

What Is Wrong with LIBOR?

The current liquidity crunch has created a situation where, at times, LIBOR no longer appears to represent the level at which banks will lend to one another. If, in fact, it is the case that LIBOR is being misrepresented, the impact is enormous. LIBOR represents the financing benchmark for almost every segment of the global securities market. The purpose of this article is to explore some of the reasons market participants are beginning to question LIBOR and to articulate some of the changes that are being discussed.

The Origins of a Benchmark

In 1984, the British Banker's Association (BBA) began producing a survey of interbank lending rates within the London market. From these modest beginnings, the London Interbank Offer Rate (LIBOR) grew to become one of the most widely followed global interest rate benchmarks. It is the referenced financing rate used to value a wide variety of derivatives, ranging from vanilla interest rate swaps to more esoteric total return swaps. It is also found in the formulas used to calculate coupon payments for floating rate notes and loans. LIBOR is a benchmark for approximately \$350 trillion of debt-related securities and derivatives, according to the Bank for International Settlements in Basel, Switzerland.

LIBOR itself is not an observable rate. Instead, it represents a survey of the yields that banks are willing to lend to one another. The survey is taken in multiple currencies and for multiple maturities. The surveys are solicited just before 11:00 am in

London (5:00 am New York). The final calculation uses a trimmed mean process designed to remove outliers on both the high and low end. Currently sixteen banks contribute to the US dollar LIBOR rate survey (see Figure #1).

Figure #1

Banks	Credit Profile		
	Moody's	S&P	Fitch
Bank of America	Aa2	AA	AA
Bank of Tokyo – Mitsubishi UFJ	Aa2	AA	NR
Barclays Bank plc	Aa2	AA-	AA
Citibank NA	Aa3	AA-	AA-
Credit Suisse	Aa2	A+	AA-
Deutsche Bank AG	Aa1	AA	AA-
HBOS	Aa2	AA-	AA-
HSBC	Aa2	AA-	AA
JP Morgan Chase	Aa2	AA-	AA-
Lloyds TSB Bank plc	Aaa	AA	AA+
Rabobank	Aaa	AAA	AA+
Royal Bank of Canada	Aaa	AA-	AA
The Norinchukin Bank	Aa2	A+	NR
The Royal Bank of Scotland Group	Aa1	AA-	AA
UBS AG	Aa1	AA-	AA-
West LB AG	A2	A-	A-

Source: JP Morgan
May 15, 2008

Questioning LIBOR

Are banks misrepresenting the true levels at which they would loan funds to other member banks? Some market participants believe the current liquidity crisis damaged the interbank market, resulting in LIBOR levels that deviate, at times materially, from real interbank lending rates. Why would this happen? Perhaps because LIBOR surveys are publically posted and therefore any bank posting a high LIBOR level runs the risk of being perceived as weak in what is currently a very unstable environment for financial entities. Reinforcing this point is the following estimate by

JP Morgan: through May 15, the sixteen banks that comprise the US dollar LIBOR panel account for slightly more than 50% of the \$342 billion in credit related losses reported by banks worldwide. No one wants to experience a Bear Stearns-like run on the bank.

Is the Process Broken?

The evidence supporting the notion that LIBOR is being underestimated comes primarily from comparisons to observable market data. For example, the Federal Reserve publishes daily Eurodollar deposit data. This data uses the ICAP broker bid rate at 9:30 am eastern time. Many market participants believe the Eurodollar rate is the best market proxy for LIBOR. Figure #2 reports the 3 month LIBOR/Eurodollar spread going back over the last thirty months. Until the credit market turmoil began in August 2007, the spread hovered very close to zero with a slight negative bias reflecting that the survey measures the bid side of market versus LIBOR at the offer. The recent market turmoil has caused Eurodollar yields to climb 15 to 20 bps above LIBOR.

This recent divergence coupled with anecdotal evidence suggesting that, within the interbank market, a substantial number of loans are occurring at yields higher than the LIBOR setting, has led

many to believe that LIBOR is being held artificially low.

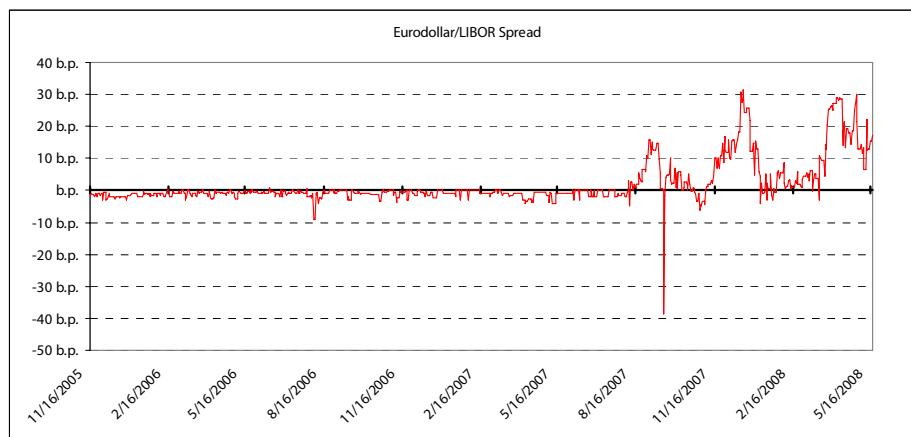
After fielding several complaints on this matter, the BBA stepped in on April 16th and warned member banks that anyone found misquoting rates would be removed from the survey. Over the next two days, three month LIBOR rose 18 basis points, the largest percentage increase since the market turmoil began in August 2007. The BBA has put the matter under review and is scheduled to announce its findings on May 30, 2008.

It is worth noting that some market participants do not feel the LIBOR process is broken. From their perspective, LIBOR simply reflects the borrowing costs of top tier banks. Differences observed between LIBOR and other indices can largely be explained by the composition of the LIBOR panel. This group believes that the problem is not with the LIBOR process but instead with the banking system.

What Can be Done?

No matter your perspective, it is clear that the market's confidence in LIBOR has been shaken. Can this confidence be restored? Or do we need to move to an alternative benchmark? These are the questions which now must be addressed.

Figure #2



Source: Bloomberg

Among the discussed changes is a movement to a US based LIBOR panel. Currently, only three US depository institutions participate in the survey: Bank of America, JP Morgan, and Citigroup. Only US domiciled banks have access to US dollar based liquidity programs recently established by the Federal Reserve and the Federal Home Loan Bank. Therefore, assuming the survey reflected reality, the large contingent of non US banks would be expected to show higher average rates. To combat this, some have suggested creating a US based survey (possibly NYIBOR – New York Interbank Offering Rate).

Another suggestion is to move away from LIBOR to a more observable market rate like effective Fed Funds. This is a central bank influenced rate that in many ways reflects a bank's cost of capital. Market participants commonly use this rate to calculate

things such as interest paid on posted cash collateral.

In our opinion, the likelihood of a change to an alternative benchmark is not great. The infrastructure built around LIBOR is enormous, making switching costs extremely high. Instead, the more likely outcome may be that the BBA will modify the current survey process to create greater confidence that the numbers being reported reflect a more accurate cost of capital for the panel banks. Some suggested changes include increasing the size of the panel, changing the time of the quote to align more directly with US markets and changing the calculation from a trimmed mean to a median. All of these suggestions could modestly improve the process helping LIBOR to regain its once unquestioned reputation as the dominate US dollar financing benchmark.

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