



Asset Allocation
Investing in the new reality...

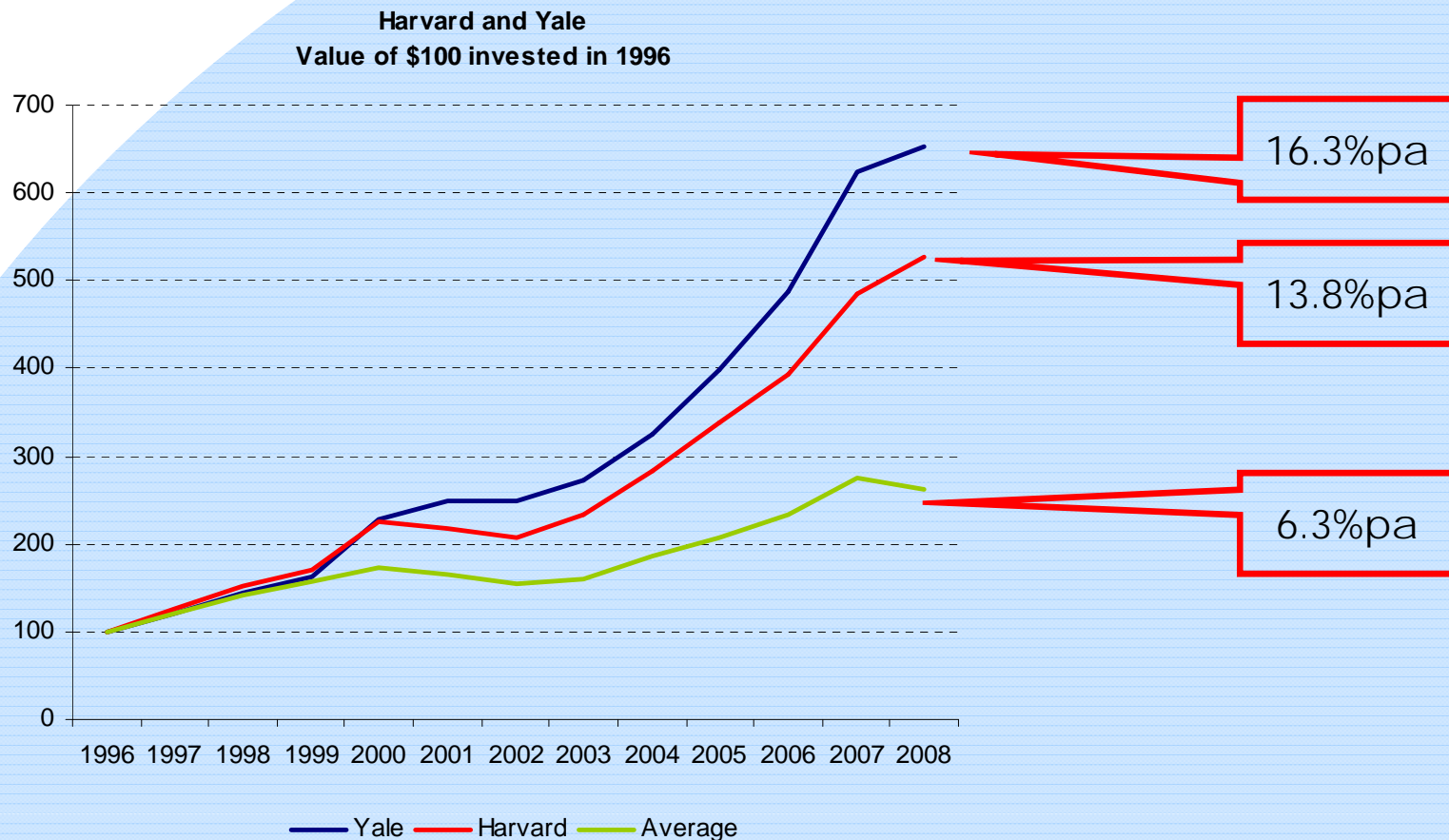


CONFERENCE

New frameworks for asset allocation Harvard, Yale and risk profiling...

Tim Farrelly
August 2009

Harvard and Yale : the super endowments



Asset allocation - really quite different

	Harvard	Yale	Avg Endowment
US Equities	12.0	11.0	26.3
Foreign Equities	12.0	5.6	15.5
Emerging markets equity	10.0	8.5	6.6
Private equity	11.0	18.7	7.0
Equities	45.0%	43.8%	55.4%
Absolute return	18.0	23.3	19.5
High yield	1.0	-	-
Real assets*	26.0	27.1	10.1
Alternatives	45.0%	50.4%	29.6%
Alternatives inc Private equity	56.0%	69.1%	36.6%
Domestic bonds	5.0	4.0	12.7
Foreign bonds	3.0		
Inflation indexed bonds	7.0		
Cash	-5.0	1.9	2.3
Defensives	10.0%	5.9%	15.0%

But it's not all about asset allocation...

Harvard :10 year Performance to June 2008			
	Harvard	Benchmark	Harvard v Benchmark
US Equities	6.7	4.2	2.5%
Foreign Equities	8.7	6.1	2.6%
Emerging markets equity	18.5	17.2	1.3%
Private equity	28.3	11.7	16.6%
Absolute return	12.9	9.6	3.3%
High yield	7.5	3.9	3.6%
Real assets*	16.7	12.6	4.1%
Domestic bonds	13.3	6.4	6.9%
Foreign bonds	15.3	6.5	8.8%
Inflation indexed bonds	7.0	6.2	0.8%
Total	13.8%	9.5%	4.3%
Median fund		6.1%	

Yale has similarly spectacular results

Yale :10 year Performance to June 2008			
	Yale	Benchmark	Yale v Benchmark
US Equities	11.1	5.3	5.8%
Foreign Equities (inc EM)	17.3	11.3	6.0%
Private equity	35.9	14.2	21.7%
Absolute return	12.0	10.5	1.5%
Real assets*	19.4	10.1	9.3%
Fixed interest	6.2	5.8	0.4%
Total	16.3%	9.9%	6.4%
Median fund		6.1%	

* Commodities, timber, property

Similar outcome, different means...

Sector value add : 10 years average %pa		
	Harvard To Jun 2008	Yale To June 2008
US Equities	2.5%	7.5%
Foreign Equities	2.6%	6.0%
Emerging markets equity	1.3%	-
Private equity	16.6%	21.7%
Absolute return	3.3%	1.5%
High yield	3.6%	-
Real assets*	4.1%	9.3%
Domestic bonds	6.9%	0.4%
Foreign bonds	8.8%	-
Asset class value add	4.3	8.1%
Asset allocation	3.4	2.1%
Total	7.7%	10.2%

Real assets

Yale - Value add 9%pa

- Timber
- Direct property
- Oil and gas partnerships

Harvard – value add 4%pa

- Timber
- Direct property
- Commodity futures

Innovators, imitators and idiots

Monday, 24 November 2008 10:30am

Yale Endowment wannabes trying to emulate their heroes with high exposures to timber products pushed up prices to 30 times pre-tax cash flow, setting them up for big falls in 2009.

The frenzy, reported by Barrons, a newsletter published by the Wall Street Journal, was because junior endowment funds were rushing to lift their timber allocations from 9 to 11 per cent.

For current investors it creates a lucrative secondary market, which will come in handy as some endowment funds are reporting overall fund write-downs as high as 15 per cent due to the post-June market shakedown, they reported.

Barron's said Jeremy Grantham, head of GMO, is now more concerned about the Yale wannabes than he is about properly resourced players such as Yale.

"It's obvious to me that few of those emulating Yale have the resources of Yale and the talent of Yale to pick the right managers."

Paraphrasing market guru Warren Buffet, Barron's said, "First come the innovators, then the imitators and, finally, the idiots."

Financial Standard

Real assets value add..

Contributions to overall added value : 10 years average %pa		
	Harvard To Jun 2008	Yale To June 2008
US Equities	0.4%	1.0%
Foreign Equities	0.3%	0.8%
Emerging markets equity	0.1%	-
Private equity	2.2%	3.9%
Absolute return	0.4%	0.4%
High yield	0.1%	-
Real assets*	0.8%	2.0%
Domestic bonds	0.7%	0.0%
Foreign bonds	0.4%	-
Asset class value add	4.3%	8.1%
Asset allocation	3.4%	2.1%
Total	7.7%	10.2%

Real assets bailed out the Harvard fund in year ending June 2008

- +41% for commodities (+3.7% of 8.6%)
- +33% for timber and property(+6% of 8.6%pa)
- Commodities since crashed
- Property and timber?????

Private equity value very significant part of the overall value add

Contributions to overall added value : 10 years average %pa		
	Harvard To Jun 2008	Yale To June 2008
US Equities	0.4%	1.0%
Foreign Equities	0.3%	0.8%
Emerging markets equity	0.1%	-
Private equity	2.2%	3.9%
Absolute return	0.4%	0.4%
High yield	0.1%	-
Real assets*	0.8%	2.0%
Domestic bonds	0.7%	0.0%
Foreign bonds	0.4%	-
Asset class value add	4.3%	8.1%
Asset allocation	3.4%	2.1%
Total	7.7%	10.2%

No longer immune to falls...

NY Times : 4 December 2008

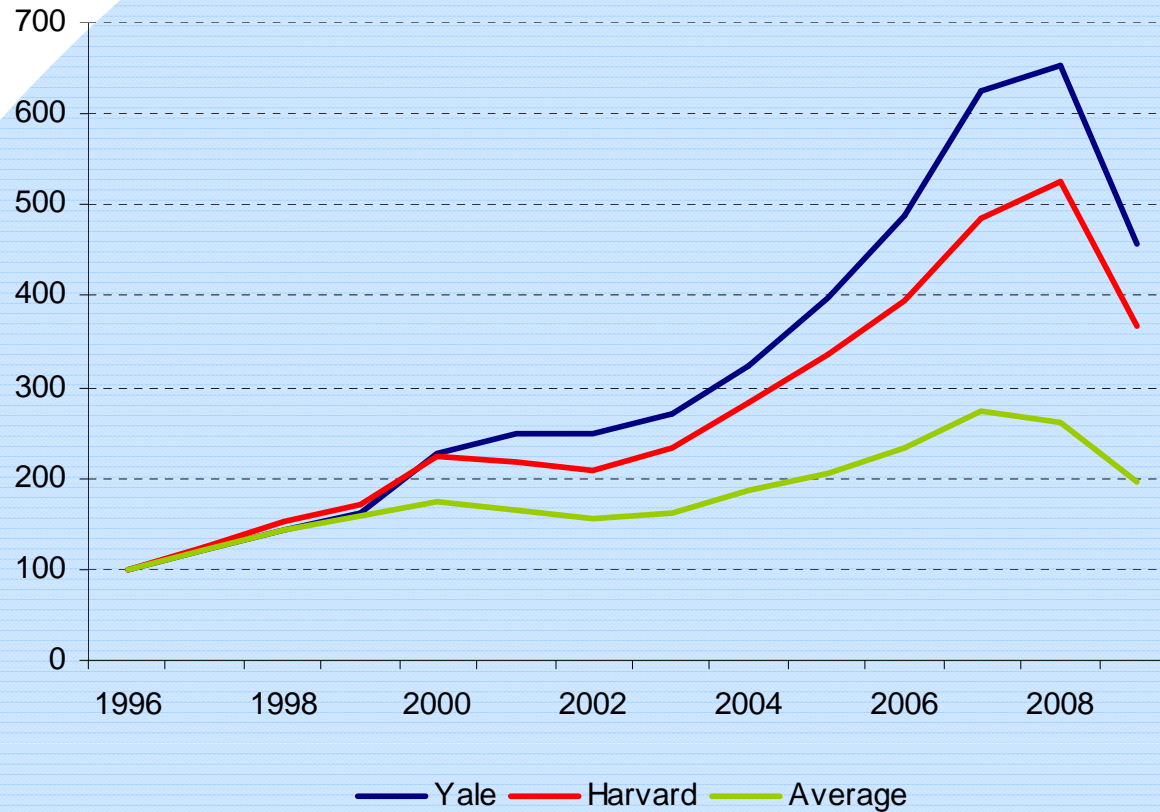
In a sign of the economic times Harvard has sent a letter to its deans saying that the university's \$36.9 billion endowment fund lost 22 percent of its value in the last four months and could decline as much as 30 percent by the end of the fiscal year on June 30.

Boston Globe :17 December 2008

Yale University, the second-wealthiest US institution of higher learning at the end of June, estimated that its endowment has since fallen 25 percent, to \$17 billion.

Still miles ahead...

Harvard and Yale
Value of \$100 invested in 1996



The secret

According to one former Harvard official, its endowment fund has done so well because it has avoided taking advice from the economics faculty.

Harvard and Yale...

- Asset allocation has important
- Manager and stock selection even more important
- Chasing successful strategies just as bad as chasing past returns

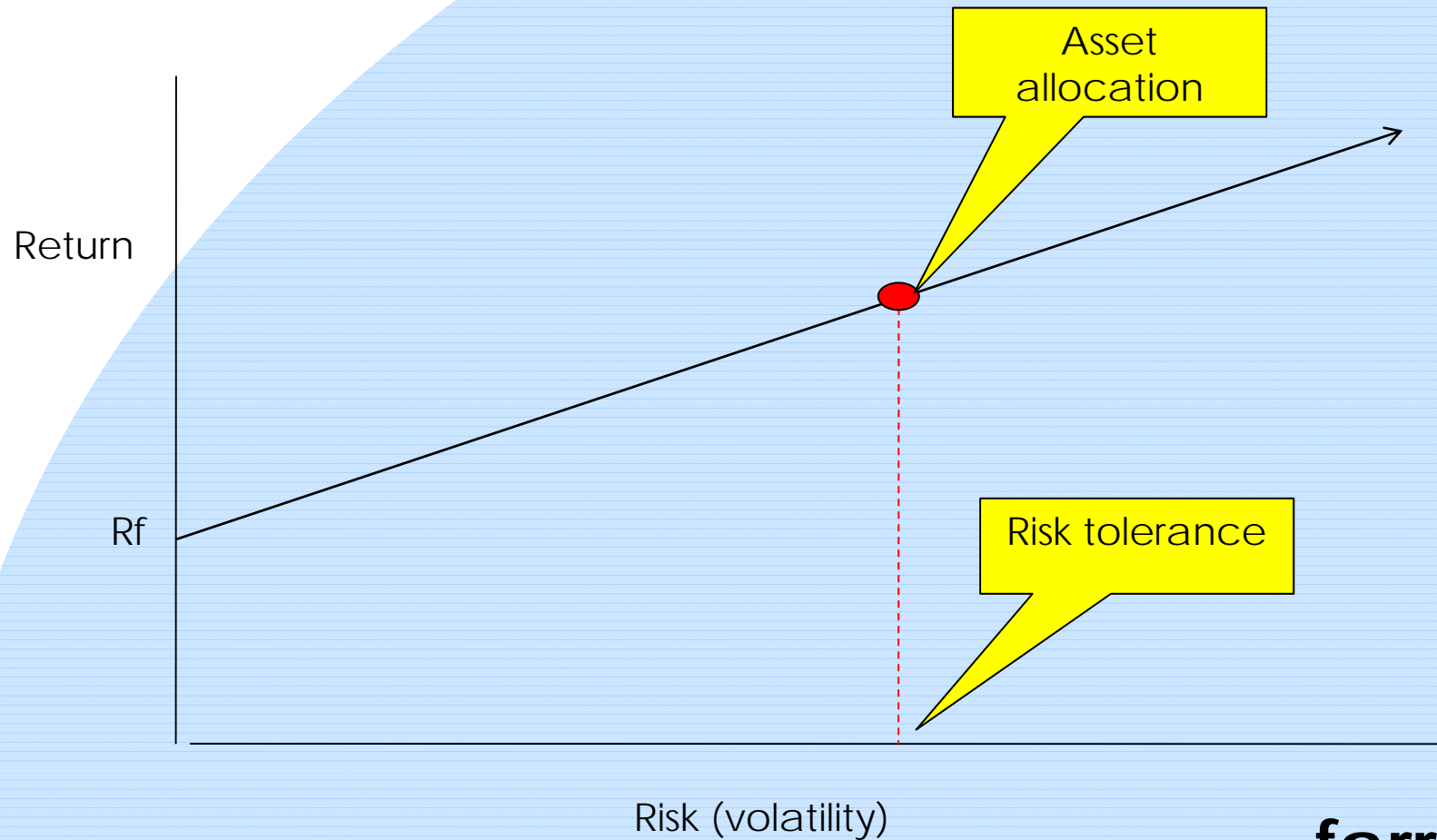
New thinking about risk profiling

Tim Farrelly
August 2009

The equity risk premium and risk tolerance

- Equities have higher volatility and therefore command a risk premium
- So they outperform in the long term
- We work out risk tolerance (ability to tolerate volatility)
- We maximize returns by positioning investors at their maximum risk tolerance
- Maximise standard of living by maximising returns

Risk profiling and asset allocation



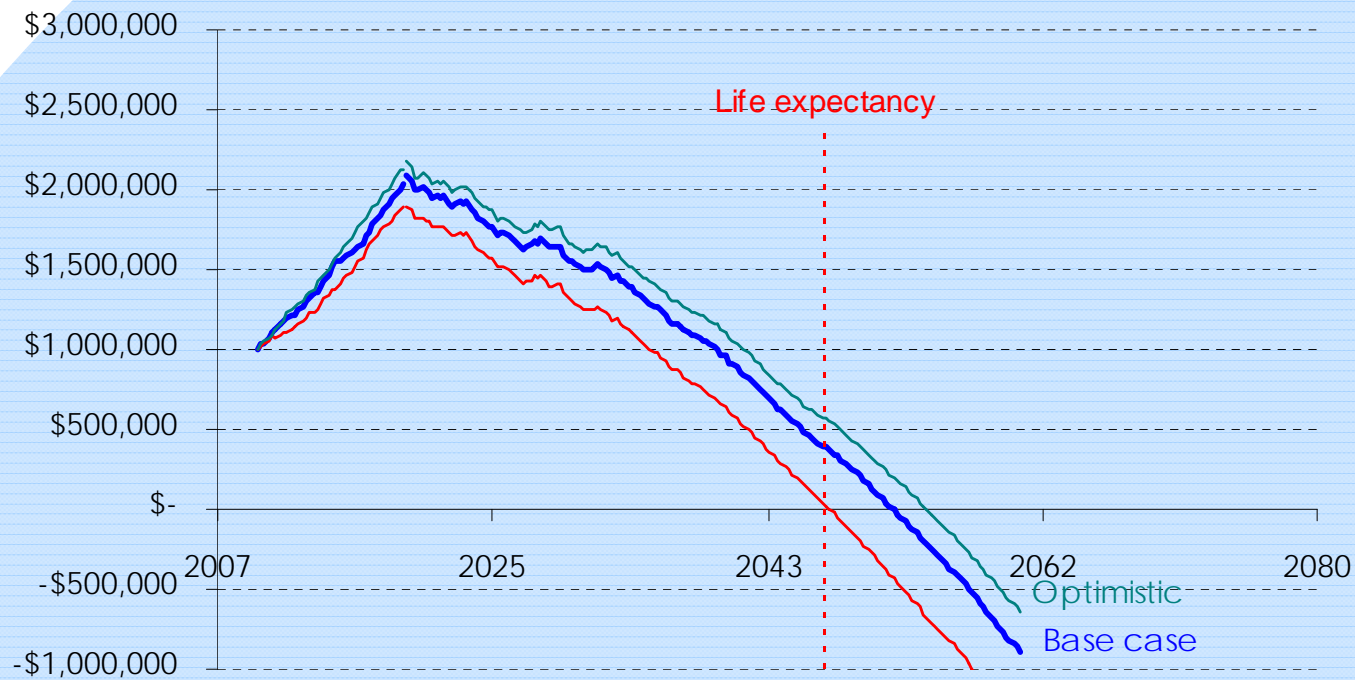
So what?

Case study : Bill

- Assets \$1,000,000
- Earns \$120,000pa after tax
- Spends \$95,000pa
- Age 55
- Expected retirement 65
- Life expectancy 93

A typical plan if equities consistently outperform...

Lifetime Capital
in today's dollars

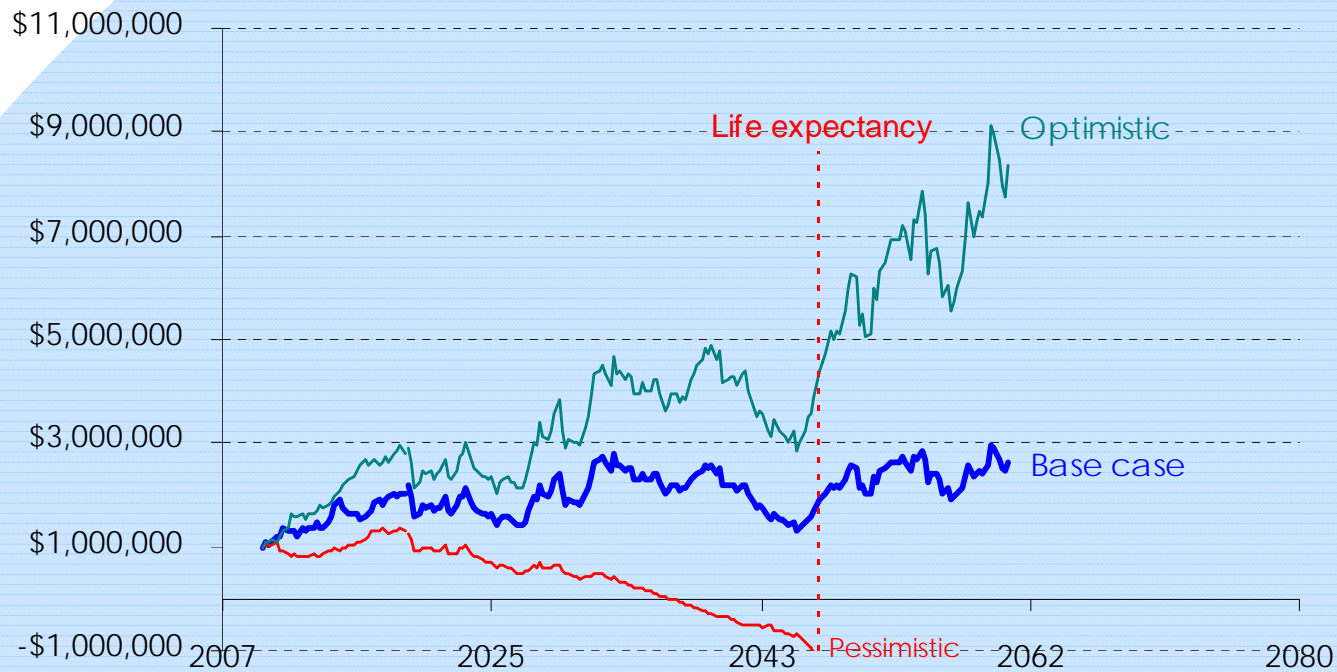


Balanced portfolio, spends 95000 pa,
8.8% return

farrelly's

Reality is more like this...

Lifetime Capital
in today's dollars

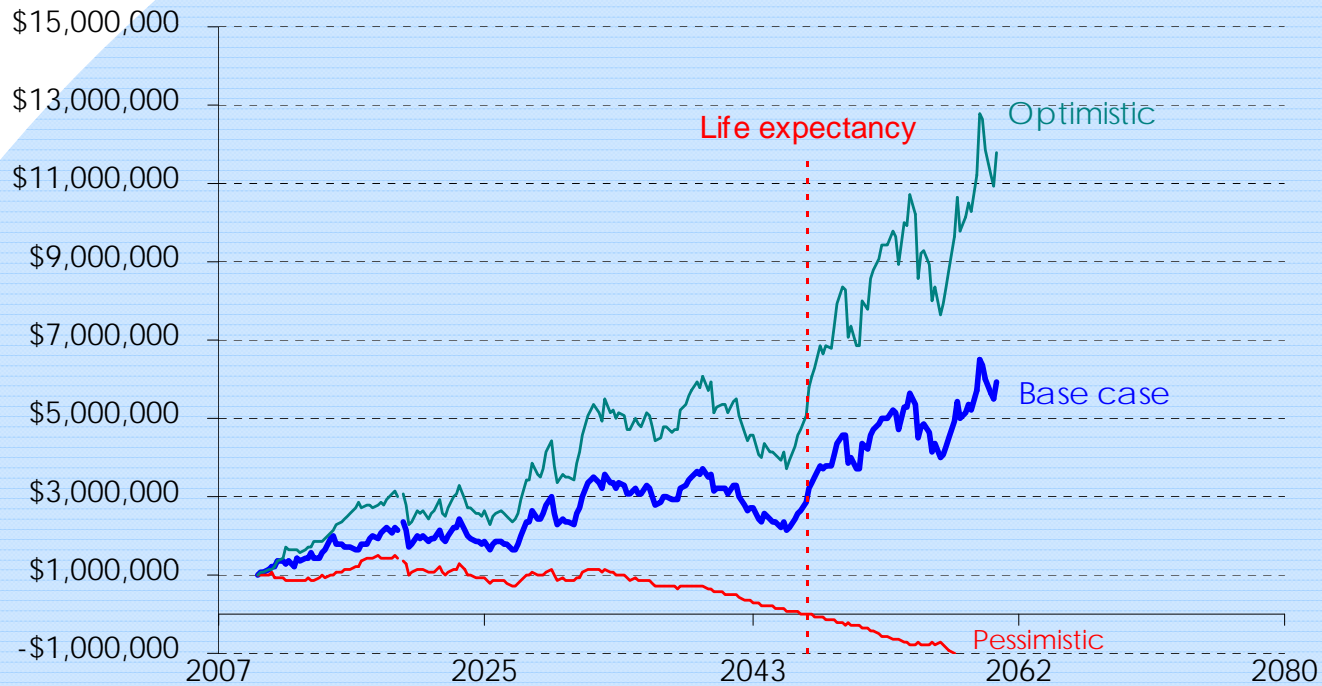


Balanced portfolio, spends 95,000 pa,
8.8% return

farrelly's

Way too much spending....

Lifetime Capital
in today's dollars

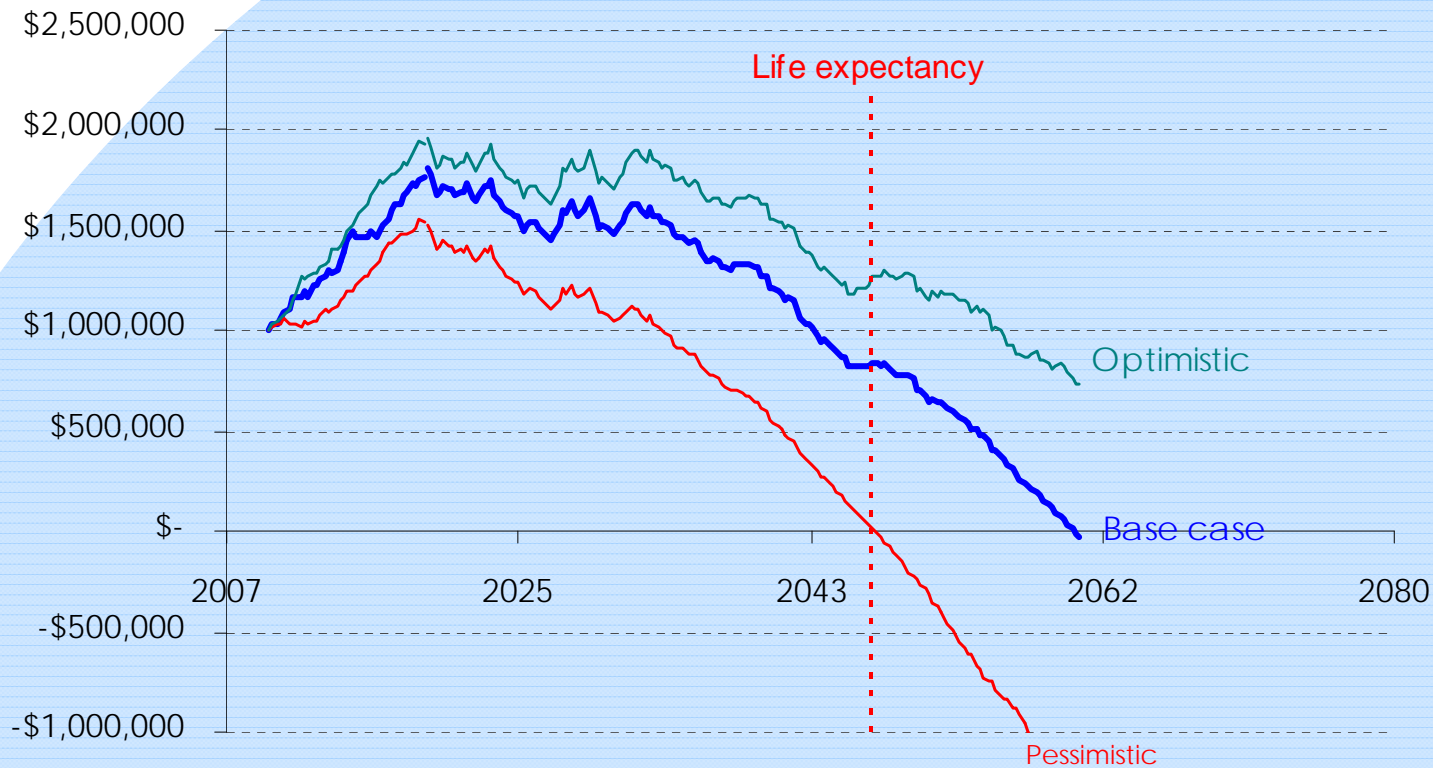


Balanced portfolio, spends 82,000pa

farrelly's

Less risk means better lifestyle!

Lifetime Capital
in today's dollars



Conservative portfolio, spends \$90,000pa,
6.4% forecast return

farrelly's

The equity risk premium and risk tolerance

- Equities have higher volatility and therefore **should** command a risk premium
- So they **should** outperform in the long term – **but may not**
- We work out risk tolerance (ability to tolerate volatility) **and financial risk capacity (ability to tolerate low returns)**
- Maximise standard of living by **optimising balance between maximising returns and minimising uncertainty**
- Review case by case

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