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Unbundling Insurance Contracts

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Overview

- Potential benefits and costs from unbundling
- Single Premium Immediate Annuity (SPIA)
- Account balance products with minimal insurance risk
- Variable annuity guarantees

Possible Benefits for Unbundling

- Treat financial instrument elements within insurance contracts consistently with financial instruments, e.g.
  - Deposit elements: cash flows may have no insurance risk
  - Embedded derivatives: subject to unbundling from liabilities under IFRS 9
- Reduce some potential accounting mismatches, e.g.
  - Deposit elements:
    - Assets at fair value or amortized cost
    - Insurance Contract at current fulfillment value
  - Embedded derivatives:
    - Hedge Instruments at fair value
    - Insurance Contract at current fulfillment value
    - Similar considerations may apply to insurance elements that are similar to embedded derivatives, such as guaranteed minimum death benefits and guaranteed minimum income benefits

Accounting Mismatches

- Deposit elements
  - Discount rate mismatch between assets at fair value and liabilities at current fulfillment value
  - Availability of amortized cost for financial instruments
- Possible to address these issues within insurance contracts standard without unbundling, e.g.,
  - Asset-based discount rate
  - Locked in or book yield-based discount rate

Accounting Mismatches

- Embedded derivatives
  - Discount rate mismatch between hedge instruments at fair value and insurance contract at current fulfillment value
  - Possible mismatch due to risk adjustment
- Potential solutions to mismatches for deposits would exacerbate mismatches for embedded derivatives
  - Hedge instruments typically valued at current risk free rates
  - Moving insurance contract discount rate away from current risk free would exacerbate mismatch between embedded derivatives and hedge instruments
    - Unless the embedded derivatives use a different discount rate from the host contract
    - Or if hedge accounting standards accommodate this separate from the insurance contract standard

Costs of Unbundling

- Need to build new valuation systems to implement the new insurance contract standard
- Cash flows needed for unbundling would need to be captured, estimated and projected regardless
- Paragraph 32 of the ED already requires splitting some cash flows for purposes of applying discount rate if insurance contract cash flows depend partly on returns from specific assets
- Impact of implementing unbundling within the new valuation system appears relatively small
  - Especially if the consistency and mismatch issues cannot be addressed through other means
- Implementation guidance would be needed to allow entities to unbundle cash flows consistently and appropriately

Single Premium Immediate Annuity (SPIA)

- Immediate annuities were not given as an unbundling example in the ED
- SPIAs provide payments as long as annuitant is alive
  - Sold to individuals for retirement income
  - Similar products are often used to settle legal judgments
    - At least in the US
- Many immediate annuities contain term certain periods or lump sum payments that are not subject to insurance risk
  - Payments that occur regardless of whether annuitant is alive
  - On a standalone basis, these elements would be treated as a financial instrument

SPIA Example

- SPIA sold to 55 year old male on 12/31/10 – with 15 year certain period
- Single premium = 18000
- Certain Period: Pays 1000 per year. for 15 years - no insurance risk
- Life Period: Pays 1000 per year. from year 16 on if annuitant is alive
- Expenses: Incremental acquisition (360) & Annual maintenance (10)
- Discount rate = Risk free + 30 bps (illiquidity premium)
- Use composite margin for simplicity

SPIA Example

LIABILITY = 2 Components = (18,000 – 360) = 17,640

1. Certain Period (Financial Instrument): Duration = 7
2. Life Period (Insurance Contract): Duration = 23

ASSET = 17,640

- Invest in 7 year (certain) and 23 year (life) bonds.
- Amount invested in each bond proportionate to liability split at T = 0
- Assets backing liability at amortized cost assumed to be held at amortized cost (at least for net income)
- Assets backing liability at current fulfillment value assumed to be held at fair value
- Assume asset spread 100 basis points above risk free rate

SPIA Example – 100 bp drop in risk free rate

- Assume risk free rate immediately drops 100 basis points
- Impact:
  - Without unbundling: Current period gain of 59
  - With unbundling: Current period gain of 16
- Current period increase in fair value of assets exceeds current period liability increase
- Although assets and liabilities are duration matched
  - Duration match is imperfect
  - Convexity and other measures not necessarily matched
- Unbundling mitigates some of the volatility
- Unbundling result consistent with that for a standalone term certain annuity

SPIA Example – 50 bp drop in spreads

- Assume market interest spreads immediately drop 50 basis points
  - Without unbundling: Current period gain of 1025
  - With unbundling: Current period gain of 585
- Current period increase in fair value of assets exceeds current period liability increase
  - Large impact because we assumed no correlation between the asset spread and the liability spread
- Unbundling mitigates about half the impact from mismatched discount rates

SPIA Example –
50 bp drop in spreads – alternative discount rate approach

- Alternative discount rate approach
  - Liquidity premium based on expected asset yields
  - 100 basis points initially, dropping to 50 immediately after issue
- Impact
  - Without unbundling: Current period gain of 160 (vs. 1025)
  - With unbundling: Current period gain of 87 (vs. 585)
- Using a "top down" discount rate approach mitigates much more artificial volatility than unbundling alone
- Top down discount rate combined with unbundling mitigates further
  - Still some volatility from imperfect asset liability match

SPIA Example – Non-parallel shift in risk free rate

- Assume immediate twist in risk free yield curve
  - Short rates decrease, long rates increase
  - 10 year rates unchanged
- Impact
  - Without unbundling: Loss of 104
  - With unbundling: Loss of 333
- In this scenario, unbundling increases volatility
- Could be alleviated though closer asset liability match
  - I.e., match key rate durations

Single Premium Deferred Annuities and Guaranteed Investment Contracts

- Single premium deferred annuities (SPDA) and guaranteed investment contracts (GIC) are account balance products
  - Premium is deposited into an account balance
  - Credited with interest at a rate guaranteed for a period of time
  - SPDAs often subject to early surrender penalties except perhaps at rate reset
  - SPDAs generally sold to individuals, GICs to institutions
- Insurance risk is due to guaranteed payout annuitization rates
  - Generally very little value
    - Low utilization of annuitization feature
    - Guarantee typically uses conservative interest <u>and</u> mortality
  - But there are scenarios in which the annuitization rate guarantee has value
- Typically treated as investment contracts under current US GAAP

Single Premium Deferred Annuities and Guaranteed Investment Contracts

- ED proposes separate account balances as an example of a feature to be unbundled
  - But not clear why a general account balance would be “closely related to the insurance coverage” if a separate account is not
  - For these products, insurance element may represent significantly less than 1% of expected cash flows
  - Unbundling would allow the remaining 99+% to be treated as a financial instrument
- Expenses, fees and interest spreads should be allocated in proportion to present value of benefits
  - If significant fees allocated to insurance contract, present value of insurance cash flows would always be a negative liability
  - Net liability response to interest rates would be in opposite direction from invested asset fair value

Amortized Cost for Account Balances

- IASB ED on financial instrument amortized cost only had examples for fixed and indexed credited rates
  - Neither applies to SPDA account balances
- Suggest adjusting effective yield for changes in credited rate
  - Reasonably simple and matches the objective of an amortized cost model
  - Consistent with one of the approaches listed in Concept Statement 7 for addressing changes in estimated cash flows under US GAAP
    - ASC 310-20-35-26 (Receivables) permits adjusting effective yield to reflect a difference between actual and expected loan prepayments
  - Reflects time value of minimum interest guarantees since cash flows are projected under multiple scenarios
- Generally not an issue for GICs

Variable Annuity Guarantees

- Without unbundling, embedded derivatives may have mismatched accounting from hedge instruments
  - Mostly due to discount rate mismatch
- Hedge assets generally discounted at risk free rate
- Unbundled embedded derivative at fair value discounted at risk free plus non-performance
  - Users are accustomed to backing out impact of non-performance
- If valued at current fulfillment value, discounted at risk free plus illiquidity
  - Potential mismatch from illiquidity premium
  - Potentially exacerbated if changes are made to mitigate mismatches for other elements of insurance contracts

Variable Annuity Guarantee Example

- Guaranteed minimum accumulation benefit (GMAB) on variable annuity sold to 45 year old on 12/31/08
  - Contract also contains GMDB
- Assumed hedge assets would be consistent with risk free discount rate
- Assumed own credit equal to half AAA spread
- Assumed illiquidity premium equal to AA spread
- Own credit more closely matches hedge assets
  - Users also accustomed to backing out own credit impacts

Discount Rate	12/31 Value	12/31/09 Value	Change
Risk Free	27,700	18,600	-9,100
RF + own credit	26,400	18,400	-8,000
RF + illiquidity	23,100	17,400	-6,000

Variable Annuity Guarantees

- Issue also impacts features that are not considered embedded derivatives because payable upon insurance event
  - Features such as guaranteed minimum death benefits (GMDB) and guaranteed minimum annuitization benefits (GMIB)
  - Possibly guaranteed minimum accumulation benefits (GMAB), if considered insurance benefit
  - Even if such features cannot be fully unbundled, could a term certain period within a GMIB annuity settlement be unbundled?
- Perhaps this could be addressed through hedge accounting standard rather than unbundling within insurance contracts standard

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Questions?