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Systemic Risk, Aggregate Demand, and Commodity Prices

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The paper presents a global model for analysis and projections. The model features a handful of elements that make it suitable for analyzing three broad sets of topics; first, systemic risk and its transmission to country risk premiums; second, the transmission from country risk premiums to demand-related variables such as the output gap, the trade balance, and unemployment; and third, the transmission from commodity prices to country inflation. The model incorporates one systemic risk channel and two foreign channels, specifically, a foreign aggregate demand channel and a foreign exchange rate channel. The model is estimated with Bayesian methods. In addition, the effect of risk on aggregate demand is calibrated with the aid of a VAR. Among the results are that the episodes of surges in systemic risk identified in the paper were transmitted to country risk premiums and aggregate demand--related variables; that the effect of systemic risk shocks on world economic activity is large, and that the busts in the world output gap correspond with the major financial events identified by the estimated time series for the unobserved systemic risk. In addition, systemic risk shocks are important drivers of output gaps while country risk premium shocks can have important effects on the trade balance. Surprisingly, commodity prices, in particular the price of oil, are shown to be demand driven; hence, demand related factors may play a nontrivial role in explaining noncore inflation. The model performed well at one- and four-quarter horizons compared to a survey of analysts' forecasts. In addition, systemic risk shocks were important at explaining the forecast variance of the world output gap, country output gaps, the price of oil, and country risk premiums. The breath of reach of systemic risk shocks back the efforts for financial surveillance with a systemic focus.

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