HIGHLIGHTS from Chapter 3:
Financial Spillovers of Rising U.S. Interest Rates

Key Points

- *The rapid rise in interest rates in the United States poses a significant challenge to emerging market and developing economies (EMDEs).*
- *Increases in U.S. interest that reflect a perceived shift in the Fed's reaction function toward a more hawkish stance—reaction shocks—tend to have especially adverse financial market effects in EMDEs, including a higher likelihood of financial crisis.*
- *These effects seem to be more pronounced in EMDEs with greater economic vulnerabilities and macroeconomic imbalances.*
- *Major central banks can alleviate adverse spillovers through proper communication that clarifies their reaction functions, and EMDEs need to adjust macroeconomic and financial policies to mitigate the negative impact of rising global and U.S. interest rates.*

Possible drivers of rising U.S. interest rates. In general, U.S. interest rates can reflect three potential drivers: (1) "inflation shocks," which reflect expectations of rising U.S. inflation; (2) "reaction shocks," which reflect investors' assessments that the Federal Reserve's reaction function has become more hawkish; and (3) "real shocks," which are prompted by improved prospects for U.S. economic activity. The financial spillovers of increases in U.S. interest rates on emerging market and developing economies (EMDEs) are likely to depend on the underlying shocks behind such increases.

The current Federal Reserve hiking cycle. The current hiking cycle in the United States is different from most cycles since the mid-1980s (figure 1.A). First, it is the steepest and fastest cycle in nearly four decades, given inflation outcomes not seen since the early 1980s. Second, the underlying drivers of the current cycle are different from all cycles since the mid-1980s. Earlier cycles were prominently a response to expectations of firming economic activity. In contrast, increases in U.S. interest rates during the current hiking cycle have predominantly reflected a perceived shift in the Fed's reaction function toward a more hawkish stance—reaction shocks.

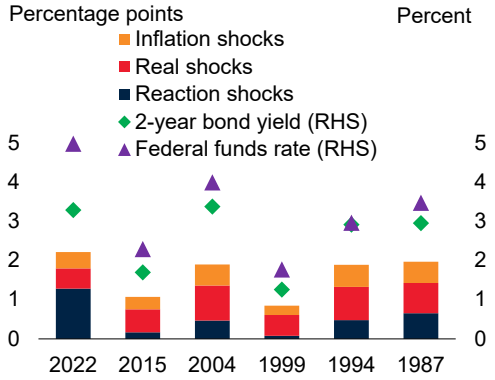
Spillover to EMDEs. Increases in U.S. interest rates that are driven by reaction shocks are especially detrimental to EMDEs (figure 1.B). Reaction shocks boost local-currency bond yields, widen sovereign risk spreads, depress equity prices, depreciate currencies, and dampen capital flows. Reactions shocks are also associated with an increase in the probability that an EMDE will experience a financial crisis (especially a currency crisis).

Role of vulnerabilities and economic imbalances. EMDEs with weaker credit ratings, higher sovereign risk spreads, and "twin" fiscal and current account deficits tend to experience more adverse financial spillovers, including larger increases in local-currency long-term bond yields and sovereign risk premiums, as well as larger declines in equity prices (figures 1.C and 1.D). For any given increase in U.S. interest rates driven by reaction shocks, more vulnerable economies tend to experience local-currency yield increases that are almost twice as large. Financial crises are also more likely in economies with weaker credit ratings and macroeconomic imbalances.

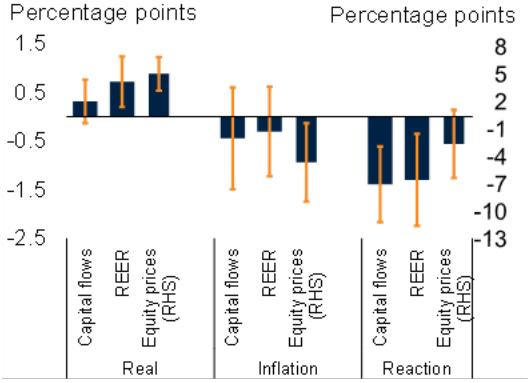
Figure 1. Financial Spillovers of Rising U.S. Interest Rates

The current U.S. hiking cycle has predominately been driven by a perceived hawkish shift in the Fed's reaction function (reaction shocks). Increases in U.S. interest rates driven by reaction shocks are associated with adverse impacts on EMDEs, such as rising borrowing costs and risk spreads, capital outflows, depreciating currencies, and falling equity prices. Reaction shocks are more detrimental for emerging market and developing economies (EMDEs) that have non-investment grade credit ratings or that exhibit twin (fiscal and current account) deficits.

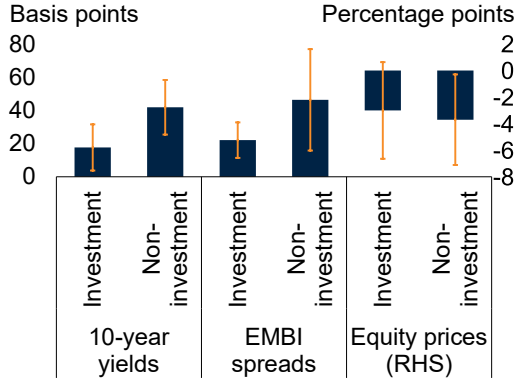
A. Contributions of shocks during Fed hiking cycles, cumulative



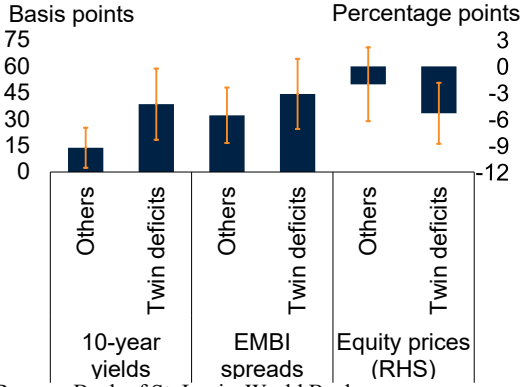
B. Impact of 25-basis-point shock on EMDE financial variables after one quarter



C. Impact of 25-basis-point reaction shock on EMDE financial variables after one quarter, by credit rating



D. Impact of 25-basis-point reaction shock on EMDE financial variables after one quarter, by twin deficit status



Sources: Haver Analytics; J.P. Morgan; Kose et al. (2017); Federal Reserve Bank of St. Louis; World Bank.

Note: EMBI = emerging market bond index; EMDEs = emerging market and developing economies; REER = real effective exchange rate.

A. Based on a sign-restricted Bayesian VAR model with stochastic volatility. Cumulative change in underlying shocks and yield. Inflation shocks are prompted by rising expectations of U.S. inflation. Reaction shocks are prompted by investors' assessments that the Federal Reserve has shifted toward a more hawkish stance. Real shocks are prompted by anticipation of improving U.S. economic activity.

B. Panel local projection models with fixed effects and robust standard errors. Models estimated over periods as long as 1997Q2-2019Q4; they exclude observations during global financial crisis (2008Q4-2009Q4) and the COVID-19 pandemic. Blue bars reflect estimated impact in first quarter. Orange whiskers reflect 90 percent confidence intervals. Positive "capital flows" values reflect an increase in net liabilities of portfolio and other investments as a percent of GDP for EMDEs. Positive "REER" values reflect an appreciation in the exchange rate. Figure excludes fixed exchange rate economies.

C.D. Panel non-linear local projection model with fixed effects and robust standard errors. Blue bars reflect estimated impact in first quarter. Orange whiskers reflect 90 percent confidence intervals. The rating of investment and non-investment EMDEs is based on Kose et al. (2017) and uses the average foreign-currency long-term sovereign debt rating by Fitch Ratings, Moody's, and Standard and Poor's. "Twin deficits" reflect EMDEs with current account and primary fiscal balance deficits.