# Economists Incorporated CONDINISTS JUMMER 2015 A BRIEF ANALYSIS OF POLICY AND LITIGATION

# FTC Challenges Sysco US Foods Merger

### Allison I. Holt

After a 3-2 vote, the FTC filed an administrative complaint seeking to stop the proposed merger of Sysco Corporation (Sysco) with US Foods, Inc., (US Foods) the two largest



Economist Allison I. Holt, an empirical microeconomist, specializes in quantitative analysis and assessment of damages in antitrust and class action matters.

national broadline foodservice distributors. The FTC argued that for customers with a national presence, the combined company would have 75 percent of the relevant market. In addition, the new firm would have 50 percent or more of 32 local markets. The newly merged firm could raise prices and reduce choice and services for customers in the national market and the specified local markets.

According to the FTC, for customers with geographically dispersed locations across the country, the market is for national, not local, foodservice distributors. The relevant product market for these customers comprises only distributors that can offer national contracts to deliver all of the broad array of products such customers need to any of their locations nationwide, that carry private label products offered at lower cost, and that can provide a high level of customer service. The FTC argues that system distributors, which cannot provide as wide a range of products, specialty food distributors and cash-and-carry stores are not in the relevant product market and cannot competitively constrain Sysco and US Foods. In addition, the FTC argues that local foodservice distributors are not in the market because customers with a national footprint are not interested in negotiating individual local contracts for separate locations.

The FTC has also identified 32 local markets where Sysco and US Foods are each other's closest competitors. Many customers want foodservice distributors that are nearby. Moreover, Sysco and US Foods can price discriminate based on customer location. Therefore, the FTC defined local regions as relevant geographic markets.

Sysco rebuts the FTC's arguments, claiming that the market is not national and even if it were, the new firm would only have 25 percent of the market. Sysco claims that the efficiencies associated with the merger would allow it to buy and deliver food in greater quantities, thereby lowering costs to consumers. Sysco offered to divest assets to Performance Food Group (PFG), currently the fourth-largest broadline food distributor with a 5% national market share, but the FTC rejected this offer because it does not provide a second competitor that can compete nationally or that can compete with Sysco in all of the identified local markets.

At a preliminary injunction hearing in May, several customers testified that this merger would create a new firm with no significant competition. The FTC's economic expert testified that the merger would result in a firm with 60 to 70 percent of the market and that national customers would likely see an increase in prices. The CEO of competitor PFG, however, testified that the merger would not hurt its business and that PFG planned to expand into new markets to compete with the newly merged firm. The parties are currently waiting for a ruling by the judge in the matter.

# Also In This Issue

# Foreign Exchange Manipulation and Economic Harm

Possible manipulation of the foreign exchange (FX) market is the subject of a multi-government investigation and a pending civil suit. Stuart D. Gurrea and Jonathan A. Neuberger discuss how such manipulation could cause economic harm and how to measure that harm. The conduct at issue involves dealers' colluding to move spot FX rates and affect the determination of key FX benchmark rates. Measuring damages requires determining the benchmark rate absent the manipulation. To isolate the effect of the price manipulation, economists typically rely on economic models that account for the collusive behavior and other factors driving prices. Benchmark rate manipulation may harm others besides the client submitting the initial FX order. For example, FX manipulation affects the value of derivatives.

### **Discounting Lost Future Earnings**

Erica E. Greulich and Jonathan L. Walker discuss the interest rate that should be used to discount future earnings when calculating damages in cases of personal injury or wrongful death. Often earnings are discounted using the return on shortterm U.S. debt obligations ("T-bills") as a proxy for the risk-free rate of interest. An alternative approach favors a discount rate reflecting the inherent riskiness of future pay. The two choices reflect a disagreement over whether successful plaintiffs ought to accept a level of risk in the replacement of future pay that is similar to the level of risk they would have faced actually earning that pay. However, recent research suggests that over a suitably long investment horizon, equity investments are likely to yield higher expected returns and be safer than T-bills. Thus, the use of T-bill rates to discount earnings that would have been earned in the distant future may overcompensate plaintiffs.

# Foreign Exchange Manipulation and Economic Harm

### Stuart D. Gurrea and Jonathan A. Neuberger

Since 2013, regulators and government agencies in several countries have investigated the allegation that large financial institutions manipulated the \$5.3 trillion-a-day foreign exchange (FX) market. Separate from these investigations, an antitrust lawsuit was filed against 12 major financial institutions for allegedly rigging prices in the FX market. The conduct at issue involves dealers colluding to move spot FX rates and affect the determination of key FX benchmarks based on these rates. Currency dealers allegedly took advantage of their knowledge of pending client orders, which referenced certain future benchmark rates, and traded to their own benefit ("front-running" of client orders). In an effort to move FX rates to their advantage, dealers allegedly colluded to concentrate trades just before benchmark rates were set with the intent of manipulating spot FX benchmarks.

The FX market for trading currencies operates continuously and is concentrated in major financial centers around the world. No single exchange rate exists between any two currencies: there is a bid and an offer price, and these may vary across banks and clients and over time. Transacting clients typically rely on a large financial intermediary to find the

best execution for their FX trades, but such executions may not be fully transparent. A practical alternative is to rely on published spot benchmark foreign exchange rates (known as "fixes"), which reflect market rates at certain times. The WM/Reuters benchmark rates, in particular, are computed ("fixed") for 160 currencies, and are set every half hour for the most heavily traded currencies.

On November 12, 2014, five major banks entered into settlement agreements with U.S., U.K., and Swiss financial regulators over foreign exchange rate manipulation and agreed to pay \$3.4 billion in fines. The charges involved "attempted manipulation of, and. . . aiding and abetting other banks' attempts to manipulate, global foreign exchange (FX) benchmark rates to benefit the positions of certain traders," more specifically claiming that "certain FX traders at the Banks coordinated their trading with traders at other banks in their attempts to manipulate the FX benchmark rates."

The alleged misconduct requires that dealers be able to affect FX rates, which in turn requires that a single dealer or a group of dealers account for a sufficiently large share of the market. In addition, according to the investigating agen-





Stuart D. Gurrea has extensive experience in constructing and assessing economic models. His consulting experience includes calculating damages and performing financial analyses. Jonathan A. Neuberger specializes in financial economics, valuation, and damages analysis in complex commercial litigation across a broad range of industries. He also has extensive experience in constructing and assessing economic models. A longer version of this article appeared in the Spring 2015 issue of The Exchange.

cies, collusion was facilitated by participation in online chat rooms. Through these communications, traders shared information about clients' orders and coordinated their trades to affect exchange rates.

Assuming that the necessary conditions for collusion are in place, rate manipulation may be implemented as follows. Consider a client that transacts with a bank at 3:30 pm to sell British pounds and buy \$100 million at the 4:00 pm

" ... the alleged conduct in FX markets involves benchmark rate manipulation, which extends economic harm well beyond the direct client submitting the initial FX order.

fix rate. Since the fix is uncertain at the time of the agreement, the bank's purchase of dollars to deliver to its client after the fix implies that the bank has assumed a risk associated with rate movements between 3:30 pm and 4:00 pm. To manage this risk, the bank may pair off with a counterparty holding a selling interest at the fix and thereby eliminate its exposure.

The bank, alternatively, may assume the exchange rate risk by completing a proprietary transaction. For example, say the bank purchases the \$100 million at 3:30 pm for 66 million pounds (\$1 for 0.66p). The bank profits if the average price at which the bank buys the currency in the market (dollars in this example) is lower than the 4:00 pm fix rate at which it has agreed to exchange currency with its client. These profits or others resulting from an effort to find the best execution may be associated with legitimate risk management activities.

Profits may, however, also result from market manipulation. The bank may effectively eliminate (or significantly reduce) the exchange rate risk it assumes between 3:30 pm and 4:00 pm if it colludes with traders at other institutions and succeeds in favorably moving the price of the currency

# **Discounting Lost Future Earnings**

Erica E. Greulich and Jonathan L. Walker

What rate of interest should be used to discount future earnings lost due to personal injury or wrongful death? Sometimes earnings are discounted using the return on short-term U.S. debt obligations ("T-bills") as a proxy for the risk-free rate of interest. An alternative approach favors a discount rate reflecting the inherent riskiness of future pay. In this approach, earnings are discounted by a higher, supposedly riskier, market based rate of return. The two choices reflect a fundamental disagreement over whether successful plaintiffs ought to be forced to accept a level of risk in the replacement of future pay that is similar to the level of risk they would have faced actually earning that pay. However, recent research suggests that over a suitably long investment horizon, equity investments are likely to vield higher expected returns and be safer than T-bills. When discounting lost earnings that would have accrued sufficiently far in the future, a stock-based discount rate may be more suitable than Treasury rates regardless of whether those earnings should be discounted based on their riskiness.

In cases of personal injury or wrongful death, it may be appropriate to compensate the plaintiff for earnings that the victim would have received but for the legal violation. (As

the plaintiff may be the victim's estate or a relative, the victim and the plaintiff **Gover longer terms**, stocks are not always the same person.) Future earnings are discounted to present value to estimate the award currently due. This award is intended to be just large enough to generate a stream of payments (in-

cluding investment returns and withdrawals of principal) to replace the earnings stream the victim would have received but for the violation. If future earnings are discounted at too high a rate, the resulting award is likely to undercompensate the plaintiff relative to what the victim would have earned. If earnings are discounted at too low a rate, the award is likely to overcompensate the plaintiff.

The use of T-bill rates for discounting is frequently attributof earnings are often made over very long periods of time. ed to two U.S. Supreme Court decisions, Chesapeake & Ohio Over longer terms, stocks not only yield more than T-bills, Railway Co. v. Kelly 241 US 485 (1916) and Jones & Laughlin Steel Co. v. Pfeifer 462 US 523 (1983). In Kelly the Court stated: "We do not mean to say that the discount should be at 2012. (While a potential concern is that some of these data what is commonly called the 'legal rate' of interest -- that is, are from many years ago, the inclusion of the very early data the rate limited by law, beyond which interest is prohibited does not appear to drive this result.) ... compensation should be awarded upon a basis that does not call upon the beneficiaries to exercise [financial] skill, for Turning first to yield, the average annual real (i.e., inflationadjusted) return for stocks - as measured by broad-based inwhere this is necessarily employed, the interest return is in part earned by the investor, rather than by the investment. dexes - between 1802 and 2012 was 6.6 percent, compared . . it being a matter of common knowledge that, as a rule, to 3.6 percent for bonds and 2.7 percent for T-bills. Stocks





EI Senior Economist Erica E. Greulich and EI President Jonathan L. Walker have experience in a wide range of employment and product liability litigation matters giving rise to claims of lost future earnings.

the best and safest investments, and those which require the least care, yield only a moderate return."

In *Pfeifer* the parties had agreed to assume away that "the [plaintiff] could have been disabled or even killed in a different, non-work-related accident at any time. The probability that he would still be working at a given date is constantly diminishing." Consequently, the Court found that, "[o]nce it is assumed that the injured worker would definitely have

not only yield more than T-bills, but by some measures they are safer. ??

worked for a specific term of years, he is entitled to a risk-free stream of future income to replace his lost wages."

Some litigants and researchers appear to have interpreted these two cases to mandate the use of T-bill rates in all federal cases. Economists commonly

use those rates to measure risk-free rates of return in the short run. Nevertheless, using T-bill rates to discount earnings that would have been earned in the distant future may overcompensate plaintiffs.

Assessments of the return and the risk on a security depend on the length of time over which they are measured. T-bills may be safer than stocks in the short term, but projections but by some measures they are safer, as was shown by a study of the behavior of risks and returns using data from 1802 to

## Foreign Exchange Manipulation

at the 4:00 pm fix. For example, if the colluding institutions account for a sufficiently large volume of the transactions around the time the fix is determined, and they concentrate large transactions at this time ("banging the close"), they may collectively drive up the value of the dollar relative to the pound. Benchmark rates, in turn, would be driven up because they would be based on the higher rates for these transactions.

A successful effort to affect the price of a currency when a benchmark rate is set will result in a benchmark that is different from the value absent the manipulation. A party that transacts at the benchmark rate suffers economic harm if the price of the currency it buys (sells) is higher (lower) than the price it would have paid had the currency manipulation not occurred.

When benchmark rates are manipulated, measuring damages requires determining the benchmark rate that would have been in effect absent the manipulation. Benchmark rates may be recalculated using an alternative sample of untainted transactions that provide a reliable "but for" measure of the exchange rates in the market. To isolate the effect of the price manipulation, economists typically rely on economic models that account for the collusive behavior and other factors driving prices. Such models often are based on the identification of periods that are not affected by collusion. Singular changes in exchange rates during the fix period can be identified relative to periods with no col-

### Discounting

outperformed both long-term U.S. debt obligations (bonds) and T-bills in more than 90 percent of the 30-year holding periods occurring between 1802 and 2012. Even for much shorter one-year holding periods, stocks outperformed bonds and T-bills in close to 60 percent of all periods.

Now consider risk. Although T-bills are occasionally used as a proxy for a risk-free asset, they are not truly risk free. T-bills are more susceptible than stocks to inflation. Inflation has occasionally exceeded the return on T-bills and some longterm Treasury bonds. Consequently, these securities are not inflation risk free even if they are considered default risk free. Someone who invested in T-bills or bonds during periods when their returns were lower than inflation experienced a loss of purchasing power.

One common measure of financial risk is the standard deviation or volatility of returns over time. For holding periods twenty years or longer, the standard deviation of real returns on stock is lower than that for treasury bonds or T-bills. For example, for all thirty-year holding periods oclusion. Alternatively, a court may order disgorgement, in which case damages may be measured by the benefits that colluding banks derive from manipulating the market.

Ultimately, qualifying the economic harm also will depend on how rate manipulation affects a specific transaction. The most immediately injured parties from rate manipulation are the direct victims of front running. Third parties also may be harmed by the artificial concentration of orders around the time of the fix. In the absence of significant arbitrage opportunities, trades executed at times when market prices are manipulated are likely to affect the exchange rates at which other market participants trade. If the rate these parties pay is increased, they are harmed in the amount of the overpayment – the amount traded times the difference between the market exchange rate and the one that would have prevailed had market orders not been artificially concentrated.

As with the manipulation of LIBOR rates, the alleged conduct in FX markets involves benchmark rate manipulation, which extends economic harm well beyond the direct client submitting the initial FX order. The impact of FX manipulation, for example, extends to derivative instruments, such as options, futures, and swaps. These contractual agreements may define their value, in whole or in part, by reference to an FX benchmark. If the value of that benchmark is manipulated, then the value of the derivative instrument will be affected to the detriment of one of the contracting parties. Finally, FX manipulation also can exert broader economic harm by distorting key market prices. Such costs may be difficult to measure, but they are distinct economic harms.

curring between 1802 and 2012, the standard deviation of stock returns was less than 2% while the standard deviations of both T-bill and bond returns were greater than 2%.

Another way to assess risk is to consider the worst real or nominal return over a given investment period. Stocks are also safer than T-bills or bonds by this measure for sufficiently long holding periods. For example, since 1802, stocks have never had a negative real return if held for seventeen or more years. T-bills and bonds have each suffered real losses over holding periods this long.

When calculating the present value of a damages award, money that would have been earned in the distant future likely should not be discounted by T-bill rates. Over sufficiently long holding periods, stocks have exhibited higher returns and lower risk than T-bills when risk is measured based on volatility of real returns or the worst historical outcome. Consequently, a plaintiff whose award for losses occurring in the distant future was calculated based on a T-bill discount rate could reap a windfall by investing part of the award in readily accessible stock index funds without subjecting herself to unreasonable risk.

### EI News and Notes

### Temporary Restraining Order Denied

The request of Otsuka Pharmaceutical for a Temporary Restraining Order to protect its Abilify product from generic entry was denied by the U.S. District Court for New Jersey. EI Principal Philip B. Nelson submitted a report for a group of generic pharmaceutical companies. His report critically reviewed Otsuka's claim that it would be irreparably harmed if generic entry was allowed and it was later determined that the generic entry had infringed a valid patent. The judge's opinion agreed that Otsuka had not established that it would be irreparably harmed by generic entry. Dr. Nelson was assisted by El Principal Robert D. Stoner and Vice President Henry B. McFarland. The generic pharmaceutical companies were represented by Axinn, Veltrop & Harkrider LLP, Choate Hall & Stewart LLP, Cozen O'Connor, Latham & Watkins LLP, Rakoczy Molino Mazzochi Siwik LLP, and Wiley Rein LLP.

### **Copyright Industries Report**

The International Intellectual Property Alliance recently released "Copyright Industries in the U.S. Economy: The 2014 Report." The report was written by EI Principal Stephen E. Siwek. In 2013, core copyright industries, those whose primary purpose is to create, produce, distribute or exhibit copyright materials, accounted for \$1.1 trillion, almost 7%, of U.S. Gross Domestic Product. They employed 5.5 million workers, about 4% of the U.S. workforce. From 2009 to 2013, those industries grew by over 2% a year, a rate 70% faster than the growth rate of rest of the U.S. economy. The report can be found at www.iipa.com/copyright us economy.html.

### Reynolds American and Lorillard Merge

EI Corporate Vice President and Principal Matthew B. Wright, along with EI economists Michael G. Baumann, Kevin W. Caves, Allison I. Holt, John M. Gale, and Andrew P. Card, helped secure recent FTC approval of the \$27.4 billion merger between Reynolds American and Lorillard. A majority of the Commission concluded that the complex transaction, which also included some divestitures to Imperial Tobacco Group, would not lessen competition for combustible cigarettes in the United States. EI economists worked with attorneys from Jones Day on the antitrust defense of this acquisition.

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