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Libor 2.0: the runners and riders

From home loans to bonds and interest rate swaps, a host of very different markets are linked to Libor, which makes it difficult to replace the damaged benchmark. A number of alternatives are available, but disparate products may be better served by disparate reference rates. ***Tom Newton*** *reports*

Since US and UK regulators announced the June 27 settlement of investigations into Libor rigging at Barclays, commentators have been predicting the death of the benchmark – but it is not easy to replace an interest rate referenced by an estimated $300 trillion in financial products.

"Putting aside the terrible way Libor is fixed – by asking dumb questions to banks – it's actually a marvellous construction of a family of derivatives and cash instruments that work so well together. It's a wonderful foundation for completing markets," says Darrell Duffie, professor of finance at Stanford University's Graduate School of Business in California.

Facing that problem, the UK government-sponsored Wheatley Review – published on September 28 – opted to reform the rate rather than replace it. But a natural successor to Libor could still emerge. The review noted that, even after reform, Libor may not do what many users of interest rate derivatives want. Libor is not only determined by interest rates, but also by credit and liquidity risks in the interbank lending market. Instead, a purer interest rate measure – one referencing overnight indexed swaps (OIS) for example – might be better, it says.

The review sets out five criteria to weigh up a Libor replacement. In summary, the rate would need to cover all maturities, be resilient to stress and illiquidity, have a liquid underlying market across multiple currencies, avoid too much complexity and have a measurable history to allow past comparison for pricing and risk models.

OIS

As far as over-the-counter derivatives traders are concerned, the most obvious replacement is the OIS market – a product that references an overnight lending rate, such as the sterling overnight index average (Sonia) run by the Wholesale Market Brokers' Association (WMBA). At maturity, an OIS trade pays the difference between a fixed rate and the relevant overnight rate, and the latter excludes counterparty and liquidity risks.

In addition, the crisis years have seen the industry come to accept the OIS rate as the correct discounting rate for cash-collateralised OTC trades, given that interest on received cash is paid at the overnight rate of the relevant currency – Fed funds for US dollar cash, Sonia for sterling and so on. In practice, the small basis between Libor and OIS prior to the crisis led dealers to use the former as the discount rate, but when the basis blew out in the second half of 2007, dealers switched to the overnight swap rates instead, making pricing and valuation of trades a messy exercise.

"In order to get OIS into the picture, you end up with lots of extra bases: fixed-to-OIS, OIS-to-Libor, Libor-to-Libor, Libor-to-OIS, OIS-to-fixed again. To compute a secured collateralised discount factor we have to go via an unsecured lending rate. It's ridiculous," says one senior derivatives trader at a large international bank in London.

In short, traders long for the good old days when their discount rate was the same as the reference rate in the contracts. Now discounting is done using the OIS rate, they see no reason why the contracts shouldn't reference it as well.

But the OIS market doesn't meet all the Wheatley criteria. Traders say they have usable forward curves for OIS in the main currencies but OIS trades only go out to one or two years in some minor currencies – and others lack an OIS market altogether. In addition, there's limited liquidity in swaps at longer tenors, but proponents of the market note that would change if it became a new reference benchmark for OTC products.

"If you need to hedge using those curves then the market develops for them. OIS is certainly a growing market," says the senior derivatives trader.

But while the OIS market may provide a neat proxy for pure interest rate exposures, that is not what everyone is looking for – some market participants

want a reference rate, like Libor, that is a reflection of bank funding costs.

"What the market needs, in particular the non-bank financial institutions, is a cost-of-money benchmark to price credit margins from. That's totally different from running a derivatives and off-balance-sheet book and wanting to revalue it," says David Clark, chairman of the WMBA in London.

B-libor

An alternative that addresses that problem has been proposed by news and data provider Bloomberg – an index compiled from a variety of markets, which it calls 'B-libor'. Dan Doctoroff, the company's chief executive, outlined how it could be calculated at a September meeting of the European Parliament's Economic and Monetary Affairs Committee in Brussels.

"We would monitor the various quotes on credit-related transactions on a daily basis and systematically quantify credit premiums at various short-term maturity points. We would then add that credit premium to the risk-free rate," he said.

The risk-free rate would be taken from the OIS market – with the credit risk add-on being derived from credit default swaps, bonds, commercial paper and other instruments linked to the B-libor panel banks. A wider range of institutions, including large corporates, would also be invited to join the panels.

Doctoroff gave no further detail on how the index would be compiled but, in theory, B-libor would satisfy the criteria of being market based while also reflecting funding costs. It would not, though, have a historical track record and – depending on the calculation methodology – might also be deemed too complex.

Bloomberg's chief executive, though, threw his weight behind it in Brussels: "Given the widespread use of Libor as a reference throughout the global economy, Libor must be preserved, at least in the short term. What we are advocating would, however, provide an index far more reflective of the market's realities and far more independent of any single institution's transactions or subjective estimates," he said. Doctoroff also noted that the company is offering to carry out the work on a *pro bono* basis.

Repo indexes

With volumes of unsecured interbank lending in decline, many see secured lending rates as a better reflection of funding reality. In the UK, the WMBA publishes the repurchase overnight index average that provides a snapshot of overnight gilt repo rates. In the US, attention has focused on the Depository Trust & Clearing Corporation's (DTCC) general collateral finance (GCF) repo index, which is derived purely from transaction data – crucial for satisfying the Wheatley criteria.

"In essence, the index is based on a single day's trading as the par-weighted average of daily activity in overnight GCF repo. There's nothing of an indicative nature in it – it's based purely on actual, executed trades," says Murray Pozmanter, general manager of clearing services at the DTCC in New York.

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The GCF index has proved popular among bank repo desks, some of which hedge their funding costs using GCF-referencing OTC swaps. In July, futures contracts referencing the GCF repo index were launched on the New York Stock Exchange's listed derivatives platform, Liffe. It's certainly a boon for the index – a liquid futures market is critical for market participants to hedge.

"Liquidity begets liquidity – once you have a constellation of contracts that are working, that feeds on itself," says Stanford University's Duffie.

And a bigger liquidity jolt may be coming. The US Treasury is looking to assuage investor fears if rates should rise in future, so will launch a floating-rate issuance programme within 12 months, according to Bloomberg. Treasury officials have, unsurprisingly, confirmed that the new bonds will not be indexed to Libor, leaving the door open to the GCF index.

However, a rate derived from secured borrowing, like repo, is only as valid as the market that underpins it. As with Libor, if transaction volumes dwindle, the GCF index would become less relevant and reliable. And there are other drawbacks too, says Stanford University's Duffie.

"We want a rate highly correlated with unsecured bank borrowing, at least if the aim is to meet the needs of not just banks, but also corporates to hedge. There are times at which secured borrowing rates, like repo, diverge dramatically from unsecured rates, particularly when corporates and banks are having difficulty funding themselves. We'd want people to be hedged against that risk," he says.

Proliferating benchmarks

Even if they lack vocal market champions, there are other alternatives. Central bank policy rates are one option. Short-term government bond yields might also fit the bill given that the Wheatley review stresses the need for liquidity in the underlying instrument. Alternatively, the market could reference the interest paid on certificates of deposit or commercial paper – both alternative sources of unsecured funding.

No one rate appears to satisfy the five criteria in the review, however, and with Libor-referencing products all having their own more-or-less distinct user base, there is a real possibility that a number of alternatives to the old benchmark may take root.

"Twenty years ago, consolidation was all the rage. By using one single reference rate – Libor – across various different applications, life was a lot simpler. However, a more sophisticated view has now emerged. Using multiple rates will be more costly but these costs may be justified by the benefits of a more resilient financial system," says Andrew Lo, a professor of finance at the Massachusetts Institute of Technology Sloan School of Management in Cambridge, Massachusetts.

Despite all the speculation, it seems Libor is not going anywhere for now – although the job of calculating and disseminating the rate will be taken away from the British Bankers' Association. In the coming months, Baroness Hogg, a member of the UK House of Lords, will lead a panel selecting a new Libor administrator and overseeing the handover. ■