary policy shock

Figure 12: Chile: IRF to Chinese shocks

Notes: The figures show impulse response function of each financial variable to a positive macroeconomic or a positive monetary policy shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country. Blue areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.



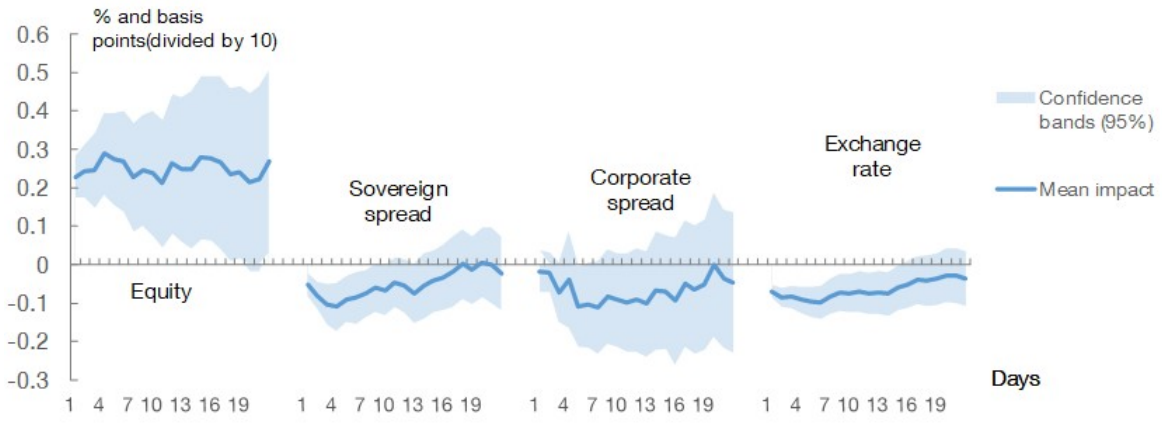
(a) Response of Colombian financial variables to a Chinese macro shock



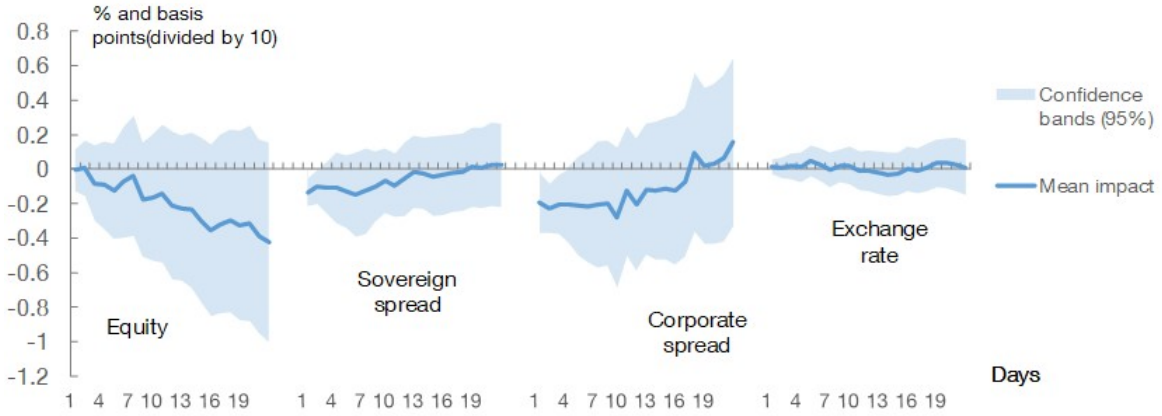
(b) Response of Colombian financial variables to a Chinese monetary policy shock

Figure 13: Colombia: IRF to Chinese shocks

Notes: The figures show impulse response function of each financial variable to a positive macroeconomic or a positive monetary policy shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country. Blue areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.



(a) Response of Peruvian financial variables to a Chinese macro shock

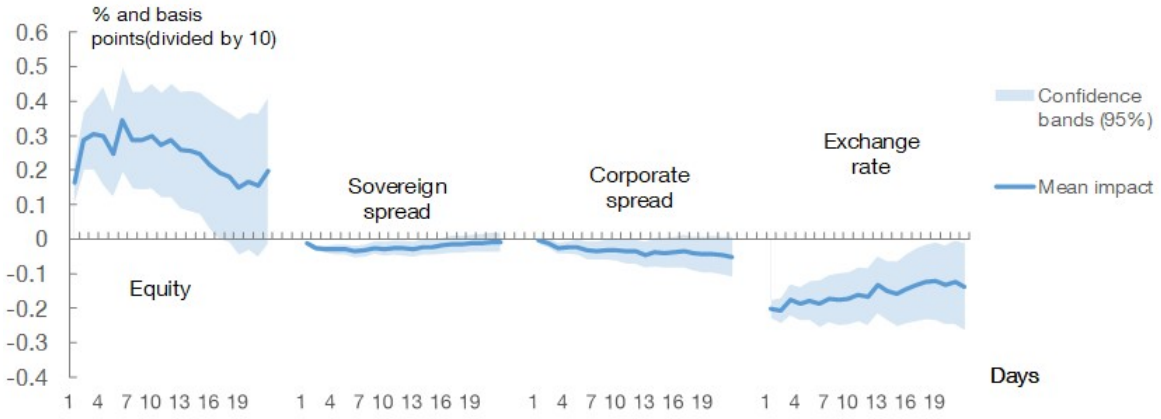


(b) Response of Peruvian financial variables to a Chinese monetary policy shock

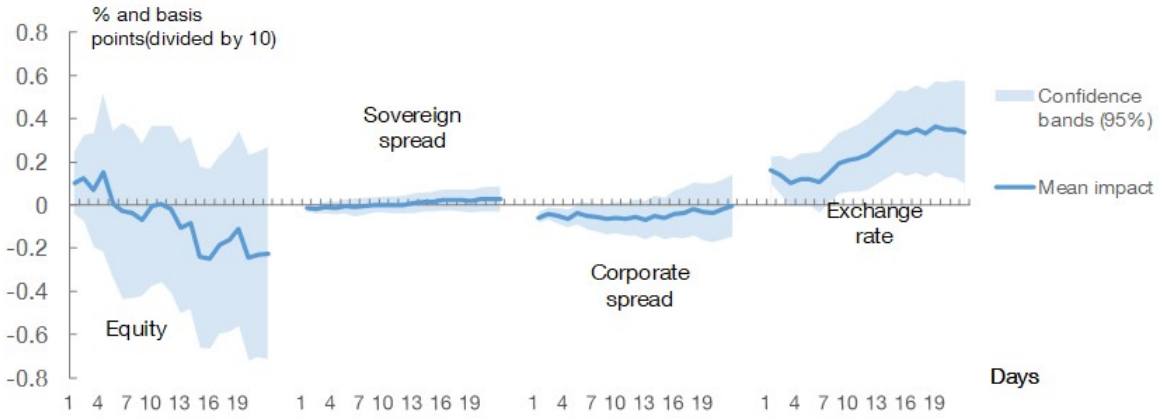
Figure 14: Peru: IRF to Chinese shocks

Notes: The figures show impulse response function of each financial variable to a positive macroeconomic or a positive monetary policy shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country. Blue areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.

B.2 Asian markets



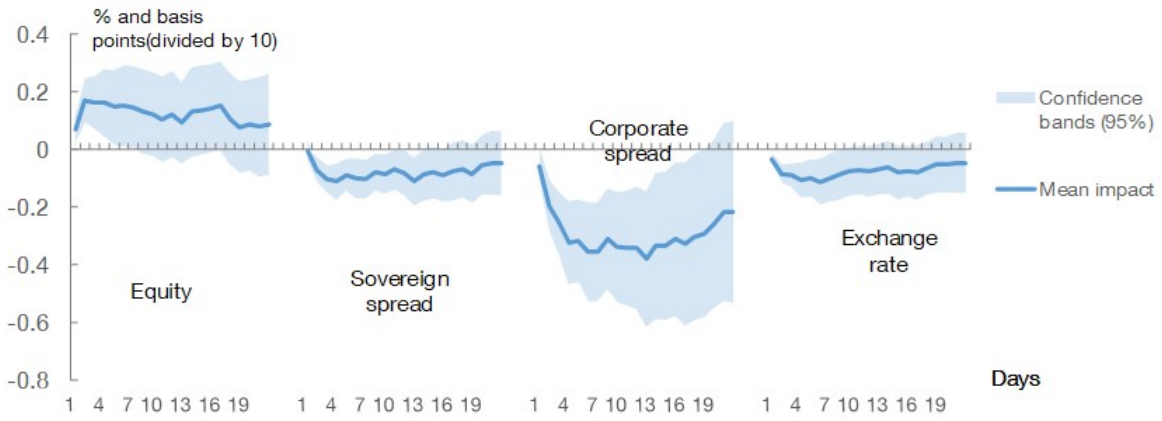
(a) Response of Korean financial variables to a Chinese macro shock



(b) Response of Korean financial variables to a Chinese monetary policy shock

Figure 15: Korea: IRF to Chinese shocks

Notes: The figures show impulse response function of each financial variable to a positive macroeconomic or a positive monetary policy shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country. Blue areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.

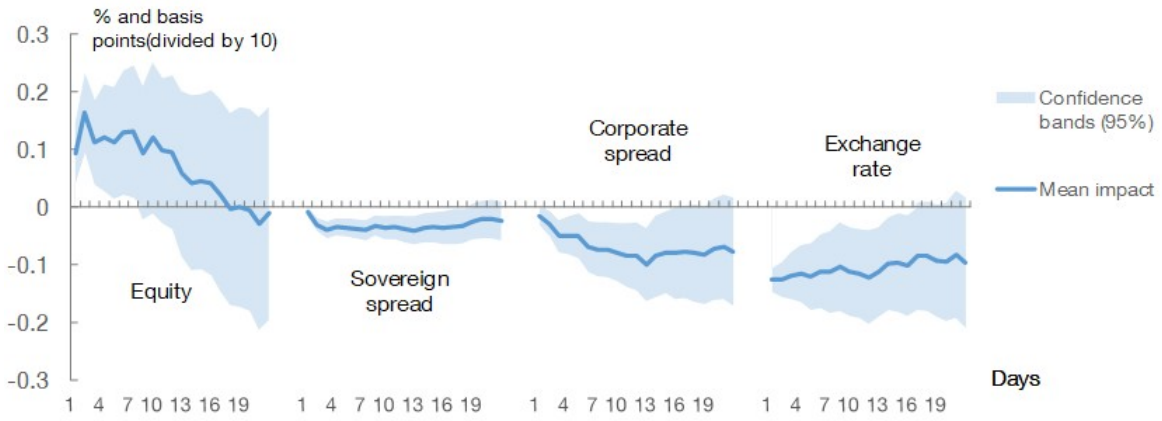


(a) Response of Indonesian financial variables to a Chinese macro shock

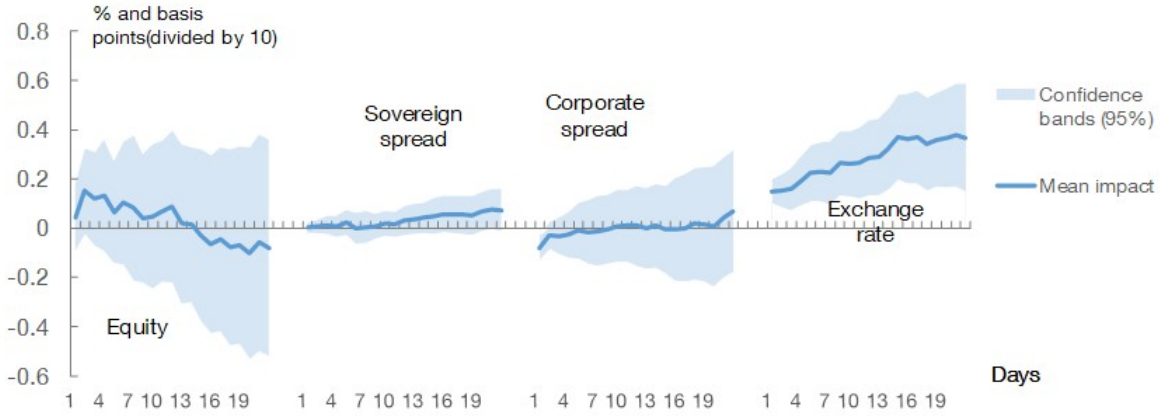
(b) Response of Indonesian financial variables to a Chinese monetary policy shock

Figure 16: Indonesia: IRF to Chinese shocks

Notes: The figures show impulse response function of each financial variable to a positive macroeconomic or a positive monetary policy shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country. Blue areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.



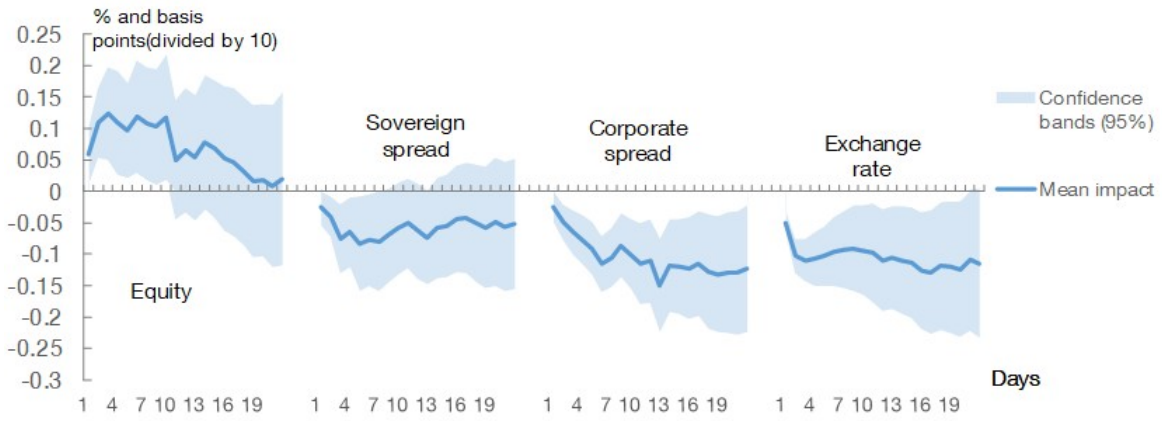
(a) Response of Thai financial variables to a Chinese macro shock



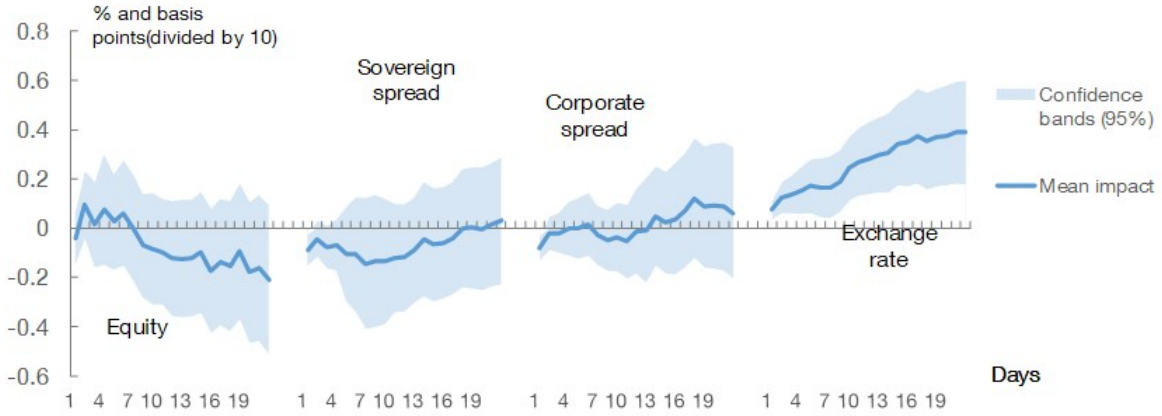
(b) Response of Thai financial variables to a Chinese monetary policy shock

Figure 17: Thailand: IRF to Chinese shocks

Notes: The figures show impulse response function of each financial variable to a positive macroeconomic or a positive monetary policy shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country. Blue areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.



(a) Response of Malaysian financial variables to a Chinese macro shock



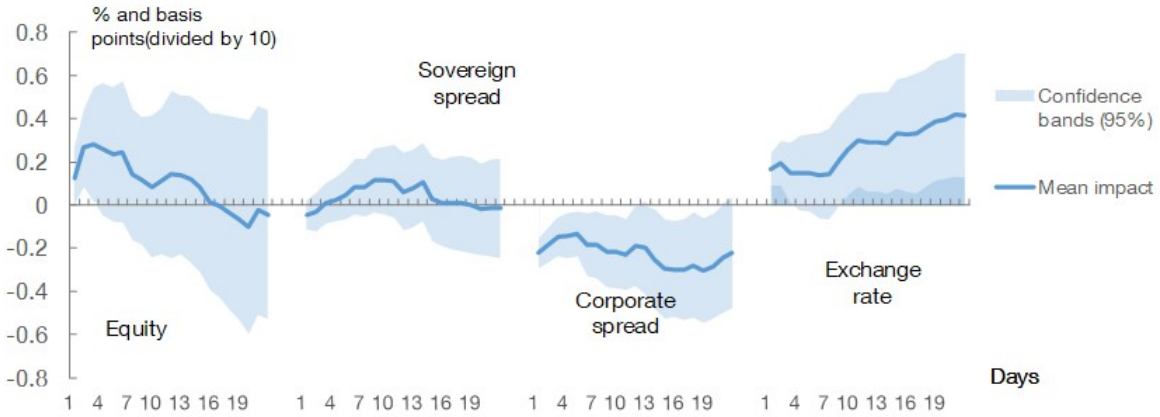
(b) Response of Malaysian financial variables to a Chinese monetary policy shock

Figure 18: Malaysia: IRF to Chinese shocks

Notes: The figures show impulse response function of each financial variable to a positive macroeconomic or a positive monetary policy shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country. Blue areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.

B.3 Eastern Europe markets

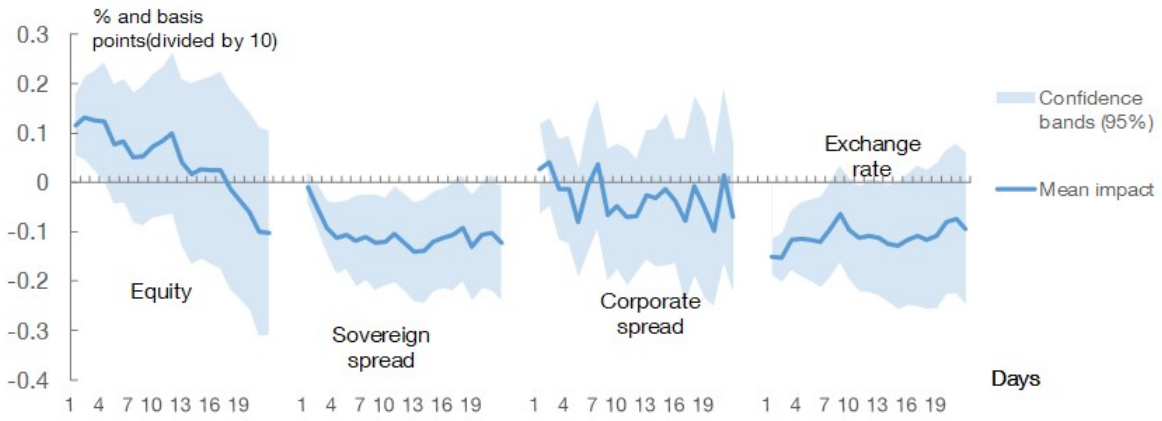
(a) Response of Czech financial variables to a Chinese macro shock



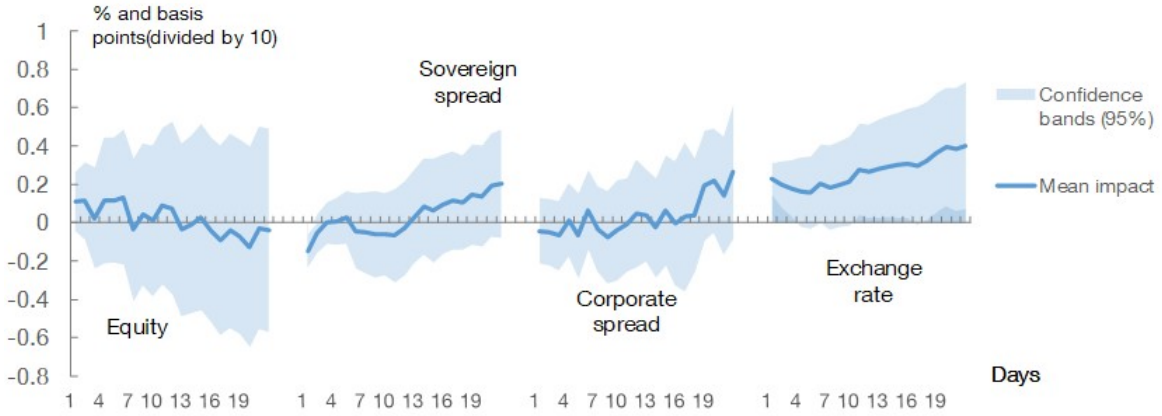
(b) Response of Czech financial variables to a Chinese monetary policy shock

Figure 19: Czech Republic: IRF to Chinese shocks

Notes: The figures show impulse response function of each financial variable to a positive macroeconomic or a positive monetary policy shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country. Blue areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.



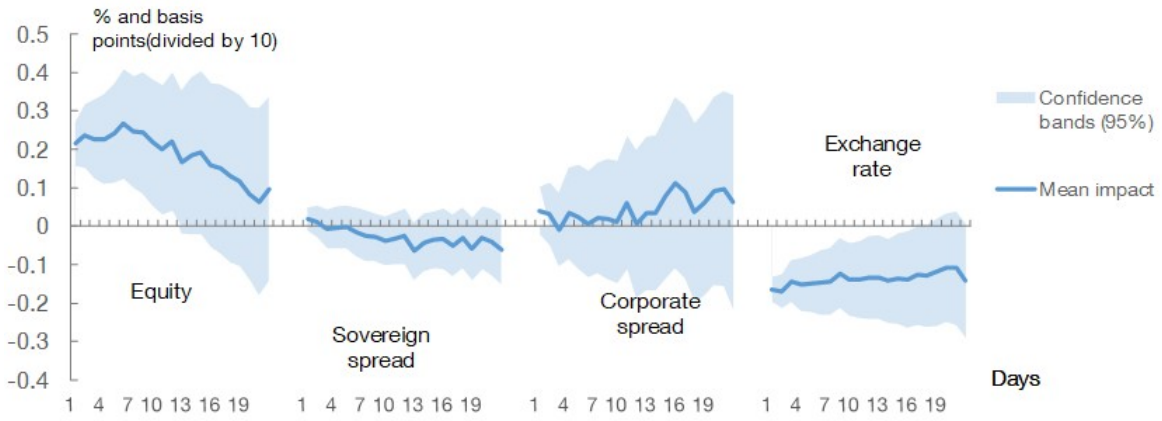
(a) Response of Hungarian financial variables to a Chinese macro shock



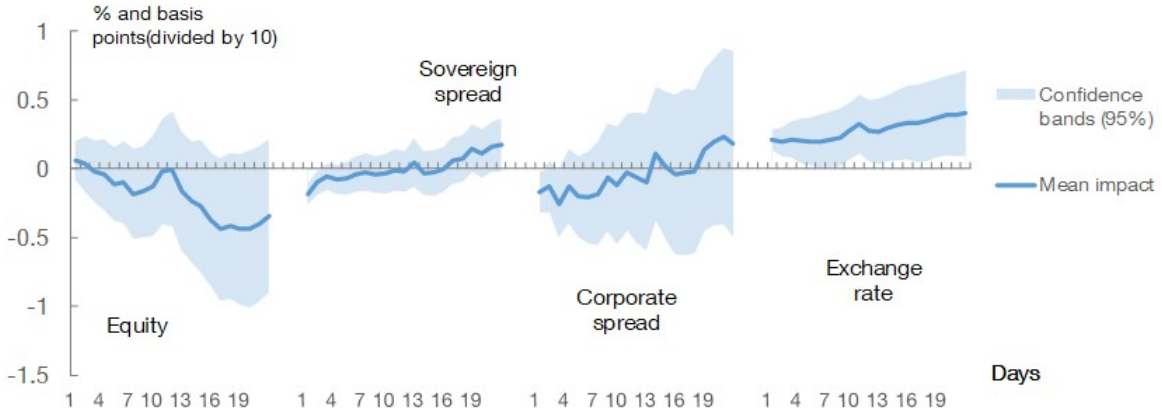
(b) Response of Hungarian financial variables to a Chinese monetary policy shock

Figure 20: Hungary: IRF to Chinese shocks

Notes: The figures show impulse response function of each financial variable to a positive macroeconomic or a positive monetary policy shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country. Blue areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.



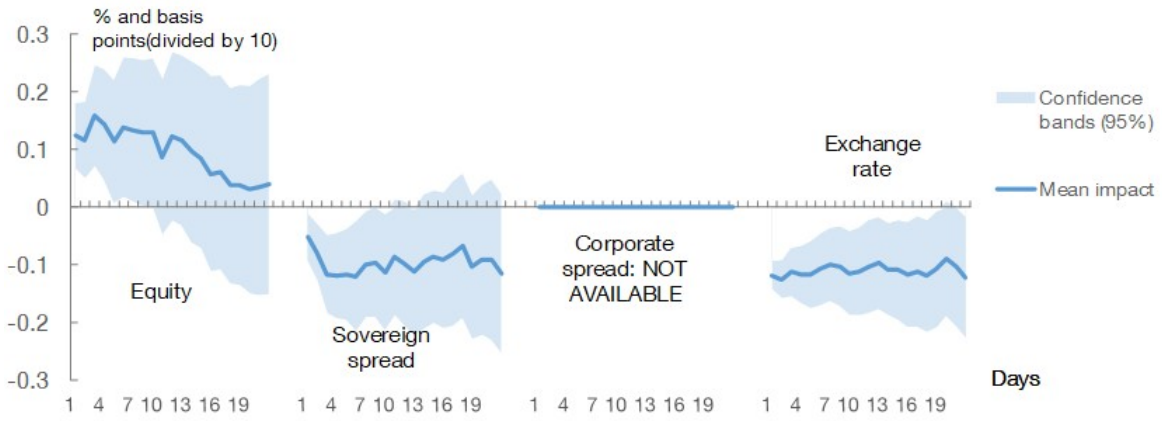
(a) Response of Polish financial variables to a Chinese macro shock



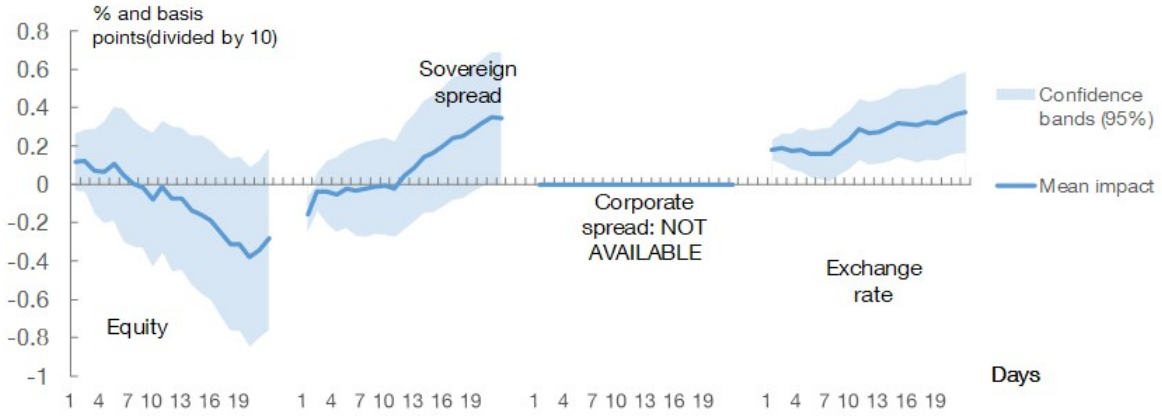
(b) Response of Polish financial variables to a Chinese monetary policy shock

Figure 21: Poland: IRF to Chinese shocks

Notes: The figures show impulse response function of each financial variable to a positive macroeconomic or a positive monetary policy shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country. Blue areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.



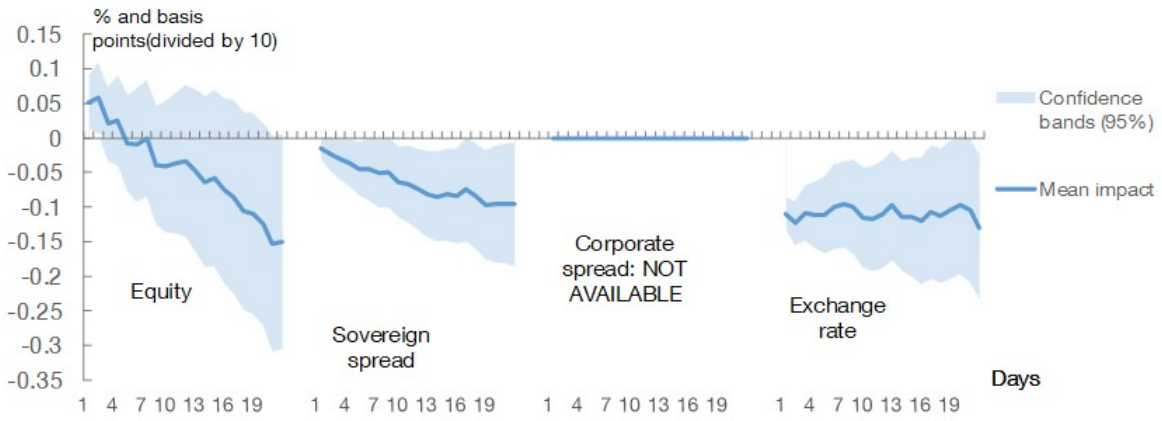
(a) Response of Romanian financial variables to a Chinese macro shock



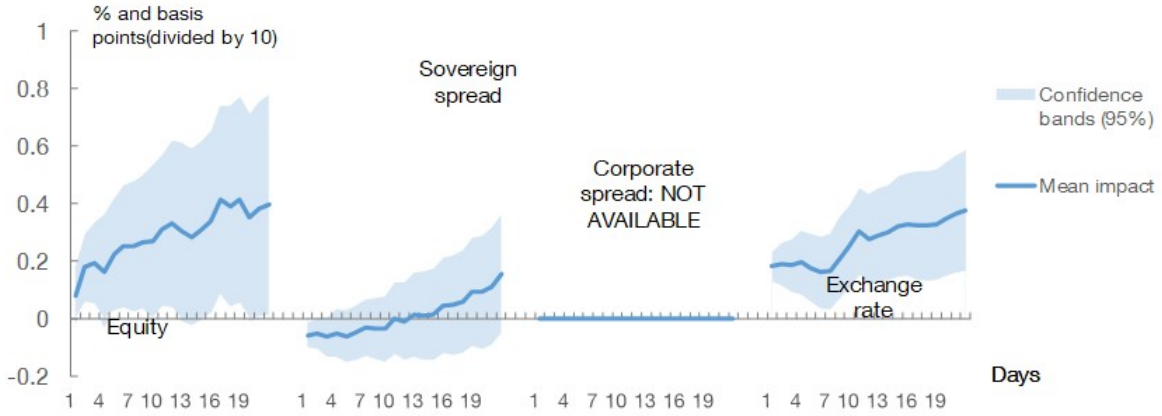
(b) Response of Romanian financial variables to a Chinese monetary policy shock

Figure 22: Romania: IRF to Chinese shocks

Notes: The figures show impulse response function of each financial variable to a positive macroeconomic or a positive monetary policy shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country. Blue areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.



(a) Response of Bulgarian financial variables to a Chinese macro shock



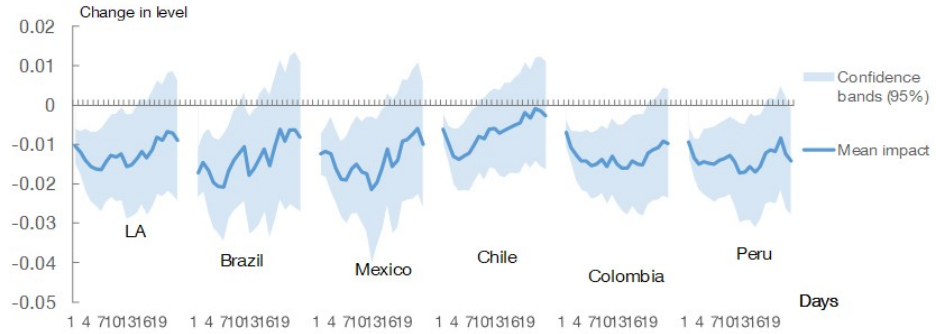
(b) Response of Bulgarian financial variables to a Chinese monetary policy shock

Figure 23: Bulgaria: IRF to Chinese shocks

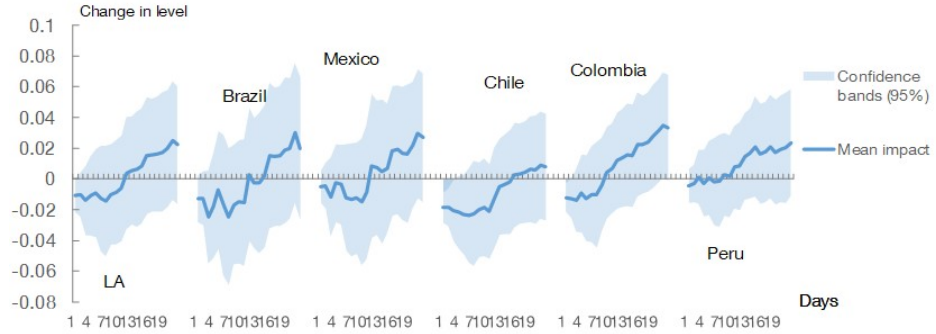
Notes: The figures show impulse response function of each financial variable to a positive macroeconomic or a positive monetary policy shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country. Blue areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.

C Financial spillovers on financial conditions in Latin America

We employ a Financial Conditions Index (FCI) constructed for Latin American countries as the first principal component of six to ten domestic financial indicators, following Andres-Escayola et al. (2024). A decline in the index denotes more favorable financial conditions. As shown in Figure 24, China macro shocks significantly ease financial conditions in the region, whereas the China monetary policy shocks does not.



(a) Impact of a positive macro shock in China

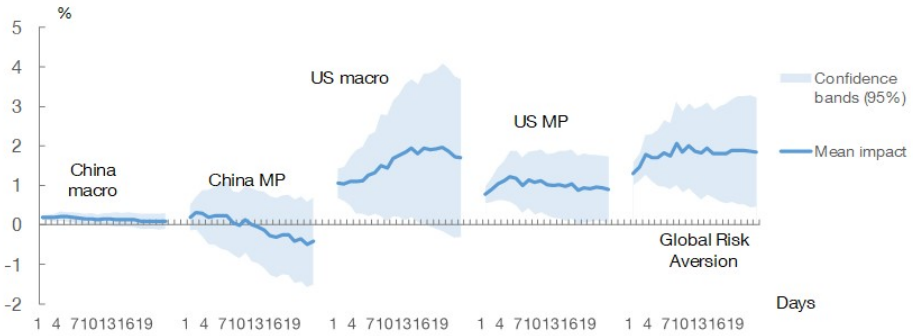


(b) Impact of a positive monetary policy shock in China

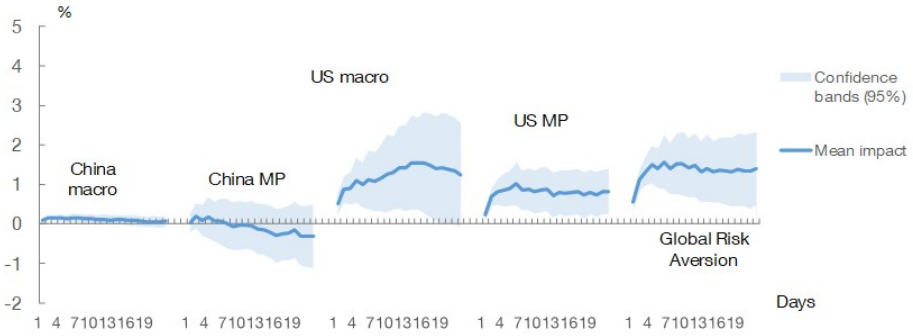
Figure 24: Impulse responses of financial conditions index to positive Chinese shocks

Notes: The figures show impulse response function of financial conditions index to a positive macro and monetary policy shock in China. This shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country. Blue areas show 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.

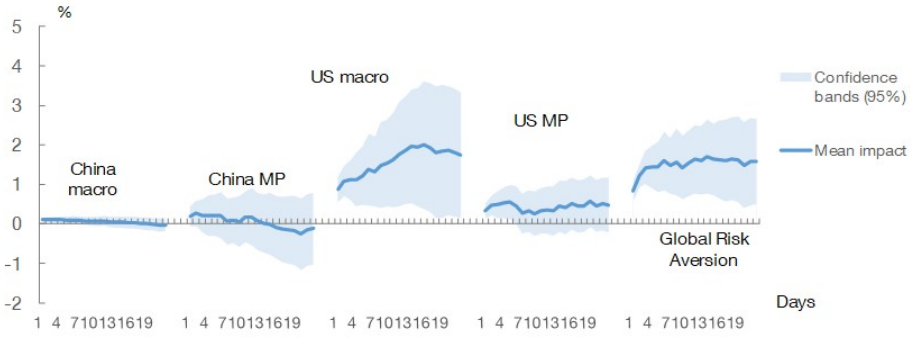
D Spillovers from China and the United States: Additional results



(a) Latin America



(b) Emerging Asia

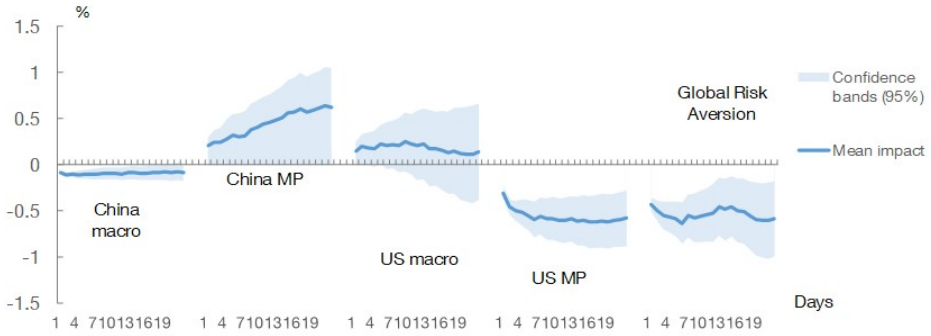


(c) Emerging Europe

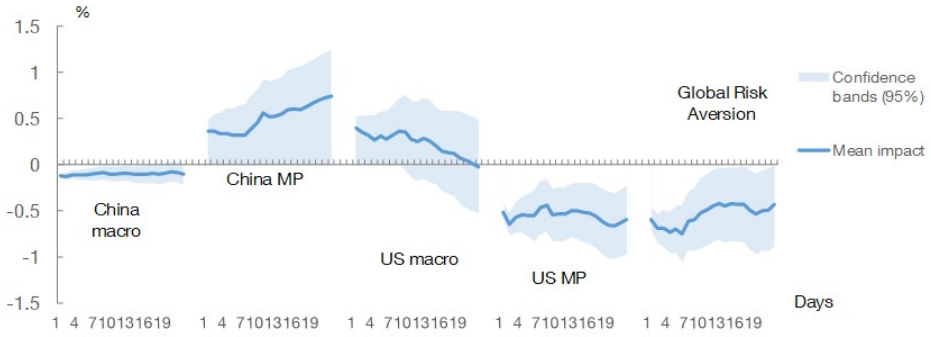
Figure 25: Impulse responses of all five shocks on equity prices

Notes: The figures show averages for each region of impulse response function of equity prices to all five shocks. The shocks are scaled to one standard deviation. Impulse responses are estimated with Local Projections for each country and averaged by region. LA is the average for Brazil, Chile, Colombia, Mexico, and Peru. DA is the average for Korea, Malaysia, Indonesia, and Thailand. EE is the average for the Czech Republic, Bulgaria, Hungary, Poland, and Romania. Blue areas show averages by region of 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.

(a) Latin America



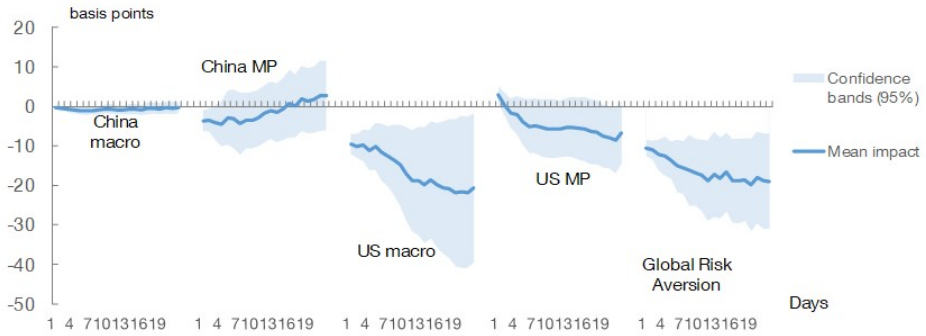
(b) Emerging Asia



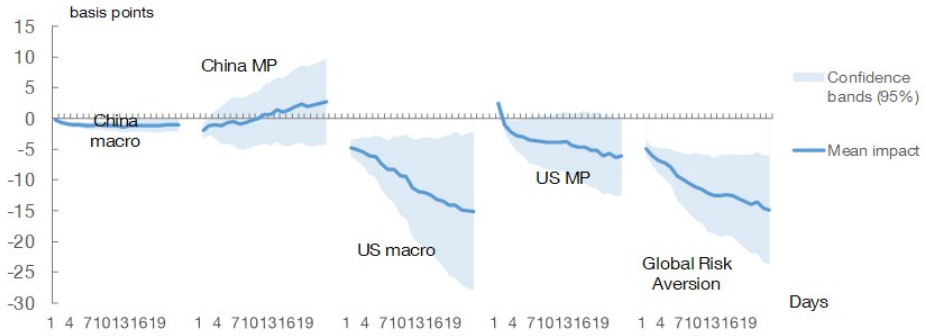
(c) Emerging Europe

Figure 26: Impulse responses of all five shocks on exchange rate versus the USD

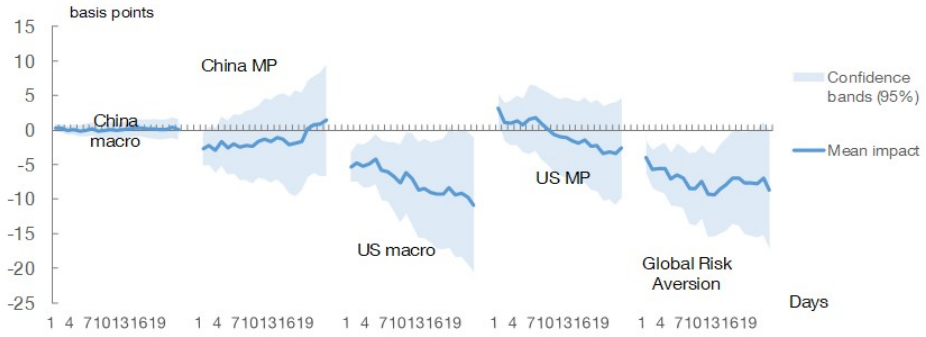
Notes: The figures show averages for each region of impulse response function of the exchange rate versus the USD to all five shocks. The shocks are scaled to one standard deviation. Impulse responses are estimated with Local Projections for each country and averaged by region. LA is the average for Brazil, Chile, Colombia, Mexico, and Peru. DA is the average for Korea, Malaysia, Indonesia, and Thailand. EE is the average for the Czech Republic, Bulgaria, Hungary, Poland, and Romania. Blue areas show averages by region of 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.



(a) Latin America



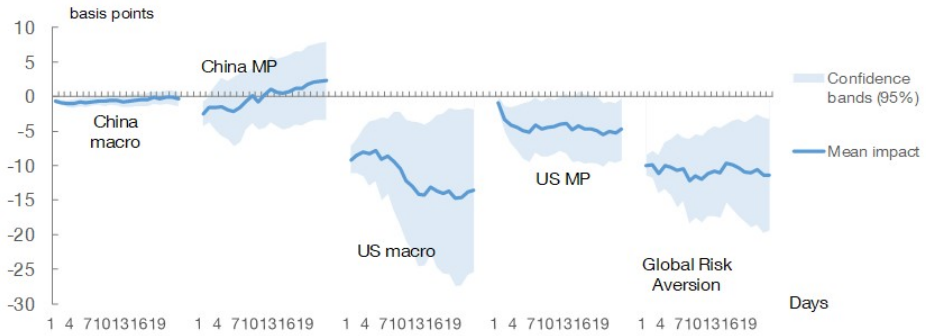
(b) Emerging Asia



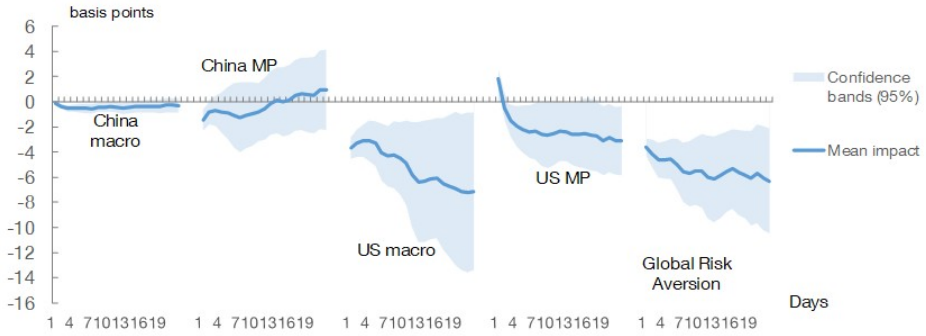
(c) Emerging Europe

Figure 27: Impulse responses of all five shocks on the corporate spread

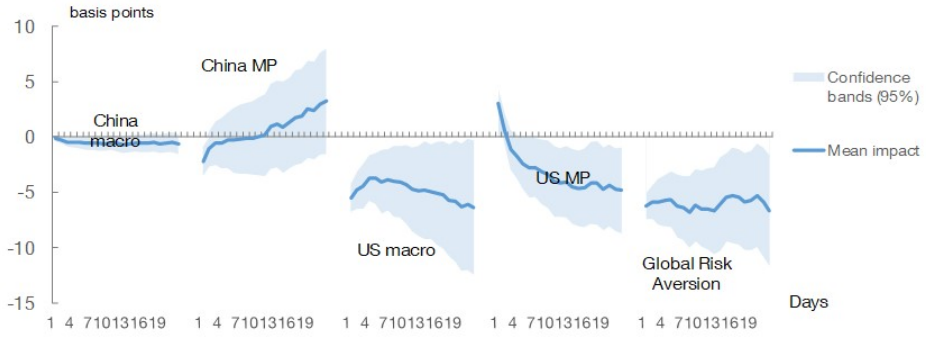
Notes: The figures show averages for each region of impulse response function of the corporate spread to all five shocks. The shocks are scaled to one standard deviation. Impulse responses are estimated with Local Projections for each country and averaged by region. LA is the average for Brazil, Chile, Colombia, Mexico, and Peru. DA is the average for Korea, Malaysia, Indonesia, and Thailand. EE is the average for the Czech Republic, Bulgaria, Hungary, Poland, and Romania. Blue areas show averages by region of 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.



(a) Latin America



(b) Emerging Asia

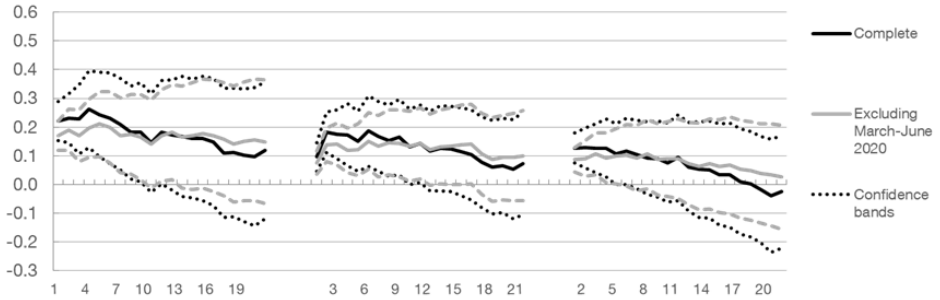


(c) Emerging Europe

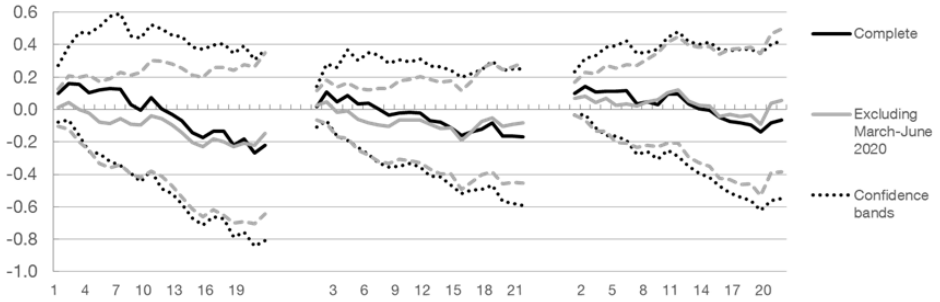
Figure 28: Impulse responses of all five shocks on the sovereign spread

Notes: The figures show averages for each region of impulse response function of the sovereign spread to all five shocks. The shocks are scaled to one standard deviation. Impulse responses are estimated with Local Projections for each country and averaged by region. LA is the average for Brazil, Chile, Colombia, Mexico, and Peru. DA is the average for Korea, Malaysia, Indonesia, and Thailand. EE is the average for the Czech Republic, Bulgaria, Hungary, Poland, and Romania. Blue areas show averages by region of 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.

E Exclusion of the COVID period



(a) China macro shock



(b) China monetary policy shock

Figure 29: Robustness to the exclusion of the COVID period

Notes: The figures show averages for each region of impulse response functions of equity prices to a positive macroeconomic shock (panel a) and monetary policy shock (panel b) in China. The dark line shows the baseline exercise. The gray line shows the replication of the exercise excluding the COVID period (March–June 2020). Each shock is scaled so that it raises the equity price in China by 1%. Impulse responses are estimated with Local Projections for each country and averaged by region. LA is the average for Brazil, Chile, Colombia, Mexico, and Peru. EA is the average for Korea, Malaysia, Indonesia, and Thailand. EE is the average for the Czech Republic, Bulgaria, Hungary, Poland, and Romania. Dotted and dashed lines are averages by region of the boundaries of 95%-confidence bands with standard errors adjusted for serial correlation using the Newey-West adjustment. These areas are not proper confidence intervals, but give a rough indication of the uncertainty around the point estimates.