Lessons from the Icelandic Bond Market

In December 2004, **Francis Breedon** *was awarded a British Academy Small Research Grant for a project to study a unique set of bond prices and yields for the Icelandic government bond market, in collaboration with the Central Bank of Iceland.*

Figure 1: *The Central Bank of Iceland, in Reykjavik, during October 2008 when it was trying to shore up its teetering banking system. Photo: Reuters.*

EVEN PRIOR to recent events, Icelandic financial markets had a reputation for volatility. In our study, David Barr, Turalay Kenc and myself focused on the nature and causes of volatility of Iceland's government bond market. This market is of particular interest since it is dominated by inflation-indexed bonds that are, by construction, not influenced by expectations of future inflation – something that is usually the key driver of government bonds. This means that volatility in this market is determined by two key factors. First, changes in real interest rates – i.e. real changes to the underlying state of the economy that change the fundamental rate of return in the economy. Second, risk premia – i.e. changes in the willingness of investors to hold these bonds as their attitude to, and perceptions of, risk change.

Given that inflation is controlled for, the fact that the yield on these bonds ranged between 4% and 9% over the period of this study (1990-2003) as compared with 2% and 5% for similar bonds in the UK shows just how much volatility there is to explain in these markets. Our study fits a range of structural models to this market and finds that movement in Icelandic bond markets are dominated by changes in risk premia rather than changes in underlying fundamentals. This contrasts with the behaviour of similar bonds in the US and UK where movements in underlying real interest explain about half of overall movements. Thus it seems that most of the volatility in Icelandic financial markets is not driven by underlying economic fundamentals but by changing attitudes and perceptions of investors.

Although the recent financial crisis in Iceland is unfortunately not covered in our sample, it is informative to look at the behaviour of real interest rates in the previous, somewhat less dramatic, crisis that occurred in 2000-2001. That crisis – which was partly triggered by a fall in fish stocks – saw the currency fall 40% and bond yields rise from 5% to 7% and then back to 5% again within two years. Our study of the bond market indicates that this crisis was driven by market perceptions of risk rather than underlying fundamentals.

In a related, ongoing, project we also find that Iceland's currency market has similar characteristics to the bond market with changes in economic fundamentals explaining only a small fraction of overall currency volatility.

In summary, our results could be interpreted as suggesting that Iceland's remarkable financial openness and innovation may have resulted in financial markets that have added to macroeconomic volatility rather than acting as a 'shock absorber'.

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