

Box 2**FINANCIAL STABILITY IMPLICATIONS OF REFERENCE RATES AND KEY REQUIREMENTS FOR THE NEXT GENERATION OF BENCHMARKS**

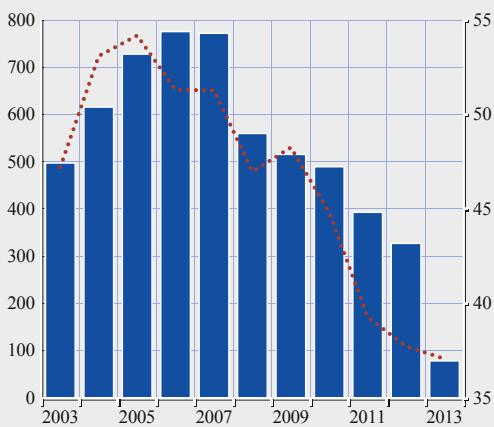
Reference interest rates serve as a key orientation or benchmark of the prevailing price of liquidity for financial market participants and help in standardising financial contracts for both wholesale and retail clients (e.g. loans for house purchase). A commonly agreed reference rate is superior to multiple customised interest rates from an efficiency perspective as it lowers the cost of information and, hence, transaction costs and – ultimately – leads to higher market liquidity. In this way, such rates have a clear social function, making them a public good. Financial stability risks may arise, however, with market failures associated with this public good if, for instance, trust in the reliability and robustness of the reference rates is compromised.¹ Financial

¹ See Bank for International Settlements (BIS), “Towards better reference rate practices: a central bank perspective”, March 2013. The report reviews issues in relation to the use and production of reference interest rates from the perspective of central banks.

Chart A New loans to households with a floating rate in the euro area

(2003 – 2013)

- floating rate loans (EUR billions; left-hand scale)
- floating rate loans (percentage of new loans; right-hand scale)



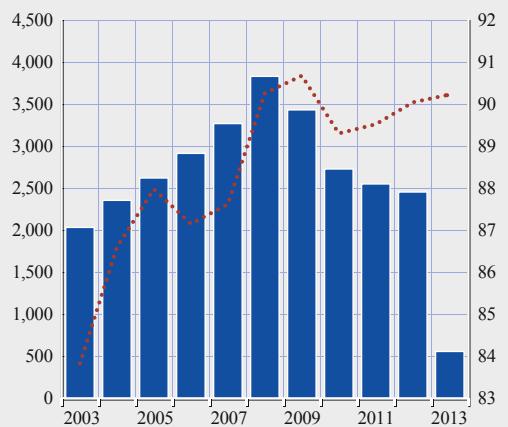
Source: ECB.

Notes: Floating rate loans comprise loans with a floating rate or an initial rate fixation period of up to one year. Revolving loans and overdrafts, convenience and extended credit card debt are excluded. Data for 2013 cover the period up to March 2013.

Chart B New loans to non-financial corporations with a floating rate in the euro area

(2003 – 2013)

- floating rate loans (EUR billions; left-hand scale)
- floating rate loans (percentage of new loans; right-hand scale)



Source: ECB.

Notes: Floating rate loans comprise loans with a floating rate or an initial rate fixation period of up to one year. Revolving loans and overdrafts, convenience and extended credit card debt are excluded. Data for 2013 cover the period up to March 2013.

stability risks may, however, also arise if the widespread use of particular reference rates leads to unsuitable applications – for example, in the pricing of credit instruments, the implementation and calibration of hedging strategies and the valuation of a wide range of financial instruments for risk management and asset-liability or performance measurement purposes that create basis risk.²

Within the euro area, the euro interbank offered rate (EURIBOR) is the reference rate that is relevant for the euro-denominated financial market in three key areas. First, as reference rates are an important part of the interest rate channel in the transmission of monetary policy, the development of loan categories that are linked to the reference rate are closely monitored. EURIBOR-linked loans by banks to households and non-financial corporations in the euro area are an example, even though their significance has been declining over the last few years (see Charts A and B). For households, the total value of new loans linked to floating rates has fallen from €776 billion in 2008 – or around half of total loans – to €327 billion in 2012 – only 38% of total loans. Similarly, the value of new loans for non-financial corporations has declined from €3.8 trillion in 2008 to €2.5 trillion in 2012 – although floating rate contracts continue to account for the vast majority of corporate loans.

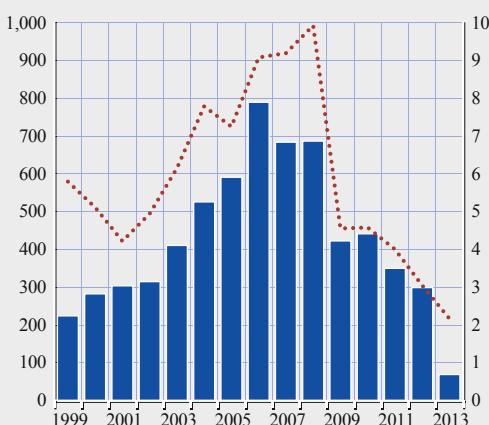
Second, debt issuance with interest rates linked to the EURIBOR has increased steadily since the start of Economic and Monetary Union, reaching an annual total of approximately €300 billion

2 The aforementioned BIS report more broadly reviews aspects of the possible risks for monetary policy transmission and financial stability that may arise from deficiencies in the design of reference interest rates, from market abuse, or from market participants using reference interest rates that embody economic exposures other than those they actually want or need. In this context, it mentions the following potential financial stability implications linked to a wide use of reference rates: (i) market disruptions as a result of a loss of confidence loss that accompanies lower market liquidity; (ii) the build-up of risks and an overly high reliance on unsecured wholesale funding due to the mispricing of the common bank risk component; (iii) the spread of bank funding risks across the system; (iv) a potential misuse of reference rates for risk management practices that create basis risk; and (v) the impairment of a central bank's capacity to respond to financial fragilities caused by idiosyncratic reference rate factors that are difficult to address.

Chart C Debt issuance with interest rates linked to the EURIBOR

(1999 – 2013)

- EURIBOR-linked issuance (EUR billions; left-hand scale)
- EURIBOR-linked issuance (percentage of total issuances; right-hand scale)



Sources: Dealogic and ECB calculations.

Note: Euro-denominated debt issuance with rates linked to the EURIBOR; data for 2013 until April 2013.

in 2012 (see Chart C). EURIBOR-linked instruments accounted for an only small proportion of overall debt market activity in 2012, namely 3%.

Third, the EURIBOR has played an increasingly prominent role in derivatives markets, serving as a reference rate for both over-the-counter (OTC) and exchange-traded derivatives contracts with a notional value of hundreds of trillions of euro. The notional amount outstanding of single-currency OTC interest rate derivatives totalled to USD 489.7 trillion in December 2012.³ Broken down by currency, notional amounts referenced to euro interest rates accounted for the largest share (USD 187.4 trillion), exceeding those referenced to US dollar rates (USD 148.6 trillion). The volume of euro-denominated OTC interest rate contracts has risen since the beginning of the financial crisis, driven mainly by an increase in the volume of euro-denominated OTC interest rate swaps (see Chart D). While not directly evident from the data, there is a broad market consensus that the EURIBOR is the main reference rate underlying euro interest rate derivatives. Data published by Euronext show that the total notional amount of the three-month EURIBOR futures contracts in all interest rate derivatives traded on the London International Financial Futures and Options Exchange (LIFFE) in 2012 amounted to €178.7 trillion and that the notional amount of the EURIBOR options on futures totalled €70.7 trillion.

Given their great importance, the scandals that broke out in the course of 2012 regarding the London interbank offered rate (LIBOR) but also the EURIBOR and the Tokyo interbank offered rate (TIBOR) had the potential to create major destabilising forces. To ensure a smooth functioning of financial markets, reform is in progress to make the EURIBOR (as well as other reference rates): (i) more reliable, with a transparent, robust and credible governance structure to oversee its calculation; (ii) more representative of the nature of the underlying market in

Chart D Notional outstanding amounts of euro-denominated over-the-counter (OTC) interest rate derivatives

(1999 – 2012)

- options (USD trillions; left-hand scale)
- forward rate agreements (USD trillions; left-hand scale)
- interest rate swaps (USD trillions; left-hand scale)
- interest rate swaps (percentage of total OTC instruments, irrespective of currency; right-hand scale)



Source: Bank for International Settlements.

3 BIS data covering the G10 countries since end-June 1998 and also Australia and Spain as from December 2011.

accordance with its definition; and (iii) more resilient so as to ensure that it can be reliably calculated during periods of market stress.⁴ From a financial stability point of view, it is crucial that such measures convey critical information during times of stress when liquidity may evaporate. Furthermore, it is vital that any potential transition to a more transaction-based rate or methodology takes place only if the following three conditions are met: (i) that there are more transaction-based methodologies or reference rates that represent suitable replacement solutions; (ii) that, where such alternatives exist, any envisaged transition can be undertaken in an orderly manner that preserves financial stability and ensures the legal continuity of financial contracts; and (iii) that private sector choices in any transition process are safeguarded.

With this in mind, the design of the next-generation reference rates needs to extend beyond ensuring a sound governance framework. Reference rates need to also have a transparent methodology that is grounded, wherever possible, in observable transactions entered, at arm's length, between buyers and sellers. The design of reference rates also needs to ensure that such rates are resilient and can be reliably computed during times of acute market distress, when the continuous availability of such benchmarks is critical with respect to the functioning of markets.

⁴ See ECB, "European Commission's public consultation on the regulation of indices – Eurosystem's response", November 2012.