

**PRESS POINTS FOR CHAPTER 3: DANCING TOGETHER? SPILLOVERS, COMMON SHOCKS,
AND THE ROLE OF FINANCIAL AND TRADE LINKAGES
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Key Points

- The global financial crisis triggered an unprecedented increase in output synchronization. But as in earlier episodes, this increase did not last. Since 2010, output comovements across the globe have returned close to more normal levels despite the turmoil in Europe.
- Common shocks, such as a global panic or “wake-up” calls, explain most of the increased synchronization in 2009. Traditional financial linkages also helped in spreading stress across borders, but only to a minor extent.
- The key lesson for policymakers are the following:
 - Large financial shocks matter most: Big spikes in output synchronization often tend to occur during financial crises.
 - Size matters! Spillovers from the United States still matter the most from a global perspective, although the euro area, China, and Japan are important sources of spillovers within their respective regions.
 - U.S. monetary policy shocks spill over through interest rates, affecting countries that peg to the U.S. dollar more than other economies.
 - The conventional wisdom that financial globalization *necessarily* induces greater output comovement across countries is *not true* until you hit a crisis: In normal times, financial linkages facilitate the efficient allocation of resources, shifting capital where it is most productive.
 - The importance of common shocks in generating synchronized output collapses suggests that there are potential gains from policy coordination both on the financial and fiscal side.

The increase in output comovements during the Great Recession was unprecedented but temporary. During the peak of the global financial crisis, the world’s economies moved in lockstep as they had never done in recent history. Correlations of GDP growth rates, which had been modest in the years before the crisis, rose dramatically during 2007–09 (Figure 1). The increased comovement was not confined to the advanced economies but was observed

across all geographic regions. The increase, however, was temporary and since 2010 output comovements have returned close to precrisis levels despite the turmoil in Europe.

Traditional linkages, such as financial and trade linkages, are not fully able to explain big spikes in output comovements. During the global financial crisis, trade linkages contributed little to spread the crisis across countries. Financial linkages contributed to spreading financial stress across borders, but other factors—such as global panic, increased uncertainty, and “wake-up calls” that changed investors’ perceptions of risk and returns—acted as a common shock and played a much larger role in increasing output synchronization.

Big spikes in regional and global output correlations tend to occur during financial crises. Financial shocks, even though they hit individual countries, often act as common shocks that tend to sharply raise output comovements regionally or globally (Figure 2). When the crisis occurs in an economy like the United States—which is both large and a global financial hub—the effects on global output synchronization can be disproportionately large.

U.S. financial shocks generated spillover effects during the crisis years of 2007–09 about four times larger than during in other periods. Thus, the global financial crisis has been much stronger in terms of output effects than would have been predicted by the magnitude of the underlying U.S. financial shock, corroborating the conjecture that other nonobservable factors, such as a global panic or a self-fulfilling shock to expectations, played an important role.

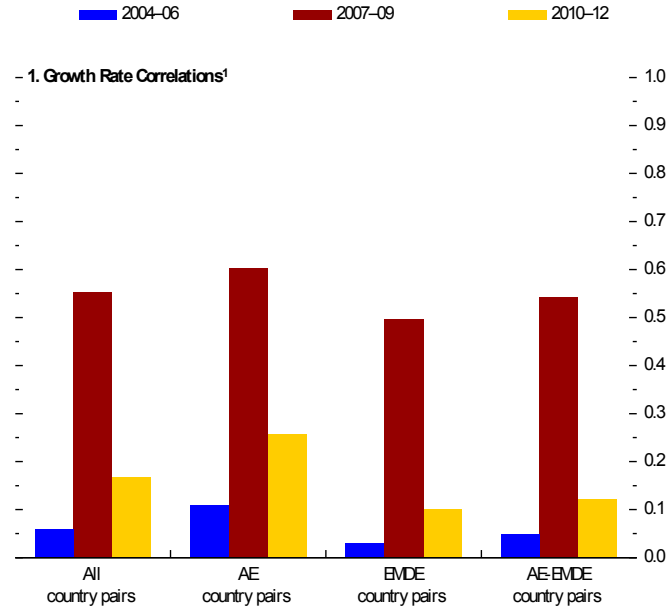
The size of spillovers depends on the nature of the shock and the strength of linkages with the economy where the shock originates. For example, while a fiscal tightening in the United States or the euro area will most affect countries that have stronger trade linkages with these economies, the effect of interest rate normalization in the United States primarily affects countries that peg to the U.S. dollar through an interest rate channel (Figure 3). In contrast, free floaters will have their exchange rate to serve as a shock absorber.

The conventional wisdom that financial globalization necessarily induces greater output comovement across countries is not true until you hit a crisis. While financial linkages transmit financial stresses across borders, in normal times when real supply and demand shocks are dominant, financial linkages facilitate the efficient international allocation of capital, shifting capital where it is most productive. The key is to preserve the benefits of increased financial integration while minimizing the attendant risks through better prudential oversight, including better policy coordination and collaboration.

There are potential gains from policy coordination during synchronized output collapses. For example, during global panics, coordinated liquidity provisions are an essential part of the crisis response, and coordinated fiscal policy can prevent countries from doing too little stimulus (free riding) or too much stimulus (if others free ride) while acting in concert the amount of fiscal stimulus needed by each country is reduced.

Figure 1. The Evolution of Output Comovements, 2004–12

Output comovements, whether measured by growth correlations or detrended output correlations, rose sharply at the peak of the global financial crisis in 2007–09. But they declined sharply in recent years.



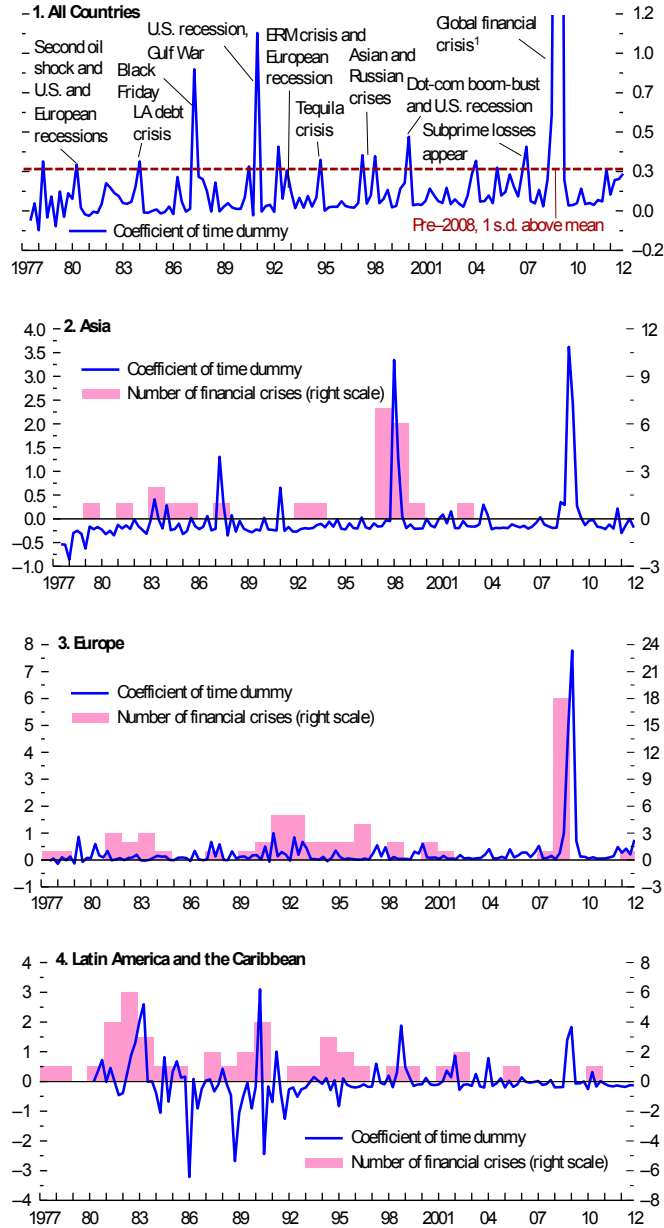
Sources: Haver Analytics; IMF, *World Economic Outlook*; Organization For Economic Cooperation and Development; and IMF staff calculations.

Note: Sample includes 34 advanced economies and 29 emerging market and developing economies. AE= advanced economy country pairs; EMDE= emerging market and developing economy country pairs; AE-EMDE= advanced economy and emerging market and developing economy country pairs. See Appendix 3.1 for country groupings.

¹Simple average of pairwise correlations of quarterly GDP growth rates.

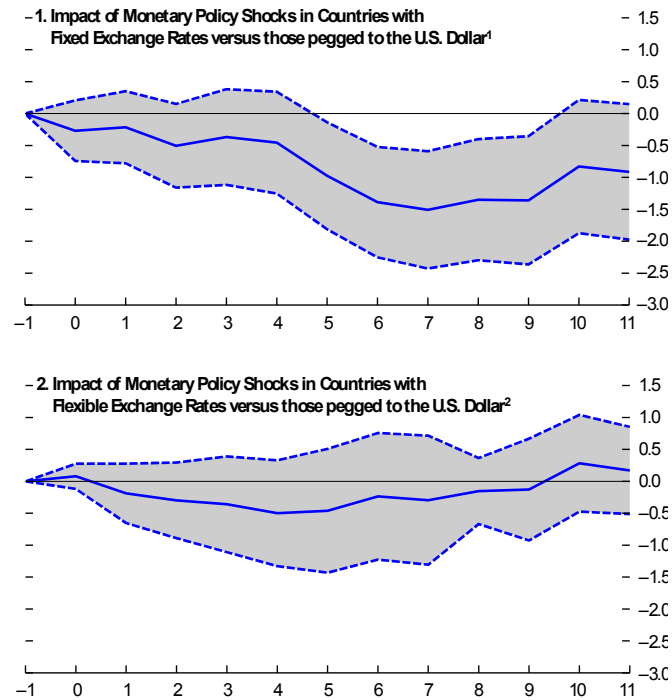
Figure 2. What's behind "Common Shocks"?

Spikes in global comovement correspond to well-documented global events such as oil shocks, financial shocks, and recessions in major advanced economies. Regional output comovements confirm the importance of financial crises in increasing output synchronization.



Sources: Laeven and Valencia (2012); and IMF staff estimates.
 Note: s.d. = standard deviation; LA = Latin America; ERM = exchange rate mechanism. The blue lines plot the time dummies from a regression of instantaneous quasi-correlations on country-pair and time dummies. U.S. and euro area recessions are from the National Bureau of Economic Research and Center for Economic and Policy Research, respectively. Financial crises include currency, debt, and systemic banking crises and are taken from Laeven and Valencia (2012); if a country has more than one type of crisis in a given year (e.g., twin currency and banking crises) they are counted as one crisis.
¹ Time fixed effect rises above 5 in 2008:Q4 and 2009:Q1.

Figure 3. Impact of Monetary Policy Shocks
(100 basis points)



Source: IMF staff calculations.

Note: Dashed lines indicate the 90 percent confidence interval around the point estimate.

¹The y-axis is the cumulative impact on the level of industrial production. X-axis units are months; $t = 0$ denotes the month of the policy shock.

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