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Economic Harm and the LIBOR Scandal

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For the past several months, financial and business media have extensively reported on the so-called LIBOR scandal. LIBOR, which stands for the London Interbank Offered Rate, is supposed to reflect the average rate that leading banks in London pay for short-term loans and is based on data the banks submit to the British Bankers Association. Several banks are accused of deliberately misreporting their LIBOR submissions, thus affecting the level of LIBOR. Barclays, for example, reached a settlement with both British and American financial regulators after admitting that it had underreported borrowing costs during the 2008 financial crisis, thereby appearing to regulators and the market to be healthier than it actually was.

Deliberately distorted LIBOR submissions may cause several different types of economic harm, and each of these types must be measured in a different way. If investors rely on LIBOR submissions to assess the creditworthiness of a financial institution, fraudulent information may affect the reporting bank's stock price and the interest rate on its bonds. An event study can measure the effect of fraudulent submissions on stock prices and serve as the basis for quantifying harm to stockholders. Similarly, if bondholders are undercompensated for the risk of lending to the bank, their losses may be estimated from differences between the interest rate they received and the rate that the bank would have paid had it reported correct information.

Economic harm also stems from the indirect effect that a false submission has on financial instruments that have rates based on LIBOR. These instruments include commercial loans (e.g., floating rate loans), consumer loans (e.g., credit card balances and variable rate mortgages), and numerous derivatives (e.g., interest rate futures and interest rate swaps). Several recent lawsuits deal with these aspects of purported interest rate manipulation.

Traditional borrowers may be harmed by manipulation that increases LIBOR. In a recent class action lawsuit filed in New York against several major banks, homeowners have claimed that the interest rates they pay on variable-rate mortgages

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In This Special Issue

Economic Harm and the LIBOR Scandal

Jonathan A. Neuberger and Stuart D. Gurrea discuss forms of economic harm related to the misreporting of LIBOR. The authors identify at a micro level direct and indirect sources of economic harm that may result from the alleged misconduct. They also recognize the potential for larger system-wide economic distortions.

Credit Rating Agencies and Systemic Financial Risk

Chester Spatt discusses the Dodd-Frank Act's provisions affecting credit rating agencies. The Act instructs regulators to substantially reduce reliance on ratings by these agencies. That step could reduce the systemic risks that resulted from the activities of the rating agencies, but it will not eliminate them.

Increased Role for Economics at the SEC

The Securities and Exchange Commission (SEC) has proclaimed a significant new role for economists in its rulemaking process. Dean Furbush describes the four functions that the SEC has established for economic analysis to fulfill in the rulemaking process.

Auditor Independence – Did Sarbanes-Oxley Go Too Far?

Dino D. Falaschetti considers whether auditor independence affects the integrity of financial disclosures, and whether the Sarbanes-Oxley Act's requirement that auditors be independent is useful. New research does not support Sarbanes-Oxley's independence mandate.

Credit Rating Agencies and Systemic Financial Risk

Chester Spatt

The 2008 financial crisis spurred an examination of credit ratings and rating agencies. A key dimension of the crisis, though probably not the central cause, has been the misassessment by credit rating agencies of the riskiness of various securities, such as tranches of mortgage-backed instruments. The use of ratings has been hard-wired into our regulatory system for a variety of purposes, including determining the capital adequacy of financial institutions and assessing whether specific securities are suitable choices for investors and asset managers who are responsible for certain investment portfolios. When credit ratings began to appear unreliable, investors throughout the economy changed their assessment of the risks (and values) of various assets. Substantial revisions in the levels and perceived reliability of assessments by rating agencies (and investors as a whole) led to dramatic re-evaluations of large categories of assets and a considerable increase in systemic risk. One of the responses to the problems with rating agencies was the provisions in the Dodd-Frank Act that directed the Securities and Exchange Commission (SEC) and banking regulators to reduce reliance on ratings for a broad array of regulatory objectives.

The Dodd-Frank restriction on regulators' use of ratings means that this source of systemic risk will not be hard-wired into our regulatory system, but significant systemic risk could still remain. Despite reduced reliance upon ratings for regulatory purposes, many investors may continue to utilize ratings as a major input to their evaluation of assets. Consequently, dramatic revaluation by the rating agencies still could send shock waves through the economy.

Even if there were no rating agencies, in the event that most institutional investors adopted a common approach, there would be considerable adverse systemic difficulties if that approach proved incorrect. To the extent that substantial economies to scale exist in information production, it is not surprising that a small number of financial intermediaries would play a central role in the financial sector. But if only a few intermediaries have a central role, systemic risk from widespread similarities in investor approaches could be hard to avoid. The systemic nature of the risk reflects not only the role of ratings in regulation, but also that a common point of view often dominates fundamental risk assessment. At its most basic level, a lack of diversity of opinions can lead to systemic risk.

The Dodd-Frank Act not only instructs regulators to substantially reduce reliance on credit rating agencies, it also calls for regulators to supervise those agencies more tightly. The Act created the SEC's "Office of Credit Ratings," which administers a variety of rules that affect Nationally Recognized Statistical Rating Organizations (NRSROs), which include the major credit rating agencies. The Act requires that office to perform annual examinations of each NRSRO.

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These two concepts represent very different approaches to the regulation of the agencies. The value of tight supervision of the rating agencies and relatively uniform standards would be greater if the ratings were to continue to be used for regulatory purposes. There is arguably less need and value for the regulator to supervise the rating agencies, or for ratings to have a common meaning across agencies, if the ratings are not going to be used for regulation. Reducing reliance on ratings for regulation is consistent with treating the rating agencies simply as private firms. If credit rating agencies have no role in regulation, then they can be allowed greater flexibility to establish their own norms, so they can compete freely with each other.

The costs of the financial crisis were so dramatic that the desire to use multiple regulatory approaches to important issues is understandable. Nonetheless, the combination of the two different approaches of the Dodd-Frank Act towards credit rating agencies appears paradoxical. Different approaches to regulation may be complements or substitutes. Complementary approaches would strengthen each other, but it does not appear that these two approaches are complementary. Instead, these approaches are substitutes, because the value of tighter supervision is greater when regulators are relying on rating for regulatory objectives than when reliance is reduced. The two approaches offer alternative methods of reaching the same goal, reducing risk stemming from systemic credit rating errors. The total costs of using two alternative methods of regulation are often the sum of their individual costs, but the total benefits may be far less than the sum of their individual benefits, because the benefits of the two approaches overlap substantially.

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have been inflated due to LIBOR manipulation. In particular, the suit alleges that traders at some of the major banks had incentives to alter LIBOR on certain dates used as benchmarks for resetting variable interest rate loans, especially for less-than-prime mortgages sold prior to the financial crisis. Economic harm in these cases can be measured by the excess payments borrowers made over what they would have paid had the LIBOR not been manipulated.

Manipulation of LIBOR also harms investors in certain derivative financial instruments, some of which are especially sensitive to changes in LIBOR. Investors seeking protection from interest rate spikes (or simply betting that interest rates would rise) entered into derivative contracts that paid off if LIBOR rates were high. An artificially low LIBOR may cause significant economic losses to such investors. A recent complaint by hedge funds involves losses from futures contracts that failed to pay off because of artificially low LIBOR rates.

Similar complaints arise in the market for interest rate swaps. In the typical interest rate swap, a party swaps fixed- for floating-rate obligations, where the floating rate is based on LIBOR. If the LIBOR is artificially understated, then the counterparty receiving floating-rate cash flows gets lower payments than it would if reported LIBOR were higher.

State and local government agencies in the United States have been significant users of interest rate swaps. In the typical arrangement, an agency issues bonds with floating-rate obligations, in particular so-called auction-rate securities, and then hedges its variable-rate exposure by entering into an interest rate swap pegged to LIBOR (with a bank or other financial institution as counterparty). While the fixed-rate cash flows (i.e., what the agency owes the bank) are unaffected by changes in LIBOR, the floating-rate cash flows (i.e., what the agency receives after the swap) fluctuate with LIBOR. With artificially low LIBOR rates, the variable payments received from the swaps would fall short of the original obligations created by the auction-rate securities, rendering the swaps ineffective as hedges. Not surprisingly, states and municipalities were among the first entities to claim losses associated with artificially low LIBOR rates.

Beyond the direct and indirect effects described above, LIBOR manipulation can cause other economic distortions that may be far more difficult to quantify. One fundamental building block of stable financial markets is the proposition that prices reflect underlying value. Interest rates are one such price and are assumed to reflect risk accurately. If these interest rates are subject to manipulation, however, then financial markets may not properly reflect the price of such risks. In the Barclays settlement cited above, Barclays acknowledged reporting incorrect financial information to appear healthier, and less risky, to the market and to regulators. Therefore, contracts it entered into with other banks were most likely mispriced. On a macro level, regulatory agencies, acting on the belief that LIBOR was properly reported, may have incorrectly assessed the risks of both individual financial institutions and financial markets more broadly. In an environment in which risks can propagate in unexpected ways, such misreporting can affect the fundamental stability and health of the financial system.

Economists INCORPORATED

Economists Incorporated (EI) has economists and Special Consultants with significant government experience at the major financial regulatory bodies and extensive private sector expertise in finance- and securities-related litigation matters. Our economists hold advanced degrees from leading universities; many held senior positions in government agencies, including the Department of Justice, Federal Trade Commission, Federal Energy Regulatory Commission, U.S. International Trade Commission, and Securities and Exchange Commission. Our economists also have substantial experience providing expert witness services and other forms of litigation support. They have experience and background in many different industries, and matters, including securities litigation; mergers and acquisitions; valuation of assets, including intellectual property; and lender liability claims.

We have recently added several Special Consultants with significant experience in financial markets. These Special Consultants include

- Arturo Bris is a Professor of Finance at the Institute for Management Development (IMD).
- Dino Falaschetti is Executive Director at the Property and Environment Research Center. He previously served on the staff of the President's Council of Economic Advisers with responsibilities for regulation and financial services.
- Dean Furbush previously was the Chief Economist of the Nasdaq Stock Market and then Executive Vice President of Nasdaq Transaction Services.
- Chester Spatt is the Pamela R. and Kenneth B. Dunn Professor of Finance at the Tepper School of Business at Carnegie Mellon University.

Increased Role for Economics at the SEC

Dean Furbush

Dean Furbush is Special Consultant for Economists Incorporated. His experience with federal rules comes from service as an economist at the Council of Economic Advisers, the SEC, and the CFTC, and as Chief Economist and then Executive Vice President Transactions Services for the Nasdaq Stock Market.

The Securities and Exchange Commission (SEC) has proclaimed a significant new role for economists in its rulemaking process. Former SEC Chairman Mary Schapiro described the role in testimony before Congress, and SEC economists and lawyers described it in a joint memorandum, "Current Guidance on Economic Analysis in SEC Rulemakings." If the SEC truly integrates economic thinking into its rulemaking process and is willing to heed the qualitative and quantitative learning such involvement brings, U.S. financial markets, their participants, the capital formation process, and therefore the country, will see significant benefits.

The SEC's commitment to the new role for economics is shown by its staffing of a 60-person Division of Risk, Strategy, and Financial Innovation (RSFI) mostly with Ph.D. economists. RSFI involvement in the rulemaking process received generally positive reviews in a June 2011 report of the SEC's Office of Inspector General (OIG), a report done with assistance from a highly-respected financial economist, Professor Albert S. Kyle. According to this report, RSFI has been involved with several key rule filings. These include filings addressing credit risk, swap execution facilities, investment advisor reporting, municipal advisor reporting, conflict mineral regulation, and clearing agency standards.

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The SEC's recent push to increase the role of economists in the creation of rules governing U.S. securities markets stems from the SEC's intent to understand its rulemaking options and the impact its decisions will have on the choices made by investors and traders. Some have incorrectly asserted that economists are primarily predictors of future prices and values. Certainly, economics can involve predictions, but economic analysis primarily involves understanding decisions and their consequences, both intended and unintended. That the SEC sees this point is shown by its setting forth four functions for economic analysis to fulfill in the rulemaking process:

1. Identify (a) the need for the rulemaking and (b) the mechanism for how the rule will meet that need, that is, the "theory of change." Writing down these two elements has great practical value later in the analysis when alternative proposals are being considered.
2. Describe the baseline, the world in which the rule will operate. The SEC has identified the importance of "You Are Here" on the map. Those who don't know their starting place are unlikely to get where they want to go. But unlike a spot on the map, this baseline is not static. Rulemakings require a dynamic baseline addressing how the current state would evolve without the rule – a "but-for world." Moreover, the baseline has multiple dimensions: costs and benefits, efficiency, competition, and capital formation.
3. Identify and evaluate reasonable alternatives, including doing nothing, which amounts to playing out the dynamic baseline with no new regulation.
4. Evaluate likely impacts of the proposed rule and the reasonable alternatives considered – the benefits and the costs – from a qualitative and quantitative standpoint. For a rule to make sense, its social benefits must exceed its costs, and the excess of benefits over costs must be greater than for any alternatives, including doing nothing.

If economic analysis can fulfill these four functions, that would greatly improve the SEC's rulemaking process. Strong economic analysis is definitely needed in the light of recent regulatory changes, especially including the Dodd-Frank Act regulations, and in the light of recent market discontinuities. Such discontinuities may arise from many factors ranging from technology advances and technology failures to natural disasters and terrorism. The last includes the growing potential for cyber-disruption in all its possible forms, including distributed denial of service (DDOS) attacks, designed to cripple markets. Economic analysis will help identify the costs and risks that participants in financial markets will or will not consider in their decision making and thus determine if regulations are needed to ensure appropriate risk management.

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Auditor Independence – Did Sarbanes-Oxley Go Too Far?

Dino D. Falaschetti

Accounting scandals from the early 2000s (e.g., Enron, WorldCom) supported a popular view that letting accountants consult for audit clients compromises the quality of financial disclosures. Citing such arguments, U.S. legislators almost unanimously passed the now decade-old Sarbanes-Oxley Act of 2002 (SOX), part of which restricts accountants from producing non-audit services for audit clients. But this restriction received little support from corporate governance scholarship. Over twenty years before SOX became law, for example, the Securities and Exchange Commission's (SEC's) *Accounting Series Release No. 250: Disclosure of Relationships with Independent Public Accountant*s required companies to publicly disclose fees paid to auditors for non-audit services. Researchers concluded that markets placed little value on these disclosures. Findings like these supported objections not only to the SEC disclosure mandate, which was withdrawn in 1982, but also to the SOX restriction twenty years later.

Those who objected to the disclosure mandate and the SOX restriction ignored several sources of bias in evaluating corporate governance events. First, their statistical analyses assume that event study data can show an effect in only one direction – for example, that consulting may compromise but never benefit audit relationships. At least in theory, an auditor's consulting relationship with its client can improve the quality of financial disclosures by leveraging scope economies from jointly producing audit and consulting services. Methodologies that assume away such efficiencies may provide inaccurate results.

> "an auditor's consulting relationship with its client can improve the quality of financial disclosures by leveraging scope economies from jointly producing audit and consulting services."

Second, studies of whether governance features like auditor independence create material effects can be biased if they inadequately control for investors' anticipating information before its public disclosure. For example, when investors perfectly predict an auditor's lack of independence, disclosures can show little if any correlation with corresponding stock prices, even if independence truly matters for earnings quality. This problem may cause an event study to incorrectly dismiss hypotheses about how governance attributes affect the quality of financial disclosures.

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Third, event studies often estimate whether new information caused an abnormal response from associated security prices while ignoring other market responses. For example, if auditor independence influences the quality of information in financial disclosures, news about that independence can be associated not only with significant changes in security prices and thus investors' returns but also with the variability of returns. As disclosures become more informative about a corporation's fundamental value, market estimates of those values will become more precise (less variable). News can thus affect not only investors' valuation of a corporation, but also the size of errors in forecasting future performance.

Finally, conventional event study analyses tend to ignore how governance features adopted by one firm might affect the performance of other firms. Market discipline can effectively put a price on whether a corporation governs itself well but may not accurately price how one firm's governance affects the governance of others. Theoretical research has highlighted the potential for such governance "pollution" and its implications for policy. Nevertheless, event studies that are commonly used to evaluate policy prescriptions like those in SOX typically ignore the possibility of such third-party effects.

Taken together, these problems highlight several dimensions in which conventionally structured event studies can miss evidence for or against material effects from gover-

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Increased Role for Economics at the SEC

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Clues as to the SEC's efficacy in increasing its use of economic analysis can be gleaned by examining the SEC's just-released (November 2, 2012) Final Rule regarding clearing agency standards (https://federalregister.gov/a/2012-26407). The voluminous release (627 footnotes) takes into account comments solicited in the Federal Register filing of March 16, 2011. Section V, entitled "Economic Analysis," addresses the four stated functions. It concludes that the rule is in the interest of market participants, and particularly that it is efficiency enhancing, less burdensome than more prescriptive alternatives, and in harmony with other regulatory regimes in the United States and internationally.

While the steps taken to increase the use of economic analysis at the SEC are promising, it remains uncertain if they go far enough and whether economic analysis is truly integrated into the SEC's thinking or is just an add-on. One problem is that economic analysis now is involved only in response to initiatives of other SEC departments and not in initiating recommendations. Today RSFI is not a rulemaking division of its own. It is only an advisory division supporting the rulemaking process, which continues to be run by lawyers in other divisions. Moreover, after rules have been established, economic analysis should be used to monitor and evaluate their effects. Given the complex and difficult financial environment and the high stakes involved in many SEC rulemakings, economic analysis should be involved in every step of the process from the consideration of potential new rules to the determination of the consequences of any rules that have been adopted.

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nance decisions and institutions. Once these difficulties are addressed, event studies and related empirical analyses indicate that auditor independence improves earnings quality, but the economic consequences of this effect may be small. This research finds little evidence of external effects from a client's choice of auditor independence, and thus does not support the SOX proscription on corporations' using the same firm for audit and non-audit services.

Research that takes account of the issues discussed above can shed light on many issues involving corporate governance. For example, required disclosures about executive compensation were recently expanded in the United States, and a reduction in the level of executive compensation that is deductible for tax purposes is being considered in several countries. Whether such measures can strengthen market discipline can be tested more precisely with empirical methods that view market data through firmly grounded corporate governance models.

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