

## **Timothy Lane: Financial benchmarks – a question of trust**

Remarks by Mr Timothy Lane, Deputy Governor of the Bank of Canada, to the Osgoode Hall Law School and Schulich School of Business, Toronto, Ontario, 24 March 2014.

\* \* \*

Thank you for the opportunity to speak to you today on a subject that has been at the centre of much attention recently.

This city, like all others, depends on trade and commerce to thrive. At the root of successful trading and commercial relationships is the trust that each party to a transaction will deliver what was agreed. Many institutions have been developed throughout history to support that trust. Among the most basic of these are standardized units of measurement. More broadly, that trust is founded on the rule of law and other elements of good governance.

Trust is also of fundamental importance to the world of finance. That trust has been shaken recently by a series of headlines related to financial benchmarks such as the London Interbank Offered Rate, or LIBOR.

Today, I will discuss why we use financial benchmarks, how we use them, why they have been in the headlines and what we are doing to re-establish the trust that is so vital to a well-functioning financial system.

### **What are financial benchmarks?**

Financial benchmarks are used in a variety of contracts to specify what, or how much money, is to be delivered on particular dates. One example is floating-rate debt, where the borrower pays the lender an amount of interest based on a benchmark that varies from one period to another according to a selected measure of interest rates. Benchmarks are also particularly important for derivatives such as interest rate swaps, which are critical tools of risk management.

When benchmarks function as they should, they are a straightforward and technical element in the world of finance. They are intended to provide an unbiased, arm's-length measure of underlying market prices.

### **What went wrong?**

But some financial benchmarks have recently made headlines – for the wrong reasons. These benchmarks include LIBOR and some foreign exchange rate benchmarks (commonly known as “FX fixes”).

As alleged misconduct related to such benchmarks has been investigated, firms have paid multi-billion-dollar fines, and some high-flying traders have lost their jobs.

These headlines have been damaging to trust. They raise doubt about whether some key financial benchmarks were in fact providing an unbiased, arm's-length measure of actual market conditions. At the extreme, they could even be seen as raising questions about the integrity of the wider financial system.

Let's look at the problems that have arisen.

### ***LIBOR***

First, let's take LIBOR.

LIBOR emerged as the eurodollar markets developed in London in the late 1960s and 1970s. In particular, it was developed in response to the rise in the syndicated eurodollar loan market and demand for tools to manage risk exposures, including those that arose from

making those loans. These tools, known today as interest rate derivatives, needed a common benchmark so that they could be commoditized more easily, and LIBOR was this common rate. LIBOR was first officially published on New Year's Day in 1986.

As an interest rate benchmark, LIBOR is used as a measure of prevailing interest rates in a range of major currencies for maturities from overnight to one year. And, although originating in loan markets, it has come to be the dominant benchmark in a wide range of cash and derivatives markets. LIBOR – and its equivalents in some other currencies, collectively known as “IBORs” (interbank offered rates) – is used to determine the floating rate paid on over US\$500 trillion dollars of interest rate derivatives contracts, as well as many trillions in floating-rate loans and securities.

LIBOR is calculated based on submissions from a panel of banks: each bank is responsible for estimating the cost at which it could borrow in the unsecured interbank market from other banks, at various maturities and in various currencies. LIBOR is calculated as an average of these estimates, after dropping the highest and lowest figures. Banks' individual quotes are also made public – to deter anyone from submitting a wild number to influence the average.

The important thing to remember about LIBOR is that not every submission is based directly on actual transactions. For example, during the global financial crisis in 2008, when the interbank market essentially dried up, especially at longer maturities, banks still had to contribute to the benchmark.

Now let me turn to the problems that have emerged regarding LIBOR.

The first is signalling. In circumstances such as those during the height of the recent crisis, when interbank credit conditions were becoming increasingly difficult, a bank could become reluctant to report higher estimates than its peers for fear this would be interpreted as a signal that its own creditworthiness was deteriorating.

The second problem is manipulation, the stuff of most of the headlines. The focus has been on LIBOR survey responses at some individual firms being biased, with a view to profiting on trading positions. Of course, to the extent that this kind of misrepresentation occurred, it is criminal behaviour and the authorities have been treating it as such.

### ***Foreign exchange fixes***

Now let me move to foreign exchange benchmarks.

Foreign exchange benchmarks are typically calculated from actual spot trades over a short predetermined time period (or “window”) each day. It has been alleged that foreign exchange traders at some large financial institutions exchanged information about their clients' orders with a view to positioning themselves advantageously in the market.

The suspicion of such collusion – as suggested by some emails and chat-room discussions that have come to light – is being taken very seriously.

The existence of collusion cannot be inferred, though, from the volume of trading during the fixing window. Banks may want to execute many of their own trades during the fixing window, for instance, because their customers want to transact at the fixing price, and banks therefore look to offset those positions around the fix so as to manage their market risk. Issues relating to how fixes are designed, and how they are used by banks and their customers, are now being examined by global authorities.

### **What should be done?**

To address some of the problems associated with benchmarks, two options present themselves: reform or replacement. We can reform existing benchmarks to strengthen governance and enforce procedures that provide adequate checks against conflicts of interest and collusion. Or, we can replace them with more robust alternative benchmarks. In

fact, it is likely that neither of these solutions will be sufficient by itself. We will need to do some of both.

### ***Reforming benchmarks***

The first step in reforming benchmarks is clarifying governance. Who has direct responsibility for setting those benchmarks and assuring their integrity? What kind of governance exists within the financial institutions that determine the benchmarks? And who oversees those processes to make sure that the safeguards are appropriate?

Last summer a group of financial market regulators from around the world, the International Organization of Securities Commissions (IOSCO), released its Principles for Financial Benchmarks – a set of best practices aimed at answering these questions. These principles outline a framework for the governance and administration of financial benchmarks, including the roles, responsibilities and internal controls required of a benchmark’s administrator. Attention is paid to the additional controls necessary for survey-based benchmarks, which have been a particular cause of concern.

### ***Replacing benchmarks***

The second option, replacing existing benchmarks with new ones, is challenging for two reasons. First, it may be difficult to find a superior alternative benchmark, which is robust and also captures the relevant economic exposures. Second, even if a suitable alternative can be identified, making the transition may not be a straightforward matter.

The IOSCO principles outline desirable features for robust financial benchmarks. Notably, they call for benchmarks to be anchored to observable transactions in active underlying markets.

One could consider going further: relying only on actual market prices as benchmarks. Indeed, there are some cases – for instance, short-term repo markets – in which underlying markets are sufficiently liquid to reliably support benchmarks that are simply averages of the rates at which participants transact. In other cases, market prices could at least be used as a cross-check against a survey-based measure, even when they cannot be used directly to calculate the benchmark.

In other cases, it may be hard to find a suitable market price that tracks the desired aspects of market conditions. If a replacement benchmark does not fully reflect the economic exposures that are being hedged, the hedgers will not be able to manage their risks as effectively. Moreover, in the absence of appropriate governance, controls and regulation, market prices can also be subject to manipulation.

Benchmarks derived solely from transactions also face the challenge of how to determine the benchmark rate should there be no transactions in the relevant market on a particular day, or indeed over a whole series of days – for example during periods of stress.

Even if a superior alternative benchmark could be found for some markets, several issues would need to be addressed before making a switch. Existing benchmarks are already written into an enormous number of contracts, some of which could still have years, if not decades, to run. These contracts would have to be closed out and/or rewritten, which raises issues of coordination and of legal risk.

Taking these concerns into account, last year the Financial Stability Board (FSB) established a steering group of regulators and central banks to help coordinate upcoming reviews of existing benchmarks against IOSCO’s standards and to examine the feasibility of developing alternative benchmarks, at least for some markets.

The main focus is on the major global interest rate benchmarks: LIBOR, the Euro Interbank Offered Rate (EURIBOR) and the Tokyo Interbank Offered Rate (TIBOR). This steering group has been working with market participants from around the world to evaluate possible

alternative benchmarks and to identify and look at ways of mitigating any issues that might arise during the transition. When this work is complete, its findings will help inform views as to possible alternative financial benchmarks in other currencies, including the Canadian dollar. Similar international work has recently been launched to examine foreign exchange benchmarks.

## **CDOR – A Canadian case**

Moving closer to home, the main benchmark for Canadian-dollar interest rates is the Canadian Dealer Offered Rate (commonly known as CDOR). It is used to determine interest payments on Can\$130 billion in floating-rate notes and payments on about US\$9.3 trillion in Canadian-dollar interest rate swaps<sup>1</sup> as well as over Can\$750 billion in exchange-traded derivatives. Given CDOR's importance, making sure it is robust is essential to the whole Canadian financial system.

So where does CDOR come from? CDOR is the rate at which banks are willing to offer credit to companies against bankers' acceptances (BAs). CDOR is determined through a daily survey of seven market participants held at 10:15 every morning. In a simple process, the highest and lowest rates are dropped and the final five rates are averaged. While the number of banks in the panel may look small, they represent the key players in the BA market, originating close to 99 per cent of the approximately Can\$67 billion in outstanding BAs in Canada.

Thus, although CDOR has some similarities to LIBOR, they are different animals. CDOR is a bank *lending* rate, rather than a bank *borrowing* rate. Another difference is that while it is not an average of secondary market transaction data, it is derived from an underlying market that remains sizeable. This is in contrast to some unsecured interbank markets, the basis of LIBOR, which have generally shrunk substantially since before the crisis. Also, since banks are committed to lending to companies with BA lines based on CDOR, and because borrowers choose when and at what maturity to borrow, it is less likely that these rates would be subject to the problems I discussed earlier.

These features of CDOR do provide some reassurance – and indeed, no problems similar to those with other financial benchmarks have been reported. Nonetheless, given the vital role that CDOR plays in our financial system, Canadian authorities judged it essential to examine CDOR more closely in light of the new IOSCO principles and the experience with interest rate benchmarks elsewhere.

## **Strengthening the governance of CDOR**

In 2012–13, as an initial step toward strengthening the governance of CDOR, the Investment Industry Regulatory Organization of Canada (IIROC) reviewed existing practices. The focus of this review was on the panel members' supervisory practices: specifically, how CDOR submissions are calculated, who participates, who supervises, and who has regulatory jurisdiction. It was not intended to be an investigation into potential wrongdoing or manipulation of CDOR. The IIROC review noted some inconsistencies in procedures among different institutions, and a failure in some cases to document those procedures. IIROC also identified a need to strengthen independent compliance oversight of rate setting to complement business supervision procedures and conflict-of-interest protocols within institutions.

Action is now underway, both by the official community and industry, to address the issues highlighted in the review. Given that CDOR is based on banks' issuance of BAs, and with

---

<sup>1</sup> Bank for International Settlements, Triennial Central Bank Survey, "Statistical Release, OTC Derivatives Statistics at End-June 2013," November 2013.

CDOR submissions now coming entirely from banks rather than dealers, the relevant authorities have agreed that banks' CDOR submission processes are most appropriately regulated by the banks' regulator, the Office of the Superintendent of Financial Institutions (OSFI).

Accordingly, in January, OSFI announced that, consistent with its mandate and expertise, it will supervise the effectiveness of governance and risk controls surrounding banks' CDOR submission processes.<sup>2</sup> Subsequently, in its recent budget, the federal government announced its intention to include a regulation-making authority in the Bank Act covering bank submissions to financial benchmarks.

Furthermore, the banks on the CDOR panel should, fairly soon, release a submitters' code of conduct that they have developed in consultation with IIROC and the Bank of Canada. In addition to providing a formal definition of CDOR and requirements for being a submitter, the code will specify minimum standards for submission methodology, internal oversight and records retention.

Work continues to strengthen other aspects of the governance of CDOR to meet the principles established by IOSCO. For instance, we have discussed with industry the need for it to establish more formal administrative arrangements for CDOR, and the industry has begun work to take this forward.

### **Other Canadian benchmarks**

While CDOR is probably the most important financial market benchmark in Canada, it will also be important to ensure that other significant benchmarks are well designed and have appropriate governance, in line with IOSCO standards.

One obvious example here is the Canadian Overnight Repo Rate Average (CORRA). Although less widely used than CDOR, CORRA is important for the Canadian financial system, since it is the reference rate for overnight index swaps, which is a sizable derivatives market. CORRA is calculated based on actual transactions in the overnight market.<sup>3</sup> Although not owned by the Bank of Canada, we calculate and publish the rate on the basis of data submitted by the brokers.

Work has begun to look at what changes may be needed to CORRA given the new IOSCO standards. I expect that, as it progresses, that work will need involvement from a range of stakeholders.

Turning to foreign exchange rates, while the Bank of Canada posts indicative exchange rates based on market transactions and market quotes, it does so for information purposes, not as a benchmark. Nevertheless, these rates seem to be used as benchmarks for some financial transactions. While there is no evidence of market manipulation affecting the Bank of Canada's rates, we are reviewing these rates and considering any changes that may be appropriate. We will examine how these posted rates are currently used by market participants to see how any possible changes could affect market functioning.

### **Conclusion**

We've covered some technical ground, but the basic thrust is simple. We need good governance to maintain trust in the myriad financial contracts on which our economy is built.

---

<sup>2</sup> See Office of the Superintendent of Financial Institutions, "[Oversight of CDOR Benchmark-Setting Submissions](#)," 13 January 2014.

<sup>3</sup> Specifically, it is a weighted average of general collateral repo trades that take place daily through three interdealer-brokers.

I've talked about how some key financial benchmarks in other jurisdictions have fallen short of these requirements and what is being done to rebuild trust, internationally and in Canada. The introduction and implementation of the IOSCO benchmark principles will help ensure greater integrity and governance for financial benchmarks. Here at home, better articulated governance arrangements for CDOR and other important financial benchmarks will contribute to greater financial stability.

In that context, robust financial benchmarks are akin to reliable units of weights and measures. Whether it is a litre of wine, a pound of butter or an interest rate benchmark, there should be no question that measurements for commercial and financial transactions are accurate and fair.