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## Insurance Contracts Phase II Exposure Draft

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# Insurance Contracts Phase II Exposure Draft Liability Measurement

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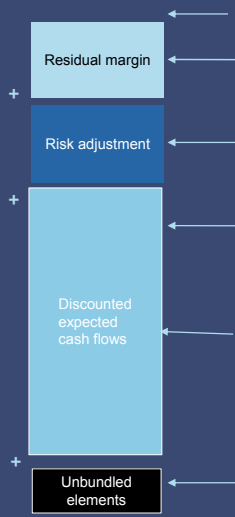
## IASB and FASB Insurance Contracts Project

The building block approach *with an explicit risk adjustment and residual margin* (IASB approach)




**Premium**

**Residual Margin**
- Day 1 plug to eliminate gain
- Day 1 loss immediately recognized
- Locked-in and amortized over coverage period

**Explicit Risk Adjustment**
- Effects of uncertainty about amount/timing of future cash flows
- Insurer perspective; not market participant
- Remeasured each period
- 3 prescribed methods

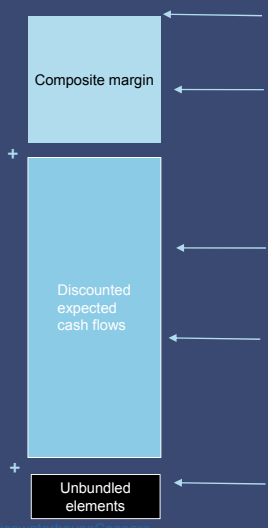
**Discount Rate**
- Capture characteristics of liability
- Liquidity adjustment
- Own credit adjustment?

**Expected Cash Flows**
- Probability weighted
- Remeasured each period
- Consistent with observable market prices for market variables
- Reflect entity perspective for other aspects of estimates
- Within the contract's boundary

**Unbundled elements**
Embedded derivatives
Account value

## IASB and FASB Insurance Contracts Project

The building block approach *with a composite margin* (FASB approach)




**Premium**

**Composite margin**
- Day 1 plug to eliminate gain
- Day 1 loss immediately recognized
- Not remeasured each period; only amortized
- Two drivers to amortize – premiums and expected benefits
- Does not operate as a buffer, not impacted by changes in expected cash flows

**Discount Rates**
- Capture characteristics of liability
- Liquidity adjustment
- Own credit adjustment?

**Expected Cash Flows**
- Probability weighted
- Remeasured each period
- Consistent with observable market prices for market variables
- Reflect entity perspective for other aspects of estimates
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**Unbundled elements**
Embedded derivatives
Account value



## Unbundling

| Account for deposit, derivative and certain service components separately from insurance | Observations |
|---|---|
| • Unbundle components not closely related to the insurance coverage<br>• Account for them under other GAAP<br><br>Common examples:<br>1) Account balance<br>➢ credited with an explicit return and<br>➢ crediting rate based on performance of pool of underlying investments<br>2) Embedded derivatives<br>3) Goods and services not closely related that have been combined with insurance for reasons without commercial substance | • Crediting rate reflects crediting rate after eliminating cross-subsidy of other component charges and fees<br><br>• Charges and fees assessed against account balance belong to insurance or service component<br><br>*Types of contracts:*<br>Variable and unit-linked products<br>-unbundle<br>Universal life<br>-unbundle?<br>Experience account<br>-unbundle?<br>Cash surrender value of traditional whole life contract<br>-no unbundling<br>Policy loan<br>-unbundle? |

## Expected Cash Flows

**An explicit, unbiased and probability-weighted estimate (i.e., expected value) average of future cash outflows less future cash inflows that will arise as the insurer fulfills the insurance contract**

- Explicitly derived on a current basis
- Probability-weighted statistical mean
  - Expected value, not 'best estimate'
  - All probabilities, included remote ones considered
- Theoretical approach for calculating "expected value:"
  - Develop range of scenarios reflecting full range of possible outcomes
  - Estimate the cash flows under each scenario
  - Make unbiased estimate of probability of each scenario
- Not all cases require development of explicit scenarios
- Not expected that every possible scenario will be identified and its expected cash flows quantified
- In certain cases, relatively simple modeling w/o need for large number of detailed simulations
- In other cases more sophisticated modeling is likely to be needed



## Inputs to Cash Flows

**Cash flows require use of two main types of inputs:**
**Market variables**
**Non-market variables**

*Market variables*

- Observed in or derived directly from markets, such as:
  - prices of publicly traded securities
  - interest rates
- Estimates of market variables shall be consistent with observable market prices at end of reporting period
- Cannot substitute own estimates for observed market prices

*Non-market variables—all other variables*

- Examples:
  - Mortality rates
  - lapse rates
  - frequency and severity of insurance claims
- Insurer should use:
  - its own historical data
  - supplemented by historical data from industry sources where relevant
  - current price information for reinsurance contracts or other instruments (e.g., cat bonds and weather derivatives)

## Types of Cash Inflows included in Expected Cash Flows

- Initial premiums
- Installment premiums
- Other future premiums within contract boundary
- Premium adjustments
- Any additional cash flows resulting from those premiums
- Cash inflows resulting from options and guarantees (other than unbundled ones)
- Salvage and subrogation



## Types of Costs include in Cash Outflows

- Costs that are incremental at the portfolio level, such as:
  - claims and benefit payments
  - surrender benefits
  - participating benefits
  - claims handling costs
  - salvage and subrogation
  - policy administration and maintenance costs
  - costs incurred in providing benefits paid in kind
  - costs resulting from options and guarantees (other than unbundled ones)
  - initial and recurring incremental contract acquisition costs)
  - transaction-based taxes such as premium taxes
- Certain directly allocable costs that are shared among portfolios
  - claims handling department salaries working on more than one portfolio
  - deprecation of workshop that handles car repair damages
  - but not general overhead

## Acquisition Costs included in Cash Flows

| IASB Exposure Draft: "Incremental" acquisition costs at contract level | EITF proposal: external incremental + direct acquisition costs |
|---|---|
| •Costs that would not have been incurred if entity had not issued that particular contract<br>➢Contract level, not portfolio level<br>•Includes incremental costs of selling, underwriting, initiating contract<br><br>Examples:<br>➢ Agent/broker commissions<br>➢ Commissions paid to employees acting as selling agents<br>➢ Sales force bonuses | •Incremental direct acquisition costs incurred with <u>independent 3rd parties</u><br><br>•Portion of employee total compensation directly related to:<br>➢Underwriting<br>➢Policy issuance and processing<br>➢Medical and inspection<br>➢Sales force contract selling<br>*Which resulted in contracts actually being issued (successful efforts)* |



## Discounting for the time value of money

**"…the discount rate shall reflect the yield curve in the appropriate currency for instruments that expose the holder to no or negligible credit risk, with an adjustment for illiquidity…"**

- •Risk-free with liquidity adjustment
- •Market Based
- •Consider the insurance liability cash flows in terms of:
  - –Duration
  - –Liquidity
  - –Currency
- •No consideration of investment cash flows unless contractually dependent
- •Liquidity adjustment
  - –Adjustment to risk free asset rates (e.g., government bonds) for the difference in liquidity in the liability and risk free assets
  - –No guidance provided in the Exposure Draft as regards implementation of this adjustment

## Explicit Risk Adjustment (IASB approach)

| Objective | Approach |
|---|---|
| • To reflect effects of uncertainty about amount and timing of cash flows from issuer perspective<br>• Maximum amount insurer would rationally pay to be relieved of the risk that ultimate fulfillment cash flows exceed expected<br>FASB would not separately measure | • Limited to 3 techniques<br>• Need to select most appropriate technique, considering 5 specified characteristics<br>• Uses current estimates and is remeasured each period<br>• Determined at the portfolio level no diversification across portfolios<br>• Only risks associated with contract, not operational and investment risks |



## Risk Adjustment Techniques Confidence level (Value at Risk)

| Approach | Observations |
|---|---|
| − Loss distribution is estimated<br>− Adjustment results in a stated level of confidence (e.g., 95%)<br>Expresses uncertainty in terms of extra amount that must be added to expected value so that probability that actual outcome will be less than amount of liability over selected time period equals target level of confidence | – Easiest to calculate<br>– Not appropriate for risks that are highly skewed<br>– Ignores extreme losses in the tail of the distribution beyond the specified confidence level. |

## Risk Adjustment Techniques
## Conditional Tail Expectation (CTE)/Tail Value at Risk (TVaR)

| Approach | Observations |
|---|---|
| • Loss distribution is estimated<br>• Explicit risk adjustment equals average loss among a set of scenarios between an X% level of confidence and the worst case scenario | – Better reflects potentially extreme losses<br>– Incorporates the expected value of those extreme losses<br>– Important factor in contracts with very skewed payments, such as GMXBs and cat covers |



## Risk Adjustment Techniques
## Cost of Capital

| Approach | Observations |
|---|---|
| Step 1: Determine a level of economic capital for each future period<br>-Estimate a probability distribution for each future period<br>-Select a very high confidence interval level (e.g., 99.5%) from that distribution<br>Step 2: Select an annual factor to be applied to that capital<br>For Example:<br>18% required return on capital<br>-Less 4% risk-free rate<br>-Less 2% asset risks<br>-Less 1% asset-liability mismatch risk<br>-Less 3% uncertainty regarding future new business<br>Equals 8% annual factor<br>Step 3: Present value the multiple of (1) and (2) for each future period | • Common in pricing and valuation<br>• Release tends to be faster than the other two methods<br>• Changes in the price of capital will affect measurement |

## Residual Margin ( under IASB explicit risk adjustment approach)

**The "plug" to eliminate any gain at initial recognition:**

PV future cash inflows **–** PV future cash outflows + explicit risk adjustment **=** Residual margin

- Residual margin cannot be negative

  i.e., record a loss at inception if expected PV of cash outflows plus risk adjustment exceeds expected PV of cash inflows
- Residual margin amortized over coverage period
- In a systematic way that best reflects exposure from providing insurance:
  - passage of time or
  - expected timing of incurred claims and benefits if pattern differs significantly from passage of time
- Residual margin is not adjusted based on subsequent experience
- Residual margin is accreted with interest
  - Interest rate locked in at initial recognition



## Should there be an explicit risk adjustment?

| Advantages | Disadvantages |
|---|---|
| • An explicit measurement for uncertainty is useful information<br>• Explicit risk adjustment could be remeasured to reflect changes in price and quantity of risk<br>• Reflects risk in skewed tail distributions<br>• Lessens amount of residual margin subject to the complexities of amortising/remeasuring the residual margin<br>• Consistent with some regulatory regimes | • Little chance of comparability and consistency without rules<br>• Market may not trust explicit risk calculations<br>• Not sure objective of risk adjustment can be consistent with fulfilment objective<br>• Cost/benefit for all sized companies uncertain<br>• Can it be done quickly enough for quarterly reporting?<br>• Difficult to audit |

## Composite margin (under FASB alternative composite margin approach)

**The "plug" to eliminate any gain at initial recognition:**

PV future cash inflows — PV future cash outflows = Composite margin

- Residual margin cannot be negative:
  - -record a loss at inception if expected PV of cash outflows exceeds expected PV of cash inflows
- Composite margin amortized over coverage and claims handling period
- Amortize based on provision of insurance coverage and uncertainty in future cash flows based on following formula applied to margin:

$$\frac{\text{Premium allocated to current period} + \text{Current period claims and benefits}}{\text{Total contract premium} + \text{Total claims and benefits}}$$

- Composite margin not remeasured, and not a "shock absorber," but amortization pattern could change based on changes in ratio components
- Interest is not accreted on this margin under FASB view



## Pre-claims Liability for Short-Duration Contracts

**IASB Exposure Draft requires modified measurement approach for pre-claims liability of short-duration contracts meeting specified criteria**

- Criteria:
  - Coverage period is approximately one year or less
  - No embedded options* or guarantees (such as extension of coverage) that significantly affect variability of cash flows
    - *after unbundling any embedded derivatives
- Observations:
  - "approximately one year" criterion meant to be strictly applied
  - doesn't mean 15 months
  - any significant unfavorable changes caught by onerous contract test
  - requiring rather than permitting provides consistency between P/C insurers, but inconsistency in company applying both building block and modified method
  - unclear how assuming reinsurer obligated to assume next twelve months writings fits in with one year criterion

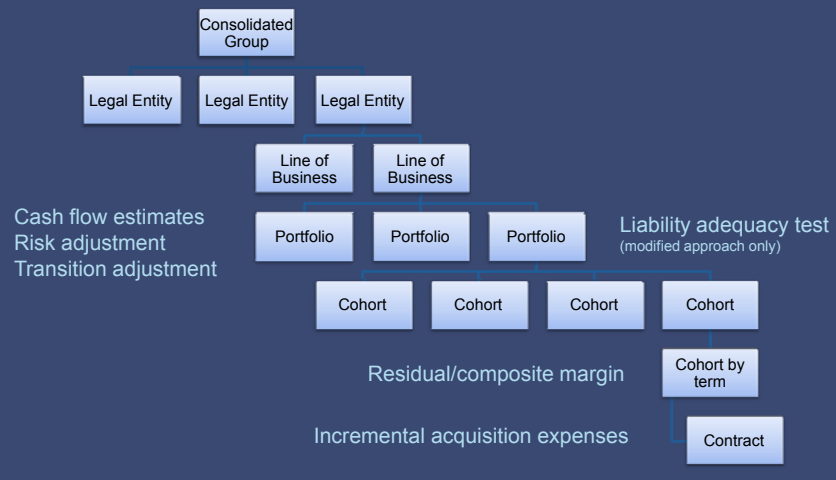
## Pre-claims Liability for Short-Duration Contracts

| IASB Exposure Draft: | Observations |
|---|---|
| • Pre-claim period follows unearned premium approach<br>• Uses present value of future premiums<br>• UEP reduced for incremental acquisition expenses on day 1<br>• Premium deficiency assessment (onerous contract) on each "portfolio" by similar date of inception<br>• Accrete using current discount rate, updated each period | • Premium deficiency assessment requires use of building block approach<br>• No residual margin under this modified method<br>• Post-claim period would use building block approach |



## Level of Measurement

At what level are components measured?



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