Essays on International Finance and Regulation
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This dissertation analyzes several questions related to international finance and regulation. In the first paper, I analyze the effect of macroprudential policy on economic growth. In the second paper, I analyze the effect of market insurance on sovereign borrowing. In the last paper, I analyze the role of self-regulation versus government regulation.

1. Financial Stability, Growth and Macroprudential Policy

Many emerging market economies have used macroprudential policy to mitigate the risk of financial crises and the resulting output losses. However, macroprudential policy may reduce economic growth in good times. This paper introduces endogenous growth into a small open economy model with occasionally binding collateral constraints in order to study the impact of macroprudential policy on financial stability and growth. In a calibrated version of the model, I find that optimal macroprudential policy reduces the probability of crisis by two thirds at the cost of lowering average growth by a small amount (0.01 percentage point). Moreover, macroprudential policy can generate welfare gains equivalent to a 0.06 percent permanent increase in annual consumption.

2. Welfare Gains from Market Insurance: The Case of Mexico and Oil-price Risk, with Fabián Valencia

Over the past two decades, Mexico has hedged oil price risk through the purchase of put options. We examine the welfare gains from hedging as a complement to issuing defaultable debt using a standard sovereign default model calibrated to Mexican data. We show that hedging can increase welfare by reducing income volatility and default incentives, which ultimately reduces risk spreads on sovereign debt. We find welfare gains equivalent to a permanent increase in consumption of 0.44 percent. We then decompose these gains by examining whether they come from a reduction in risk spreads or income smoothing. We conclude that about 90 percent of welfare gains stem from the former channel. Sensitivity analyses show that the welfare gains decline when the cost of the options exceeds the actuarially fair price, and increase with the hedged volume of oil, the strike price, the volatility of oil prices, and with introducing risk aversion among foreign investors. Finally, selling oil forward can generate larger welfare gains than buying put options.

3. Self-Regulation versus Government Regulation

Who should be responsible for industry regulation, a private self-regulatory agency or a public agency? This paper provides a simple framework to analyze the optimal scope of a private self-regulatory organization (SRO) versus government regulation. The trade-off depends on three key elements: externalities, monopoly distortions and the degree of asymmetric information. Self-regulation is more desirable than government regulation if the degree of asymmetric information between the public regulator and private industry is larger than the size of monopoly distortion and externalities from the industry to society. An optimal mechanism consists of both self-regulation and government regulation where an SRO internalizes externalities within the industry and government corrects any distortions generated by the SRO. These insights can be applied to many practical settings and policy discussions — for example, in the context of the financial sector, as with the Financial Industry Regulatory Authority (FINRA).