Pension Fund Investments and Risks

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Outline

- Trustee challenges
- Traditional thinking – risk and return
- Re-evaluating risk
- Focussing on the liabilities – matching/outperforming
- Example of new thinking in practice

Pension fund costs and deficits

- Deficits problems: schemes mature, markets misbehave
- Unexpected falls in assets
  - Over-reliance on high risk equities
  - No defence against bear markets
  - 'Surpluses' disappear
- Unanticipated rises in liabilities: rise 5% pa + longevity
  - Salary inflation, lpi
  - Interest rates
  - Longevity/Annuity rates

- Investment returns underperformed rising liabilities
- 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
- Can't rely on equities to generate consistent returns
- 'Expected returns' not the same as *achieved* returns!
- Not enough 'what if' scenario analysis

Traditional vs. new thinking

- 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

Problems of traditional approach

- ‘Expected’ returns not the same as *achieved* returns
  - No sensitivity analysis, simplistic
- Rely too much on equity risk premium
  - There are other sources of risk premium available
- Not enough consideration of downside risk
  - No insurance against bad outcomes
- Lack of explicit analysis of all the risks
  - Salary inflation, lpi, interest rates, duration, longevity

Trustee balance sheet didn't balance!

- Focus far more on assets than liabilities
- Assets
  - Contributions
  - Investment returns
  - Look to outperform benchmarks
- Liabilities
  - Paying all pensions
  - Salary inflation, mortality, duration
  - No explicit focus on actual liability movements

Over-reliance on equities harmful

- Equity investments have two types of risk

1. volatility associated with equity risk premium – trustees expect to be rewarded for this
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

Managing returns and risks

- 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

Awareness of risk

- 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 index outperformance
- Need to understand risk, then manage and control it
- 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?

- 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, lpi, 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

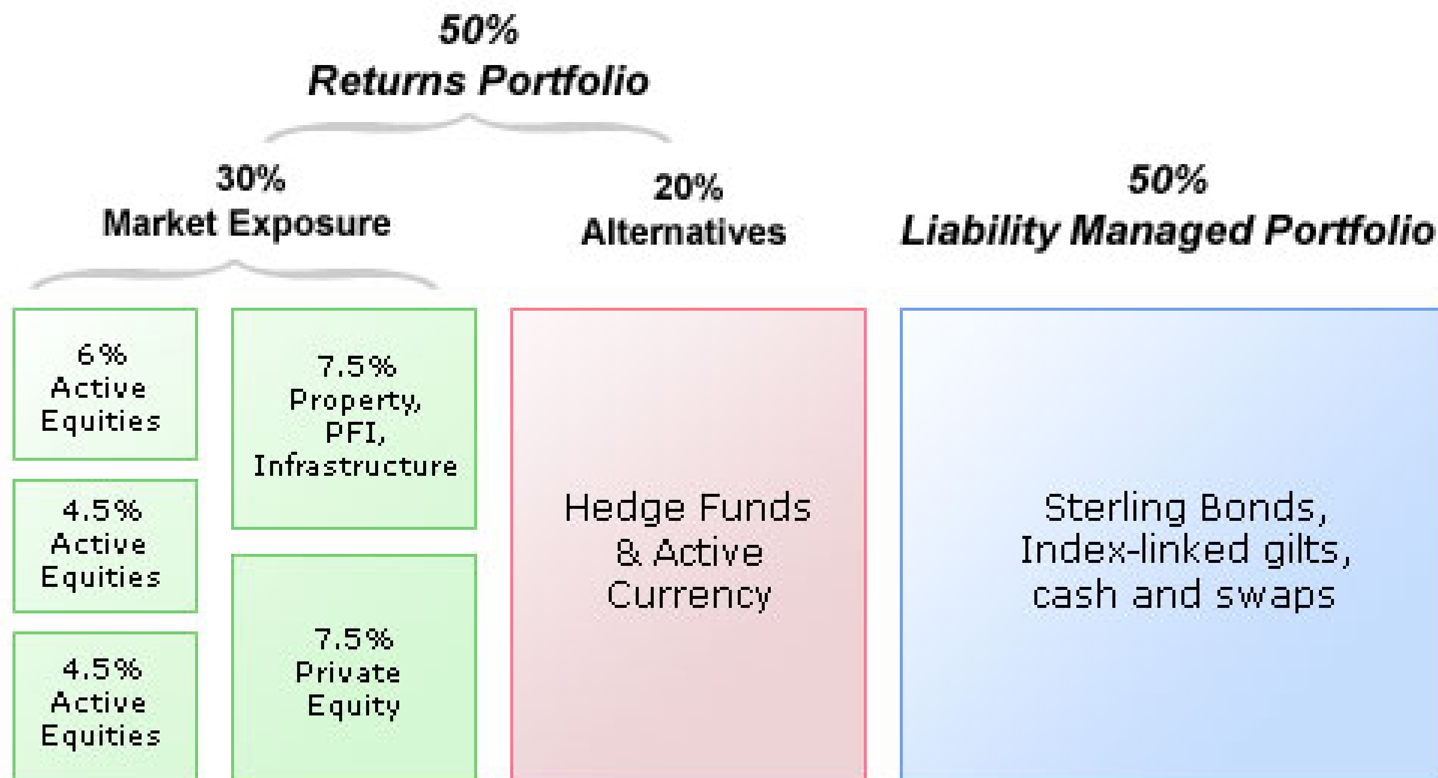
Diversification

- 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

- Set explicit risk/return objectives relative to liabilities
  - E.g. fixed income based liability measure + 1.5%
- 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
- Take risks you expect to be rewarded for
- Minimise/eliminate liability-related risks not rewarded for

Case study – new approach



Conclusion

- Members were left unprotected for too long – unsecured creditors need increased security
- Too much focus on assets, too little on liabilities
- Unrecognised and unrewarded risks
- New investment approaches to protect downside risk vs. liabilities, keep upside
- Complex: diversification, derivatives, risk control
- No one right solution – It's not easy!