Wykład 9

Fundusze arbitrażowe

(*hedge funds*)

Dlaczego klasycznym funduszom inwestycyjnym, operującym głównie na rynkach akcji i obligacji, trudno jest „pokonać" rynek?

Oba rynki są..

Bardzo płynne

a więc są informacyjnie efektywne,
co oznacza, że
występują na nich
niewielkie anomalie cenowe

Jak można inwestować,
by zmniejszyć rolę
ślepego trafu
(ryzyka rynkowego)?

Arbitraż

Relative value trade

Arbitraż

- (1) zmniejsza ryzyko związane ze spekulacją stabilizującą - obliczoną na powrót ceny/spreadu do poziomu wynikającego z czynników fundamentalnych

- (2) umożliwia osiąganie zysków dzięki analizie fundamentalnej.

Fundusz Alfreda Jonesa (1949)

Zakup akcji spółek tej samej branży, których ceny są niedoszacowane

Krótka sprzedaż akcji spółek określonej branży, których ceny są przeszacowane

Arbitraż + dźwignia

Przed ryzykiem rynkowym chroni nas to, że wybieramy aktywa, których ceny zmieniają się równolegle

Zakup akcji spółek tej samej branży, których ceny są niedoszacowane

Krótka sprzedaż akcji spółek określonej branży, których ceny są przeszacowane

PERSONAL INVESTING

Those fantastic, "hedge funds"
Capital gains in coins

The Jones Nobody Keeps Up With

Alfred Winslow Jones

There are reasons to believe that the best professional manager of investors' money these days is a quiet-spoken, seldom photographed man named Alfred Winslow Jones. (The picture above was taken while he was on vacation in Mexico City recently.) Few businessmen have heard of him, although some with long memories may remember his articles in FORTUNE; he was a staff writer in the early 1940's. In any case, his performance in the stock market in recent years has made him one of the wonders of Wall Street—and made millionaires of several of his investors. On investments left with him during the five years ended last May 31 (when he closed his 1965 fiscal year), Jones made 325 percent. Fidelity Trend Fund, which had the best record of any mutual fund during those years, made "only" 225 percent. For the ten-year period ended in May, Jones made 670 percent; Dreyfus Fund, the leader among mutual funds that were in business all during that decade, had a 358 percent gain.

The vehicle through which Jones operates is not a mutual fund but a limited partnership. Jones runs two such partnerships, and they have slightly different investment objectives. In each case, however, the underlying investment strategy is the same: the fund's capital is both leveraged and "hedged." The leverage arises from the fact that the fund margins itself to the hilt; the hedge is provided by short positions—there are always some in the fund's portfolio. There are about sixty investors in each of the two funds, and their average investment now works out to about $460,000.

Jones's accomplishments have spawned a number of other "hedge funds." In the last two years, two of Jones's principal associates have left his organization and set up limited partnerships of their own. One is known as City Associates (it has capital of about $17,000,000), the other as Fairfield Partners ($14 million); both have had outstanding performance records. This month a new partnership, Fleschner Becker Associates, will go into business as a hedge fund; its principals are Wall Street brokers who have done business with Jones over the last few years. Besides these partnerships, a number of other hedge funds are operating on a small scale.

In addition, a small brokerage firm named L. Hubshman & Co., which has also done business with Jones, has bypassed the partnership pattern and is setting up an open-end investment company (i.e., a mutual fund), the Hubshman Fund, which will invest on hedge-fund principles. It remains to be seen whether a regulated investment company can use Jones's technique as effectively as a private partnership does. Meanwhile Hubshman's move opens the way for a large number of investors to buy themselves a stake in the hedge-fund idea.

A sociologist on Wall Street

For most of his life Jones, who is now sixty-five, was more interested in sociology and in writing than he was in the stock market. In 1938 he set out to get his Ph.D. in sociology at Columbia University. While working toward the degree, he served as director of Columbia's Institute for Applied Social Analysis and undertook for it a major project on class distinctions in the U.S. The project became the basis for his doctoral thesis, which was published under the title *Life, Liberty, and Property* (two years ago it was reprinted by Octagon Books, Inc.). FORTUNE asked Jones to condense the book into an article (February, 1941) and hired him as a writer. Over the next five years (part of it spent with *Time*) he wrote articles on such non-financial subjects as Atlantic convoys, farm cooperatives, and boys' prep schools. He left Time Inc. in 1946, but in March, 1949,

Carol J. Loomis
„The Jones Nobody Keeps up With"
April 1966

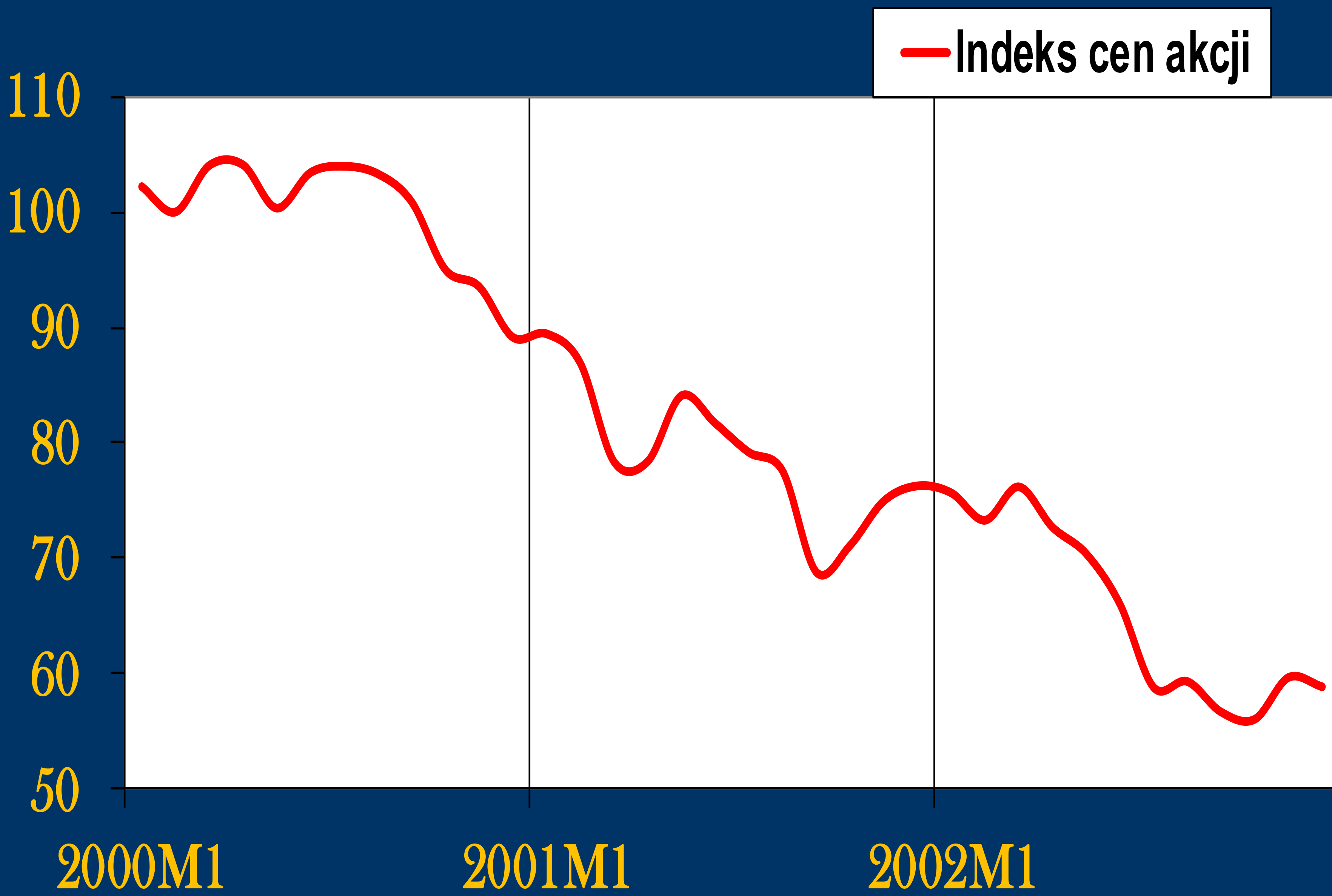
- „The logic of the idea was very clear. It was a hedge against the vagaries of the market”.

Alfred Winslow Jones: „The Long and Short of the Founding Father”, *Institutional Investor*, August 1968

- Rosnącą popularność funduszy arbitrażowych przyniósł zwłaszcza spadek indeksów na giełdzie w latach 2000-2002

- W latach 2000-2002 fundusze arbitrażowe obiecywały, że mogą osiągać zyski nawet w okresie spadku cen akcji.

S&P 500



Oczywiście, czynnikami, które umożliwiły rozpowszechnienie się funduszy arbitrażowych były także:

- (1) globalizacja rynków finansowych, która umożliwiła powstanie wielu rynków płynnych, dzięki czemu pojawiła się łatwość zawierania transakcji arbitrażowych, a w tym
- (2) pojawienie się wielu rynków instrumentów pochodnych, których ceny zmieniają się równolegle do zmian cen ich instrumentów bazowych.

- Zadziałało oczywiście także sprzężenie zwrotne pomiędzy pojawieniem się płynnych rynków i rozpowszechnieniem się funduszy arbitrażowych

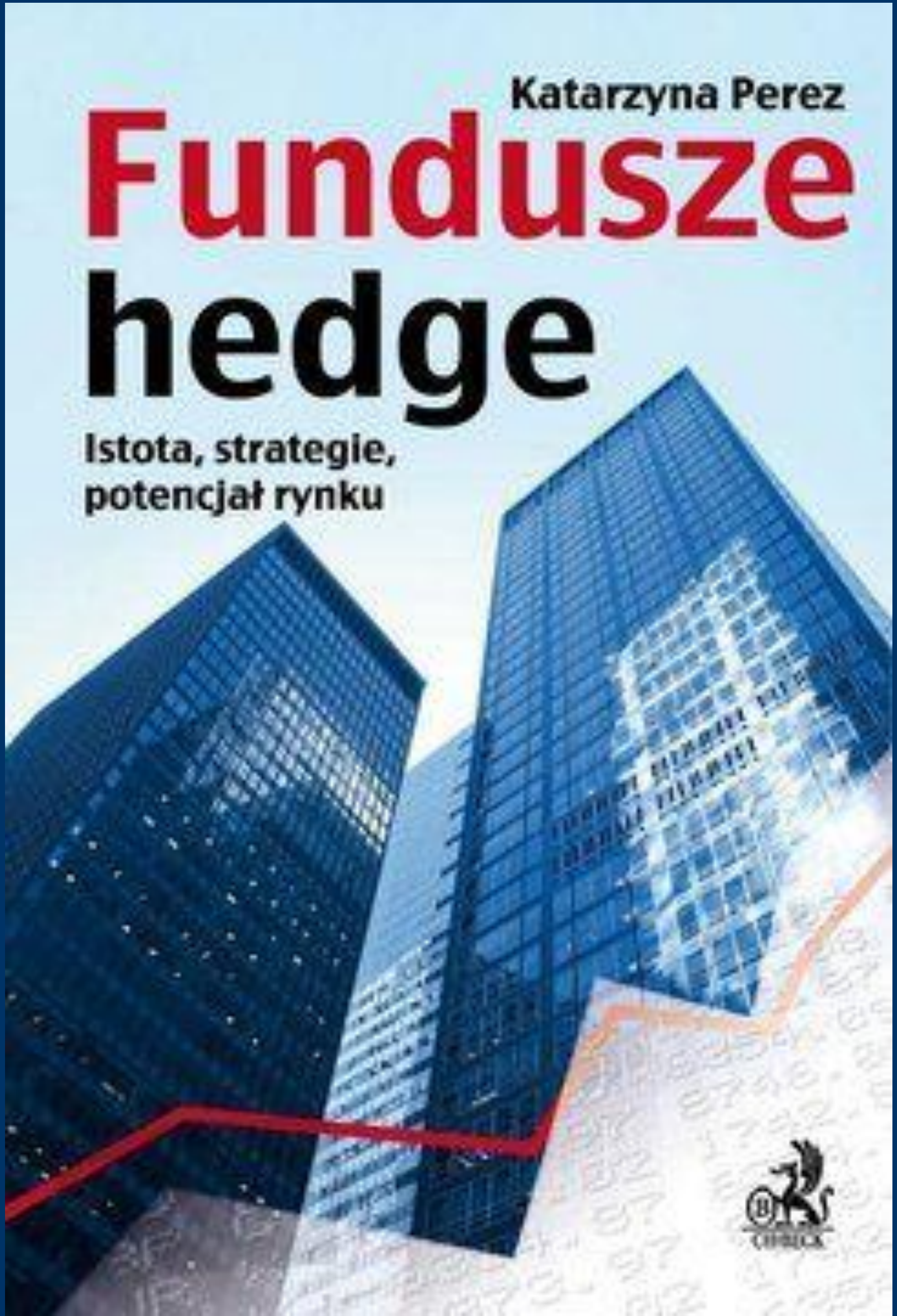
Rycerze Alfy

- Turnover is higher for hedge funds than for mutual funds
- Hedge funds hold smaller stocks, riskier stocks, value stocks, fewer past winners
- Hedge funds hold less liquid, cheaper and less covered (by analysts) stocks

Griffin J. M., Jin X. (2009) „How Smart are the Smart Guys?. A Unique View from Hedge Fund Stocks Holdings" *The Review of Financial Studies*, vol. 22 pp. 2531-2570

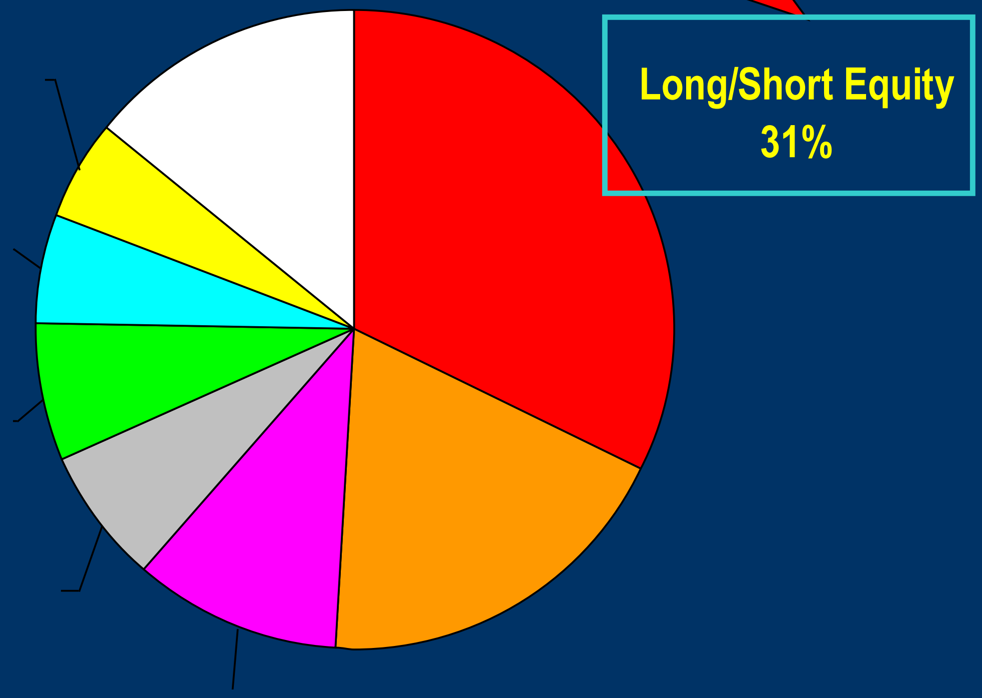
- According market reports,
- about **30%** of the trading volume on the New York Stock Exchange and the London Stock Exchange is by hedge funds.
- Hedge funds accounts for **45%** of the transaction volume in emerging bonds,
- **47%** in distressed debt,
- and **25%** of high-yield bonds.
- Hedge funds accounted for **55%** of the credit derivatives trading volume.

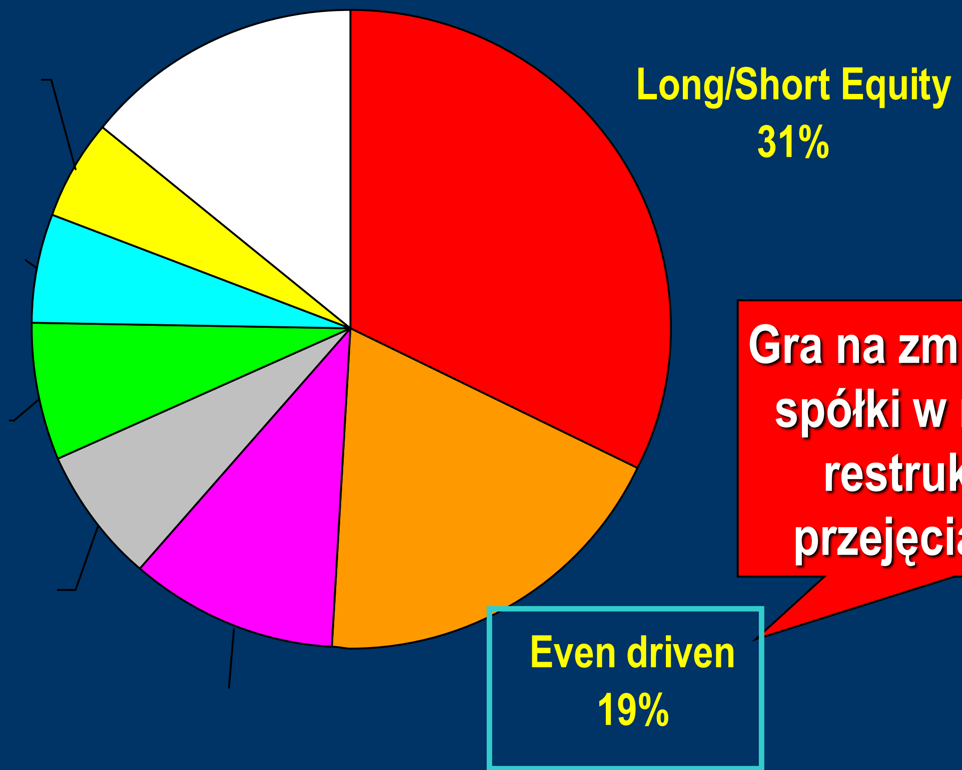
ICMB, 2006


Katarzyna Perez
Fundusze
hedge
Istota, strategie,
potencjał rynku

Jakie podstawowe strategie stosują fundusze arbitrażowe?

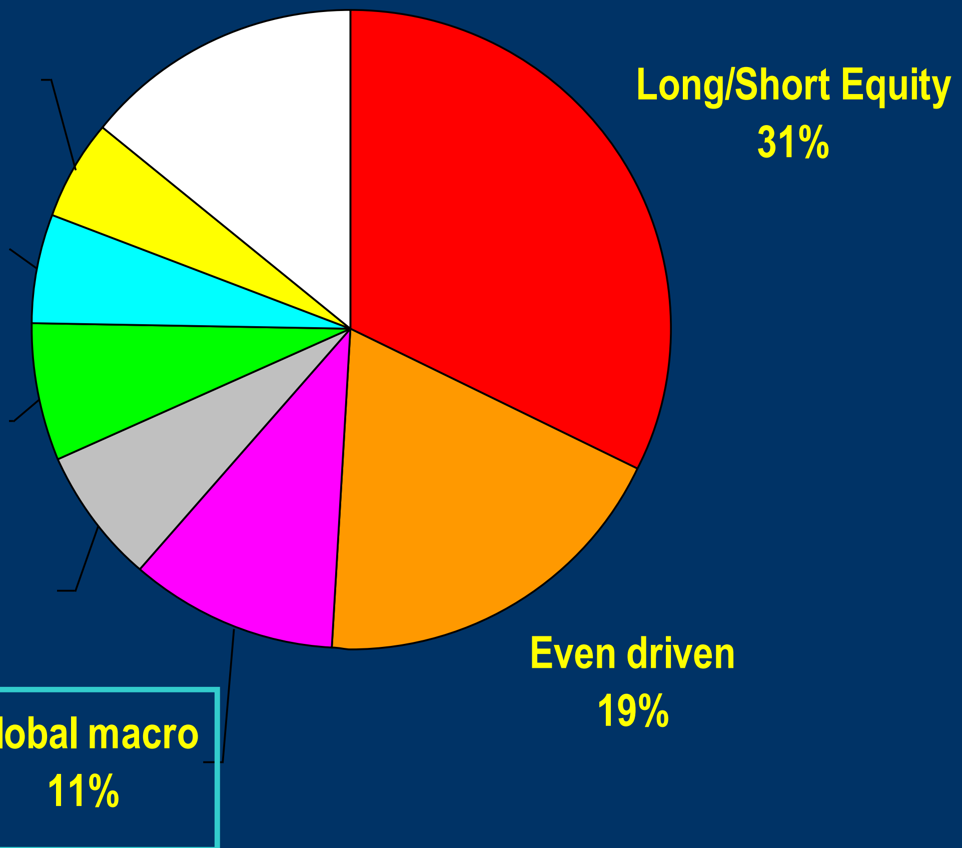
Transakcje przeciwstawne bez całkowitego zneutralizowania ryzyka rynkowego :
„Mogę nie mieć racji ,
ale chyba mam”



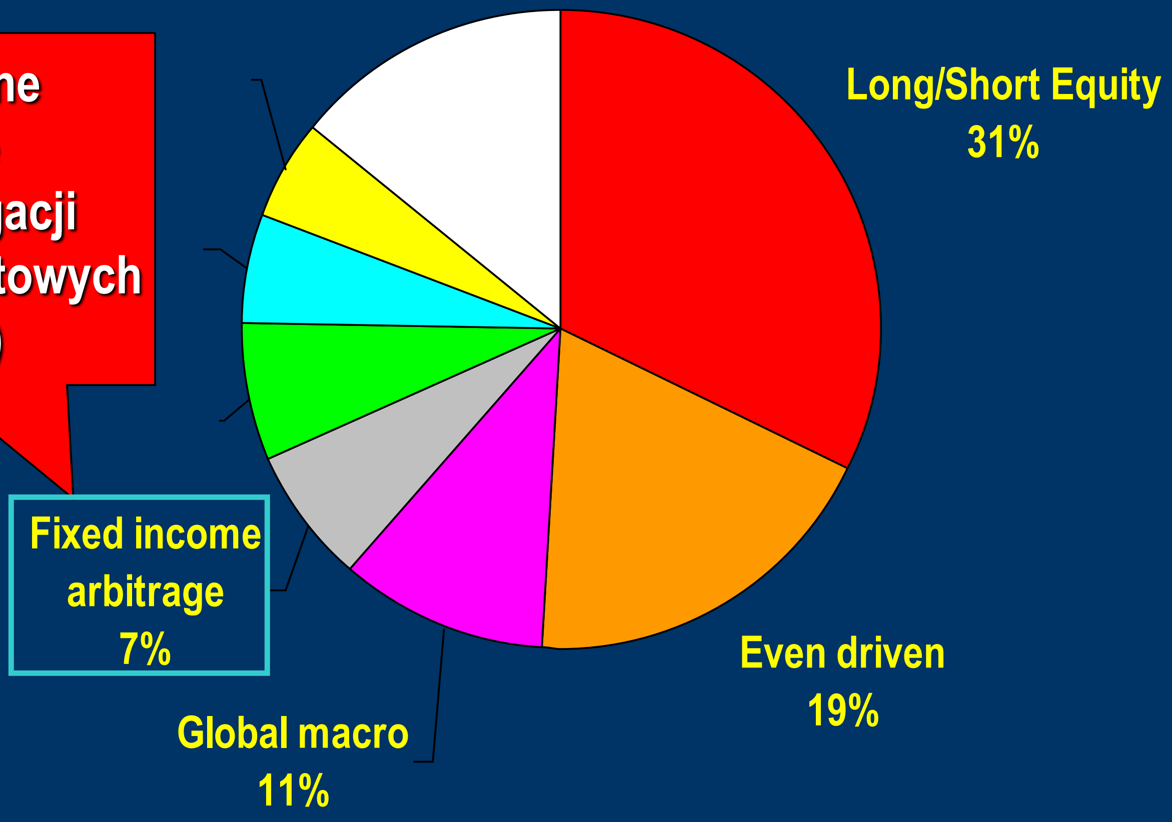


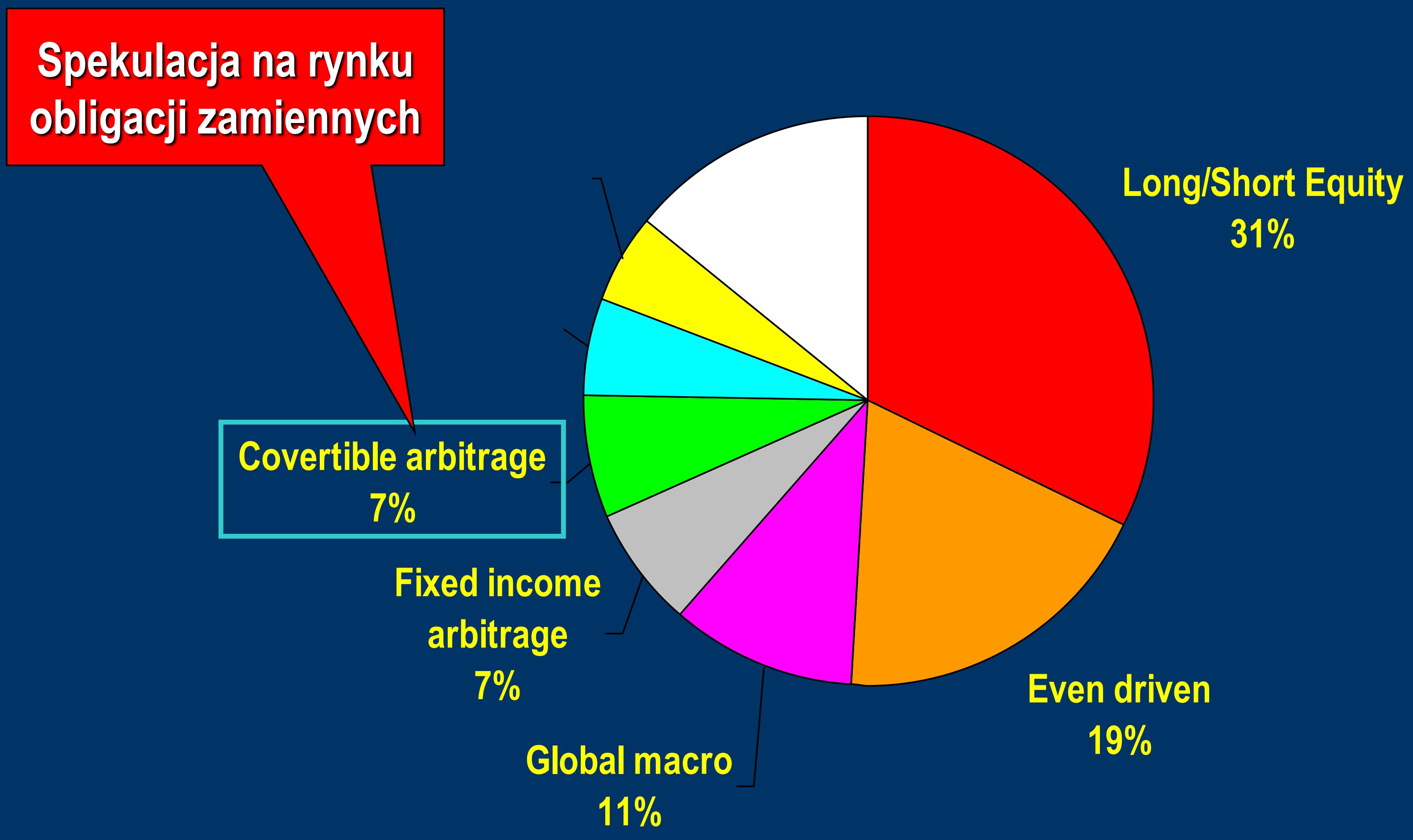
Gra na zmiany wartości spółki w następstwie restrukturyzacji, przejęcia, fuzji, etc.

Gra na zmiany sytuacji w gospodarkach różnych krajów

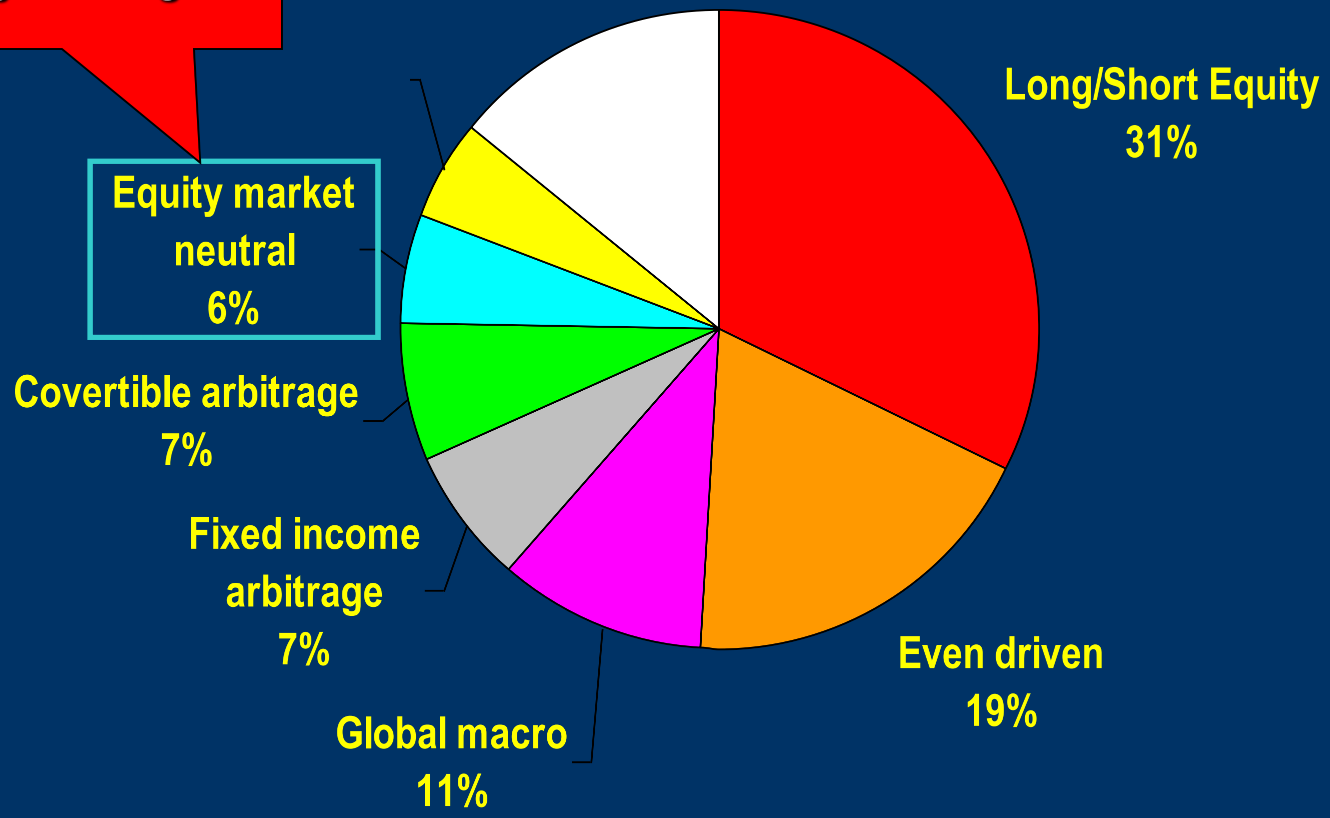


Przeciwstawne transakcje na rynku obligacji i swapów procentowych (np. LTCM)

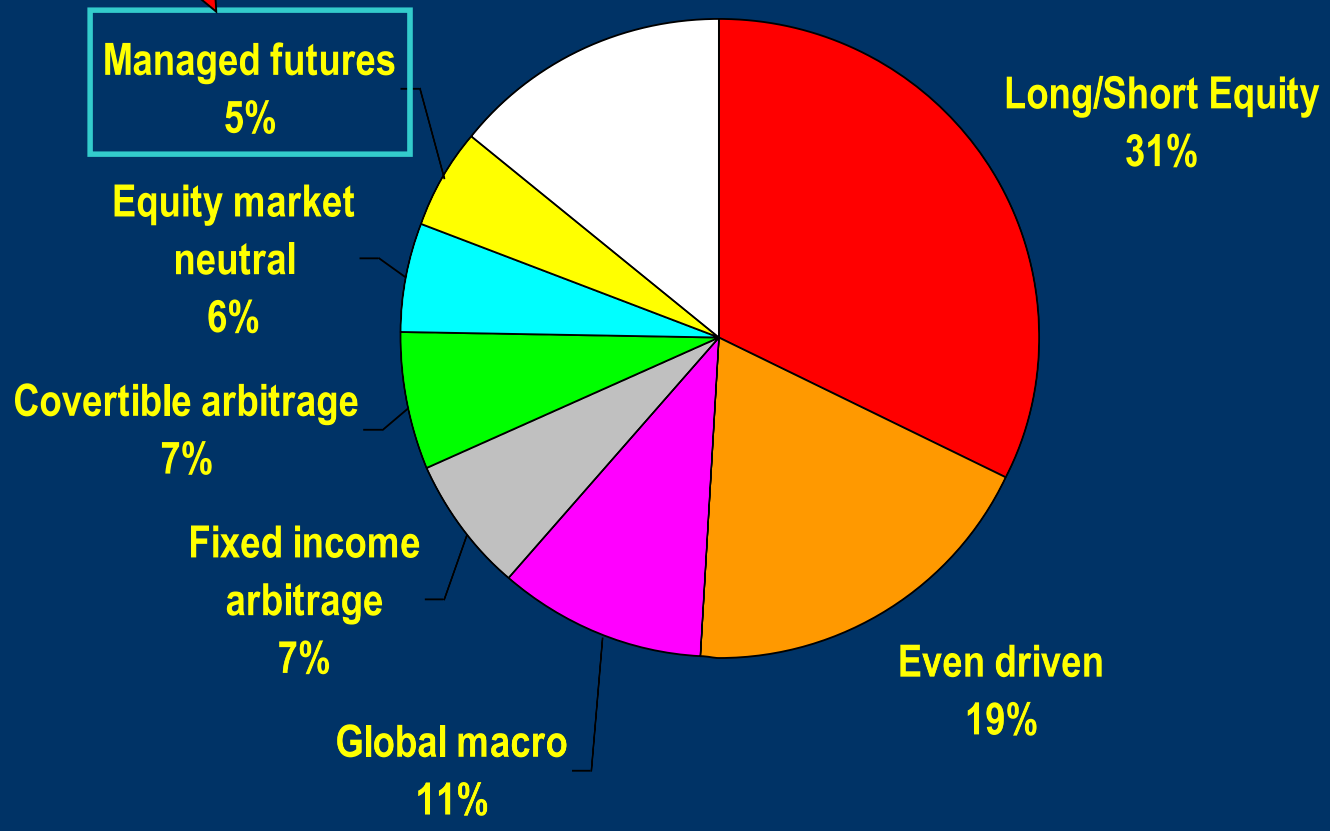


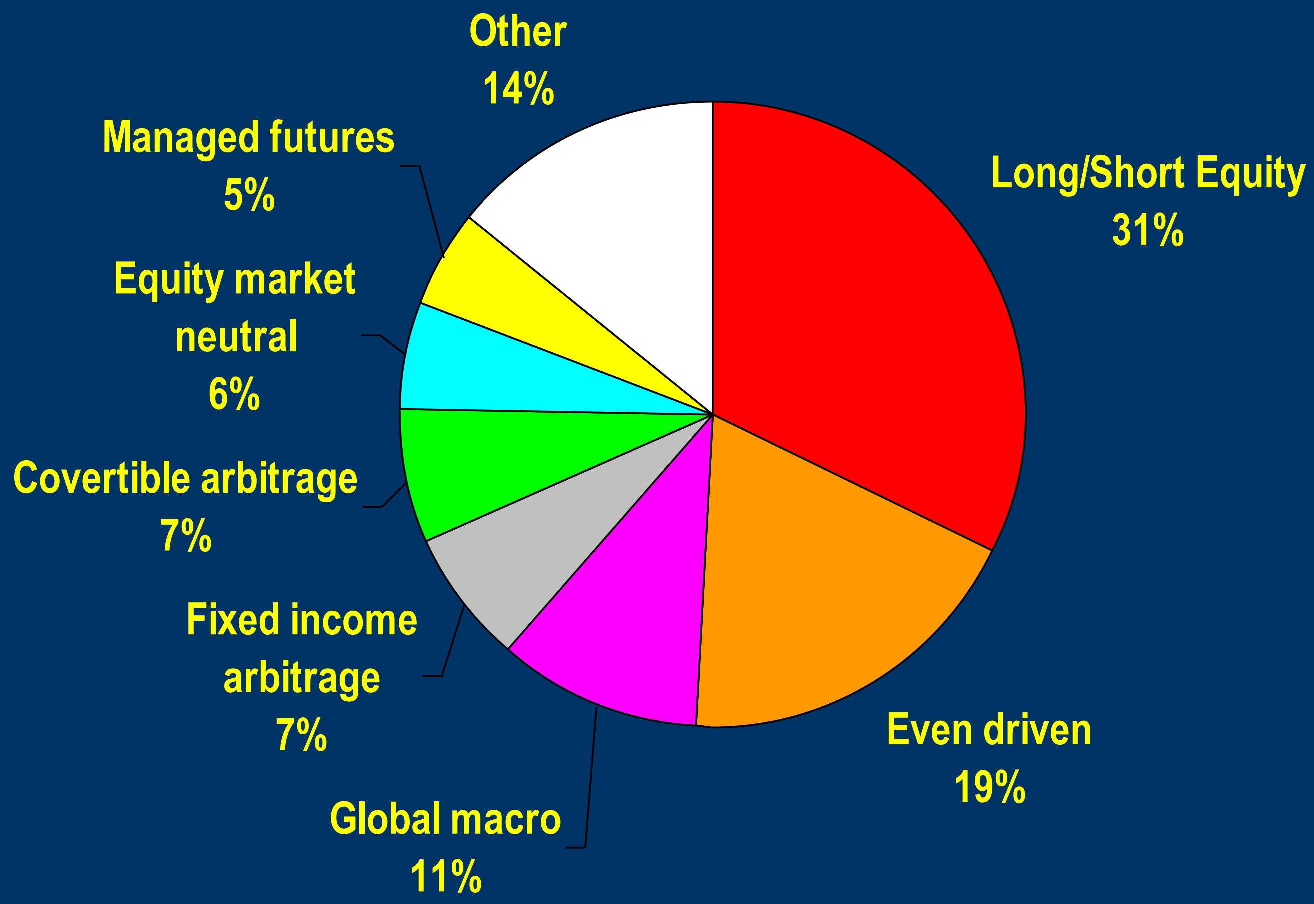

Spekulacja na rynku obligacji zamiennych
Long/Short Equity
31%
Even driven
19%
Global macro
11%
Fixed income arbitrage
7%
Covertible arbitrage
7%

Transakcje przeciwstawne z całkowitą neutralizacją ryzyka rynkowego



Spekulacja na rynkach terminowych (np. kontraktów na ropę)




Other
14%
Long/Short Equity
31%
Managed futures
5%
Equity market neutral
6%
Covertible arbitrage
7%
Fixed income arbitrage
7%
Global macro
11%
Even driven
19%

- Badania Malkiela i Sahy wykazały, że w okresie 1995 to 2003, fundusze arbitrażowe miały przeciętnie ujemną alfę w wysokości **-3,5%**,

Dlaczego więc zamożni inwestorzy lokują w nich pieniądze?

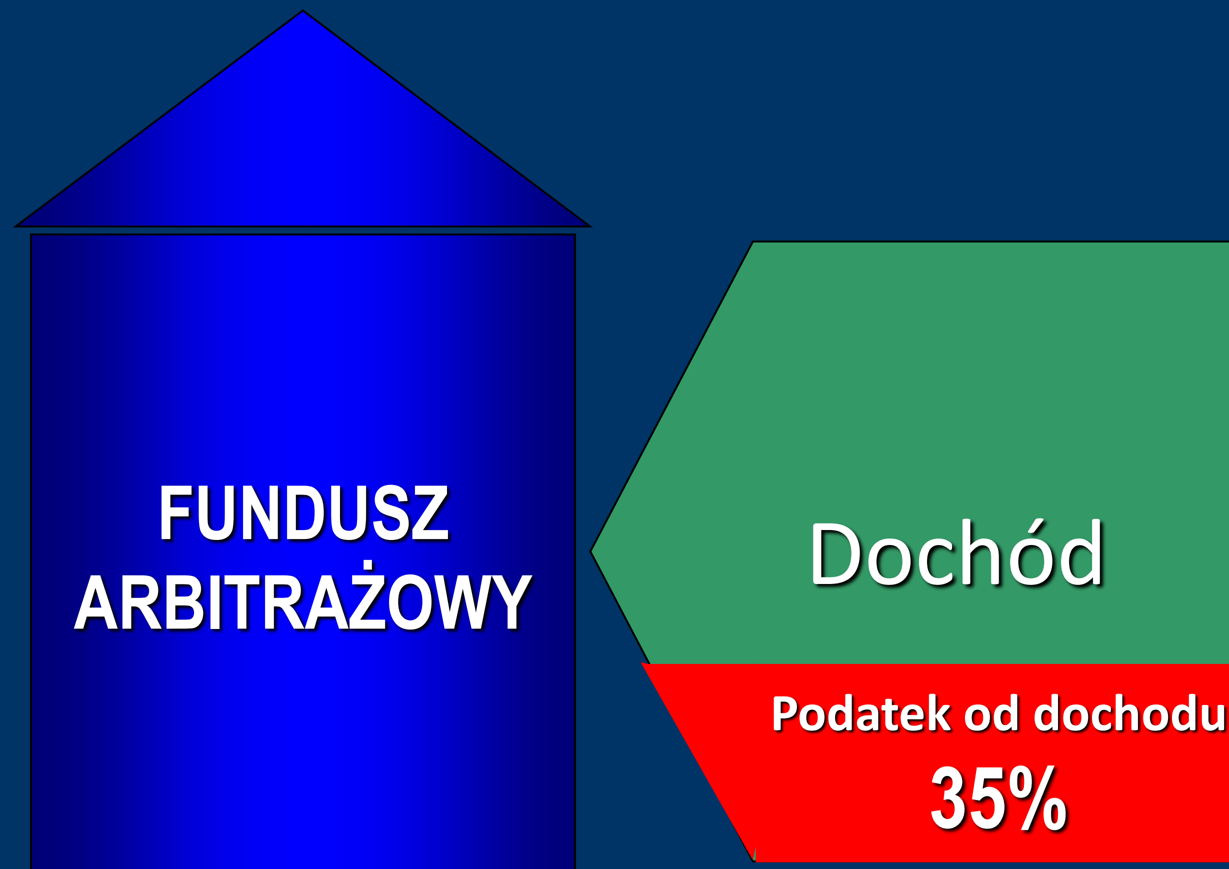
B. Malkiel, A. Saha, „Hedge Funds: Risk and Return”, *Financial Analyst Journal*, 61, no. 6, 2005, pp. 80-88

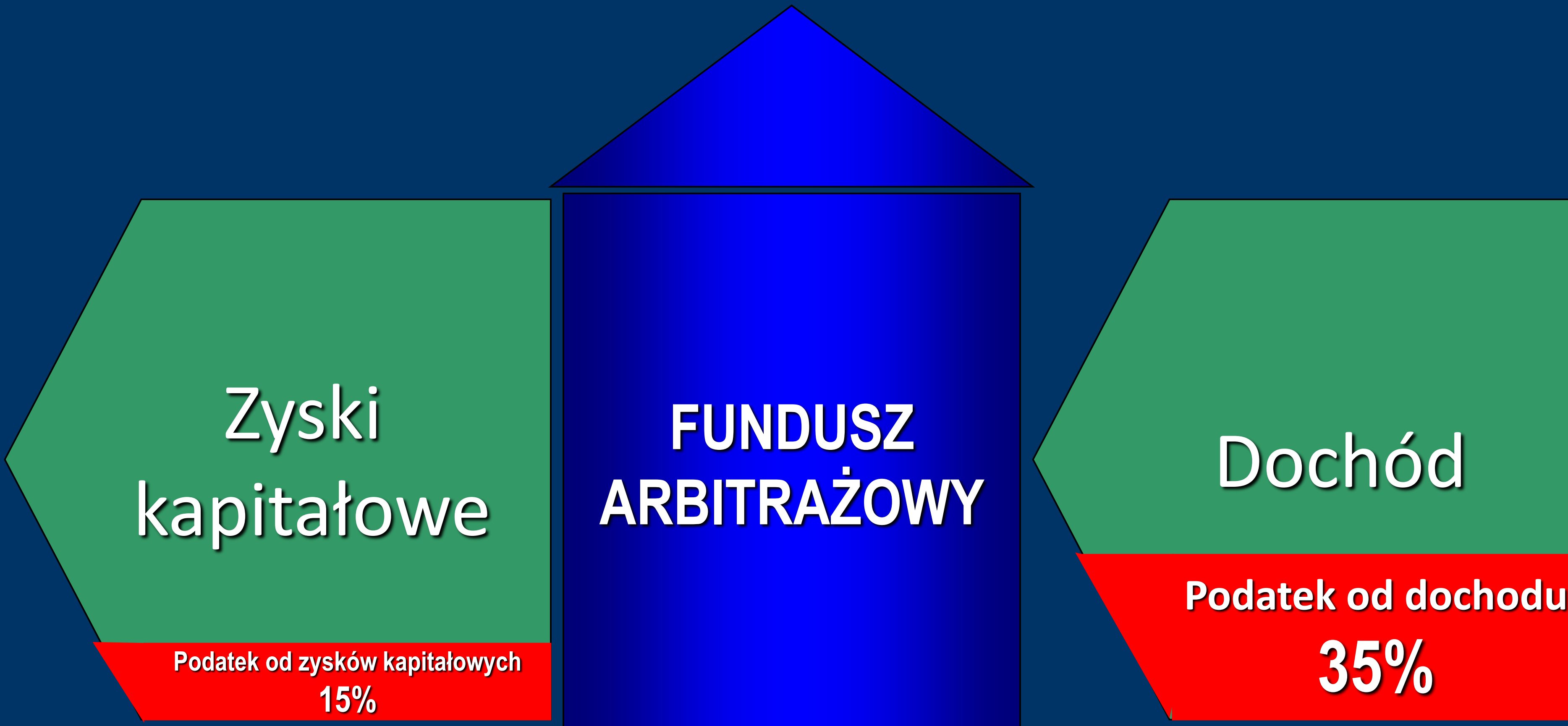
Dochód

Dochód

Podatek od dochodu

35%


FUNDUSZ ARBITRAŻOWY
Dochód
Podatek od dochodu
35%


Zyski kapitałowe
Podatek od zysków kapitałowych
15%
FUNDUSZ ARBITRAŻOWY
Dochód
Podatek od dochodu
35%

Jaka jest podstawowa słabość strategii *relative value*?

- The problem is that while the profit opportunity might be easily captured, the resulting profit is very small.

Richard Bookstaber, A Demon of Our Own Design, 2007, s. 101

- Fundusze arbitrażowe i dealing roomy banków stosują się dźwignie;
- by zwiększyć stopę zwrotu.

- The very act of using large leverage increases the likelihood that things will go against you.
- “A spread trade is like a stick with s…t on both ends”

Richard Bookstaber, A Demon of Our Own Design, 2007, s. 101

„Jesteśmy jak wielki odkurzacz, zbierający miedziaki na całym globalnym rynku finansowym" /LTCM/

Anomalie cenowe

„Zbieracie miedziaki spod
walca drogowego,
który zmierza w waszą stronę”
/Nassim Taleb/

Anomalie cenowe

- **In 2008 hedge fund returns averaged – 20%**

- **Over 3 300 hedge funds out of 9 000 ceased operations.**

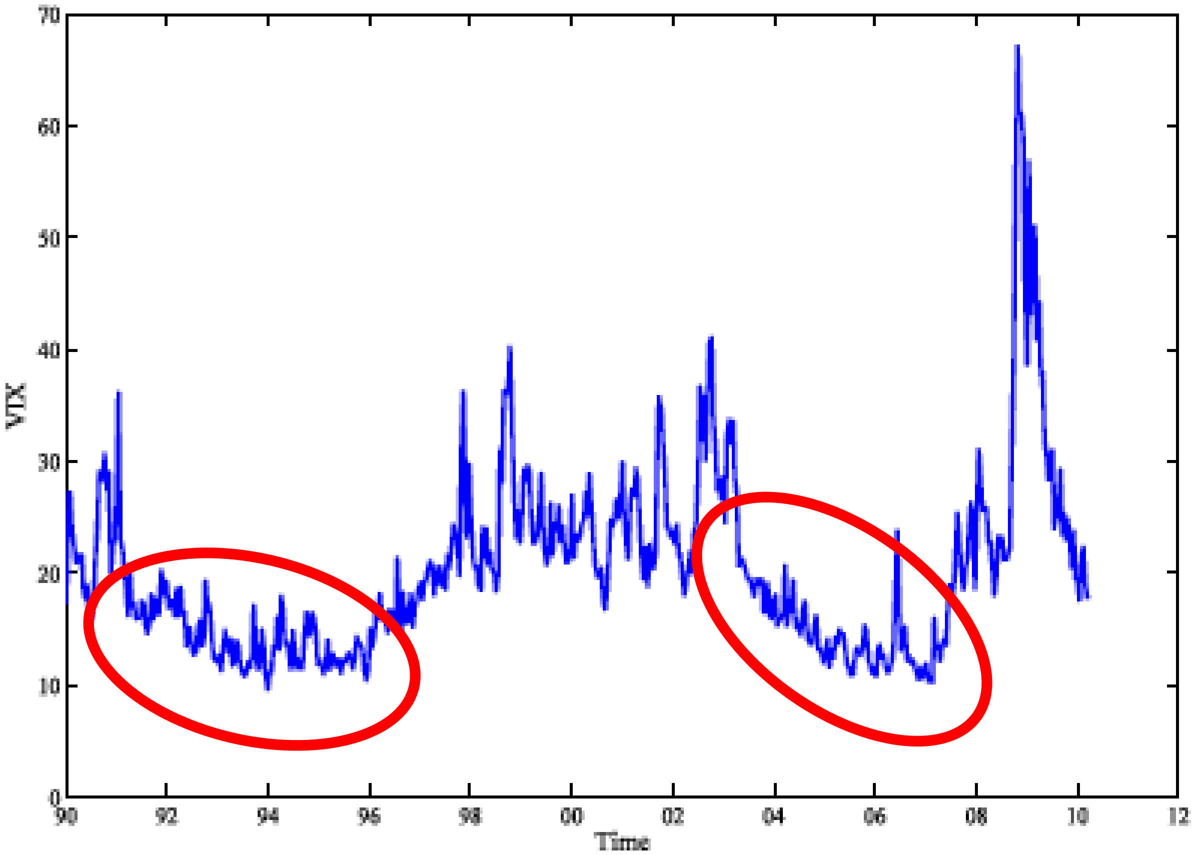
Satyajit Das, 2011, s 285

- The boom in computer-driven hedge funds in recent years meant there was a risk that many used the same basic models, and so selected the same stocks.
- All were badly hit early in the month when their computers failed to anticipate the degree of overlap between their models, leading to heavy selling of stocks in which all had invested.
- Most quant models are **backward looking** and when there are substantial changes in volatility, they struggle

Financial Times, September 10, 2007

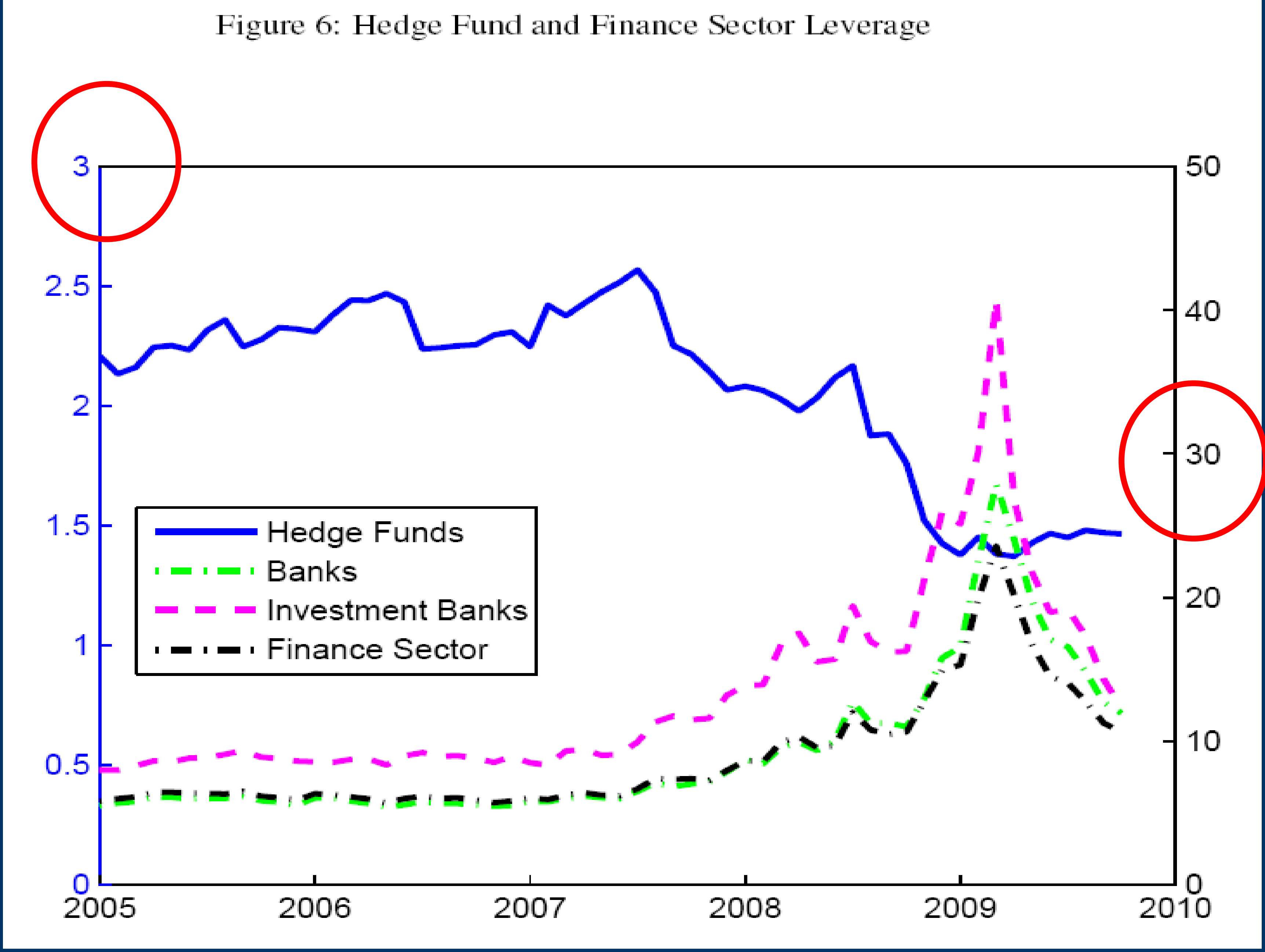
Figure 9: VIX Index

This figure depicts the VIX index (the Chicago Board Options Exchange volatility index), a widely used equity market volatility measure derived from the implied volatility of S&P 500 index options.



Tang K., Xiong W. (2010). Index Investment and Financialization of Commodities, NBER Working Paper, no. 16385, September

Dlaczego fundusze arbitrażowe stosują niższe dźwignie niż banki, mimo, że to właśnie je określa się w literaturze jako Highly Leveraged Institutions?



A. Ang, „Hedge Fund Leverage", NBER Working Paper No. 16801, February 2011

Kto to powiedział?

I de-leveraged too soon...

I can justify my decision to reduce leverage...

I decided to wait before my plan of deleveraging...

I want to reduce the leverage...

This has eliminated my leveraged exposure...

/ George Soros, Alchemy of Finance /

FUNDUSZ ARBITRAŻOWY = Inwestycje alternatywne + Elastyczne stosowanie dźwigni

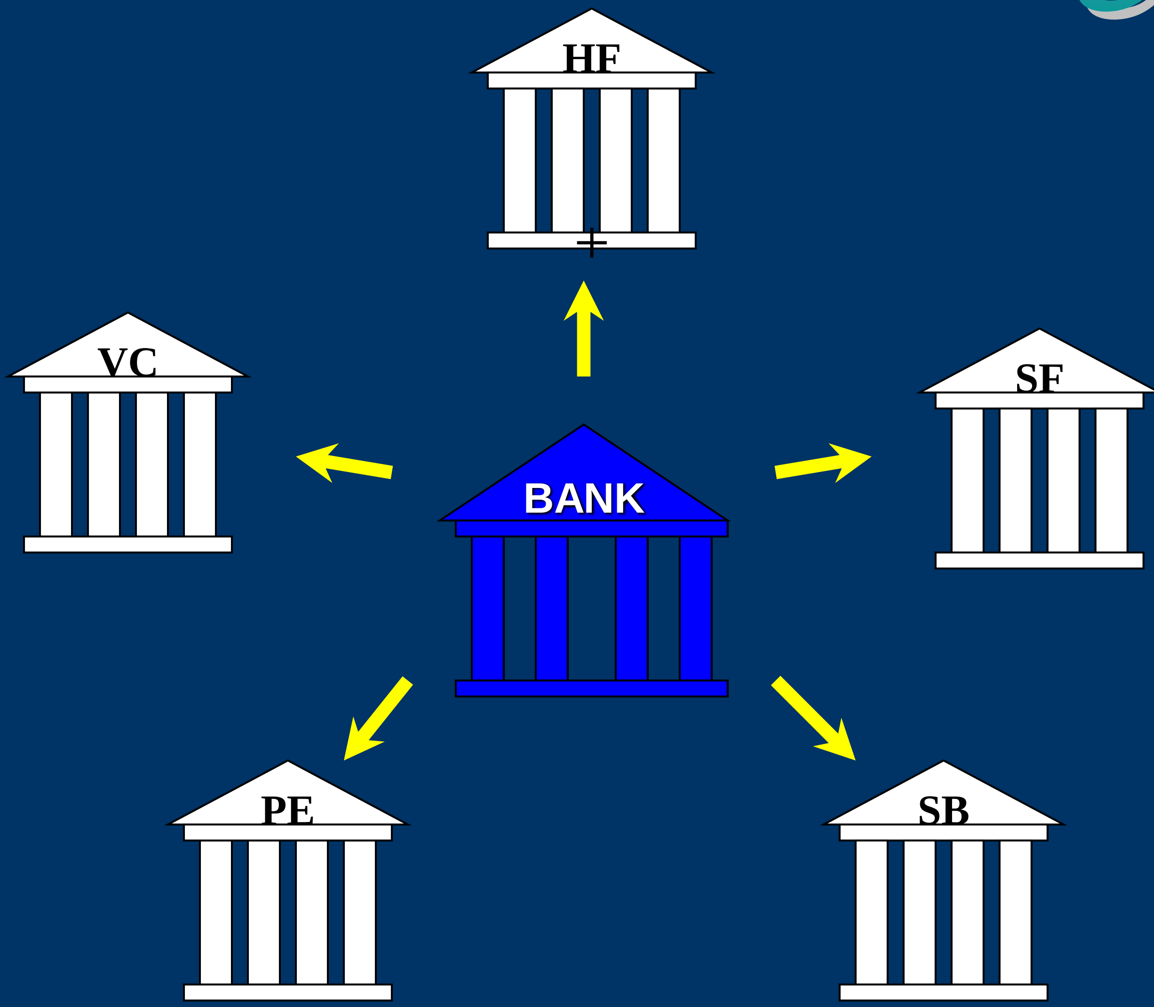
Dlaczego duże banki tworzyły fundusze arbitrażowe?

- Banks love hedge funds.
- Investments banks set up 'incubators" to help budding traders create them
- Investment banks helped set them up, invested in them, and traded with them. A whole new service developed – 'prime brokerage'.
- This combined :
- settling and clearing hedge fund trades,
- execution services
- and (the most lucrative) lending money to hedge funds against the value of securities that the fund had.

Tylko banki (komercyjne i inwestycyjne) mają dostęp do płynnych rezerw (środka płatniczego obowiązującego w systemie finansowym), ponieważ tylko one mają prawo przeprowadzać transakcje z bankiem centralnym. Tylko one mogą oferować linie kredytowe dla innych instytucji finansowych.

Satyajit Das, 2006, s 309

Prime brokerage



- At their peak, hedge funds accounted for 30-40 percent of total investment bank earnings.

Dlaczego ?

Satyajit Das, 2011, s 285

- Wall Street's edge is knowledge and integration. The large investment banks know more than any other institutions and organizations about the economy.
- Through their asset management and retail investors arms they can sense the mood of savers before it translates into marketplace action.
- Through their broker-dealer businesses they have their fingers on the pulse of market movements as they happen, tracking prices formations and customers flows.
- Through their corporate advisory departments they can learn of strategic changes in the way the business world is thinking.
- Through diverse groups of businesses such as consumer credit and insurance they are able to anticipate significant changes in the real economy.
- Integration as practiced by the world's big investment banks is what converts knowledge into The Edge

Phillip Augar, 2005

Jakie są, nie licząc szczęścia, recepty na Alfę?

- Mr James Simons, president of hedge fund group Renaissance Technologies took home $1.7 bn last year. That makes Mr Simons the most successful fund manager of all time, ahead of legendary investors including George Soros.
- Renaissance has reportedly spent $600 million on computers and other technology. Mr Simons and his army of PhD's gather mountains of data and search for patterns, or "signals" that will tell them what is going to happen. The signals highlight anomalies.

Financial Times, April 28, 2007

- Liquidity risk,
- Complexity risk,
- Model risk
- - are not measured properly.

Satyajit Das, 2011, s 285

- Adjusted properly for

- leverage risk,
- liquidity risk,
- and complexity risk,

- most hedge funds return, would be at best the same as of frequently less than traditional investments.

Satyajit Das, 2011, s 285

Czy fundusze arbitrażowe szukają Alfy tylko przy wykorzystaniu modeli ekonometrycznych?

- In 2004, Tower Automotive, which supplies truck frames to the auto industry, borrowed roughly $580 million. As its financial condition deteriorated, Tower began looking for an additional loan to improve its cash position.

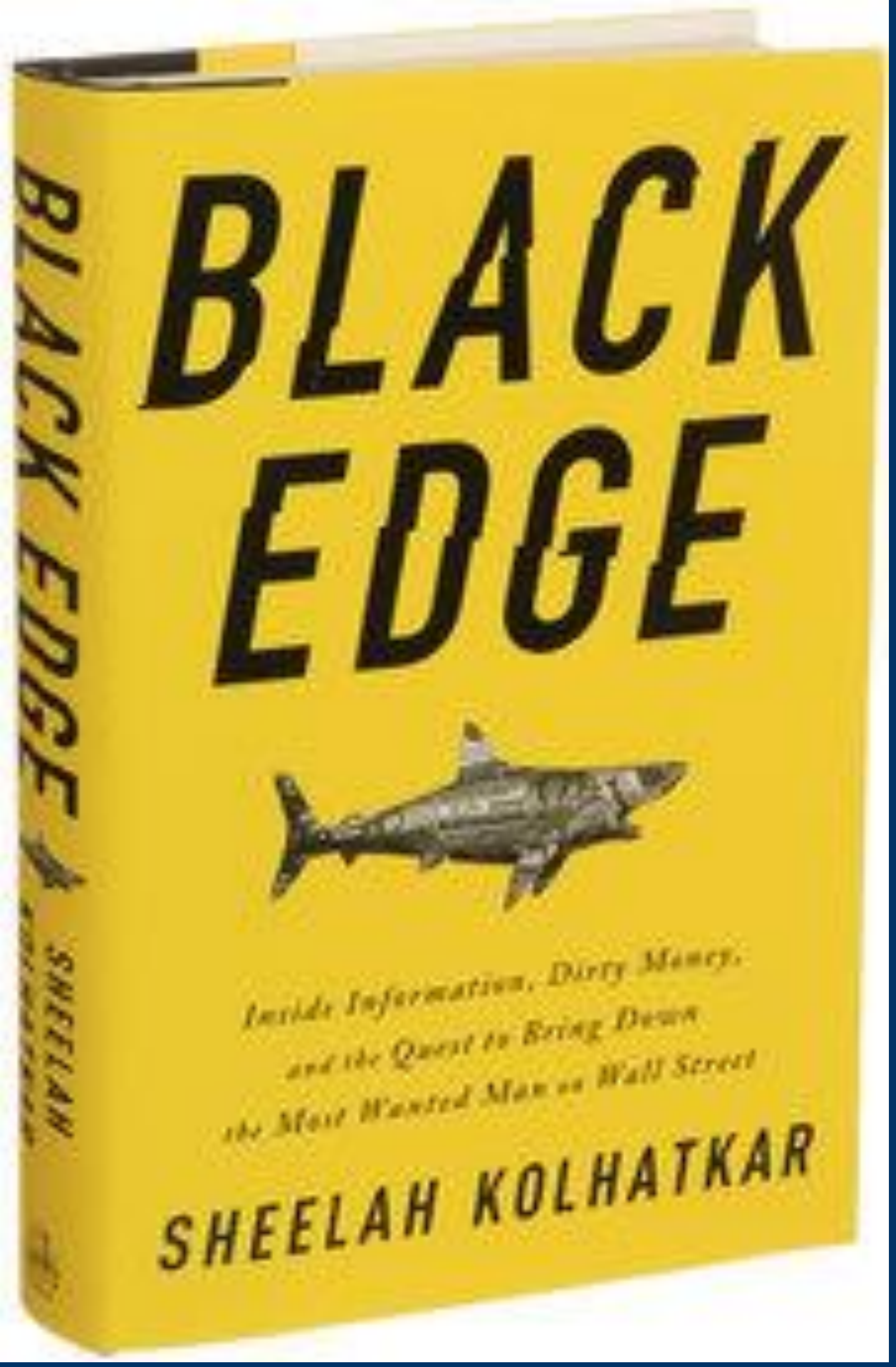
- Banks that had participated in the earlier loan were willing to make concessions, on the view that the new loan might enable Tower to avert bankruptcy.

- Hedge fund participants, on the other hand, would have none of it, which meant no concession under the existing loans and therefore no new loan. Two months later, Tower filed for Chapter 11.

H. Sender, „Hedge Funds Shake Up Lending Arena”, *Wall Street Journal*, July 18, 2005

- Hedge funds also had shorted Tower stock - that is, they borrowed its stock and stood to profit if the value of the stock declined.

H. Sender, „Hedge Funds Shake Up Lending Arena", *Wall Street Journal,* July 18, 2005


BLACK
EDGE
Inside Information, Dirty Money,
and the Quest to Bring Down
the Most Wanted Man on Wall Street
SHEELAH KOLHATKAR
BLACK EDGE
SHEELAH KOLHATKAR

**Podsumowanie:
czym różnią się
fundusze arbitrażowe
od klasycznych funduszy
inwestycyjnych?**

AKTYWNIE ZARZĄDZANE FUNDUSZE INWESTYCYJNE	FUNDUSZE ARBITRAŻOWE
Stosują portfele odniesienia	Nie stosują portfeli odniesienia
Nie stosują dźwigni	Stosują dźwignię
Podejmują ryzyko rynkowe	Zabezpieczają się przed ryzykiem rynkowym

- Average hedge fund gained a mere **3 percent in 2014 versus an 11 percent rise in the Standard&Poors Index.**
- That's hardly worth paying a hedge fund outsized **2 percent** ,management fees plus a **20 percent** cut of the profits.

„Barry Ritholtz (2015) „The Most Fascinating Investing Paradox"
Wall Street Journal, 12 February

- The entire hedge industry is designed to channel assets into hedge funds.
- Everyone –
- consultants
- advisers
- funds of funds,
- capital introduction groups of primer brokers –
- recommends investing in hedge funds.
- Nobody is providing the opposite view.

[How Do Hedge Funds Get Away With It? Eight Theories](http://www.newyorker.com/news/john-cassidy/how-do-hedge-funds-get-away-with-it-eight-theories)
„http://www.newyorker.com/news/
john-cassidy/how-do-hedge-funds-get-away-with-it-eight-theories 2014 May 14