

*2015 NASAA Investment Adviser
Examination & Registration Training*

**Investment Adviser
Trading Strategies**

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Trading Strategies: Theories and Red Flags

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Agenda

- Modern Portfolio Theory (“MPT”)
- Efficient Markets
- Active Trading
- Trading Strategy Red Flags
- Case Study

Modern Portfolio Theory (“MPT”)



- Developed by Harry Markowitz in the 1950's
- Key concept:

$$E(R_p) = \sum w_i E(R_i)$$

But...

$$\sigma_p^2 \neq \sum w_i \sigma_i^2$$

In general terms, though expected return of a portfolio is the weighted average of its expected returns, portfolio risk is usually NOT the weighted average of the risk if the individual securities.

MPT



- Key to portfolio risk reduction:
 - Diversification in securities with low/negative correlation.
 - Selection of proper portfolio weights.
 - Adequate number of securities (20+, though there is no absolute rule).
- Goal is to maximize the expected return of the portfolio for a given portfolio risk (or minimize risk at a given level of expected return). “The Efficient Frontier”

Efficient Market Hypothesis ("EMH")

- Information is the key determinant of stock prices. The current price reflects:
 - Past information
 - Current information
 - Information that can reasonably be inferred
- In an efficient market, new information is processed almost instantly.



- Three Forms
 - Weak Form: Past information is reflected in current price. Presumed that past history is of no use in assessing future price trends.
 - Semi-strong Form: All publicly available market data (earnings, new developments, ect) are included in current price. Info lag does not exist.
 - Strong Form: Current prices reflect ALL information, both public and non-public. Believers in a strong form EMH are passive investors.
- Each stronger form encompasses the prior forms



EMH Strategies

- Passive Investing “Indexing”
 - Vanguard Funds
 - Dimensional Fund Advisors
 - SPDR S&P 500 “SPY”
 - Barclays U.S. Aggregate Bond Index “AGG”
 - Nasdaq 100 Index “QQQ”
 - S&P Mid Cap 400
 - Russell 2000 Small Cap
 - Precious Metals “GLD”
 - MSCI U.S. REIT Index “VNQ”



EMH Advantages/Disadvantages

- Advantages
 - Low operating expenses within the funds
 - Low turnover rate
 - Tax advantaged: Long term outlook means limited short term capital gain taxation issues
 - Instant diversification within a specific sector, market cap, asset class
 - When properly diversified across asset classes, a lower “exam” risk regarding unsuitable investments.



EMH Advantages/Disadvantages

- Disadvantages
 - Performance dictated by underlying index: “Beating the market” is no longer feasible
 - Market risk: For example, the lost decade of 2000-2010
 - Market timing risks for more active investors.
 - Adviser management fees may remove benefits of using low cost funds. Question of what level of fees may be deemed “reasonable”



Actively Managed Portfolios

- Assumption: Adviser possess some advantage relative to other market actors
- Increased risks vs Increased Rewards
- Three popular active approaches
 - Security selection
 - Sector selection
 - Market timing



Security Selection Techniques

- **Fundamental Analysis:** Analyzing basic financial information to estimate a companies intrinsic value.
 - Top-down approach: Analysis of markets and economies>Sectors>Individual Securities
 - Discount cash flow model $V_0 = \sum \text{Expected cash flows}/(1+k)^t$
 - Dividend discount model: Large assumptions made based on dividend growth and the discount rates used
 - Price/Earnings ratio analysis
 - Comparative analysis
 - Growth vs value investing



Security Selection Techniques

- **Technical Analysis:** Uses price and volume information for stock analysis, “chartists”
- **Charts used to identify certain buy and sell signals:**
 - Support level: Price range at which technicians expect an increase in demand (entry point)
 - Resistance level: Price range at which technicians expect a decrease in demand (exit point)
 - Many pattern terminologies: “head and shoulders,” “double top,” “triangles”



Sector Selection

- Actively rotate between sectors
- Requires accurate assessment of economic conditions and business cycle
- Common sector analysis:
 - Interest sensitive stocks
 - Consumer durables
 - Capital goods
 - Defensive stocks
 - Increased availability of sector funds have enabled advisers to indirectly invest in sectors with greater diversification



Market Timing

- Attempt to earn excess returns through varying equity assets in portfolio
 - Availability of ETFs have made implementing a market timing strategy easier than ever, and at lower transaction costs.
 - Little evidence that successful market timing is anything more than luck.
 - High opportunity costs for missed periods of growth. For example, estimated that from 1980-2000, investors would have missed out on 75% of market gains by missing out on the 15 best months.



Trading Strategy Red Flags

- Quickest way for clients to lose money is through inappropriate investment strategies!
- Appearance of the following may require enhanced scrutiny in retail clients:
 - Excessive Portfolio Weights
 - Options
 - Day Trading
 - Margin
 - Futures
 - Leveraged ETFs



Trading Strategy Red Flags

- Portfolio weights: The percentage of the portfolio invested in each security
- The appearance of excessive portfolio weights is usually related to a lack of diversification
 - Individual securities, not broad indexes
 - Requires analysis of the portfolio as a whole
 - “Are large portfolio weights correlated?”
 - Inquiry required



Trading Strategy Red Flags

- Options: “Cheap way to lose all your money”
- Unless used in a hedge strategy, assume their use speculative for retail clients, especially “out of the money” options.
- Examples of hedging strategies:
 - Covered call: Long stock-Short call
 - Protective put: Long stock-long put
 - The above examples of portfolio insurance are rare for retail investors



Trading Strategy Red Flags

- **Day trading: True day traders should be considered to be speculators**
- **Frequently uses leveraged products (options, currencies, futures, ect)**
- **Cost to equity analysis may be required**

$$\frac{\text{Commissions}}{\text{Average Equity}} + \frac{\text{Months in period}}{12}$$



Trading Strategy Red Flags

- **Margin Accounts: Purchase additional securities by leveraging value of eligible shares**
 - Requires close look at client suitability
 - Greatly increases risk/return profile
 - Margin interest rates
 - Note: Some large investors may negotiate margin loans at preferred rates and/or provide for overdraft protection (lower risk).
 - Inquiry required for margin percentages under 60%:

$$\text{Margin Percentage} = \frac{\text{Current value} - \text{Amount borrowed (debt balance)}}{\text{Current value}}$$



Trading Strategy Red Flags

- Futures contracts: Standardized agreement providing for future exchange of an asset at a determined price. Major categories include:
 - Commodities: agricultural, metals, energy
 - Financial: foreign currencies, stock indexes
- At the retail level, these are almost always considered speculative investments.



Case Study-Leveraged ETFs

- Exchange traded funds that use leverage to amplify returns of the underlying index.
 - Currently available in 2x and 3x leverage
 - May use for both long (bull) and short (bear) positions
 - Intended for intra-day trading. The longer it's held, the less likely it will track the index.
 - Popular issuers included Direxion and ProShares (Ultra and UltraPro)
 - Due to low costs, a “cheap” way to margin an account



Case Study-Leveraged ETFs

- Client Profile
 - 52 years old
 - Self-employed
 - “Limited” stock and option experience
 - 1 million net worth
 - Medium risk tolerance



Case Study-Leveraged ETFs

- ETF Examples (Direxion family)
 - DPK: Daily Developed Mkts Bear 3X
 - EDZ: Daily Emerging Mkts Bear 3X
 - FAZ: Daily Financial Bear 3X
 - TZA: Daily Small Cap Bear 3X
 - TMF: Daily 20+ Yr Treasury Bull 3X



Case Study-Leveraged ETFs

October 31, 2011

| <u>Symbol</u> | <u>Cost Basis (10/3)</u> | <u>Total</u> |
|---------------|--------------------------|--------------|
| | <u>UnrealizedG/(L)</u> | |
| DPK | \$19,353 | \$12,878 |
| | \$(6,475) | |
| EDZ | \$19,282 | \$10,598 |
| | \$(8,684) | |
| FAZ | \$19,382 | \$10,700 |
| | \$(8,682) | |
| TZA | \$19,394 | \$10,046 |
| | \$(9,348) | |
| TMF | \$19,386 | \$15,813 |
| | <u>\$(3,573)</u> | |



Case Study-Leveraged ETFs

- One month returns for October 2011
 - MSCI EAFE: 9.63%
 - MSCI Emerging: 16.30%
 - Russell 1000 Financials: 13.86%
 - Russell 2000: 11.42%
 - 20 Yr Treasury: (4.66)%
- EAFE, Emerging Markets, and S&P 500
October 2011 returns were the highest of the past 5 years.



Case Study-Leveraged ETFs

- End Result: Advisory license was revoked, and principal of firm was barred in 2014 for violation of Rule 260.238 (a):

“Recommending to a client to whom investment supervisory, management or consulting services are provided the purchase, sale or exchange of any security without reasonable grounds to believe that the recommendation is suitable for the client on the basis of information furnished by the client after reasonable inquiry concerning the client's investment objectives, financial situation and needs, and any other information known or acquired by the adviser after reasonable examination of such of the client's records as may be provided to the adviser.”



Case Study-Leveraged ETFs

Risks Associated With Leveraged ETFs:

“The Fund is different from most exchange traded funds in that it seeks inverse leveraged returns relative to the Index and only on a daily basis. The Fund is riskier than similarly benchmarked ETF’s that do not use leverage. Accordingly, the Fund may not be suitable for all investors and should be used only by knowledgeable investors who understand the potential consequences of seeking daily inverse leverage results.”



Questions?