Box 8

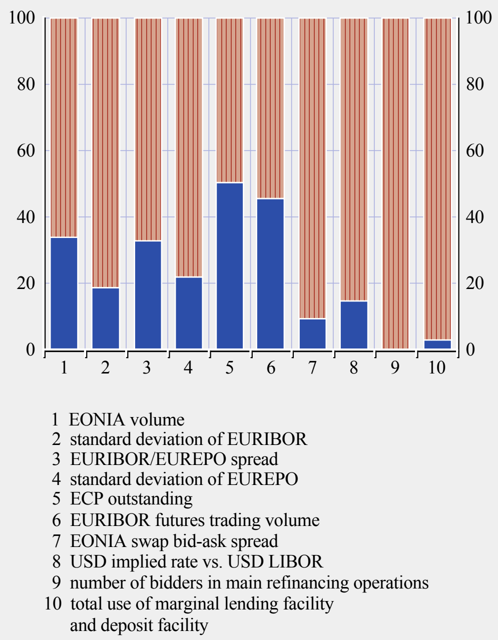
INDICATORS OF LIQUIDITY IN THE EURO MONEY MARKET

Since August 2007 the euro money market has experienced severe disruptions as a result of contagion from shocks in other market segments, an increased preference for liquidity and heightened counterparty credit risk concerns. However, changes in liquidity conditions have not been homogeneous across the various segments of the euro money market. This box presents a simple "barometer" which can help in the monitoring of market conditions across those segments.

The barometer consists of eight indicators of money market functioning, covering the following segments: unsecured deposits (EONIA volume, standard deviation of the three-month EURIBOR), repos (EURIBOR/EUREPO spread, standard deviation of the three-month EUREPO), euro commercial paper (ECP outstanding), interest rate futures (trading volume of EURIBOR futures), swaps (bid-ask spread of EONIA swaps), and the foreign exchange swap market (US dollar basis swap spread). Two additional indicators reflect the degree of intermediation by the ECB (number of bidders in the main refinancing operations and total use of the marginal lending facility and of the deposit facility). The barometer compares the level of each indicator on a certain day with its pre-turmoil level (calibrated as zero on the scale) and with its level at the "peak" of the turmoil (calibrated as 100). While the pre-turmoil readings are taken on the same day for all indicators, the day corresponding to the turmoil "peak" level is different for each indicator. Charts A to C show this barometer at three different stages in the recent market turmoil.

Chart A Euro money market barometer on 1 January 2008

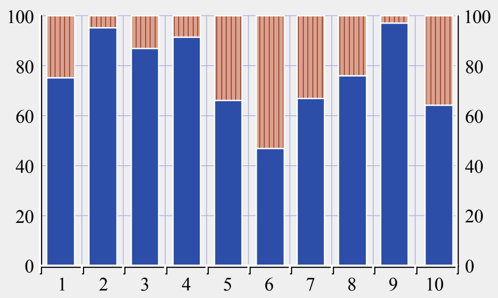
(percentages; pre-turmoil level taken on 16 July 2007)



Sources: Bloomberg, European Banking Federation, CPWare and ECB calculations.

Chart B Euro money market barometer on 1 December 2008

(percentages; pre-turmoil level taken on 16 July 2007)

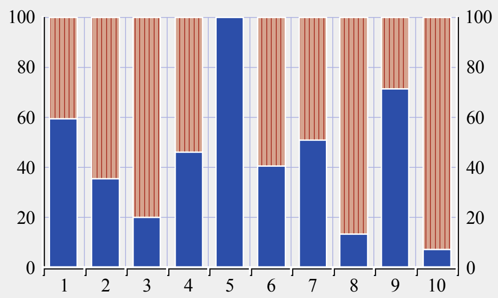


1 EONIA volume
2 standard deviation of EURIBOR
3 EURIBOR/EUREPO spread
4 standard deviation of EUREPO
5 ECP outstanding
6 EURIBOR futures trading volume
7 EONIA swap bid-ask spread
8 USD implied rate vs. USD LIBOR
9 number of bidders in main refinancing operations
10 total use of marginal lending facility and deposit facility

Sources: Bloomberg, European Banking Federation, CPWare and ECB calculations.

Chart C Euro money market barometer on 28 May 2009

(percentages; pre-turmoil level taken on 16 July 2007)



1 EONIA volume
2 standard deviation of EURIBOR
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5 ECP outstanding
6 EURIBOR futures trading volume
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Sources: Bloomberg, European Banking Federation, CPWare and ECB calculations.

The collapse of Lehman Brothers in September 2008 heightened perceived counterparty risks and led to a sharp reduction in liquidity across money market segments (see Chart B). Liquidity dried up even for the shortest maturities and secured transactions, while trading in interest rate futures and swaps was negatively affected by extreme volatility and widespread deleveraging. The dysfunction of the euro money market prompted the ECB to assume a greater intermediation role. From the beginning of 2009, liquidity conditions improved across most segments of the euro money market. However, this improvement was very gradual and liquidity conditions remained far from pre-turmoil levels (see Chart C).