

Screening, LIBOR & Ex Officio Cartel Investigations



Rosa M. Abrantes-Metz, PhD
Global Economics Group
Stern School of Business, NYU

OECD
Paris, France
October 30, 2013

Disclaimer



- **The content of this presentation contains only publicly available information. The views expressed belong solely to the author and should not be attributed to the organizations with whom she is affiliated or their clients.**

Presentation Outline

- Screens Design
- Screens Successes
- LIBOR & Lessons for Cartel Detection
- Counter-Arguing Criticisms of Screens

What is a Screen?

- **A screen is a statistical test designed to identify:**
 - Whether collusion, manipulation (or other type of cheating) may exist in a particular market
 - Who may be involved
 - When it may have occurred
- **Screens use commonly available data such as prices, bids, spreads, market shares or volumes. They compare suspected patterns against appropriate benchmarks**
 - Abrantes-Metz (2011a, 2011b), Abrantes-Metz and Bajari (2009, 2010), Harrington (2008, 2006), Proof of Conspiracy Under Federal Antitrust Laws, Chapter VIII, ABA Editions (2010)

Screens Components

1. An understanding of the market at hand, including the nature of competition and the potential incentives to cheat - both internally and externally - to a firm
2. A view of the likely nature of cheating
3. A view of how cheating will affect market outcomes and available data
4. The identification of an appropriate non-tainted benchmark against which the evidence of cheating can be compared
5. A set of statistics that can capture both the implications of cheating as well as ordinary, natural relationships between key market variables
6. Empirical and/or theoretical support for the screen

Successful Screening Applications

- Screens on cross-country price benchmarking in the Italian baby milk market
- Screens based on structural indicators in the Dutch shrimp market
- Bid-rigging screening in Mexican pharmaceutical markets
- Price variance screens and others to prioritize complaints in the Brazilian gasoline retail market and to uncover direct evidence
- Screens on inside spreads flagged an alleged NASDAQ conspiracy among dealers, 1994
- Screens for low returns variance flagged Madoff's Ponzi scheme years ahead of official investigations
- Screens on stock prices excess returns flagged stock options backdating and springloading cases in the US
- Screens applied by a Canadian reporter flagged bid-rigging and market allocation in road construction

Screens in Action: LIBOR

■ Most recently:

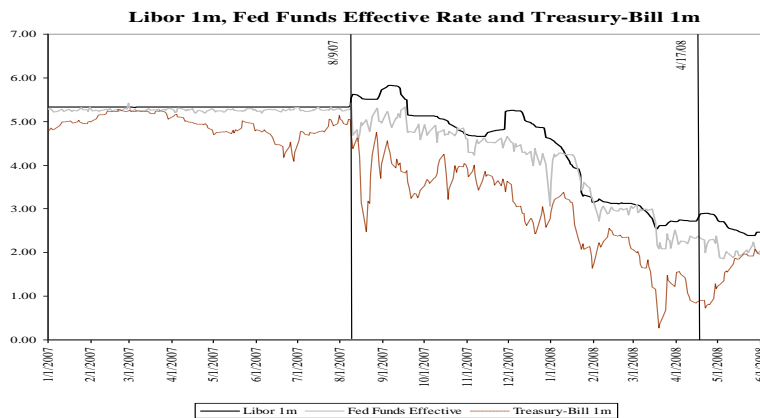
- The Alleged Manipulation and Conspiracy of LIBOR
 - Wall Street Journal, April & May 2008
 - Abrantes-Metz, Kraten, Metz and Scow, "Libor Manipulation?," First Draft August 2008, Journal of Banking and Finance, 2012.
 - Abrantes-Metz, Judge and Villas-Boas, "Tracking the Libor Rate," Applied Economics Letters, 2011.
 - Abrantes-Metz & Metz, "How Far Can Screens Go in Distinguishing Explicit from tacit Collusion? New Evidence from LIBOR Setting," CPI Antitrust Chronicle, 2012
 - Other press coverage & academic work

NOTE: These slides on LIBOR contains only publicly available findings

LIBOR Screening

- **In August 2008, Abrantes-Metz et. al. flagged the possibility of a LIBOR conspiracy and manipulation, through the application of a variety of screens:**
 - Properties of the US Libor rate over time
 - Properties of intraday average and dispersion of banks' individual Libor quotes
 - Benchmarking against Credit Default Swaps, market implied ratings, market capitalization, Fed funds effective rate and T-bill, mathematical laws
- **Current worldwide investigations:**
 - 2011: US DOJ, SEC, CFTC, EC, Japanese FTC and others, and also private litigation
 - Follow-up investigations on Euribor, TIBOR, ISAD fix, Platts, FX...

USD LIBOR: Price-Fixing?



(Abrantes-Metz, Kraten, Metz and Seow (2008))

Lessons from LIBOR

- Empirical screens first flagged the possibility of manipulation and conspiracy of LIBOR, triggering the interest of governmental agencies
- The LIBOR structure providing the means, motive and opportunity to cheat have been there for decades, and never raised suspicion by authorities
- Unlikely that cheaters would have come forward to apply for leniency out of the blue when they were significantly profiting from the scheme and no one was suspecting wrongdoing
- Unlikely that LIBOR illegal behavior would have been identified if not triggered by screens

Lessons from LIBOR

- **The flagging by screens led to leniency applications years later after investigations were made public**
- **And to large scaled investigations to very many more markets including TIBOR, Euribor, ISADfix, Platts, FX**
- **It will also led to leniency applications in many of these and other related markets**
- **And has led to a significant effort to reform financial benchmarks around the world through IOSCO**

Value Added of Screens

- **Screens have a higher likelihood of detecting cheating causing the most visible market effects**
 - Precisely those which are the most successful from the cheaters' perspective and hence least likely to be detected through leniency
- **Screens can supplement leniency and enhance it**
- **Screens can help focus valuable resources into those industries where consumer harm seems more likely**
- **Screens can help detect but also deter illegal behavior**
- **Screens represent a proactive rather than a reactive anti-fraud policy, needed for an effective anti-cartel program**

Criticisms Against Screening

- **“Screens have high error rates, erroneously identifying cartels where none exist”**
 - How about medical screens? Do they lack value?
 - And what are the leniency errors?
 - Why hold antitrust screens to higher standards?
 - Brazil found a 60% rate of success, even higher in Mexico

- **“Screens cannot distinguish explicit from tacit collusion”**
 - Usually true, but not necessarily when we can observe the dynamics of how the equilibrium of interest was reached
 - Some screens have already proven to be able to do distinguish the two

USD LIBOR: Bid-Rigging?

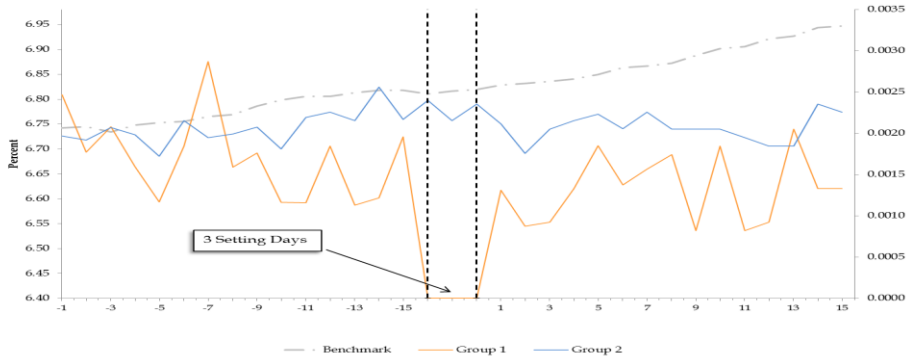
August 2006 Banks' Quotes

	2006				
	August 3	August 4	August 7	August 8	August 9
BTMU	5.410	5.430	5.370	5.370	5.330
Bank of America	5.400	5.420	5.380	5.370	5.325
Barclays	5.410	5.420	5.370	5.370	5.340
JPM Chase	5.410	5.420	5.380	5.370	5.330
Citi Bank	5.405	5.420	5.360	5.370	5.330
CSFB	5.405	5.420	5.360	5.370	5.330
Deutsche Bank	5.405	5.415	5.365	5.365	5.325
HBOS	5.410	5.420	5.350	5.370	5.330
HSBC	5.400	5.420	5.370	5.370	5.330
Lloyds	5.410	5.420	5.360	5.370	5.330
Norinchukin	5.410	5.420	5.370	5.370	5.340
Rabobank	5.405	5.415	5.370	5.370	5.330
Royal Bank of Canada	5.405	5.420	5.370	5.368	5.330
Royal Bank of Scotland	5.400	5.420	5.370	5.370	5.330
UBS AG	5.405	5.420	5.370	5.370	5.330
West LB	5.405	5.460	5.360	5.370	5.330

(Abrantes-Metz and Metz (2012))

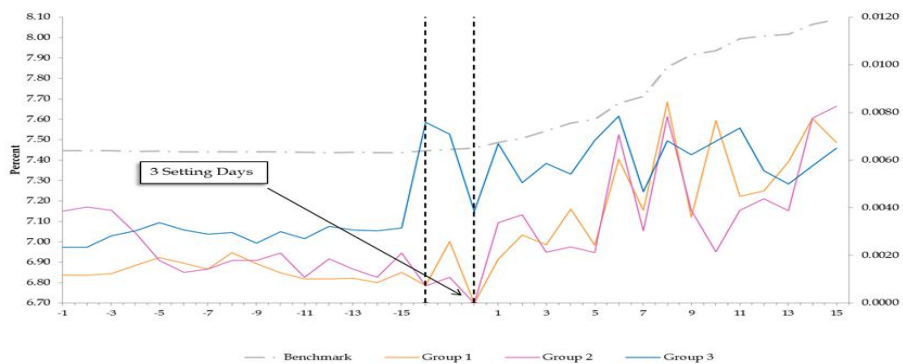
Major Financial Benchmark Collusion?

Intraday Coefficient of Variation of Bank Quotes for Undisclosed Benchmark around Setting Dates for Derivatives Contracts Based on this Benchmark



Major Financial Benchmark Collusion?

Intraday Coefficient of Variation of Bank Quotes for Undisclosed Benchmark around Setting Dates for Derivatives Contracts Based on this Benchmark



Criticisms Against Screening

- **“Screens are very resource intensive, they do not pass a cost benefit analysis”**
 - Not necessarily – LIBOR work in Abrantes-Metz et al (2008) took 5 days to put together, and the Canadian reporter’s screen 2 weeks
 - If they are so resource intensive, how can reporters and academics used them?
 - Even when they are resource intensive, if well implemented they are worth it – Mexican and Brazilian Competition Authorities examples
- **“Screens lack robustness, why should I use them?”**
 - Is it a problem of the screen or of the developer?
 - Screens are econometric models – is regression analysis useless everywhere?

Criticisms Against Screening

- **“Why use screens if cartel members learn to beat them”**
 - We do not give this excuse in any other law enforcement area, why do so in antitrust?
 - Any effective cartel will have to have a market impact – need to keep on improving screens to detect it
- **“Screens are very limited due to data restrictions, and we cannot subpoena companies just so we can screen them”**
 - There is plenty of data out there to be used for screening: LIBOR and cousins IBORS, gasoline and oil, many other commodities, much procurement data
 - And where data do not exist (i.e., fracking), authorities need to start requesting it to be collected and made publicly available, even if with a cost

Criticisms Against Screening

- **“My leniency program works so well, why should I bother engaging in screening?”**
 - Screens complement leniency, they do not necessarily detect the same types of cartels
 - Screens enhance leniency applications: LIBOR!

- **“Screens are very popular in academia, but they do not work in the real world”**
 - Really? How can this argument be credibly made when there are so many large examples of successes, and very real successes of screens out there?

Criticisms Against Screening

- **“Screens are used in all other areas, but antitrust screening is harder”**
 - Not true, screens are easier to apply in antitrust – stock prices move randomly, car prices do not!
 - SEC, CFTC, IRS, Department of Transportation, FTC and others are using screens, they must believe their value

- **“Screens just do not work. We have used them 40 years ago and they did not work”**
 - How successful was leniency 40 years ago?!
 - What earlier generations of products we now consume are comparable to their older generations from 40 years ago?
 - How about medical screens? Aren't we glad we did not stop using them 40 years ago? Aren't they better right now?
 - Were old screens well managed and implemented?

Concluding Remarks

- Economic analysis and empirical methods are playing ever increasing roles in conspiracy and manipulation cases
- Screens can provide valuable evidence on both sides of litigation, but they are not a panacea
- Screens enhance leniency programs
- LIBOR is the most recent and largest example, I do not expect it to be the last
- Moving forward the discussion needs to focus not on whether to use screens but how to do so most effectively

Thank you very much!

RAbrantes-Metz@GlobalEconomicsGroup.com

Rosa M. Abrantes-Metz, PhD



Dr. Rosa M. Abrantes-Metz is a director in the antitrust, securities and financial regulation practices of Global Economics Group based in New York. Her experience includes work in consulting and banking, as well as in government. Her main areas of specialization are econometrics, monetary and financial economics, and applied industrial organization. Dr. Abrantes-Metz is an adjunct associate professor at Leonard N. Stern School of Business, New York University, where she has taught money and banking, financial institutions, and industrial economics, and currently teaches empirical business strategies. She has taught econometrics at the department of economics at the University of Chicago, and various other fields of economics at Universidade Católica Portuguesa, in Lisbon, Portugal. Dr. Abrantes-Metz's work has been featured in the press such as the Wall Street Journal, Financial Times, The Economist, CNNMoney, CNBC, Crain's, Forbes, Bloomberg, BusinessWeek, Washington Post, Reuters, Risk Magazine, Investor's Business Daily, SkyNews TV and BBC Radio.

After working as a staff economist at the Federal Trade Commission, Dr. Abrantes-Metz continued to serve as a senior advisor for competition policy at the World Bank.

Dr. Abrantes-Metz is the author of several articles on econometric methods and screens, conspiracies and manipulations, gasoline, pharmaceuticals and health care, telecommunications, monetary policy, event studies, valuation, structured finance, credit default swaps, credit ratings and new statistical tests, representing some of the areas in which she has also worked as an economic consultant. Dr. Abrantes-Metz has published in various peer-reviewed journals and trade publications. She is a co-drafter of the chapter on the role of the economic expert in proving conspiracy cases under federal antitrust laws in a recent volume published by the American Bar Association. In addition she has contributed to other books on international arbitration with a focus on event studies, and is a co-author of the chapter on corporate governance and compliance forthcoming in the next Handbook on Antitrust Economics. She has developed numerous empirical screens for conspiracies and manipulations, and is a pioneer in the field, contributing to the further development and increased adoption of these methods. She has flagged potential anticompetitive behavior preceding large scale investigations, such on the alleged Labor conspiracy and manipulation, and has also used these methods to defend against allegations of such behavior. Her screens are used by competition authorities, defendants and plaintiffs worldwide.