A LIBOR Scandal Primer

What does the acronym, "LIBOR," stand for?
The "London Inter-bank Offered Rate."

What does LIBOR represent?
LIBOR is promoted as representing the average interest rate that large banks can borrow from one another. LIBOR is not the interest rate on any single loan. Rather it is an index intended to reflect average interbank interest rates as determined by a defined procedure.
LIBOR is not a single interest rate, but is approximately 150 interest rates.

- There is a separate set of interest rates for each major currency. LIBOR rates, representing the cost of acquiring funds for a time period, are unique for each currency because relative currency values differ over time. For example, the value in euros of one US dollar changes continuously. The difference in euro LIBOR rates and US dollar rates brings borrowings in the two currencies into equilibrium.
- Within each set of LIBOR rates for a given currency, there are different rates for different durations (the term of a fixed period of interest rate). For instance, one day LIBOR represents a loan with an interest rate which is reset (or is repaid) every day. Three-month LIBOR represents a loan with an interest rate that is reset (or is repaid) every three months, and so on.

Why is the cost of inter-bank borrowing important to banks?
When banks lend money to individuals, companies or governments, the fundamental cost of lending the money is the cost of acquiring the funds to lend. On the margin, the cost of acquiring funds is the interest rate needed to procure funds from another bank.

Why is an index reflecting average intra-bank borrowing cost important to borrowers?
Banks sensibly price funds loaned at the cost of the funds *plus* an increment that reflects the risk of failure to repay that is peculiar to the borrower. For example, in some markets, a relatively creditworthy borrower might be able to borrow at an interest rate of 0.50% over LIBOR; while a riskier borrower might only be able to borrow at an interest rate of 1.00% over LIBOR. The increment over LIBOR is often referred to as the "spread."
If loan bears interest that resets (or floats), the spread generally stays the same. The lending bank might require the interest rate to reflect its actual cost of funds, but that puts the borrower at risk for the changing credit quality of the bank – as the credit quality of the bank deteriorates, its cost of borrowing money increases. Borrowers generally prefer the cost of

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funding the loan reflect changing, average inter-bank borrowing rates. These are both standard and not tied to the individual lending bank's credit standing.

What is the process for calculating the LIBOR index?
A number of large banks are surveyed and report interest rate for currencies and durations. For the most frequently used LIBOR, the three month US dollar LIBOR, there are 18 banks surveyed. For lesser used LIBOR currencies and terms, fewer banks are surveyed.
The survey poses a very brief question:

At what rate could you borrow funds, were you to do so by asking for and then accepting inter-bank offers in a reasonable market size just prior to 11 am?

It is notable that the question is not closely tied to actual lending offers at the 11:OO a.m. (London time) target time.

The highest 25% percent responses and lowest 25% responses are eliminated from the data set and the remaining responses are averaged. The average of the rates equals LIBOR for the particular currency and duration.

Who performs the procedure?
Because it formalized the procedure in 1986, the British Bankers Association is responsible for the calculation and publishing of LIBOR each day. The BBA is an association of banks that, in addition to having responsibility for the LIBOR index calculation process, also represents the interests of its members to UK and international lawmakers and regulatory agencies. Its policies are governed by its members.
The BBA has contracted out the daily operations required to complete the process to Thomson Reuters.

To what regulatory regime is the LIBOR-setting procedure subject?
None.
However, LIBOR is so central to financial systems of nations throughout the world, it is obvious that various regulators track changes.

How significant is LIBOR to the financial markets?
The Bank of England has estimated that approximately $500 trillion of loans, debt instruments and derivatives are linked to LIBOR. Other estimates are as high as $800 trillion. Both numbers

are extraordinarily large, especially given the annual productivity of the world economy measured by GDP, on the order of $70 trillion in 2011, according to the World Bank. Many of the loans are to consumers, including mortgage loans. Many of the instruments are owned by pension funds, endowments and money market mutual funds in which individual savings are invested. And many governmental agencies issue instruments that are indexed to LIBOR to fund capital and operating needs.

Yet these figures exclude a significant asset class that does not index by reference to LIBOR. As pointed out before, inter-bank lending rates are hydraulically related to the currencies that are "lent." Similarly, relative currency values are hydraulically related to LIBOR. To the extent that LIBOR rates do not reflect legitimate inter-bank lending rates, relative currency values will be skewed. For example, assume that the three-month US dollar LIBOR is skewed low and the three month euro LIBOR more accurately reflects higher inter-bank borrowing costs. Banks will borrow in US dollars at a low rate and use the funds to buy euros for 3 months duration (by promising to repurchase the US dollars with euros in 3 months). They would then lend the euros at the relatively high rate. The currencies would revalue in the market to restore equilibrium.

Thus, LIBOR affects the lending, securities, derivatives and currency markets. The effects of manipulating LIBOR, even in small amounts, are massive.

Finally, LIBOR reflects the general credit quality of the lending banks in the survey. Interest rates on bank loans to individual banks that report via the LIBOR survey offer an insight into the banking sectors views of the credit quality of the individual reporting bank. These are important data points for regulatory agencies. They are also important data points for investors in bank stocks and debt securities.