10 rue Montoyer
B- 1000 Brussels
T. +32 (0)2 508 37 11 – F. +32 (0)2 511 23 28
info@euribor-ebf.eu -www.euribor-ebf.eu

Frequently Asked Questions about Euribor®

What is Euribor®?

Euribor® (Euro Interbank Offered Rate) is a benchmark giving an indication of the average rate at which banks lend unsecured funding in the euro interbank market for a given period. It is the rate at which euro interbank term deposits are offered by one prime bank to another within the EMU zone.

It is produced for one, two and three weeks and for twelve maturities from one to twelve months.

Individual Euribor® rates are the end-product of a calculation based upon submissions from a bank panel. To ensure the greatest possible accuracy and to make it senseless for the rate to be manipulated, Euribor's panel comprises a large number of active players in the euro zone money markets of varying types, sizes and locations. The 43 banks currently on the panel range from savings banks to cooperative banks, and from regional to international institutions, and so forth. Given such different business models and banking strategies, finding a common interest between enough members to influence the index would be extremely difficult if not impossible. The list of current panel banks is attached.

How is it defined?

Contributing panel banks must quote the required euro rates to the best of their knowledge; these rates are defined as the rates at which euro interbank term deposits are being offered within the EMU zone by one prime bank to another at 11.00 a.m. Brussels time.

Euribor® is not necessarily based on actual transactions, as not all banks will offer deposits in marketable size each day in each maturity they quote.

Euribor® is based on an act/360 day-count convention, which means that each month is treated normally and the year is assumed to be 360 days.

The current definition was adopted in 1998 at the creation of the benchmark.

What is Euribor® used for?

Euribor® is the benchmark rate of the large euro money market that has emerged since 1999. It is traditionally the main gauge of unsecured interbank euro lending. It is also widely used as the underlying rate in retail products like mortgages and derivatives transactions, both Over the Counter (OTC) and exchange-traded (futures and options).

When and why was Euribor® created?

Before the introduction of the single currency in 1999, most countries had domestic rates for their national currencies. The single currency made it necessary to establish a new interbank reference rate within the Economic and Monetary Union: Euribor® (Euro Interbank Offered Rate).

In most countries where domestic reference rates were replaced by **Euribor®**, national legislation and convention were adapted to facilitate the changeover, so that **Euribor®** legally replaced domestic reference rates.

Euribor® was first published on 30 December 1998 for value 4 January 1999.

How is Euribor® calculated?

Thomson Reuters is the designated calculation agent for Euribor®.

Every Panel Bank is required to directly input its data no later than 10:45 a.m. (CET) on each day that the Trans-European Automated Real-Time Gross-Settlement Express Transfer system (TARGET) is open. Each Panel Bank is allocated a private page on which to contribute its data. Each private page can only be viewed by the contributing Panel Bank and by Thomson Reuters staff involved in the process. From 10:45 a.m. to 11:00 a.m. (CET) at the latest, the Panel Banks can correct, if necessary, their quotations.

Before calculating at 11:00 a.m. (CET) on each TARGET day the Euribor® for that day, Thomson Reuters verify that all Panel Banks have made their data available for that day in accordance with established procedures. Should any Panel Bank, after a reminder, still not provide its data until 11:00 a.m. (CET), Thomson Reuters calculate the Euribor® for that day without the missing data and promptly notify Euribor® EBF in writing.

At 11:00 a.m. (CET), Thomson Reuters process the Euribor® calculation. For each maturity, they eliminate the highest and lowest 15% of all the quotes collected. The remaining rates are averaged and rounded to three decimal places. The trimming process is done according to the table below:

Number of Banks in the Fixing	No. excluded from top 15%	No. excluded from bottom 15%
12 - 16	2	2
17-23	3	3
24-29	4	4
30-36	5	5
37-43	6	6
44-45	7	7

The decision to trim the bottom and top 15% in the calculation was taken to exclude outliers from the final calculation. This process is meant to prevent any individual panel contributor from influencing the calculation and affecting the Euribor® quote.

How are contributors selected?

The choice of banks quoting for Euribor® is based on market criteria. These banks are of first class market standing and they have been selected to ensure that the diversity of the euro money market is adequately reflected, thereby aiming to make Euribor® an efficient and representative benchmark.

Banks can qualify for the panel if they are active players in the euro money markets in the euro-zone or worldwide and if they are able to handle good volumes in euro-interest rate related instruments, especially in the money market, even in turbulent market conditions.

By entering the panel, banks must subject themselves unconditionally to the Euribor® Code of Conduct[1], which describes, *inter alia*, the criteria to apply for a seat on the panel and the obligations of the panel banks.

The Euribor® Steering Committee, composed of 9 experienced market practitioners and Chaired by the Chief Executive of the EBF and Euribor-EBF, may at any time request panel banks to demonstrate and prove that their relevant market activities still qualify them for a seat on the panel. They review at least twice a year, in the light of market developments, whether the number of panel banks needs to be reduced or increased and control whether panel banks fulfill their obligations.

How is Euribor governed?

Euribor-EBF is an international non-profit association operating under Belgian law. Its members are national banking associations in the Member States of the European Union which are involved in the Eurozone and the Euro-system.

[1] http://www.euribor-ebf.eu/assets/files/Euribor_code_conduct.pdf

The Euribor-EBF General Assembly is composed of representatives of Euribor-EBF Members' Associations. It determines the Association's strategy and approves its medium-term objectives.

The Association is governed by a Board of Directors composed of one President and three Directors appointed by the General Assembly for a two-year mandate. They take all of the actions necessary or useful for the realization of the association's purpose and delegate the daily management of the Association to the Chief Executive.

The Euribor® Steering Committee, composed of 9 experienced market practitioners elected by the respective General Assemblies of Euribor-EBF and Euribor-ACI and chaired by the Chief Executive of Euribor-EBF, is in charge of controlling and supervising the application of the Code of Conduct, which details *inter alia* the criteria to apply for and stay in the panel as well as the obligations of panel banks. In addition to the Code of Conduct, the following monitoring processes are applied:

- Monitoring of the panel banks' contributions' reporting on a monthly basis in order to avoid any human mistake when registering contributions.
- Standing item of the Euribor® Steering Committee meetings: every six months, the experts from the Steering Committee give their view on the accuracy of the index and its evolution in light of market conditions.

What is the link between the EBF and Euribor-EBF?

Euribor-EBF is a daughter structure of the EBF. Both structures operate with different governing bodies but are headed by the same Chief Executive. The national banking association members of Euribor-EBF are also members of the EBF.

Euribor-EBF has a scientific mission of informing national associations, European institutions and the public at large on interbank money markets. It also supports other practical initiatives fostering the integration of the European financial market. These initiatives include the improvement of the liquidity, safety and transparency of the short term commercial paper markets, by means of a harmonised framework for short-term European paper 'STEP'.

What is the scope and responsibility of Euribor-EBF in the benchmark set up process?

Euribor-EBF has the responsibility to host the governance of the benchmarks, through its Steering Committees made of expert professionals from European banks' treasuries.

What is Euribor-EBF's position regarding current investigations?

A benchmark must deliver an accurate, reliable index and Euribor-EBF strongly condemns any attempt to influence the index. How the derivative markets ultimately use the index is out of the scope of both the permanent structure and the Steering Committee of Euribor-EBF.

How does Euribor® ensure the integrity of the index?

Both the panel composition and the calculation process significantly reduce the risk of manipulation:

A) Panel composition:
The Euribor® panel is composed of 43 European banks, from different countries, of different sizes and representing different types of activities, from saving banks to cooperative banks, from regional to international institutions, and so forth. Given such different business models and banking strategies, finding a common interest between enough members to influence the fix would be extremely difficult if not impossible..

B) Fixing's calculation:
The fixing is made of 43 individual contributions for each tenor (maturities).
The 15% highest and 15% lowest contributions are excluded from the calculation. The fixing is an average of the remaining 31 individual quotes. Therefore influencing in any way the final fixing would require the alignment of at least 16 of the 31 contributions taken into account.

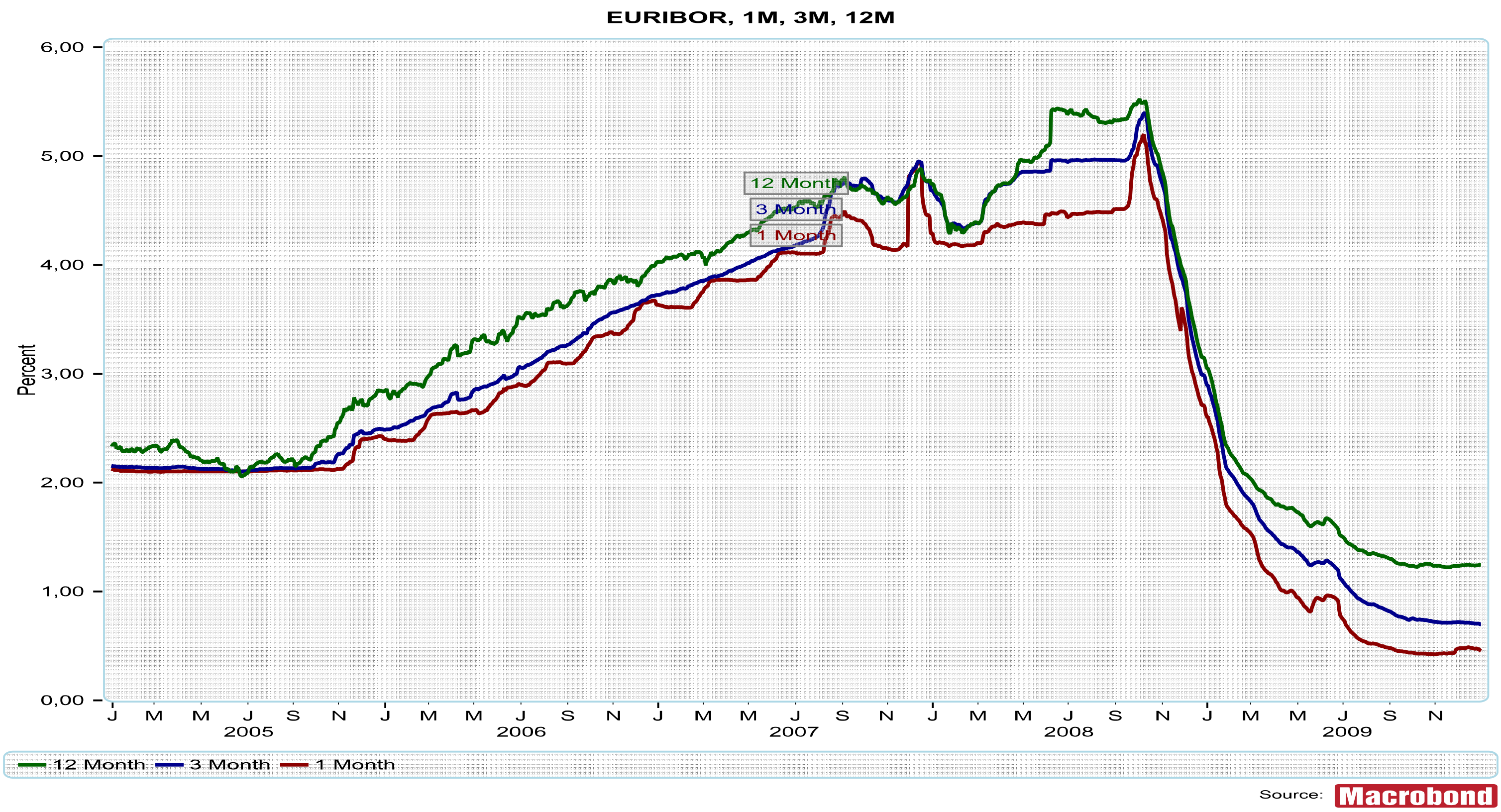
For these reasons, Euribor-EBF believes that "attempts" that have been reported in the media don't actually mean that Euribor manipulation took place.

A trader is reported to have asked some of his counterparts to help him try to fix Euribor® lower. Did that happen?

We believe that any attempt to manipulate Euribor® would be as unsuccessful as it would be pointless.

The following chart shows the evolution of the Euribor® curve for three different maturities between 2005 and 2009 (the period under investigation).

As clearly appears on the chart, the Euribor® evolution was definitely not positive for European banks. It shows that the cost of funding for banks in the interbank markets evolved at the end of 2008 to twice the price of end 2007. The cost of funding for banks had therefore drastically increased (please note that the strong decrease in 2008 is due to ECB rates cut expectations, as explained in the ECB monthly bulletins of December 2008 and January 2009[2]). Euribor-EBF believes that this hardly reflects a successful manipulation.



[2] http://www.ecb.int/pub/pdf/mobu/mb200812en.pdf
http://www.ecb.int/pub/pdf/mobu/mb200901en.pdf

Annex1 : Euribor panel banks composition

<u>Austria</u> Erste Group Bank AG RBI (Raiffeisen Bank International) **<u>Belgium</u>** Belfius KBC **<u>Finland</u>** Nordea Pohjola **<u>France</u>** BNP - Paribas Banque Postale Natixis Société Générale Crédit Agricole s.a. HSBC France Crédit Industriel et Commercial CIC **<u>Germany</u>** Landesbank Berlin Bayerische Landesbank Girozentrale Commerzbank Deutsche Bank DZ Bank Deutsche Genossenschaftsbank Landesbank Baden-Württemberg Girozentrale Landesbank Hessen - Thüringen Girozentrale Norddeutsche Landesbank Girozentrale **<u>Greece</u>** National Bank of Greece	**<u>Ireland</u>** AIB Group Bank of Ireland **<u>Italy</u>** Intesa Sanpaolo Unicredit Banca Monte dei Paschi di Siena UBI Banca **<u>Luxembourg</u>** Banque et Caisse d'Épargne de l'État **<u>Netherlands</u>** Rabobank ING Bank **<u>Portugal</u>** Caixa Geral De Depósitos (CGD) **<u>Spain</u>** Banco Bilbao Vizcaya Argentaria Confederacion Española de Cajas de Ahorros Banco Santander Central Hispano CaixaBank SA **<u>Other EU Banks</u>** Barclays Capital Den Danske Bank Svenska Handelsbanken **<u>International Banks</u>** Bank of Tokyo - Mitsubishi J.P. Morgan Chase & Co. Citibank UBS S.A.