ACTUARIAL SOCIETY
OF SOUTH AFRICA

QUANTIFYING RISK, ENABLING OPPORTUNITY

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Investments Seminar – May 23 2014

The Agenda for discussion

ASSA Convention – September 18th, 2002

- Why the current consulting convention may be fatally flawed
- Understanding the importance of the consultant in the value chain
- Proposed revisions to Regulation 28 and their implications for the role of consultants
- The economics of the Trustee/consultant relationship and its implications
- What it would take to make the Trustee/consultant relationship work

Why are we so entrenched in our ways?

- Lazy?
- Sunk costs?
- Assured profitability in current model?
- Don't understand there's a problem?
- Don't know what might be a better solution?

Technology
Better insights
Regulators

will change the game as we know it

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Massive bull market – even with GFC

This time it's personal

Numbers mean everything

Numbers mean nothing

It's a game

Get real
Get humble
What's it really worth?

The Skill / Luck Continuum and Asset Management

Source: Michael Mauboussin 2010

What factors determine whether activity driven more by skill or luck?

- **Can you intentionally lose? If so…indicates skill required**
- **Does practice improve outcomes?**
- **Is there evidence of transitivity? If “A” beats “B” and “B” beats “C” then “A” should beat “C”**
- **Do outcomes revert to the mean? If so….luck element high**
- **Number of conditions that stand between skill and delivery to goal**

This time it's personal

Numbers mean everything

It's a game

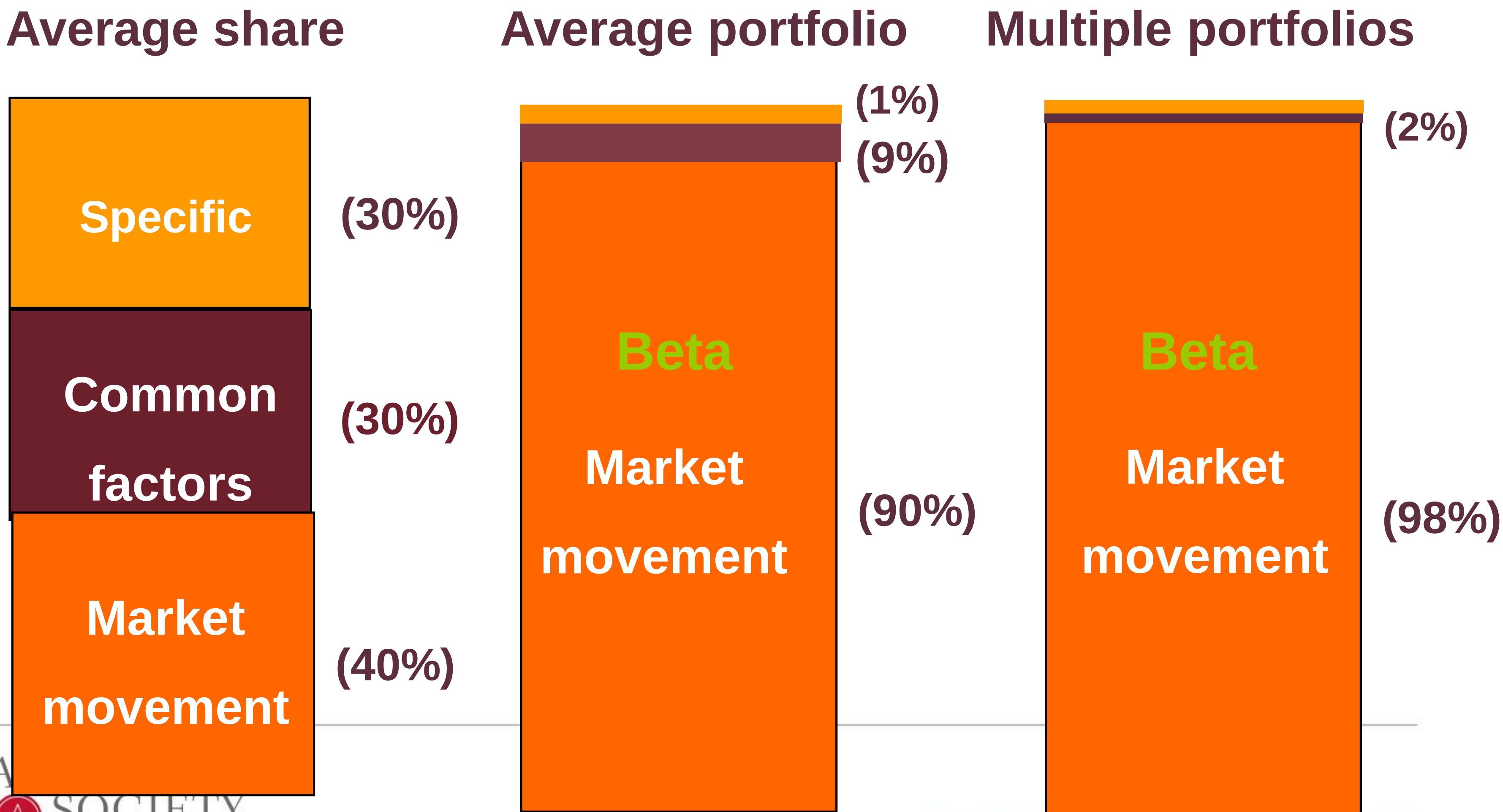
Numbers means nothing

Get real
Get humble
What's it really worth?

Never stop learning

The academics really *do* get a few important things right

What really drives performance?



Source: Barr Rosenberg

Do we *really* have a problem?
The Facts (sort of)

Markets have been going gangbusters the last 15 years

Average balanced fund performance:

10% to 11.5%

real return

Members in 2012 and 2013 retired with income replacement ratios of around 32%

We may not know the exact extent of the problem…but we know there is a problem

Our assessment of the management process for pension funds is…

“ a little bit like the airline passenger who peeks into the cockpit at 30,000 feet and discovers there is no one there

ANTHROPOLOGISTS WILLIAM O’BARR AND JOHN CONLEY IN

FORTUNE AND FOLLY: THE WEALTH AND POWER OF INSTITUTIONAL INVESTING 1992

Who is really accountable for member outcomes?

Consultants?

Boards of Trustees?

Asset Managers?

Cost / Value / Value Destruction

Decisions with greatest impact – 40 years

- Mandation of retirement savings
- Preservation
- Contribution rate / pensionable pay
- Pensionable service
- Risk benefits (protecting the journey) vs retirement savings (protecting income after retirement) allocation
- Costs of the various services provided
- Asset allocation to meet liability

- The additional value above and beyond that asset allocation that an active manager might contribute (alpha)

The World As We Know It

	Employee Benefit Consultant	Actuary	Asset Consultant	Asset Manager	Administrator
Function	Structure of the fund Benefits Structure and delivery Fund administrators	Asset/liability modelling exercise	Structure the investment solution to meet member needs Identify who the best blend of managers would be	Manage the assets	Member record management
Output	Fund rules, fund policies Benefit payouts	ALM output with strategic asset allocation solution	Monitor performance, monitor compliance	Alpha Beta	Benefit statements Projection statements
Reality of role	Spend more time doing administration functions than showing necessary value-add.	Only large funds typically request ALM's	Spend more time selecting/defending/switching managers than assessing whether members are meeting their goals	Great marketing	
Time required	Quarterly Semi-annual Annual	Once every three years	Could be daily valuations but more likely, financially insolvent	Daily focus	Daily
Charge structure	Retainer / Fee	Set Fee	i	% of AUM	Variable: % of payroll, per transaction etc.

Perhaps it’s time we considered a new model

The case for the *uber* consultant

Until government policy can fill the gaps funds have a serious need for “gap closers”

But will regulators allow it?

The *uber*-Consultant Model

- Manage employer policy and fund policy gaps.
- Provide the relevant analysis of the membership demographics and behaviours to establish:
  - member needs,
  - suitable targets,
  - suitable default solutions and
  - a suitable asset allocation and investment solution to meet member liabilities
- Define and manage risk budget for the fund's investment strategy.
- Consider appropriate platform and cost structure to address member profiles
- Monitor member progress to established goals.
- Measure and monitor impact of trustee decisions on member outcomes.
- Ensure appropriate communications of all these points to all relevant stakeholders.

The *uber*-Consultant toolkit

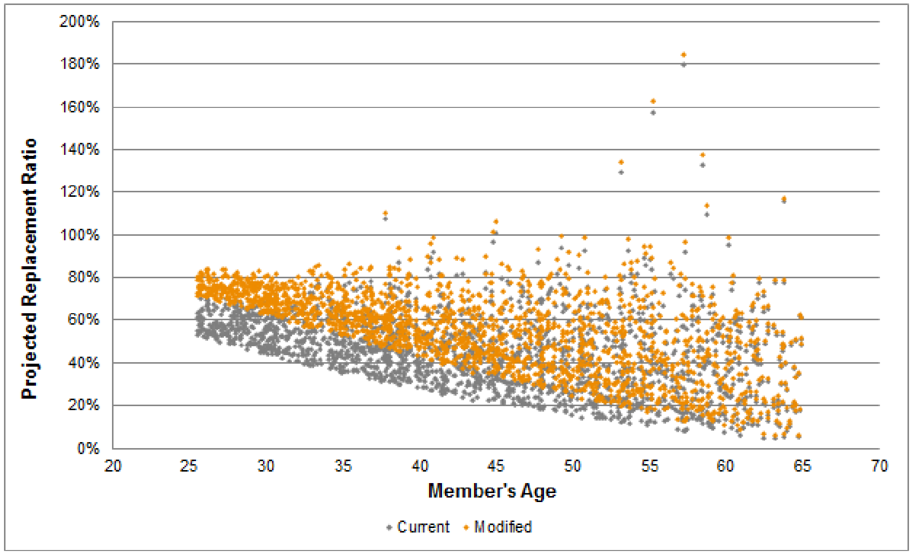
- Asset liability modelling tools,
- Risk budgeting and risk management tool,
- Aggregated reporting and attributions analysis for funds,
- Tools and models for member projections and for building asset class return assumptions.
- Member progress monitoring tool
- Strategy stress testing

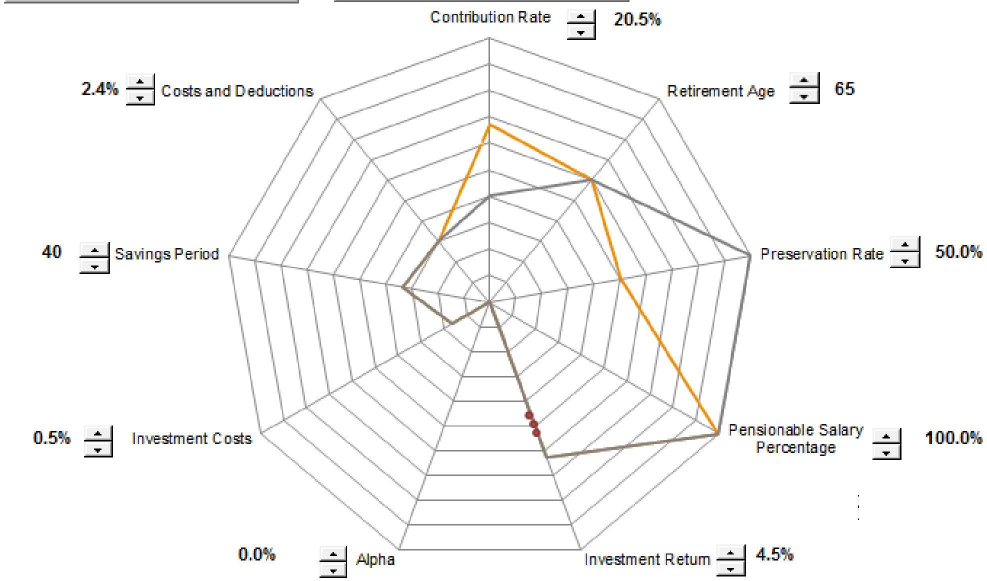
So what could trustees do to improve outcomes?

Client	Macsteel Group Pension and Provident Plan
Industry	Manufacturing

Return to Input Page

View Fund Profile





Projected Replacement Ratio for New Members	54%
Projected Replacement Ratio for New Members	75%

Reset All

At 50% preservation rate, would need to contribute 20.5%

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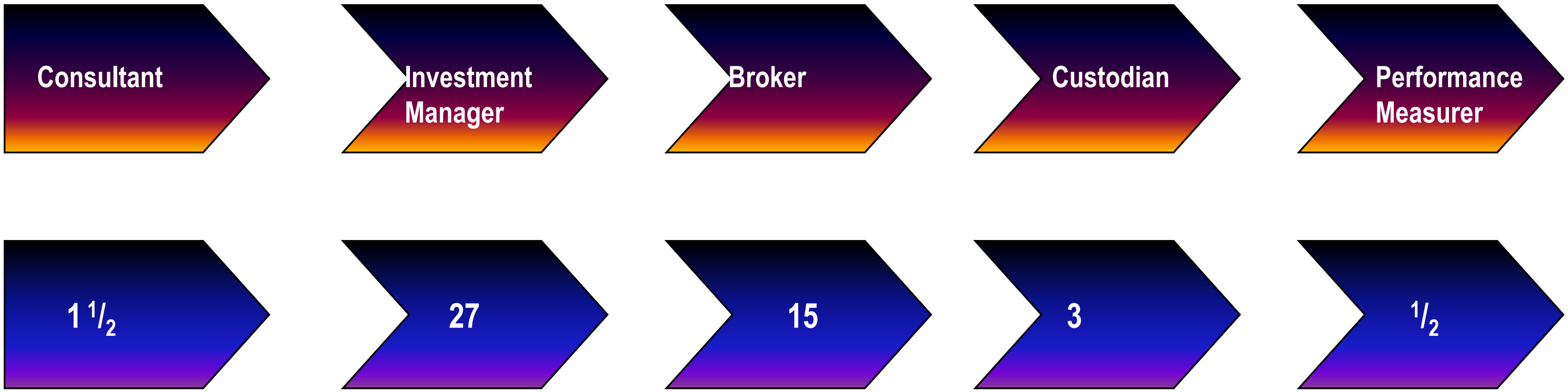
A problem – The Value Chain as it currently exists (2002 discussion):



Does the fee structure influence how seriously each participants' role is taken?

Does it make sense that we reward the consultant's contribution the least?

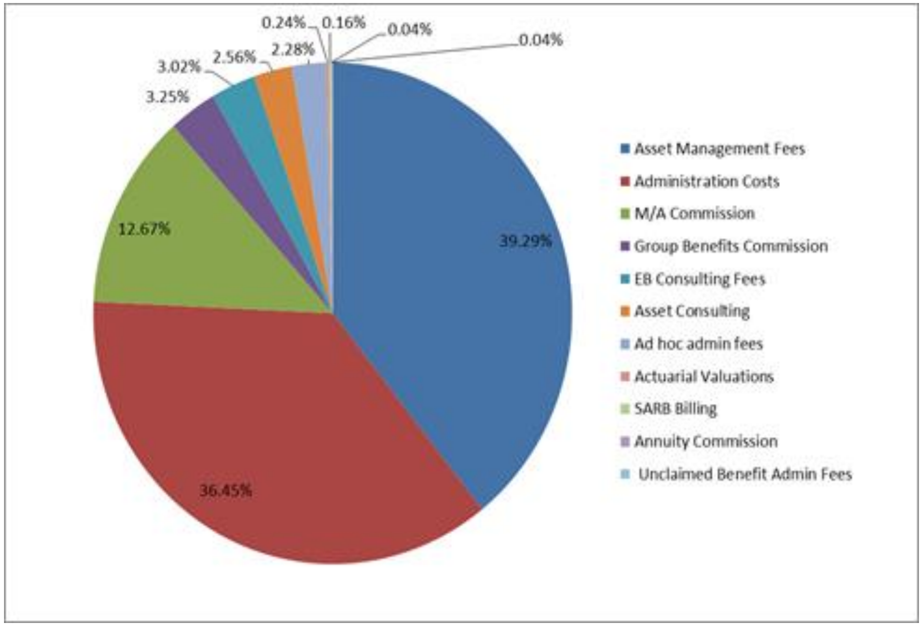
The dilemma for getting it right: Who has the best models and highest R + D expenditure?

	Trading Houses	Asset Managers.	Consulting Actuaries
Time frame	day trade	yearly	40 years
Importance		2	1
funding			
est. time to dismissal	day	three years	

The only way this is going to happen….

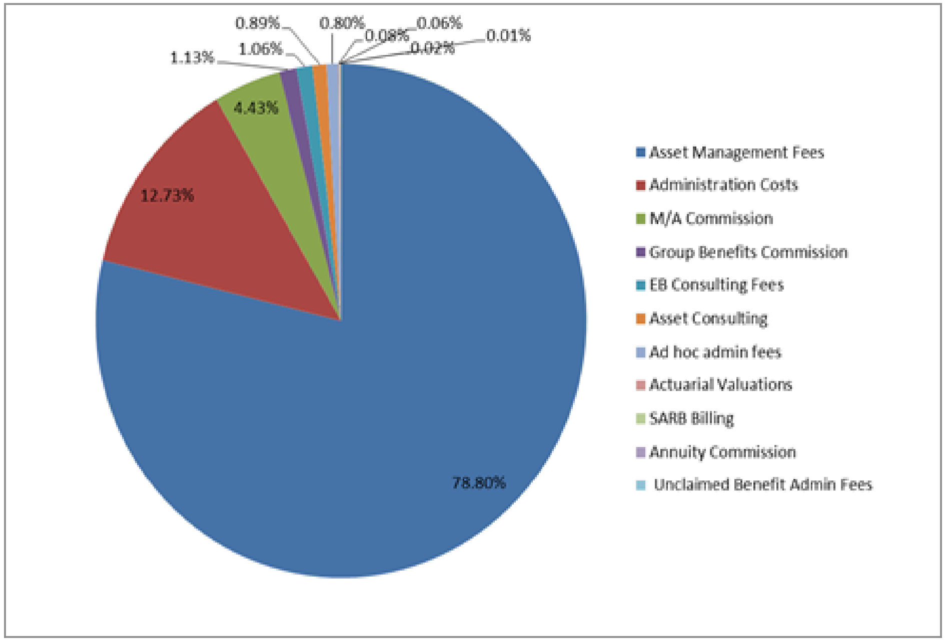
…is if we can find funding from elsewhere in the value chain

How costs distribute in a fund

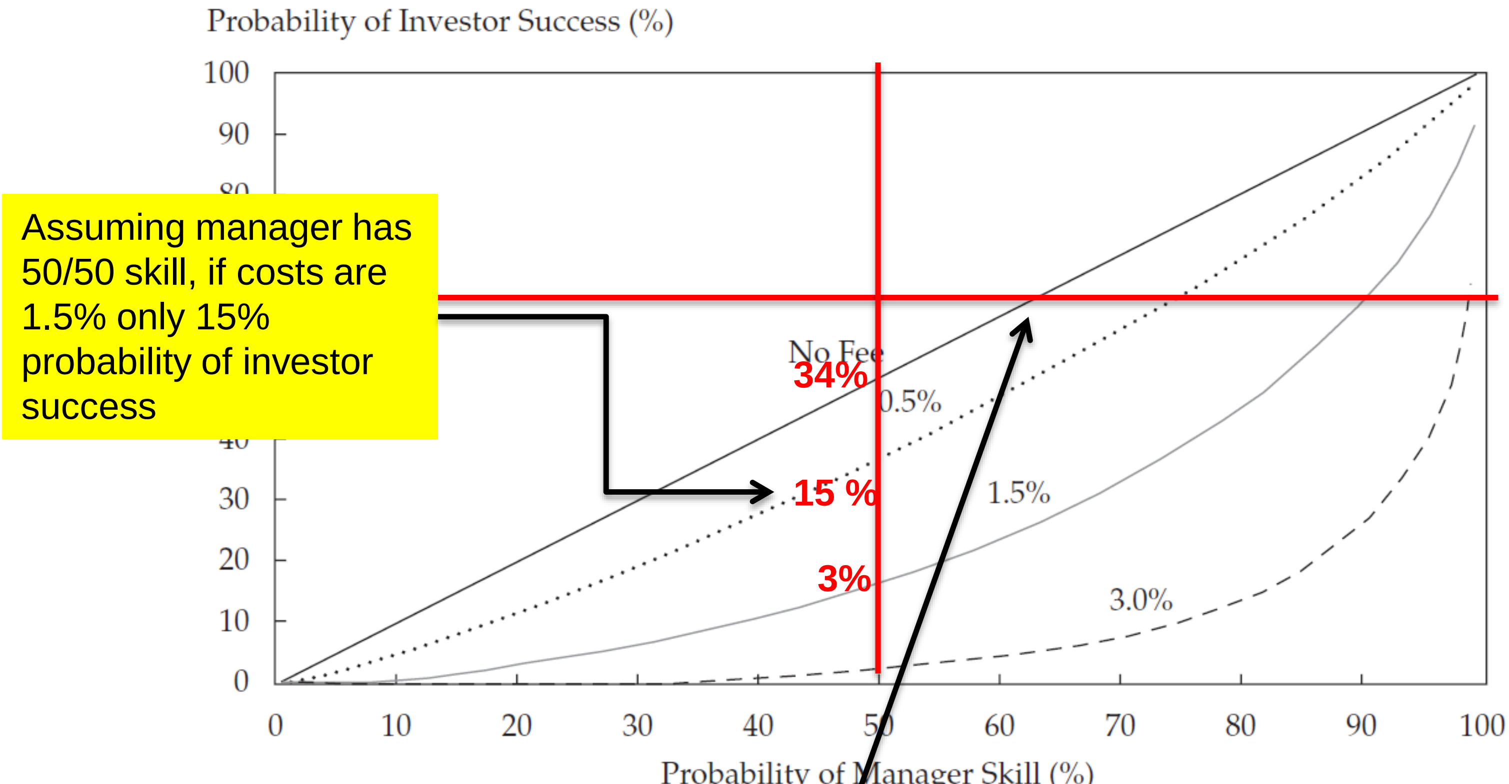


Cost allocation on basic off-balance-sheet fund

Cost allocation after 30 years



How bad can the impact of costs be?



Fee	Manager Skill Required for Investor to Have at Least a 50/50 Chance of Earning a Positive Alpha	Investor's Probability of Earning a Positive Alpha When Manager Skill Is 0.80
0.5%	0.62	0.70
1.5	0.83	0.46
3.0	0.97	0.15

Active vs. Passive option at the total cost level

Umbrella platform case study

		Umbrella Fund with Active	Umbrella Fund with Passive
Inputs	Base salary	120 000.00	120 000.00
	Administration	816.00	816.00
	Scheme expense fee	0.00%	0.00%
	Asset Advice	0.00%	0.00%
	Asset Management	0.85%	0.35%
	Commission	0.63%	0.63%
	Guarantee fees	0.00%	0.00%
	Death and Disability	1.75%	1.75%
	Temporary disability	0.75%	0.75%
NRRs, allowing for	Base salary	80.61%	81.58%
	Administration	79.25%	80.18%
	Scheme expense fee	79.25%	80.18%
	Asset Advice	79.25%	80.18%
	Asset Management	66.70%	74.55%
	Commission	64.54%	72.15%
	Guarantee fees	64.54%	72.15%
	Death and Disability	58.61%	65.51%
	Temporary disability	56.07%	62.67%
Proportion of NRR spent	Base salary		
	Administration	5.55%	7.37%
	Scheme expense fee	0.00%	0.00%
	Asset Advice	0.00%	0.00%
	Asset Management	51.15%	29.77%
	Commission	8.77%	12.73%
	Guarantee fees	0.00%	0.00%
	Death and Disability	24.17%	35.09%
	Temporary disability	10.36%	15.04%
	Total proportion	100.00%	100.00%
	Total difference	24.55%	18.91%

Total difference in RIY at total cost level:

Active: 24.55%

Passive: 18.91%

We will need more than just a reduction of active to passive

Now…for the *uber* asset manager

First some realities to consider

How important is asset manager alpha in a 40 year fund when our chances of getting it continuously are small?

Most funds use multiple managers

This practice naturally lowers tracking errors and active share

As such, is a blended active solution really worth 75-85 bps?

The key point is that we don’t have to address the cost issue with index funds

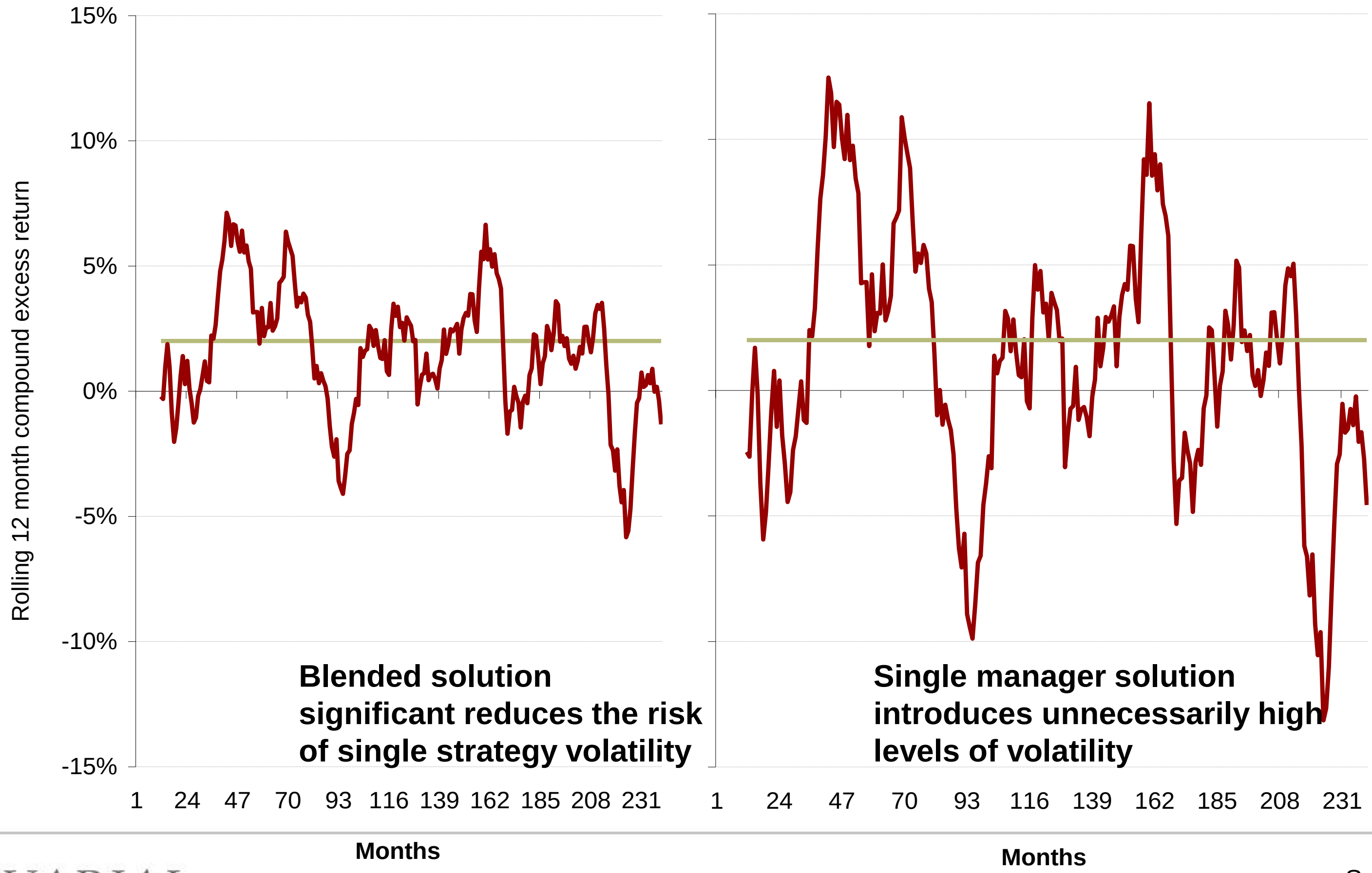
Or smart beta

Or even core/satellite!

Understanding the primary objective of using multiple managers

2% Tracking Error (information ratio =1)

4% Tracking Error (information ratio = 0.5)



20 year period

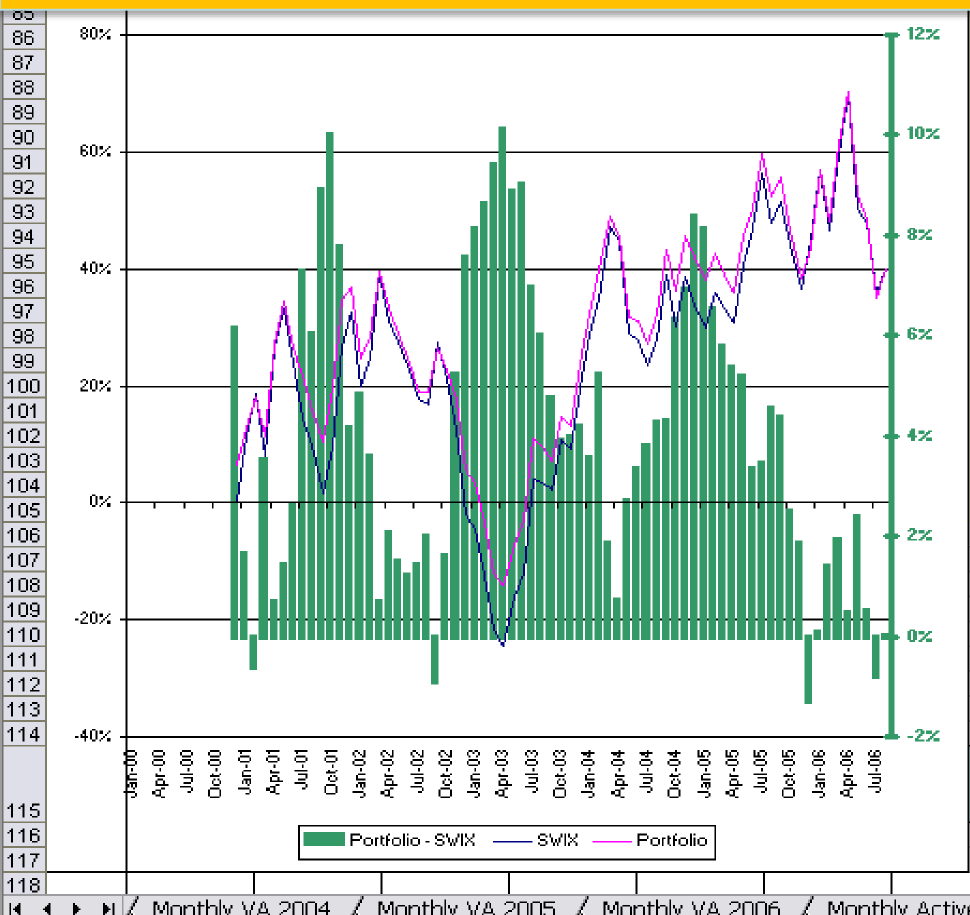
Source: SEI simulation

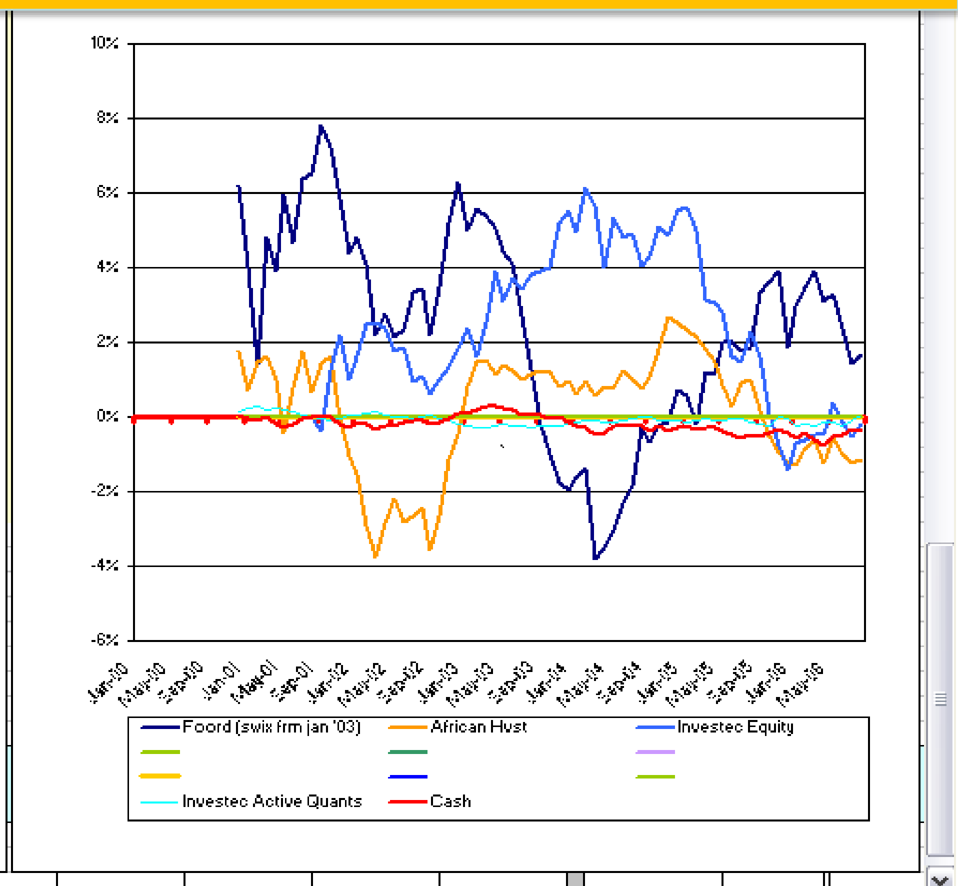
Value add of diversification

Green bars reflect rolling 1 year alpha generation of the blend

Note: there *will* be times when active managers cannot outperform

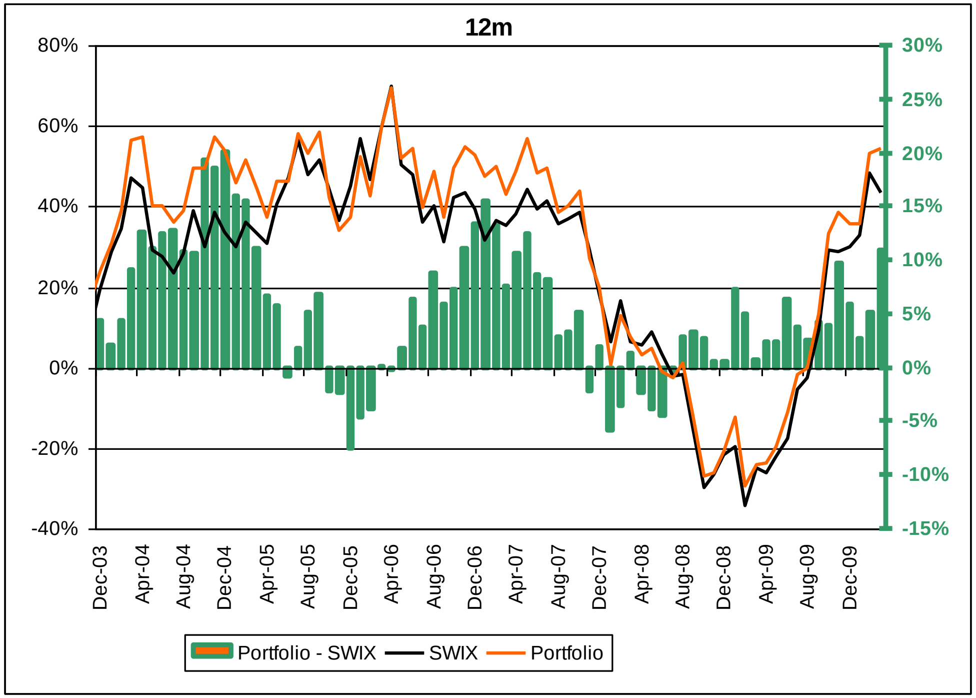
Captures uncorrelated performance of underlying managers

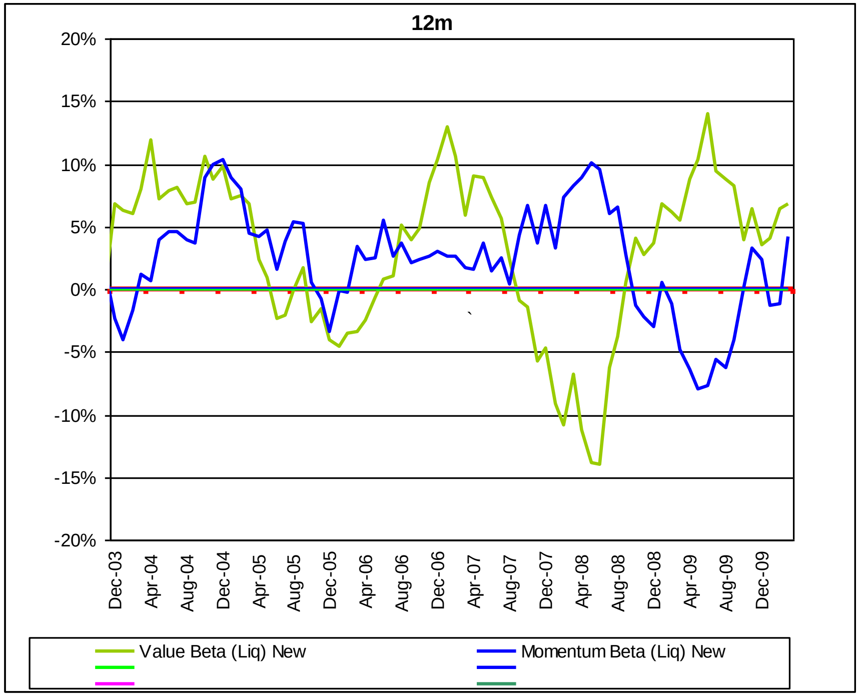




Using a smart beta approach

Performance – 60% Value and 40% Momentum





While value and momentum tend to move differently – in aggregate they add value as passive building blocks

Typically, they should add alpha of their own to the blend

These “active passive” strategies are lower in cost to active managers

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And core-satellite solutions simply dilute alpha with no sense of whether you’ve gained your “free lunch”

The problem

- You don’t get these benefits if managers converge
- The blend must stay diversified
- Ironically, it’s not manager skill that drives this, it’s manager control of their risk budget

The solution
The Two Mandate Asset Manager

Compulsory Investments Mandate

- Effectively the provision of building blocks for solutions
- Capped fee – manager elects what to offer at that fee
- Designed around a risk budget that captures manager selection and timing skills
- **Selection (or termination) based not on performance but ability to manage to risk budget**

Discretionary Investments Mandate

- Manager can charge whatever they believe is fair for their value-add
- Traditional highest return for specified level of risk
- Or..whatever

What this could do for the asset management industry

- Significantly expands the opportunity set to many more players
- Name brand and performance histories will be a non-factor
- Shifts world domination away from the big boys in both the active and passive space
- But risk-management and mandate monitoring skills will be a definite factor
- Keeps the horse race where it should be: with investors who are prepared to gamble a bit

Combining our two *uber* roles

- In aggregate we should be able to reduce costs
- Asset manager fees would most definitely come down but should also compensate investors with better risk-adjusted returns
- On the consulting/actuarial side we've streamlined and focused the service to deliver measurable outcomes
- This now warrants a more serious compensation consideration

Where do we see the future?

Consultants and Actuaries

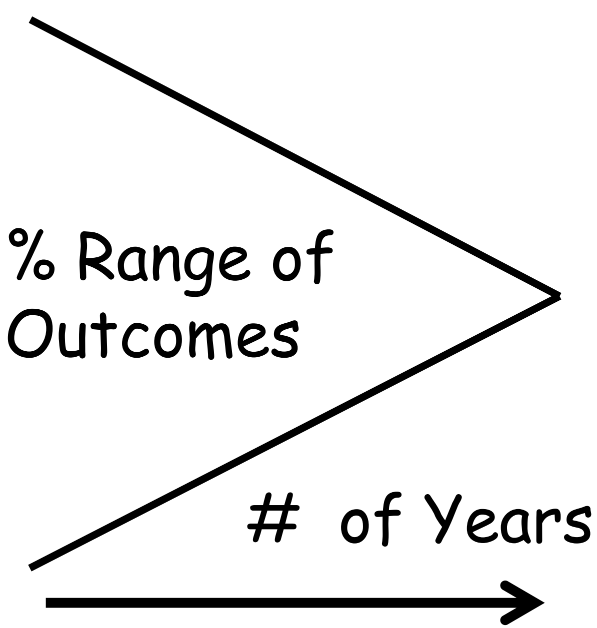
- Technology will allow us to create individualised solutions for all fund members
- Robo-adviser functionality will be key here to manage recursively.
- There are complex optimisation problems that need solving to help members with trade-off decisions
- But a key role will still be needed ilk the uber-consultant – someone who can ensure that the whole picture fits.

Asset Managers

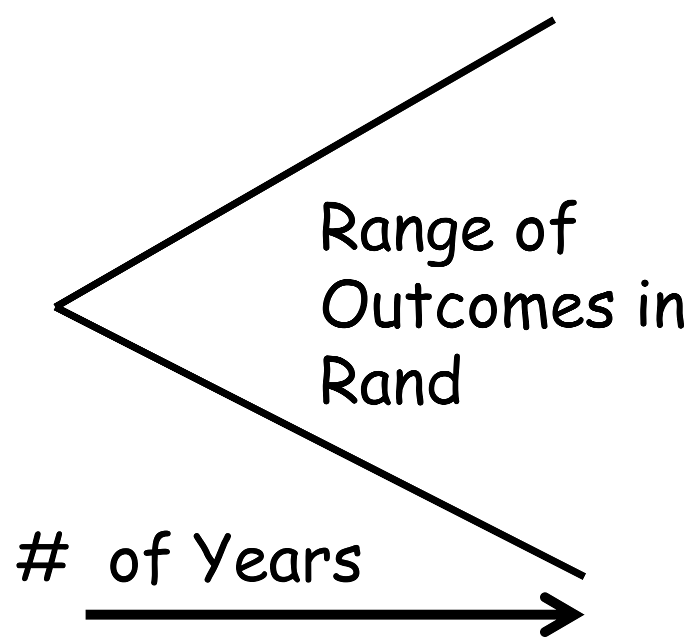
- Individualised solutions will move us away from the horse race and directly to goals based
- These will demand building blocks that can be blended to target solutions
- In compulsory space – move from alpha to goals meeting

The Carl Richard's analysis of time diversification and risk

CFA Level 1



Investor Reality Level 40



Understanding who we are

Actuaries

Understands the needs and liabilities of the client

Asset Managers

Understands how to source what's required to deliver on those requirements