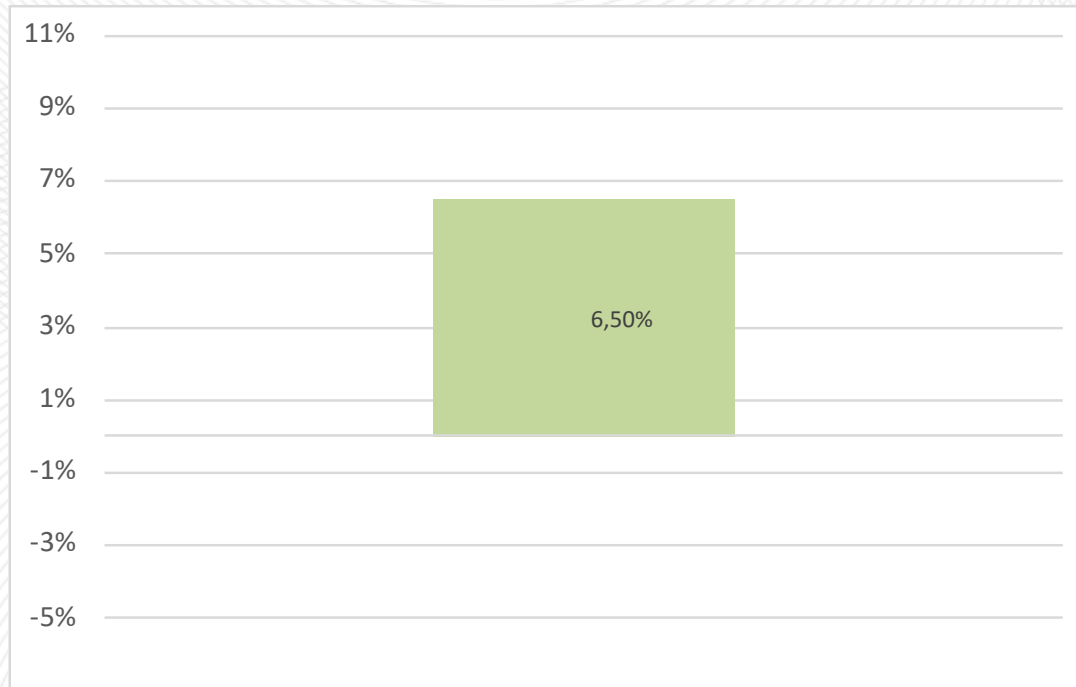


# Retail Investors

Paolo Sodini



## Noisy Environment

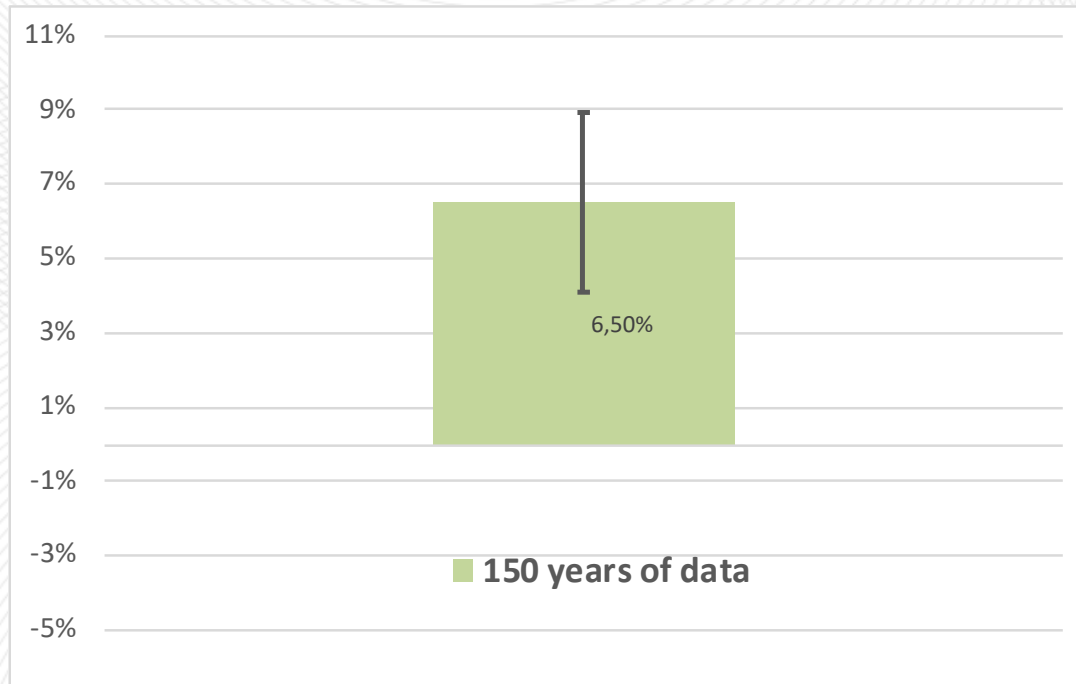
Return of stocks vs bonds is about 6.5% on average

How likely it will be 6.5% going forward?

Let's use all the data available to answer

150 years of data approx



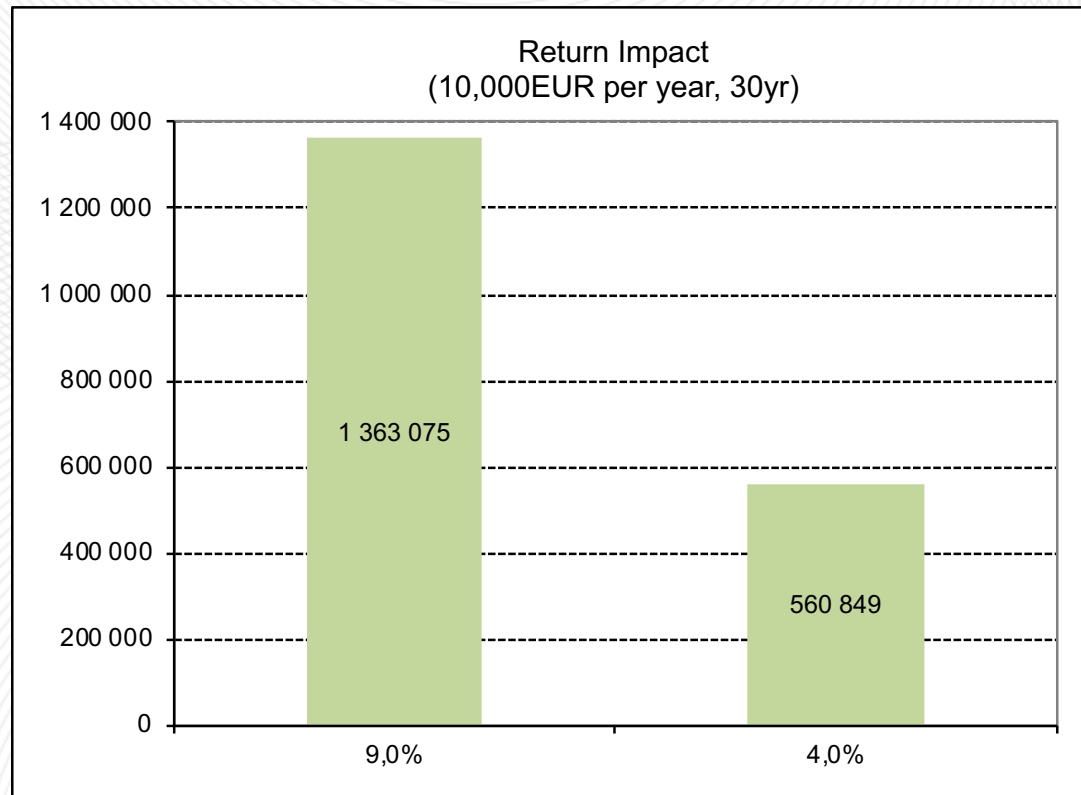


## Noisy Environment

Return of stocks vs bonds is about 6.5% on average

With 95% confidence we can only say it is between 4% and 9%

How much difference does 9% vs 4% make?



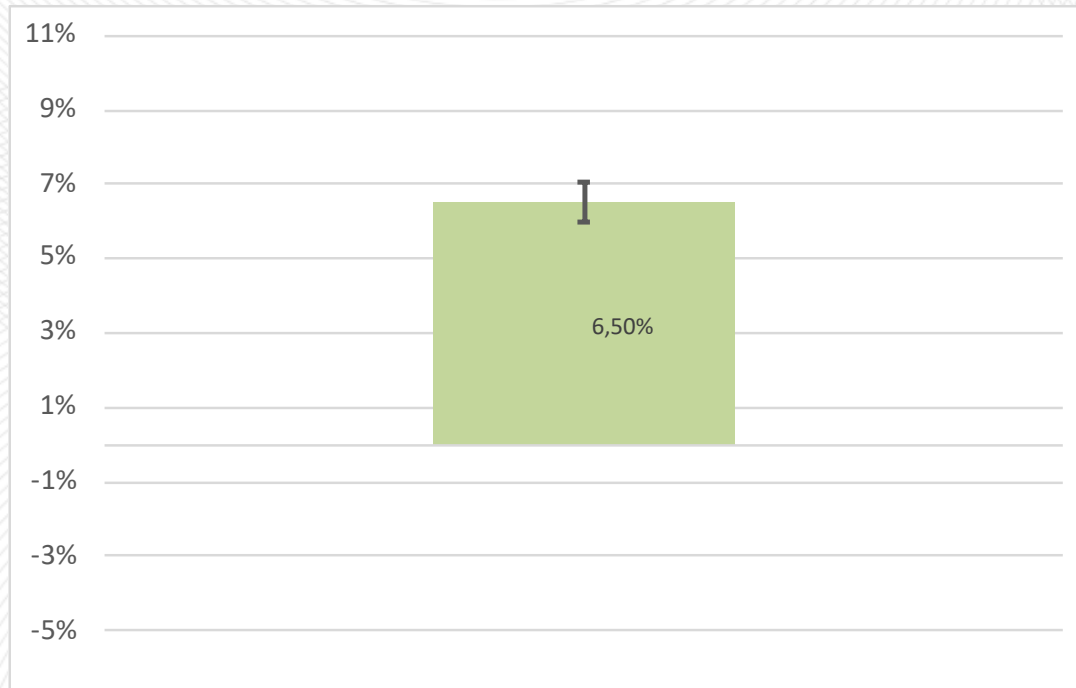
## Noisy Environment

Save 10,000EUR per year for  
30 years

9% would yield 1.35M

4% would yield 0.55M





## Noisy Environment

How many years of data  
would it take to have an error  
band of 1%?

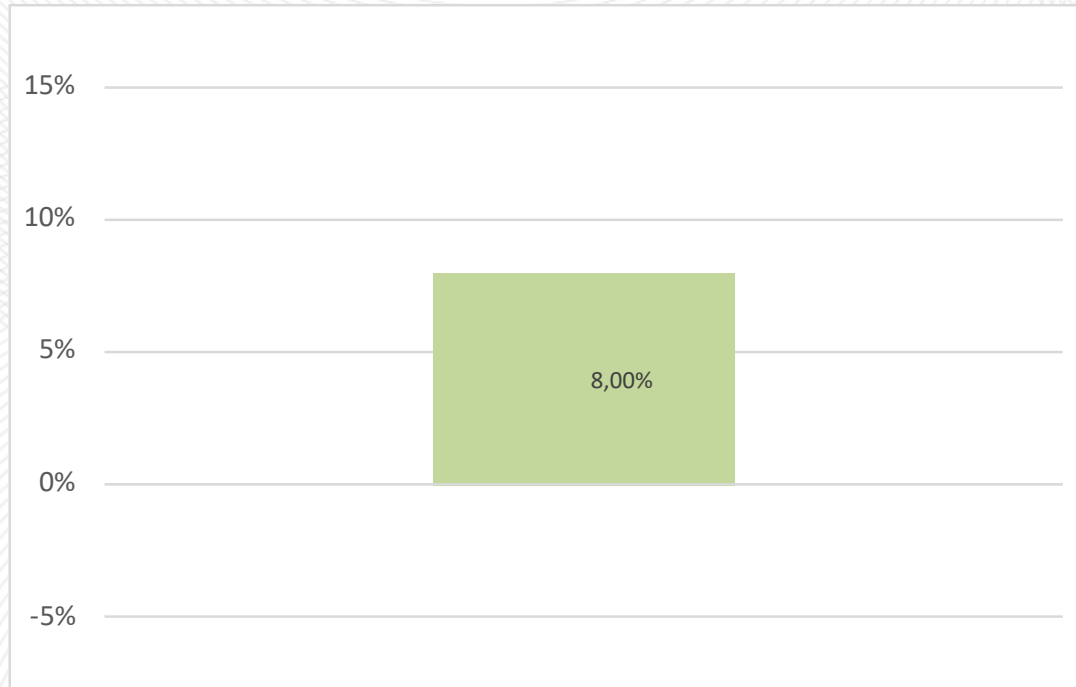


## Noisy Environment

How many years of data would it take to have an error band of 1%?

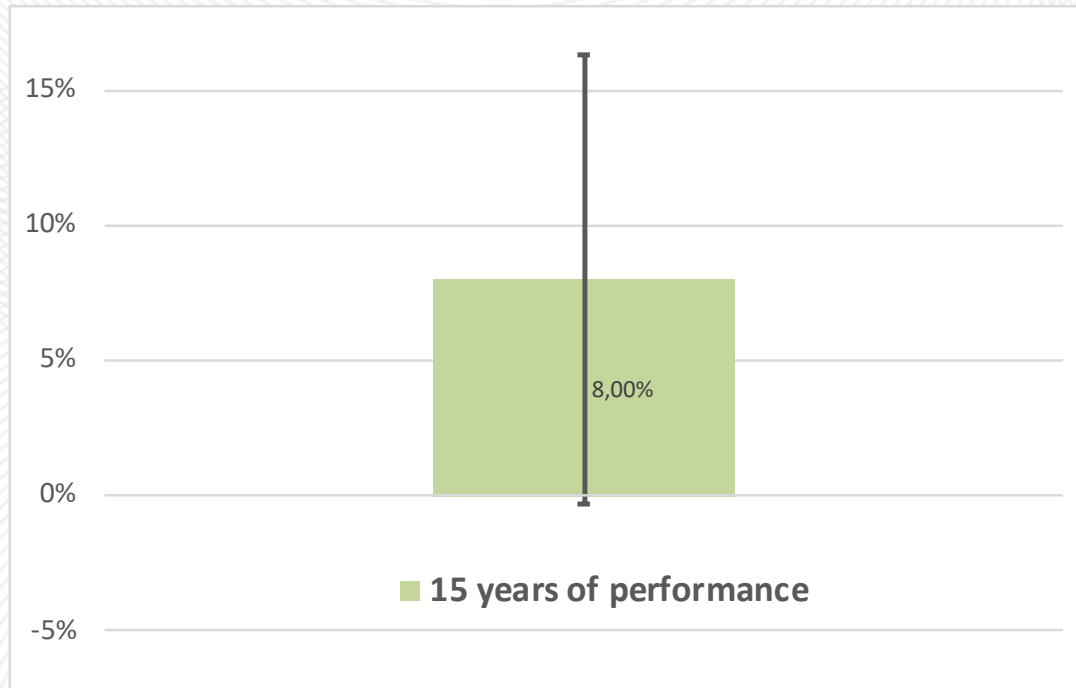
We need to go back to Egyptian time!





## Noisy Environment

But my fund manager had an average performance of 8% per year in the last 15 years

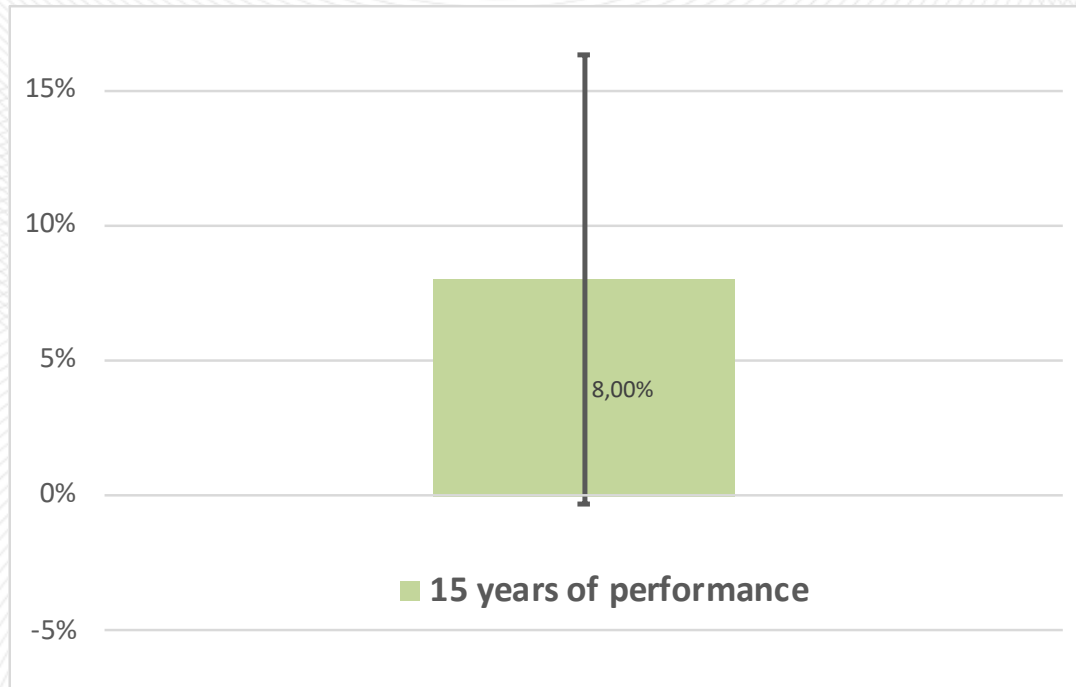


## Noisy Environment

But my fund manager had an average performance of 8% per year in the last 15 years

Well ...





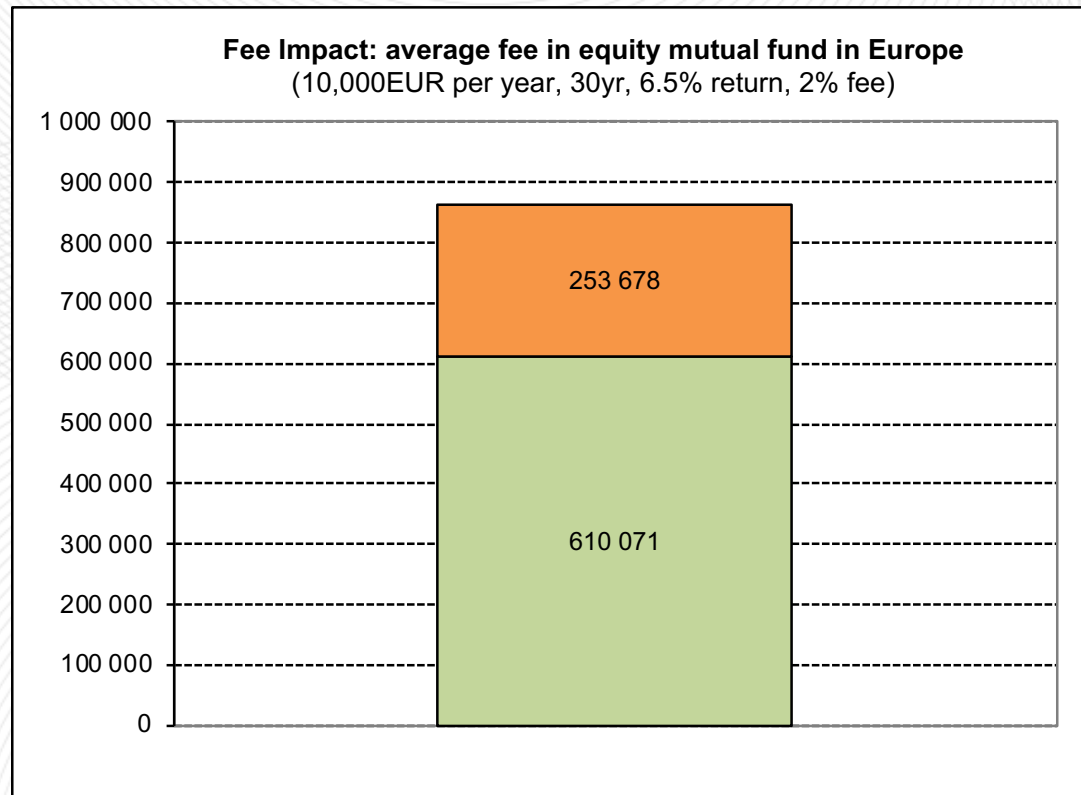
## Noisy Environment

But my fund manager had an average performance of 8% per year in the last 15 years

Well ... (Fama and French JF 2010)

This is Statistics 101 ...

What about compounding?



## Difficult

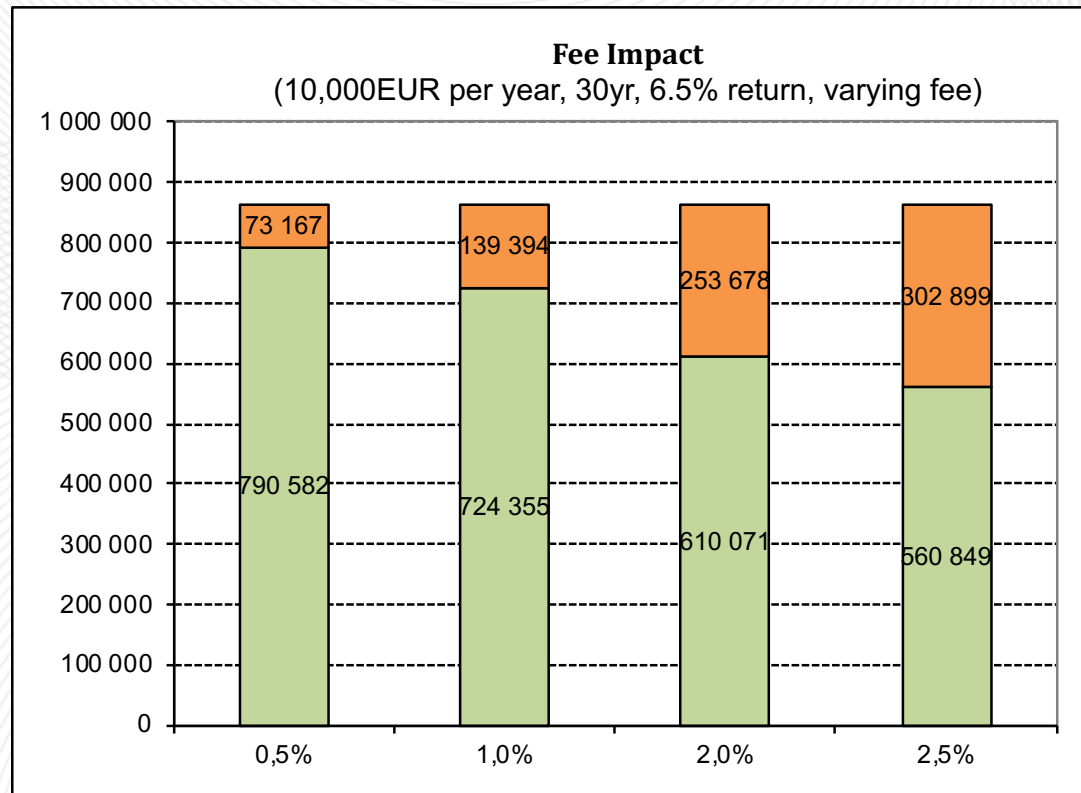
Save 10,000EUR per year for 30 years

6.5% return

What is the impact of fees?

Average equity fund fee in Europe is 2%





## Difficult

Save 10,000EUR per year for 30 years

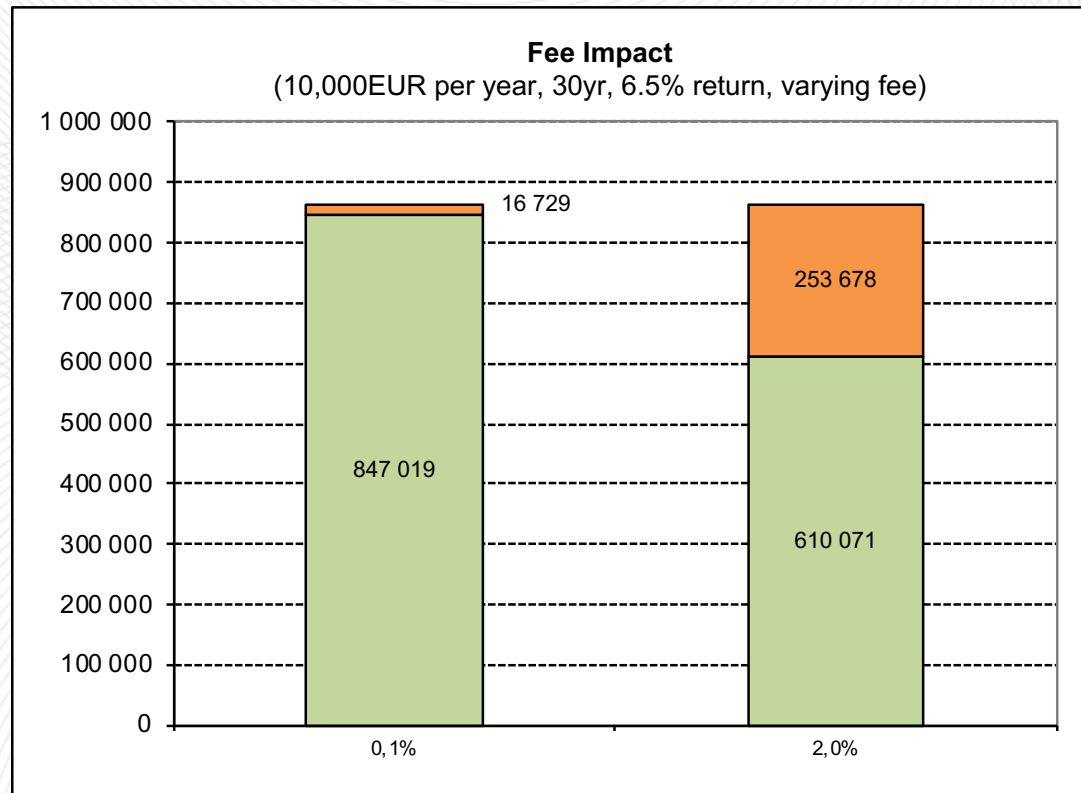
6.5% return

What is the impact of fees?

Average equity fund fee in Europe is 2%

How often impact of fees are disclosed?

Incentive to disclose given commissions?



## Difficult

Save 10,000EUR per year for 30 years

6.5% return

The Default Option in the Swedish Premium Pension system (PPM) has a fee of 0.11%



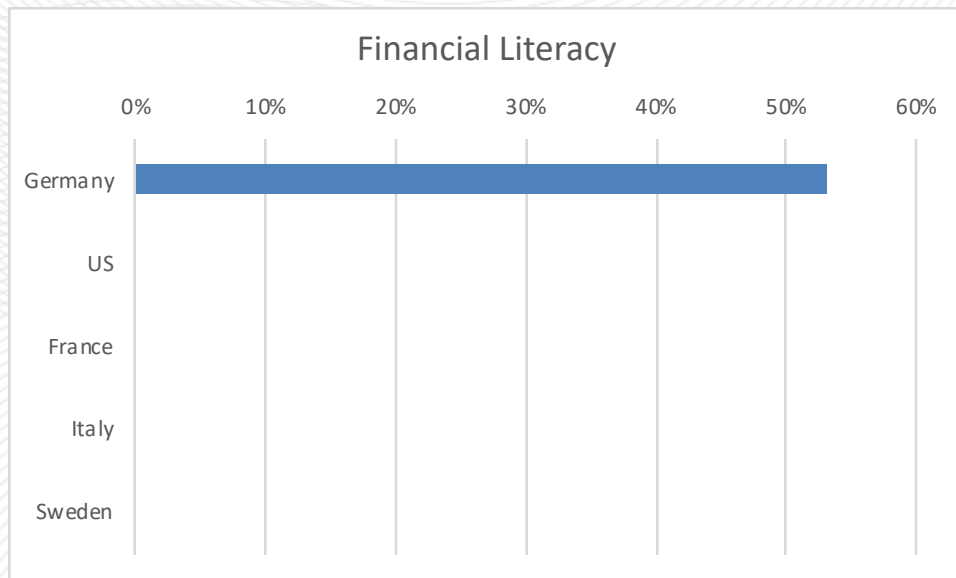
## Difficult

Financial literacy is low:

Three basic questions:

1. Interest 2% per year, invest 100EUR, how much after 5yr?  $\geq$   $\leq$  102?
2. Inflation 2%, interest rate in bank 1%. How much can one buy after one year with the money deposited?  $\geq$   $\leq$  today?
3. Is it riskier to invest in a mutual fund or a company stock?

How many get all three answers right?





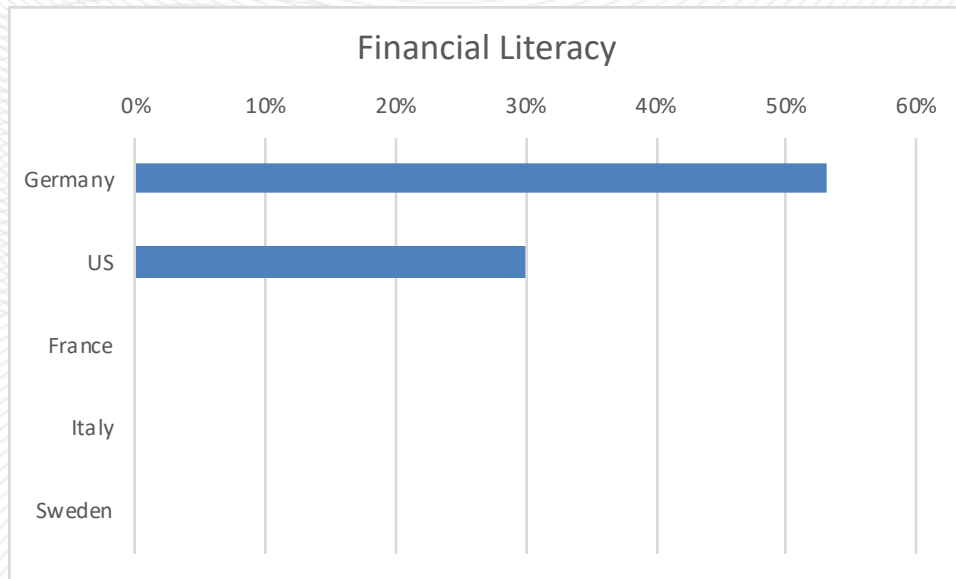
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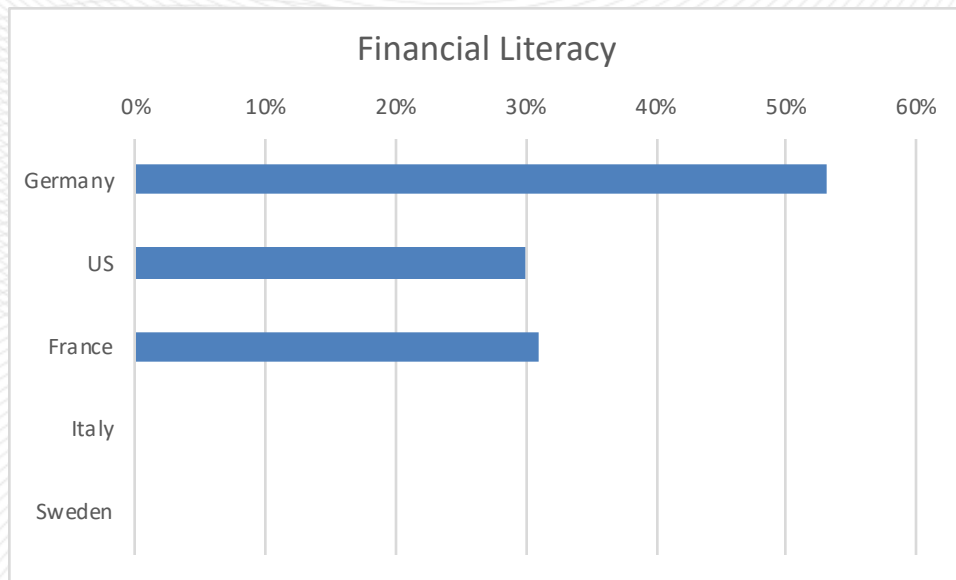
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## Difficult

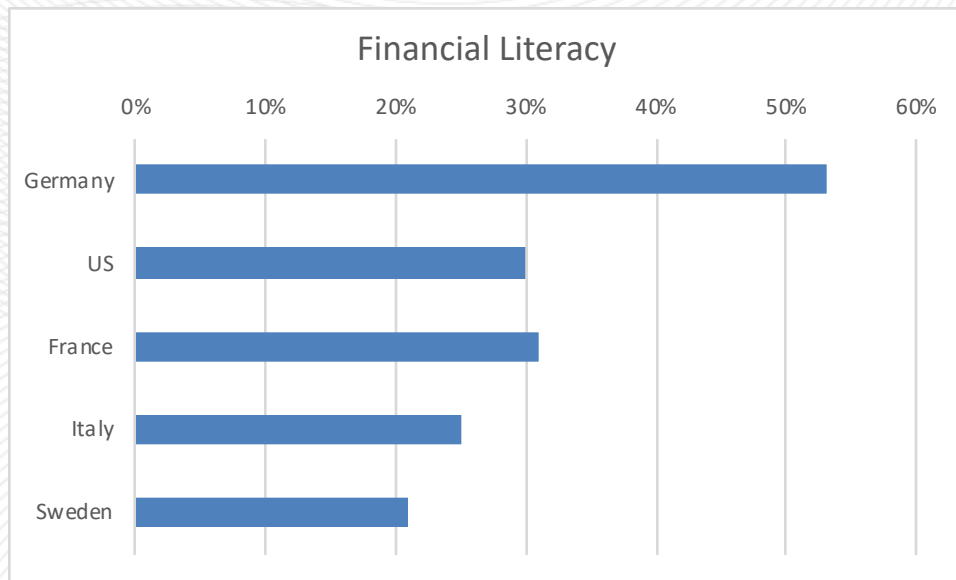
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Lusardi and Mitchell (2014)





- Financial decisions are taken in a very noisy environment
- Consequences of decisions manifest only over long period of time if ever
  - Lack of counterfactual
- Conflicts of interest
  - Commissions system
- Lack of transparency
- Proliferation of products
  - Approx 50,000 listed companies in the world
  - Approx 25,000 equity funds / ETFs
  - 14,000 available in Europe
- Since Markowitz (1952) and Sharpe (1964) we know about the importance of diversification. Why did it take so long for passive funds to be adopted?

- Difficult for new entrants to gain market share
  - People trust expert managers not indexes
- Difficult to *de-bias* consumers
- Market with unsophisticated consumers can be stuck in a shrouded equilibrium
  - Gabaix and Leibson (2006)
- Regulation
  - Eliminate conflicts of interests
  - Improve transparency
  - Default options
  - Eliminate barriers to entry
    - Facilitate collection of information to ease robot advice
  - Collect data to evaluate losses from mistakes, product characteristics and adoption