CHAPTER 3

An Illustrative Hedge Fund Strategy: Arbitrage

After long/short "hedged" trading strategies, the next most common hedge fund strategy is *arbitrage*. In its original form, arbitrage meant earning a profit by exploiting discrepancies in the price of an identical good in two different markets. For instance, due to a glut of oil in the American Midwest in 2012 and 2013, the price of oil (dollars per barrel) differed in the Brent (North Sea) market from the Texas market, with the Brent price being as much as several dollars per barrel higher. Arbitrageurs could make a profit by buying Texas oil and selling Brent oil. In this sense, all retailers are arbitrageurs; in that, they buy a product from a manufacturer or wholesaler and sell it to retail customers at a higher price.

Traditionally, arbitrage refers to strategies that operate on the same asset in two different time periods or at the same time in two different markets. Some fixed-income arbitrageurs exploit price disparities in nearly identical issues. For example, one of LTCM's (Long Term Capital Management's) most successful strategies involved buying Treasury bills in the secondary market some days after they were issued, and shorting new bills of the same maturity. This exploited the fact that newly issued bills are the most liquid and carry a liquidity premium. As they age, that premium evaporates, and their price can overshoot downward. Shorting new bills exploited their overpricing, and going long older bills exploited their underpricing.

Similar opportunities can exist among equities. For instance, Company A may own a large position in Company B, but if other factors are depressing A's stock price, it may be possible to effectively own shares in B at a lower price (by buying A's shares) than buying them directly. Owning shares in Royal Dutch Shell has occasionally been an economical way of owning its two parents.

The term "arbitrage" has taken on a broader meaning over time, applying to a wider range of opportunities.

It is not necessary that we arbitrage between prices for the same asset at different exchanges. Such strategies can be named after the instruments traded (e.g., commodities, fixed income, or equities) or the technique used to identify the arbitrage opportunity (e.g., statistical arbitrage, or "stat arb").

Statistical arbitrage refers to those investing strategies that seek to identify and exploit instances where the market price of an asset has (temporarily) deviated from its *true* price, or its intrinsic value. In this case the arbitrage is between the true price and the market price. Market prices above intrinsic value can be expected to fall, which suggests a short position. Prices below intrinsic value offer an opportunity to make money in a long position.

If a market is reasonably efficient (efficient markets are discussed in Chapter 8), such opportunities will be fleeting because investors will quickly bid up the price of undervalued assets, and bid down the price of overpriced assets. In other words, investors will "arbitrage away" these inefficiencies.

Another form of statistical arbitrage is based on a phenomenon called *regression to the mean*. An asset with a volatile price that is driven away from true value will in time return to its "mean" true value—how quickly it returns indicates the market's efficiency.

Value investing is another type of arbitrage that entails taking long positions in assets that the investor considers underpriced, in the expectation that price will eventually be bid up to the near-true value. Warren Buffett is the best-known value investor practicing today. Short investing is the opposite: taking short positions on assets the investor considers overpriced. David Einhorn is a well-known "short."

As in many other strategies, profit margins are small and opportunities may be rapidly competed away by other arbitrageurs. For these reasons, hedge funds often leverage extensively to maximize the volume of trades they can undertake, and use programmed or high-frequency trading systems to act on opportunities very quickly.

Bio: Steven Cohen, SAC Capital

Born: 1956

Firm: SAC Capital Advisers, Stamford, CT

Founded: 1992

Style: Equity arbitrage

How it Differentiates: Like Ray Dalio's Bridgewater, an intensely combative culture intended to generate the best ideas through extreme competition. Cohen believes that conviction and speed are critical to SAC's competitive advantage. He routinely makes very large bets—10 percent of the portfolio or more—very quickly. He believes that the alpha associated with an investing idea dissipates (i.e., is arbitraged away) within 20 days of its discovery. His firm has been accused of relying on inside information for much of its competitive advantage (see further text).

AUM: Peaked at $15 billion in early 2013; about $11 billion in summer of 2013; expected to fall to about $9 billion in 2014, all from founder and employees. Reductions due to client redemptions following insider trading criminal charges (see further text).

Cohen's background: Cohen, the son of a dress manufacturer and part-time piano teacher, grew up in Long Island. He attended Wharton, graduating in 1978. His first job was as a junior options arbitrage trader at Gruntal & Co., rising quickly by 1984 to lead a team of traders that generated an average $100,000 profit per day. He left Gruntal in 1992 to found SAC with

$20 million in personal funds. In 2013 Cohen was estimated to be worth over $9 billion dollars, among the richest Americans. He was also on Time *magazine and* Bloomberg Businessweek's *lists of the most influential Americans.*

Insider trading indictment: In the spring of 2013, SAC Capital was indicted by the SEC for insider trading. Cohen required all "high conviction" trade ideas to be approved by him personally; many are alleged to be based on information from insiders at the traded companies. Five former SAC traders were also indicted, and three have confessed as of August 2013. Cohen is under administrative review by the SEC but has not been charged.

Color: Cohen has spent hundreds of millions on Impressionist and contemporary art, including a landscape *entitled "Police Gazette" by artist* Willem de Kooning *for $63.5 million; and $25 million each for a* Warhol *and a* Picasso. *In 2006, Cohen attempted to make the most expensive art purchase in history when he offered to purchase* Picasso's Le Reve *from casino mogul* Steve Wynn *for $139 million. Just days before the painting was to be transported to Cohen, Wynn, who suffers from poor vision due to* retinitis pigmentosa*, accidentally thrust his elbow through the painting while showing it to a group of acquaintances inside of his office at* Wynn Las Vegas. *The purchase was canceled, and Wynn still held the painting until early November 2012, when Cohen purchased the painting for $150 million.*