



Behavioral Portfolio Management

CFA Society of San Antonio

Mamacita's San Antonio

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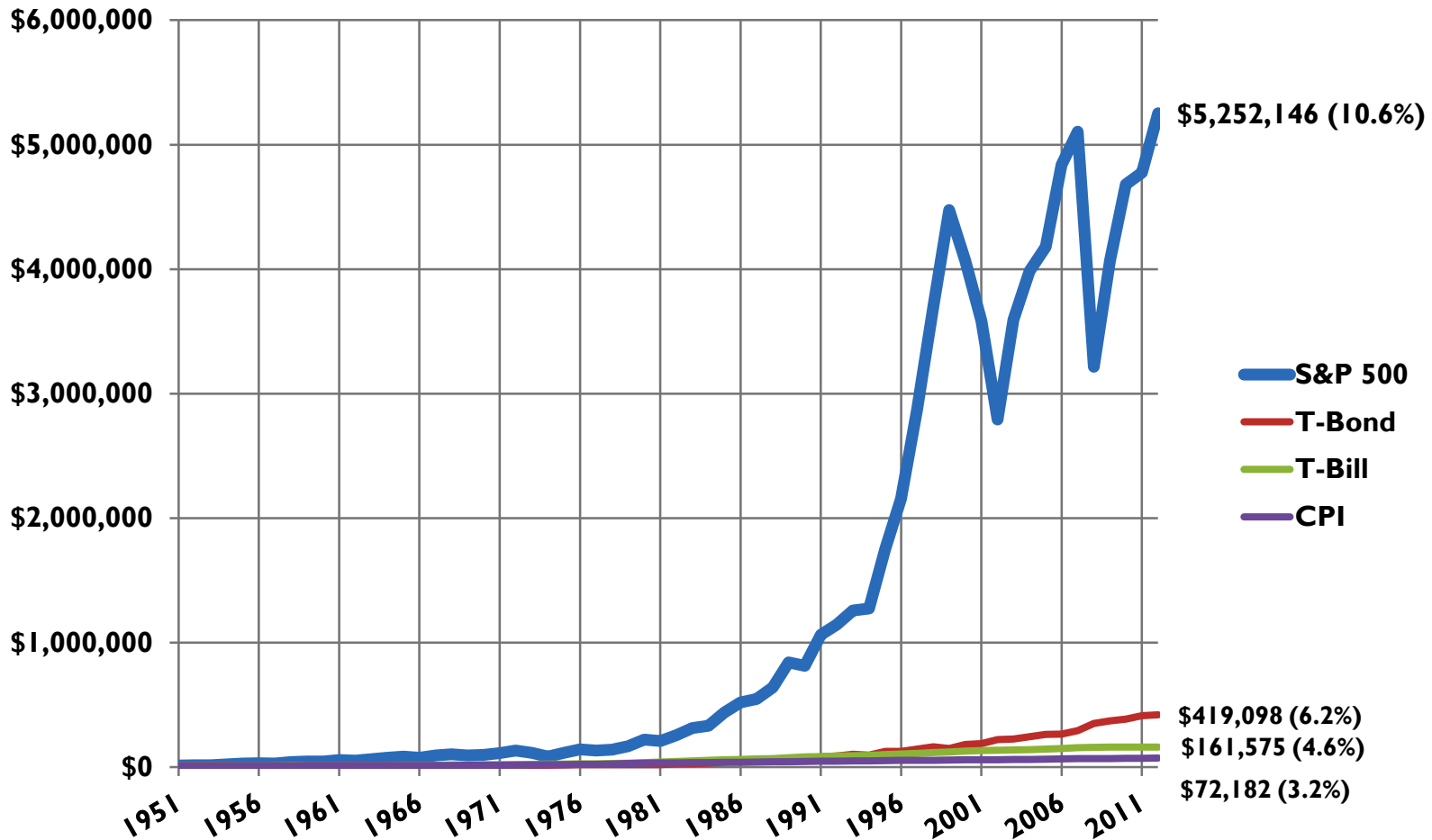
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Daniels College of Business**

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**Portfolio Manager, AdvisorShares Athena
International Bear ETF (HDGI)**



Asset Class Returns: 1950 - 2012



Source: AthenaInvest, Thomson-Reuters Financial, Center For Research In Securities Prices, St Louis Federal Reserve FRED data base.



EMERGING PARADIGM

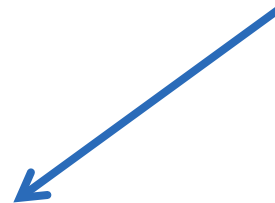
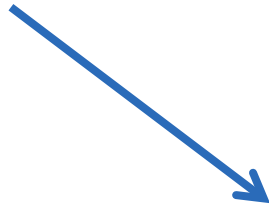
Convergence of Two Research Streams



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**Behavioral
Science**

**Finance
Research**



**Behavioral
Finance**



Three Eras Of Finance...

Fundamental 1934-1973	MPT 1974- 2013(?)	Behavioral 2014 -
Graham & Dodd	Modern Portfolio Theory	Behavioral Finance
Analyst & Manager Skill	Engineered Solutions	Harnessing Market Emotions
Fundamental Intrinsic Value	Market Efficiency	Behavioral Price Distortions



BPM Basic Principles

1. Emotional Crowds dominate market pricing and volatility
 - Prices rarely reflect underlying fundamentals

2. Behavioral Data Investors can earn superior returns
 - BDIs take positions different from the crowd
 - Emotionally challenging to do so

3. Redefining Risk as the chance of underperformance
 - Volatility and risk are not synonymous
 - Volatility is emotion



Behavioral Portfolio Management

Release Your Emotional Brakes

Understand Randomness

Discard Modern Portfolio Theory

- **Rationality Model**
- **Sharpe Ratio**
- **Tracking Error**



IMPLEMENTING BPM: RELEASING EMOTIONAL BRAKES

Emotional Investment Decisions



Myopic Loss Aversion

Social Validation

Availability Bias

Availability Cascade

Representativeness

Framing



WYSIATI

Anchoring

Fallacy of Information

Fallacy of Control

Peak-end Memories

Fooled by Randomness

Phantastic Objects

Thinking, Fast and Slow by Daniel Kahneman 2012



IMPLEMENTING BPM: UNDERSTANDING RANDOMNESS



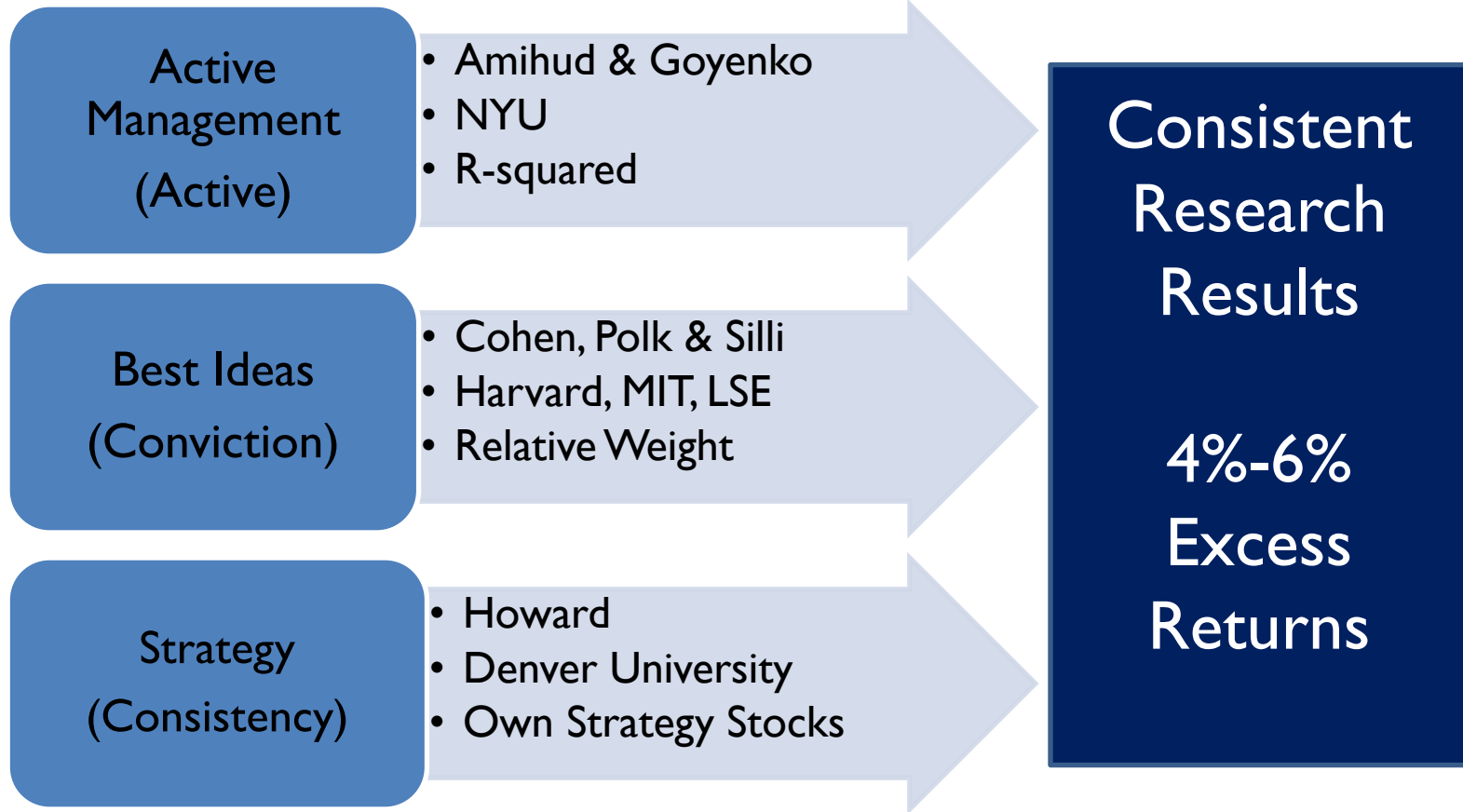
IMPLEMENTING BPM: EXCESS RETURNS

Truly Active Equity Funds

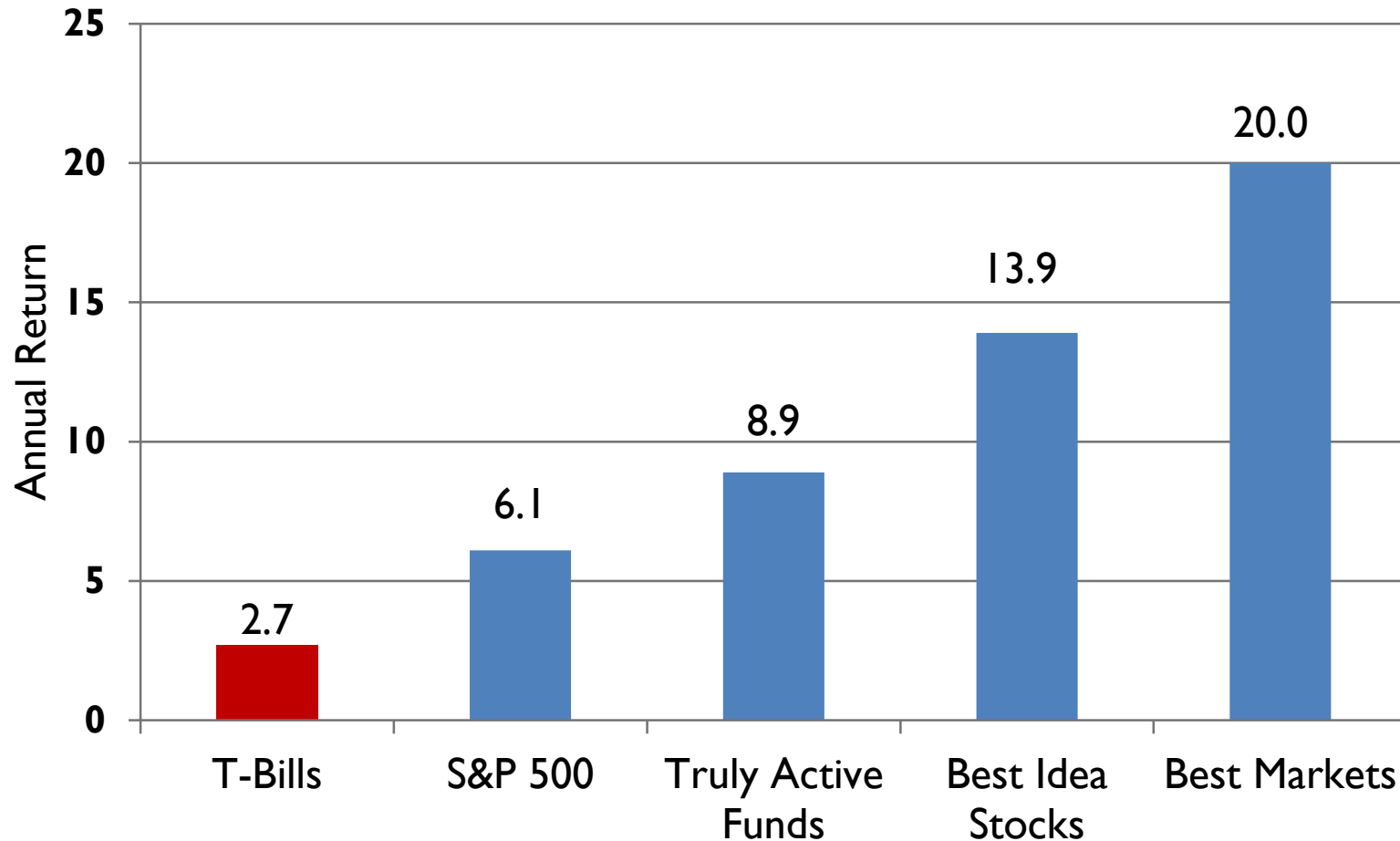
Active Management Research



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BPM Benefits



For the period April 1997 through March 2012. See footnotes to previous graphs for details on how each is calculated.
Data sources: AthenaInvest, Thomson Reuters Financial, and Lipper



USING BEHAVIORAL FACTORS TO SELECT TRULY ACTIVE MANAGERS



Manager Behavior is Key

- How a manager goes about making money: investment strategy
- Strategy consistently pursued
- Takes high conviction positions

Focus on Manager Behavior: Strategy, Consistency, Conviction

Desirable Fund Characteristics



- Focused strategy
- Smaller funds
- Limited number of stocks
- Low R-squared
- High tracking error
- High style drift
- High Active Share
- Solo manager is desirable
- Brand name of limited value

In short, avoid closet indexers!

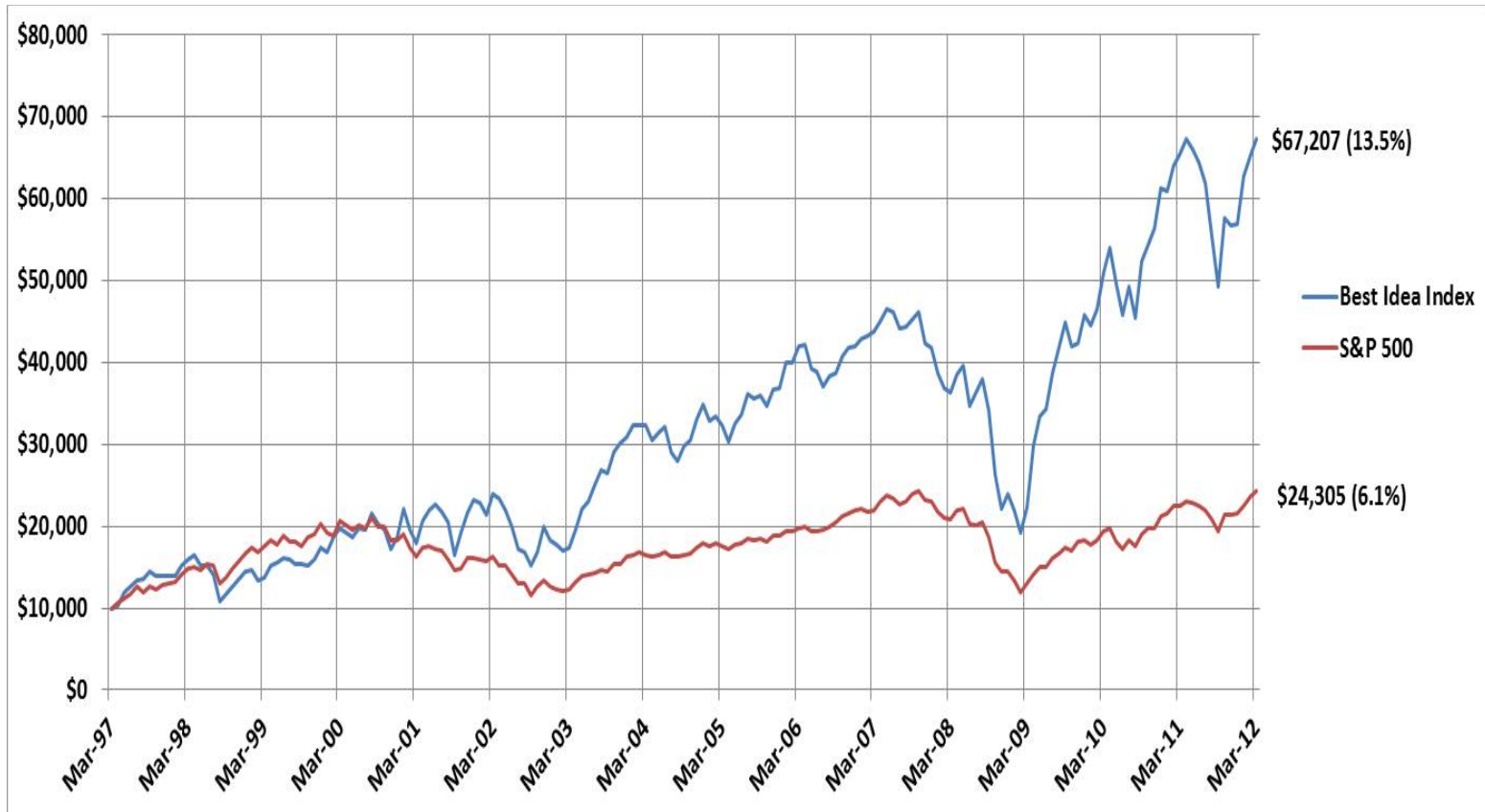


USING BEHAVIORAL FACTORS TO SELECT BEST IDEA STOCKS

Best Idea Index



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Includes month beginning Diamond Rated 5 US stocks, removed from the portfolio when the stock's DR drops below 4 for 2 months for the period from April 1997 through March 2012, resulting in an average of 379 stocks held in the portfolio. Monthly returns are simple averages across stocks. DR5 stocks are best idea stocks, while DR1 are diversification stocks. Data sources: AthenaInvest, Thomson Reuters Financial, and Lipper



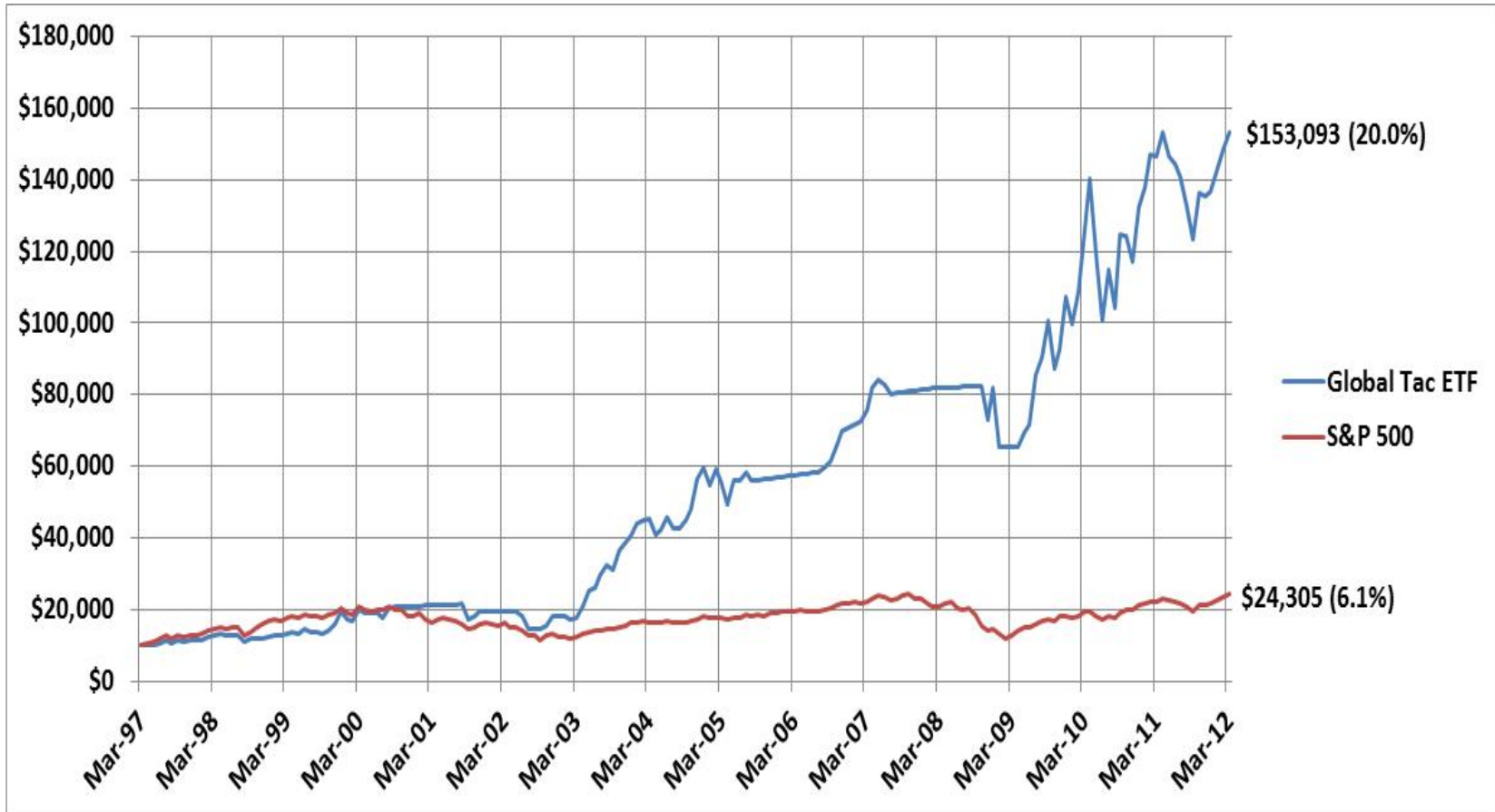
USING BEHAVIORAL FACTORS TO SELECT BEST MARKETS

Best Market Behavioral Factors



- **How investors are rewarding investment strategies in US and Internationally**
- **Sentiment Index for small versus large stocks: Baker and Wurgler**
- **T-bills if no equity market appears attractive**

Best Markets



Trades into a 100% single long or double long ETF for the S&P 500, Russell 2000, or MSCI EAFE or T-bills based on the beginning of the month US and International Strategy Market Barometers and the Capitalization Barometer. The latter is based on Baker and Wurgler's Sentiment Index.

Data sources: AthenaInvest, Thomson Reuters Financial, and Lipper

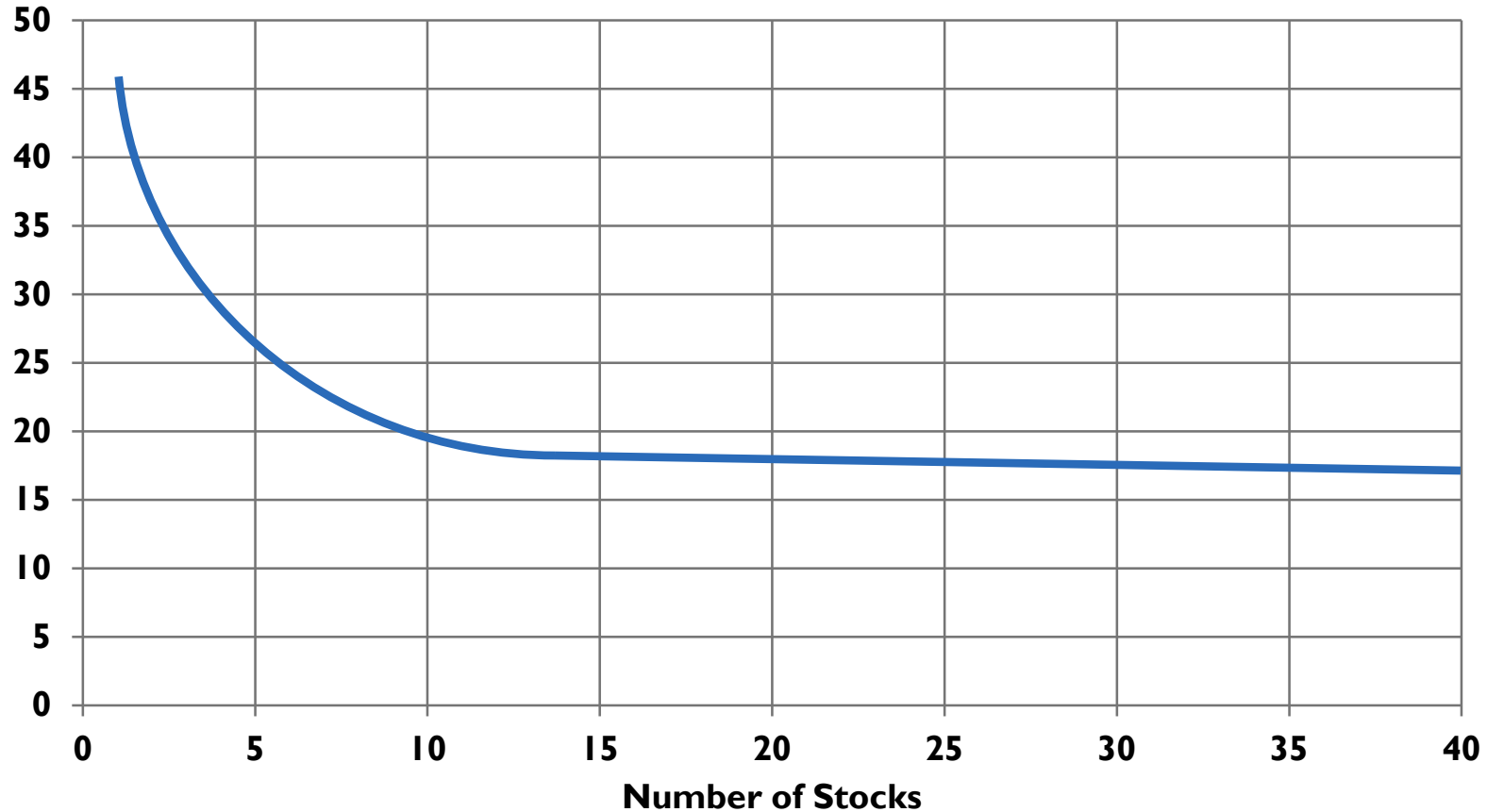


Concentrated Equity Triple Play

Concentration & Volatility



Portfolio Annual Standard Deviation (%)

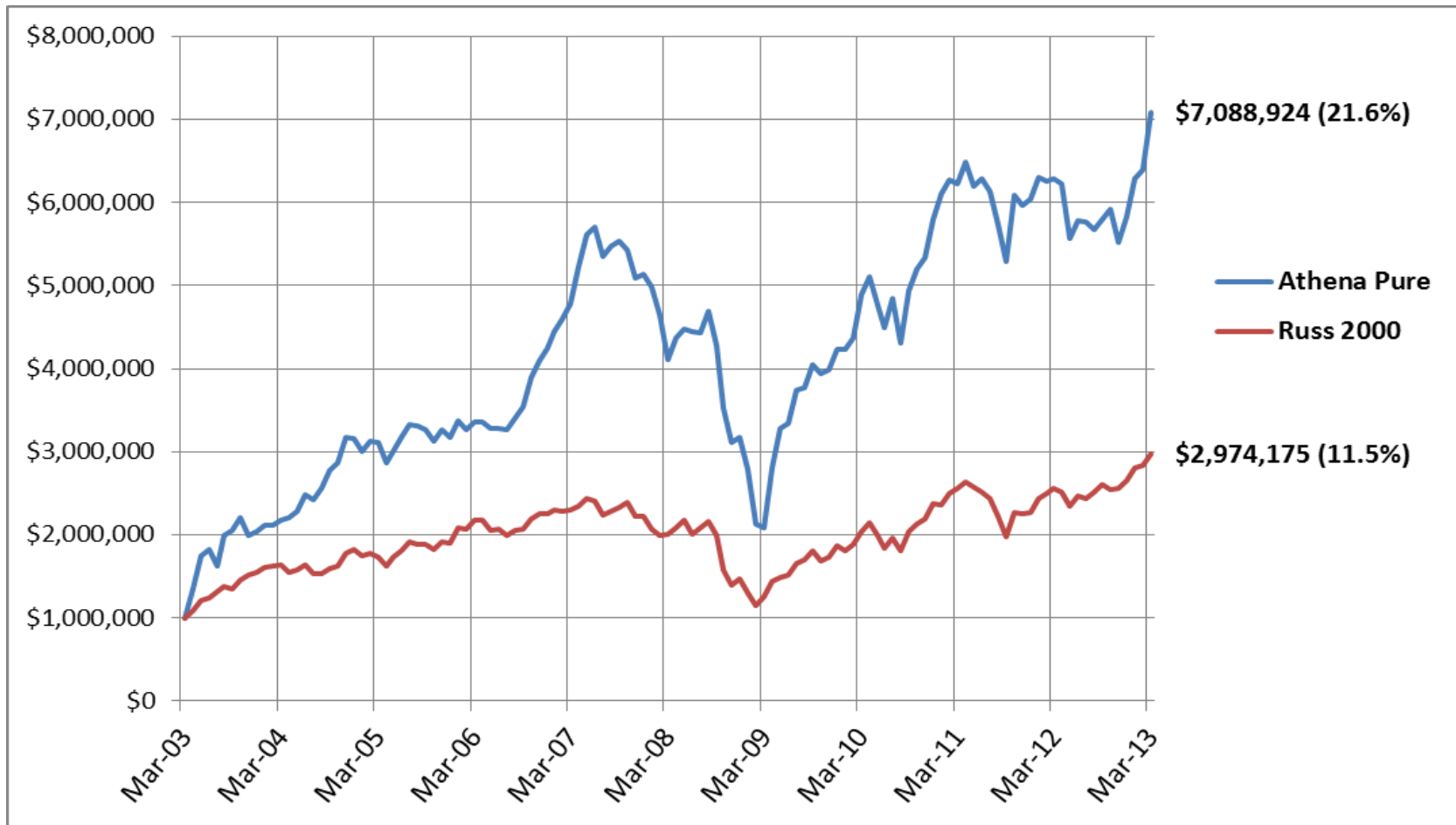


Assumes stock standard deviation of 45% and inter-stock correlation of 0.33. Based on Evans, J.L., and S.H. Archer (1968), **Diversification and the reduction of dispersion: an empirical analysis**, *Journal of Finance*, 23, 761-767.

Athena Pure: Truly Active Portfolio



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Athena Pure returns are GIPS compliant net returns from Mar 31, 2003 through Mar 31, 2013. Russ 2000 returns are total returns for the Russell 2000 index. **Past returns are not indicative of future returns.**

Data Sources: AthenaInvest and Thomson -Reuters Financial.

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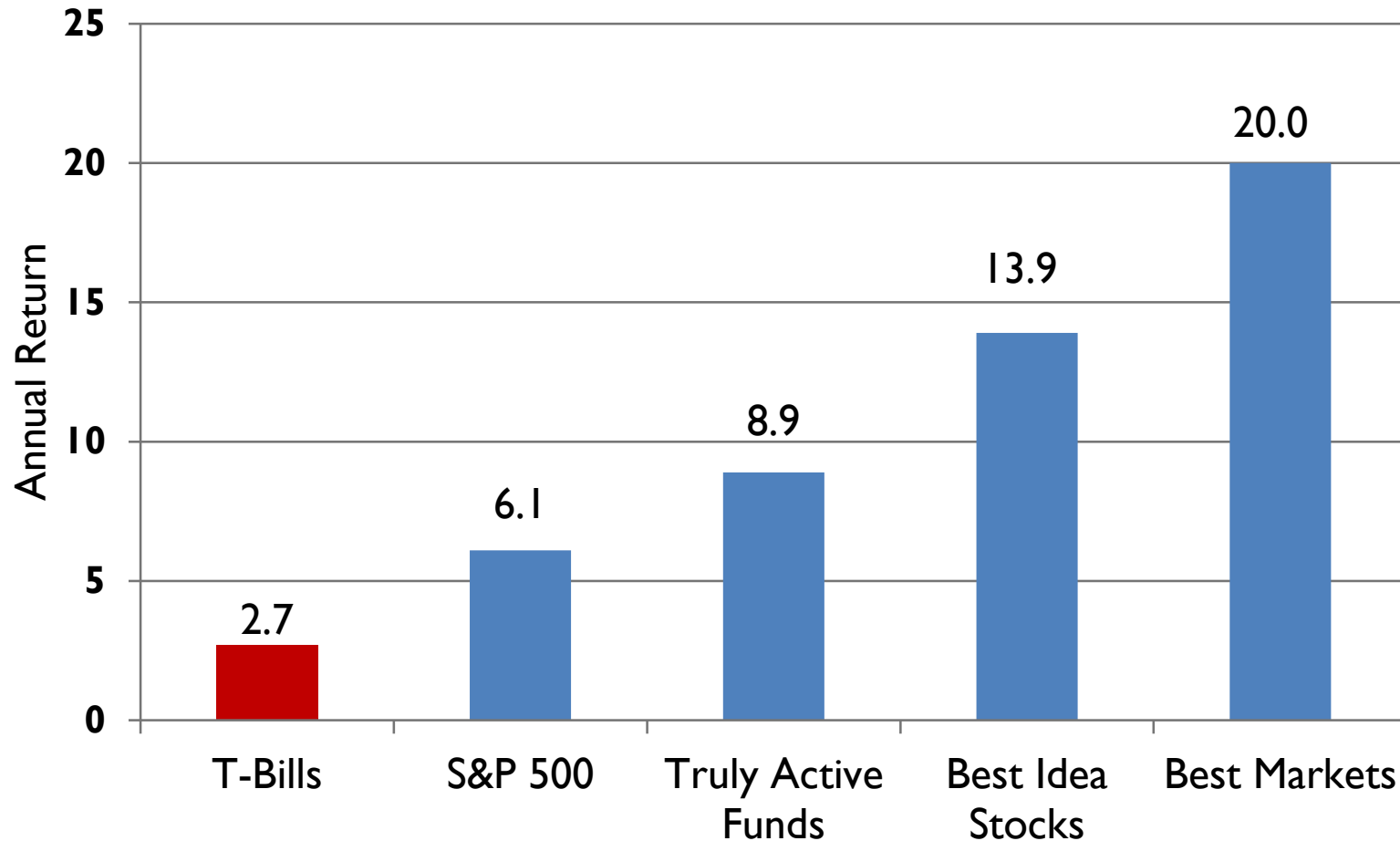
Concentrated Equity Triple Play



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- ❑ Higher Returns
- ❑ Lower long-term underperformance risk
- ❑ Lower Correlations

BPM Benefits



For the period April 1997 through March 2012. See footnotes to previous graphs for details on how each is calculated.
Data sources: AthenaInvest, Thomson Reuters Financial, and Lipper

Important Information



- **The figures shown are past results.** Past performance does not guarantee future results. There are risks involved with mutual fund and stock investing, including the risk of loss of principal. There is no assurance that the investment process will consistently lead to successful results. Investing in securities involves inherent risks, including the risk that you can lose the value of your investment.
- The unmanaged Standard & Poor's (S&P) 500 Index is a market value-weighted index of large-cap common stocks considered representative of the broad market. Total returns for the unmanaged index include the reinvestment of dividends and capital gain distributions but do not reflect the costs of managing a mutual fund.
- The Strategy Based Investing methodology is based on the concept of constructing portfolios along the strategy dimension. This entire system also looks at managers this way, assembling peer groups, allocates among them, and analyzes the sources of alpha as a result. This methodology is patented.
- Opinions and forecasts regarding industries, companies, countries and/or themes, and portfolio composition and holdings, are all subject to change at any time, based on market and other conditions, and should not be construed as a recommendation of any specific security.
- Expressed in percentage terms, Thomson's calculation of total return is determined each month by taking the change in monthly net asset value, reinvesting all income and capital-gains distributions during that month, and dividing by the starting NAV. Reinvestments are made using the actual reinvestment, and daily payoffs are reinvested monthly. Thomson does not adjust total returns for sales charges (such as front-end, deferred or redemption fees). The total returns do account for management, administrative and 12b-1 fees and other costs automatically taken out of fund assets.
- There are risks involved with mutual fund and stock investing, including the risk of loss of principal. There is no assurance that the investment process will consistently lead to successful results. Investing in securities involves inherent risks, including the risk that you can lose the value of your investment. Past performance is not indicative of future results. Investing may not be appropriate for all individuals, always consult a qualified professional prior to making any investment decision.
- You should consider the investment objectives, risks, charges, and expenses of mutual funds carefully before investing. The prospectus contains this and other information, and may be obtained from AthenaInvest at 877-430-5675. Be sure to read the prospectus carefully before investing.
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