

# What Drives Market Share in the Mutual Fund Industry & The Costs and Benefits of Performance Fees in Mutual Funds

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# Background

- Academic for 30 years
- Universities
  - University of Chicago
  - University of North Carolina
  - Duke University
  - Katholieke Universiteit Leuven
  - London Business School (since 1998)
- Industry:
  - Deutsche Bank, Debt Capital Markets (2000-2001)
- Consulting & Executive Education
  - JP Morgan Chase, Deutsche Bank, Anglo American, Bertelsmann, Suez, PWC, Mars, BG Group, Barclays Capital, Freshfields, Continental

# Research

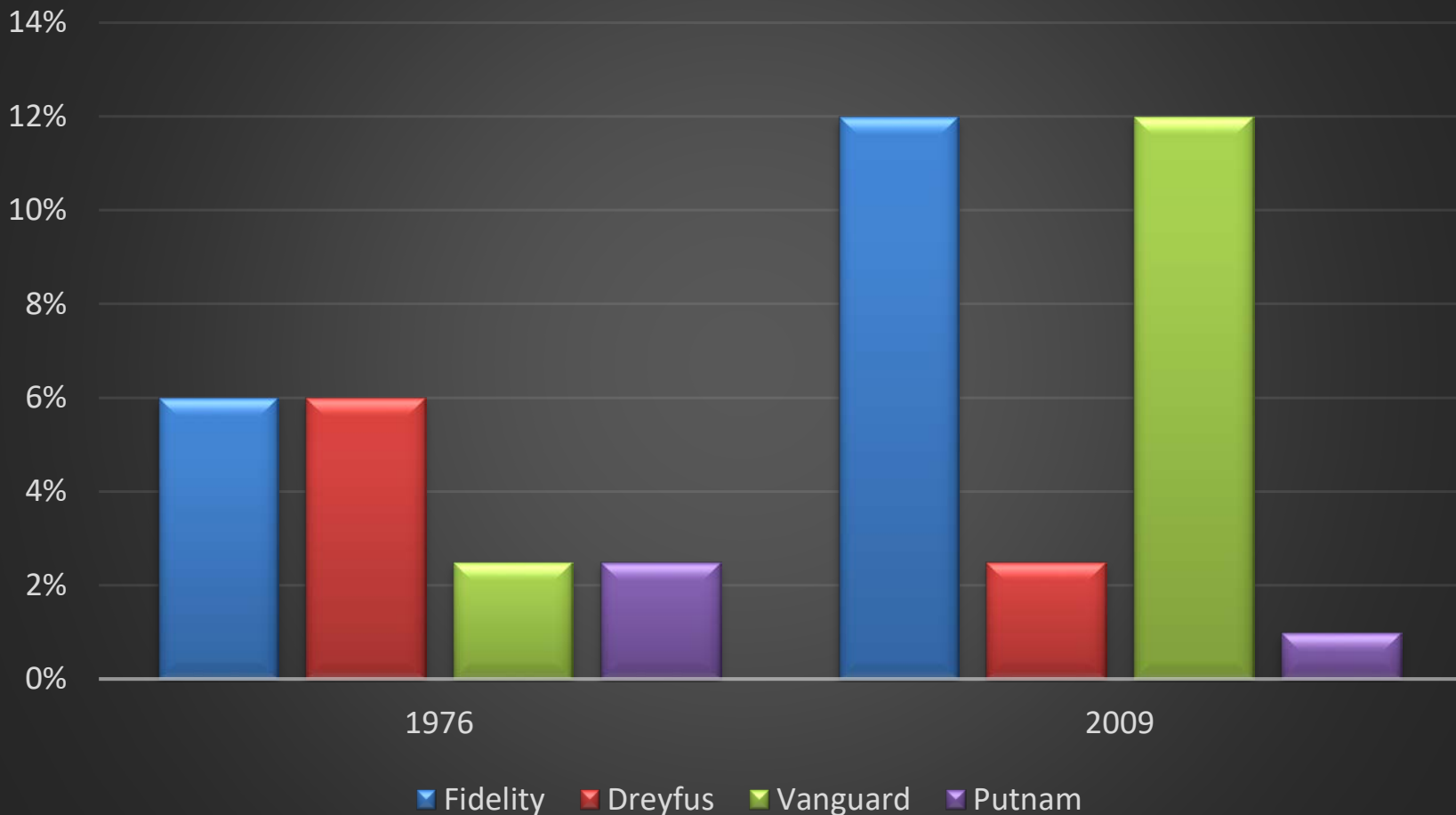
- Corporate Finance
- Fund Industry:
  - The determinants of mutual fund starts, *Review of Financial Studies*, 1998
  - Explaining the size of the mutual fund industry around the world, *Journal of Financial Economics* 2005
  - Portfolio manager ownership and fund performance, *Journal of Financial Economics*, 2007
  - On the future of the mutual fund industry around the world, *Brookings Institution*, 2008
  - Mutual fund fees around the world, *Review of Financial Studies*, 2009
  - What drives market share in the mutual fund industry, *Review of Finance* 2012
  - The costs and benefits of performance fees in mutual funds, *Working paper* 2018

# What drives market share in the mutual fund industry?, with Ajay Khorana

- Goal of this research: understand how fund management companies compete
- Unit of observation: Fund complex, not the fund
- Focus on market share: culmination of all competitive pressures in the industry:
  - Price and product policies of fund management companies
  - Response of consumers to these policies
- Note:
  - We are not saying that market share is the goal by itself
  - But it is a useful statistic

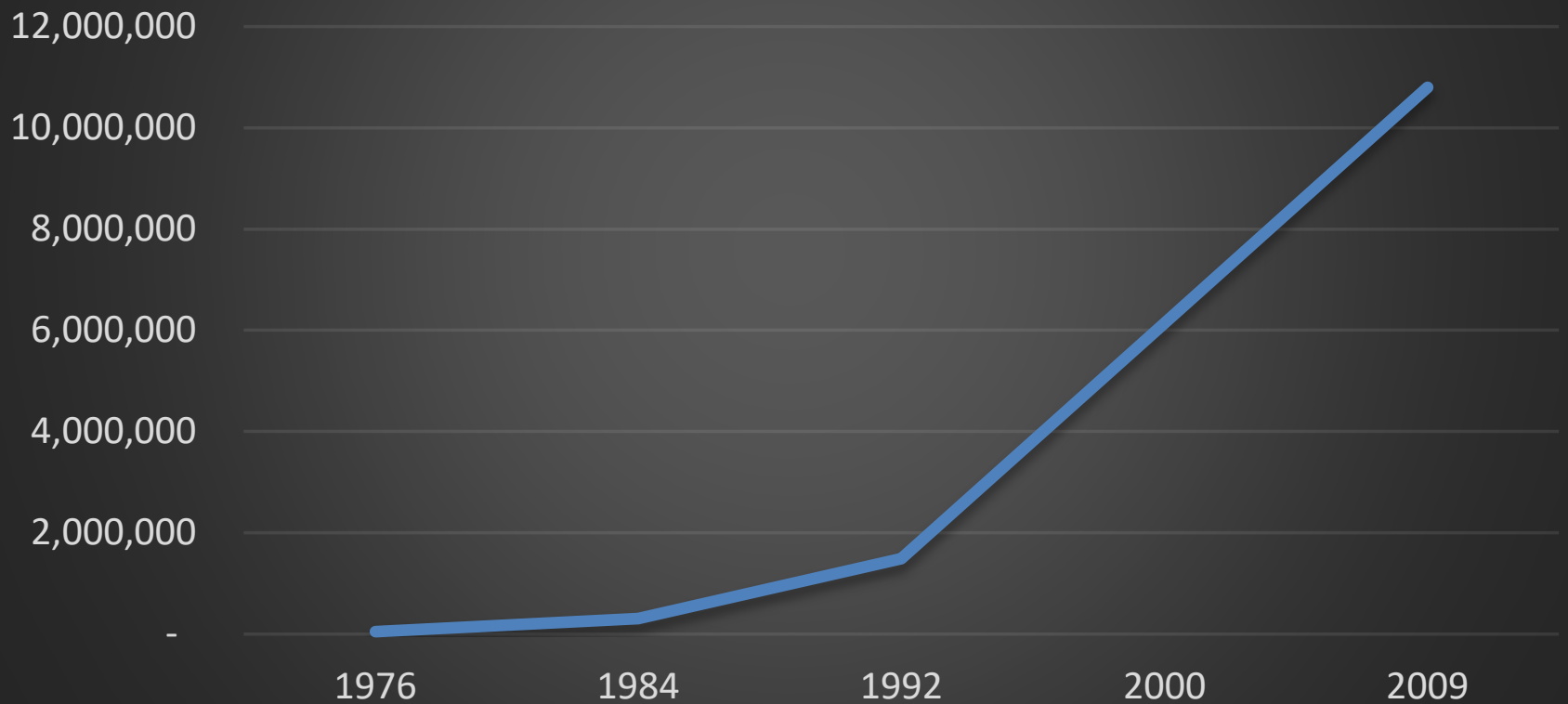
Observation that prompted us to look into this

## Market shares



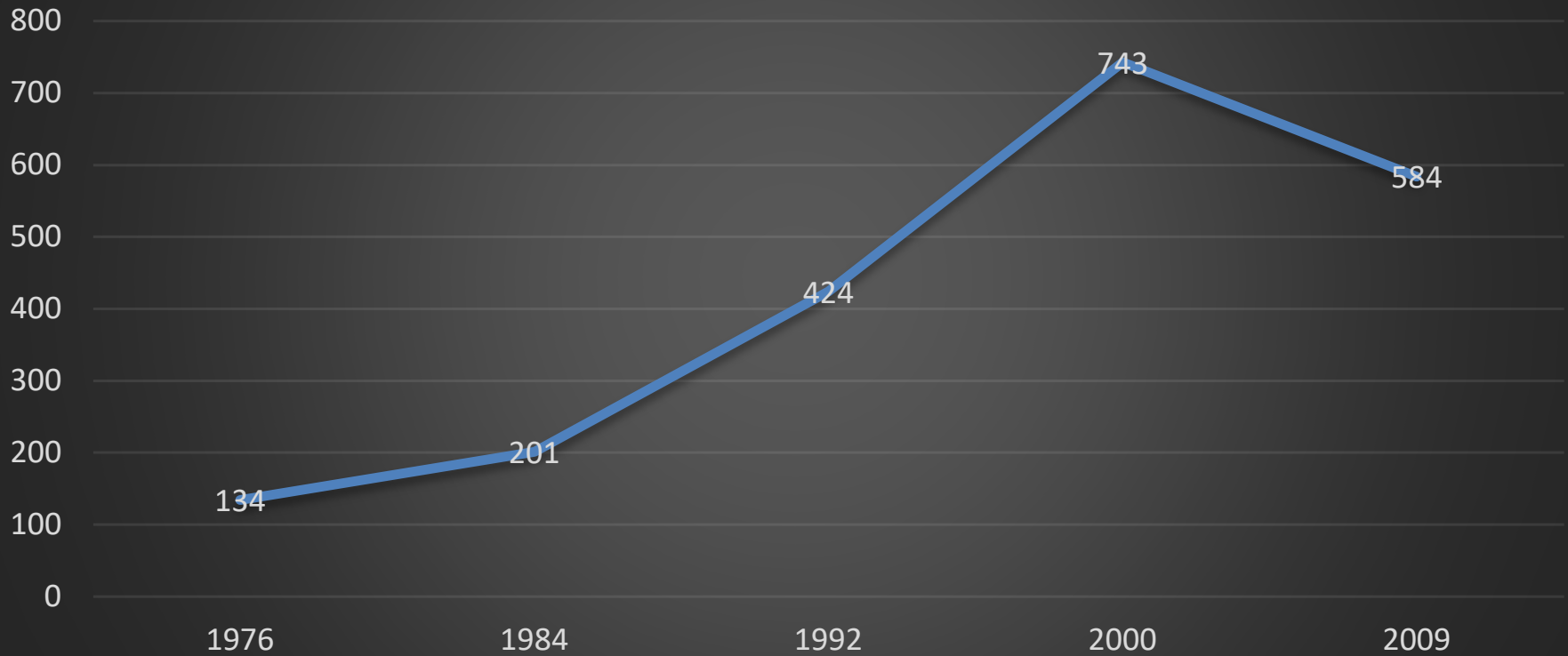
# How the US fund industry has changed

## Assets under management (\$ millions)



# How the US fund industry changed

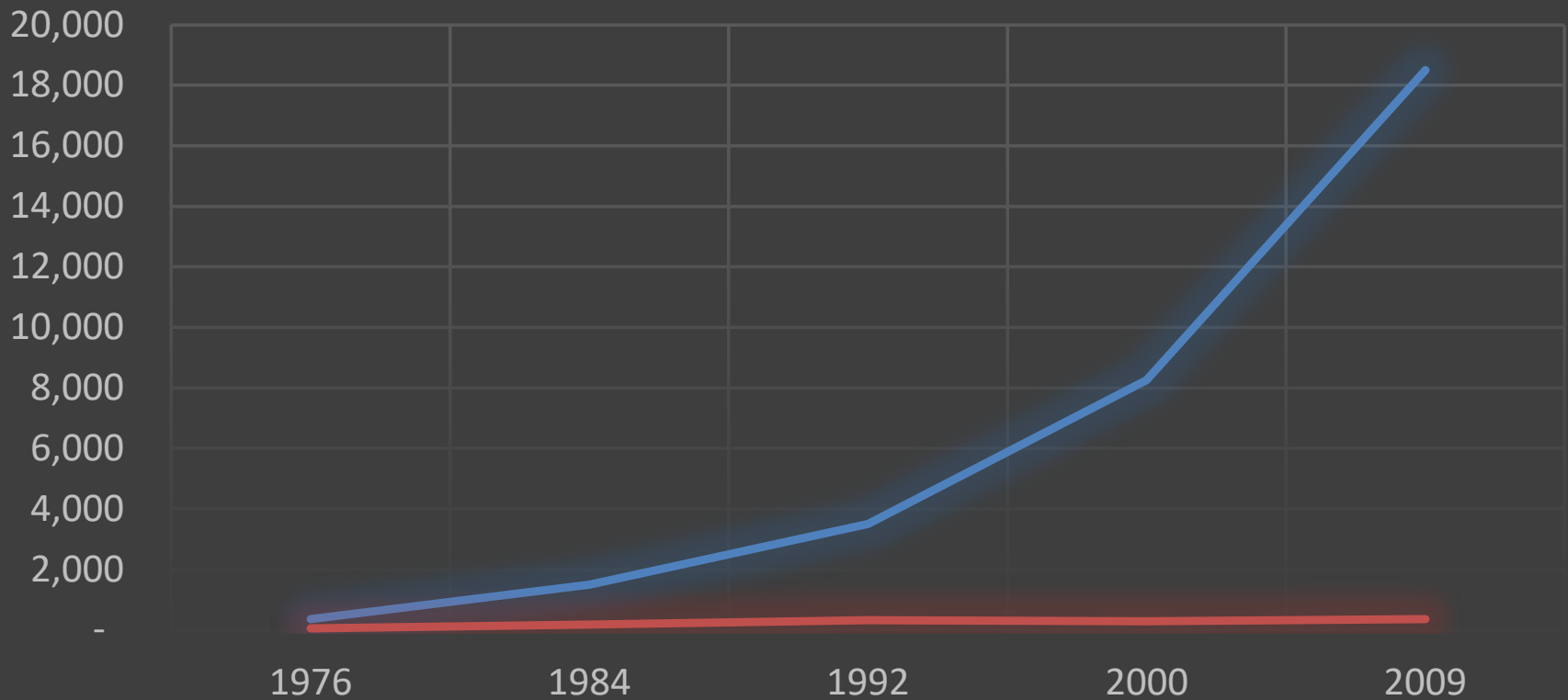
## Number of complexes



# How the US fund industry changed

## Complex size (\$ millions)

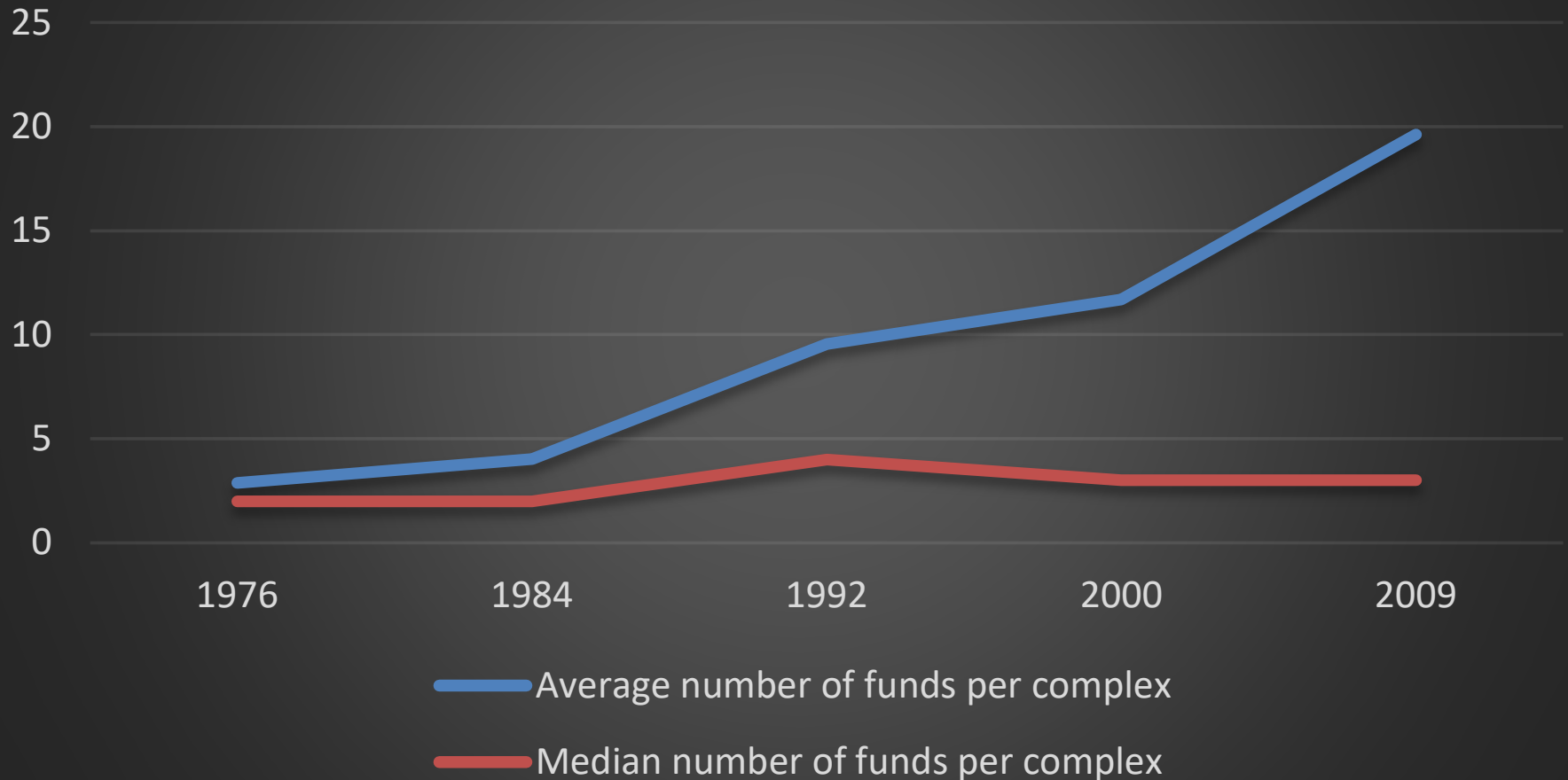
— Average complex size    — Median complex size





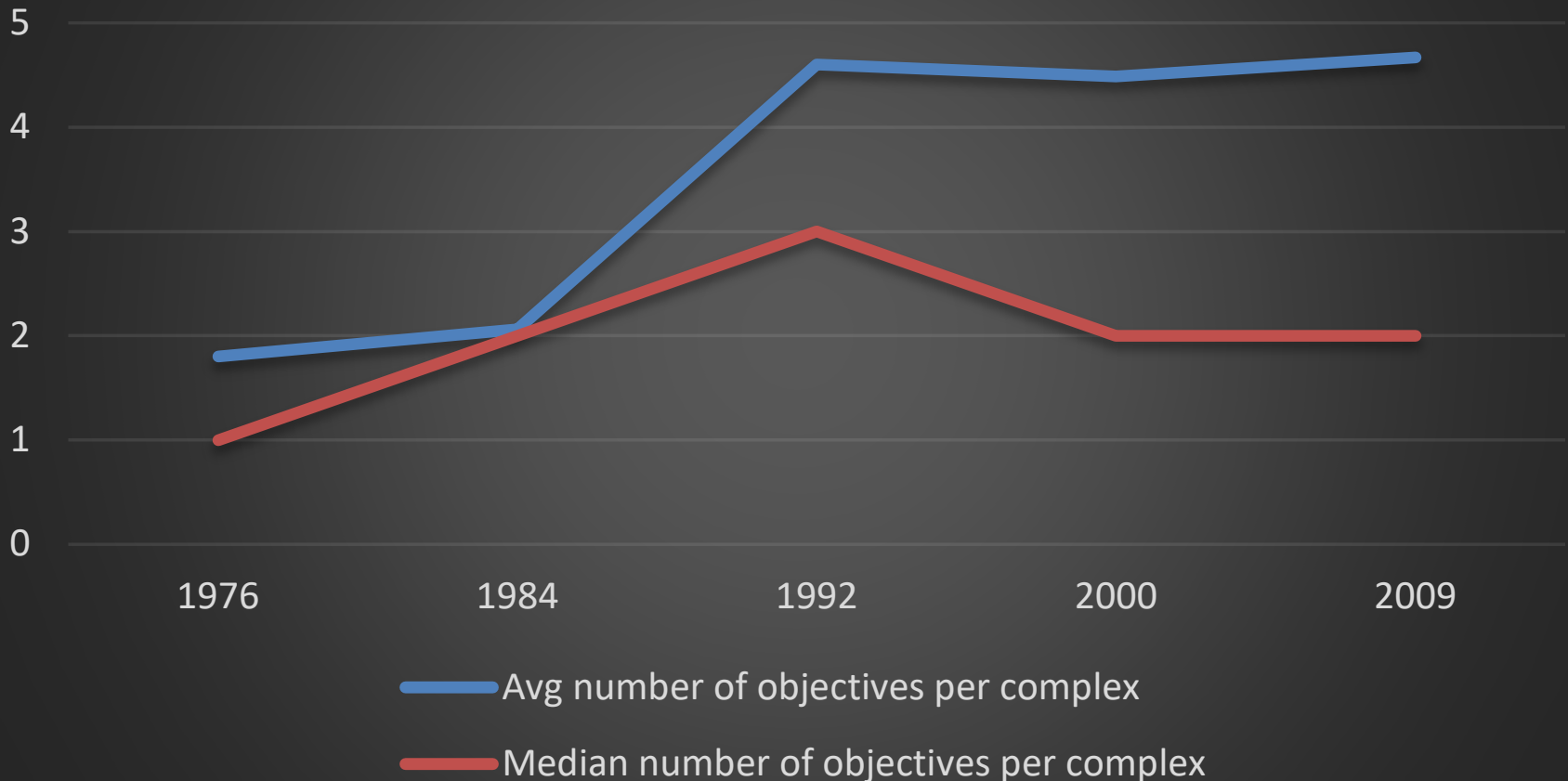
# How the US fund industry changed

## Number of funds



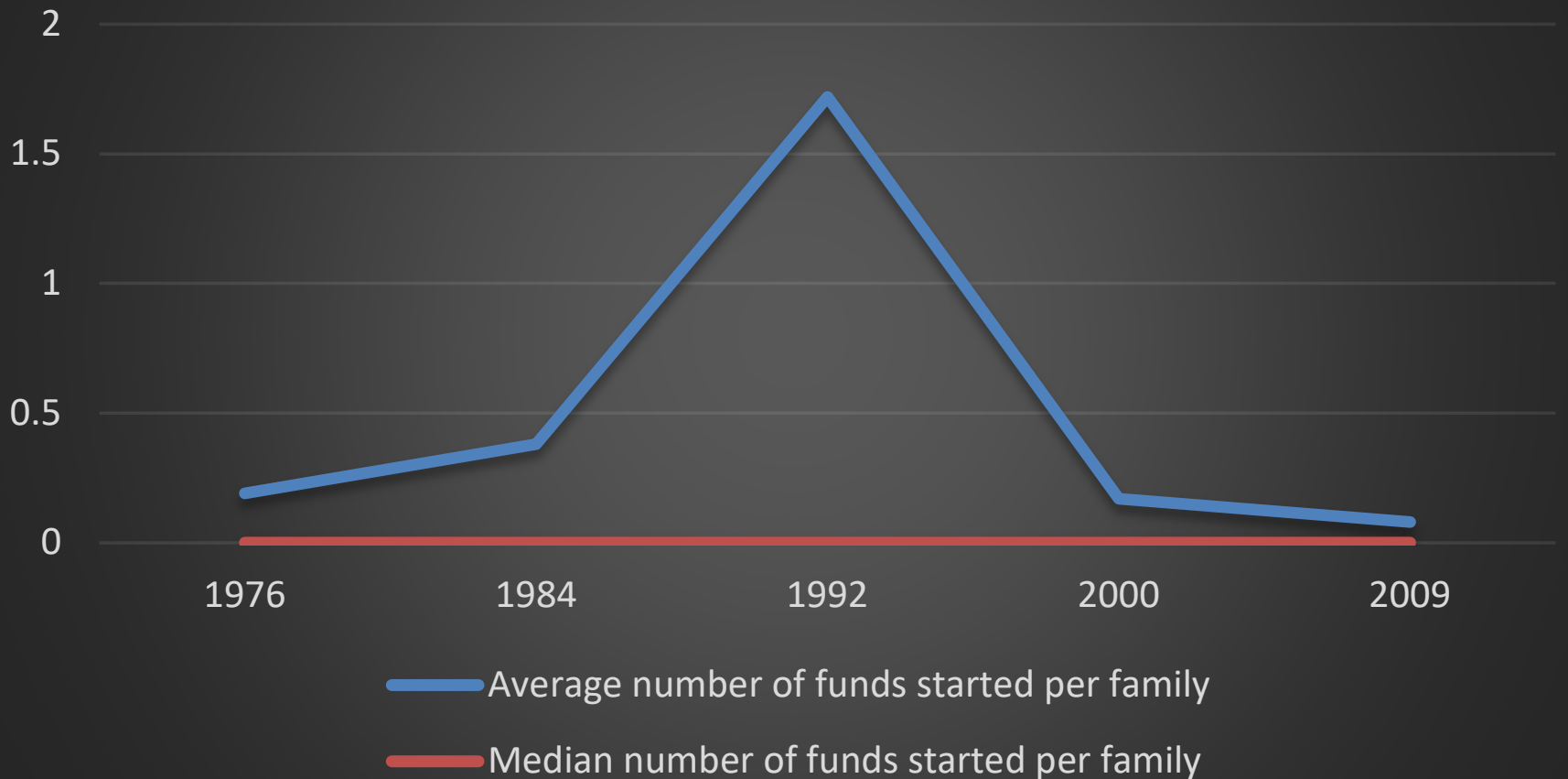
# How the US fund industry changed

## Number of objectives



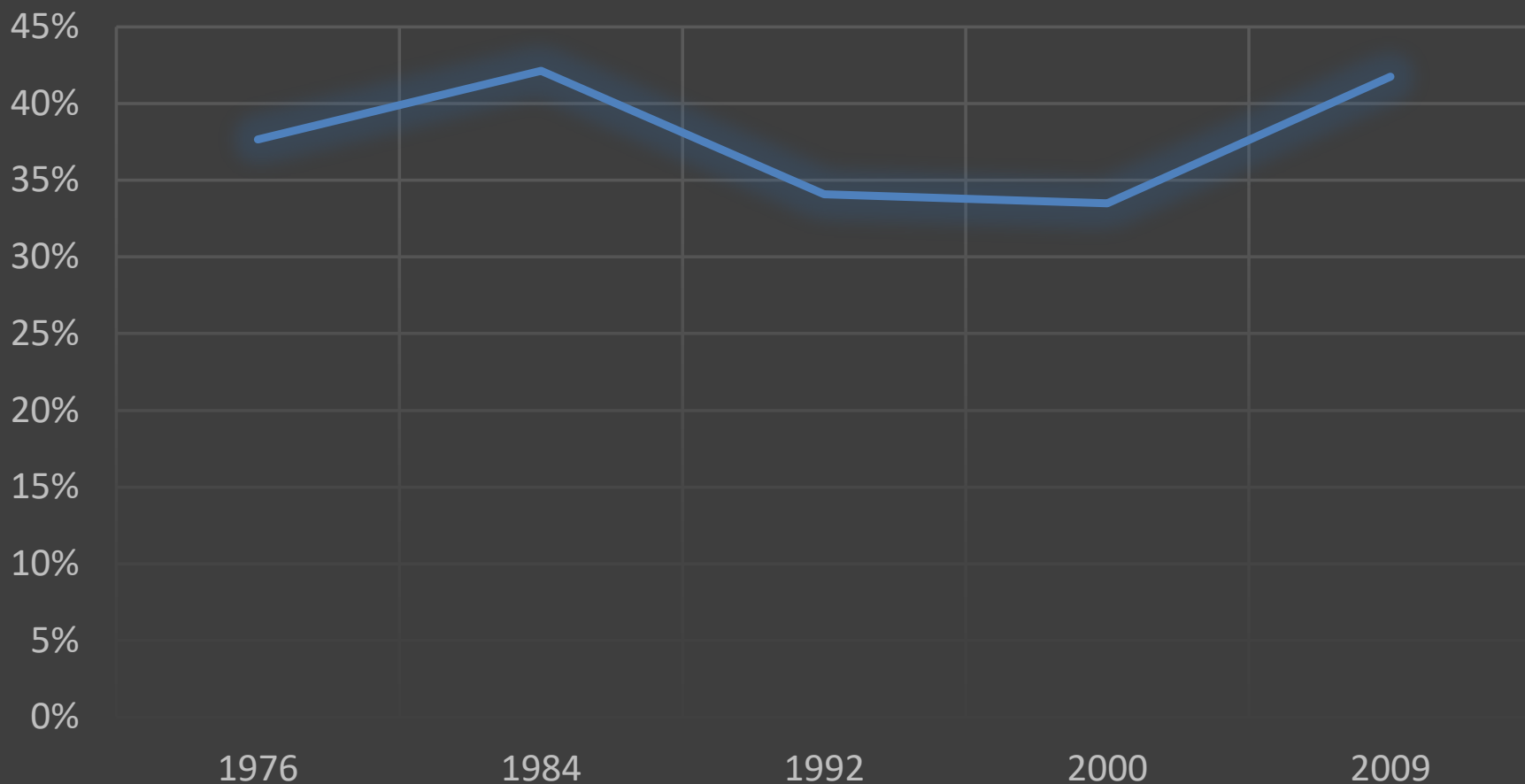
# How the US fund industry changed

## Fund starts



# How the US fund industry changed

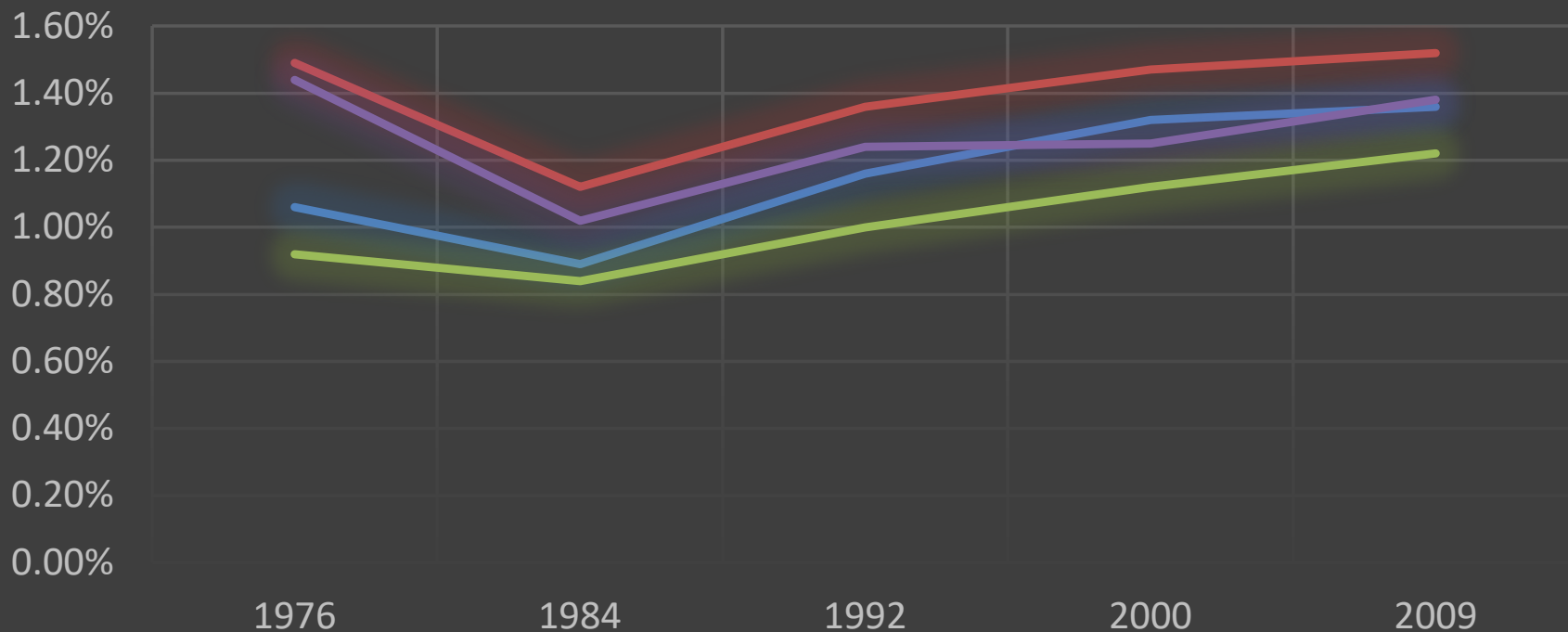
## Market share of top 5 complexes



# How the US fund industry changed

## Expenses

- Average expenses
- Average expenses incl. loads
- Median expenses
- Median expenses incl. loads



# Observations

- Industry is maturing
- Less innovation
- Complexes are not getting broader in terms of objectives, although they are still starting new funds
- Top 5 complexes maintain their market share
- Average price is not coming down ?

# Regulatory interest in fees & legal action

- Eliot Spitzer was after fund fees: Alliance Capital agreed to cut management fees by 20%
- Baker vs American Century lawsuit: alleging excessive management fees

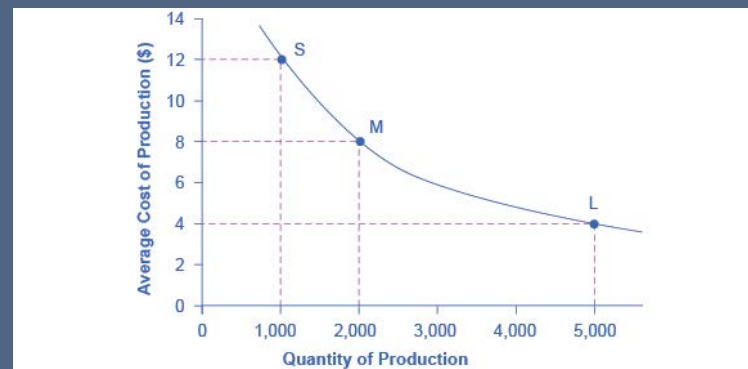
# Questions

- How do firms compete in this market – which strategies have been successful?
- We build a model of market share as a function of
  - Market share in previous year
  - Elements of price competition
  - Non-price competition – product differentiation
- If mutual funds were like a commodity, you would expect prices to come down and the product to be very homogeneous
  - This is clearly not the case



# Price competition – What do we study?

- Total shareholder costs: Expense ratio +  $1/7^{\text{th}}$  of loads
- Splits of total shareholder costs:
  - Front-end load
  - Back-end load
  - Expenses
  - 12-b1 fees
- Do firms pass along economies of scale to investors?
  - For each fund family, we estimate a model of total shareholder costs as a function of fund size, time, and the objectives of the fund
  - If the sign on size is negative, we say that economies of scale are passed on to investors



# Price competition

- Residual (unexpected) expenses:
  - Estimate a model of expenses as a function of:
    - Fund Size
    - Fund Turnover
    - Investment objectives
  - Do this on a yearly basis
  - Use the model to predict expenses
  - Take actual expenses minus predicted expenses

# Price competition

- If market share is sensitive to fees, is the sensitivity the same along the entire fee range?
- Fees are computed as value-weighted objective adjusted fees across all funds in the complex

# Performance

- Excess returns:
  - Computed as the weighted average for the entire complex over all funds
  - Adjusted for the performance of other funds in the same investment objective

- Morningstar ratings



- Presence of a fund in the top 5% of its objective



# Breadth & focus



Number of funds offered

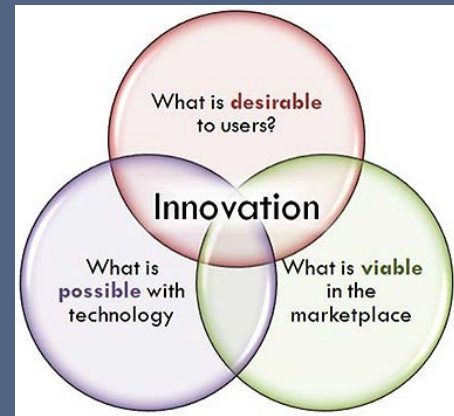
The diagram consists of two blue, arrow-shaped boxes pointing towards each other, meeting at a central point. The left box contains the text 'Number of funds offered' and the right box contains 'Herfindahl index'.

Herfindahl index

Example: if a family has two objectives with 75% of assets in one and 25% in the other, the Herfindahl index is:

$$0.75^2 + 0.25^2 = 0.625$$

# Innovation



- Number of funds started:
  - We allow the effect to marginal effect of additional starts to decline (and even reduce overall market share)
- Number of funds started in an objective as a fraction of number of existing funds
- Differentiation:
  - How different is the new offering from *all* existing offerings in the market
  - Stock funds:
    - P/B ratio
    - Earnings growth
    - Median market cap
  - Bond funds:
    - Average price
    - Maturity
    - Coupon rate

# Other

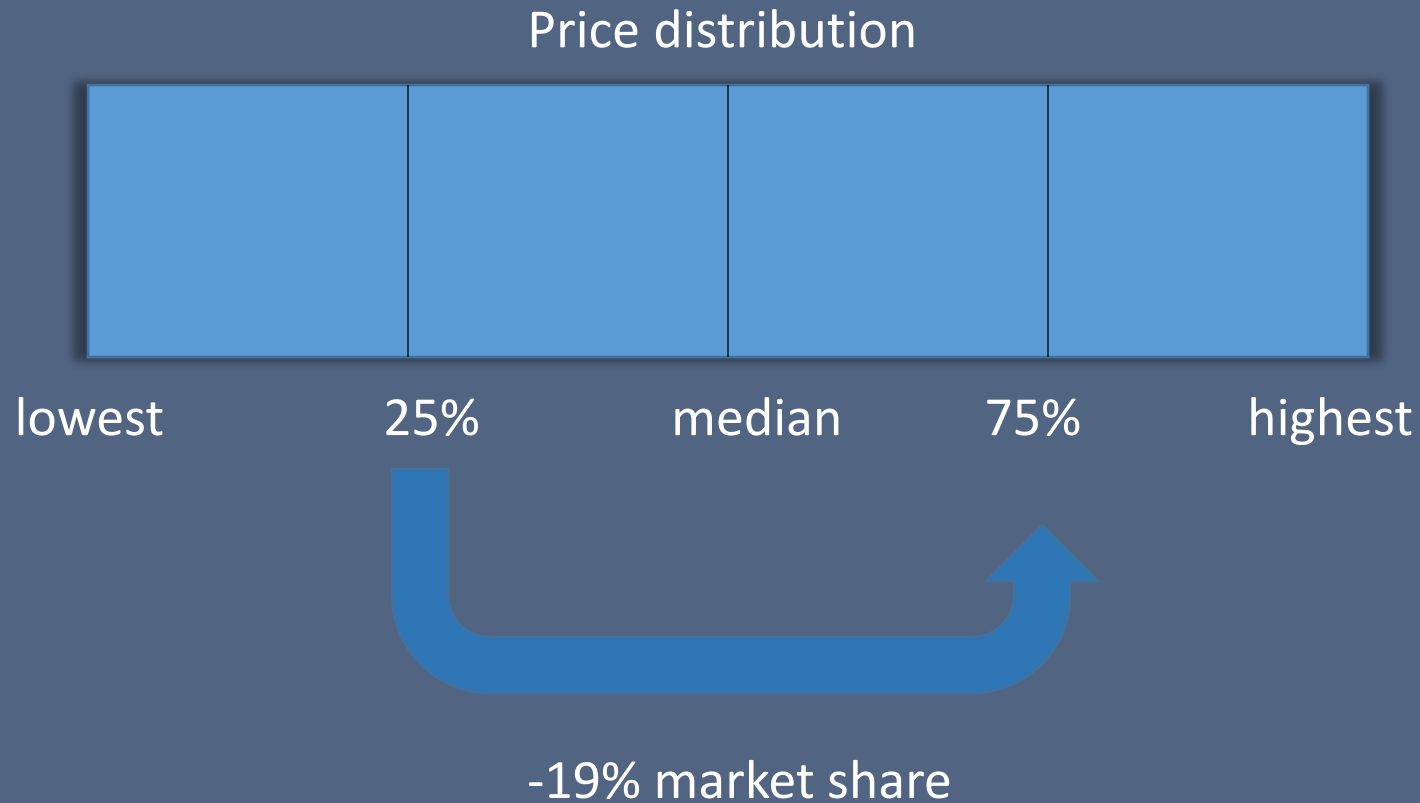
- Turnover
- Experience

What we do?

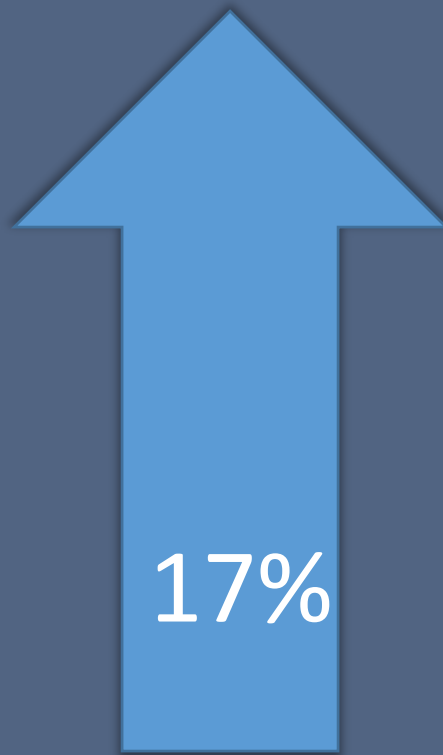
We analyse these factors for all US mutual fund  
complexes from 1976 to 2009



# What matters? Price is important



# Passing on economies of scale



market share

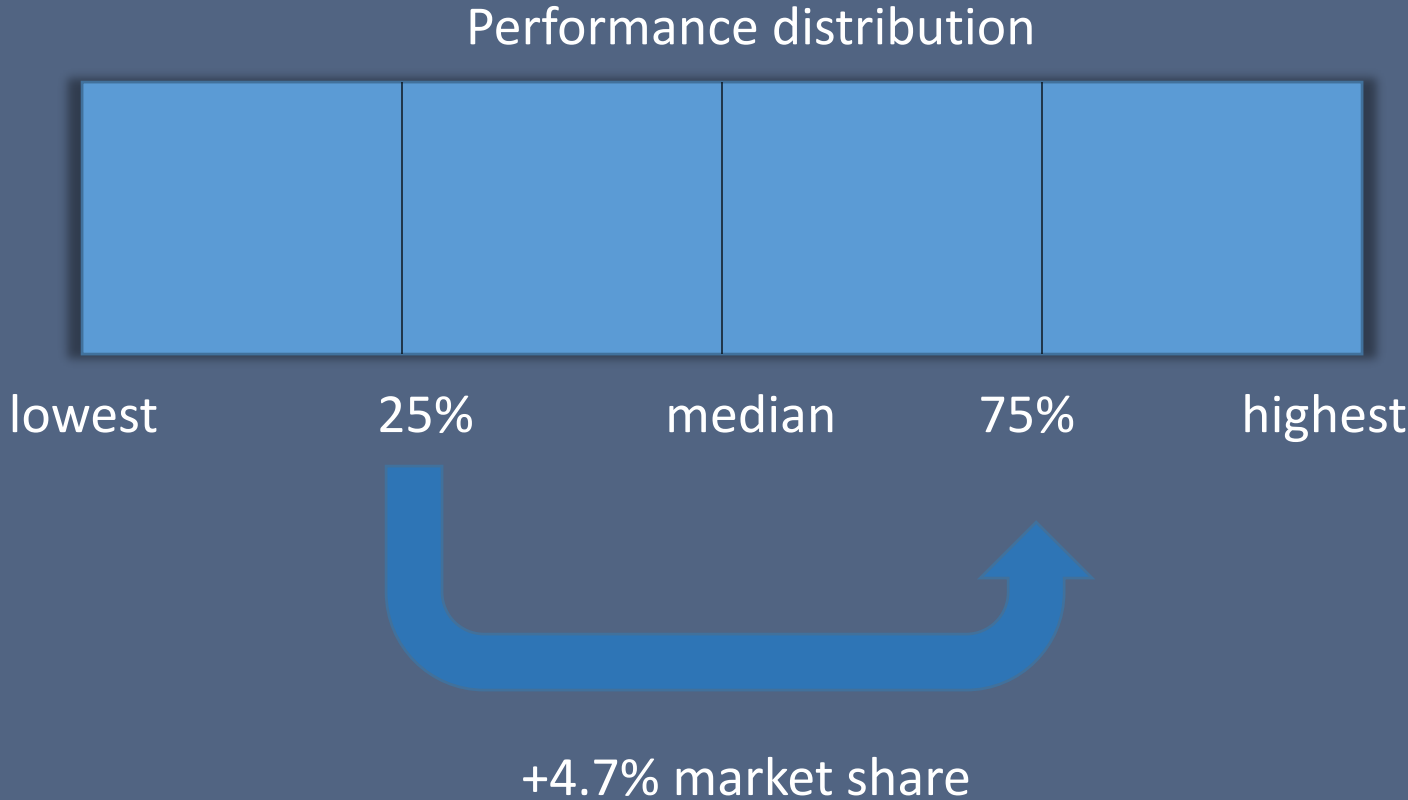
# Conclusion on price competition

Price competition is effective

There is no need for more fee disclosures

There is no need for explicit regulation of fund fees

# What matters? Performance is important



Winner takes all



Just having one fund in the top 5% of its category

increases market share the following year by 47%

# Innovation

Just opening one new fund increases market share by 8.6%

The effect tapers off

# Others

More funds = higher market share

More experience = higher market share

More turnover = lower market share

Focus does not matter much

# By Category

These effects are fairly similar across

Equity

Balanced

Bonds

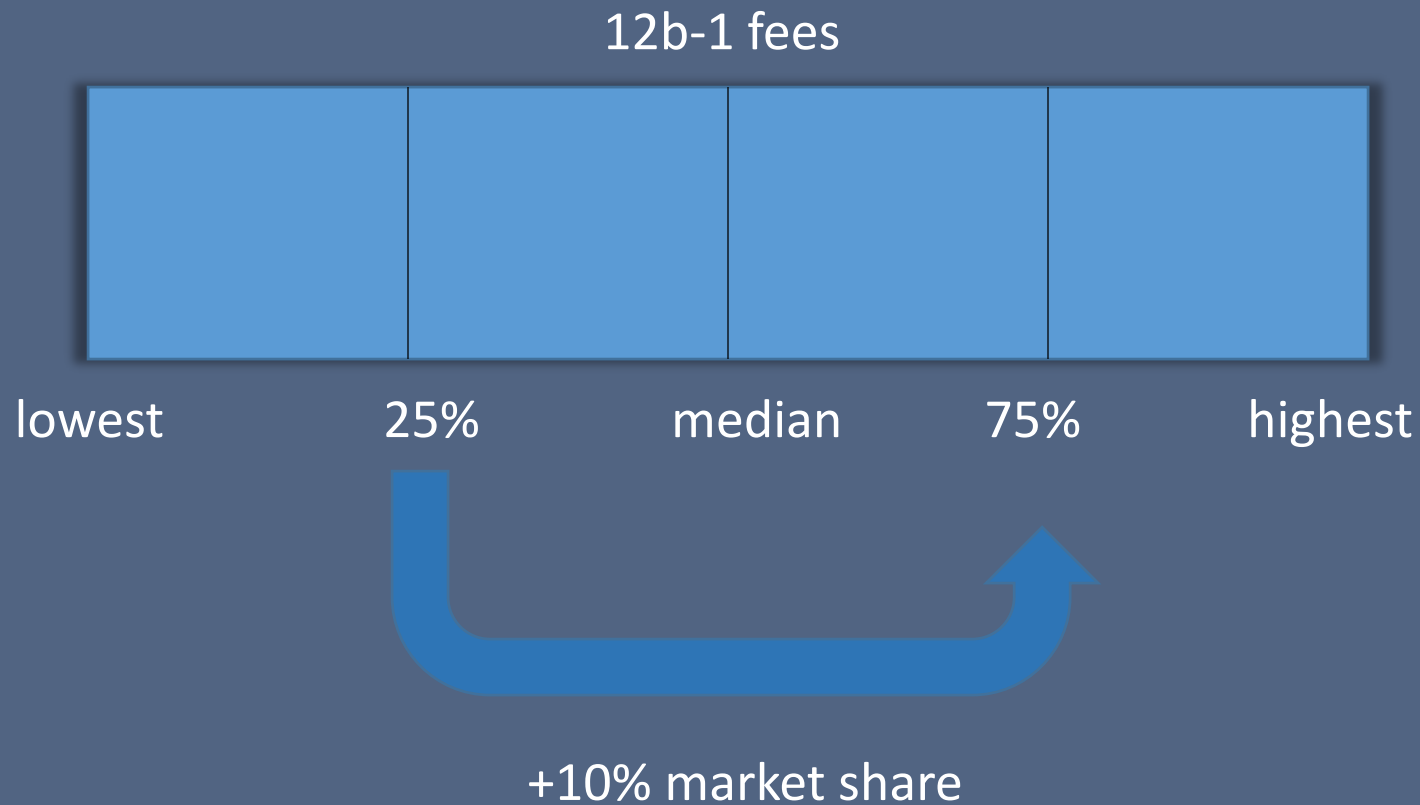
Money market



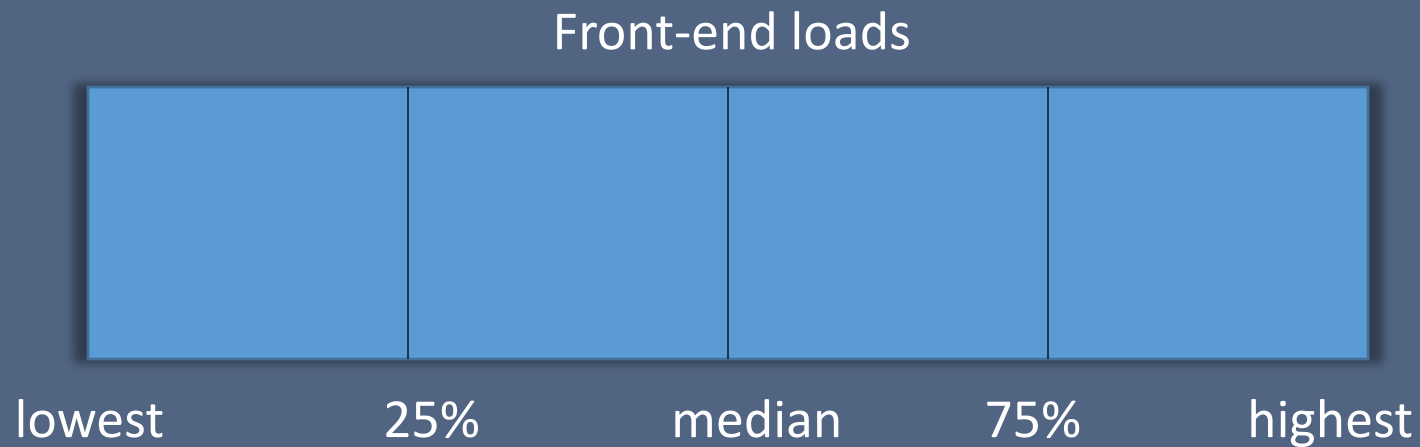
Funds



# Breaking up expenses



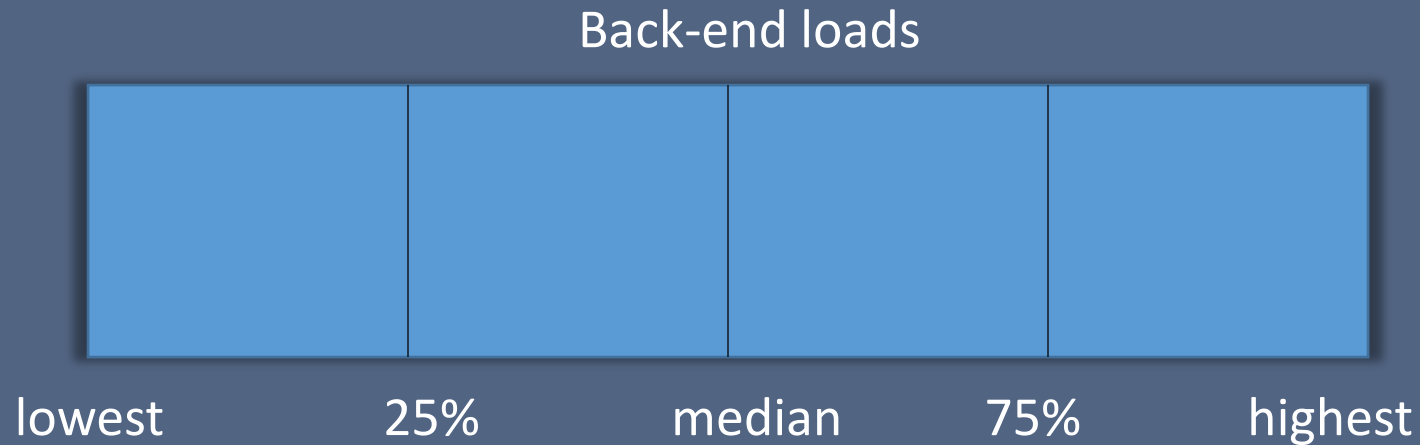
# Breaking up expenses



+5.5% market share

Only works for small complexes

# Breaking up expenses

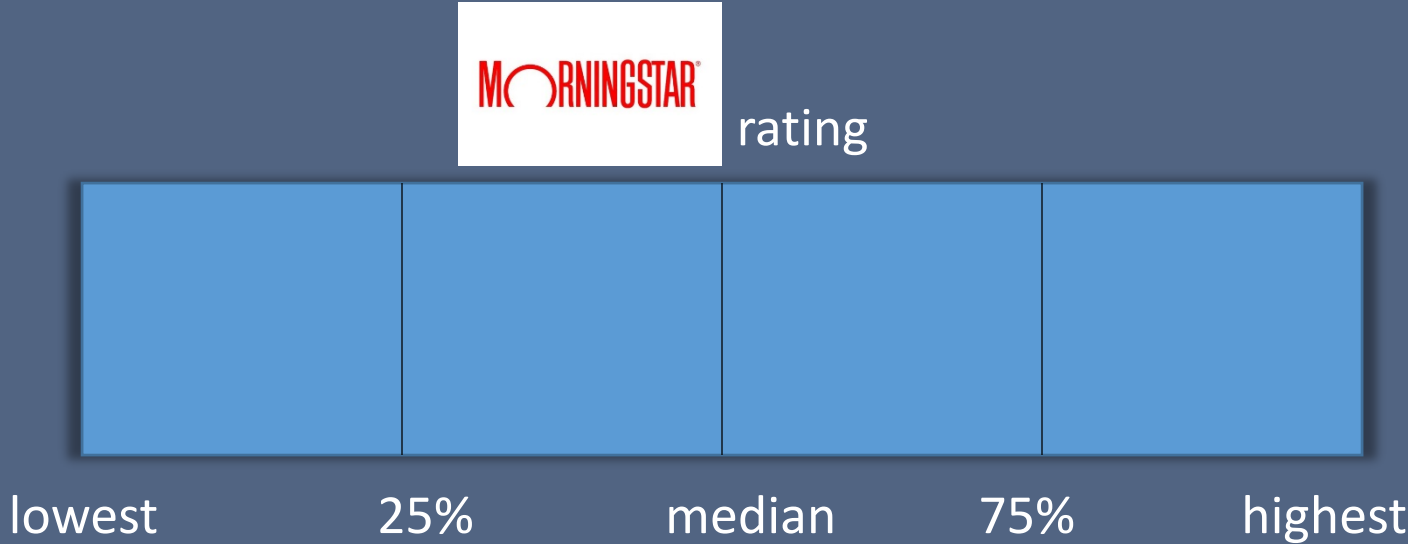


+2.2% market share

# Innovation in detail

- The more the new funds are different from all existing offerings in terms of their characteristics, the larger the effect on market share
  - A difference of 1 standard deviation increases market share by 4%
- The effect tapers off
- Starting funds in a crowded segment has a smaller marginal effect

# Simple measures of performance



+34% market share

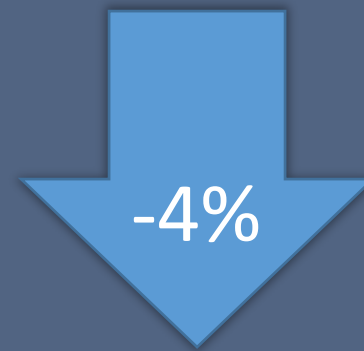
# Asymmetry in response to fees

Top half expenses



Market share

Bottom half expenses



Market share

# Conclusion

- Competition works
- Price is not everything
  - Consumers seem less sensitive to prices when they are 'reasonable'
- No need to mandate more price disclosures or regulate prices
- This does not imply that customers should not pay attention to fees

Questions





# The costs and benefits of performance fees in mutual funds, with Kari Sigurdsson

## Renewed regulatory interest in performance fees

- FT Jul 8, 2017

**FTfm UK financial regulation**

**Fund manager performance fees under attack**

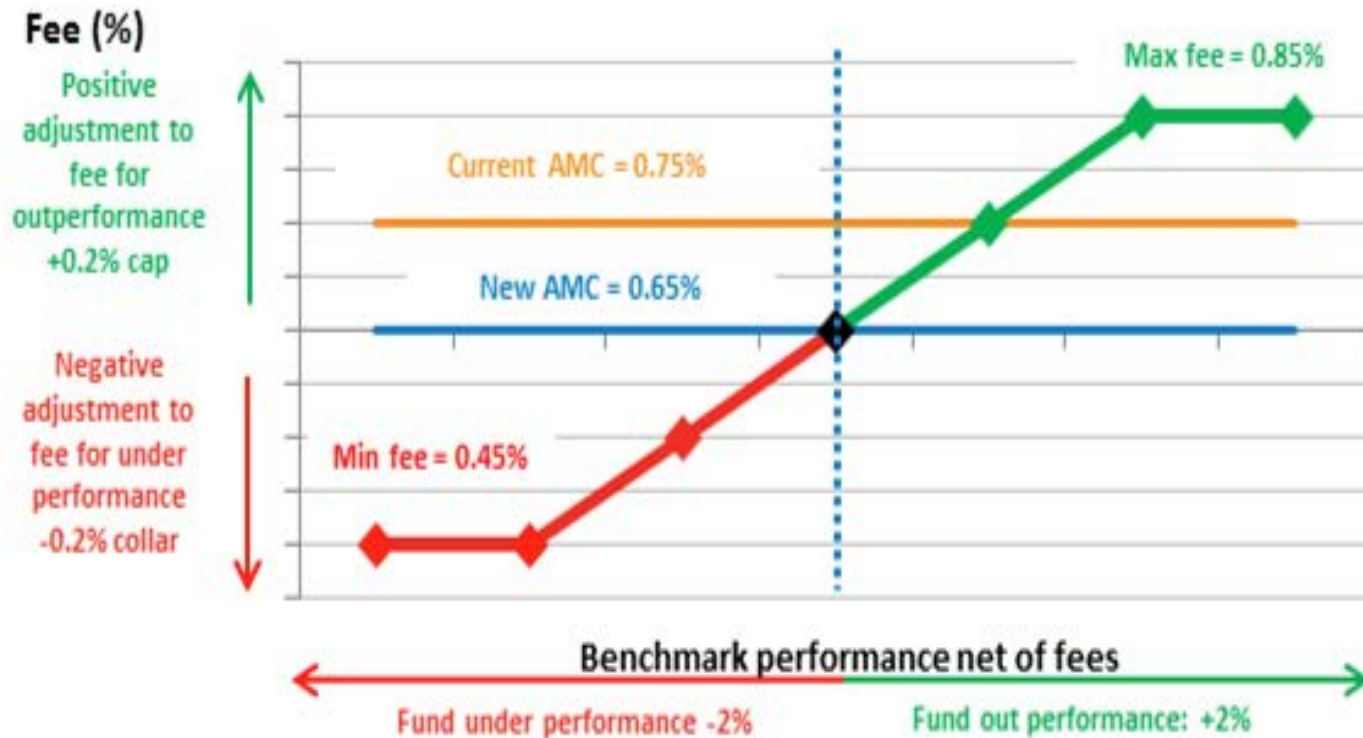
- FT Nov 16, 2017

## **EU regulator to probe fund performance fees**

Probe by the European Securities and Markets Authority comes as a growing number of asset managers implement fee structures that are closely aligned with performance

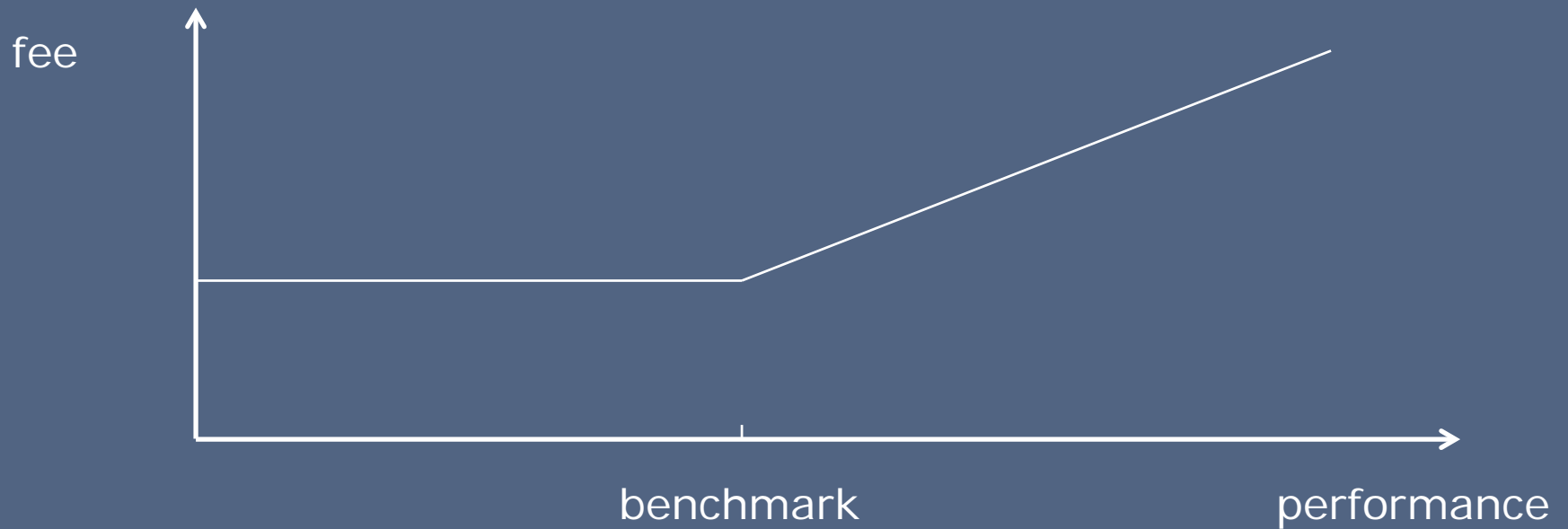
# Renewed interest from the public

## Fidelity's new structure



# Fidelity is not typical

- Asymmetric performance fees are more typical





comment

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FUND SPY

## Performance Fees: An Idea Whose Time Has Come

17 Aug 2017

# Regulators' worries

Risk taking

Lack of transparency: allows for abuse

# FCA 2017 Report on Fund Management Industry

## 13 Transparency of fees and charges

In this section we provide a summary of the responses and our final recommendations on the single all-in fee and alternative solutions, disclosure of fees and charges for investors and risk-free box profits.

We have considered how some of our concerns in this area may be addressed by upcoming regulation. We propose to:

- improve the way firms communicate fund charges and their impact, particularly in ongoing communications to retail investors, including supporting the single all-in fee being brought in by MiFID II
- encourage increased transparency and standardisation of costs and charges information for institutional investors
- consult on requiring firms to return any risk-free box profits to the fund

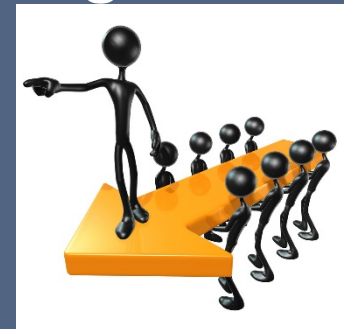
- consult on rules so that performance fees are only permitted above the fund's most ambitious target and consider whether further policy action on performance fees is appropriate

# Theoretical benefits

- Steeper incentives will lead fund managers to perform better



- Steeper incentives will allow the fund management company to attract better managers



Evidence

Very little



# What we do

Gather detailed data on performance fee contracts of all equity European mutual funds (EU + Norway + Switzerland) over the period 2001-2011 and answer 3 broad questions

Do Performance Fee (PF) funds perform better?

Do PF funds have lower expenses?

Do PF funds take more risk?

## The verdict



## The Good: Risk Taking

- We find no evidence that PF funds have higher return volatility than non-PF funds
- We do find that they take more active risk – they deviate more from their Morningstar benchmarks

## The Bad: Net performance

Performance fee funds underperform similar non-performance fee funds by about **50-60 bps** per year

Maybe there are inherent differences in managerial quality

Even if we look at the *same* manager running both a PF fund and a non-PF fund during the *same* year, we find this result

What is going on?

# The devil is in the detail: 3 contractual features matter

## The benchmark

- The target that needs to be achieved before performance fees are paid

## The hurdle

- An additional lower target that needs to be achieved before performance fees are paid
- Used to prevent performance fees being paid for negative returns

## The high water mark

- A previous high that needs to be achieved before performance fees can be paid
- Prevents performance fees from being paid twice for the same performance

Underperformance is concentrated in two groups of PF funds

1. Funds that do not set a specific benchmark against which performance is measured

These funds get paid a performance fees for beating a (low) hurdle if it exists at all

Underperformance is concentrated in two groups of PF funds

2. Funds that set a benchmark that is easy to beat and not aligned with their underlying investment objective

The worst performing funds set a benchmark that is 3% per year lower compared to other funds

# Expenses

- PF funds have expense ratios – which include the performance fees themselves – that are **30-40 bps** higher than non-PF funds
  - This difference is even larger – up to **100 bps** – in funds without a performance fee benchmark
- No evidence that PF funds have lower management fees



# The Ugly

- PF funds are more likely to remove HWMs when their NAV < HWM
- PF funds are more likely to reduce the length of HWMs when their NAV < HWM
- PF funds are more likely to drop the performance benchmark when prior returns have been below that benchmark
- PF funds are more likely to reduce the hurdle when prior returns are lower

# Conclusion

- There is nothing wrong with charging performance fees per se
- But funds should set a reasonable benchmark against which performance should be assessed
- Funds should not change the rules of the game while it is being played

Questions



## Contact details

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