New Zealand Superannuation Fund Case Study – Latest Asset Allocation Review

8 July 2008

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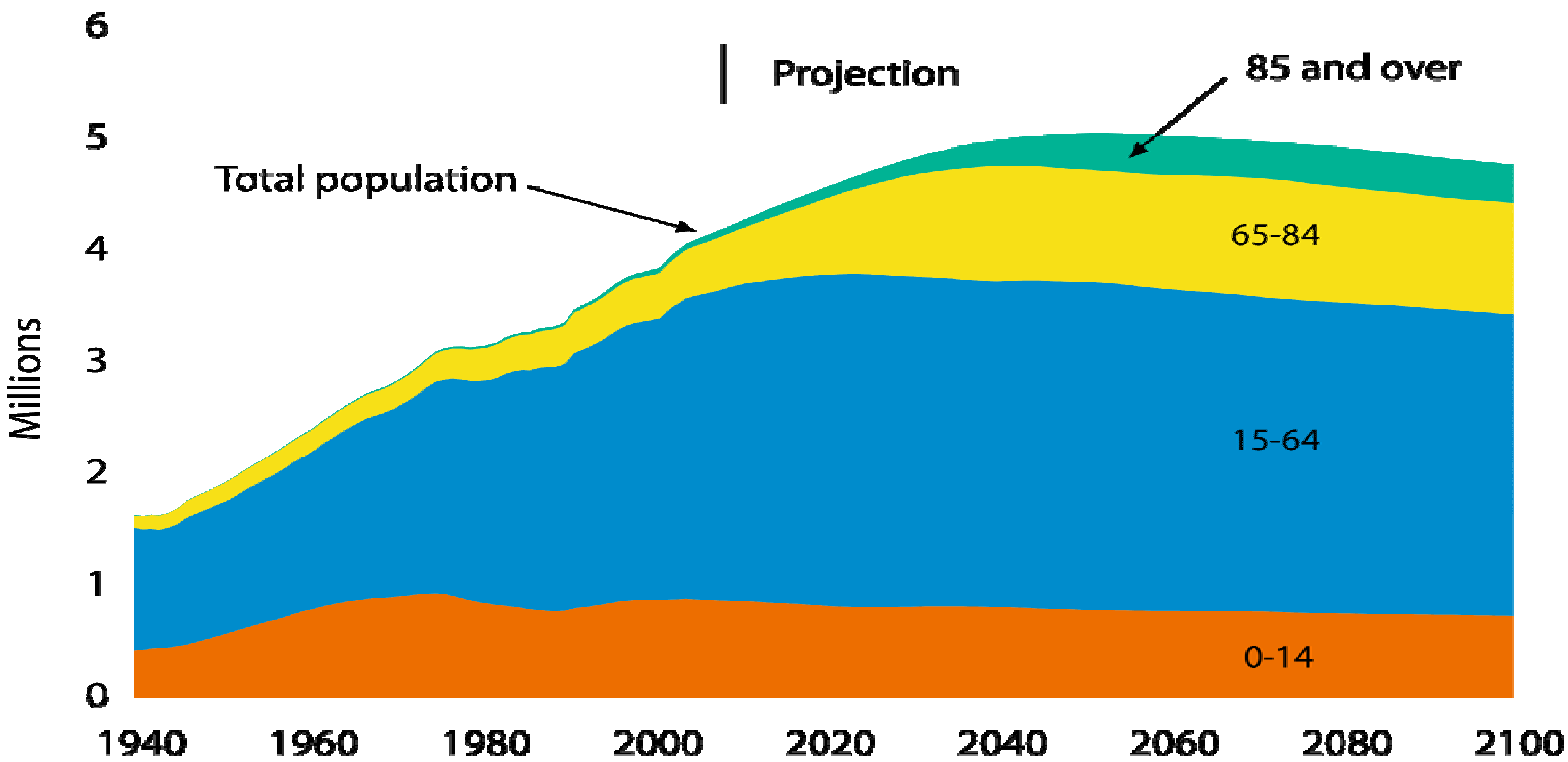
NEW ZEALAND SUPERANNUATION FUND

Outline

- Context
  - Purpose of Fund and where we're at
- Focus on two key challenges:
  - Risk profile
  - Greater flexibility for private markets
- Future Asset Allocation Challenges

Demographic shift underway

Source: New Zealand Treasury



1 in 8 over 65, 1 in 4 by 2030

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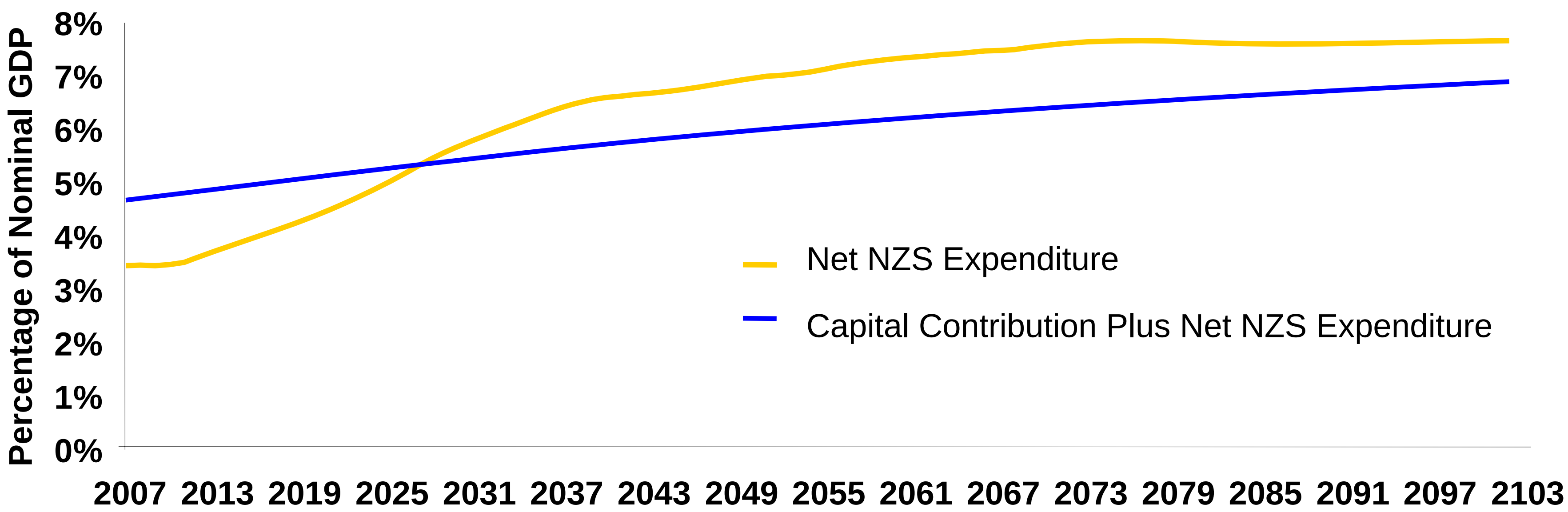
Smoothing superannuation costs over time

Source: New Zealand Treasury



The Fund's purpose

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Objectives

"The Guardians …. must invest …in a prudent, commercial basis ... consistent with:

- Best-practice portfolio management; and
- Maximising return without undue risk to the Fund as a whole; and
- Avoid prejudice to New Zealand's reputation as a responsible member of the world community"

Require interpretation

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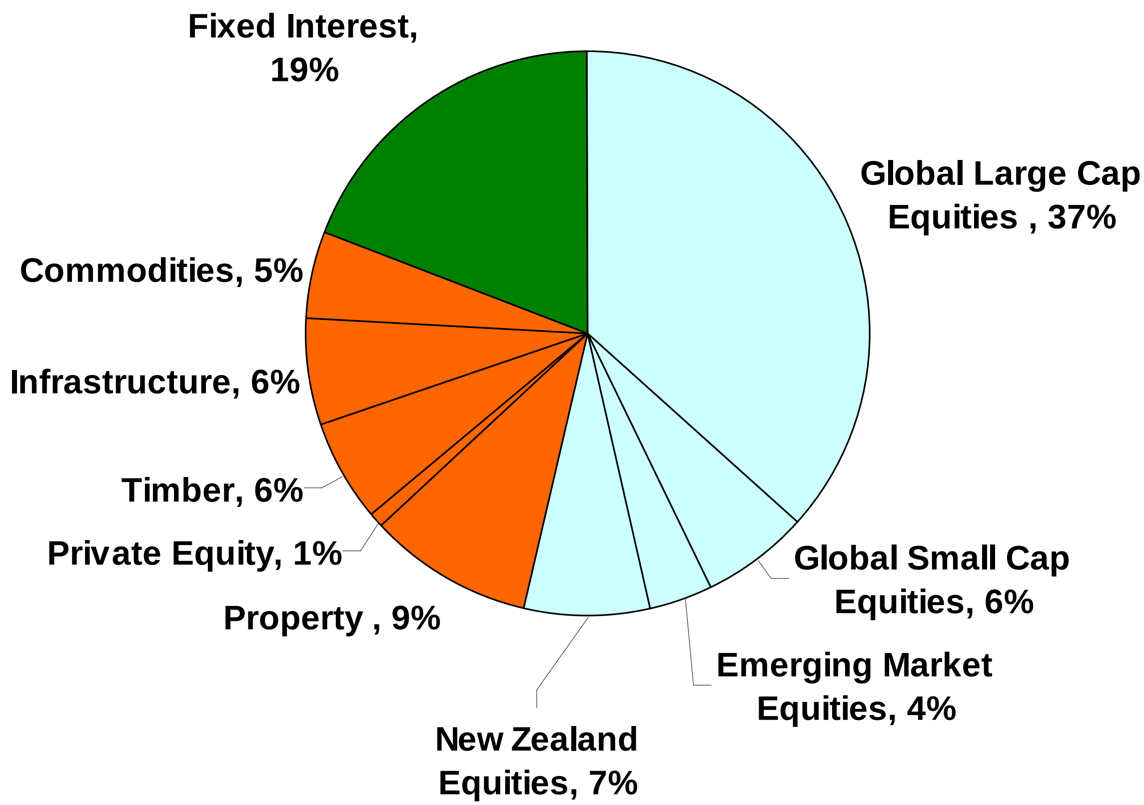
Where we're at

- NZ $14.7 billion (31 May)
- Projected $33b in 5 years
- About 40 staff
- 28 external managers



Private markets are key part of SAA

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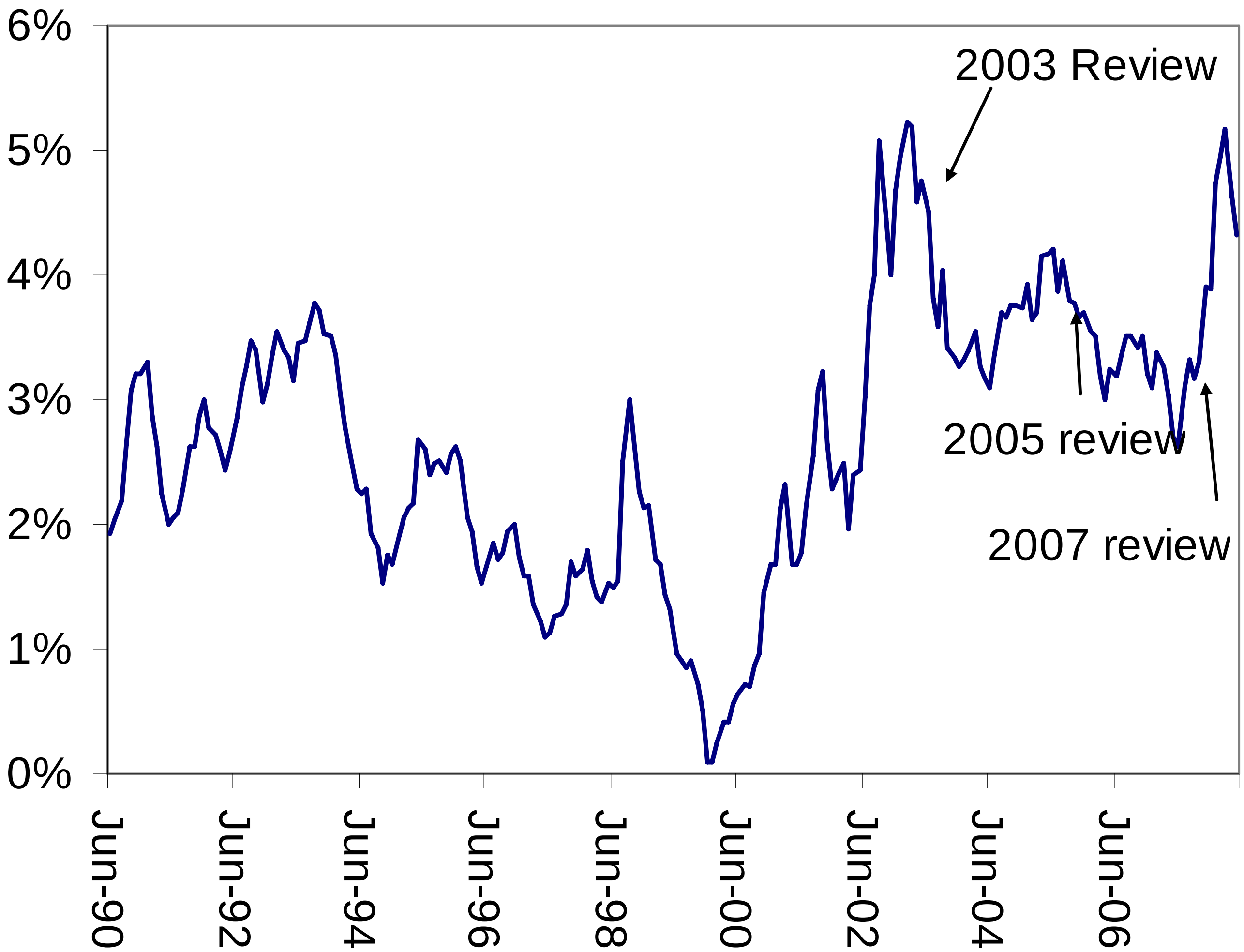
Equity Risk Premium
(Large Cap equities relative to T-bills)



Change since previous SAA reviews

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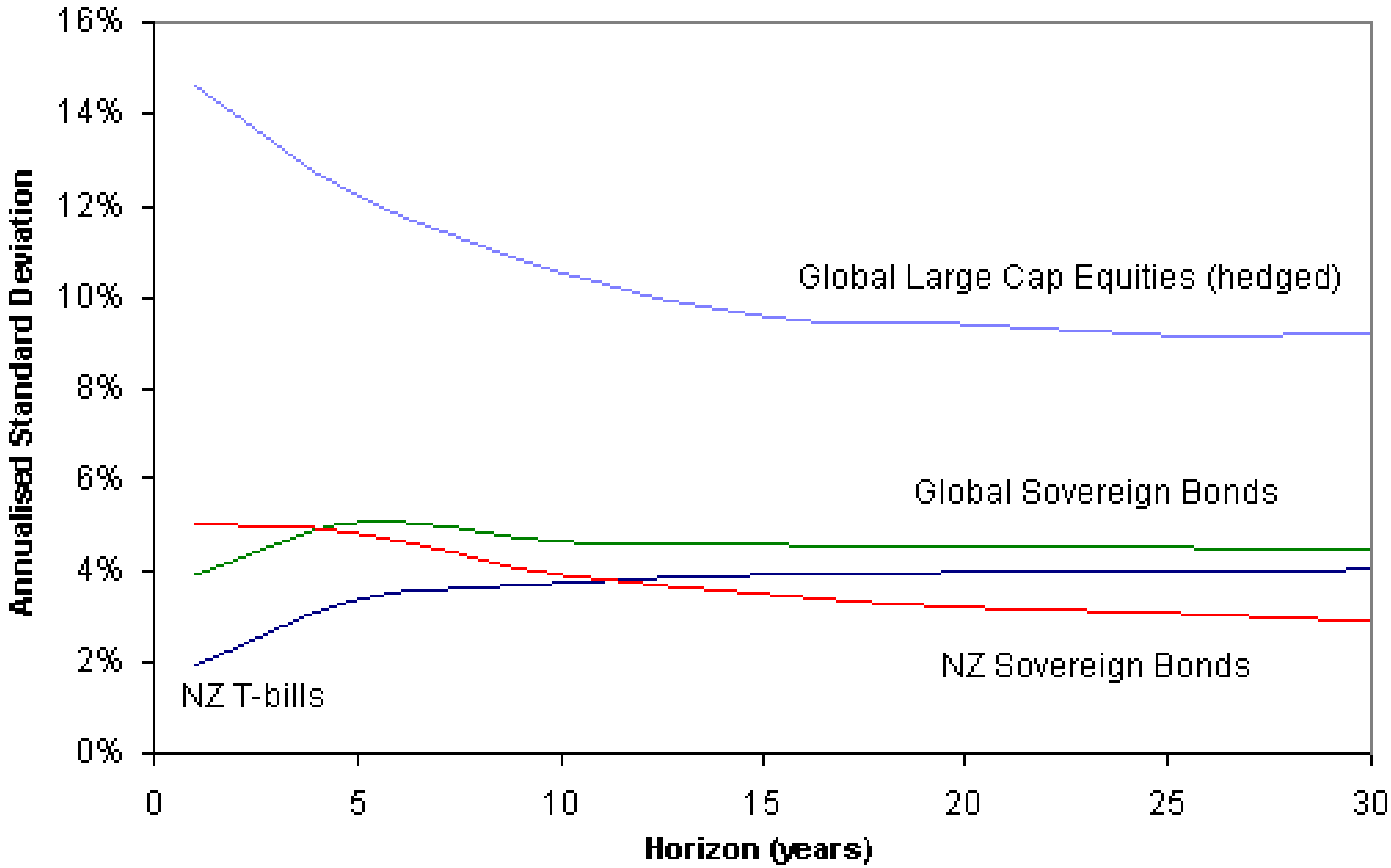
Modeling risk over long horizons (Annualised volatility from our new model)



Mean reversion dampens equity volatility

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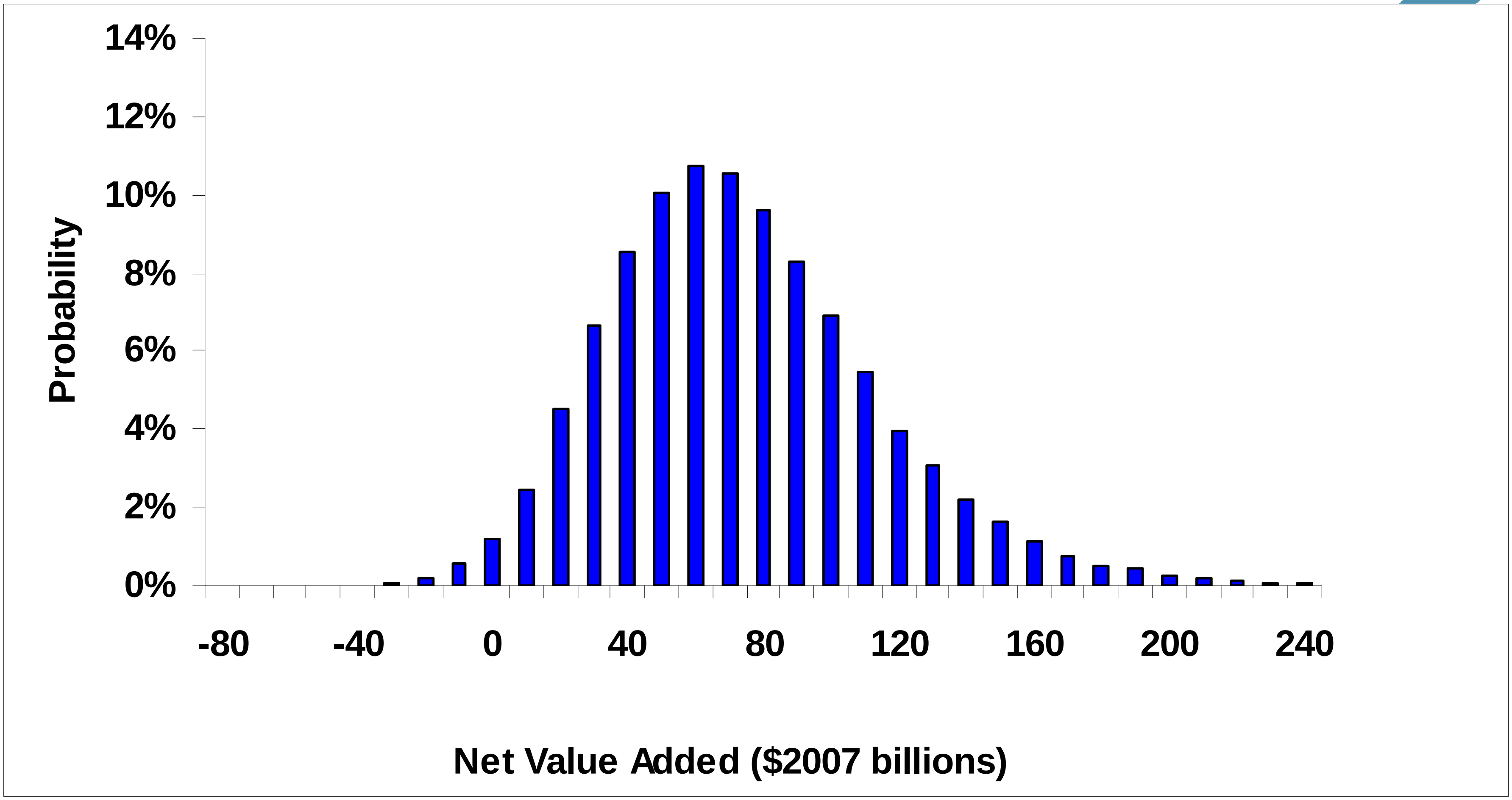
Projected value added over 30 years (relative to investment in T-bills)



Evaluated range of 30-year outcomes

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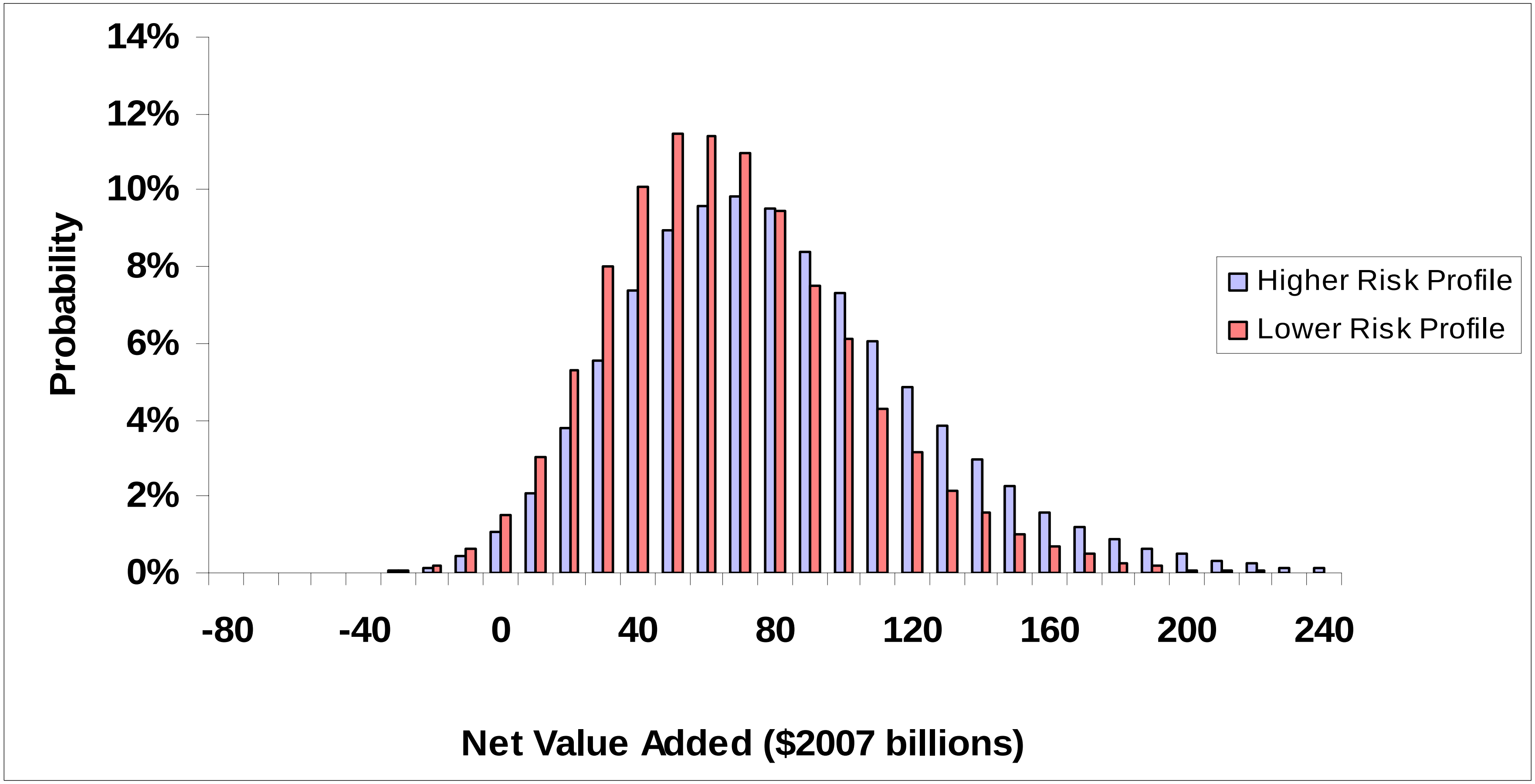
Projected value added over 30 years (relative to investment in T-bills)



Doesn’t support lowering risk profile

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A measure of shorter-term risk

	Lower Risk Profile (10% more FI)	Current Risk Profile	Higher Risk Profile (10% less FI)
Probability 3-year return is negative	4.5%	6%	7%
Probability at least one negative 3-year return over next 30 years	68%	75%	81%

Incremental relationship to risk profile

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Risk Profile Conclusion

- ‘Clean sheet’: review found
  - Risk likely to be rewarded over long horizons
  - Despite lower ERP
  - Given reasonable range for ERP
  - And some mean reversion in equity returns
- High likelihood of ‘bumps along the way’
  - But current risk profile tolerable

No change to risk profile

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The challenge of private markets

Not sensible to try to maintain fixed target weights:

- You can't buy a 'slice of the market'
- Exposures tend to be lumpy
- Deal flow critical
- Opportunities vary over time

How best to incorporate into SAA?

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Public Market Proxies for Private Market Exposures

Proxies for Each Private Market Asset Class	Private Equity	Infrastructure	Other Private Markets	Timber	Unlisted Property
Global Equities*	125%	30%	25%	20%	0%
Listed Property	0%	0%	0%	40%	100%
Fixed Interest	-25%	70%	75%	40%	0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**

Proxy substitution maintains risk profile

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Proxy Adjusted SAA (May 2008)

Asset Class	SAA	Ranges	Proxy Adjusted SAA	Proxy Adjustment
Private Markets				
Infrastructure	5.0%	0-10%	6.0%	1.0%
Timber	5.0%	0-10%	5.9%	0.9%
Private Equity	5.0%	0-10%	0.8%	-4.2%
Other Private Markets	5.0%	0-10%	0.0%	-5.0%
Total Private Markets	**20.0%**	**10-30%**	**12.7%**	**-7.3%**
Equities				
Global Large	32.0%		36.7%	4.7%
Global Small	5.5%		6.3%	0.8%
Emerging Markets	3.0%		3.4%	0.4%
NZ Equities	7.5%		7.5%	0.0%
Total Equities	**48.0%**		**54.0%**	**6.0%**
Property	**10.0%**		**9.6%**	**-0.4%**
Commodities	**5.0%**		**5.0%**	**0.0%**
Total Fixed Interest	**17.0%**		**18.7%**	**1.7%**
Total	**100.0%**		**100.0%**	**0.0%**

Adjusts for current private market weights

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Some Future Asset Allocation Challenges

- Better match portfolio to superannuation payments
  - Evaluate potential for derivatives overlay (nominal bond swaps + inflation swaps)

- Develop analysis of expected returns versus risk adjusted hurdles for private markets
  - More granular than SAA

- Review case for including commodities in SAA

- Implement a strategic tilting approach
  - Adjust some SAA weights as long-term expected returns evolve

Ongoing evolution

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