The Seven Deadly Sins
...of Fundamental Global Equity Management

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Lust

...blind to the obvious flaws

- The desire for a single quantitative measure of risk
- The desire to be able to predict the future

'The efficient market hypothesis is the most remarkable error in the history of economic theory'

Harvard Professor and later US Treasury Secretary,
Lawrence Summers commenting after the 1987 Wall St crash

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Modern Portfolio Theory

- Markowitz, Miller and Sharpe
  - Investors are rewarded (with higher returns) for taking on greater risk
- Risk
  - Can be measured by the standard deviation of historic returns
  - The more volatile the returns the more risky it is
- The basis for a range of economic models in use today
  - CAPM
  - Black Scholes option pricing
  - VAR

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The pseudo-physics of markets

- Economic models seek to translate the certainty of Newtonian physics into the sphere of markets
  - Unrealistic assumptions
  - Human interactions are not atomic!
- Risk is not simply the standard deviation of returns
  - Models significantly and consistently underestimate tail risk
  - Assess risk at the fundamental level of the individual companies, their management and balance sheets, not just as stock price returns

'Life always has a fat tail'

Eugene Fama, often considered the father of the efficient market hypothesis

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Solution

- Understand the standard measurements of risk in your portfolio
- Look for a manager with a more qualitative approach to risk
- Assess risk at the fundamental level

'If you are in the shipping business, it's helpful to have all your potential competitors be taught that the earth is flat'

Warren Buffett,
Letter to Investors 2007. Berkshire Hathaway

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Gluttony

...pause and digest before action

- Holding periods are getting shorter
- Studies show high turnover reduces returns
  - Yet many investors still see turnover as a sign of active management
- Underperformance, even from a skilled manager, is inevitable
- Extend your time horizons

> ***"Over 11 months your return is just a function of price changes. It has nothing to do with intrinsic value or discounted cash flow. It is just people punting on stocks, speculating not investing"***
>
> *John Bogle, Vanguard, submission to US Senate Enquiry*

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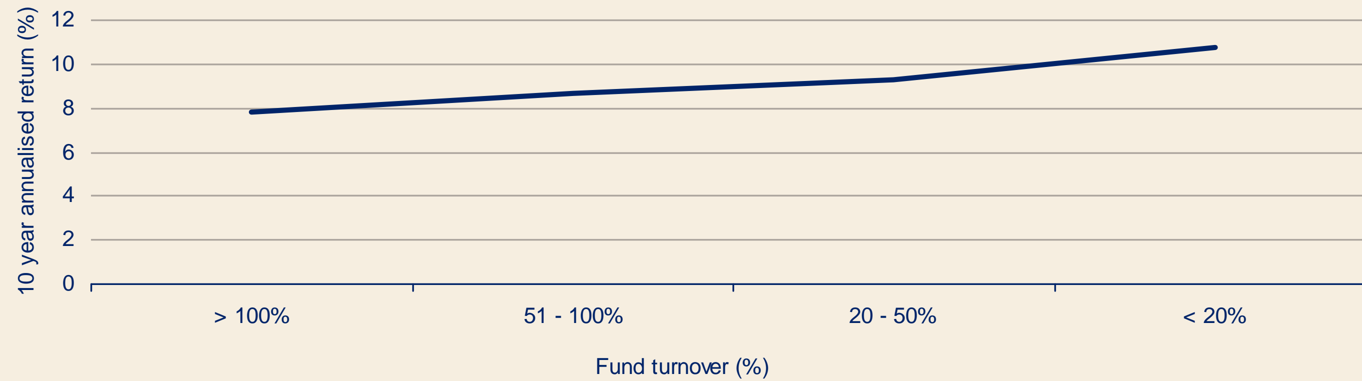
The influence of turnover on fund performance

Fund performance versus turnover



		Turnover			
		> 100%	51 - 100%	20 - 50%	< 20%
Annualised Return (%)	3 yrs	-6.7	-4.5	-1.8	-1.8
	5 yrs	4.8	4.6	5.5	4.6
	10 yrs	7.8	8.7	9.3	10.8
	15 yrs	10.5	11.2	11.2	12.1

Source: CSFB 2003

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Skilful by design … but still underperform

- Artificial universe of 100 fund managers with different strategies
- All have an Information Ratio of 0.5
- Mange money for 50 years including various shock market events

1. Best manager alpha 5.2%, worst manager alpha 1%

2. Around 1/3 underperformed in a given year

3. Over 50 years expect underperformance in 15

- The worst manager underperformed in 24 of 50 years

4. Back to back underperformance is not uncommon

- 70% of managers experienced 3 or more years in a row

- Some managers experienced 8 years in a row

Remember each manager was skilful by design

Source: James Montier, Dresdner Kleinwort Wasserstein (2005)

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Solution

- Extend your time horizons
- Look for a manager with similar long horizons
- Be pleased if the portfolio is almost the same a year from now
- Expect even skilful managers to underperform over the short term

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Greed

...more is not necessarily better

- Diversification can reduce risk if additional inputs are relatively uncorrelated
  - But its limits are reached well before the typical 100 stocks of a portfolio
- Lots of small bets with no information is not a good strategy

'To suppose that safety-first consists in having a small gamble in a large number of different [companies] where I have no information to reach a good judgment, as compared with a substantial stake in a company where one's information is adequate, strikes me as a travesty of investment policy'

John Maynard Keynes,
The General Theory of Employment, Interest and Money (1936)

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Diversification verses skill

Number of inputs	Risk at 0 Correlation	Risk at 0.1 Correlation	Risk at 0.25 Correlation
1	100	100	100
2	71	74	79
3	58	63	71
4	50	57	66
5	45	53	63

Deliberately each input is assumed to have an information ratio of 1

(a constant skill level to highlight the benefit of diversification alone)

Quantitative Portfolio Strategies Group at Aberdeen Asset Management

Diversification can increase return without a commensurate increase in risk. The relationship between the positions is key, not just their number.

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Solution

- Conviction
- Concentration

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Sloth

...get up and get into action

- Management is fundamental
  - Meet them, interrogate them, hold them to account (from your last meeting)
- Get the basics right
  - Rarely does this lead you in the wrong direction

'Only when the tide goes out do you discover who's been swimming naked'

Warren Buffett,
Letter to Investors 2001. Berkshire Hathaway

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A quick guide to analysing a company

- Business prospects/strategy
  - Evidence of industry growth, clear strategy and execution
- Management
  - Motivation, experience and track record: Do we trust individuals in charge?
- Financials
  - Strong balance sheet, transparent
- Transparency
  - Clean company structure, visible earnings, annual report
- Commitment to shareholder value
  - Company is run for shareholders, not managers or controlling interests

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Solution

- Do your own research
  - Managers need to know their companies and their management intimately
  - Investing is only the start
- Risk is not understanding the company you own
  - A portfolio is a collection of businesses

'If a business does well, the stock eventually follows.'

Warren Buffett

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Wrath

...why there's no volatility on Vulcan

- You need it to generate returns
- Models consistently underestimate volatility and risk (Lust)
    - The Nasdaq was over 4sd from its moving average for 6 weeks prior to the 10 March 2000 peak
    - The LTCM crisis was a 14sd event
    - The 1987 stockmarket crash was a 22sd event
    - Goldman Sachs suggested their models were seeing 25sd events in a row during the Aug 2007 credit crisis
- Human irrationality, bias and interpretation drive markets

'Like yesterday and the day before that, today's earnings results are in line with expectations, not surprising really, given that we know what the future will bring and that we all behave totally rationally.'

Mr Spock

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Solution

- Doing your own research and knowing your target will give you the confidence to stand apart from the crowd
  - The management and prospects of the underlying company are often unchanged
- Long term investors can take advantage of volatility not be a consequence of it
  - Be patient initiating positions – don't overpay
- Worry when everyone thinks the same thing

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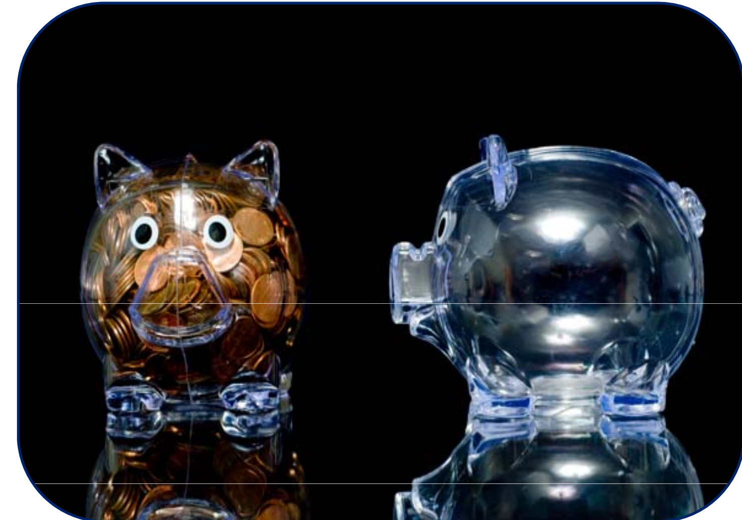
Envy

...looking longingly at benchmark returns

- Benchmarks are not a zero risk position
- Benchmarks are not an efficient starting point for portfolio construction
- Measuring the cost of active management



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True active management costs

- John Bogle (1999) – 95% R^2 threshold represents closet indexing
- Averages Miller (2005) – US large cap equity
  - -(Retail) Less than $100,000 = mean active fee 5.14%
  - -(Institutional) Greater than $100,000 = mean active fee 7.57%
- Aberdeen International Equity Fund* true active cost is 1.48%

$$C_A = C_p + \frac{R(C_p - C_1)}{\sqrt{(1 - R^2)}}$$

C_A = true active management cost

C_P = MER

R^2 = variance with index

Source: Measuring the True Cost of Active Management by Mutual Funds, Ross Miller (2005)

* Benchmark: MSCI All Countries World ex Australia, R^2 = 0.88, MER = 1.05 Passive equivalent same benchmark - 0.90% pa

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Solution

- How much are you really paying for active management?
- Avoid closet benchmark management
- The benchmark is a measurement tool at the end of the process to establish whether you are getting what you pay for

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Pride

...you can't beat the gun

- We are not good at estimating probability (except for weathermen and bridge players who seem to be unusually well calibrated!)
- Overconfidence helps us in many facets of life but limits our effectiveness in making decisions under risk
- Let's start with a couple of tests …

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Cognitive Reflection Task (CRT)

How do you make decisions...

1. A bat and a ball together cost $1.10. The bat costs $1.00 more than the ball. How much does the ball cost?
2. If it takes 5 machines 5 minutes to make 5 widgets, how long would it take 100 machines to make 100 widgets?
3. In a lake, there is a patch of lily pads. Everyday, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half the lake?

- In a survey of 3000 students, they averaged 1.24 of 3 questions correct
- In a survey of 300 fund managers, they averaged nearly 2 of 3 questions correct

Answers: 5c, 5 minutes, 47 days

Source: Shane Frederick (2005), James Montier (2006)

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Goat probabilities

- You are on a game show and have a chance to win a car…
- Behind two doors are goats, behind one is the car
- Just pick the door the car is behind

1

2

3

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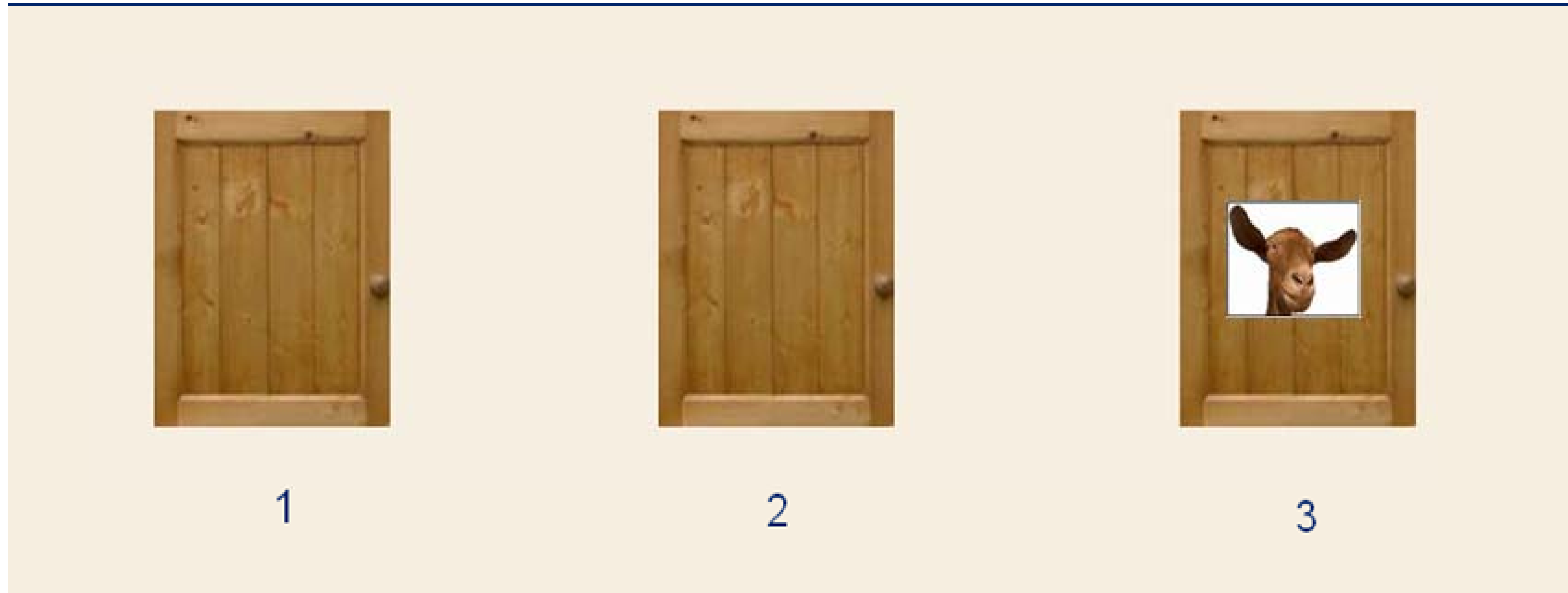
Avoiding goats and winning cars

- I'm going to open one of the doors you didn't pick and show you a goat …



- Now you have seen the goat:

Do you want to switch doors or stick with your original choice?

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Solution

- Be aware of your limitations
- Find out if your manager plays bridge!

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Questions & Answers

Let's start thinking about…

This session was:

1. awful
2. mediocre
3. good
4. excellent

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