THE WORLD’S MOST IMPORTANT NUMBER:
How a web of skewed incentives, broken hierarchies and compliance cultures conspired to undermine LIBOR

ERIC TALLEY, Professor of Law, University of California at Berkeley
SAMANTHA STRIMLING, Samantha is a JD Candidate, Boalt Law, University of California at Berkeley

To many observers, the recent scandal involving the widespread and recurrent manipulation of the London Interbank Offered Rate (LIBOR) may go down as one of the most significant and far-reaching events associated with the global financial crisis. And for good reason: by most estimates, an estimated 350 trillion dollars’ worth of global financial contracts — ranging from mortgages to credit cards to corporate debt securities to countless financial derivatives — hinge critically upon LIBOR to govern the cash flow positions and other obligations of contractual counterparties. This paper examines the incentives, hierarchies and organisational cultures among the various players involved and floats some hypotheses about how LIBOR may be most effectively reformed in light of these factors.

Almost immediately after its inception a quarter century ago, explosive network externalities allowed LIBOR quickly to realise the aspirations originally articulated by its creator, the British Bankers’ Association (BBA): to become the ‘world’s most important number’ — the central navigating point for financial markets worldwide.

But with big stakes come big problems. In mid-2012, the British Financial Services Authority (FSA) (the regulatory overseer in the first instance for LIBOR), joined with the US Commodities Futures Trading Commission (CFTC) and US Department of Justice to impose a half-billion dollars’ worth of penalties on Barclays PLC (one of LIBOR’s core reporting banks) for a systematic and longstanding practice of manipulating its LIBOR submissions. It has now become clear that that Barclays’ detected missteps were but the tip of an immense iceberg. Regulatory penalties of similar magnitudes have since been levied against two other significant participants, UBS and Royal Bank of Scotland, and more are expected within months. In all, over 20 participant banks are now alleged to be caught up in the scandal, subject either to regulatory enforcement, criminal investigations, civil litigations or some combination thereof. The scandal is now thought to have been so broad as to involve a set of coordinated practices between banks (not just within them), resulting in additional allegations of racketeering and/or antitrust violations.

In many ways, the longstanding and widespread nature of the LIBOR scandal is one of the most perplexing and intriguing things about it, as the June 2012 Barclays’ revelation surprised virtually no one even remotely familiar with the topic. LIBOR misreporting was — in effect — an open secret; hiding in plain sight. As far back as April of 2008, more than four years before the Barclays notice (and fully six months before the world’s financial markets and economies were thrown into a global tailspin), The Wall Street Journal (WSJ) published a prescient investigative study of LIBOR’s informational integrity. In it, authors Carrick Mollenkamp and Mark Whitehouse summarised research suggesting that many — and perhaps most — of the then-16 reporting banks responsible for the North American LIBOR rate were regularly and systematically misreporting information to Reuters, the agent charged with fixing the daily benchmark rate on the BBA’s behalf. In particular, Mollenkamp and Whitehouse noted that throughout early 2008, the spread between the reports that member banks submitted to the BBA on the one hand, and the rate that credit insurance markets implied for the banks on the other, was large and growing larger.
The WSJ found that the evident degree of misreporting was far from uniform, and varied widely by bank. For some banks, it appeared significant (led by Citibank, at nearly 90 bps). For others, it was relatively modest to non-existent (Royal Bank of Canada’s implied rate, for example, was statistically identical to its LIBOR reports). The reporting behavior of Barclays, UBS and RBS fit comfortably into the middle of the pack (between 25 and 39 bps). Moreover, although one could certainly quibble with the WSJ’s methodology (such as its reliance on the CDS market as a reliable external metric for banks’ borrowing costs), most observers understood the WSJ report, at core, to represent a facially persuasive critique of the integrity of LIBOR at least as far back as 2008 (if not almost two decades earlier still). Consequently, much of the ‘shock’ now manifest among commentators and regulators rings hollow among the various players involved. In particular, we consider three communities where these organisational cultures plausibly played a critical role: the BBA, as the monopoly supplier to the ‘benchmark’ market; the regulatory communities charged with bank oversight; and finally, the cultures within the reporting banks and bank holding companies themselves. We close our discussion by floating some hypotheses about how LIBOR may be most effectively reformed in light of these factors.

The market for LIBOR and the BBA culture

The most logical starting point of our inquiry is almost certainly at the BBA itself, and the critical role it has played in promulgating, developing and expanding the market demand for benchmark rates. On 13 September 2012, top executives from the 25 BBA member banks — who together compose the BBA’s council — voted overwhelmingly to cede control of LIBOR, for which they have been the official coordinator since the benchmark’s inception. Significantly, this vote was taken one day following the release of the Wheatley Review, which suggested just such an independent spinoff as one of a number of major institutional and technical reforms to LIBOR. A WSJ article recounting the decision dubbed it ‘the biggest change in LIBOR’s 26-year history’ (Enrich and Colchester 2012).

This characterisation is almost certainly correct. Until recently, LIBOR’s was a history marked by tremendous consistency, success, and growth. In the mid-1980s, financial contracts generally lacked a unified benchmark rate to govern variable-rate and contingent debt, as well as new financial ‘derivatives’ — products that had begun to explode in the wake of significant tax and regulatory reforms. As had become clear at the time, the viability of such financial innovations turned critically on the existence of a trustworthy common denominator upon which to frame and peg terms between contract counterparties. Dominant floating rates at the time (such as the US prime rate) were set too sporadically and were too geographically limited to buttress a global market in financial contracting. Thus, the BBA’s more organised and systematic daily survey of banks’ borrowing costs filled a niche that pre-existing measures could not. LIBOR’s popularity skyrocketed as newer financial products, including interest rate swaps, collateralised assets, credit derivative and risk management contracts increasingly incorporated the benchmark. The scale and heterogeneity of these new financial contracts strongly incentivised the BBA to expand its array of LIBOR rates across currencies and tenors (i.e. borrowing periods). By the mid-1990s, the BBA began to publish daily LIBOR rates for 10 currencies and for any monthly tenor up to one year. The increased global popularity of LIBOR necessitated a number of important but piecemeal changes in response to new market demands globally. Currencies were added and subtracted (especially following the implementation of the euro), banks have been added/removed to each panel as they gained or lost market influence and, in 1998, the official definition of LIBOR changed such that each member bank would now be asked explicitly to report its own cost of borrowing rather than that of a hypothetical ‘prime’ bank.

Nevertheless, by the turn of the century, it had become clear that LIBOR was far more than a technocratic book-keeping device: through its popularity, it had become a commoditised ‘product’ — one that could be bought, sold, purchased and licensed through the BBA. In the mid-2000s, the BBA began to seize on this potential, hiring John Ewan to serve as LIBOR Manager, to ‘put BBA LIBOR on a secure commercial footing’. Ewan’s charge was to serve as LIBOR Manager, to ‘put BBA LIBOR on a secure commercial footing’. Ewan’s charge was to serve as LIBOR Manager, to ‘put BBA LIBOR on a secure commercial footing’.
With the increasing commoditisation of LIBOR, however, came a significant cost: a growing commitment within the BBA organisational culture to refrain from casting doubt (at least in the public eye) on the integrity of the measure, since the exposure of reporting problems could potentially undercut LIBOR’s (and the BBA’s) market dominance. One such problem was a persistent lack of depth and liquidity in a number of LIBOR rates. As seen in Figure 2, even though LIBOR rate reports are harvested across 150 different currencies/tenor combinations, the modal pattern of unsecured deposit transactions among banks has been much narrower, concentrating heavily on less than a dozen (involving US dollar, pound sterling and euro transactions of three months’ duration or less). As a result, contracts pegged against the less focal LIBOR products regularly depended on a much thinner and more volatile set of underlying data.

The protective concern BBA had over the public perception of LIBOR is apparent from more than circumstantial evidence, however. Shortly after WSJ’s investigative 2008 report was published, the BBA convened a meeting of its Foreign Exchange and Money Markets Committee, whose principal task is to make policy decisions about LIBOR. The press accounts of their meeting suggest an organisation that was concerned as much (or more) with the measure’s prospective vitality as it was with its accuracy:

The committee is made up of banking-industry officials whose names and affiliations the BBA won’t disclose. The meeting’s agenda was how to improve LIBOR. ‘We need to adopt a minimal approach,’ said one executive, identified in a transcript as Representative 2 of ‘Bank B.’ ‘Too big a change would cause an explosive reaction.’ Another bank representative argued that the BBA should deal with banks that report artificially low data ‘by just picking up the phone … and have a conversation behind closed doors.’ The transcript indicates that other bank representatives agreed.11

Some months later, Angela Knight, then the BBA’s chief executive, approached both the Bank of England and the Federal Reserve Bank of New York to solicit their assistance with oversight of LIBOR. Both demurred (for reasons we explore in greater depth below). Nevertheless, the BBA chose to maintain its oversight.12 While perhaps a rational short-term strategic calculation for the BBA itself, this decision had major implications for many others not at the table, and arguably catalysed a compliance environment at the BBA that grew increasingly tolerant of the rate’s flagging credibility.

**Regulatory culture**

A second important potential contributor to the culture of non-compliance concerns the nature and evolution of bank regulation itself. Two important aspects of the regulatory landscape began to shift dramatically at the turn of the 21st century. The first was meta-regulatory: as a result of the mega-merger between Citibank and Travelers Insurance in 1998 (and the facilitating repeal of the Glass-Steagall Act months later), the 65-year old regulatory boundaries that had long separated commercial banks, investment banks, and insurance companies substantially disappeared. For the first time since the Great Depression, commercial banks’ holding companies (BHCs) could (through their subsidiaries) explore new activities in proprietary securities trading, underwriting, financial derivatives, and securities distribution, largely free from the regulatory firewalls that had once constrained them. This event set into motion a series of deregulatory movements within the US — changes that had global implications as well.

From this meta-regulatory shift emanated a micro-regulatory shift: the increased scope of BHC operations led to a problem of coordinating ‘multiple monitors’ within jurisdictions. With commercial BHCs becoming heterogeneous in scope, the activities of their subsidiaries began to fall increasingly under a patchwork of regulatory overseers, ranging (within the US) from the Fed to the Federal Deposit Insurance Corporation (FDIC), to the US Securities Exchange Commission (SEC), to the CFTC, to various state and national insurance and market regulators. Although the domains and duties of each of these regulators were distinct (at least in theory), the point where each domain left off and picked up was — at best — an opaque matter for speculation. Until the Dodd-Frank Act 2010, virtually no US regulatory entity exercised broad oversight of how different regulatory domains interact within a particular BHC (e.g. between the depository accounts and the trading desk). This regulatory oversight problem was especially pronounced where the various arenas of BHC activity intersected: and at the core of this intersection was fixing of benchmark rates. (As we shall see, this regulatory lacuna opened up significant returns for the BHC that can coordinate the efforts of these divisions).

In the years preceding the financial crisis, regulators in the US offloaded much of their oversight onto others, especially as their oversight targets became larger, more sophisticated and more complex. This trend was perhaps most publicly visible at the SEC, where then-Commissioner Cox occupied most of the first half of the 2000s pushing for increased ‘self-regulation’ of reporting firms. However, a qualitatively similar trend took hold elsewhere, such...
as in commodities/derivatives regulation and bank supervision (where capital adequacy requirements and risk weighting took on new dimensions that were unfamiliar to traditional forms of supervisory oversight). In the months and years following the advent of the crisis, a different type of regulatory collective action problem arguably took hold: one of practical damage control, self-preservation and sporadic finger pointing through litigation. One reason for action directed at individual banks may be the simple practical difficulty of ex ante regulation versus ex post litigation, particularly in an environment that is in a state of near-continuous flux. Relatedly, even within the realm of ex post litigation, actions against individual banks are mechanistically far more feasible than are broad indictments or ex ante regulatory pronouncements affecting an entire industry (even if the industry is in some way jointly ‘culpable’). Virtually all of the compelling probative evidence against Barclays, for example, consists (as described below) of inculpating emails, office memoranda and other correspondence. Finally, many types of enforcement action are also plausibly motivated (at least in part) by careerist norms among enforcement regulators. It is reasonable to assume that enforcement officials aspire to participate in high-profile cases, either to ascend internal promotion ladders or to perfect an exit option to private industry. For regulators with such professional aspirations, significant financial scandals are an ideal target of opportunity. As the underlying behaviour of regulated firms becomes more multifaceted and complex, regulators and regulatory culture naturally tend to substitute away from (difficult) ex ante pronouncements and towards (easier) ex post litigation.13

Banking culture
A final, somewhat more direct source of non-compliance culture was the reporting banks themselves. Although the proposition that banks will manage themselves to maximise profits is hardly a novel one, it gained new traction and urgency by the beginning of the 21st century, when their business prospects began to expand as a result of the significant loosening of regulatory oversight described above, and their enhanced scope and reach.

Accordingly, two discrete ‘phases’ of misreporting are described and addressed in the FSA’s recent enforcement notices. The first occurred largely before mid-2007, and involved a pattern or practice whereby a bank would ‘shade up’ or ‘shade down’ its reported cost of capital in order to distort resulting LIBOR to benefit the bank’s current derivative positions. In the second phase, (which reached maturity around the same time as the WSJ investigation described above), banks are alleged to have systematically reported their cost of debt so as to dampen — somewhat ironically — public media coverage and/or regulatory scrutiny.

The first phase of the LIBOR misreporting scandal described above is notable because it highlights the conflict of interest present within a bank, due to a difference in the interests of the fixings submitters versus those of the proprietary trading desk at the bank. While it is possible that the submitters were financially motivated by the belief that profits on Barclays’ trading positions would be distributed across the firm, a more plausible theory is that Barclays (and possibly other banks) gave its imprimatur to a culture of back-scratching and support to its highest margin units — particularly its proprietary trading desk. The FSA cites numerous examples of informal entreaties from traders to fixings submitters, such as the following 7 April 2006 missive: ‘If it’s not too late low 1m and 3m would be nice, but please feel free to say ‘no’... Coffees will be coming your way either way, just to say thank you for your help in the past few weeks’ (see Barclays FSA Final Notice 2012, p. 13).

The Barclays submitters’ apparent susceptibility to such pleas may indicate a larger power relationship within the firm, with traders exerting undue influence. To be sure, organisational cultures and incentives almost certainly vary across banks, particularly between investment banks and commercial banks with depository activities. But given the ever-eroding boundaries between the categories, the freewheeling nature of traders has arguably become a more significant factor at all banks. It is notable that some of the very institutions at the center of the current LIBOR storm have also recently faced embarrassing lapses in oversight of their trading desks. Relatively inexperienced traders were routinely trusted to manage vast sums of investment capital and were expected to turn quarterly profits on a routine basis. It should not be surprising that such traders would have a natural inclination to turn to others in their networks (both within their banks and without) to assist their efforts.

Although the second phase of the LIBOR scandal bears a much smaller mark of intra-bank conflicts of interest, the first phase almost certainly greased the wheels for a culture of industry-wide misreporting that was easy for banks to leverage. The contacts forged among (and especially between) fixings agents and trading desks — across multiple reporting banks — during the first phase no doubt proved fruitful in the second, where virtually all banks had identical agendas: to avoid public scrutiny.

The uncertain path ahead
As suggested above, the underlying root causes of the LIBOR scandal are likely complex and
multifaceted. Some (if not most) are as yet unknown. Consequently, the prudent redesign of LIBOR may well constitute one of the most vexing international regulatory problems of the next half decade. At present, there is but one point of general consensus — as noted in the Wheatley Review: robust and reliable benchmark rates are critical to the efficient operation of capital markets, more so now than ever. Indeed, if anything the current push towards mandatory ‘clearinghouses’ for derivatives redoubles the importance of focal benchmark reference rates (see, for example, Levitin 2013). We concur with Wheatley that a core benchmark reference rate is a phenomenon that is here to stay, whether in the guise of LIBOR or something else.

Beyond that, however, countless idiosyncratic proposals have emerged, with little consensus around them. We comment below on some of the principal candidates, offering additional constructive suggestions when appropriate. One set of proposals centers on systemic risk in general, and specifically the re-introduction of regulatory firewalls into large BHCs. However, these sorts of reforms do little to address many of the other drivers of current crisis in a targeted way — such as the second wave of the crisis (where trading profits were not the driving force), or widespread collaboration that appears to have taken place between reporting banks, not within them.

The Wheatley Review also proposes retaining the LIBOR fixings process in a privately administered entity, but subjecting its participants and administrators to the ‘sticks’ of ex ante regulatory oversight by the FSA/others, along with enhanced ex post enforcement oversight (Wheatley Review, p. 16). While this proposal has intuitive appeal, it faces at least two serious obstacles as well. First, it places tremendous confidence (and imposes a significant burden) on the same regulators and courts who for the good part of two decades turned a blind eye to a well-known and industry-wide pattern of misreporting. Second, even if effective regulation/enforcement were credible, the Wheatley proposal imposes both new upfront regulatory compliance costs and new back-end litigation exposure on a group of banks who, as of now, voluntarily participate in the LIBOR fixings process. The costs the proposal would visit upon reporting banks — costs avoided by non-participant banks or any of the other financial participants who use LIBOR — seem likely to induce many banks to consider disassociating from LIBOR.

Legal compulsion seems an unlikely long-term solution, since it would put participating banks at a long-term competitive disadvantage to non-participants. Designing financial and regulatory ‘carrots’ for participation is, in our view, a task that deserves considerably more attention than it has thus far garnered. As a first start, we would propose that along with enhanced exposure to regulatory and legal costs, LIBOR participants could (and should) be compensated for their submissions, in the form of cash payments, preferred access to central bank capital, or something equivalent. The terms of compensation, moreover, could be designed to fluctuate in an incentive-compatible manner contingent on participants’ individual market significance and the deviation in their reports from other metrics (such as market indicatives and others’ reports).

In addition, regulators would do well to consider redesigning the way that LIBOR rates are assembled once reports are received. Currently, LIBOR and EURIBOR rates are similarly computed using the arithmetic mean of the individual reports that remain after ‘trimming’ outlier reports (a population corresponding roughly to the middle quartiles of survey respondents). To be sure, such an approach has some notable advantages, particularly insofar as it eliminates the marginal incentive of a known outlier reporter to issue an extreme report. By the same token, the current protocols fail in a number of important respects. First, they do not tend to value-weight the reporting entities, and thus even the reports of a principal market participant — if an outlier — would tend to have no effect on announced rates. Second, and relatedly, the current approach of truncating outliers tends to enhance the influence of reporting entities that survive truncation. A promising alternative might be the design of a smoother ‘weighted-average’ system, whereby a reporting entity’s weight might depend on both its overall market share and its reports’ alignment with that of others and/or calibrating data. A related approach (and one that could be combined with greater oversight, as described above) would be to marshal more observable market rates from government bonds, swap markets, or commercial paper, as a substitute for, or a partial check on, reported bank borrowing rates (Wheatley Review, p. 25). This seems a sensible direction to move. A key concern for this market-driven approach, however, is that any candidate market indicative itself may stray from core fundamentals, or may reflect characteristics that go beyond the creditworthiness of the banks (a factor that may matter significantly to some investors).

Finally, the Wheatley Review recommends ‘warehousing’ the borrowing costs reported by individual banks away from public view for a defined period after their submission, currently proposed as three months (Wheatley Review, p. 38). The evident rationale behind such a proposal is two-fold. First, it will theoretically prevent member banks from strategically engineering their submissions to manipulate the average calculation or exclude themselves from it. Second, it may protect banks truthfully disclosing a high cost of borrowing from
the speculations of an over-eager press. On the first point, we are skeptical that the warehousing proposal will prevent banks from expending efforts to determine statistically whether and when their reports are likely to influence movements in the index; consequently, the warehousing efforts may be ineffectual. As for the second point, to the extent that an improved LIBOR also would cultivate and incorporate observable market rates (such as swap market rates) to benchmark accuracy, significant information will already be available to broader market participants about each bank that arbitrageurs, the press, regulators, politicians or any other concerned party can use as a proxy.

Conclusion
In the end, while this debate is far closer to the starting gate than the finish line, three issues appear clear. First, as noted above, it seems inevitable that LIBOR in some form (or a close successor) will continue to play a critical role in financial contracting. Financial derivatives markets remain vitally important to the global economy, and their operation turns critically on a credible market benchmark. Second, the imposition of liability exposure and regulatory costs — absent some form of compensation — is unlikely to be a tenable long-term strategy. Finally, whatever long-term solution we craft will likely have to contend with a cascade of civil actions rooted in antitrust, securities fraud, and civil racketeering charges. A prudent regulatory redesign must contend with this significant source of exposure, both for the current scandal and ones down the road — a road whose ultimate destination remains stubbornly opaque.

Notes
1. Many thanks to participants at the University of British Columbia and UNSW Roundtable Conference on Regulating Culture: Compliance, Risk Management and Accountability in the Aftermath of LIBOR, Sydney Australia, for helpful comments and suggestions. All errors are ours.
2. See FSA (2012a). In late December 2012, Swiss banking giant UBS became the second entity to be caught up in the scandal, incurring a regulatory penalty of approximately $1.5 billion for a record of LIBOR and EURIBAR manipulations similar to Barclays’. See FSA (2012b). In February 2013, yet a third regulatory penalty of approximately $600 million was levied against the Royal Bank of Scotland. See FSA (2013).
5. This date itself is arguably a vast underestimate. Some with knowledge of alleged manipulation claim it to be widespread as far back as 1991 (see Keenan 2012).
6. See http://www.youtube.com/watch?v=SjbP00k_ME
7. We discuss the Wheatley Review later in this paper.
10. ibid.
12. As the fortunes of LIBOR began to falter, in 2009 the BBA conveyed its activities into a new legal entity, BBA LIBOR Ltd. According to at least one person involved in the decision, the BBA with the dual goals of shielding itself from prospective liability, as well as the (arguably) more altruistic goal of improving LIBOR’s governance through an independent board. While the first goal may well have succeeded (though that remains to be seen), the second likely did not: a majority of the nine independent board of directors were BBA executives, including Ewan and Knight. Marcus Agius, the chair of the Barclays board, also had a dual role as chairman of the BBA board (see Enrich and Colchester 2012).
13. See, for example, POGO (2011).
15. More precisely, the Wheatley Review suggests that banks be required to submit to LIBOR as a condition for participation in the market, but it ultimately deems compelled participation unnecessary at this stage (see Wheatley Review, p. 39).
16. For example, an entity already reporting the lowest cost of borrowing in the survey has no incentive to exaggerate its report even further, since its report will be excluded from the reported average.
17. Both the financial terms of LIBOR participation as well as the way the index is computed can substitute for some of the otherwise heavy burden that regulatory intervention would otherwise occupy.
References


