

A Case Study of an Alleged Market Manipulation: Deutsche Bank

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Presented by:
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A wide variety of behavior can trigger a manipulation

- ♦ The FERC and CFTC's recent anti-manipulation cases focused on the use of uneconomic behavior:
 - *Energy Transfer Partners*
 - *Amaranth Advisors and Brian Hunter*
 - *Constellation*
 - *DiPlacido*
 - *Optiver*
 - *Deutsche Bank*
- ♦ The DOJ's *Keyspan-Ravenswood* decision considered a case first brought before the FERC as a market manipulation, but triggered by withholding (award of disgorgement as damages – a first for the DOJ)
- ♦ Litany of SEC and CFTC cases involving outright fraud (e.g., “pump & dump” schemes, ponzi schemes) and uneconomic trading (e.g., “marking the close,” “framing the open”)
- ♦ There is need for a common analytical construct across these cases, agencies, statutes, and (given new EU provisions) continents

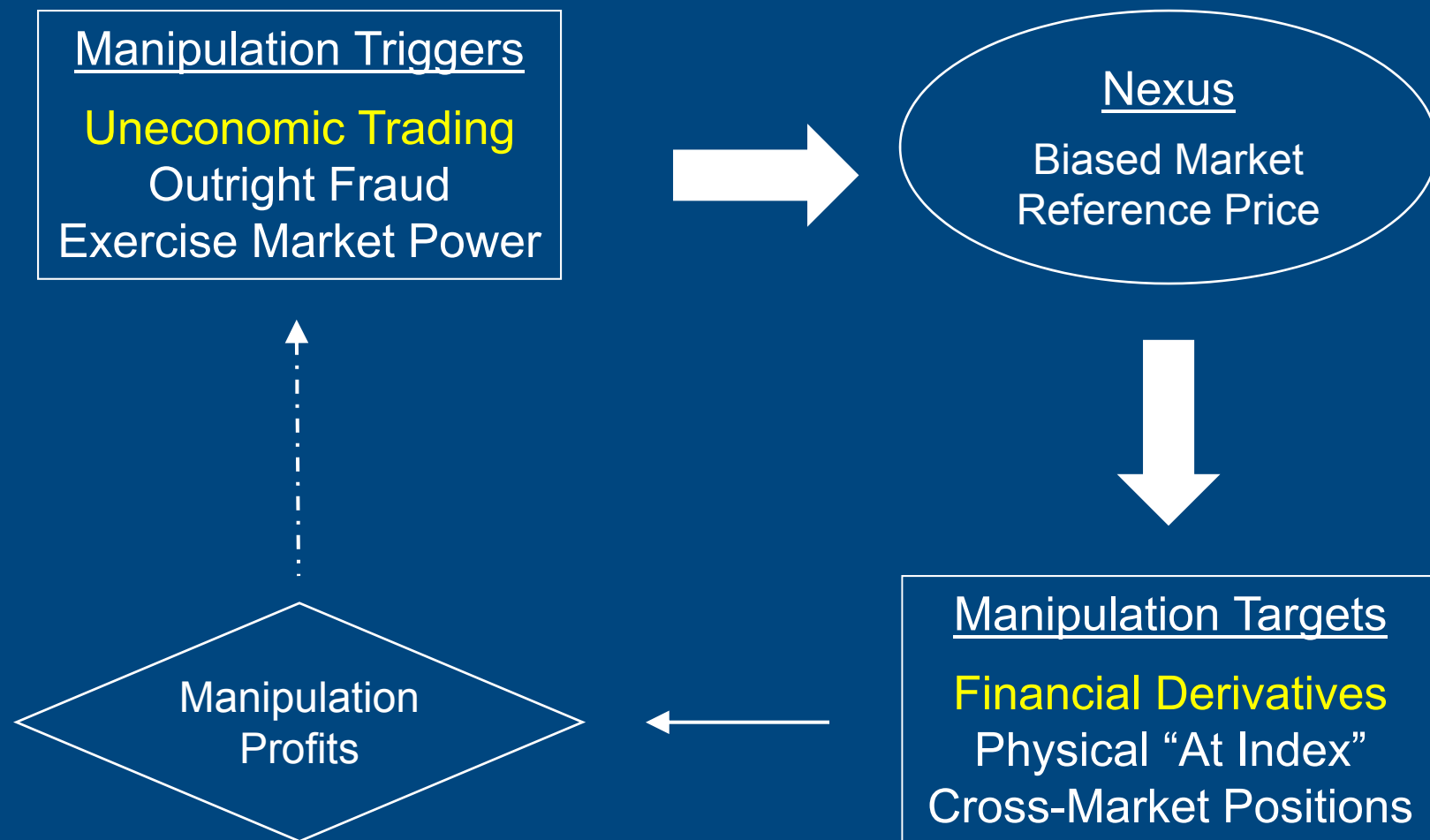
There is need for clarity of manipulation rules

- ◆ There is need for a practical way to distinguish behavior that serves a stand-alone, legitimate business purpose from that which is considered potentially manipulative:
 - Unclear standards complicate compliance, potentially decreasing market liquidity by chilling legitimate trades
 - False positives may lead to wrongful allegations requiring vigorous legal defense at great expense to firms and individual traders
- ◆ Knowledge of what is manipulative would provide clarity for compliance and certainty for enforcement
- ◆ Clarification of a manipulation standard would ideally relate manipulation analysis to analyses of fraud and antitrust

A framework to analyze manipulation

- ◆ One way to explain the cause and effect of manipulation is to separate the analysis into a framework of three pieces:
 - A trigger – Acts intended to directionally bias a market outcome
 - A target – One or more position(s) that benefit from that bias
 - A nexus – A provable linkage between the trigger and target
- ◆ For example, triggers of a price-based manipulation are:
 - Transactions that intentionally lose money to alter a price
 - Statements or actions that misrepresent value to alter a price
 - Use of market power to alter a price
- ◆ Targets of a price-based manipulation could be:
 - Physical commodity TAS (a.k.a. priced “at index”)
 - Financial derivatives positions
 - Other related market positions
- ◆ The nexus of the manipulation could be any reference price, including a price determined from an index or auction

A framework to analyze price-based manipulation



Things that make a successful manipulation more likely

◆ Cheaper triggers (measured on a stand-alone basis):

- Uneconomic trading requires the manipulator to bear some cost of the manipulation (i.e., transactional fraud)
- Outright fraud allows the manipulator to trick others into bearing the full cost of the manipulation
- The manipulator actually profits from the exercise of market power

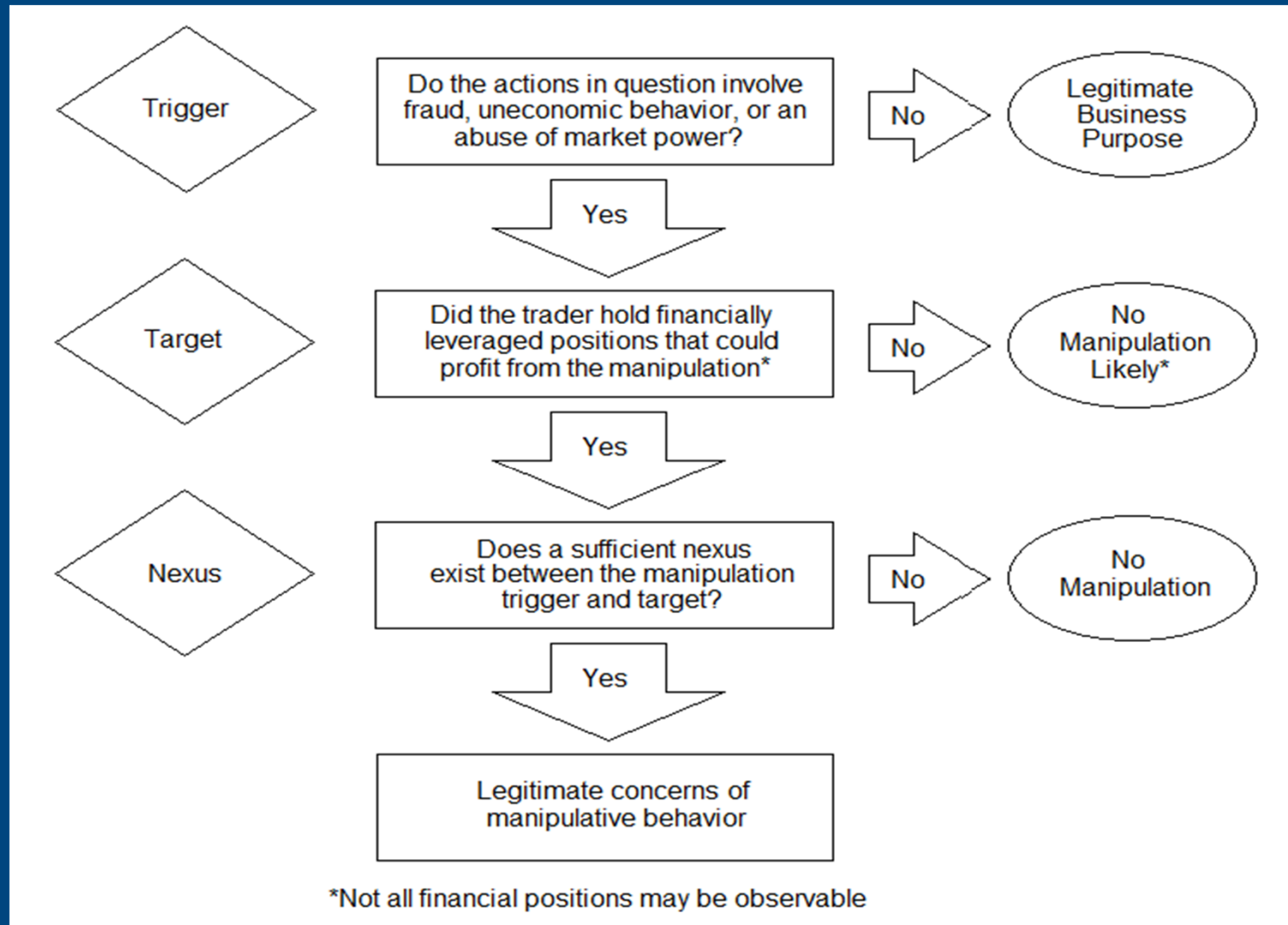
◆ The ability to acquire greater leverage in targeted positions:

- Large physical market traded “at index” or TAS
- Explosion of trading in derivatives and speculation in energy futures provides many venues from which to assemble positions
- Explains ability of large financial players to manipulate markets

◆ Greater inelasticity of supply and/or demand:

- Lack of sufficient market liquidity magnifies this effect
- Energy markets are ripe for manipulation given reliance on price indices, access to derivatives and complex product relationships

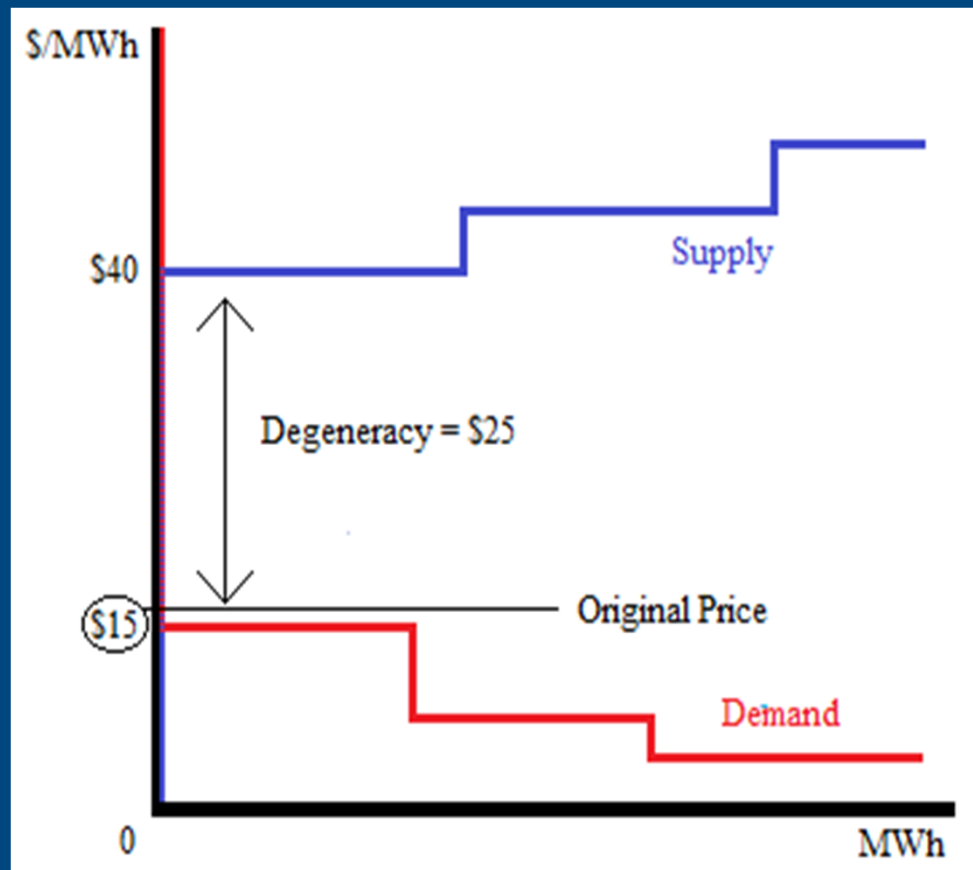
Hypothetical analysis of an alleged manipulation



Background of the Deutsche Bank case

- ◆ DBET owned Congestion Revenue Rights (CRRs) at the Silver Peak intertie of the California ISO (CAISO):
 - CRRs are a type of financial swap issued by the CAISO designed to hedge against physical congestion costs on transmission lines
 - The Silver Peak intertie is a 13-17 MW transmission line
 - DBET held ~50 MW of CRRs that were long to the price at Silver Peak (**initial leverage of about 3:1**)
- ◆ On January 19, the CAISO derated Silver Peak, announcing that no imports would be allowed into California:
 - The congestion component of the power price at Silver Peak fell, causing DBET's CRRs to lose money
 - DBET immediately disputed this result with the CAISO, which explained the result as a “degenerate” price (see next slide)
 - ISO defended its actions and the degenerate result under the then-existing market rules
- ◆ DBET reduced its CRR position, but continued to lose money on its remaining CRRs

The degenerate pricing problem at Silver Peak*



- Graph shows the net exports of power from Silver Peak
- Equilibrium lies to the left of the vertical axis (import power to CA)
- CAISO derate stopped imports, forcing output to zero and price to \$15
- Supply & demand now overlap over the range from \$15 to \$40/MWh

*Source: DBET Exhibit P, Page 20 of 39, Figure 7

Alleged trigger in the Deutsche Bank case*

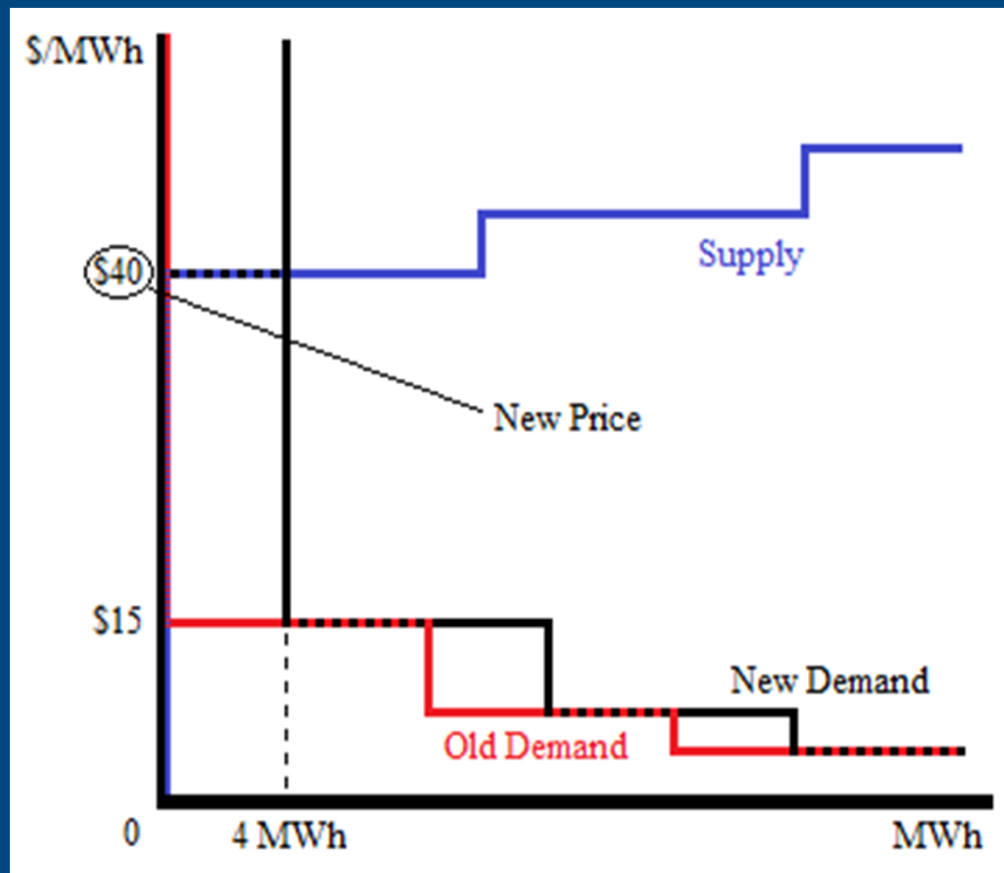
- ◆ DBET traders executed an “Export Strategy” by exporting power from Silver Peak to another trading point (Summit)



- Circular schedule was created by an allegedly mis-tagged wheel through California
- The export from Silver Peak immediately removed the degenerate price problem and made DBET’s CRRs profitable again (see next slide)
- The FERC alleged that the physical trades used to execute the Export Strategy were fraudulent (wheel) and/or uneconomic (export strategy)

*Taken from Answer of Deutsche Bank Energy Trading, LLC to Order to Show cause , Page 31, Graphic 4

Alleged effect of the trigger on the target in DBET*



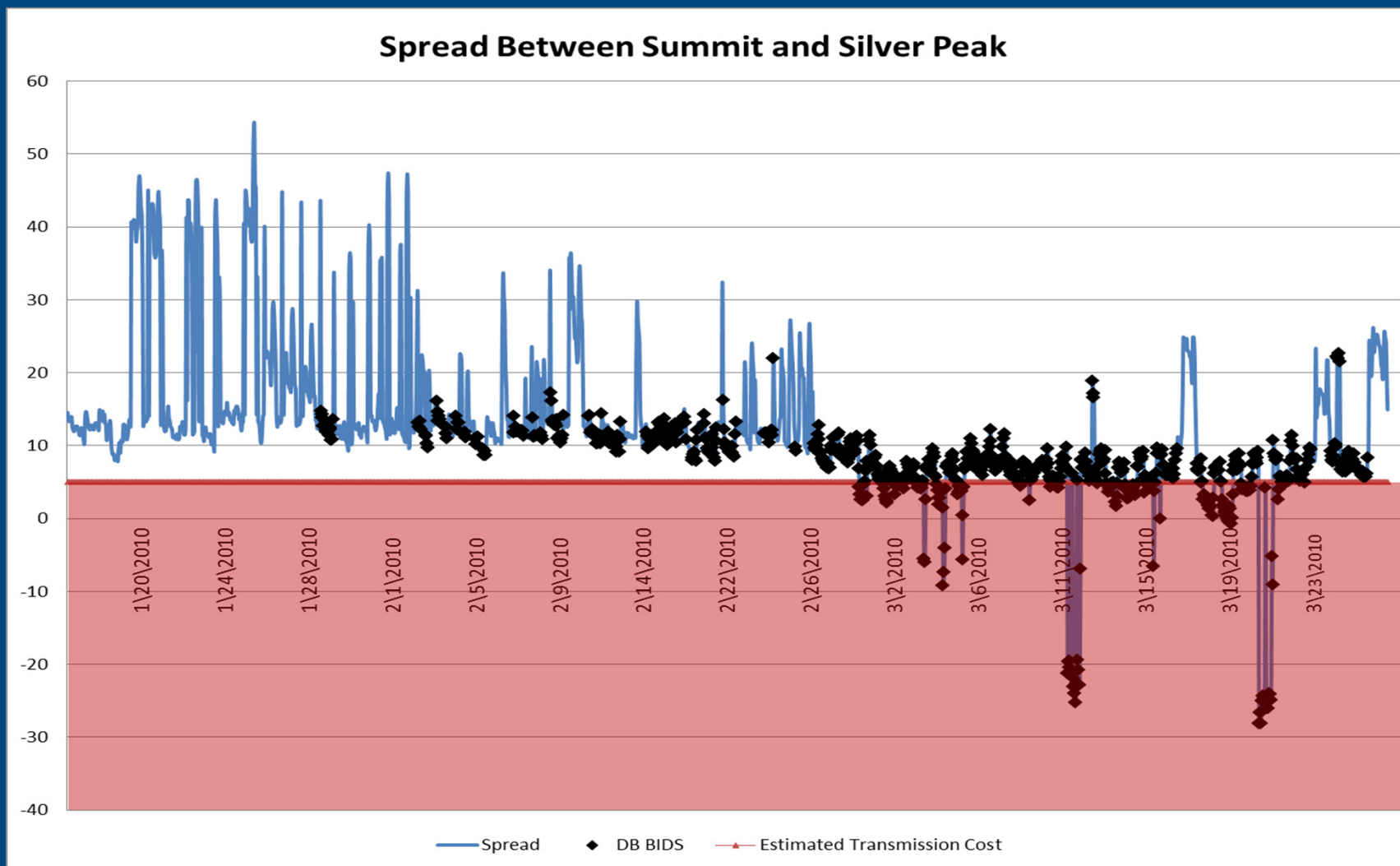
*Source: DBET Exhibit P, Page 24 of 39, Figure 8

- DBET first exported 4 MWh from Silver Peak to Summit
- Price-taking bid moved demand to the right
- Degenerate price was removed to the benefit of DBET's CRRs
- DBET continued this strategy and later increased the size of its CRR position

The filings in the Deutsche Bank case

- ◆ FERC filed an Order to Show Cause on 5 September 2012, seeking \$1.5 million in civil penalties, \$123,198 in damages
- ◆ DBET Answer filed on 5 November, 2012, asserting:
 - The Export Strategy trades were economic:
 - Sales from Silver Peak to Summit appeared profitable given the degeneracy in the price spread from Silver Peak to Summit
 - DBET's failure to discover that the trades were unprofitable resulted from poor billing records of the CAISO, which gave an unclear depiction of DBET's actual transmission costs
 - Any trades that were alleged to be fraudulent outright were an oversight due to ambiguities in the CAISO tariff
 - That DBET's purchases at Silver Peak were "price taking" and thus could not inject a false price into the market
 - That DBET tried to improve the profitability (or reduce the losses) of the Export Strategy trades over time

Deutsche Bank spreads vs. \$5/MW transmission cost*



* Sources: Blue lines are Summit-Silver Peak LMP spreads from CAISO website; black dots from DBET Exhibit A, pp. 22-23; red line is at \$5, the minimum of the estimated transmission cost cited in DBET Exhibit O, p. 24, ¶ 39

Takeaways from the Deutsche Bank settlement

- ◆ DBET settled for ~\$50K more than the FERC sought
- ◆ The DBET case contained the three framework elements:
 - Two types of price-making behavior allegedly used as the trigger:
 - Outright fraud (false schedules submitted to CAISO); and
 - Uneconomic trading (intentional loss on physical power trades)
 - CRRs used as the alleged manipulation target
 - Nexus was the auction mechanism & resulting degenerate price
- ◆ Key takeaways from DBET are:
 - “Price taking” trades can be used to bias (i.e., “make”) a price
 - “Economic” trading may become “uneconomic” – pattern matters
 - “Tried to lose less” is not a defense
 - “Bad” market rules may not provide a defense
 - “Defending a losing position” is manipulation
 - Objective (stated) intent to move a price is an anathema!

Lessons of what not to do

- ◆ Every successful manipulation case brought thus far has had contemporaneous speaking documents that proved the trader's intent to manipulate:
 - Taped trader conversations – Regulators focus in on profanity, words like “banging” or “hammering”
 - IMs and emails discussing/executing the scheme
- ◆ Intentional uneconomic trades by definition do not serve a stand-alone legitimate business purpose:
 - Ask traders to explain their price-making trading strategies in writing to demonstrate their expected profitability to compliance
 - Compliance has the incentive to turn in manipulative traders or they can be implicated
- ◆ Assembling leveraged positions tied to a pricing point where a trader also trades in the price-making market raises suspicion
 - Regulators can differentiate a hedge and a leveraged position
 - Positional visibility will only increase with time

Lessons of what not to do, continued

- ◆ Do not claim that the manipulation would have been more expansive if the trader was really trying to manipulate the market:
 - It is not a defense to robbing a convenience store that if you really wanted to rob something, you would have robbed a bank
 - Likewise, it is no defense to robbing convenience stores five times over a month that if you were really a robber, you would have robbed one every day
- ◆ Do not claim that the manipulator tried to lose less on the uneconomic trigger over time:
 - No defense to robbing convenience stores that you tried to save money on the gun and mask in later robberies
- ◆ Do not claim your were trying to improve the value of a losing position (compared to making a winning position more valuable):
 - Say I lose \$1 to make a \$10 position worth \$20 (-1 to +10 = net 9)
 - Now I lose \$1 to make a -\$20 position worth -\$10 (-1 to +10 = net 9)
 - Do not “defend the value” of a losing position

Additional reading

- ◆ “Using Virtual Bids to Manipulate the Value of Financial Transmission Rights.” Available through the Harvard Electric Policy Group web site at <http://www.hks.harvard.edu/hepg/Papers/2012/Virtuals%20and%20FTRs%20-%205-3-12.pdf>
- ◆ “A Framework for Analyzing Market Manipulation.” *Review of Law & Economics*. Volume 8, Issue 1, Pages 253–295, ISSN (Online) 1555-5879, DOI: 10.1515/1555-5879.1577, September 2012
- ◆ “A Comparison of Anti-Manipulation Rules in U.S. and EU Electricity and Natural Gas Markets: A Proposal for a Common Standard.” *Energy Law Journal* , Volume 33, p.1 (April 2012)
- ◆ Other documents are available at Dr. Ledgerwood’s web site at <http://www.brattle.com/Experts/ExpertDetail.asp?ExpertID=244>

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Dr. Ledgerwood specializes in issues of market competitiveness with an emphasis on the economic analysis of market manipulation. He previously served as an economist and attorney for the FERC in its enforcement proceedings involving Energy Transfer Partners, L.P. and Amaranth Advisors, LLC. He has built upon these experiences to develop a framework for defining, detecting and analyzing manipulative behavior. He has worked as a professor, economic consultant, attorney, and market advisor to the regulated industries for over twenty years, focusing on issues including ratemaking, power supply, resource planning, and electric asset valuations. In his broader practice, he specializes on issues in the analysis of liability and damages for actions based in tort, contract or fraud. He has testified as an expert witness before state utility commissions and in federal court.