LIBOR: World Reference Point

The London interbank rate is used widely as a benchmark but has come under fire John Kiff

EVERY WEEKDAY at about 11 a.m., 17 large banks, under the auspices of the ICE Benchmark Administration, report the rate at which they believe they can borrow a "reasonable" amount of dollars from each other in the so-called London interbank market. They report rates for seven borrowing terms that range from overnight to one year. The four highest and four lowest are thrown out, and the rest are averaged. ICE then announces that average rate at which banks say they can borrow dollars for each of the seven maturities.

A similar process is carried out for five other currencies as well. The average—often referred to in the singular even though there are 35 rates—is called the London interbank offered rate (LIBOR). It is one of the best known and most important interest rates in the world.

But it is not important because banks actually transact business with each other at the announced rate—although that can happen. Rather, LIBOR's importance derives from its widespread use as a benchmark for many other interest rates at which business is actually carried out. According to ICE, about \$350 trillion in financial contracts are tied to LIBOR.

Because the US dollar is the most important of the world's currencies, US dollar LIBOR rates are probably the most widely used and cited. Other panels—ranging in size from 7 banks to 17—report daily what it would cost them to borrow British pounds, euros, Japanese yen, and Swiss francs short term in the London interbank market.

Prior to February 2014 LIBOR was administered by the British Bankers' Association, and LIBOR consisted of 150 separate rates (15 maturities and 10 currencies). Reforms were triggered by controversy over how some banks were reporting the rates at which they "believed" they could borrow and because of some underlying problems with the LIBOR concept. Also, in April 2013 the setting and maintenance of this important benchmark were brought under the purview of the U.K. Financial Conduct Authority.

A recent innovation

Although banks in London have been lending to one another for centuries, LIBOR is a relatively new idea. It dates to 1969, when a syndicate of banks led by Manufacturers Trust (now part of JPMorgan Chase) needed a reference rate for an \$80 million floating rate loan to the Shah of Iran. However, its use took off in the early 1980s on the sudden growth of the use of interest-rate-based financial instruments—such as floating

rate corporate loans, forward rate agreements, and interest rate swaps.

Good standardized and transparent benchmark rates were needed to settle those contracts. Markets turned to the banking industry trade group and the Bank of England to provide such a rate. The British Bankers' Association launched LIBOR in 1986—initially with only three currencies—the dollar, the yen, and the pound sterling.

LIBOR is supposed to reflect reality—an average of what banks believe they would have to pay to borrow a "reasonable" amount of currency for a specified short period. That is, it represents the cost of funds—although a bank may not actually have a need for the funds on any given day.

But LIBOR has long been dogged by perceptions that the method for setting the rates is flawed and prone to distorted results during periods of market stress when banks stop lending to each other across the full maturity spectrum, from overnight to one year.

A more direct challenge to its authenticity came from attempts to manipulate LIBOR (and other benchmark rates) by a number of big global banks, for which over \$9 billion in fines has been paid to regulators in the European Union, United Kingdom, and United States.

But even before the controversy over manipulation called into question its accuracy, LIBOR was often called a "convenient fiction" because of the disconnect between the LIBORs used as benchmarks and actual borrowing in the London interbank market. Most banks loan each other money for a week or less, so most LIBORs for longer maturities are set on the basis of educated guesses. Yet almost 95 percent of transactions that reference one of the LIBORs—from interest rate derivatives to home mortgages—are indexed to rates for maturities three months or longer. The US three-month maturity period (or "tenor," as the maturity period is called) is the most popular, according to the U.K. Treasury. A further hint that unsecured term lending has become a fiction was the 2012 decision by ICAP, a large London broker-dealer, to stop publishing its one- and three-month New York Funding Rate (NYFR) indices, an alternative to LIBOR, due to a lack of data from New York-based banks.

Nevertheless, LIBORs have been found to be reasonably accurate, most of the time tracking closely similar benchmarks that are tied to actual unsecured bank funding rates such as those for commercial paper. The glaring exception was the period immediately after the September 2008 failure of the New York

investment banking firm Lehman Brothers, which triggered the global financial crisis. The three-month US LIBOR diverged from two publicly available similar short-term rates—the ICAP NYFR and the three-month rate on Eurodollar deposits, which are US dollar—denominated deposits at banks located outside the United States.

LIBOR was lower than the Eurodollar rate during early 2008 but was markedly lower in the period immediately following the Lehman collapse. LIBOR appears to track the NYFR very closely, except in the immediate aftermath of the Lehman failure, when it too was decidedly lower (see chart).

In part, LIBOR may have been lower after the Lehman failure because of an unintended consequence of a British Bankers' Association rule meant to ensure that banks reported their borrowing costs truthfully: immediate publication of individual banks' reports. While normally this would encourage honesty, in 2007–08 this safeguard may have backfired. Banks were reportedly loath to suggest that they were having trouble obtaining funds by reporting a rate higher than other banks were being charged. So to mask its liquidity problems, a bank with funding problems had an incentive to report lower rates than it really believed it would be offered. Indeed, a number of studies have suggested that banks submitted lowball rates after the collapse of the investment bank Bear Stearns in March 2008 as well as after the Lehman collapse six months later.

Other studies have found situations that suggest many banks were not reporting accurately. But statistical evidence of bank-specific LIBOR collusion and manipulation has been

Sharp divergence

The three-month U.S. London interbank offered rate (LIBOR) was markedly lower than two similar interest rates—the three-month Eurodollar deposit rate and the three-month New York Funding Rate (NYFR)—after the collapse of Lehman Brothers in September 2008. (difference between LIBOR and the NYFR and Eurodollar rates, basis points)



Source: Author's calculations.

Note: Eurodollar deposits are U.S. dollars on deposit at banks located outside the United States. The NYFR was compiled by the London broker-dealer ICAP from information reported by prime banks operating in New York and was designed to reflect short-term borrowing costs of those banks. ICAP stopped reporting the NYFR in August 2012. A basis point is 1/100th of 1 percent.

limited. Nevertheless, criminal investigations eventually uncovered the direct evidence that led to the massive fines.

Following the scandal there were some calls to eliminate LIBOR. But because it is so important and pervasive as a benchmark, the British government decided it could not be junked and should be saved.

First, the British government took over supervision of LIBOR from the bankers' group, which Martin Wheatley, managing director of the U.K. Financial Services Authority, said, "clearly failed to properly oversee the LIBOR setting process." In a 2012 report Wheatley outlined the government's proposed changes that came into force in 2013.

Under the reform, LIBOR continues to be set daily based on reports by panels of banks. But the banks are required to provide data to show that the rates they submit are an accurate reflection of their borrowing costs. And although the submitted rates are still reported publicly, it is done so with a three-month lag so that banks don't have an incentive to lie about their costs during a period of stress. Moreover, criminal sanctions are imposed on banks that misreport.

And to focus the production of LIBORs on interest rates that matter—and for which there are verifiable funding costs—the Australian, Canadian, Danish, New Zealand, and Swedish currencies were phased out and eight maturities eliminated. The number of LIBORs dropped from 150 to the 35 that are most important to market participants. Also, the ICE LIBOR Oversight Committee, composed of rate submitters and users plus other relevant experts, was set up to return credibility to LIBOR and ensure its continued relevance.

Nevertheless, many of the rates are still unsupported by actual interbank transactions, and bank interest in contributing to the LIBOR-setting process is dwindling. The Wheatley report encouraged market participants to consider the need for a backup plan if the rates are no longer produced. So in 2013 G20 leaders called for a fundamental review of LIBOR and other major interest rate benchmarks.

Since 2014 the Financial Stability Board has been leading the charge to strengthen LIBOR and search for transaction-based alternatives. Such alternatives have already been proposed for all five LIBOR currencies. For example, the US Alternative Reference Rates Committee has put forward a benchmark based on the rates at which banks fund purchases of government securities on a secured basis.

But it is not certain that the market will adopt the new rate benchmarks, and if it does, the transition will be a slow and gradual process. New rate setting governance and infrastructures must be put in place, and market participants will have to change legal documentation, systems, and processes. So LIBORs will be with us for many years to come.

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