



# Re-evaluation of Investment Risk

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# Outline

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- What's gone wrong?
- Traditional investment thinking – risk and return
- Re-evaluating investment risk – new thinking
- Need to focus on the liabilities – matching/outperforming
- Example of new thinking in practice



# What went wrong?

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- Investment returns underperformed rising liabilities
  - Can't rely on equities to generate consistent returns
- Sensitivity to interest rates and inflation not recognised
- Huge mismatch! – Example:
  - 1% fall in interest rates -> 20% rise in liabilities
  - 1% fall in interest rates -> 5% rise in assets
- 'Expected returns' not the same as *achieved* returns!
- Investment risk misunderstood
  - May get rewarded in equities, but may not – not sure
- Not enough 'what if' scenario analysis – no insurance



# Traditional vs. new thinking

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- Traditional attitude to investment was:
  - Manage returns
  - TAKE risk (acceptance of risk – equity risk)
  - Almost *welcome* risk, in expectation of high returns
  - Long-term investors can ignore setbacks!
- New approach would be:
  - Manage returns AND
  - Manage risk (control risk **relative to liabilities**)
  - Insurance against unexpected liability changes/deficit
  - Choose which risks to reduce



# Trustee balance sheet didn't balance!

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- Focus far more on assets than liabilities
- Assets
  - Contributions – keep low with good assets
  - Investment returns
  - Look to outperform benchmarks
- Liabilities
  - Paying all pensions must keep up with salary inflation, mortality, duration
  - No explicit focus on actual liability movements
  - Just 'expected' equities to match



# Over-reliance on equities harmful

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- Equity investments have two types of risk
  1. volatility associated with equity risk premium – trustees expect to be rewarded for this (but may not be!)
  2. risk of not keeping up with liabilities, as interest rates, inflation and mortality change – this is unrewarded risk
- Pension investors only expect benefit from rewarded risk
- Uncontrolled, unrewarded risk has caused big damage



# Re-assess management of returns and risks

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- Sufficient returns, not maximum returns
- Controlled and conscious risks, not minimum risk
- Hedging of risks and diversification of assets
- Derivatives often more effective than gilts or bonds for protecting downside
  - Would you leave your house uninsured?
- Will underperform strong bull market
  - But returns should be more stable/reliable long-term





# Re-assessment of investment risk

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- The big risk to concentrate on is the risk of not being able to pay the pensions in full
  - Not standard deviation of return or outperform index
- Need to understand risk, then manage and control it
  - Counterparty risk also relevant
- Must take some risk to overcome deficit or weak sponsor
- Must also hedge some risk to protect funding position
- Protect against rising liabilities and falling assets



# Is switching to bonds the answer?

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- Switching to bonds doesn't match liabilities
  - Pension liabilities are 'bond-like' but are not bonds
- Bonds reduce 'risk' as measured by volatility of return
  - But in exchange for much reduced upside potential
- Bond investments still contain 'unrewarded' risk
  - Salary inflation, Ipi, longevity, duration, capital loss
- Lower 'volatility', higher risk of not paying full pensions!
  - Retain upside potential while protecting downside
- Reducing deficit requires *outperforming* liabilities
  - Without taking highest risks, sustained positive returns



# Diversification

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- Improve portfolio efficiency via diversification
- Compare 1980's diversification into international equities
- Alternative assets can improve risk-adjusted returns
  - Diversification into currency, hedge funds, property, infrastructure, emerging markets – low correlations
- Capture beta return from inefficient non-equity markets
- Capture alpha from talented specialist managers
- Many sources of risk premium in inefficient global markets
  - Equities are only one of these sources

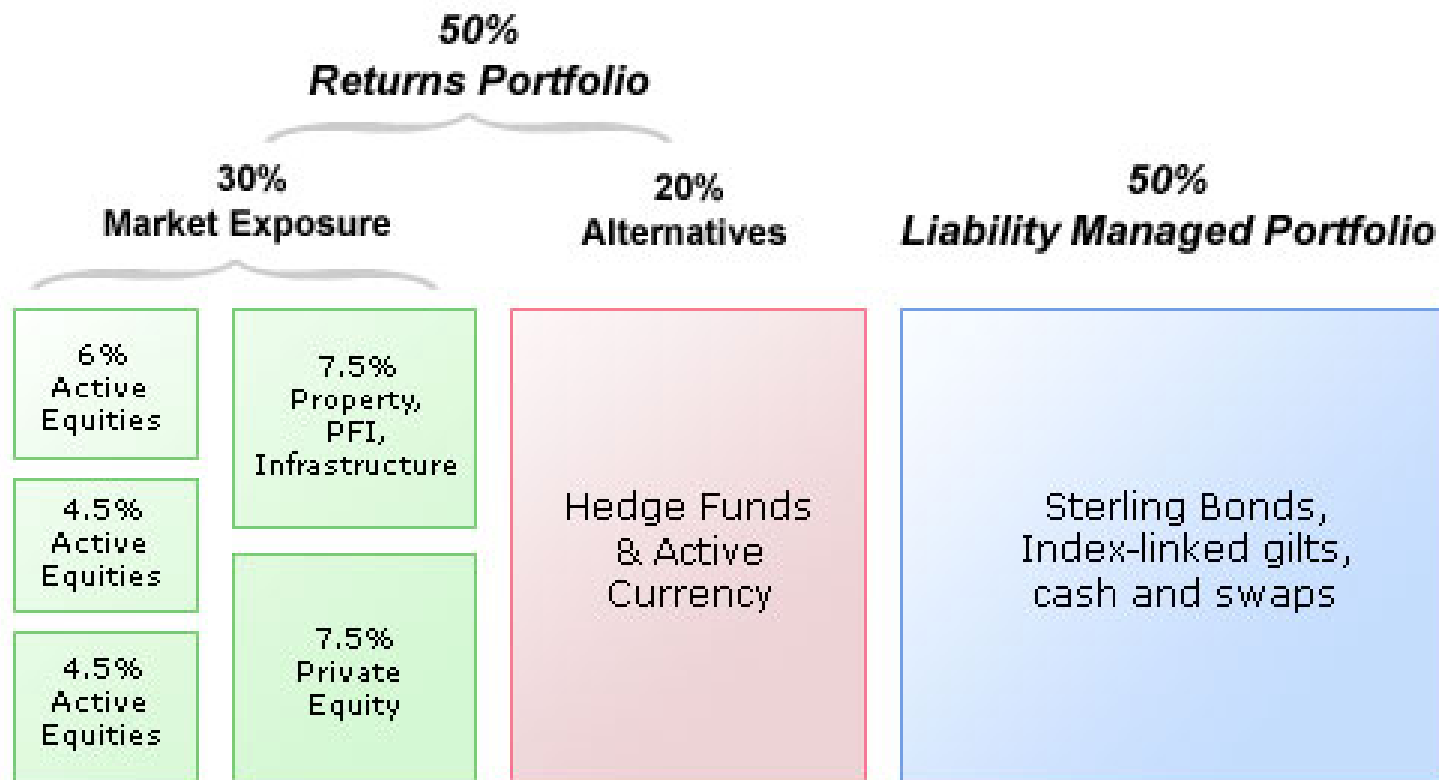


## New approach in practice

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- Set explicit risk/return objectives relative to liabilities
  - E.g. fixed income based liability measure + 1.5%
- Take risks you expect to be rewarded for
  - Beware of counterparty risk too!
- Part of assets to try to match liabilities – liability hedging
  - Swaps hedge interest/inflation risk better than bonds
- Part of assets to generate returns – return seeking to outperform liabilities
  - Diversification across alternative assets
- Minimise/eliminate liability-related risks not rewarded for

# Case study – possible new approach





# Conclusion

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- Investment risk has been misunderstood – not everyone will be rewarded for taking risk
- Too much focus on assets, too little on liabilities
- Unrecognised and unrewarded risks include interest rates, inflation, counterparty etc.
- New investment approaches to protect downside risk vs. liabilities, keep upside
- Complex: diversification, derivatives
- Reassess investment risk in light of experience