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Libor Litigation and the Role of Screening: The Need for Enhanced Compliance Programs

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I. LIBOR LITIGATION AND THE MULTIPLE USES OF SCREENS

The U.S. Department of Justice, the Securities and Exchange Commission, and other regulatory agencies have recently made allegations of a possible conspiracy to manipulate the U.S. dollar Libor rate ("Libor") by several major banks. These allegations followed the application of empirical methods known as *screens* to flag unexpected patterns in the Libor.

Screens use commonly available data such as prices, costs, market shares, bids, transaction quotes, spreads, volumes, and other data to identify patterns that are anomalous or highly improbable. A survey of screening methodologies and their multiple applications can be found in Abrantes-Metz & Bajari (2009, 2010) and Harrington (2008).[2] The use of these methods in litigation is detailed in the 2010 volume *Proof of Conspiracy under Antitrust Federal Laws*, by the American Bar Association.[3]

Competition authorities and other agencies worldwide have started to use screens to detect market conspiracies and manipulations. The question we will address in this article is whether such screens can supplement the internal monitoring and compliance efforts of private companies. Using the Libor litigation as our example, we explore whether the banks themselves could have used screens to help avoid the current investigations some are now facing, at least to some extent.

How have screens been used in the recent context of the Libor litigation? Arguably it began with a series of articles published in the *Wall Street Journal* in April and May of 2008 which alleged that several global banks were reporting unjustifiably low borrowing costs for the calculation of the U.S. dollar Libor (Mollenkamp & Norman (2008) and Mollenkamp & Whitehouse (2008)).[4] Abrantes-Metz, Kraten, Metz, & Seow (2008) then followed with an August

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[2] R. Abrantes-Metz & P. Bajari, *Screens for Conspiracies and their Multiple Applications*, 6(2) COMPETITION POL'Y INT'L, 129-144 (2010) and 24(1) ANTITRUST MAG., (Fall 2009); J. Harrington, *Detecting Cartels*, HANDBOOK IN ANTITRUST ECONOMICS, (P. Buccirossi, ed.) (2008).

[3] See *Proof of Conspiracy under Antitrust Federal Laws*, AMERICAN BAR ASSOCIATION EDITIONS, Ch. VIII (2010), which discusses the role of the economic expert and describes several of these methods in detail.

[4] C. Mollenkamp & L. Norman, *British bankers group steps up review of widely used Libor*, WALL ST. J., C7 (April 17, 2008); C. Mollenkamp & M. Whitehouse, *Study casts doubt on key rate; WSJ analysis suggests banks may have reported flawed interest data for Libor*, WALL ST. J., A1 (May 29, 2008).

2008 working paper in which these and other patterns are studied in more detail.[5] While the authors found some anomalous patterns among individual bank quotes, their analysis ultimately concluded that there was no evidence of a material manipulation of the realized level of the Libor rate.

Other research on the Libor was then conducted by Snider & Youle (2009, 2010).[6] The authors presented findings supporting their claim that the banks' Libor quotes were difficult to rationalize by observable cost measures for the period under study, including a given bank's quotes in other currency panels. They also introduced a model in which banks' possession of Libor-indexed contracts induced them to produce Libor quotes that were clustered around discontinuities and, using this model, the authors showed that there was a severe clustering in the U.S. dollar Libor for the three-month maturity throughout 2009. Snider & Youle further tried to quantify gains from such behavior and presented results showing large exposures to the Libor by several banks through their interest rate derivative portfolios, allegedly enabling them to profit from the rapid decline of the Libor rate starting in late Summer 2007. The authors argued that these exposures may be the incentive behind a deliberate misreporting of Libor quotes by the banks.

Recently, Abrantes-Metz, Villas-Boas, & Judge (2011) showed that Benford's Law, a mathematical law commonly used to detect fraud in other contexts, was violated for the U.S. dollar Libor rate, most noticeably from early 2006 through the Summer of 2007.[7] Consistency between the findings from this application of Benford's Law and the screens used in Abrantes-Metz et al. (2008) pointed to the possibility of a smoother Libor rate than would have been predicted during that period of time but without a material change in the average Libor value.

These studies employed screens of different types to flag certain anomalous patterns in the Libor data; yet any of the individual banks providing Libor quotes could have (and some of them might have) used such methods themselves to identify the same anomalies in real time. An internal audit or compliance function, by anticipating these regulatory investigations, could have protected the banks against allegations of malfeasance or, at least, could have been an important factor in convincing authorities that significant efforts were made by the company to detect any possible wrongdoing, if any did exist.

II. THE LIMITATIONS OF SCREENS

Screens are useful for flagging or identifying unusual patterns in data, but they cannot prove that any wrongdoing actually took place, and they certainly cannot speak to whether any wrongdoing was intended. Empirical analyses are incapable of distinguishing legal tacit and

[5] R. Abrantes-Metz, M. Kraten, A. Metz, & G. Seow, *Libor Manipulation?, Working Paper, First Draft* (2008), forthcoming at J. BANK'G & FIN.

[6] C. Snider & T. Youle, *Diagnosing the Libor: Strategic Manipulation Member Portfolio Positions, Working Paper* (2009); C. Snider & T. Youle, *Does the Libor Reflect Banks' Borrowing Costs? Working Paper* (2010).

[7] R. Abrantes-Metz, S. Villas-Boas, & G. Judge, *Tracking the Libor Rate*, APPLIED ECON. LETTERS, 1-7 (Jan. 2011). In many data sets, the distribution of digits has a natural, regularly occurring pattern. Benford's Law is a mathematical formula that describes this distribution. Studies have shown that the law applies to a surprisingly large number of data sets, and violations can raise questions as to whether the data have been manipulated or artificially generated. Benford's Law is commonly applied in accounting applications to screen for manipulated or falsified financial statements.

strategic behavior from illegal explicit coordination because, quite simply, these two legally distinct cases may well produce identical market outcomes and data.

As with any sort of statistical test, screens are subject to two types of error: they might indicate manipulations or conspiracies where none existed, or they may fail to flag manipulations or conspiracies which did exist. Perfectly legitimate economic behavior could generate identical outcomes to those originated by the illegal behavior being screened for, and illegal behavior may not produce outcomes distinguishable from legitimate behavior. While screens are not perfect, they can nevertheless convey useful, actionable information. Consider medical screens. Doctors regularly screen their patients for diseases even though their methods exhibit both false positives and negatives because the expense of testing all patients for a rare disease may be prohibitive. The process of screening identifies a subset of patients that is at risk, thus allowing the doctor to engage in more extensive testing for this select few. Analogously, a good antitrust screen will narrow the set of possible conspiracies to a manageable few that merit further review.

III. THE USE OF SCREENS IN LITIGATION

The current Libor case is certainly not the first time screens have been used to trigger investigations in financial markets. Regulatory agencies worldwide routinely use them to help detect anticompetitive behavior, conspiracies, and manipulations. Abrantes-Metz (2010) described applications of screens that were used to flag stock options backdating and springloading as well as to identify an alleged conspiracy among NASDAQ dealers.[8]

On the Libor litigation, screens were initially used to flag non-random data patterns potentially indicative of a manipulation and conspiracy. As discussed in Abrantes-Metz (2010), some of the empirical patterns may indeed be sufficiently unusual as to pass the higher standards for pleading antitrust conspiracy claims set by the Supreme Court decision in *Bell Atlantic Corp. v. Twombly*, while stressing once again that these screens are not proof but could only constitute the beginning of an investigation.[9] Aside from their use in detection, plaintiffs have also started to use screens in their complaints on Libor allegations.

But screens will also eventually be used for the banks' defense. While the research studies cited above generally acknowledge anomalies in the Libor quote data, they do not constitute any proof of wrongdoing. In fact, one of the studies (Abrantes-Metz et al. (2008)) specifically benchmarks the Libor against other contemporaneous short-term, risk-free rates in periods not suspected of manipulation, and then applies those benchmarks in the suspect periods, finding that the average level of the Libor does *not* statistically significantly deviate from these benchmarks.

Much more analysis and investigatory work is required to assess the likelihood of an actual manipulation and conspiracy of the Libor rate as alleged. For a number of reasons, the most obvious being the general turbulence of the financial crisis, empirical analysis will be more complicated than usual. Identifying the effect of a possible manipulation, and sizing any resulting damages, will be confounded by the significant market dislocations over the same time period.

[8] R. Abrantes-Metz, *The Power of Screens to Trigger Investigations*, 10(10) SECURITIES LITIGATION REPT., 17-22 (November, 2010).

[9] Twombly, 127 S. Ct. 1955, 1965 (2007).

IV. SCREENS IN EFFECTIVE COMPLIANCE PROGRAMS

Having established the usefulness and efficacy of screens to regulators and litigators, we now consider their role in compliance. Using Libor as an example, would screens have enhanced the banks' compliance programs had these been used internally? My opinion is yes. Screens can flag situations that may warrant a closer look, and it would be preferable to flag them first internally to the company concerned rather than later by regulatory agencies.

One of the prime issues in the antitrust and competition law compliance field is how to deal with the risk of anticompetitive behaviors such as manipulations and collusion that involve willful violations of the law. Much of antitrust compliance work in the past has focused on training employees and writing antitrust compliance manuals. But, regardless of the amount of employee training or the depth of the written materials, many practitioners feel they do not have an adequate handle on this area of risk.

Training certainly has value as a compliance tool and should continue, but its value is limited. Those who participate in manipulations or conspiracies, price-fixing, bid-rigging, and market allocation typically know they are engaged in wrongful conduct. But effective training still plays a role as it may inform at least some conspirators that they may be in error. More likely, however, is that training will reach enablers and witnesses—those who have informed suspicions that something wrong is occurring. Effective, motivationally focused training in the context of an otherwise strong compliance and ethics program could cause some to come forward and report misconduct. Moreover, on-site small-group training may even play a role akin to audits, where an experienced antitrust compliance professional may be able to discern from interaction with attendees that there are reasons for concern.

The history of major international cartels and, to some extent, smaller local conspiracies suggests that training, while a necessary tool, simply is not sufficient. Compliance manuals are likewise necessary, but they are there for those who choose to read and take them seriously.

More intrusive and applied tools, which do not depend on people's good faith, can enhance a compliance program. Such tools include audits, monitoring, and reviews. Extensive reviews of records and interviews with a broad range of personnel, if done well, may identify conduct that was otherwise hidden. But even these tools have limits—they are intrusive and typically expensive. Moreover, if they are not focused on the highest risk areas their resource-intensive nature can generate management hostility.

The standards set forth in the U.S. Sentencing Guidelines for Organizations have become the benchmark for compliance programs in all areas, including antitrust. These Sentencing Guidelines provide an inventory of tough steps that companies need to follow if they are to get credit in sentencing in federal court. Even more importantly, they have become the starting point when prosecutors assess company programs to decide whether and how to proceed against it.

To meet the Sentencing Guidelines' standards companies need to "exercise due diligence to prevent and detect criminal conduct." Among other points, these standards require that "…[t]he organization shall take steps…to ensure that the organization's compliance and ethics program is followed, including monitoring and auditing to detect criminal conduct…"[10]

[10] U.S. Sentencing Guidelines Section 8B2.1(b)(5)(A).

Thus, in addition to the logic of not simply relying on training and manuals to prevent willful violations, there is also the direction in the compliance program standards that the efforts should be purposeful and focused. Companies need to be pro-active in seeking out possible violations in their operations.

The Sentencing Guidelines also call for companies to conduct risk assessments.[11] The concept here is that organizations have limited resources and need to focus those resources where the risk is greatest. This means that companies need to determine which risks are most likely to occur and, then, which ones have the greatest impact. Of course, for any competitive company, antitrust risk should always be among the top risks. But even within the broader antitrust category, a company needs to identify which are the more significant risks.

One option is to rely on the views of the company's legal counsel. An experienced lawyer would know the law as it applied to the company and would be familiar with corporate operations. But in the typical company there would be no need for a lawyer with criminal antitrust enforcement experience. The ability to detect manipulative and collusive conduct is a specialty, and not something normally required of the company's general counsel. So even well-qualified and experienced counsel may not recognize the warning signs of manipulation or collusion, let alone know how to search for them within the company.

There are still other options, such as looking at the history of the industry and the company. Where has there been the most enforcement activity, where is there a reputation for corruption (even though this is different from cartel collusion), or where has the company been sued before? While such rough guides may help to some degree, they do not match the company's unique profile and characteristics. And they may still leave too many choices as to where to focus scarce compliance resources.

Is there another option to identify the high-risk areas of a business to target such audits and monitoring in a more efficient way? Are there any techniques for highlighting which parts of the company merit closer scrutiny, where there should be intensive reviews, and which units may call for "deep dives" including the monitoring of internal communications, wall-to-wall reviews, or mock dawn raids? In fact, empirical screens can fulfill this role by looking at certain quantifiable red flags and applying statistical analysis to determine the priority areas for further focus.

Screens can and should be actively employed by companies as part of their compliance programs (Abrantes-Metz, Bajari, & Murphy (2010)).[12] They are used by various enforcement agencies worldwide to detect such behavior, usually with data that are less rich than those available internally to the company.

Just as screens have externally flagged fraud, they can also flag a variety of activities within a company such as price-fixing, bid-rigging, market allocations and other non-collusive price manipulations, accounting and reimbursements fraud, trading fraud, revenue management, Foreign Corrupt Practices Act violations, and many other forms of data tampering. Screens can also act as deterrence tools to potential violators.

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[11] U.S. Sentencing Guidelines Section 8B2.1(c).

[12] R. Abrantes-Metz, P. Bajari, & J. Murphy, *Enhancing Compliance Programs through Antitrust Screening*, 4(5) ANTITRUST COUNSELOR, (2010).

Despite their power, screens are not a panacea and must be combined with direct interviews and other forms of discovery. Screens can narrow the scope of an investigation to a manageable size and help focus resources, but they require expertise—the usual "garbage-in-garbage-out" rule applies.

Several companies already engage in some sort of screening. These activities need to be undertaken systematically and companies need to identify all of the potential data currently available as well as what other additional information should be collected so that monitoring, screening and compliance can be further enhanced.

V. FINAL REMARKS

As screening methodologies are becoming more popular, and more data and computer power are also available, their multiple uses by agencies, defendants and plaintiffs and is likely to play an ever-increasing role in antitrust litigation. The Libor litigation is an example.

But screens also need to be used internally. I go a step further and argue that there is an urgency for the use of screens in compliance programs. On cartel matters, leniency programs reward the first in a conspiracy to come forward; therefore, a company has the incentive to do everything at its disposal to be the first in line. Furthermore, if competition authorities are using these techniques, shouldn't companies at least use the same screens, if not even more elaborate ones? Screens enhance not only compliance programs but also companies' ability to convince authorities that all available compliance tools are being used proactively, helping protect the company if an investigation ends up being launched sometime in the future.