For professional investors only

Passive Management: the perfect oxymoron?

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Presentation by Yves Choueifaty,
President & CIO of TOBAM

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TOBAM: Who are we?

The company:

TOBAM is independent and employee-owned

- Created in 2005
- CalPERS became a minority shareholder in April 2011,
- Amundi became a minority shareholder and a distribution partner in May 2012

TOBAM manages over $8.8 billion (March 31, 2015) primarily for large, well-known pension funds. Its team includes 35 financial professionals, complemented by Third Party Marketers.

TOBAM provides the "Most Diversified Portfolio" via full diversification and neutral risk allocation

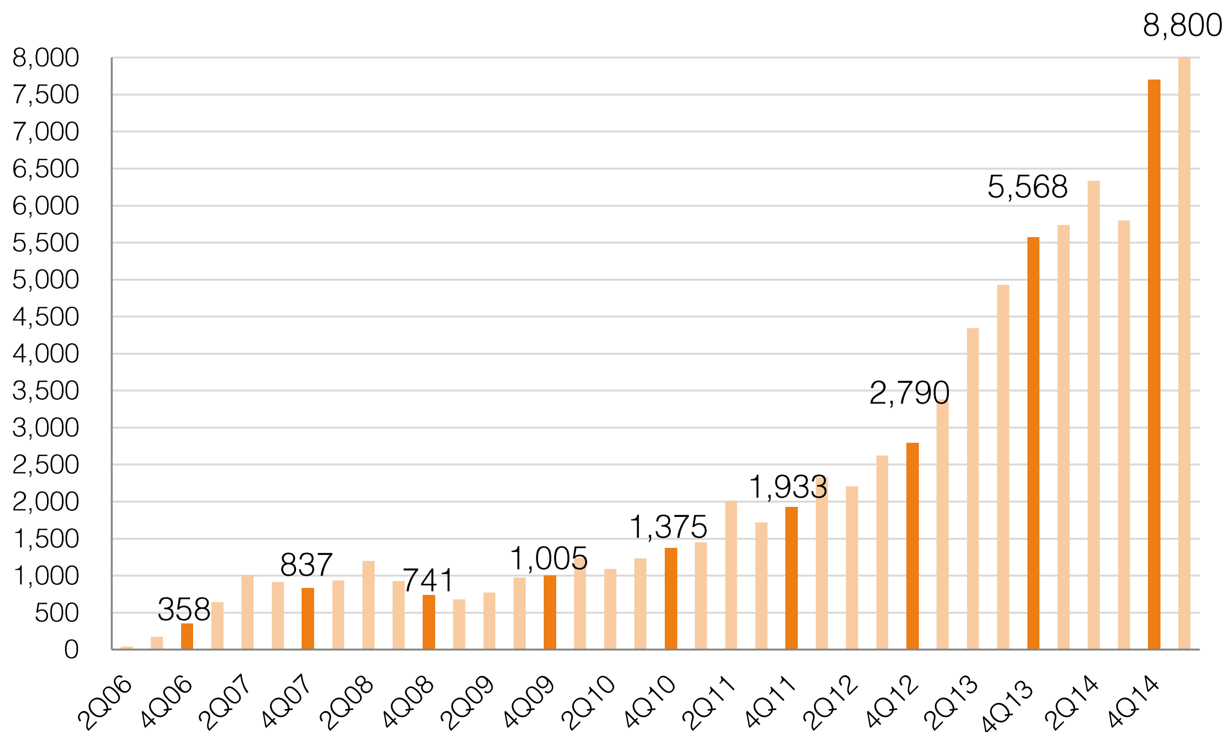
TOBAM's flagship Anti-Benchmark® strategies, supported by original research and a mathematical definition of diversification, provide clients with diversified core equity exposure, both globally and in domestic markets.

The founder:

Yves Choueifaty, President & CIO (24 years investment experience), previously:

- CEO of Credit Lyonnais Asset Management (AuM €70bio),
- Graduated in 1992 from ENSAE in Statistics, Actuarial studies, Finance, and Artificial Intelligence

AUM & Strategies



- TOBAM only manages Anti-Benchmark® strategies
- The Anti-Benchmark® strategy has been live since June 2006

Available strategies

Regional Equities

- Anti-Benchmark Canada Equity
- Anti-Benchmark Euro Equity
- Anti-Benchmark Europe Equity
- Anti-Benchmark France Equity
- Anti-Benchmark Japan Equity
- Anti-Benchmark Pacific Equity
- Anti-Benchmark Pac ex-Japan Equity
- Anti-Benchmark UK Equity
- Anti-Benchmark US Equity
- Anti-Benchmark US Next Equity
- Anti-Benchmark North America Equity

Global Developed & EM Equities

- Anti-Benchmark Global Equity
- Anti-Benchmark World Equity
- Anti-Benchmark Emerging Markets Equity
- Anti-Benchmark All Countries World Equity

Fixed Income

- Anti-Benchmark US Credit

Source: TOBAM, figures as of December 31, 2014

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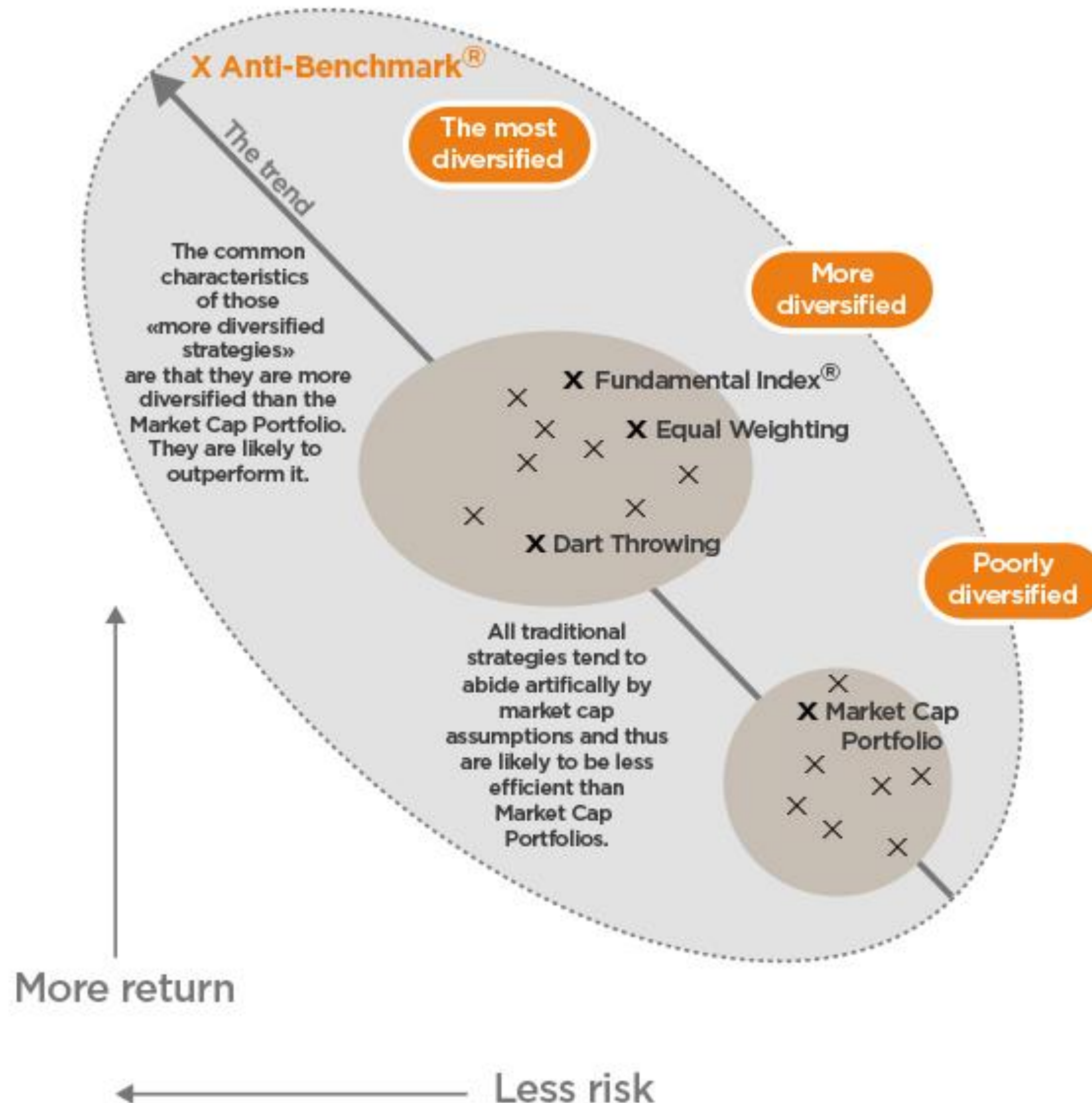
From Market Cap-weighted benchmarks to “Smart Beta”



Source: TOBAM. The above chart is for illustrative purposes only.

* Why is passive management not the solution?
* The real cost of passive management
* Why invest in equities ? : intro to a general framework
* The Anti-Benchmark® approach

Why is passive not the solution?

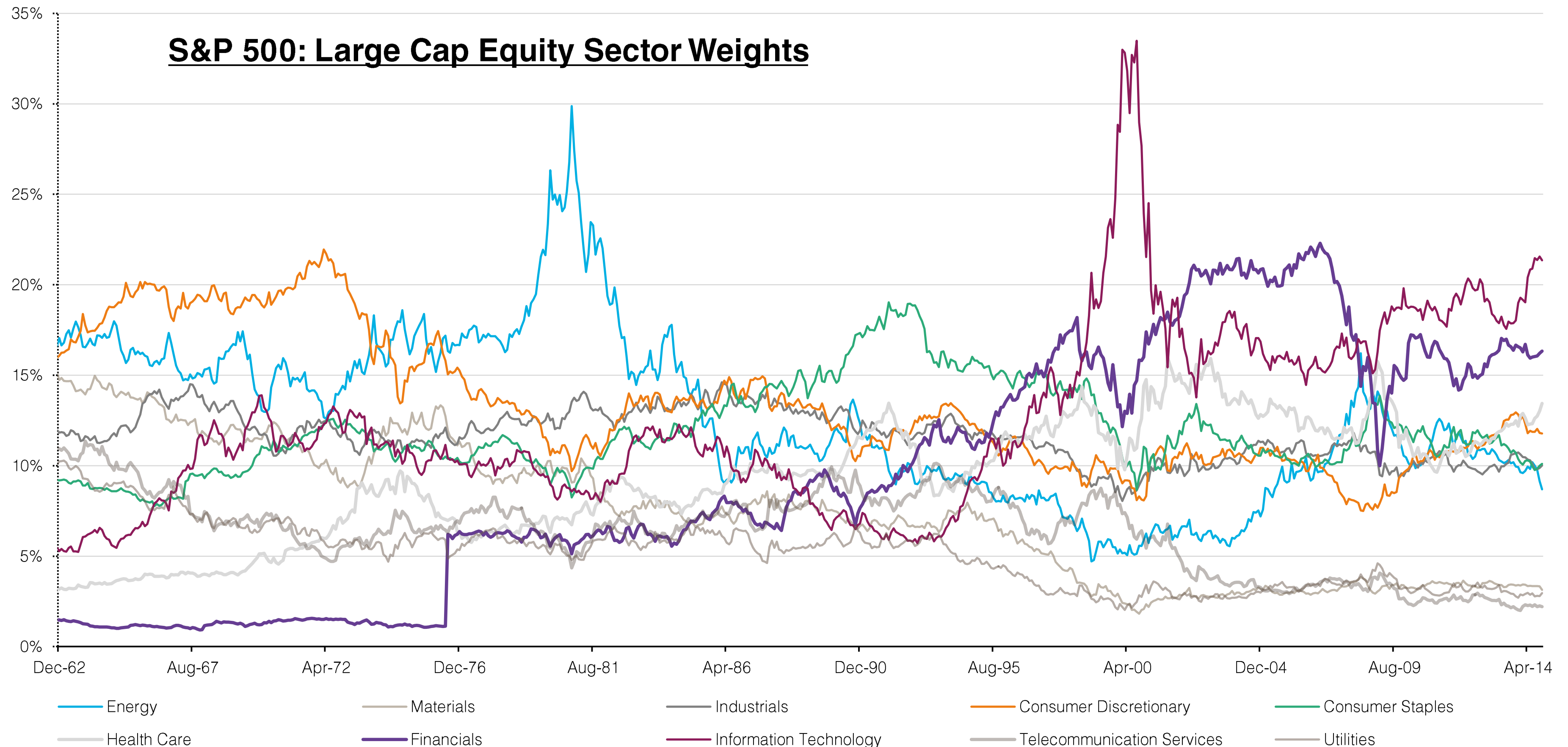
How can you be “Passive” and “Manage”?

- Being Passive = you do not manage
- Being Passive = Passively implementing an inefficient strategy:

  => Market cap-weighted benchmarks

Why is passive not the solution?
Cap-weighted indices take on heavy structural biases…

- As stocks appreciate, the greater their index representation, and conversely so
- The greater the imbalance, the greater the impact of changes in price (volatility)
- Using a biased benchmark as a reference carries heavy (and costly) implicit bets
- These implicit bets evolve dynamically over time



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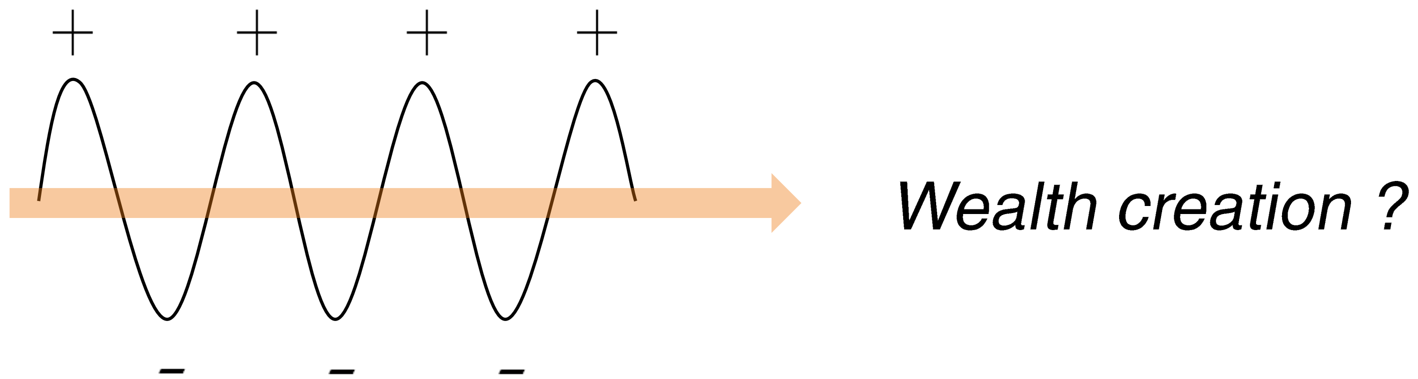
Source : TOBAM; CRSP 1962-2014

…which can destroy value…

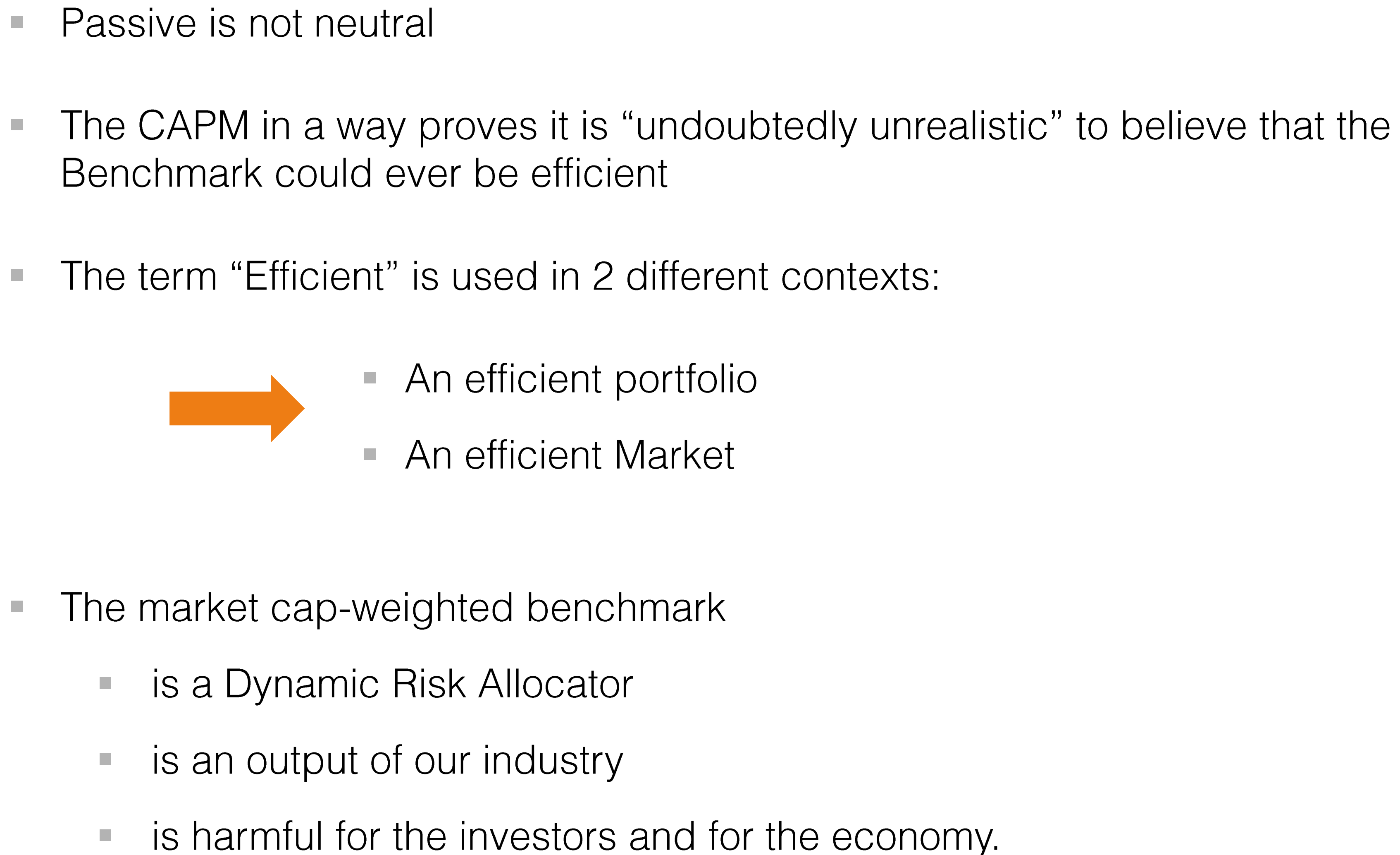
- Market benchmarks allocate risk dynamically over time and as such are not truly diversified:



- The market cap-weighted benchmark can also be described as a Dynamic Risk Allocator

The Big Misunderstandings

- Passive is not neutral
- The CAPM in a way proves it is “undoubtedly unrealistic” to believe that the Benchmark could ever be efficient
- The term “Efficient” is used in 2 different contexts:



  - An efficient portfolio
  - An efficient Market

- The market cap-weighted benchmark
  - is a Dynamic Risk Allocator
  - is an output of our industry
  - is harmful for the investors and for the economy.

Agenda

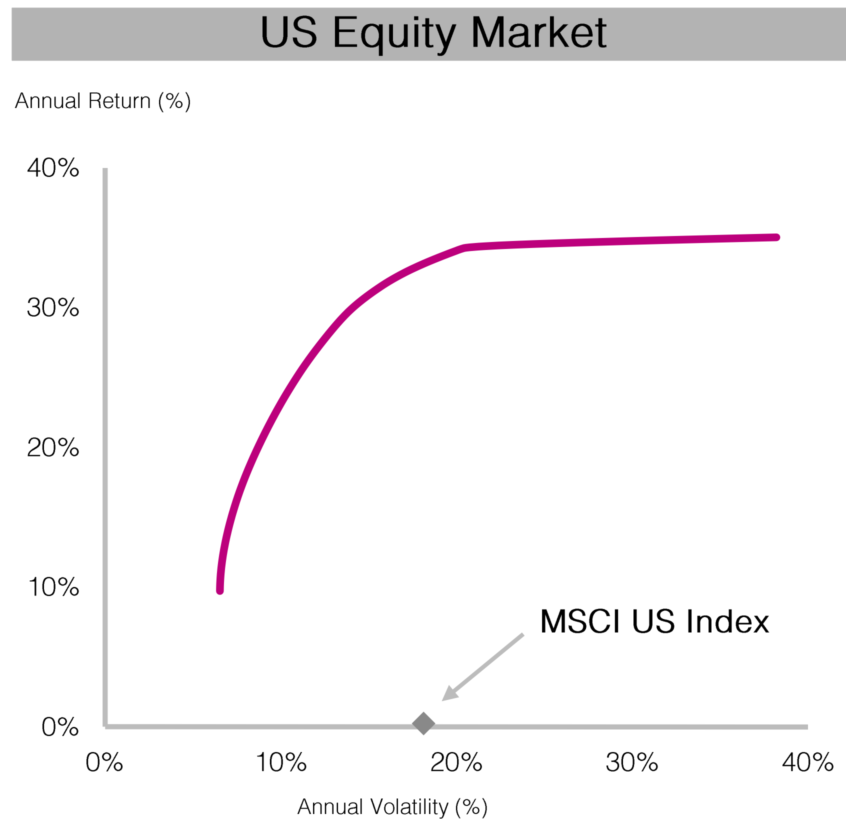
- Why is passive management not the solution?
- The real cost of passive management
- Why invest in equities ? : intro to a general framework
- The Anti-Benchmark® approach

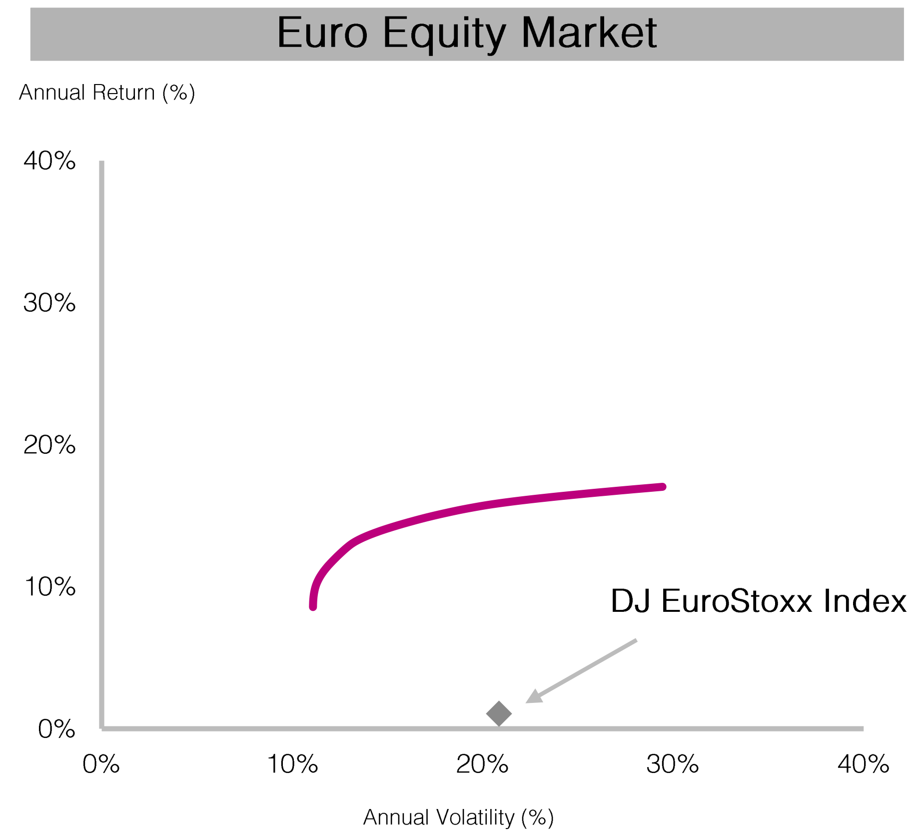
Across geographies and across time

Empirical evidence across

all geographical zones over mid to long-term investment periods:

(data from May 2001 to May 2006)





Source : Factset. All returns are stated in local currency. MSCI and DJ EuroStoxx indices are net of dividends.

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The real cost of passive management

- From "wrongly rewarded fees":
  - you want an efficient market
  - you want a healthy and growing economy
  - I want to fly New York-Paris not New York-New York
  - *Matt XXV: 14-30 The Parable of the Talents*
- To "unrewarded (because unmanaged and undiversified) risk" : Market cap-weighted benchmarks are hugely biased:
  - a dynamic risk allocator
  - Fail to be "close" to the efficient frontier ex-post

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Why invest in equities?
The search for the beta

Why are long-term investors investing in equities?

- Not only because they believe portfolio managers are skilled
- But because of a widely held investment belief:

2 sources of risk reward in equity markets

The Financial Sphere

Taking advantage of:

- arbitrage opportunities
- mispricings
- Forecasting capabilities
- Speculation

The Real Economy Sphere

"The Equity Risk Premium"
(ERP)

Delivered by the Most Diversified Portfolio

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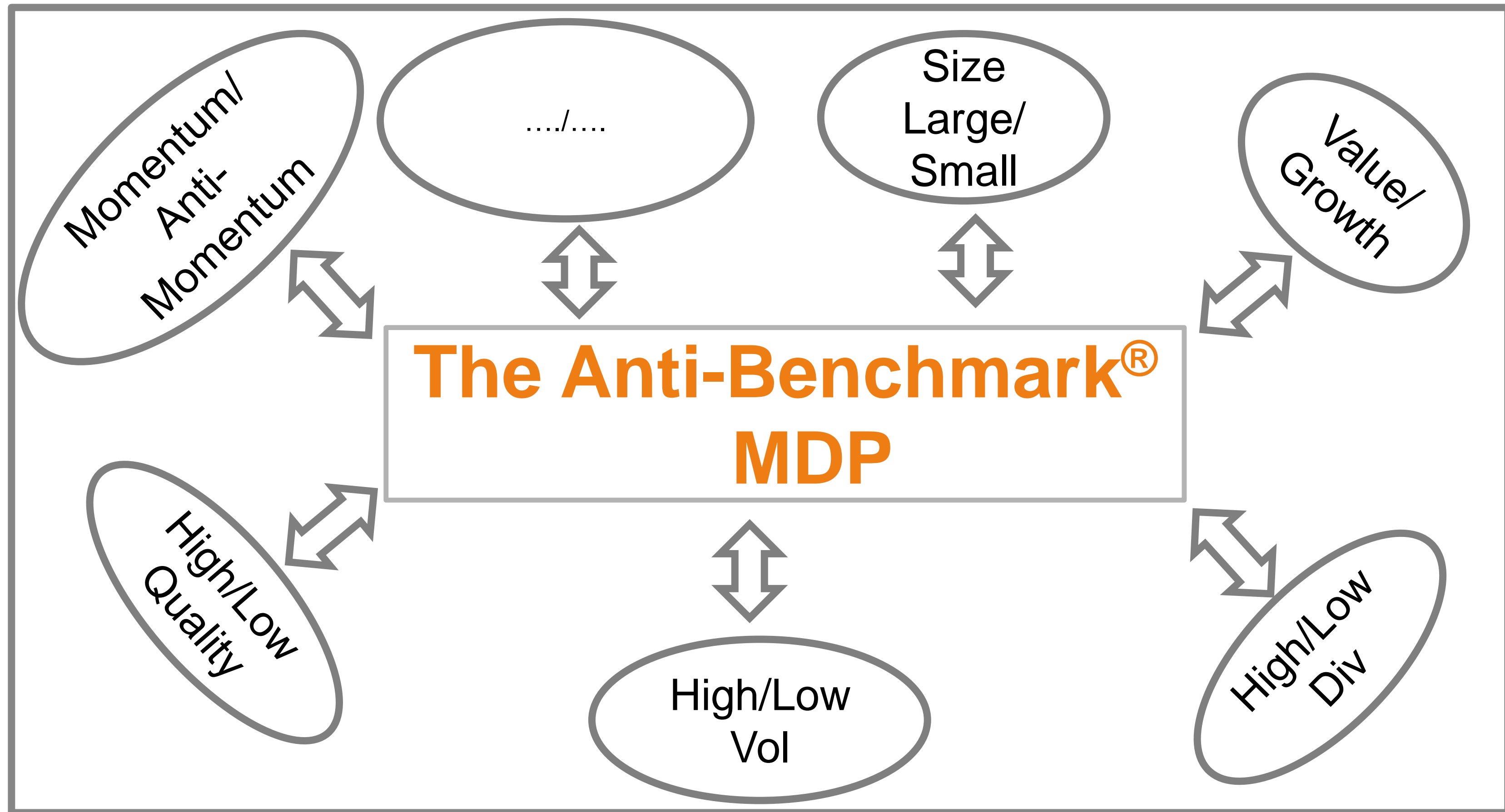
Implementation, our views



Core / Satellite approach with the MDP as Core investment

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What is Anti-Benchmark®?

Anti-Benchmark® : a quantitative investment approach based on a unique principle – seeking maximum diversification

The Anti-Benchmark® portfolio objective: outperform the market cap index with less risk, by maximizing diversification

- Definition of a mathematical measure of a portfolio's diversification: the *Diversification Ratio*® (patented),
- Set up of an investment process that maximizes this *Diversification Ratio*®,
- Long-only, no leverage and fully invested

The Anti-Benchmark® defines and maximizes diversification

- The Anti-Benchmark® aims to deliver broad equity market exposure that provides superior performance with lower risk
- Anti-Benchmark® attempts to capture the full equity market risk premium
- We believe the higher returns result from better capturing the risk premium

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Anti-Benchmark®: the neutral risk allocator

The Anti-Benchmark®:

- neutrally allocates risk to the effective independent sources of risk,
- is the undiversifiable portfolio,
- provides a theoretical definition of the equity risk premium

What is Diversification?

Diversification is the "magic" by which combining a set of non-fully correlated assets always results in a portfolio whose risk is lower than the weighted average of the single assets' risks:

Risk of the combination < Combination of the risks

$$\sigma_{(80\% A + 20\% B)} < 80\% \sigma_A + 20\% \sigma_B$$

$$\Leftrightarrow \rho_{A,B} \neq 1$$

Definition of the Diversification Ratio®

TOBAM's unique Diversification Ratio® is the tool to measure the diversification of any portfolio P:

$$DR(P) = \frac{\textbf{Combination of Risk}}{\textbf{Risk of the Combination}}$$

$$= \frac{(w_1\sigma_1 + w_2\sigma_2 + \ldots + w_n\sigma_n)}{\sigma_P}$$

The weighted average of stock volatilities

Portfolio Volatility

The Diversification Ratio® has NO bias toward high or low volatility stocks.

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Conclusion

- Market-cap weighted indices are not diversified
- Market-cap weighted indices are not efficient from a risk/reward perspective
- Market-cap weighted indices are dangerous for investors and for the economy when used as an input

Cost-effective alternatives exist that can:

- Minimize exposure to ‘unrewarded risk’
- Better capture the ERP via the undiversifiable portfolio

After accounting for fees, strategies that optimize risk/reward can offer superior ‘value’ compared to inefficient and undiversified strategies

A Lesson of Life

If you cannot forecast, you should only diversify

Tyrannosaurus Rex

Crusafontia
(prehistoric mammal)

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