

Institute and Faculty of Actuaries

Credit risk: Let's get smarter

Dick RaeF&C InvestmentsIan RobinsonF&C Investments

30 September 2014

Credit risk: Let's get smarter

- The request
 - "The event will involve interactive sessions and lively debate will be encouraged"
 - IFoA website on this conference
- The provocation
 - "a conference that thus far has had only a little more oomph than a convention of actuaries"
 - Robert Peston on the Labour Conference last week





Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.



Agenda (1):

- The credit landscape
 - Where we are
 - Where we are going

a review a perspective



Agenda (2) :

- Practical considerations
 - Implications of matching adjustment*
 - Investing in overseas bonds
 - Dynamic liability driven investment
 - Alternative credit

some observations some challenges and an idea an idea more challenges



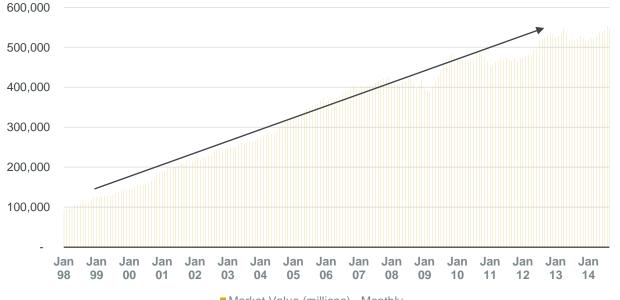
Agenda (1):

• The credit landscape

Where we are	a review
 Where we are going 	a perspective



Market value (sterling non-government millions) - monthly

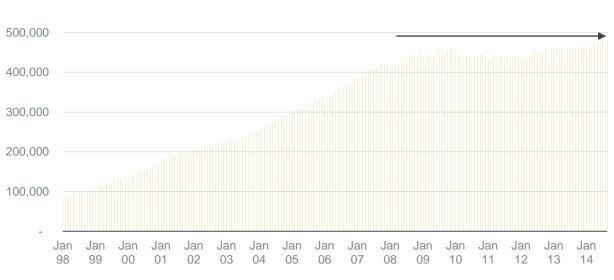


Market Value (millions) - Monthly



600,000

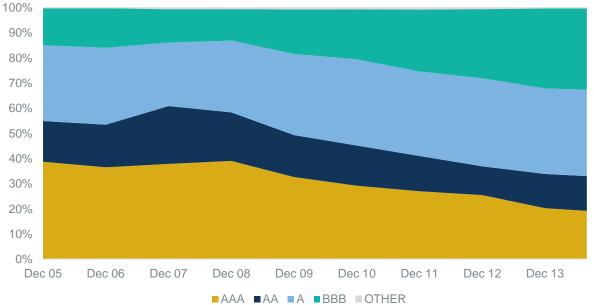
Face value (sterling non-government millions) - monthly



Face Value (millions) - Monthly

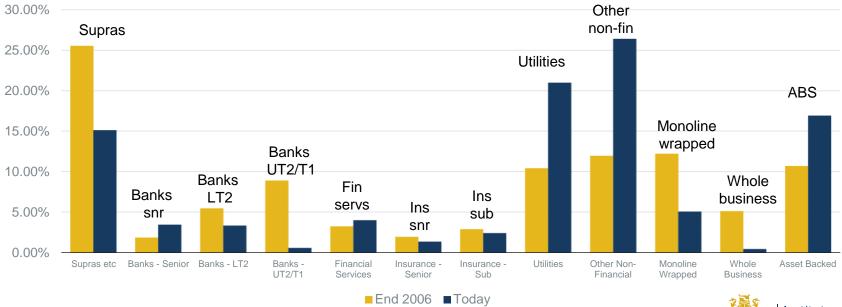


Breakdown of ratings





Breakdown of sectors - sterling non-government bond over 15 years

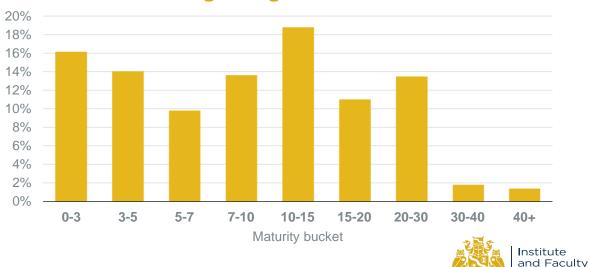




Seeking return 1 – non-sterling

Why go overseas? Because you can't get it at home!

- × Maturity
- × Ratings
- Diversification
- ? Spread



Sterling non-government bond

of Actuaries

Seeking return 1 – non-sterling

5 – 10 yr BBB non-financial spreads to government bonds





Seeking return 2 – alternatives

Why go alternative? Because you can't get it mainstream!

- × Maturity
- × Ratings
- Diversification
- ? Spread





Seeking return 2 – alternatives

Why would an issuer not go to the traditional bond market?

- Not big enough
 - Most new issues at least £100m
 - Needs to be £250m to enter the iBoxx index
- Not willing to get rated / market to a large audience
 - Costly in cash and time
- Flexibility
 - Non-standard terms such as a drawdown/pre-payment requirement
- Cheap enough without the hassle



Agenda (1):

- The credit landscape
 - Where we are

Where we are going

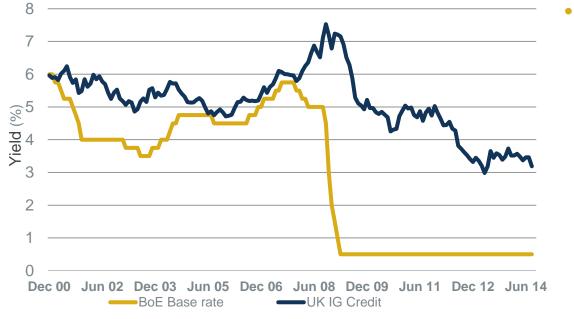
a review

a perspective



Low returns – here to stay?

Base rates & non-government bonds



Credit has benefited as interest rates have stayed low

Institute

and Faculty of Actuaries

Low returns – here to stay?

Fed balance sheet vs Dow



Central Banks
 have not
 stopped
 intervening



Low returns – here to stay?

US high yield spreads vs defaults

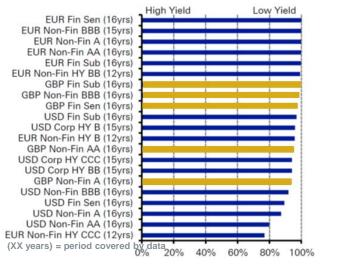


 Spread movements primarily linked to credit risk but defaults stay low



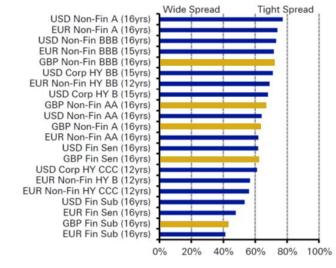
Spreads relative to history

Yields



Current Rank

Spreads



Current Rank

 Spreads have been lower



Source: Deutsche Bank, Mark-it

Agenda (2) :

• Practical considerations

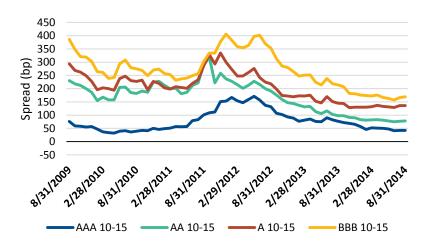
Implications of matching adjustment	some observations
 Investing in overseas bonds 	some challenges and an idea
 Dynamic liability driven investment 	an idea
 Alternative credit 	more challenges



Introduction

- Yields are low
 - Combination of rates and spreads
- Implications for life insurers
 - Annuities look unattractive
 - Meaningful guarantees expensive
- The search for "smart ideas"

Spreads 10-15 year tenors

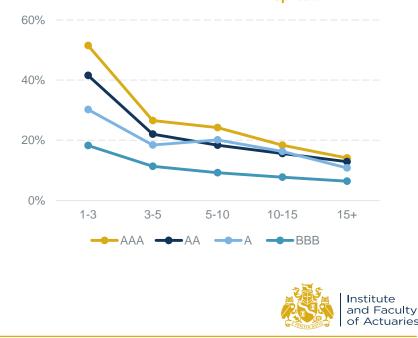




Without matching adjustment

- Ability to manage credit and rate risk separately
- Capital requirements favour shorter dated credit risk
 - Are returns on capital attractive?
- Rates risk can be managed by swaps
 - Liquidity requirement has an opportunity cost

Source: F&C 2014



Return on capital (SCR_{spread})

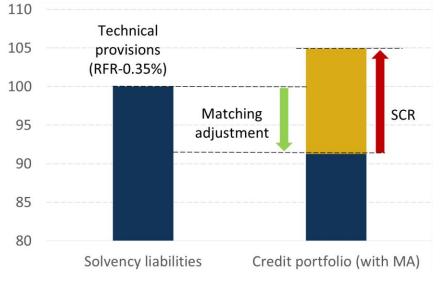
Managing rates risk with swaps (an aside)

- These will be centrally cleared for new trades in 2016
- Removes direct counterparty exposure BUT clearing broker can terminate your contract
 - This is a tail risk but tail events happen!
 - Termination would increase risk position
 - · Find replacement broker
 - Find alternative means to manage rates exposure



With matching adjustment

- A valuable capital benefit subject to constraints
 - Cash flow matching + liquidity plan
 - Investment grade (IG) only
 - Fixed/indexed GBP cash flows
 - Something akin to a buy and maintain strategy
 - Pre-payment options require appropriate compensation







With matching adjustment

- Implications for asset management
 - Capital aware investment management agreements (IMAs)

X

- Capital requirements
 - Set framework
 - Nominate stocks



With matching adjustment

- Optimal portfolio will change over time
 - As spreads change
- New premium income
 - Can allow rebalancing without selling
- No new premium income
 - What scope does MA give to buy/sell to re-optimise ?
 - Alternatively optimise on "more typical" credit spreads
- Regard to average credit quality as portfolio runs off
 - Consider impact of credit migration
 - Skew investment preference to higher quality, long-dated assets

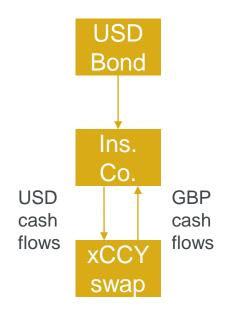


Agenda (2) :

- Practical considerations
 - Implications of matching adjustment some observations
 Investing in overseas bonds some challenges and an idea
 Dynamic liability driven investment an idea
 Alternative credit more challenges



Overseas bonds – hedging out currency risk



✓ Simple

- Meets MA requirements
- Easy to operationally manage
- ✓ Well suited to small portfolios

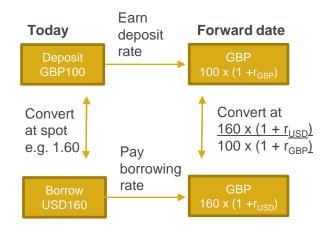
- × Swap illiquid
- Costly to trade and exit
- Mark-to-market profit/loss on default
- Collateral requirement



Building your own cross currency swaps

- The building blocks
 - USD fixed to floating
 - FX Hedge
 - GBP floating to fixed
 - 3m/6m basis
 - Funding costs
 - Capital charges
- × More complex to understand and operate
- ✓ More liquid instruments
 - Buy components from cheapest supplier
 - Save on bank funding and capital charges

The theory of an FX hedge

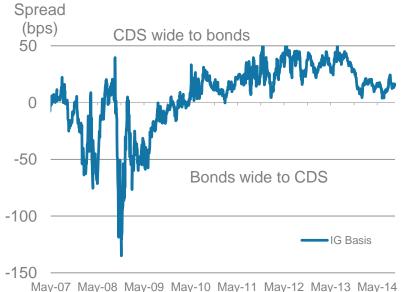




Synthetic overseas bonds

- Buy gilts and take overseas credit risk through CDS
- Diversified exposure through an index
- ? CDS spreads different to Bond spreads
- CDS typically traded in EUR/USD
 - Currency risk limited to spread and losses
 on default
- ✓ iTraxx Main will be centrally cleared
 - Defaults to risk off position if CDS clearing broker terminates

Investment Grade "Basis"



Source : Morgan Stanley Research



Agenda (2) :

- Practical considerations
 - Implications of matching adjustment
 - Investing in overseas bonds

Dynamic liability driven investment

Alternative credit

more challenges

an idea

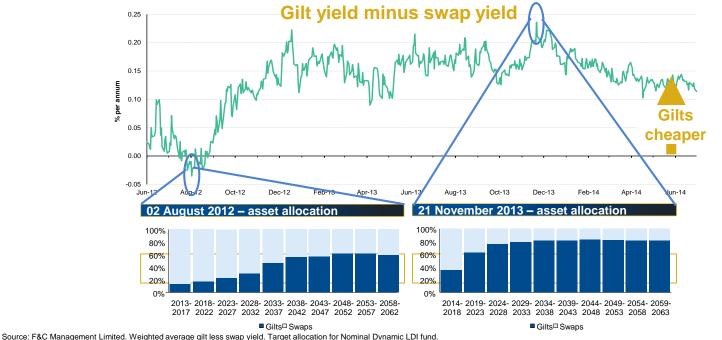
some observations

some challenges and an idea



Dynamic liability driven investment

Is there something to learn from the pensions industry?





Dynamic liability driven investment

- What about eligibility under matching adjustment ?
 - Liability cash flows met if assets held to maturity
 - Liability cash flows still met by moving to a cheaper portfolio and releasing cash
 - Does this fit in with the spirit or letter of Article 77b of Omnibus II ?



Agenda (2) :

- Practical considerations
 - Implications of matching adjustment
 some observations
 - Investing in overseas bonds
 - Dynamic liability driven investment

Alternative credit

some challenges and an idea

an idea

more challenges



Alternative credit

- Maximising the illiquidity premium (and stepping into the shoes of banks)
 - Export credit agency loans
 - Implicit government guarantee
 - Usually not GBP (if GBP then not ECGD)
 - Pre-payment clauses
 - Trend towards bond format for some ECAs
 - Infrastructure
 - Sond markets work well for bond type risks
 - ? Returns and risks are in initial development phase
 - ✗Lack of GBP supply



Alternative credit

- Maximising the illiquidity premium (and stepping into the shoes of banks)
 - Commercial real estate (CRE) lending
 - ✓ More akin to traditional credit risk with asset backing
 - Underwriting, structuring, management, rating skills required
 - Spens type clause needed for MA eligibility
 - SME lending
 - ➤ Typically lower credit quality than CRE
 - Underwriting, structuring, management, rating skills required
 - Spens type clause needed for MA eligibility





Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.

