



FGS CAPITAL

Advanced Topics in Alternative Asset Management: Strategies, Structures and Techniques

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Overview

Advanced topics in investment management and trading

- Practical
 - Relevant to today's markets
 - Indicative of evolution of asset management business
1. Trading business structures: Hedge Funds
 2. Trading strategies: Arbitrage
 3. Techniques: Short Selling
 4. Market Innovation: High Frequency Trading

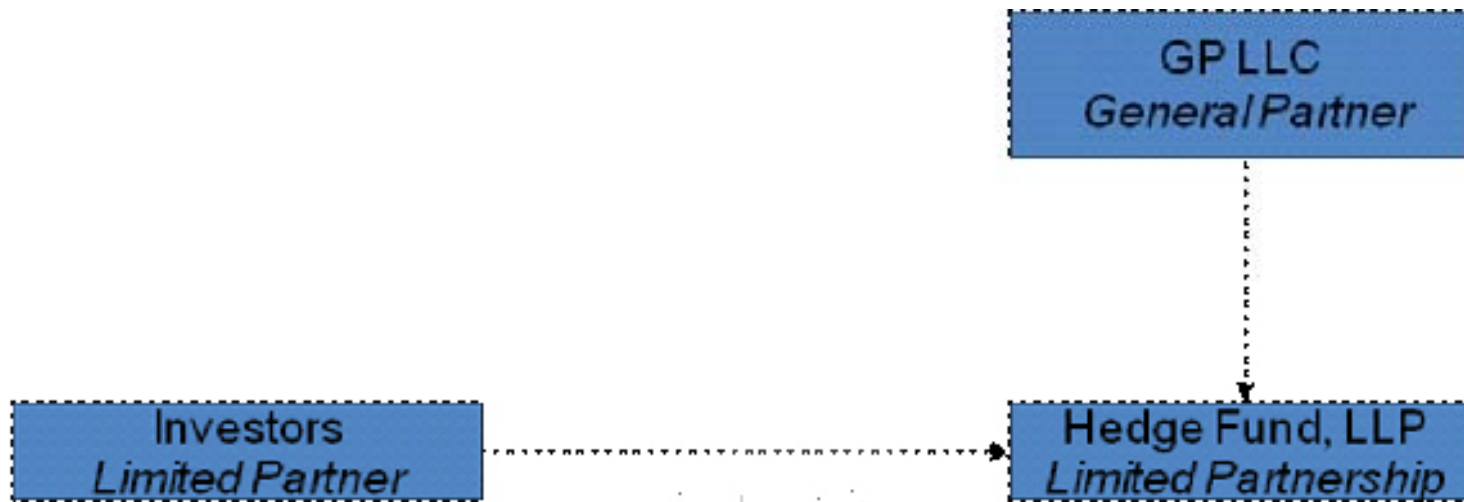
Investment Management Structures and Vehicles: Hedge Funds

What is a Hedge Fund?

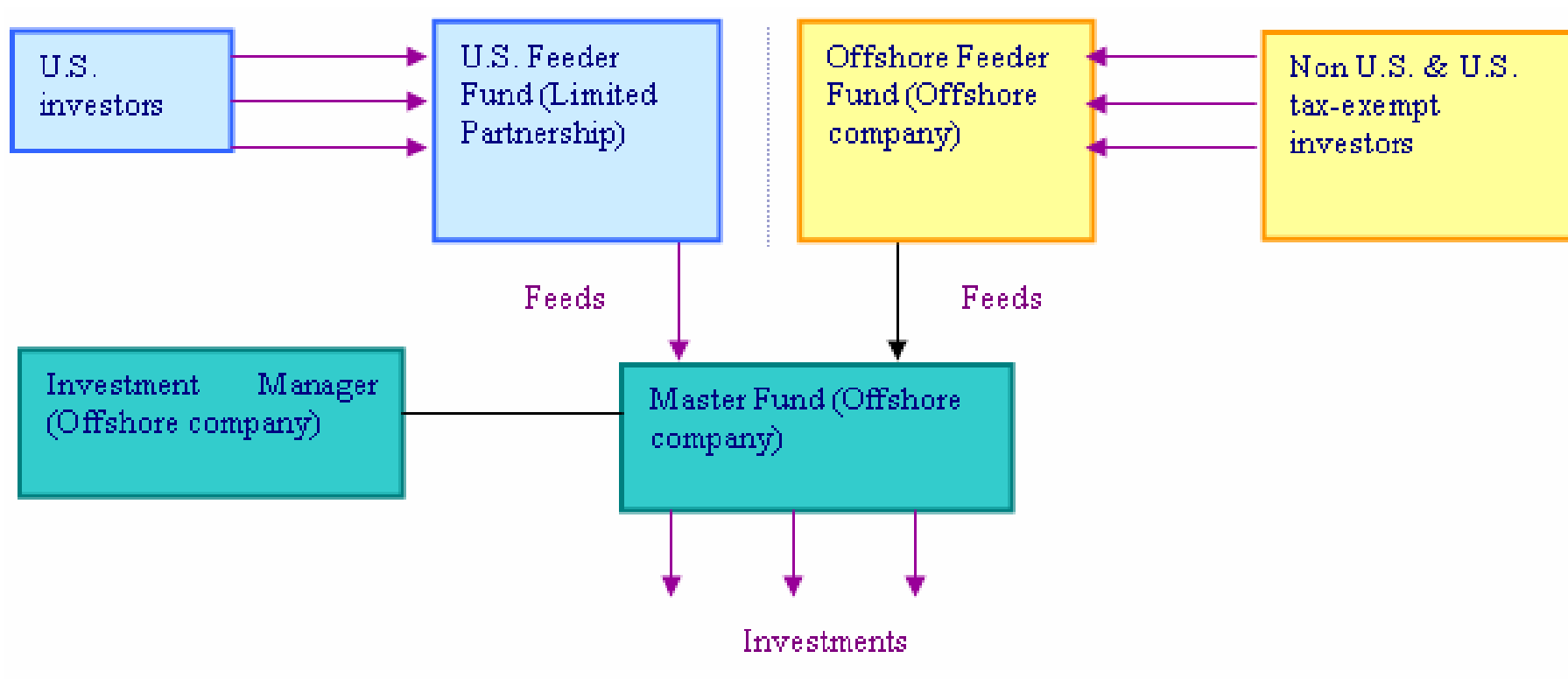
Investment/trading vehicle

- Often indicates on-shore management company
 - Typically off-shore (Cayman, BVI), or US LLP
 - Wider choice of trading instruments and techniques
1. Can use leverage
 2. Can sell short
 3. Can invest in low-quality/unrated issues
 4. Typically not open to retail investors

Typical US Hedge Fund Setup



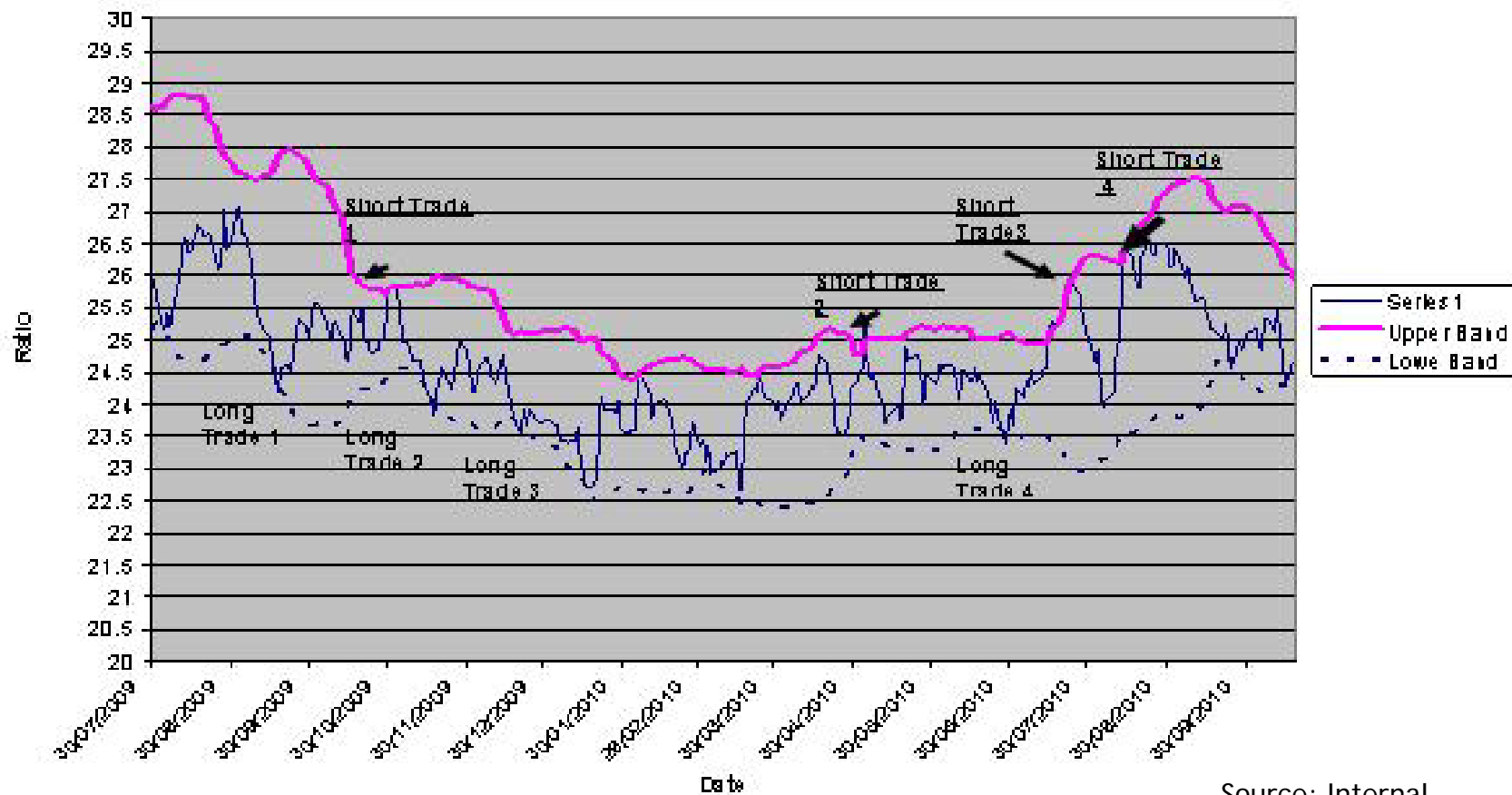
Hedge Fund Structures: US/Offshore Master-Feeder



Arbitrage Trading Examples

Statistical Arbitrage: Trade Example

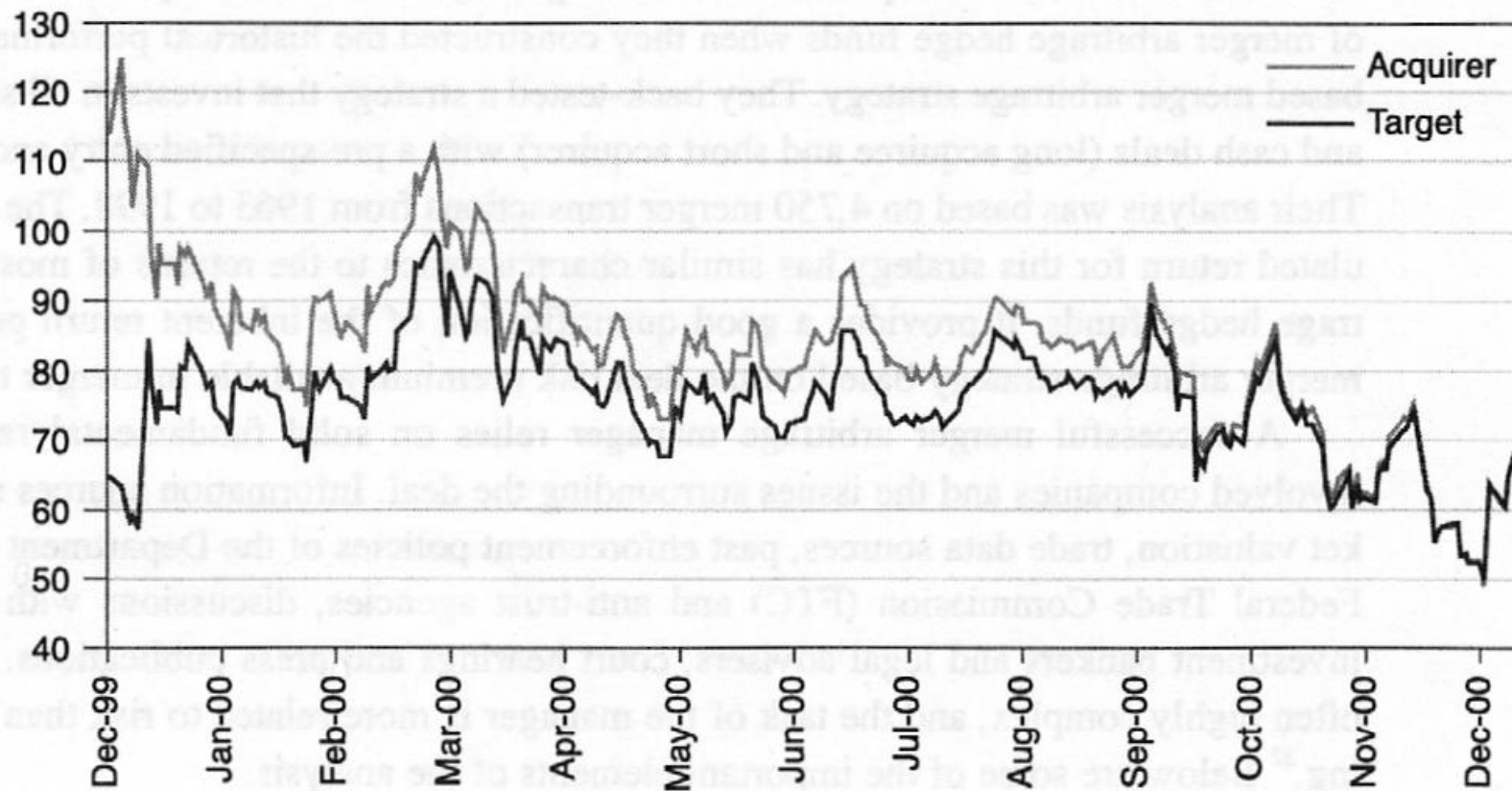
Ratio Graph GSK / AZN



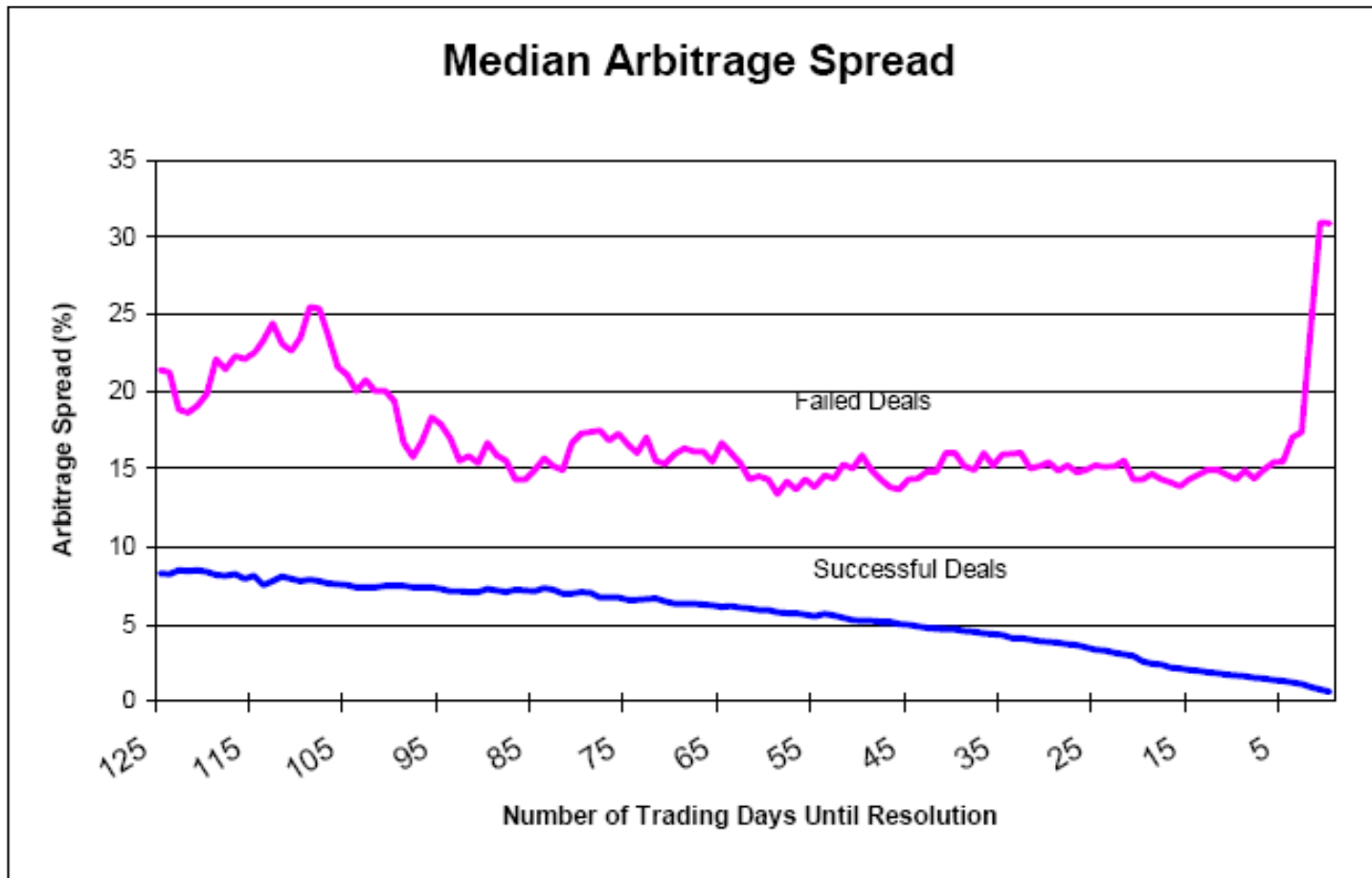
Source: Internal

Spread Convergence: Merger Arbitrage

Spread convergence in a successful merger deal over the unusually long period of one year

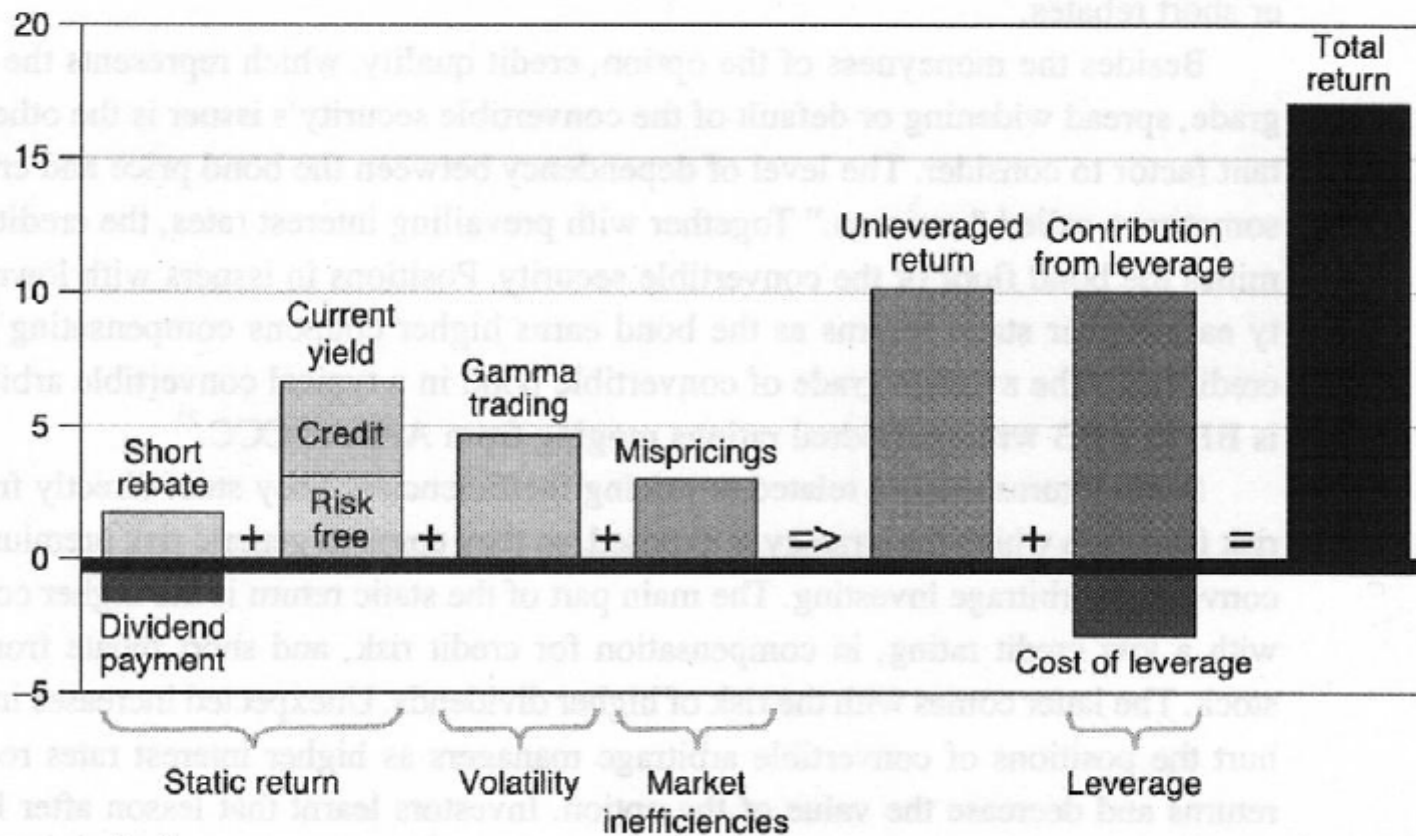


Arbitrage Risk Profile: Mergers



Arbitrage Return Sources: Convertible Arbitrage

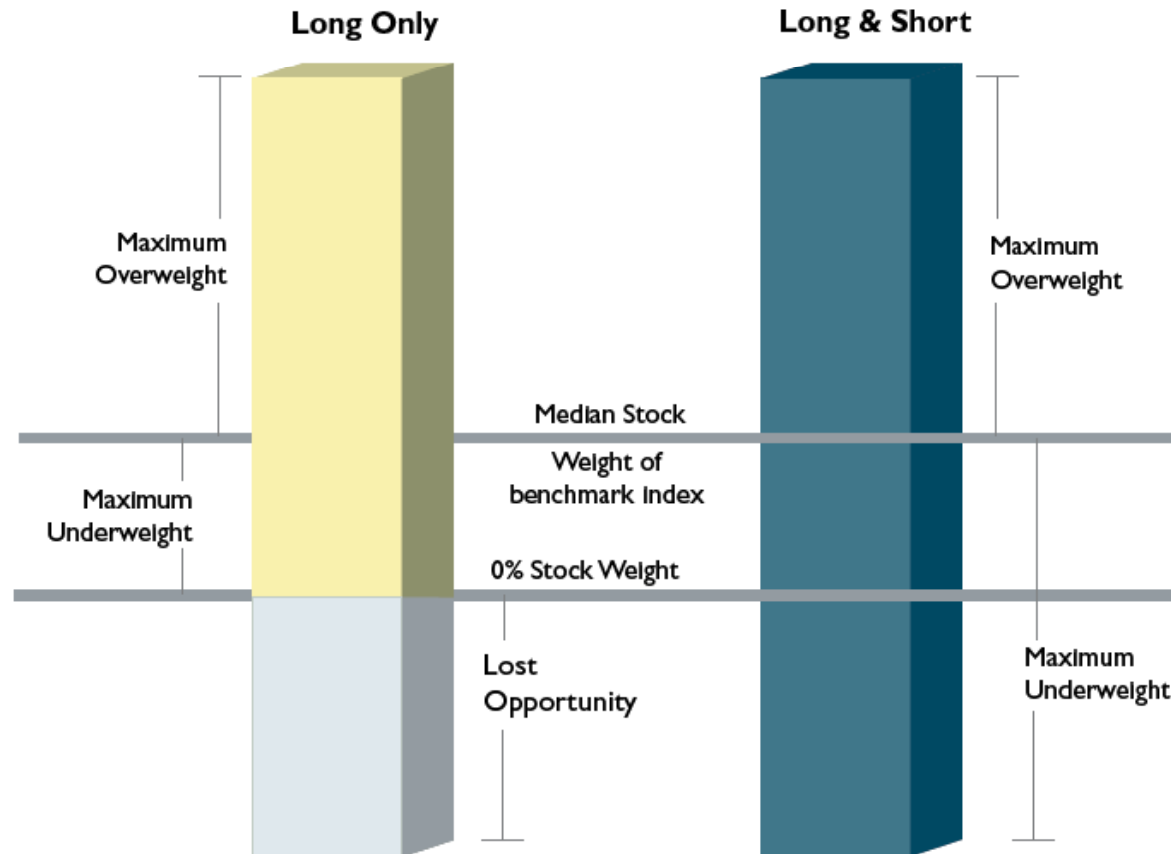
Return sources of convertible arbitrage strategies (%)



Short Selling: Concept, Techniques, Impact

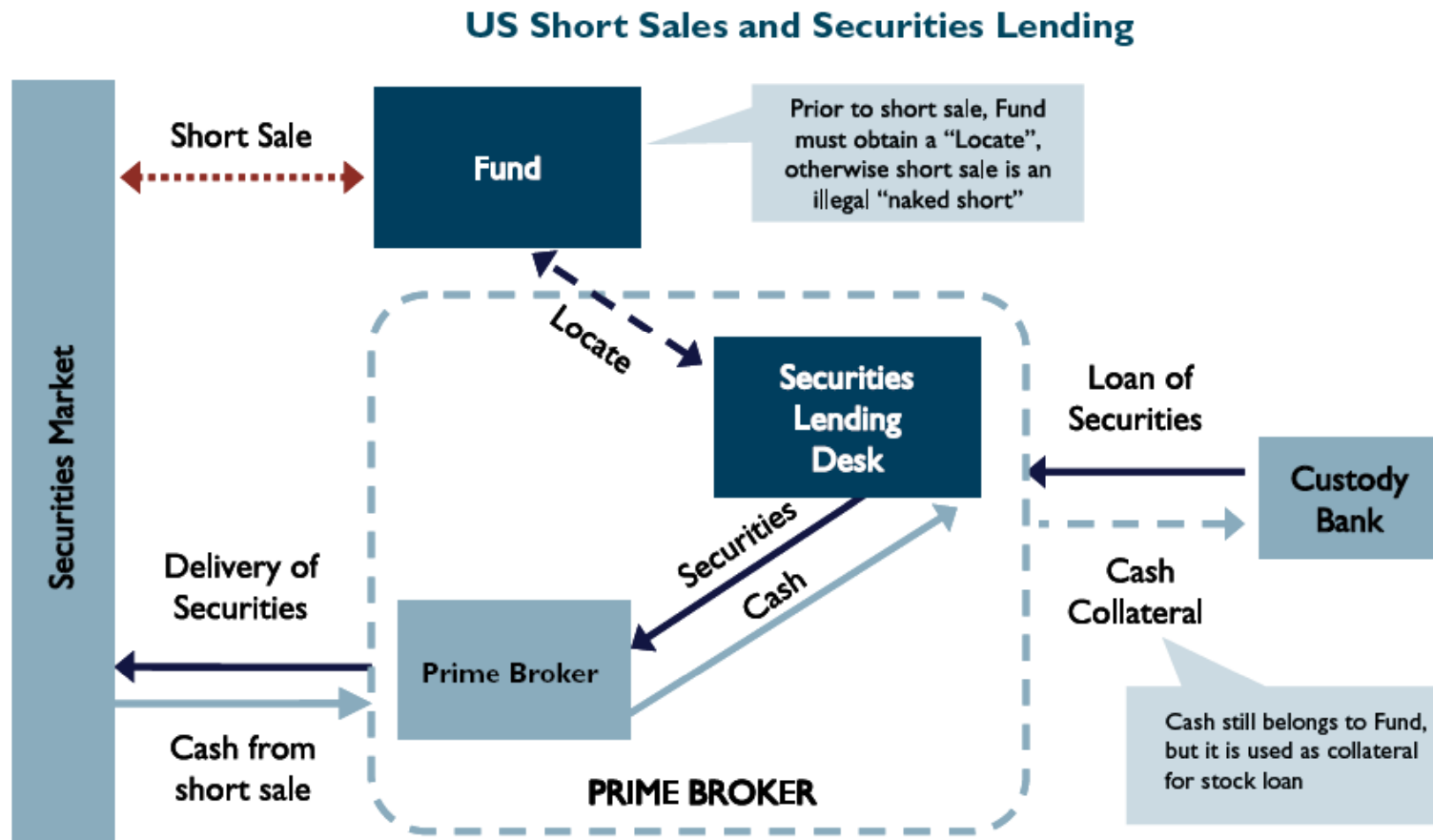
Portfolio Enhancement with Short Sales

Long Only = Lost Opportunity



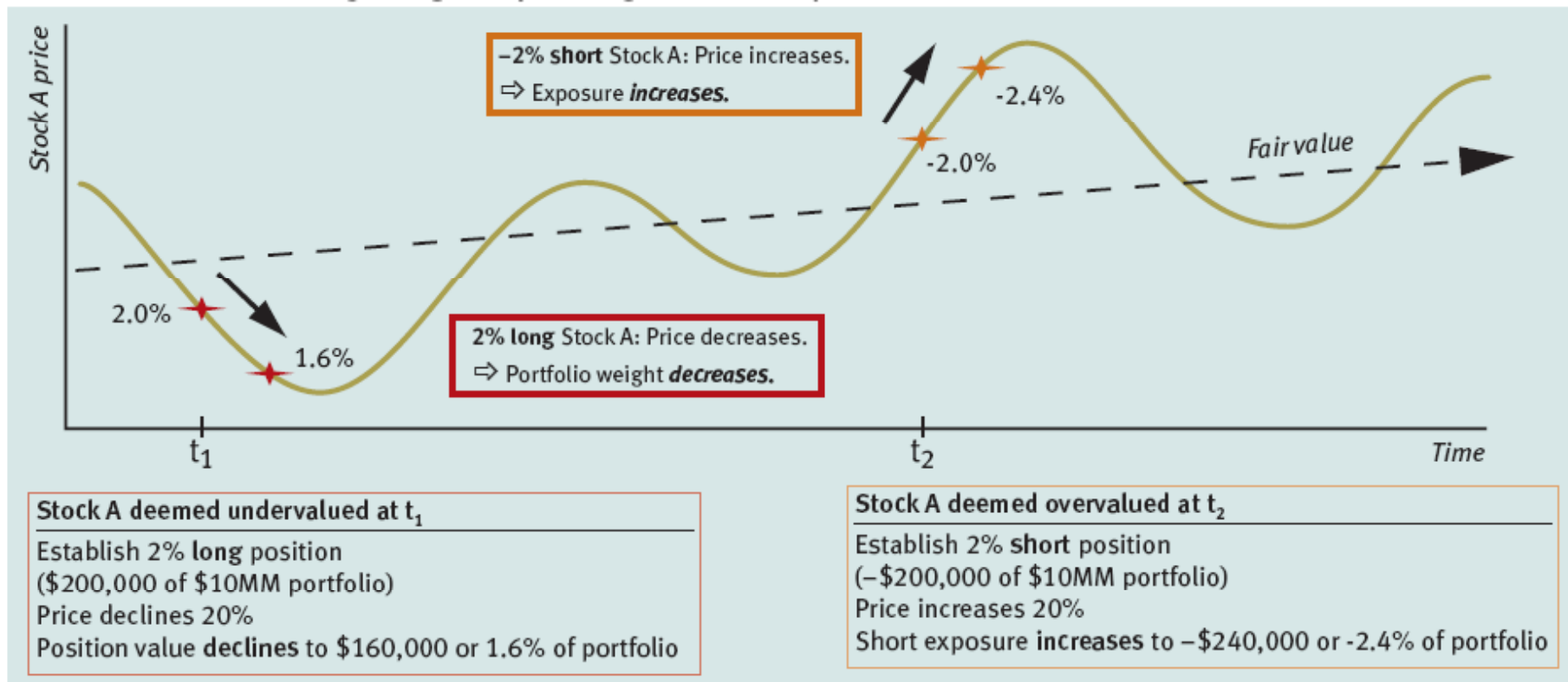
Source: Merrill Lynch

The Mechanics of Short Selling



Source: Merrill Lynch

Short Selling: Asymmetric Risk Profile

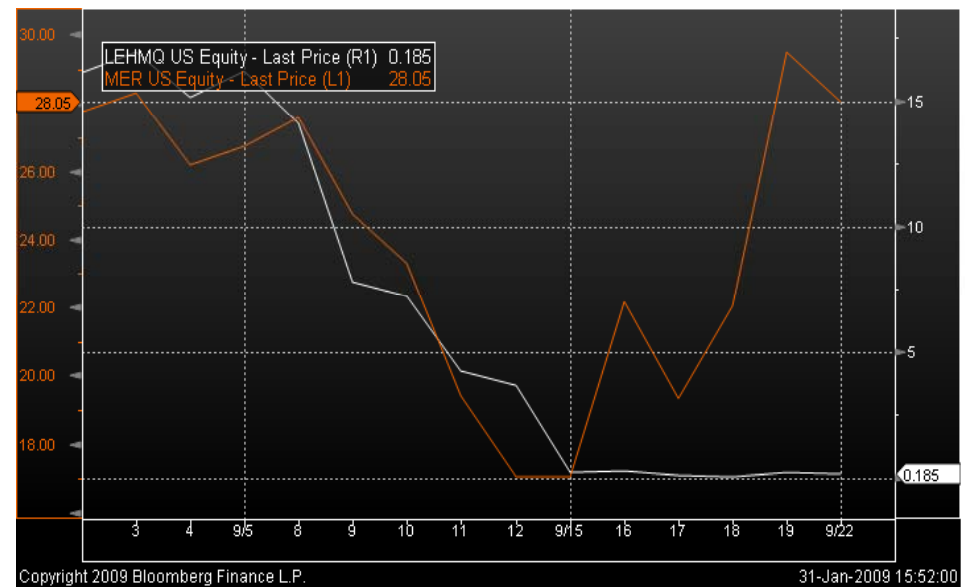


Source: IPMorgan Asset Management: the above hypothetical is for illustrative purposes only.

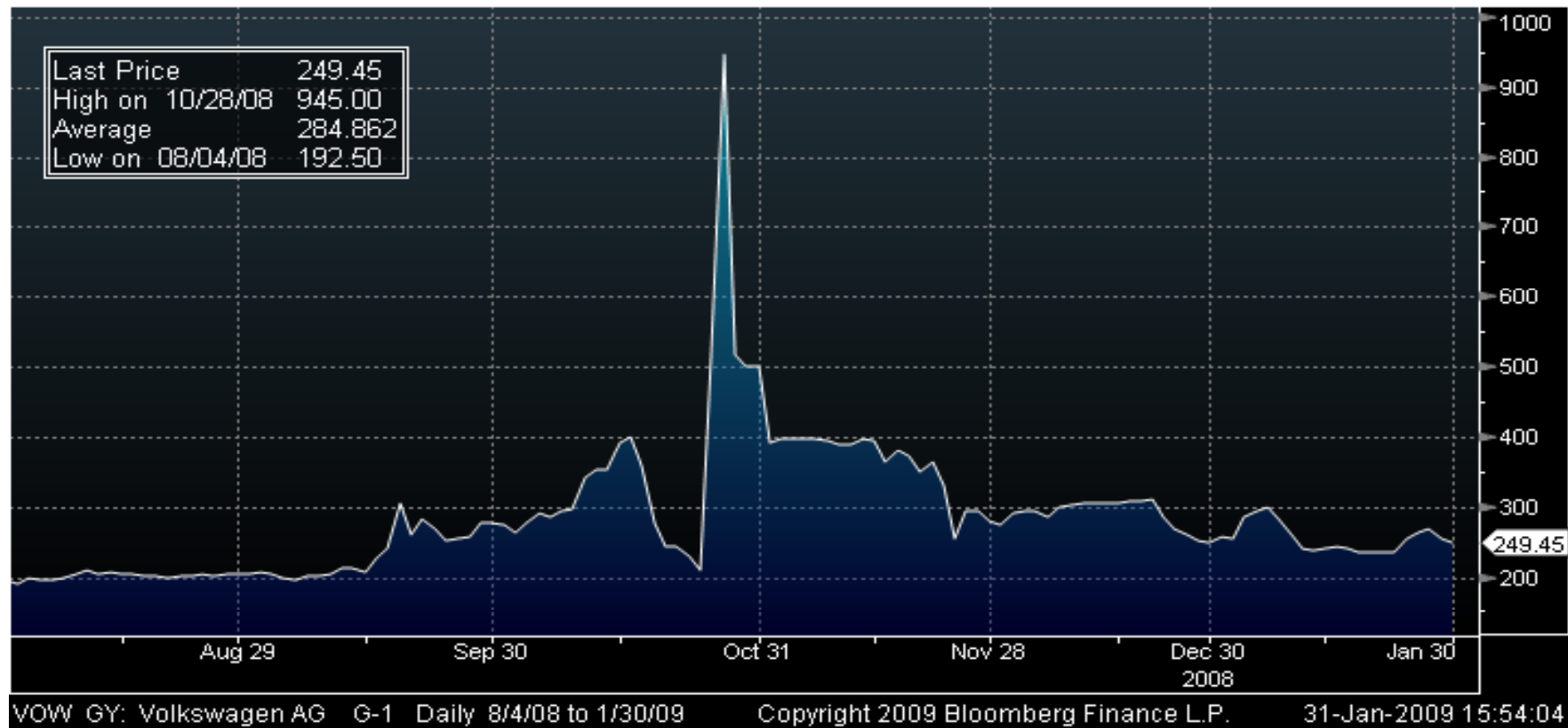
Short-Selling in Distressed Situations

- Limited supply of stock to borrow
 - High cost of borrow
 - Asymmetric payoff/risk profile
 - Short cover/squeeze risk
-
- Distressed stocks unlikely candidates for speculative short selling

LEHMAN VS. MERRILL LYNCH PRICE, 9/2008



Distressed Coverage of Short-Selling Positions: Volkswagen AG Shares, October 2008



Max potential loss of long VW Stocks: -100%

Max potential loss of short VW Stocks: -400%

High Frequency and Algorithmic Trading

High Frequency Trading: Strategies and Trade Timing

Strategy	Typical Holding Period
<ul style="list-style-type: none">• Automatic liquidity provision/synthetic M-M	<ul style="list-style-type: none">• 1 minute or less
<ul style="list-style-type: none">• Order-flow recognition through observed quotes	<ul style="list-style-type: none">• 10 minutes or less
<ul style="list-style-type: none">• Short-term trading on macro or stock-level events	<ul style="list-style-type: none">• 1 hour or less
<ul style="list-style-type: none">• Statistical Arbitrage/basis trading of stocks and derivatives	<ul style="list-style-type: none">• 1 day or less

Evolution of Bid-Ask and Liquidity During High Frequency and Algorithmic Trading Growth

- Bid Ask Spread declined
- Volumes Increased pre-2009
- Smaller Average Order Size

Picture consistent with positive contribution of faster trading to cost reduction and market liquidity

