Goldman Sachs Asset Management

The Pension Investment Academy

Sharpen up on pension fundamentals

The Credit Crisis and LDI
What now for pension funds?

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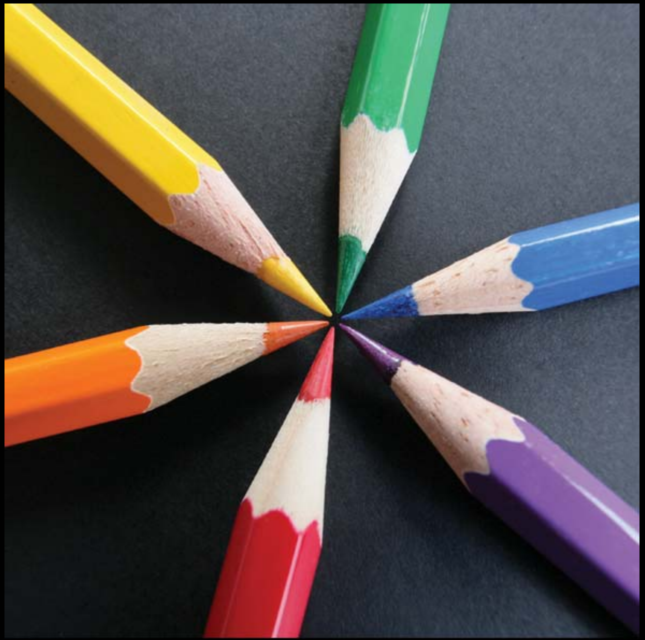

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Credit Crisis and LDI – What now for pension funds?

Outline

Recent history for pension fund asset allocation and LDI

Impact of credit crisis

What went wrong with cult of the equity?

Re-evaluation of investment risk

Implications for LDI in future

LDI and asset allocation after 2000

Trustees and sponsors shocked by big deficits

Traditional reliance on long-only equities to deliver returns – ignored unrewarded risks linked to liabilities

Over-reliance on equities under-performed liabilities

‘LDI’ encouraged switching from equities into bonds

But broad thrust still relied on long only equities for both alpha and beta returns

Tiny diversification in hedge funds, property, venture capital, private equity

Asset allocation changes in pursuit of LDI

	2008	2006	2000
UK Equities	25	38	50
Overseas Equities	30	28	20
Total long-only equities	55	66	70
Bonds	31	25	19
Property	7	7	4
Private equity/venture capital	2.5	1.7	1
Hedge funds	1.9	1.0	-

Sources; NAPF Surveys and ONS

The reality of LDI – 2000 - 2008

‘Pattern of UK pension fund investment continues towards greater diversification as a means of better risk management and reducing the impact of significant volatility in world equity markets’ !!!

Tiny diversification has little effect

In 2000, Myners said trustees must commit more resources to asset allocation

Must consider full range of investment opportunities

25% of schemes have implemented LDI

Further 41% considering it!

Asset performance during the credit crisis

Long-only equities a disaster

Commodities bubble burst

Property fallen sharply – retail and commercial

Some hedge funds collapsed, some performed well

Corporate bonds awful

Gilts performed well

Swaps have done well in protecting against liability changes

Implications for asset allocation

Is this the end of diversification? No, just the beginning

Schemes did not have sufficient diversification

Healthy shakeout in hedge funds

Still need to spread risks

Best protection against volatility is probably via diversification – of both assets and managers

Complex, need good advisers who understand the issues

What went wrong?

Investment risk misunderstood – risk premium does not guarantee reward

‘Expected returns’ not the same as *achieved* returns!

Not enough ‘what if’ scenario analysis – no insurance against bad outcomes for either assets or 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

Not enough diversification

Dangers of the ‘cult of the equity’

The risk premium does exist, but not everyone will get it

Some will, some won’t – what if you don’t?

Demographics boosted stock markets but may now reverse

Other risk premia are also there, but <u>you</u> may not benefit

All you know for sure is that you have a <u>chance</u> of outperforming risk-free assets!

Fundamental shift in thinking – you may not be rewarded for taking risk, even as a long-term investor – look at Japan!

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 (but may not be!)

2. risk of not keeping up with liabilities, as interest rates, inflation and mortality change – this is unrewarded risk

Risk premium is there in theory and on average – but it could also be negative!

Pension investors only expect benefit from rewarded risk – look to protect against unrewarded risks

We need LDI

LDI is not about eliminating risk

It’s about identifying, assessing and managing risks

Minimise unrewarded risks

Take risks expect to be rewarded for – but can’t rely on it

Need to consider BOTH assets and liabilities

Both will change over time – constant monitoring

How to think about LDI

Consider assets and liabilities in more integrated way

Pension liabilities are ‘bond-like’ but not bonds

No assets match liabilities perfectly anyway

Deficits require diversification beyond matching assets

Swaps offer much better match and leaves capital for return generation

Diversification offers chance of better returns and lower volatility

Re-assessment of investment 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 outperform index

Need to understand risks, then manage and control them

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

Credit crisis damaged hedging

Market mayhem makes hedging harder

Marketability and counterparty risks – daily collateralisation

Lack of reliable pricing for some derivatives

Libor strains

Swap-based solutions allow more capital for return-seeking but need libor generation

Inflation outlook and volatility – lpi swaps

New thinking for LDI

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

Careful of marketability, counterparty, collateral, costs

Will underperform strong bull market but returns <u>should</u> be more stable/reliable long-term

Diversification to improve portfolio efficiency

Alternative assets **can** improve risk-adjusted returns

Diversification of assets and managers, correlation

Capture beta return from inefficient non-equity markets

Capture alpha from talented specialist managers

Many risk premia in inefficient global markets

Equities are only one of these sources

How can schemes cope with LDI?

Large schemes – more governance budget to investment

Medium size schemes – good advisers, need more investment expertise on Board

Smaller schemes – pooled solutions for interest rate and inflation hedging

Essential to get good investment advice

Schemes could consider merging investment functions

It is very complex, but easy answers don’t exist!

What trustees can and can't do

Can't control or eliminate all risks

Can control some unrewarded risks

Need to get best advice on investments

Need to focus explicitly on liabilities

Recognise the complexity of the tasks

Consider merging investments with other schemes – economies of scale?

Buyout as means of LDI?

The ultimate liability matching for trustees – leave it to someone else!

Buy-in has attractions if pensioners valued at gilt rates

Most employers cannot afford

Beware capacity and quality of providers

More schemes will want to, will they be able to?

Government should issue ‘pension gilts’ and ‘annuity gilts’

Conclusions

Investment risk has been misunderstood

LDI means more than switching to bonds and cannot eliminate risk

If in deficit, need to outperform liabilities, not just match them

Need to understand, manage and control risks – insurance

Still allow room for upside returns - diversification

Need improved governance and advisers to cope with complexity of investments

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Thank you for listening

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