## Figure 4.7. Import Losses and Production Linkages, Controlling for Output

(Percent deviation from normal; years on x-axis; crisis begins at t = 0)

Stronger production linkages between economies tend to make trade more resilient. The more vertically integrated a crisis economy is with a trading partner, the smaller the decline in imports from that trading partner.



Sources: Johnson and Noguera (2010); and IMF staff calculations. Note: The estimated impulse response function is based on a gravity model in changes, with contemporaneous and lagged crises, home and partner output and output per capita, partner crisis dummies, and importer-exporter and time dummies. Importer-exporter pairs are split into those with above-median value-added-to-exports (VAX) ratios as of 2006 (low production linkages) and those below the median (high production linkages). The VAX ratios are from Johnson and Noguera (2010).