Bank of Ireland's Life Securitisation

Presentation to

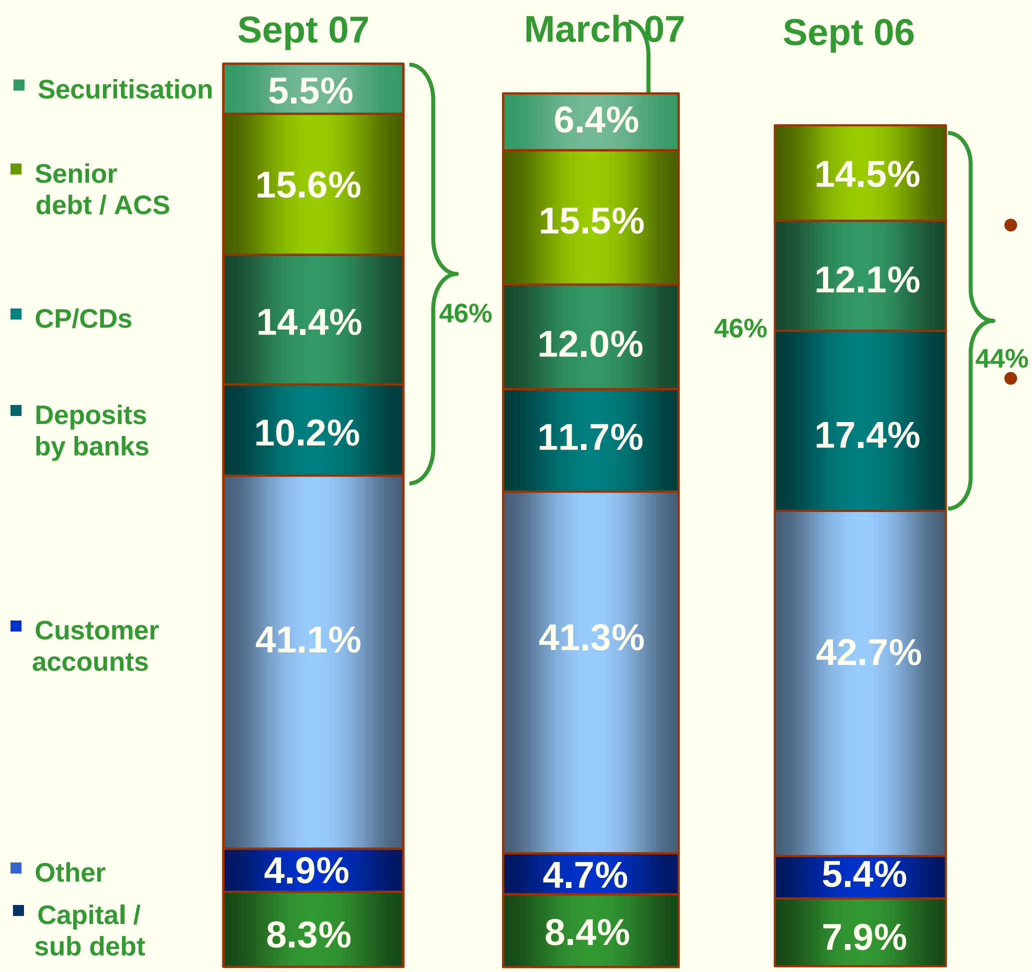
Society of Actuaries in Ireland

December 2007

Overview

- Background
- Timeline
- Structure
- Surplus and DDB
- Rating Agencies and Monoline

BoI Balance sheet funding



- Wholesale funding - 46%,
- Strategy to maximise funding across
  - term
  - investor type and
  - geography

Background

- Bank capital starts with published capital reserves
- IFRS Value in Force of insurance policies, part of capital reserves
- Prudential filter excludes this from Tier 1 capital
- No recognition of investment policy ViF

Background

- Bank of Ireland Life ViF:
  - UL Insurance € 425 m
  - UL Investment € 375 m
  - NL Insurance € 100 m

  € 900 m

- €525m in Capital Reserves
- Receiving no capital credit
- Aim to remove prudential filter through a market transaction.

The Cast

- BoI Life
- BoI Group
- Watson Wyatt
- A&L Goodbody
- PwC
- BOI UK
- Moodys / S&P
- Bank of New York

- Goldman Sachs
- Lehman Brothers
- Ambac
- Tillinghast
- Freshfields
- Lovells
- Linklaters
- Maples

Timeline

- March - Investment Banks invited to pitch
- May - Two Chosen, Initial discussion Data gathering
- June – Structure Outline
- July / August – Rating Agencies
- August / September - Monoline
- August / September / October – Legal

Stakeholders

Bank of Ireland

Capital recognition

Doesn't need cashflow

Owns Life Co / Asset

AA dividend gate

Bank Regulator

Wants to ensure Permanent Capital at Bank Level

Setting a precedent

Note Holders

Want to be repaid

Want Yield

Want Term.

Life Company

Doesn't need capital

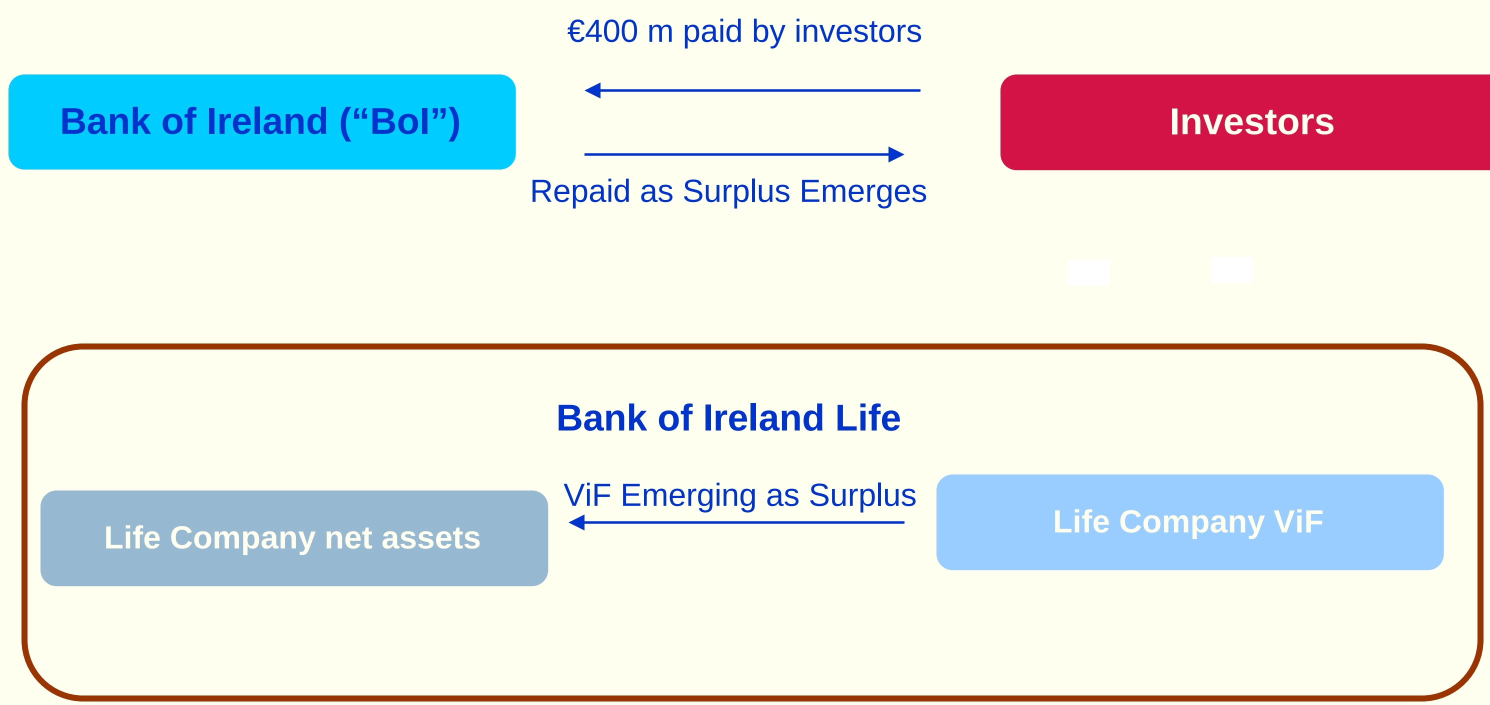
Shareholder goals
In terms of growth/profits

Does want cashflow

Life Regulator

Duty in respect of Life Co Solvency and Policyholders.

Simple Structure



Bank Note Indexed to ViF

- Bank issues notes on the Insurance UL ViF
- As insurance surplus emerges in the life company the bank repays the note
- ViF an index to trigger repayment

Bank Note Indexed to ViF

- If Insurance ViF falls away then the obligation to repay all reduces.
- Replaced by an intention to repay out of investment surpluses.
- Ranks ahead of dividends.
- Investment UL ViF used to increase advance rate to 100%.

Surplus

- Previous transactions based on closed books
- Emerging surplus determined by accounts
- Rejected as: -
  - Hard on an open block
  - Large Project
  - Tight timeframe
  - Opportunity cost

Surplus

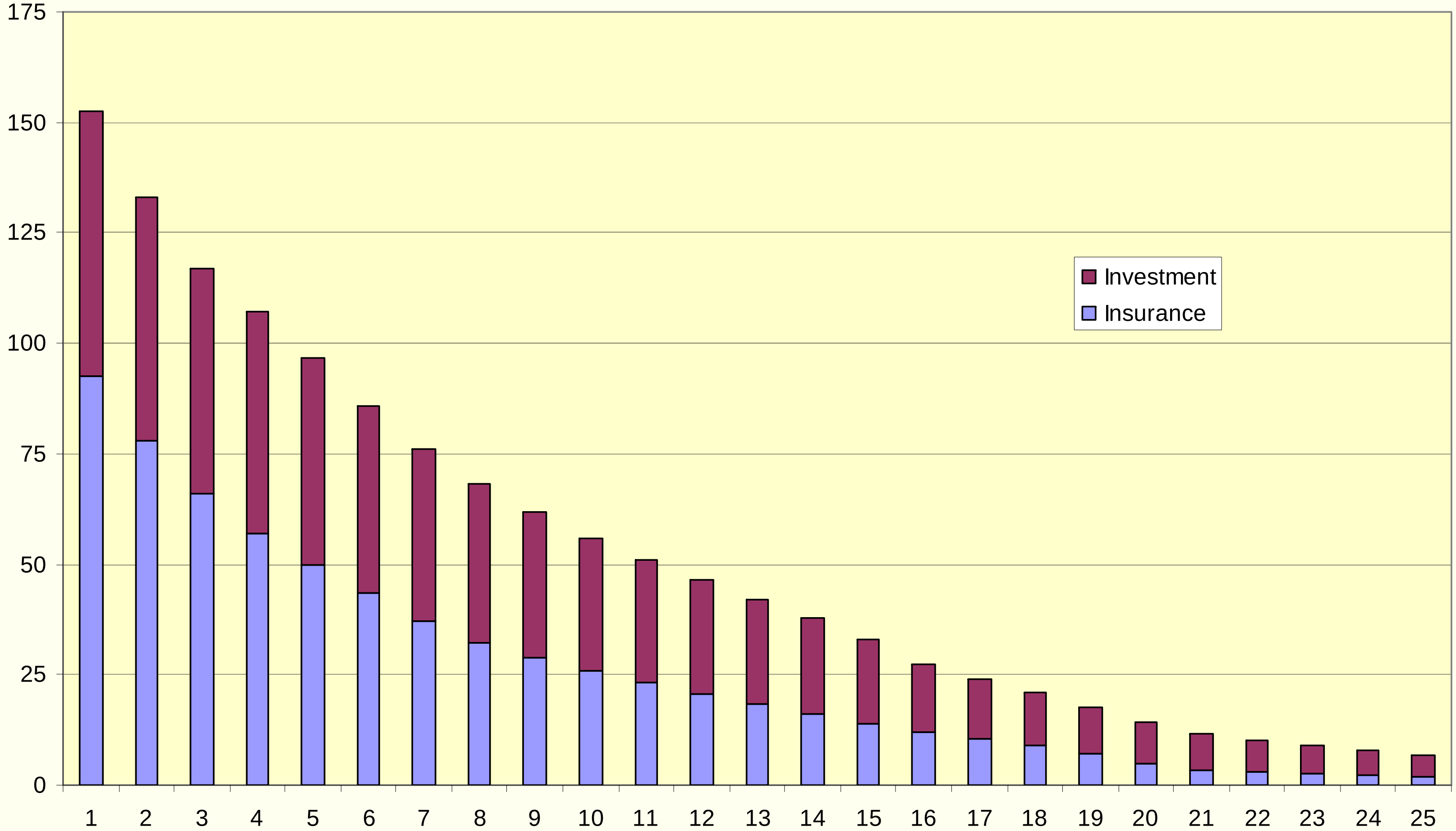
- Sources of surplus known
- Already model and analyse
- Actual surplus is modelled surplus adjusted for actual experience.
- Breakdown each source of cash flow.

Surplus

- Can be confined to actuarial systems
- Greater flexibility to extend defined block
- Faster initially and ongoing

- Provides a link to the modelled surplus

Projected Cash flows € m



DDB – Increasing the term

- Emergence of surplus too fast
- Reduced attractiveness to investors and the bank
- Further tranches possible but hardly viable

DDB

- Allow the deal to be topped up with new business as existing surplus emerged

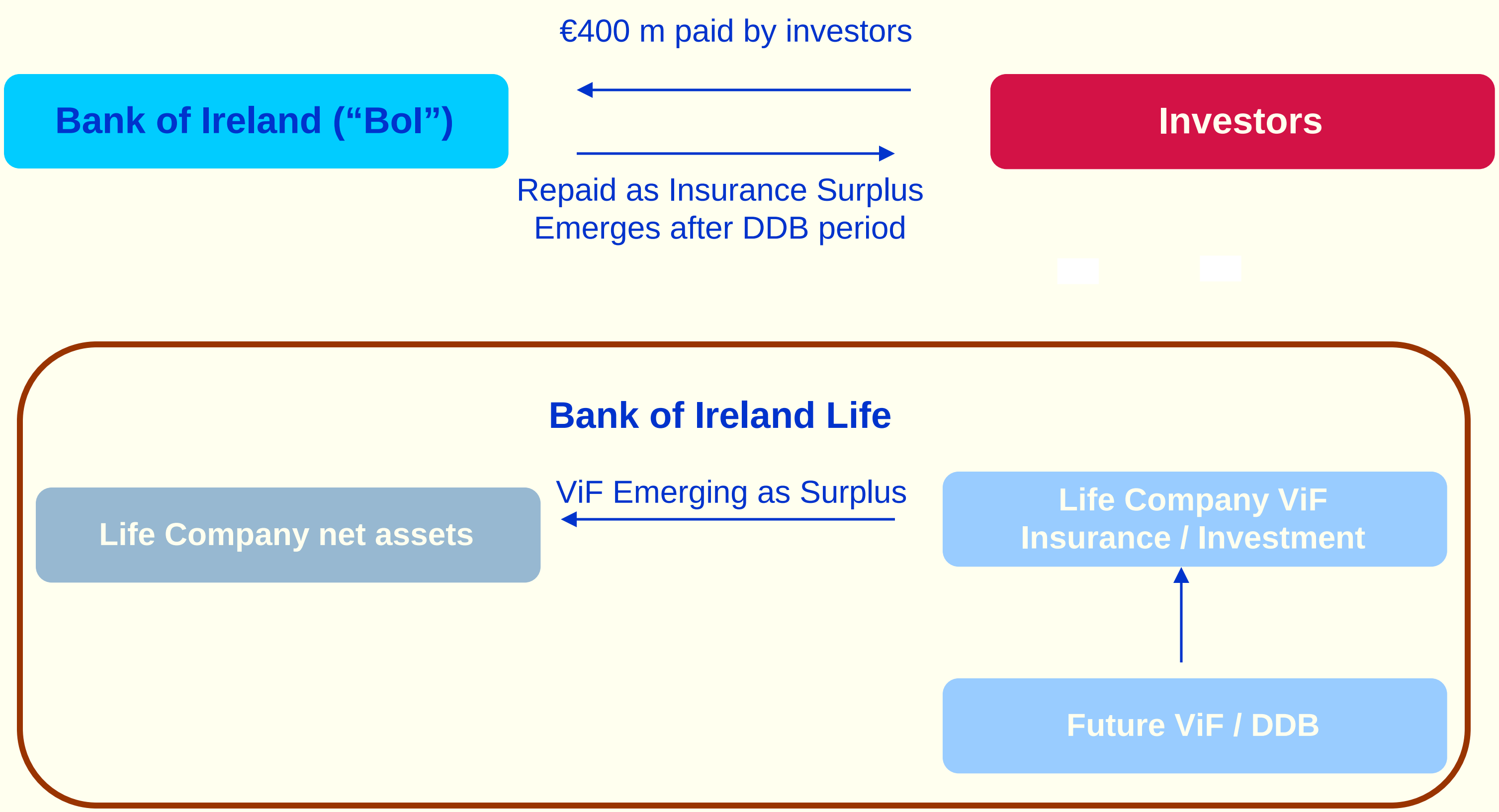
- No reduction in note holder security
- No new business constraints
- No reduction in initial risk transference

DDB Criteria

- Initial ViF moving as expected
- Only as much new business as required
- Ensure note holders as protected as before

- Room for partial amortisation to keep DDB

Structure


€400 m paid by investors
Bank of Ireland ("BoI")
Investors
Repaid as Insurance Surplus
Emerges after DDB period
Bank of Ireland Life
ViF Emerging as Surplus
Life Company net assets
Life Company ViF
Insurance / Investment
Future ViF / DDB

Rating Agencies

- Investor rating required
- Anticipated stress tests – based on previous transactions.
- Initial 15 runs
- Discussion resulted in further 7.

Rating Agencies

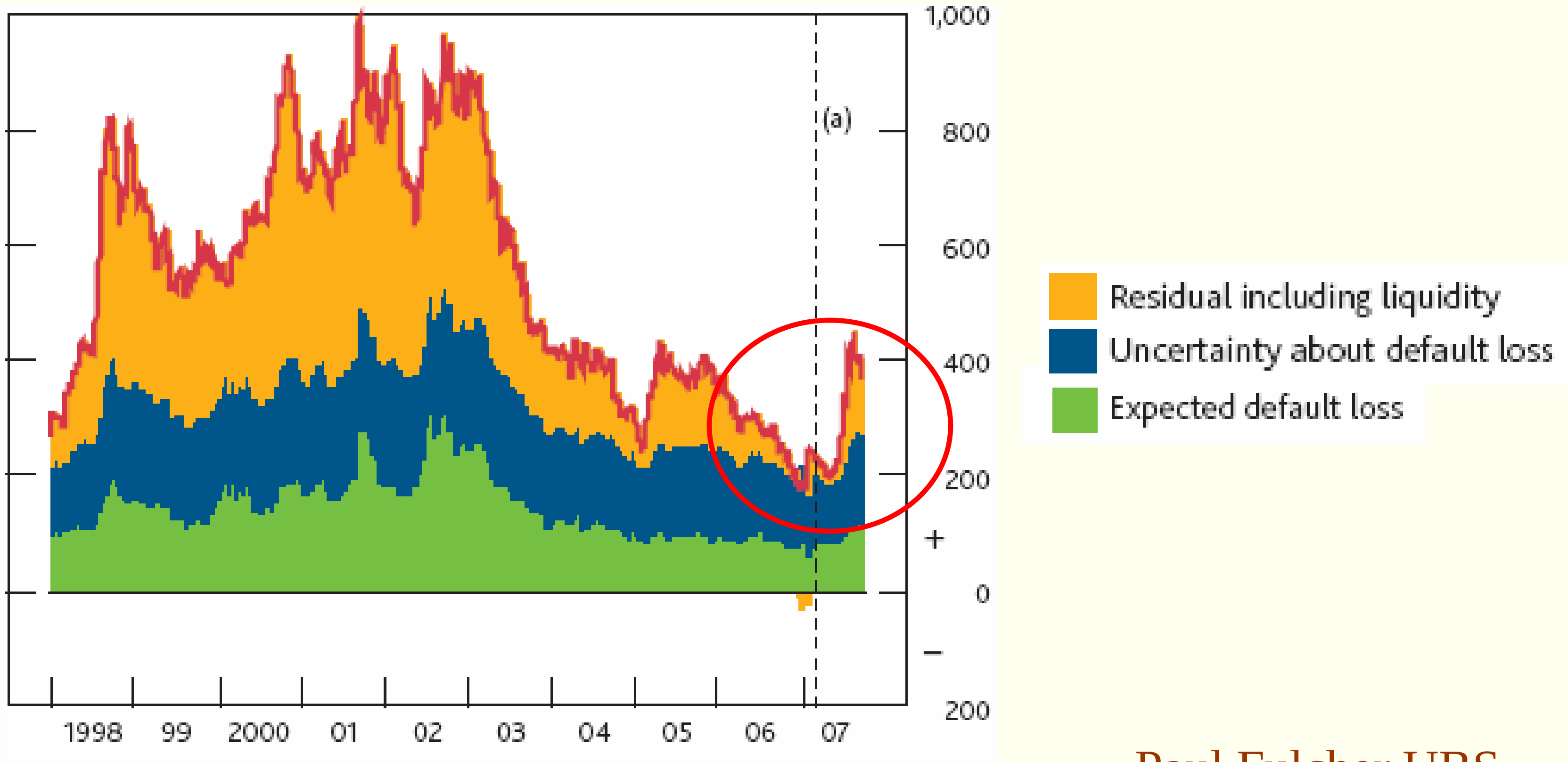
- Clear lapse risk is the highest risk
- Followed by investment risk
- Realistic discussions required
- Allowance for volatility already in basis
- Capping of lapse rates

Rating Agencies

Scenario	Market	Lapse	Mortality	PV at 8%	PV at 1%
Base Case	• Base Case	• Base Case	• Base Case	€811m	€1,214m
Scenario 1	• Immediate 25% fall in equity and property, followed by 100 bps fall in investment return	• Lapse and PUP +150%	• +25% increase + immediate remarking of reserves for a 25% increase to the mortality table used in the base valuation • For CI products where mortality is not applicable, assume 25% increase in morbidity assumptions instead	€371m	€465m
Scenario 2	• Immediate 20% fall in equity and property, followed by 75 bps fall in investment return	• Lapse and PUP +100%	• +15% increase + immediate remarking of reserves for a 15% increase to the mortality table used in the base valuation • For CI products where mortality is not applicable, assume 15% increase in morbidity assumptions instead	€454m	€588m
Scenario 3	• Immediate 30% fall in equity and property, followed by 75 bps fall in investment return	• Life: +150% in lapse and PUP (cap at 35% pa) • Pensions: +200% in lapse and PUP (cap at 35% pa)	• +8% increase, no remarking of reserves • For CI products where mortality is not applicable, assume 8% increase in morbidity assumptions instead	€384m	€469m

Liquidity premia reappear

High yield bond spreads decomposition



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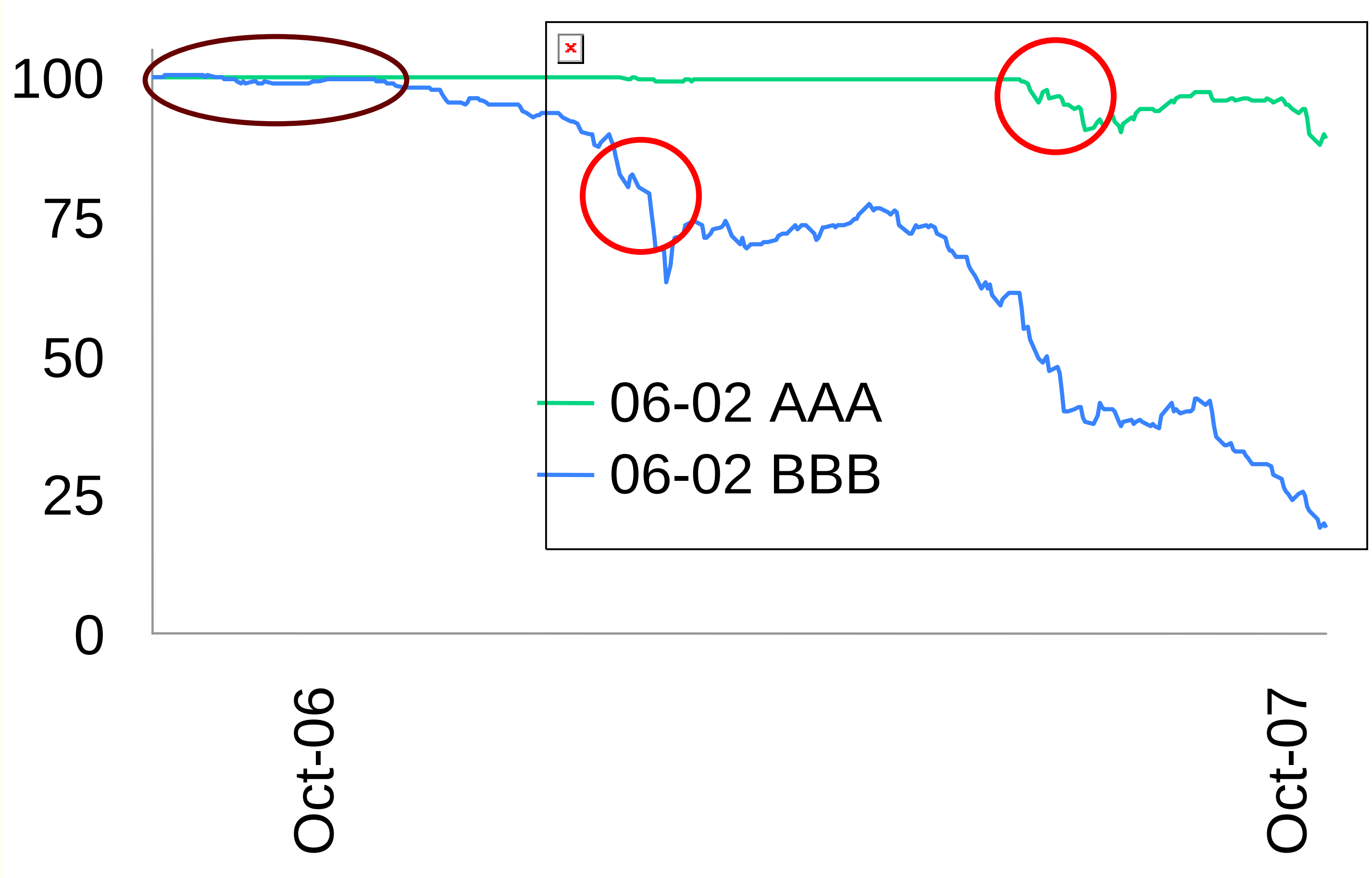
Sub-Prime securitisation Indices



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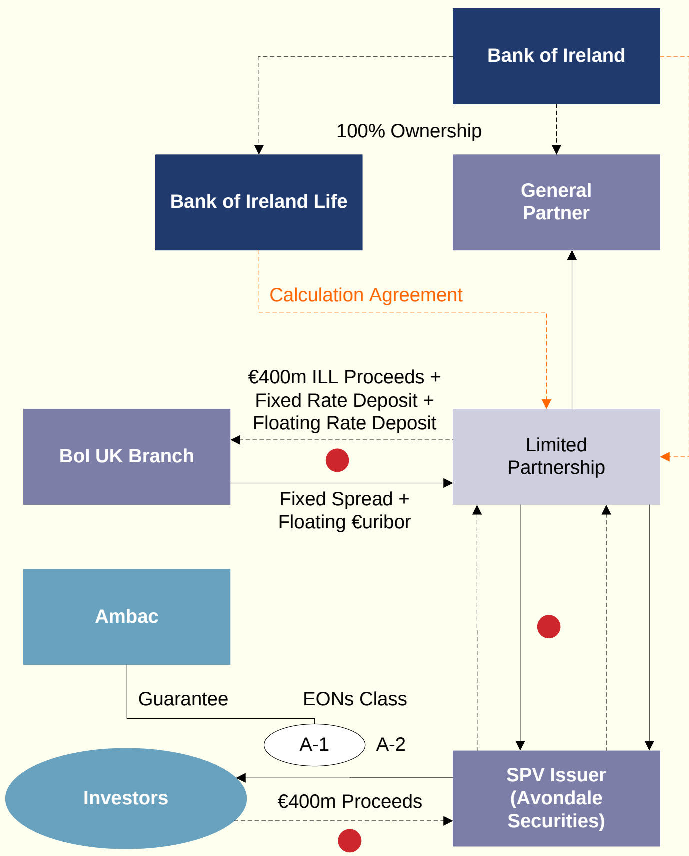
Monoline

- Ambac brought in to wrap the note up to AAA
- Due diligence by Tillinghast
- Very detailed and cautious review of every aspect of transaction

Structure



- > 27 legal agreements
- 5 separate legal opinions
- Actuarial Opinions
- Rating agency opinions
- Tax and audit opinions
- Regulator opinions

Interest Rate

- €400m held on deposit earning Euribor
- Surplus only required to meet spread

Cost

• €380m at	+ 0.75%
• €20m at	+3.09%
• Overall €400m at	+0.87%
• Ambac a further	0.33%

Actuaries and Life Regulator

- Investment Bank Actuaries
- Easier and faster discussions on matters
- Sub groups

- Constructive relationship with life regulator
- Not to be underestimated

Lessons – Project Management

- Lot of moving parts
- Potentially limitless process – disconnect between client and payer
- Experts don’t know the business
- Dialogue

Lessons

- Embedded Values
- Experience for the Business
- Overall