

George Korenko, PhD
Partner | Washington, DC
gkorenko@edgewortheconomics.com
+1 202 559 4408



Matthew Milner
Partner | Washington, DC
mmilner@edgewortheconomics.com
+1 202 559 4387

December 2019

# **Managing Financial Product Data In Antitrust Cases**

In recent years, there have been several investigations by government agencies and follow-on civil litigations involving alleged price fixing and bid rigging of financial benchmarks. These include:

- · foreign currency;
- the London Interbank Offered Rate (LIBOR);
- US Dollar International Swaps and Derivatives Association Fix (ISDAfix);
- Euro Interbank Offered Rate (EURIBOR);
- Singapore Interbank Offered Rate (SIBOR) and Swap Offer Rate (SOR);
- the Australian Bank Bill Sweep Rate (BBSW); and
- Central and Eastern European, Middle Eastern, and African currencies (CEEMEA).

Like matters involving manufactured (i.e., physical or tangible) products, these cases include allegations of anticompetitive conduct, but the nature of the relevant financial products and the data required for economic analysis are different than those for tangible products. For example, an antitrust case may involve a manufactured product that was sold to a customer at a specific point in time at an allegedly supra-competitive price. However, when a financial instrument is the product at issue, the information required to assess antitrust issues for a two-sided transaction often relies on institutional details underlying the parties' trades and positions over a period.

We previously discussed best practices <u>for managing data in antitrust cases</u>, with a primary focus on issues that arise with data on physical products.¹ These best practices involve close collaboration between the client, counsel, and expert to ensure that the relevant data are collected and prepared in an efficient and effective manner.

<sup>1.</sup> George Korenko and Matthew Milner, "Best Practices for Managing Data in Antitrust Cases," Law360, April 28, 2017.

Best practices we described include:

- identifying the data systems that potentially contain data requested in the discovery phase of the case;
- considering the best way to extract the relevant data, including assessing whether a targeted approach may be more efficient and effective than a full data dump;
- validating the extracted data to identify potential anomalies; and
- · assessing how to prepare the data for analysis, including identifying key elements in the data, determining the extent to which disparate datasets should be combined, and evaluating whether there is additional useful information that can be linked together.

As we noted, following these best practices provides practitioners with reliable methods to retrieve data that can be reliably used to address relevant economic questions posed by counsel and experts.

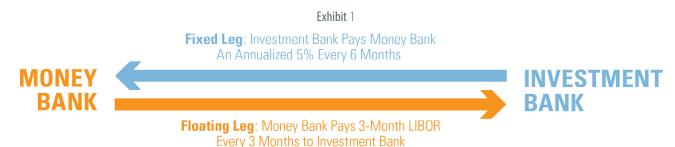
These best practices remain relevant for cases involving financial products. However, there are additional considerations for data used to support economic analyses of transactions involving financial products for class certification, liability, and damages analyses. For example, determination of the relevant parties, products, and transactions in electronic databases often requires a careful examination into how each entity identifies a transaction in the data, amendments to transaction(s) during the course of the contract, and the amount and timing of any payments made by the parties.

While some transactions are processed and cleared in a straightforward manner, others can involve more complexity because of varied contractual terms and subsequent amendments made by the counterparties after the initial trade. The overlay of big data is another consideration that has implications on the collection, management, and analysis of financial transactions in litigation. In certain cases, banks and other parties are asked to produce data spanning several years, across multiple systems, and comprising billions of records. As a result, data may not be unified across a bank or across trading platforms. Mergers and acquisitions, system upgrades, procedural changes at trading desks, and new product offerings can create challenges in identifying and extracting relevant data for financial instruments.

In this article, we address these additional considerations and discuss best practices for lawyers and experts for the efficient and effective collection and preparation of transactional data in antitrust cases involving financial instruments. Throughout the paper, we apply the concepts we discuss to the experience of hypothetical financial institutions, "Money Bank" and "Investment Bank," which trade financial products.

## **I. Hypothetical Transaction Involving a Financial Instrument**

Consider, for example, a hypothetical "plain vanilla" interest rate swap transaction between Investment Bank, an interest rate swap dealer, and Money Bank, a bank seeking to hedge its interest rate risk. For this trade, the two parties agree to exchange interest payments, with one party's payments based on a fixed interest rate while the other party's payments based on a floating interest rate (LIBOR). As seen in Exhibit 1, the example shows the trades specify that:



- Money Bank receives fixed rate payments of 5% every six months and pays to Investment Bank floating payments of 3-month Libor (e.g., 2.5955%) every three months.
- Investment Bank pays fixed rate payments of 5% every six months and receives from Money Bank floating payments of 3-month Libor every three months.

While this exhibit summarizes the high-level terms of the transaction, more information is required to calculate the payments each party receives. Specifically, there is detailed documentation on the date and time of the transaction, the length of the contract (i.e., its tenor), the settlement date, and many other details that are captured by the parties. These terms are typically summarized in a term sheet. An abridged version of the term sheet for the transaction between Money Bank and Investment Bank is in Exhibit 2, below.

Exhibit 2 **Hypothetical Interest Rate Swap Term Sheet (Abridged)** 

Trade Date	2-Jul-2019	Effective Date	5-Jul-2019	
Settlement Date	5-Jul-2019	Maturity Date	5-Jul-2021	
Floating Rate Payer Information		Fixed Rate Payer Ir	Fixed Rate Payer Information	
CUSIP	ABP123456	CUSIP	ABR123457	
Position	Sell	Position	Buy	
Payer	Investment Bank	Payer	Money Bank	
Notional Amount	USD 2,000,000,000.00	Notional Amount	USD 2,000,000,000.00	
Reset Date	2-Oct-2019	Rate	5%	
Spread (bps)	0	Day Count Fraction	30/360	
Day Count Fraction	Actual/360	Business Calendar	London, New York	
Business Day for Reset	2 Business Days Prior	Pay Frequency	6 Month	
Reset Frequency	3 Month	First Payment Date	5-Jan-2020	
Compounding	None	Accrued Interest	0	
Pay Frequency	3 Month			
Initial Reset Rate	2.59550%			
First Payment Date	5-Oct-2019			
Pay Business Calendar	London, New York			
Reset Business Calendar	London, New York			
Accrued Interest	0			
Premium/Discount	0		•	
Net Accrued Interest	0			
Net Settlement Amount	0			

The term sheet captures important information from the transaction between Money Bank and Investment Bank when they agreed to the trade. This term sheet also conveys explicit information about this specific trade but does not provide complete information about the life cycle of the transaction. In fact, there may be several trades tied to one transaction; an initial trade under one set of terms and subsequent trades and amendments that alter those terms.

### **II. Assessing Data: Manufactured Products Versus Financial Products**

For cases involving financial data, it can be complicated to assess antitrust impact and damages in the context of financial instruments because of the nature of pricing and the life cycle of the transaction. This is borne out when assessing the differences in data sources used to conduct an economic analysis of manufactured products and financial products, as shown in Exhibit 3, below. Recognizing the differences and similarities between transactional data for manufactured products and financial instruments provides context for understanding the distinct nature of the data to be collected.

Exhibit 3

CHARACTERISTIC	MANUFACTURED PRODUCT	FINANCIAL PRODUCT	
Product at Issue	Tangible, physical item	Intangible, varied and complex	
Transaction Value	Invoice price	Depends on contract structure and terms	
Timing of Dollar Value	Time of transaction	Outcome unknown at initial executed transaction	
Injured Party	Purchaser	Could be purchaser or seller	
Effect of Price Increase	Class member injured/damaged	Class member could be injured or not	
Effect of Price Decrease	Class member not injured/damaged	Class member could be injured or not	

#### Data and Information on Financial Products

In the economic analysis of pricing, it may be important to test whether differences in the features of the products at issue are associated with differences in prices and costs. For manufactured products, those features may be captured by different SKUs (stock keeping units) or other descriptive information in the data. The details on the terms of a financial transaction also matter and are often captured in term sheets and associated confirmations. These term sheets capture the terms and conditions of the transaction, including whether the financial instrument is a standardized exchange-traded financial product, such as a Chicago Board Options Exchange (Cboe) standardized options contract, or a customized over-the-counter options contract with mutually beneficial terms and conditions that suit the parties' specific needs.

In cases that involve varied financial products it is important to understand what data and information are available in systems that: (1) identify the relevant products; (2) provide information on the terms and conditions; (3) show the parties involved and the nature of payments; and (4) have information that confirms how the transaction was executed or changed over time. Given how each product is priced and the way the alleged benchmark is referenced (or not), both these terms can vary both (i) on a product-by-product basis, and (ii) across purchases of the same product. For each product at issue, these data may be useful for an analysis to assess how (and if) changes in an allegedly coordinated benchmark rate affect the cash flows.

The hypothetical transaction between Money Bank and Investment Bank includes "standard" terms and conditions but if, for example, Money Bank had desired a payment that varied depending on the spread between the yields on 1-year and 10-year Treasury securities, the pricing would become substantially more complex. Differences in the terms and conditions are likely to result in different premia paid for the contract, different cash flows over time, and, potentially, differences in whether certain alleged anticompetitive conduct affected the specific transaction. For example, if many relevant products do not reference the allegedly coordinated benchmark, then it may be the case that the parties to the associated transactions are not affected by the alleged conduct. To make this assessment, it could be useful to collect detailed information about the product (e.g., the term sheet) and any subsequent negotiated changes to the transaction (e.g., unwinds and novations).

### Data for Empirical Analysis of the Negotiated Terms

When a manufactured product is purchased, the value of the transaction is often reflected on the invoice. In some cases, any negotiated rebates and other discounts are considered to calculate the net price paid by the customer. Similarly, the negotiating power of each party can affect the terms a given purchaser receives when an over-thecounter financial product is traded, when a trade is amended, and/or when a trade is settled (or early terminated). A purchaser with greater bargaining power may have negotiated better rates, smaller upfront premia payments, or any number of other terms that were advantageous to its position. Even for the same product, negotiated terms will differ depending on the buying power of each counterparty and transaction-specific facts and circumstances.

Data and information from defendants and plaintiffs can provide insight into the inquiry of how certain parties used volume purchasing (e.g., tiers), RFQ processes, access to market information, and other means to negotiate terms. For example, trading data can be used to test if a given counterparty could have negotiated better rates, smaller upfront premia payments, or any number of other terms that were advantageous to their position based on their bargaining power and the timing of the transaction.

The payments associated with a financial product also depend on the structure of the product. For example, for the plain vanilla swap traded by Money Bank and Investment Bank, the notional amount of \$2 billion is never actually paid by either party. Rather, depending on the terms, the interest payments will depend on this amount and a premium or discount may (or may not) be paid when the contract is initiated, with potential net payments of uncertain amounts during the life of the contract and a potential payment of an uncertain amount when the contract is terminated. In addition to the term sheet, it will be important to collect data on the actual payments made for each transaction.

### Information on the Timing of Payments

When a manufactured product is purchased, the dollar value of the transaction is generally known to both the buyer and seller (albeit, there may be further discounts applied later). For example, if a product is purchased for \$100 and there are no further discounts, then the dollar value of the transaction is \$100. However, when a financial product is purchased, only the initial payment may be known at the time of the transaction.

For example, for a financial derivative product, the final amount paid will often depend on the evolution of the value of the underlying asset. Here, the Money Bank and Investment Bank plain vanilla interest rate swap contract was issued at par, with no premium or discount paid to either party. However, depending on the movement of interest rates, the floating rate payments to Money Bank may increase or decrease over the life of the swap contract. The net dollar value of the contract to both parties will depend, in part, on those interest rate changes and will not be fully known until the expiration (or termination) of the contract. Even then, if the swap contract was used to hedge another position, it may be relevant to consider the total value of the swap and any associated hedged positions. To assess the timing of payments, it will be important to collect data on the payments made over time and any change in the terms and conditions of the transaction. It will also be important to consider early in the discovery stage the relevance of information on hedged positions.

# Data for Assessing the Two-Sided Nature of Financial Instruments

For a manufactured product, there are often well-defined buyers and sellers. A unique feature in many benchmarking cases is that the antitrust allegations involve the effects on both buyers and sellers of financial products. For example, if the allegations are that a benchmark rate was manipulated up on some days and down on others, then it could be the case that on some days purchasers were potentially injured and on other days sellers were potentially injured. Moreover, an affirmative analysis needs to analyze data of financial instruments that expressly reference the benchmark rate and those that do not explicitly reference the benchmark rate but may (or may not) be affected by the alleged conduct.

The two-side nature of the transactions means that one party may benefit from any conduct and one may be injured. Assessing data on the specific position of a counterparty, an increase (or decrease) in the reference rate may have different implications on the financial position of the buyer or seller. Data and information from the class representatives, the defendants, and in some cases third parties may provide institutional details on the factors affecting pricing and allow testing of which parties and transactions may have been affected by the alleged conduct.

#### **III. Conclusion**

The collection and preparation of transactional data is critical to a successful economic analysis in an antitrust case involving financial products. In such cases, it is imperative to understand the nature of the products, how trades are executed, and the terms between parties that may change during the course of the contract. To help ensure that the information is captured, best practices for collection of data on financial products involve:

- Collaboration between the client, counsel, and expert to ensure that the relevant data on all facets of the transation—including subsequent related transactions, such as novations and terminations—are collected.
- Identification and collection of the sources for the specific terms of the transaction, such as term sheets and confirmations should be collected from data or documents (if not kept in electronic transaction files).
- Discussion of whether related hedged transactions may be relevant to the assessment of economic injury and damages.

There is not a one-size-fits-all approach to retrieving, connecting, and building data for financial products. However, there are best practices that can be followed to ask the right questions on how parties participate in the market(s) and what information is stored and managed in the ordinary course of business. Incorporating the considerations in this paper provides a framework for practitioners to extract and use transactional and other data to address relevant economic questions posed by counsel and experts in antitrust cases involving financial products.



# About Edgeworth

Edgeworth Economics is an economic and quantitative consulting firm that provides economic analysis and expert testimony for clients facing complex litigation, regulatory, and other challenges involving antitrust, class certification, intellectual property, and labor and employment. Edgeworth's expert economists, statisticians, data analysts, and other professionals assist clients with innovative solutions rooted in the rigorous application of economic principles and hard data. Organizations including leading law firms, Fortune 500 companies, and government agencies rely on Edgeworth Economics to help them navigate through their most critical legal disputes and other challenges.

www.edgewortheconomics.com

#### Disclaimer:

The opinions expressed herein do not necessarily represent the views of Edgeworth Economics or any other Edgeworth consultant. This article is intended to inform readers about legal developments. Nothing in this article should be construed as legal advice or a legal opinion, and readers should not act upon the information contained in this article without seeking the advice of legal counsel.