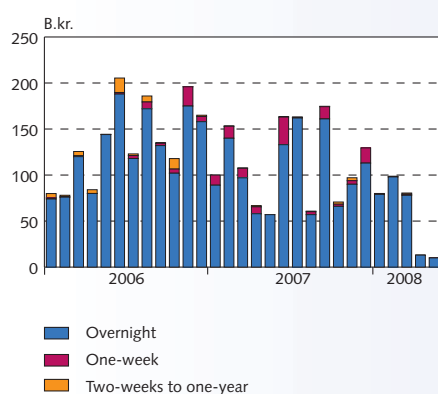


## Box III-1

## The importance of well-functioning financial markets

Chart 1  
Turnover of Króna in the interbank market  
January 2006 - May 2008



Source: Central Bank of Iceland.

Chart 2  
Daily turnover in interbank FX market  
Daily data April 3, 2006 - May 29, 2008



Source: Central Bank of Iceland.

Well-functioning money markets, foreign exchange markets, and secondary markets for securities are important factors in the transmission of monetary policy to the economy as well as a key foundation for long-term economic growth and stability. However, in recent months, severe financial tensions following the global credit crisis have shaken this important foundation in Iceland. For the future, it is important that market participants continue to address these issues in an appropriate way. The development and growth of a well-functioning swap and derivatives market will continue to play a central role in improving risk management and financial stability and, ultimately, price stability and overall economic stability.<sup>1</sup>

### Money and interest rate swap markets

Competitive and liquid money markets allow market participants to access short-term funding or investment possibilities and manage liquidity risk. Furthermore, they support the transmission of monetary policy to the real economy, provide information on market participants' assessment of future interest rates, and enhance price formation for financial assets. In recent months, trading volume in the interbank market for domestic currency – where commercial and savings banks make short-term loan agreements with each other – has been very low. The disappearance of external funding liquidity through FX swaps led to an evaporation of domestic market liquidity under stress.<sup>2</sup> Turnover fell from 80 b.kr. in March to 12.7 b.kr. in April and diminished further to 9.5 b.kr. in May (see Chart 1). Tensions in money markets have been widespread across the world, and interbank market rates in developed countries have soared, reflecting higher credit risk. In Iceland, the tightening of access to liquidity combined with unwillingness to trade has resulted in adjustment primarily through quantities. Foreign market participants remain hesitant to take a direct credit risk in the Icelandic banks and prefer Government-guaranteed securities denominated in krónur. Following the halt of Eurobond issuances, activity in the interest rate swap market has fallen dramatically as well.

1. For further reading, see, for example, Gray, S. T. and N. Talbot (2006), Developing financial markets. Bank of England, Handbooks in Central Banking, no. 26; and Bernanke, B. S. (2008), Liquidity provision by the Federal Reserve, Speech at the Federal Reserve Bank of Atlanta May 13, 2008.
2. Further, the 75 b.kr. issuance of certificates of deposits by the Central Bank of Iceland may have contributed to the drying up of liquidity, and domestic market participants are now reluctant to trade in the uncollateralised interbank market.

It is important to understand why the banks are not managing short-term liquidity via the money markets and thus place excess balances of domestic liquidity at the Central Bank. In order to enhance the effectiveness of the money market, a review of the incentives structures in the market is beneficial when signs of normalisation in global credit markets emerge. Second, it is important to attract large Icelandic, and perhaps foreign, financial institutions to the money market with the purpose of intensifying competition. That said, an improvement in global money markets and funding conditions of the Icelandic banks will have positive spill-over effects on the Icelandic money market.

### Foreign exchange markets

A liquid foreign exchange market helps to lower the volatility of the spot exchange rate and reduce the costs in cross-currency transactions. Pricing in the Icelandic FX spot market functions relatively well; however, market liquidity remains low compared to other small developed currency markets (e.g. measured by bid-ask spreads). Increased offshore market-making could contribute to increased market liquidity. The most critical issue at the moment is the distorted FX swap market, where the domestic banks are reluctant to engage in transactions. Tight funding conditions in offshore markets – as is indicated by elevated (although relatively illiquid) credit default swap spreads – is reflected in the prices of FX swaps.<sup>3</sup> Against the backdrop of the global liquidity crisis, it has been a primary task of the Central Bank of Iceland to take measures to secure confidence in the Icelandic financial system. The currency swap arrangement with the Nordic central banks has been one such measure.

It should be a priority to foster the growth of well-functioning foreign exchange derivatives markets (forward, swap and option markets). The establishment of a liquid foreign exchange derivatives market tends to enhance risk allocation, contribute to better investment decisions, and lower spot exchange rate volatility. At the moment, firms and investors are virtually forced to hedge their FX exposure on the spot market (since it is difficult to obtain forward rate contracts), and this contributes to excessive spot exchange rate volatility (see Charts 2 and 3). Recent months have seen a continued weakening of the domestic currency, which has prompted further demand for hedging foreign exchange exposure. A possible solution could be to foster the development of derivatives exchanges as a complement to the over-the-counter forward and swap market. An organised market may do a better job than over-the-counter markets in reducing counterparty risk, facilitating price discovery, and providing small businesses with access to risk-sharing instruments.<sup>4</sup>

### Secondary markets and current account adjustment

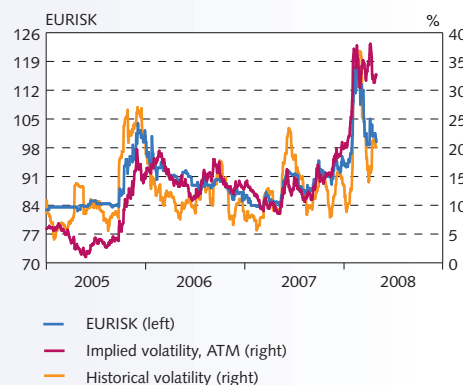
The (virtually) risk-free yield curve derived from secondary markets has been severely distorted, as the demand for highly rated króna-denominated securities has been strong relative to the limited supply.<sup>5</sup> Because of this limited supply, the bond price is much more driven by short-term disturbances than economic fundamental variables.

The cumulative amount of outstanding króna Eurobonds as a percentage of GDP has fallen in recent months; however, it is important to consider the fact that a large amount of Eurobonds is scheduled to mature in late 2008 and early 2009, with potential implications for the exchange rate and financial stability (see Chart

Chart 3

EURISK 1-month volatility (implied and realised)

Daily data July 1, 2005 - May 30, 2008

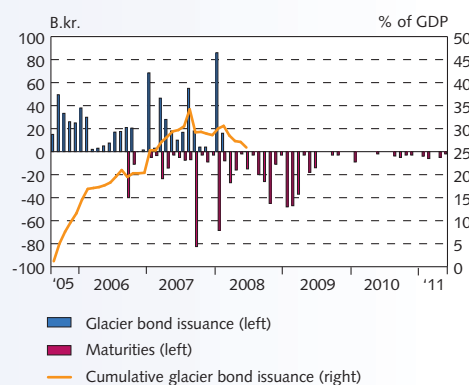


Source: Bloomberg.

Chart 4

Króna Eurobond issuance<sup>1</sup>

Monthly data



1. Data until July 1, 2008 inclusive.

Sources: Reuters, Central Bank of Iceland.

3. See *Monetary Bulletin* 2008-1, Box III-1, and *Financial Stability* 2008, Appendix 2.

4. For further reading, see Chan-Lau, J. A. (2005). „Hedging foreign exchange risk in Chile: markets and instruments.” *IMF Working Paper*, no. 37.

5. Securities are traded in secondary markets after issuance and before redemption.

4). It is doubtful that additional large-scale króna Eurobond issuances will occur in the near term, as the issuance depends on the Icelandic banks' comparative funding advantage in foreign currency. From a financial stability perspective, it is thus desirable to increase the supply of Government bonds to enable some of the Eurobond holders to roll over their ISK exposure into Government bonds. Bond issuances would prevent long-term investors from being forced to exchange their króna exposure for foreign currency. This could help prevent a continuing of the rapid downward pressure on the króna and a sharp current account adjustment as capital inflow suddenly dries up. In the medium term, however, capital inflows are better used on productive investments in Iceland than on investments in Government bonds. It is important to remember that the Treasury is without debt in net terms and hence has little need for new bond issuance at present.