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IFRS Insurance Contracts Project and Risk Margins Caribbean Actuarial Association

December, 2009

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Outline

1. IFRS insurance contracts and activities through August 2009 (35 minutes)
2. IFRS activity September, October and November 2009 (15 minutes)
3. Risk Margins – background and examples (30 minutes)
4. IFRS – possible earnings patterns (15 minutes)
5. What's ahead (10 minutes)
6. Questions and Answers (15 minutes)

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1. IASB and Insurance Contracts Project 1990-August 2009

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IASB

- International Accounting Standards Board
  - London-based, 14 members from 9 countries
  - Staff – Peter Clark, Hans Vanderveen, Jane Jordan
  - Insurance Working Group (IWG)
  - Now a joint project with FASB (U.S. Financial Accounting Standards Board)
  - Publishes
    - IAS (International Accounting Standards)
    - IFRS (International Financial Reporting Standards)
      - These are identical – IAS was published before IFRS

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IASB Insurance Project

- Those providing significant input:
  - CFO Forum (European insurers)
  - GNAIE (North America plus 4 companies from Japan)
  - IAA (International Actuarial Association)
  - IAIS (International Association of Insurance Supervisors)
- Others with influence:
  - IOSCO (International Securities Commissioners)
  - Banks (they sell annuities)
  - EU (European governments)
  - SEC (Security & Exchange Commission)

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IFRS Insurance Project Objectives

- Reduce diversity of accounting practices that currently exist for insurance contracts
- Align insurance accounting with other business sectors, where possible
- Increase users' understanding of insurance financial statements
- Help investors make decisions

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IFRS Insurance Project – Phase I

- Phase I started in 1997
- 2001 Draft Statement of Principles
- Phase I ended with IFRS4 in March 2004
  - Defined insurance
  - Revised *IAS 39*, guidance for investment products
  - Existing local GAAP with additional disclosure and loss recognition was permitted
  - Still allowed diverse practices
- Applies to insurance *contracts*, not insurance *companies*

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IFRS Insurance Project – Phase II
Recent Timeline

- Phase II started mid-2004
  - IASB, IASB staff and IWG worked on a discussion paper called “Preliminary Views”, released in May 2007
  - Main text – 150 pages
  - Appendices – 80 pages
  - 150 comment letters submitted November, 2007
  - Board and staff evaluated all submissions
  - Using feedback to craft Exposure Draft

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Identify the Measurement Attribute

- Understand the fundamental principles underlying the accounting (measurement) basis
- "Exit Value" (paragraph 93):
  - The amount the insurer would expect to pay to transfer its remaining contractual rights and obligations to another carrier.
  - Similar to Fair Value

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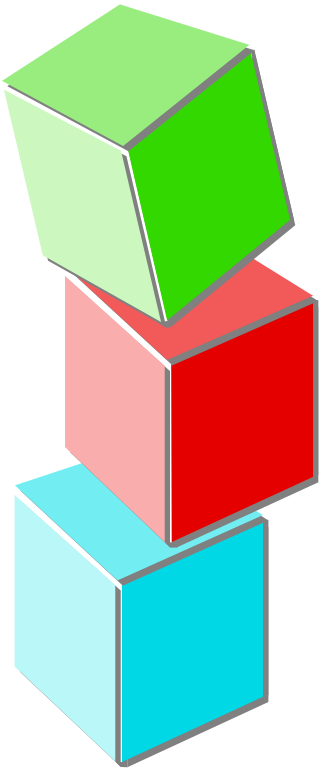
What is Exit Value?

- Measure insurance liabilities using three building blocks:
  1. Cash flows
  2. Time value of money
  3. Risk margins



Cash Flows (Paragraph 34)

(a) are explicit

(b) are as consistent as possible with observable market prices

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Cash Flows (Paragraph 34)

(c) incorporate, in an unbiased way, all available information about the amount, timing and uncertainty of all cash flows arising from the contractual obligations

(d) are current, in other words they correspond to conditions at the end of the reporting period… use all available information

Cash Flows (Paragraph 34)

(e) exclude entity-specific cash flows. Cash flows are entity-specific if they would not arise for other entities holding an identical obligation

(f) are “probability-weighted” (par. IN18)

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Time Value of Money (Paragraph 63)

- Use “current market discount rates that adjust the estimated future cash flows for the time value of money.”
- Don’t use existing portfolio of assets

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Time Value of Money

- Paragraph 69: “the discount rate should be consistent with observable current market prices for cash flows where characteristics match those of the insurance liability, in terms of timing, currency and liquidity.”
- Readers believe this to be a risk-free rate

- Paragraphs 260 & 267 deal with participating products and universal life. If the dividends or interest credited are linked to the performance of investments, the discount rate should reflect the characteristics of the assets

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Risk Margins (Paragraph 71)

"an explicit and unbiased estimate of the margin that market participants require for bearing risk (a risk margin) and for providing other services, if any (a service margin)."

Risk Margins Purpose

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- Risk margins provide for:

  "An explicit and unbiased measurement of the compensation that entities demand for bearing risk."

- Not for conservatism

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SOA Research Project

- Society of Actuaries Numerical Examples Study
  - Completed February, 2008
  - Commissioned by American Academy of Actuaries for their response to IASB
  - 15 U.S. companies
  - 20 Submissions
  - 80 pages
  - Available on SoA website
    - www.soa.org/research/research-life.aspx

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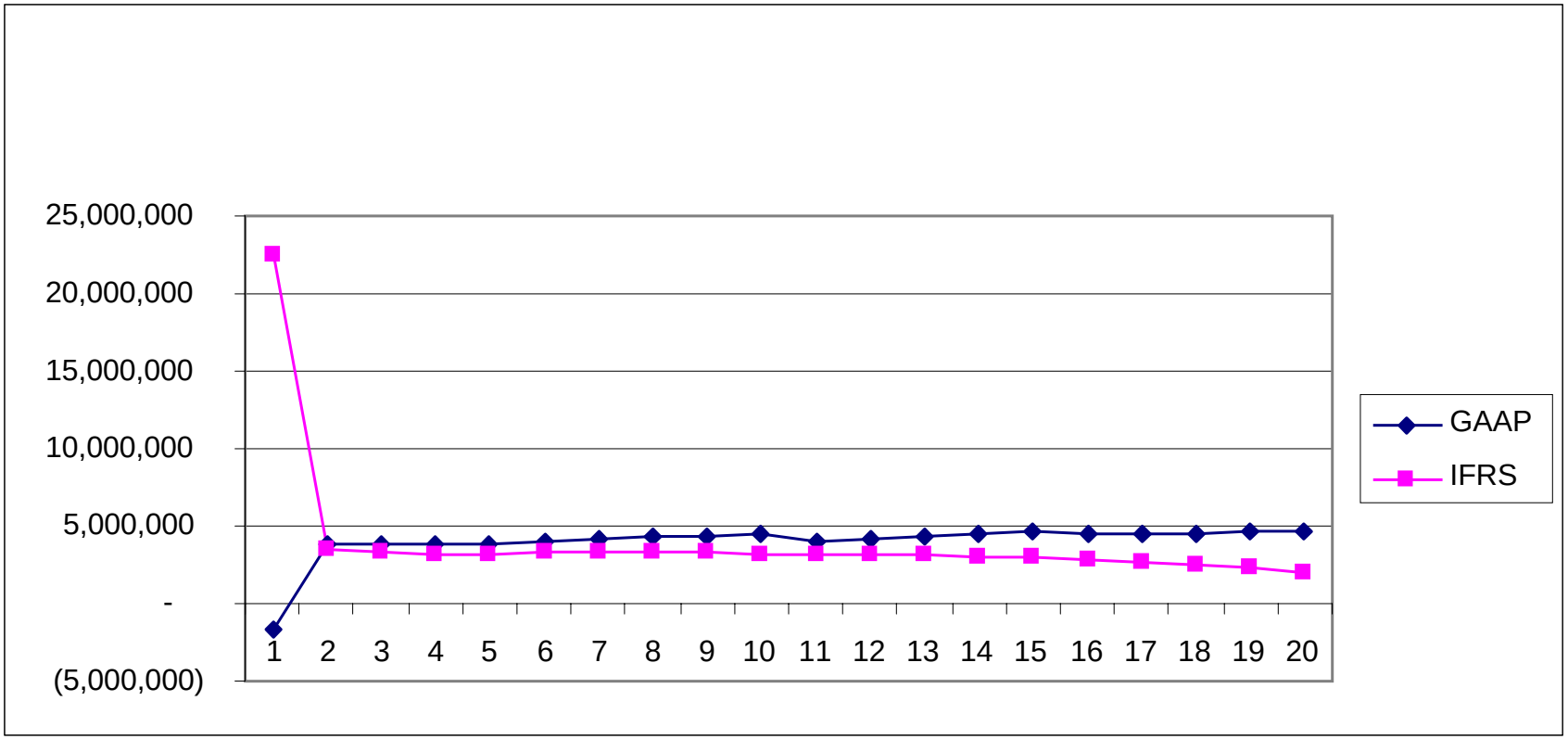
Term – GAAP and IFRS Exit Value – Income



First year premium = $28,000,000

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Term – Comment on First Year Earnings

- GAAP – first year non-deferrable costs of $5.5 million cause a loss
- IFRS – day one gains are $21 million; days 2–365 gains are $2 million

IFRS – Entry Value

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- The Preliminary Views document also suggested an option A – Entry Value

- Entry value calibrates the risk margin to the initial premium so that no profits emerge at issue

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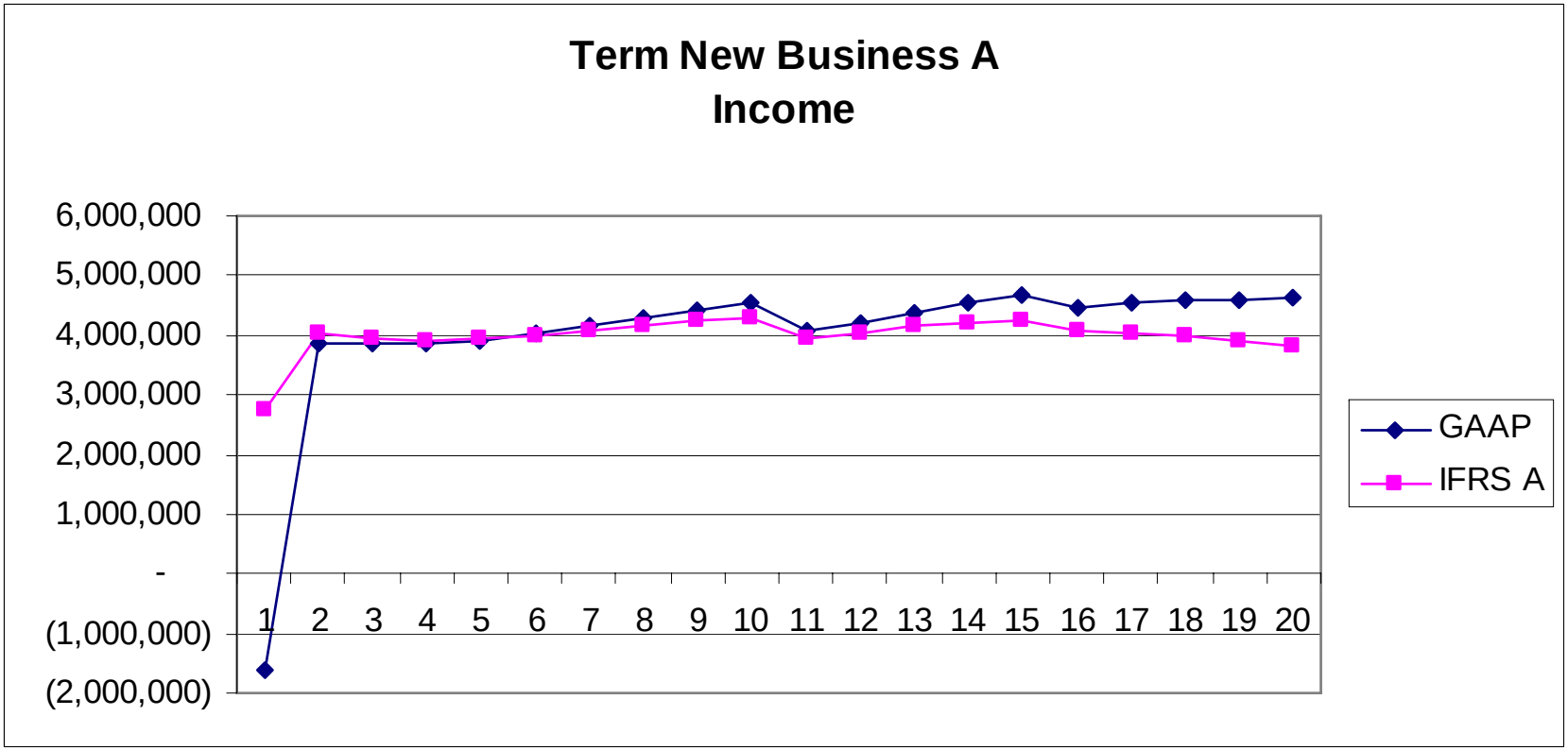
Term - GAAP and IFRS Option A (Entry Value) Income



first year premium of $28 million

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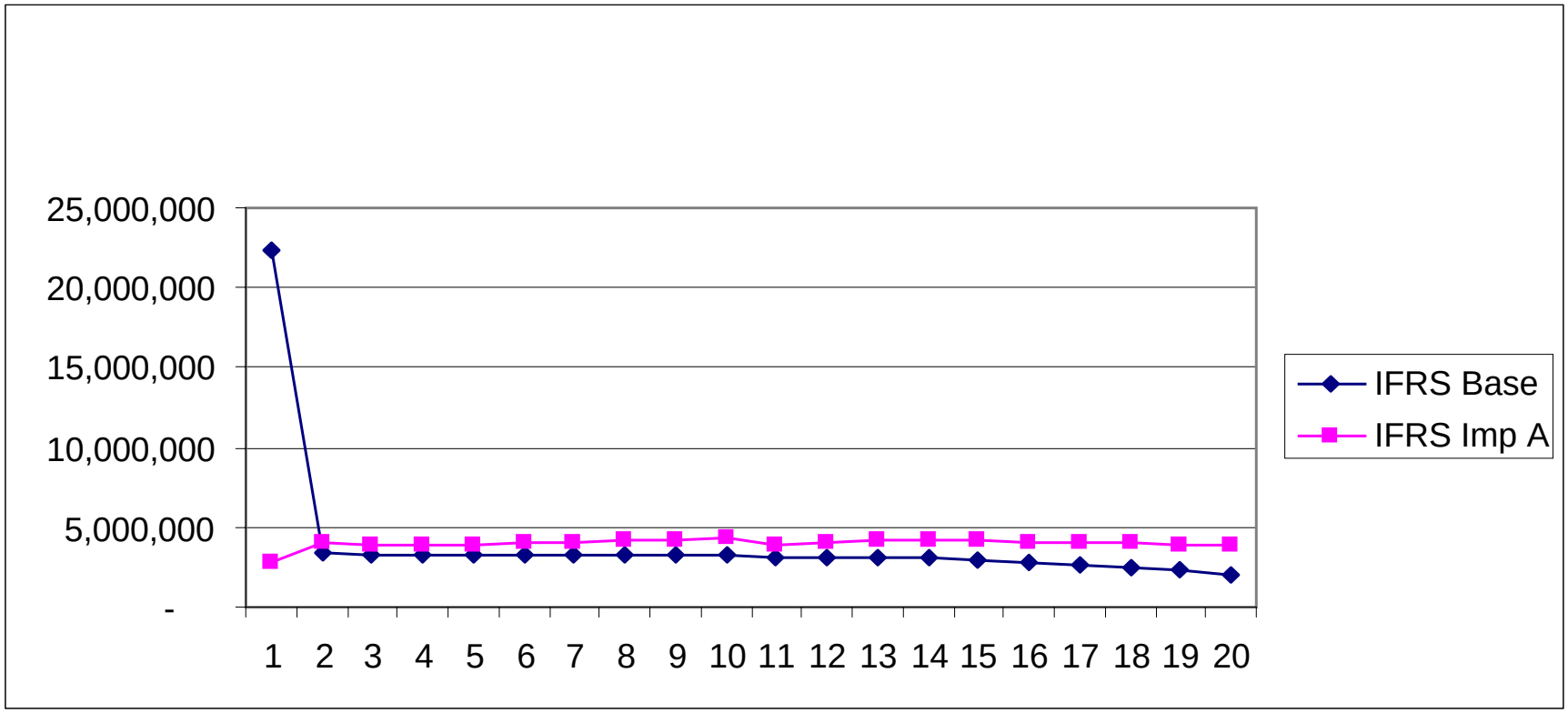
Term – IFRS Base (Exit Value) and Option A (Entry Value) – Income



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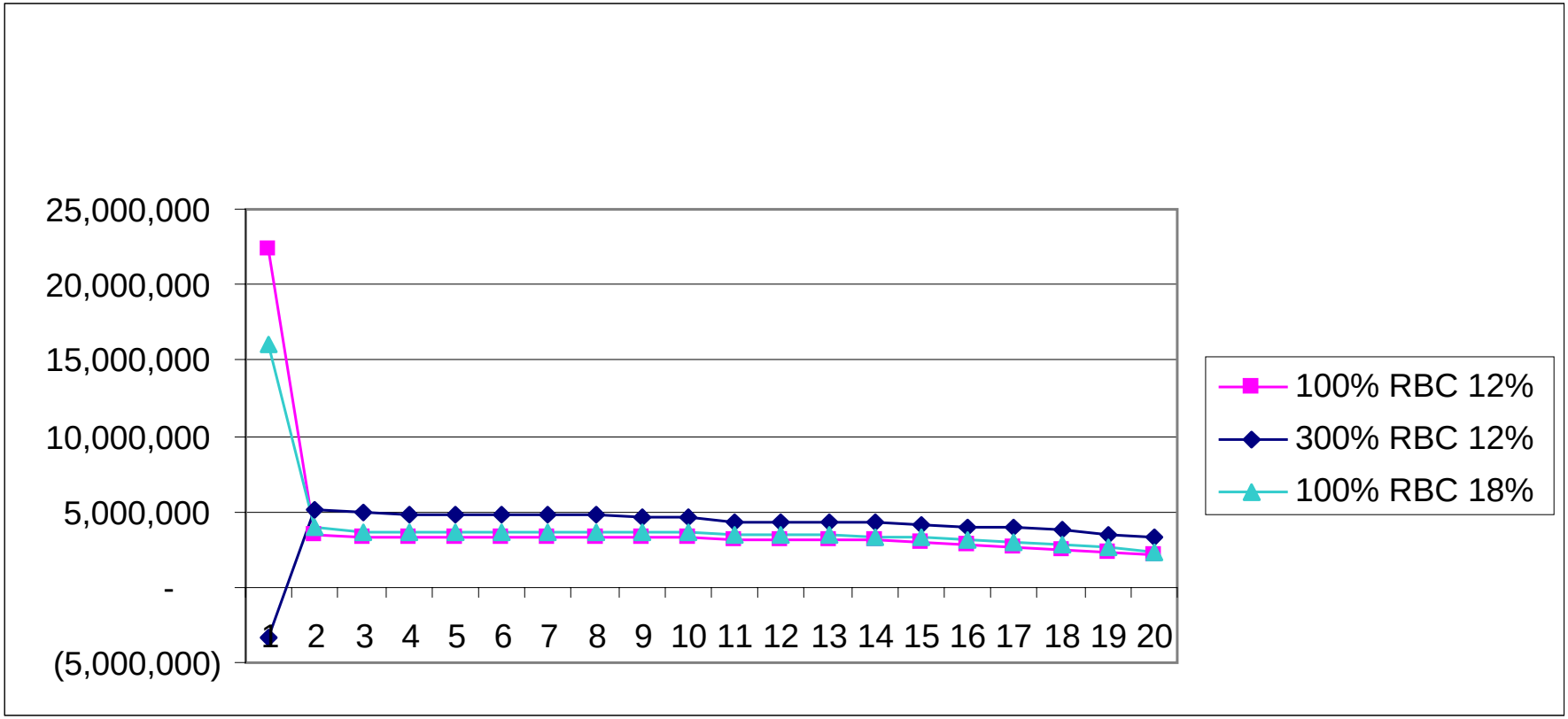
Term – Risk Margin Sensitivity – Income



Another product

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- Let’s look at a different type of product
- A deferred annuity, a contract with a heavy savings element

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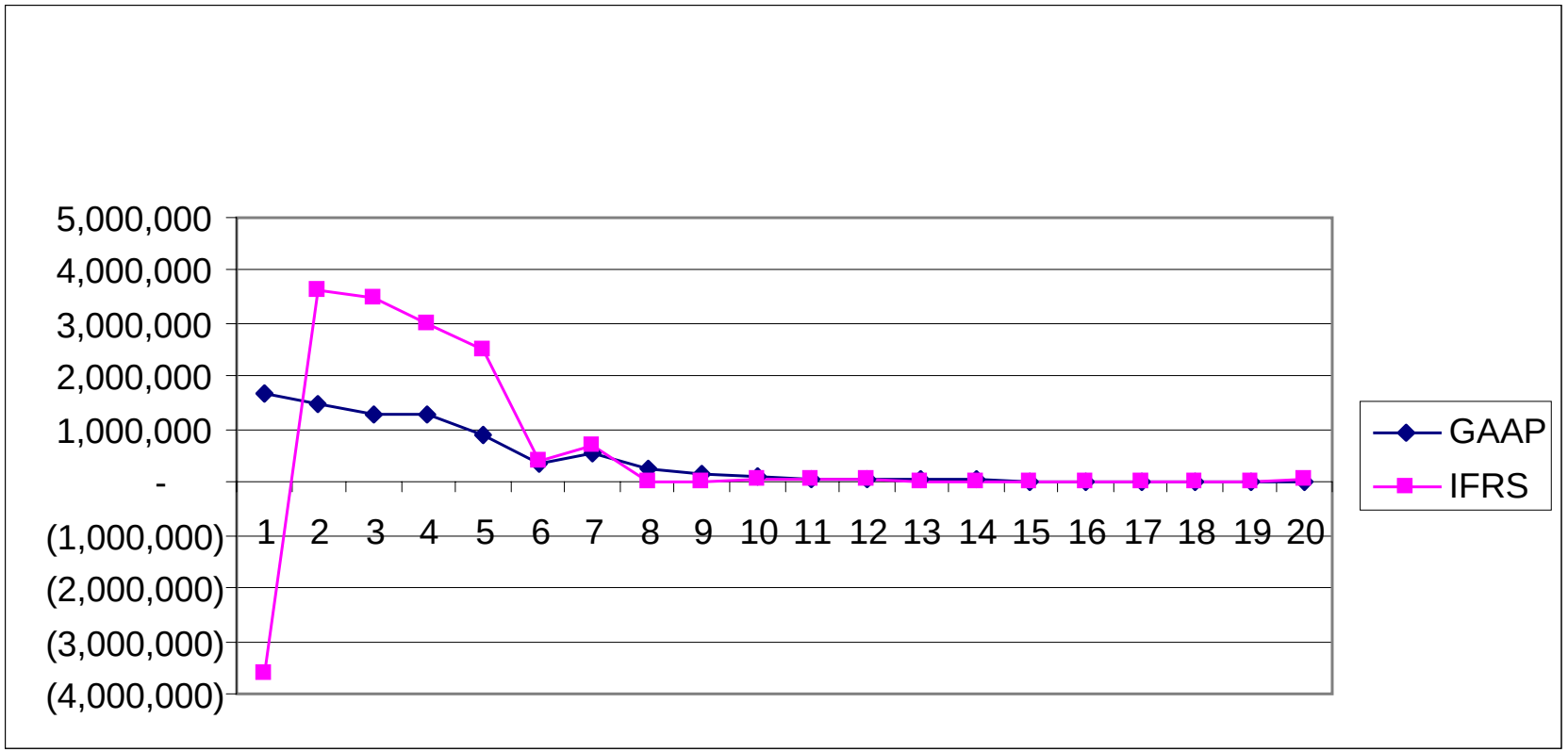
SPDA GAAP and IFRS Exit Value – Income



Premium = $3.2 million

Summary

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- Income varies dramatically by product
- Products that derive a significant portion of their profits from investment income will show lower profits, or losses, in year one.
- Products with significant sources of profits other than investment income portray a larger year one income
- Initial and subsequent profitability is extremely impacted by choice of methods and assumptions to determine risk margins

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Profiles of Responders to IASB

- 47 insurers (2)
- 28 professional societies (4)
- 23 regulators (2)
- 6 auditors (4)
- 32 industry associations (3)
- 15 others (2)

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AIG – U.S.-based; in 130 countries

- Generally supportive
- Leave general (property & casualty) insurance alone; have 2 models
- Questions relevance of exit value
  - Hypothetical
  - Not observable
  - Pricing details unavailable
  - No profit charge
  - Market data inferior to entity-specific
- Unwarranted profit at inception

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ManuLife – Canadian-based; in 19 Countries

- Very supportive; is similar to Canadian GAAP
- Some refining is needed:
  - Cash flows – stochastic not needed for all products
  - use discount rates an insurer would expect to earn
  - Needs more specific guidance, especially in margins

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United Kingdom Actuarial Profession (Institute, Faculty, 17,000 Members)

- Comments only where they differ from IAA
- Some views too complex and demanding for all preparers
- Measurement – value should reflect own costs to settle, not to transfer to a buyer
- Cash flow assumptions – should be from the viewpoint of the insurer, not the market
- Risk margins – should be based on insurer's cost for risk where there is no market

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International Association of Insurance Supervisors (IAIS) [1 of 2]

- Its members supervise 140 countries, 97% of world's insurance
- Would like to use IFRS accounting for solvency (statutory) purposes

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International Association of Insurance Supervisors (IAIS) [2 of 2]

- Endorses principles-based
- Supports some form of exit value
- Suggests a “reference entity” (large, efficient, well-diversified) with equal or higher rating
- Reflect all expected cash flows

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Ernst & Young (Worldwide Audit Firm)

- Why not these principles for *all* industries?
- Not supportive of Exit Value
  - Hypothetical
  - Doesn't reflect actual cash flows
- Can't assess quality of earnings
  - Source of earnings
  - Identify impacts of judgment
- Focus on entity's own value and entity's principal market – the customer

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PricewaterhouseCoopers 1 of 2 (Worldwide Audit Firm)

- Affirm consistency with other IASB initiatives
- Consult more widely with affected parties and field test
- Reliability of data is dependent on an assessment of a transaction in a hypothetical market
- Hypothetical basis – does not meet the needs of users for transparency
- Is exit value relevant?

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PricewaterhouseCoopers 2 of 2 (Worldwide Audit Firm)

- Changes to building blocks
  - Cash flows
    - Include all cash flows
    - Consider market value only when directly observable
  - Discount rates – drop liquidity adjustment
  - Margins – needs more work
    - How to select? Not observable
    - Portfolio vs. entity
    - Why service margin?

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GNAIE – 16 gigantic Life and P&C Insurers
Group of North American Insurance Enterprises

- Doesn't support Exit Value
- "Market consistent" is a problem because there are no regularly observable transfer markets
- Wants extensive field testing
- Recognize profit over coverage period
- Develop separate models for life and P&C
- No restrictions on building block cash flows
- Discount rate – reflect actual return

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CFO Forum (1 of 2)

- Represents Europe's 20 largest insurers, 94% of the market
- Discussion Paper is good starting point
- As is, it is not relevant to users, preparers or regulators
- Keep working; maintain dialogue and due process
- Field test before a final exposure draft is issued
- Tie in with regulatory developments, such as solvency II

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CFO Forum (2 of 2)

- Issues with three building blocks
  - Level of day one profit
  - Use discretionary benefit payments
  - Consider all expected cash flows
  - Use run-off, not transfer or exit values
  - Hold back initial profits at issue and recognize in line with release from risk over the lifetime of the contract

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2009 Accomplishments

- Board Meetings
- IWG Meetings
- Other influences

Surviving Principles

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- 3 building blocks
- Use all available information
- No gain at issue

Other Major 2009 Accomplishments

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- Time value of money – should be reflected wherever material
- Unearned Premium (gross) for short-term contracts
- Acquisition Costs
- Narrowed down Measurement Method

Acquisition costs

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- IASB – Calibrate Margins after consideration for incremental acquisition costs

- FASB – No recognition at all of acquisition expenses

Acquisition expense example

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- Five year contract; $1,000 premium; $1,250 acquisition expense; Earnings:

year	1	2	3	4	5
IASB	100	100	100	100	100
FASB	-900	350	350	350	350

Other Major 2009 Accomplishments

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Deliberation over measurement method

- Exit Value
- Modified Exit Value
- Fulfillment Value
- Modified IAS 37 Value

Note – exit value relies on market participants

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Distinctions Between Methods for two Finalists

- Fulfillment Value

  Expected Present Value of the future cash flows that will occur when the entity fulfills the insurance obligation with the policyholder over time. Excludes concept of own credit risk.

- Modified IAS 37 Value

  The amount an entity would rationally pay to be relieved of the present obligation at the reporting date

  - Presumably the largest amount
  - A work in progress

Distinctions Between Methods (cont.)

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Distinctions Between Methods (cont.)

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	Measurement approach based on updated IAS 37 model (new candidate 2)	**Current fulfillment value (previously candidate 4)**
Definition	The amount the entity would rationally pay at the end of the reporting period to be relieved of the present obligation Plus a "residual margin", based on the day one difference.	The expected present value of the cost of fulfilling the obligation to the policyholder over time, **excluding** the cost of bearing risk. Plus a "composite margin", based on the day one difference.
Scope	All insurance liabilities.	Same
Building blocks for the measurement approach	▪Current estimate of the expected (i.e. probability weighted) present value of future cash flows ▪Time value of money ▪An explicit margin	Same

Distinctions Between Methods (cont.)

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	Measurement approach based on updated IAS 37 model (new candidate 2)	Current fulfillment value (previously candidate 4)
Inputs for which observable market information is available (financial market variables)	Consistent with observed market prices.	Same.
Other inputs	The entity's estimate of the cash flows it would incur in fulfilling the liability.	Same.
Cash flows that arise from the characteristics of the portfolio (portfolio-specific)	Included.	Included.
Cash flows that arise from the characteristics of the entity (entity-specific)	Included.	Included.
Subsequent measurement of cash flows	Current estimates for all variables.	Same.
Changes in estimates of cash flows	Effect included in profit of loss.	Same.

Distinctions Between Methods (cont.)

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	Measurement approach based on updated IAS 37 model (new candidate 2)	Current fulfillment value (previously candidate 4)
Time value of money	Consistent with observable current market prices, capturing the characteristics of the liability.	Same.
Components of the margin	▪Risk margin ▪Service margin ▪Residual margin (calibrated to premium)	▪Composite margin
Risk margin	The amount the entity would pay to be relieved of risk.	No explicit risk margin. Implicit in the "composite margin".
Risk margin – initial measurement	Estimates the amount the entity would pay to be relieved of risk.	Uses premium as basis for determining the initial composite margin.
Risk margin – subsequent measurement	Remeasured at each reporting date.	Not applicable. (Implicit release as the composite margin runs off)
Service margin	The amount required by the contractor for other services. [Often to be estimated by the amount the entity requires for other services].	No explicit service margin. Implicit in the "composite margin".
Service margin – subsequent measurement	Remeasured at each reporting dates.	Not applicable. (Implicit release as the composite margin runs off)

Distinctions Between Methods (cont.)

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	Measurement approach based on updated IAS 37 model (new candidate 2)	Current fulfillment value (previously candidate 4)
Day one difference (the difference between the actual margin and the required margin)	No profit at inception; "residual margin" recognized as a separate item (presumably within the insurance liabilities).	No profit at inception; "composite margin" recognized as a separate item (presumably within the insurance liabilities).
Liability adequacy test	Not applicable.	Not applicable.
Acquisition costs	Expensed when incurred.	Same.
Part of the premium expected to recover incremental acquisition costs	IASB: Recognized as revenue on day one. FASB: Included in the residual margin	IASB: Recognized as revenue on day one. FASB: Included in the composite margin
Own credit risk	To be discussed (arguably implicit in residual margin at inception).	To be discussed (arguably implicit in composite margin at inception).

Other Influences

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Within IASB (and major)

- Revenue Recognition
- Revised Financial Instruments (IAS 39)
- Revised Contingent Liabilities (IAS 37)

Other Influences

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Within IASB (and minor)

- Conceptual Framework
- Fair Value Measurements
- Financial Statement Presentation

Other Influences

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Outside IASB

- FASB – a joint project as of October 2008

Revenue Recognition DP

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- An entity would recognize revenue when it satisfies its performance obligations in a contract by transferring goods and services to a customer

- Here, revenue means profit

Revenue Recognition DP

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Ideas that fit well for insurance

- Contract as whole (includes dividends, excess interest)
- Profit when insurance protection provided
- Calibrating considerations to zero at issue (no gain at issue)

Revenue Recognition DP (cont.)

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Concerns for insurance:

- No mention of recurring premiums
- Do not subsequently unlock
- Do not consider acquisition costs when calibrating (loss at issue)

Update of IAS 39 (Financial Instruments)

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- FASB, IASB at different speeds
- IASB 2009 ED's:
  - July – Classification and Measurement
  - October – Impairment Testing
  - December – Hedging
- Assets – either
  - Amortized Cost (AC) or
  - Fair Value (FV)
  - No more Available for Sale (AFS) category

Update of IAS 39 (Financial Instruments) (cont.)

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To be AC, an asset must

- Have “loan features” – pays principal and interest
- Managed on a contractual yield basis
- This means bonds and first tranche CMO, CBO

AC assets:

- Measured at FV on Balance Sheet
- Measured at AC in Income Statement
- Changes in FV or AC run through OCI

Update of IAS 39 (Financial Instruments) (cont.)

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- There is a Fair Value Option (FVO) that can be applied in order to avoid an accounting mismatch
- No more bifurcation and separate valuation of embedded derivatives
- Insurance products that are Financial Instruments:
  - GIC's
  - Fixed period immediate annuities
  - Funding Agreements
  - Perhaps some deferred annuities

Revision of IAS 37 (Contingent Liabilities)

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- Work already in progress
- Covers non-contractual liabilities, such as litigation and self-insurance
- Measurement objective – what an entity would rationally pay to be relieved of the present obligation
- Does contemplate a market transaction, but from seller's, not buyer's, perspective

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2. IFRS Activity September, October and November 2009

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September 2009

- Measurement method
- Margin amortization
- Discount rate

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Measurement Method

- 8 - 7 vote in favor of modified IAS 37
- FASB supports fulfillment methods
- FASB doesn’t care for references to market

Margin Amortization

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- Coverage period prevails over coverage plus claims runout period 8-7
- Pattern of amortization – no decision – will research release from risk
- Future re-estimation? No, lock-in at issue prevails 11-3; don’t use as buffer to absorb changes

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Discount Rate - definition

"The discount rate for an insurance liability should conceptually adjust estimated future cash flows for the time value of money in a way that captures the characteristics of that liability rather than using a discount rate based on expected returns on actual assets backing those liabilities."

Discount rate guidance

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- No specific guidance to be provided, beyond reference to guidance on fair value measurements
- Will seek input from practitioners about adjusting discount rates derived from highly liquid assets so they can be applied to illiquid insurance liabilities

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October 2009 – IASB alone

- Unbundling
- Income Statement Presentation
- Deposit Floor

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Unbundling

- Identify contract's components: either insurance, deposit or service
- Determine liabilities in accordance with standard for each component independently
- Conclusion reached: needs more study

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Income Statement Presentation

- Four possible methods
- Traditional life – premium and increase in reserves
- Traditional casualty – premium recognized only as earned
- Fee – like existing Universal Life
- Margin – like a GIC or bank accounting
- Result: favoring Fee and Margin

Deposit Floor

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- Is a minimum value, such as a cash value, needed as a floor liability?

- Answer: no

October 2009 – IASB and FASB

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- FASB warmed up to a risk margin
- IASB agreed to expense all acquisition costs

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November 2009

- IASB alone
  - Discussed when to recognize and derecognize an insurance contract
  - Were educated on participating contract practices around the world
  - Appeared to accept revised timetable
- IASB and FASB together
  - Discussed participating business

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3. Risk Margins
Survey of Global Practice

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Agenda

- Context for Margins
- Uncertainties Covered by Margins
- Desirable Characteristics of Risk Margins
- Methods for Establishing Margins

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Context for Margins

They go by many names:

- provisions for adverse deviation
- risk margins
- margins for uncertainties
- risk allowance
- profit margins

They are the requirement to incorporate margins on insurance company balance sheets for fluctuations in the timing and amount of future cash flows

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Context for Margins

…the requirement to incorporate margins on insurance company balance sheets for fluctuations in the timing and amount of future cash flows either…

- to reduce the risk of negative P&L impacts for the insurer
- to provide a provision to ensure the insurer's obligations will be met, or
- to compensate the insurer for taking risk

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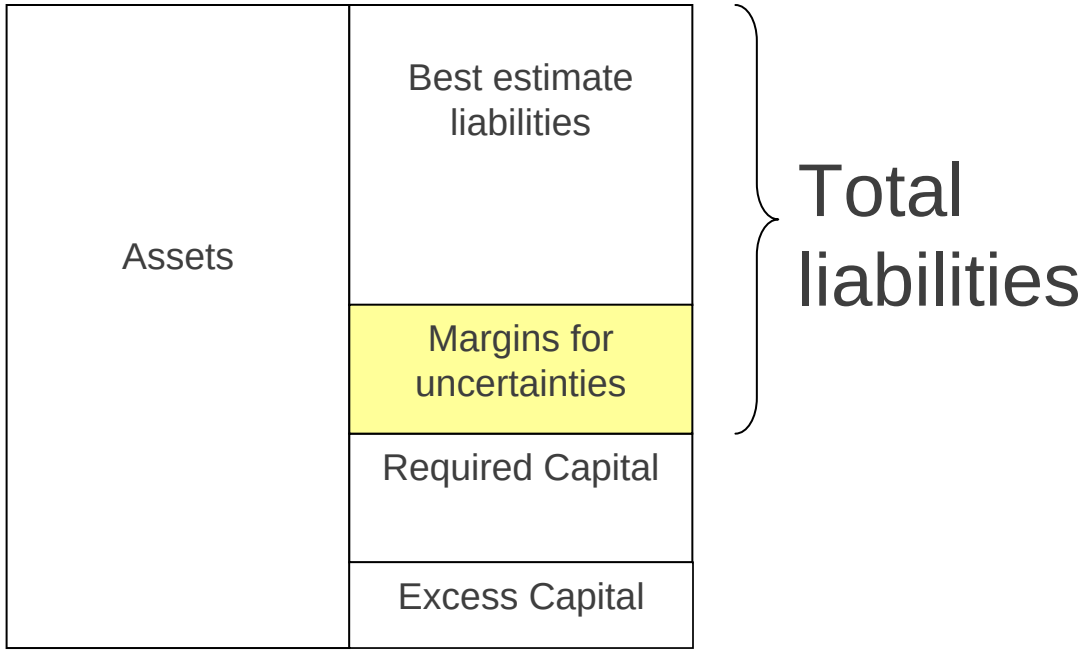
Context for Margins

Uncertainties covered by Margins

- Random fluctuation in the individual risks or losses arising from pooled insurance policies
- Uncertainties with regard to the misestimate of experience assumptions and the changes in those assumptions
- Uncertainties with regard to the use of inappropriate trend assumptions (e.g. mortality improvement)
- Uncertainties with regard to the assumed relationships between risk factors (which will typically need to be addressed in conjunction with the assessment of diversification impacts arising across risk factors)

How Margins Relate to Other B/S Components



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Desirable Characteristics of Risk Margins

IAA Risk Margins Paper

1. The less that is known about the current estimate and its trend; the higher the risk margins should be.
2. Risks with low frequency and high severity will have higher risk margins than risks with high frequency and low severity.
3. For similar risks, contracts that persist over a longer timeframe will have higher risk margins than those of shorter duration.
4. Risks with a wide probability distribution will have higher risk margins than those risks with a narrower distribution.
5. To the extent that emerging experience reduces uncertainty, risk margins will decrease, and vice versa.

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Desirable Characteristics of Risk Margins

IASB Insurance Contract Discussion Paper

1. Applies a consistent methodology for the entire lifetime of the contract;
2. Uses assumptions consistent with those used in the determination of the corresponding current estimates;
3. Be determined in a manner consistent with sound insurance pricing practices;
4. Varies by product (class of business) based on risk differences between the products;
5. Ease of calculation;

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Desirable Characteristics of Risk Margins

IASB Insurance Contract Discussion Paper (continued)

6. Is consistently determined between reporting periods for each entity, i.e. the risk margin varies from period to period only to the extent that there are real changes in risk;
7. Is consistently determined between entities at each reporting date; i.e., two entities with similar business should produce similar risk margins using the methodology;
8. Facilitates disclosure of information useful to stakeholders;
9. Provides information that is useful to users of financial statements;
10. Consistent with regulatory solvency and other objectives; and
11. Consistent with IASB objectives.

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Methods for Establishing Margins

- Margins for uncertainties can be split into two basic categories:
  - Bottom-up approaches – Apply to individual assumptions
  - Top-down approaches – Apply to aggregate results

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Methods for Establishing Margins

Specific Methods

Historical

- Factor based approaches
- Discount related methods

Bottom-up

- Judgment based on experience studies
- Stress Testing / Sensitivity Testing
- "Quantile" and distribution methods
- Stochastic modeling

Top-down

- Cost of Capital method
- Calibration to the Capital Markets or Insurance Pricing

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Methods for Establishing Margins

Factor based approaches

Examples

- Add a 10% “PAD” to the best estimate mortality assumption
- Use prescribed assumptions based on industry data

Characteristics

- Historical method for some regulatory bases
- Typically involves little to no actuarial judgment
- Incorporates unspecified implicit conservatism

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Methods for Establishing Margins

Discount related methods

Examples

- Reduce the discount rate of future expected cash outflows by 50bps
- Discount cash flows with “risk adjusted” returns

Characteristics

- Historical method for various actuarial calculations
- Difficult to quantify the margin
- Resultant margin is implicit and not transparent

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Methods for Establishing Margins

Judgment Based on Experience Studies

Examples

- Add a “PAD” to mortality based on prior observed volatility experience
- Use formula based dynamic lapse assumptions

Characteristics

- Based on all available data, supplemented by actuarial judgment
- Margin based on historical volatility and desired confidence level
- Results are highly subjective

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Methods for Establishing Margins

Stress Testing / Sensitivity Testing

Examples

- Determine B/S impact of increasing surrender assumption by 50% in support of why additional margin is unnecessary
- Identify the sensitivities of reserves to key assumptions

Characteristics

- Can be very time consuming; modeling shortcuts might be necessary
- Can identify places to spend more time developing assumptions
- Difficult to translate to a desired confidence level

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Methods for Establishing Margins

Stress Testing / Sensitivity Testing

Another example

	Mortality	Lapses	Interest rates
Scenario 1	125% of Best Estimate	110% of Best Estimate	Current - 100 bps
Scenario 2	125% of Best Estimate	110% of Best Estimate	Current + 100 bps
Scenario 3	75% of Best Estimate	90% of Best Estimate	Current - 100 bps
Scenario 4	75% of Best Estimate	90% of Best Estimate	Current + 100 bps

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Methods for Establishing Margins

"Quantile" and Distribution Methods

Examples

- Set the margins for an assumption based on a percentage of the observed variance
- Establish margins based on a specified confidence interval

Characteristics

- Popular formalized process
- Very difficult to properly implement
- Subject to significant model risk

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Methods for Establishing Margins

Stochastic Modeling

Examples

- Determine the option value of (and hedge) a variable annuity guaranteed minimum death benefit (“ VA GMDB”)
- Incorporate the cost of non-hedgeable risks through statistical methods

Characteristics

- Consistent with modeling of other financial instruments
- Computationally intensive
- Can be a “black box”

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Methods for Establishing Margins

Cost of Capital Method

Examples

- Set margin based on the required regulatory or rating agency capital and a company's cost of capital rate
- Determine margins in a risk neutral framework based on the frictional cost of holding additional capital

Characteristics

- Directly relates to the working requirements of the company
- Cannot be mapped to individual risks
- Different definitions can significantly affect the result

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Methods for Establishing Margins

Cost of Capital Example

Year	Required Capital	LIBOR	Discount factor	Change in Capital
1	100	1.64%	0.984	100
2	90	1.46%	0.970	(10)
3	80	3.46%	0.937	(10)
4	75	4.18%	0.900	(5)
5	70	4.56%	0.860	(5)
6	60	4.75%	0.821	(10)
7	40	4.90%	0.783	(20)
8	20	4.81%	0.747	(20)
9	10	4.86%	0.712	(10)
10	0	4.91%	0.679	(10)
			Cost of Capital	17.77

Calibration to Insurance Pricing

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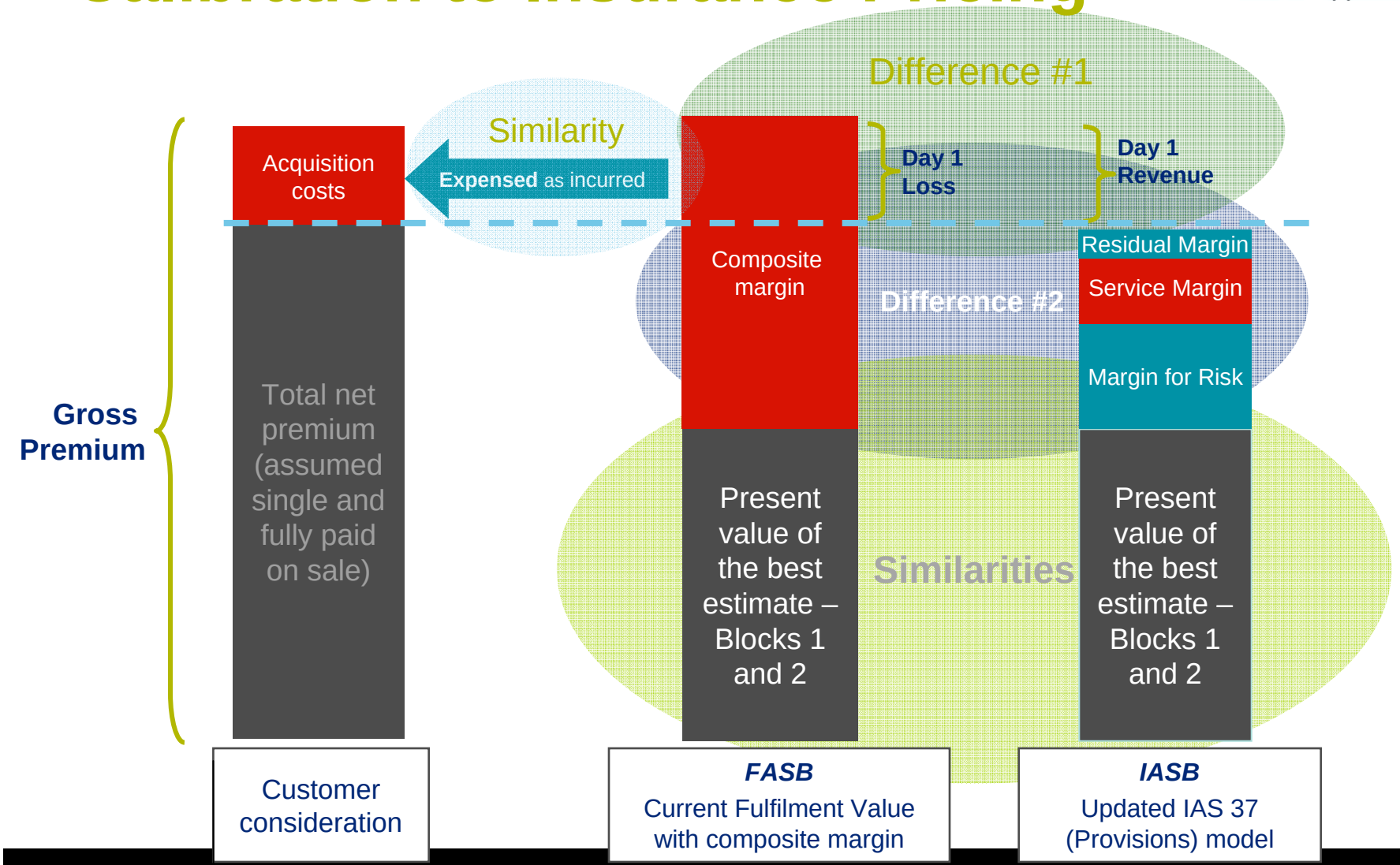

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Purpose of Risk Margin

- Depends upon Reporting Purpose
  - Regulators: Solvency Margin
    - Additional amount to reduce the probability of insolvency
  - Investors: Profit Margin
    - Compensation for assuming risk

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Risk Margin - Approaches

- Regional Preferences
  - North America: Explicit Assumption & Quantile
  - Europe: Cost of Capital

Quantile Approaches

- Confidence Levels (Value at Risk, VaR)
- Conditional Tail Expectation (CTE)

Confidence Level

- Estimate is adequate X% of time

- Example: Net Value at Risk (VaR)
  - Estimate is adequate 99% of the time over a 1 year time frame
  - RM = VaR Estimate – Current Estimate

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Conditional Tail Expectation (CTE)

1. Select the X% of scenarios with highest estimates = sample
2. Calculate average estimate of sample
3. CTE Estimate = average
4. RM = CTE Estimate – Current Estimate

CTE Example

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- US Principal Based Reserves for Variable Annuities (VA)
- Stochastic projections
  - Multiple years (30+)
  - Up to 10,000 prescribed economic scenarios

CTE Example

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1. Start with Original Reserve (OR)
2. Stochastically determine present value of deficiencies (PVD)
3. Select 30% largest PVD = Sample
4. Additional Reserve = Absolute value of Sample Average
5. Rx = OR + Additional Reserve
6. RM = Additional Reserve if OR = Current Est.

Cost of Capital

- Negative Cash Flow Component
  - CoC = Capital * Cost Rate
- Cost Rate
  - Expected Investment Return on Insurance Assets – Target Return
  - Tax effected
  - 6% to be used in EU for Solvency II

Cost of Capital

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- Capital Alternatives
  - Economic Capital
    - Internal Model Based
  - Regulatory “Floor” Capital
    - Example: 200% of Regulatory Action Level
  - Ratings “Target” Capital
    - Example: A Rating

Cost of Capital Example

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- Facts
  - Term Life
  - “A” Bond Investments
  - S&P “A” Rating Target

CoC Example: Capital

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- Risk Based Capital (S&P A Rating)
  - Asset: X%
  - Liability: Y%

CoC Example: Cost

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- WACC
  - Bond 5% (After Tax)
  - Stock 10%
  - Weight 1/2 Bond, 1/2 Stock
  - WACC = 7.5%

CoC Example: Cost

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- Asset Portfolio Yield
  - 6% Pre Tax
  - 33% Tax Rate
  - 4% After Tax
- Cost of Capital
  - 7.5% - 4% = 2.5%

CoC Example: CoC Year 1

- Capital = 1,000
- Cost = 2.5%
- Cost of Capital = 2.5% * 1,000 = 25

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4. IFRS – Possible I/S Patterns

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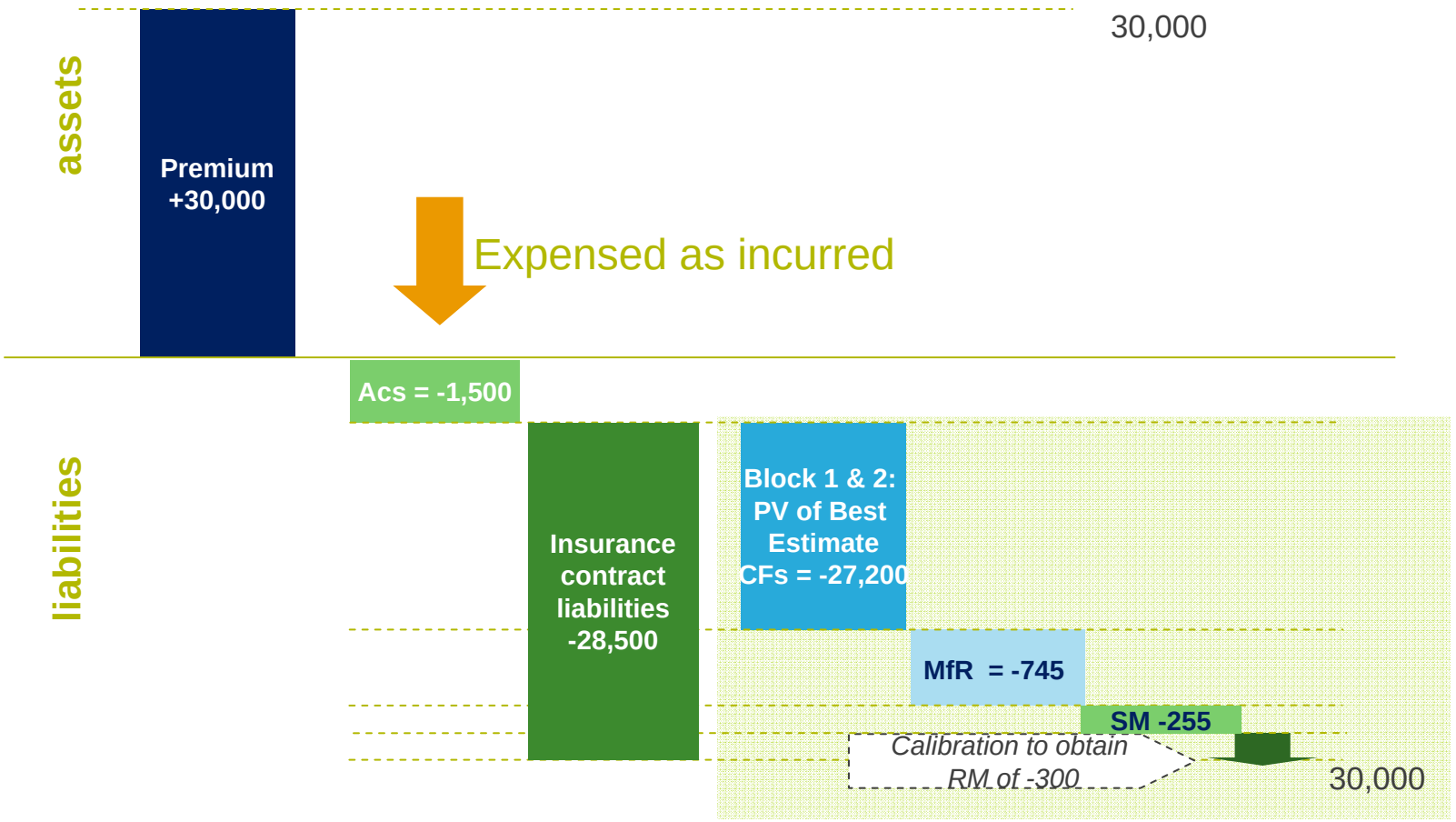
Differences on day 1 – IASB model (for VA with GMDB)

AC	Acquisition Cost (all incremental)	(1,500)
SP	Single Premium	30,000
MfR	Margin for Risk	(745)
SM	Service Margin	(255)
Block 1 & 2	Probability weighted present value of future cash flows (in our example, resulting in a net cash inflow as future contract charges exceeds expected claims and expenses)	(27,200)
RM	Residual Margin	(300)

Asset		Liabilities	
Premium receivable	30,000	Commission payable	1,500
		Insurance contract liabilities	28,500
	30,000		30,000

IASB calibration diagram – Day 1



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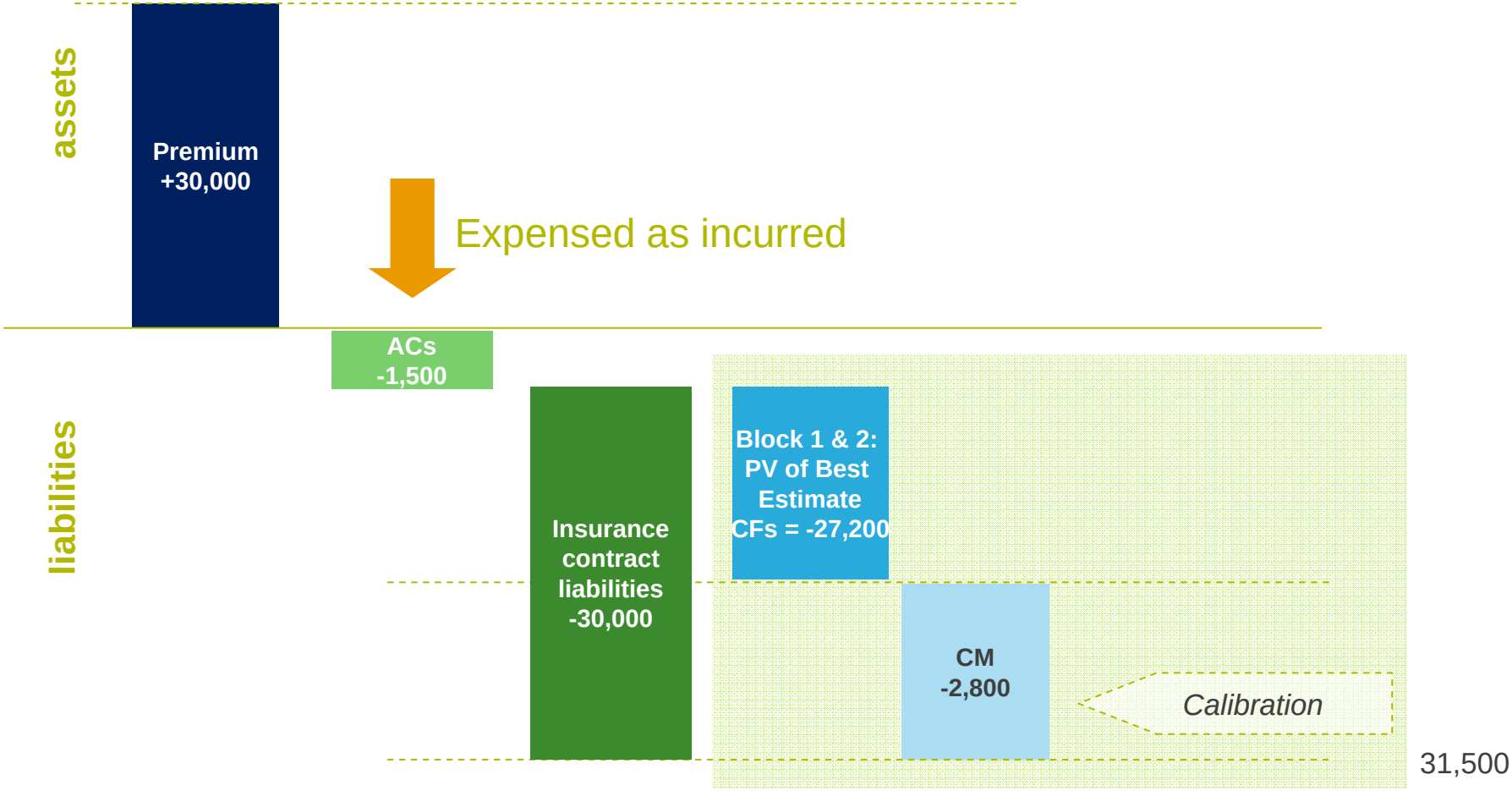
Differences on day 1 – FASB model

AC	Acquisition Cost	(1,500)
SP	Single Premium	30,000
CM	Composite Margin	(2,800)
Block 1 & 2	Probability weighted present value of future cash flows (in our example, resulting in a net cash inflow as future contract charges exceeds expected claims and expenses)	(27,200)

Asset		Liabilities	
Premium receivable	30,000	Commission payable	1,500
		Insurance contract liabilities	30,000
		Retained loss	(1,500)
	30,000		30,000

FASB calibration diagram – Day 1



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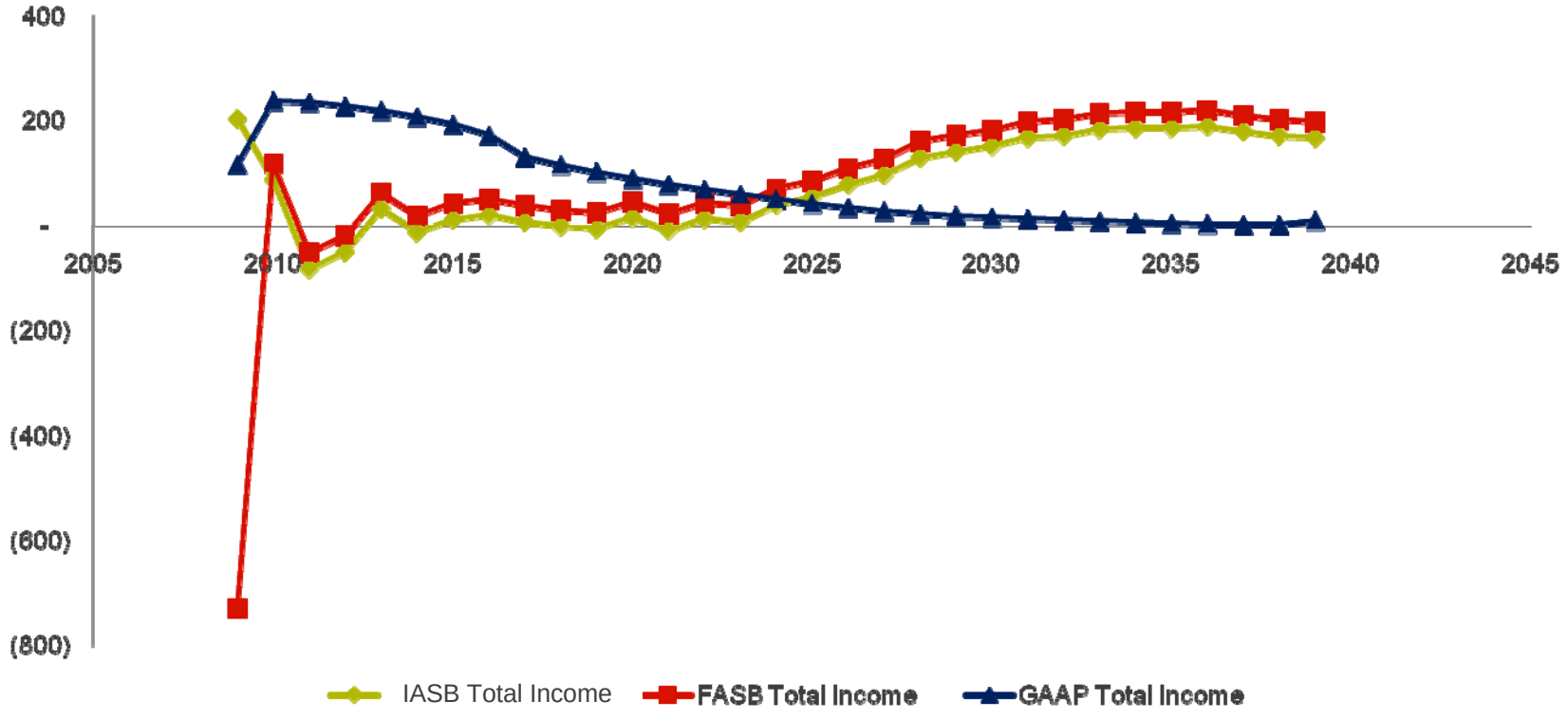
Net Income – GAAP, FASB and IASB



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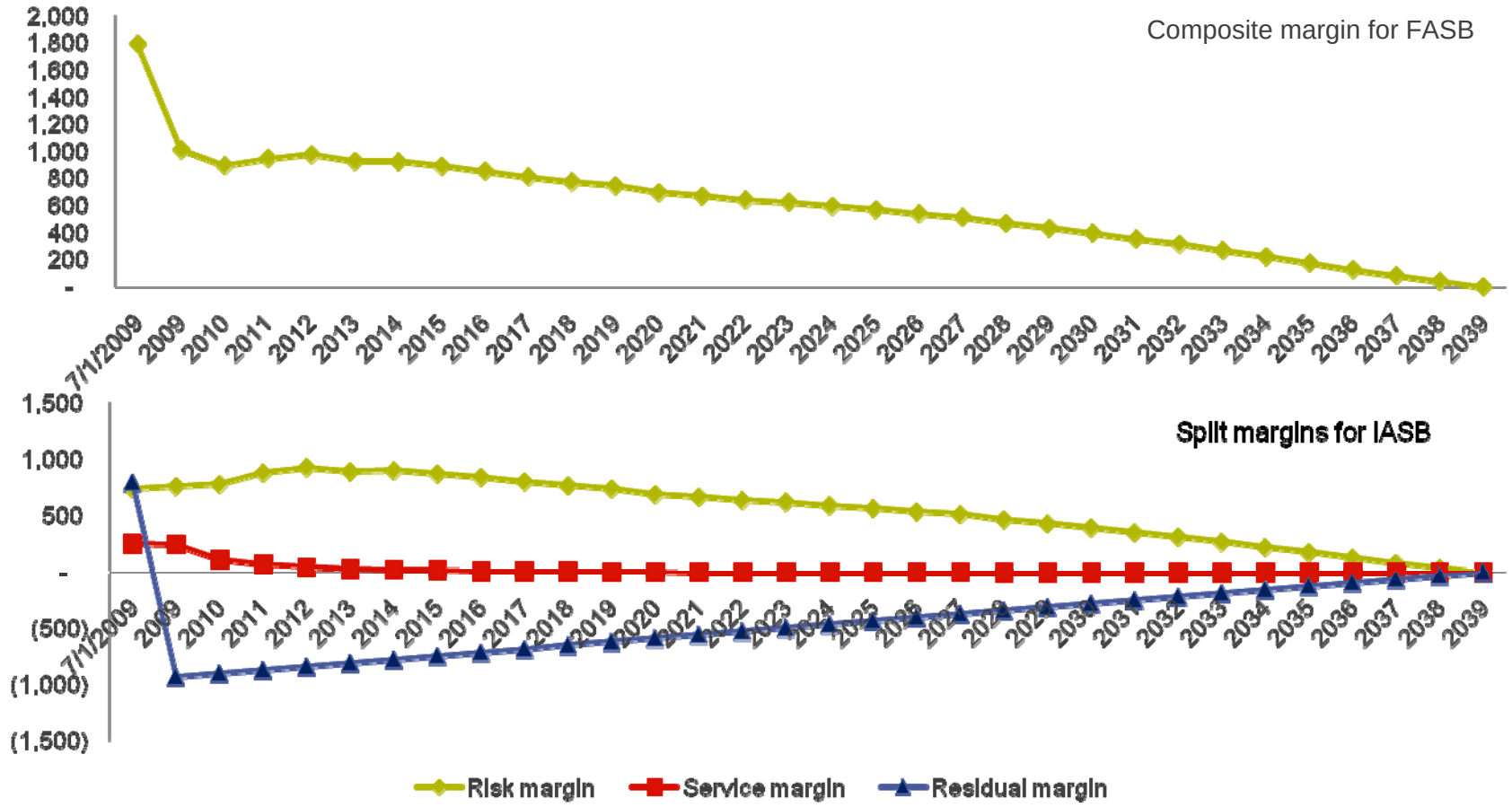
Margins for IASB and FASB



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5. IFRS What's ahead

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Timeline

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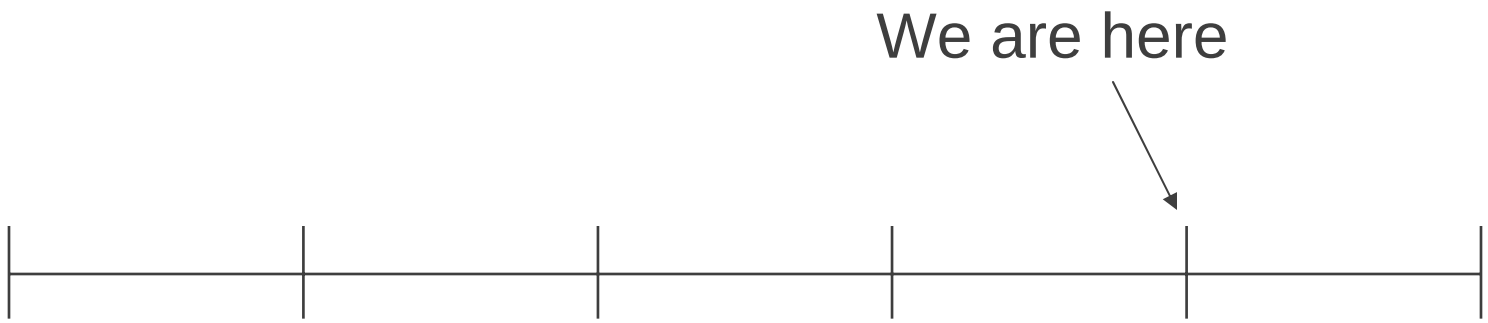

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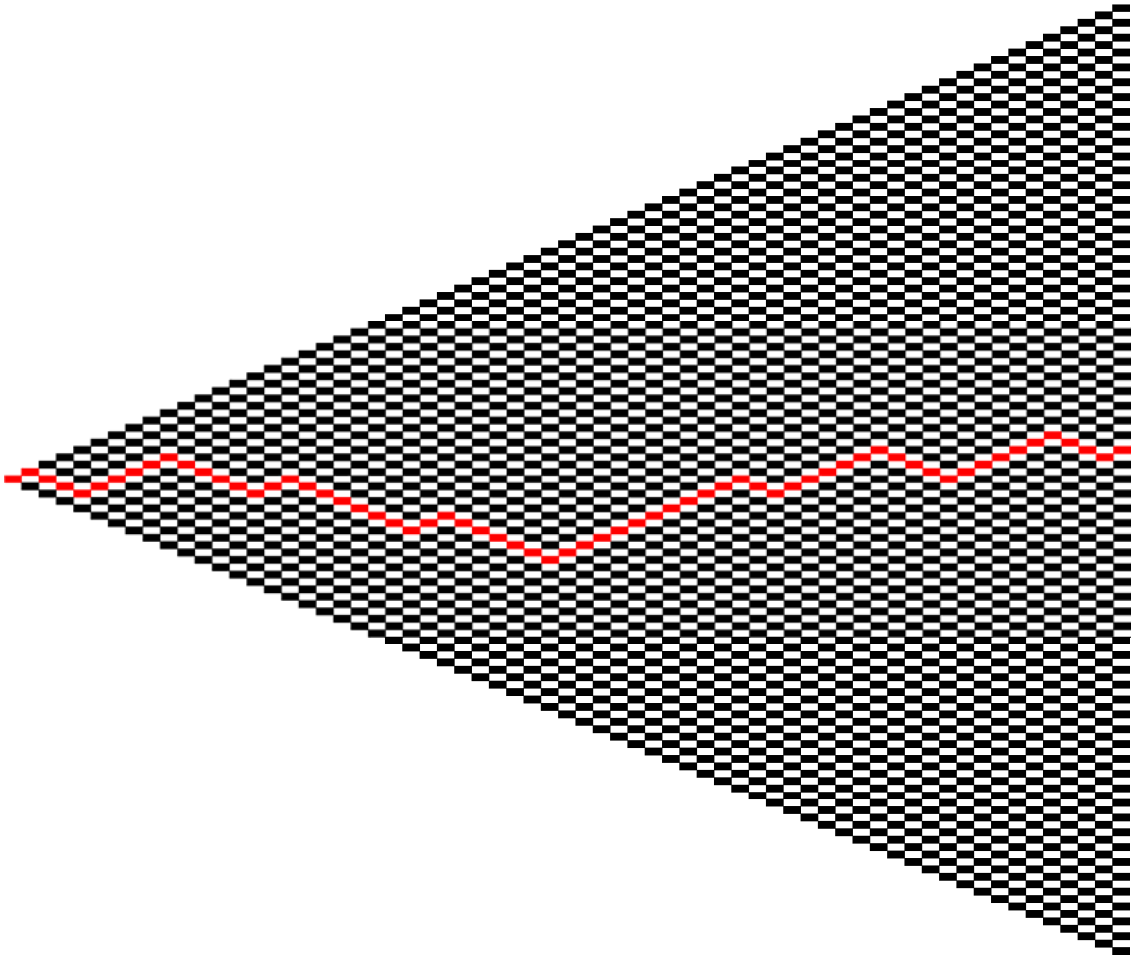
Original Vision



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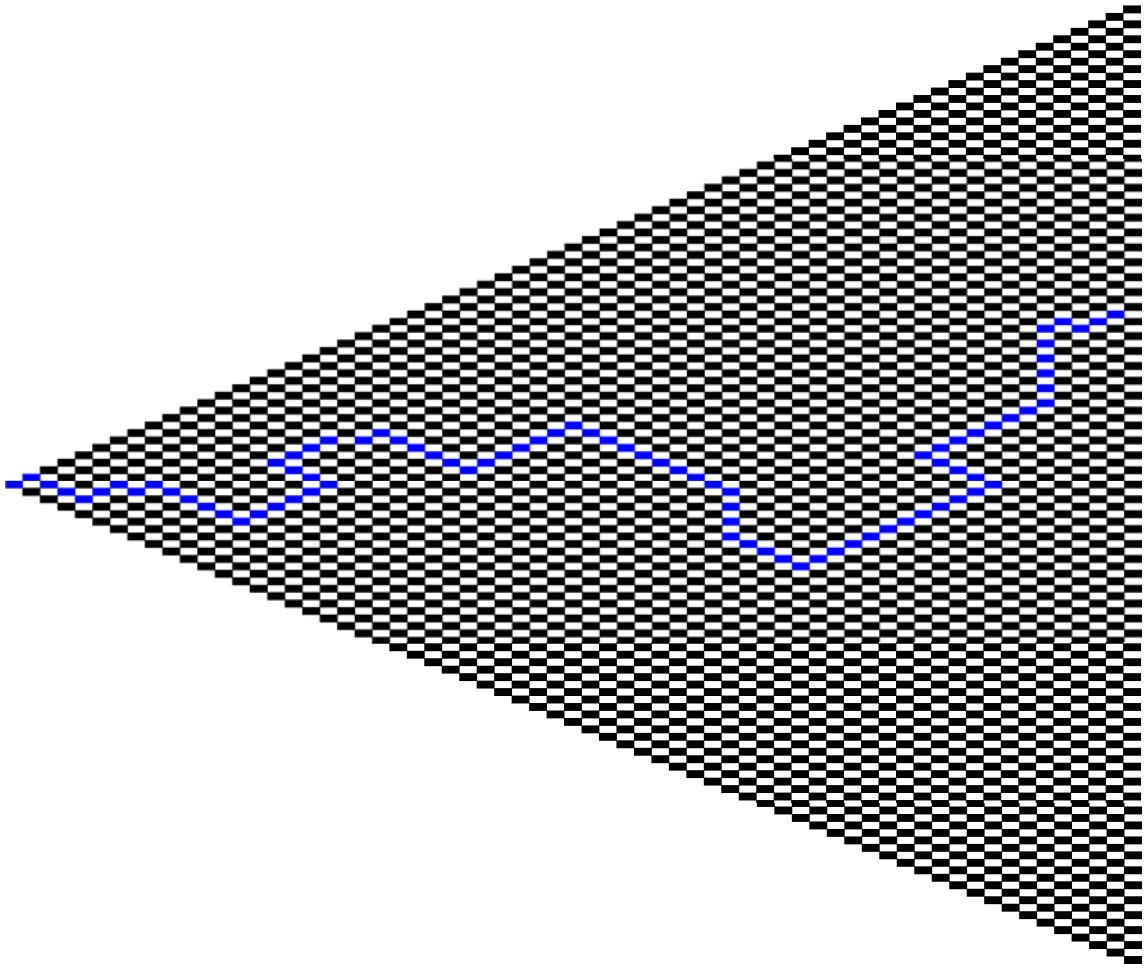
Actual Trail



What's ahead

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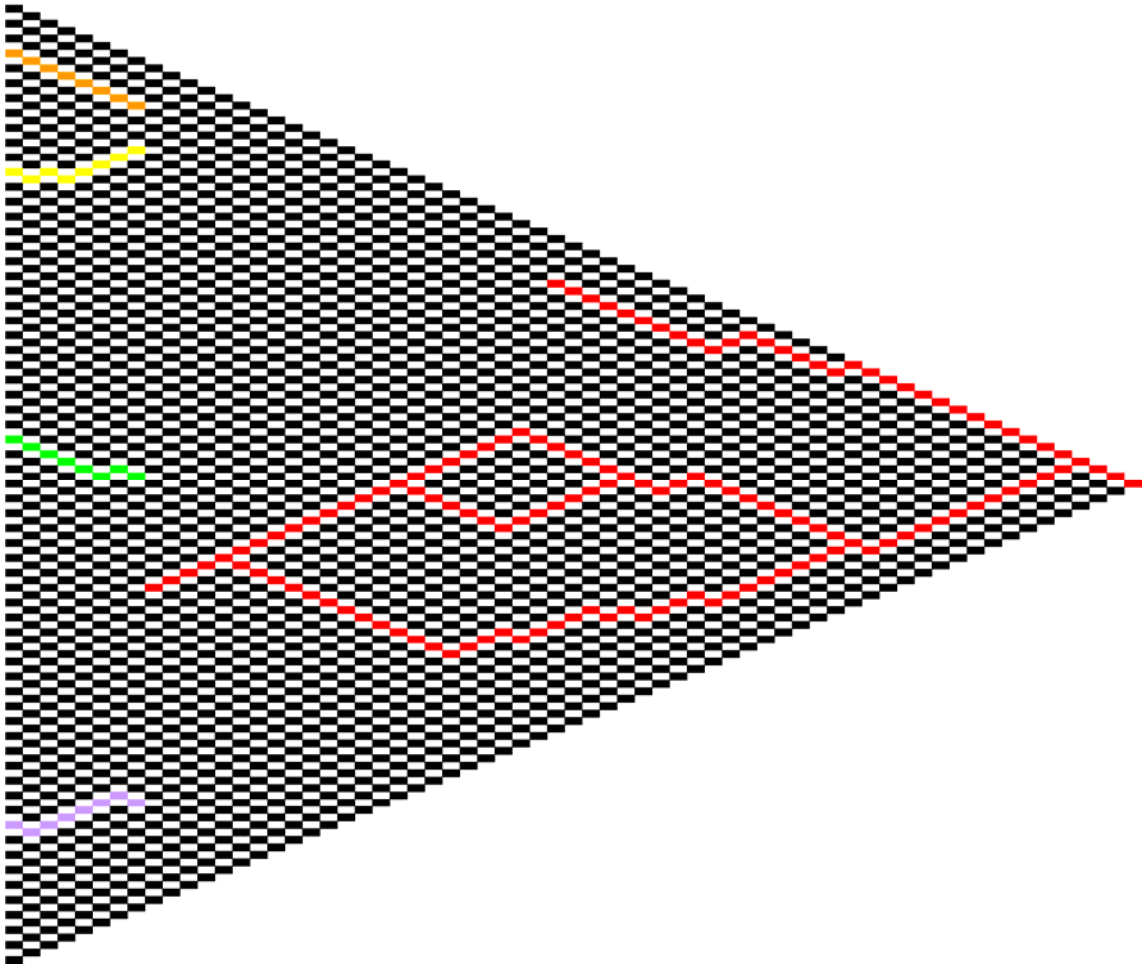

2009 Yet To Go

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- Field Testing
- December Board Meeting

IASB Field Testing

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- Run by IASB staff
- Targeted on certain issues
- Recruited volunteer companies (life and general) around the world
- August through October 2009
- Staff to summarize and issue report in early 2010

2010 and later

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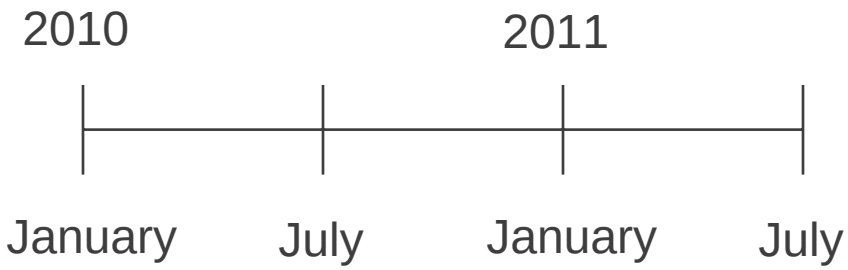

January through August 2010

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- In London (January – April)
  - Staff researches, prepares and recommends
  - Board deliberates
  - Board issues ED April 2010
- Around the world (April – August)
  - Users evaluate ED
  - Users prepare and submit comments

Society of Actuaries Research Project

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- A repeat of 2008 report
- Already underway
- Actuarial Task Forces, Project Manager (PwC), Project Oversight Group
- Purpose
  - To educate interested parties
  - To help members formulate their own opinions

SOA study - products

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- Par whole life
- Term life
- Universal life
- Deferred annuity, single and flexible
- Equity-indexed annuity
- Immediate annuity
- Variable annuity
- Variable annuity with guaranteed living benefits
- Variable universal life
- Long Term Care
- Other individual health

SOA study - Variations to be studied

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- Acquisition expenses
- Renewal premiums
- Participating dividends
- Non-guaranteed elements
- Experience deviations from expected
- Reinsurance
- Discount rates – swap rates, liquidity adjustment, earned rate
- Measurement – IAS 37 and Fulfillment
- Risk Margin – cost of capital is base; do others if can
- Risk Margin runoff

Society of Actuaries Research Project (cont.)

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- New business only
- Today's products
- Issued August 2010

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May 2010 through September 2011

- Staff and Board evaluate comments
- Continue Field Tests
- Deliberate and Draft
- Issue Standard (June 2011)
- Key Board members roll over June 2011

Implementation

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- Usually 2-3 years allowed
- Preparers submit parallel presentations
- Financials usually show 2 prior years of earnings
- Implies you need 3 prior balance sheets
- SEC roadmap – convert from US GAAP to IFRS by December 31, 2015

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So where will we end up?

IASB oversight body

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- From Monitoring Board of International Accounting Standards Committee Foundation
- Four widely accepted principles for accounting standards
  - Relevant
  - Reliable
  - Understandable
  - Comparable

Relevant

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- Financial information must be relevant to the decision being evaluated
  - Can a user evaluate past and present events so that inference can be drawn about future events?
  - Can it provide a user a basis against which to assess past evaluations?
- For insurance contracts
  - Unbundling
  - Renewal premiums, policyholder dividends
  - Acquisition costs

Reliable

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- Information should be reliable in the sense of providing faithful representation of the events on which it purports to be reporting
  - Information should be neutral and fairly depict the reported transactions
  - Does not necessarily translate to certainty, as in estimation of future outcomes.
- For insurance contracts
  - Reliability of assumption setting
  - Reliability of margin calculations

Understandable

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- Financial information is intended to provide a took for decision-making
  - Must be understood and adapted by users in their decision-making process
- For insurance contracts
  - A daunting task – insurance is a complex product
  - No single accounting basis can satisfy this
  - Will need ample disclosures

Comparable

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- Information used in decision-making is generally developed within a context, rather than in isolation
  - Information should be prepared and presented with sufficient consistency to compare reporting entity's performance
    - Over time
    - Against other reporting entities
- For insurance contracts – again, a challenge, as so much judgment is needed to establish liabilities based on own view of the future

Yet To Go

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- Unbundling
- Par policies
- UL policies
- Scope in or out of Revenue Recognition
- Rewording of Measurement attribute (between FASB and IASB)
- I/S presentation
- Contract boundaries (renewal premiums)
- Defining short term contracts
- Unit of Account (loss recognition (aka onerous contracts); risk margins)

This Path?

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Maybe this path?

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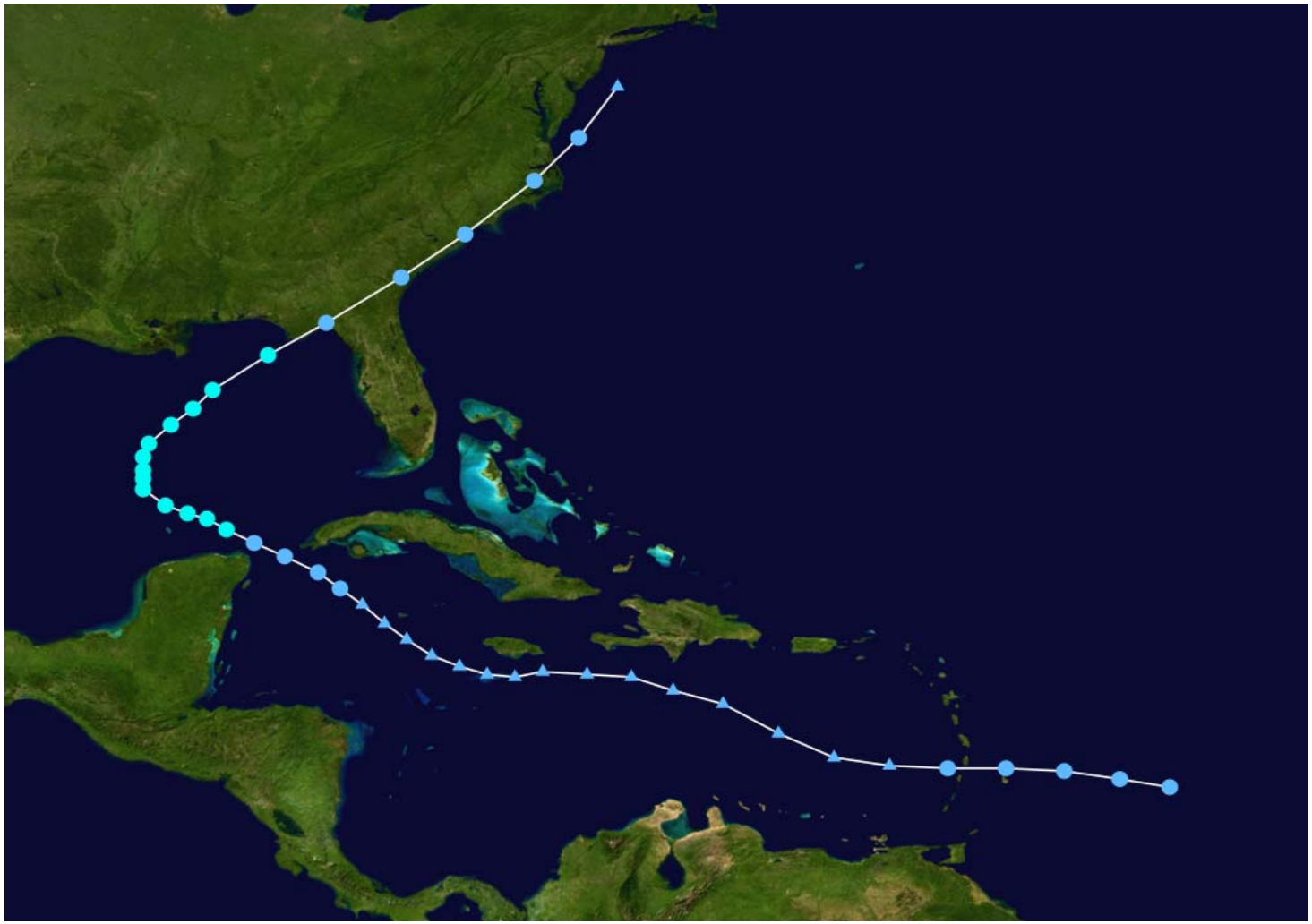

Range of possibilities

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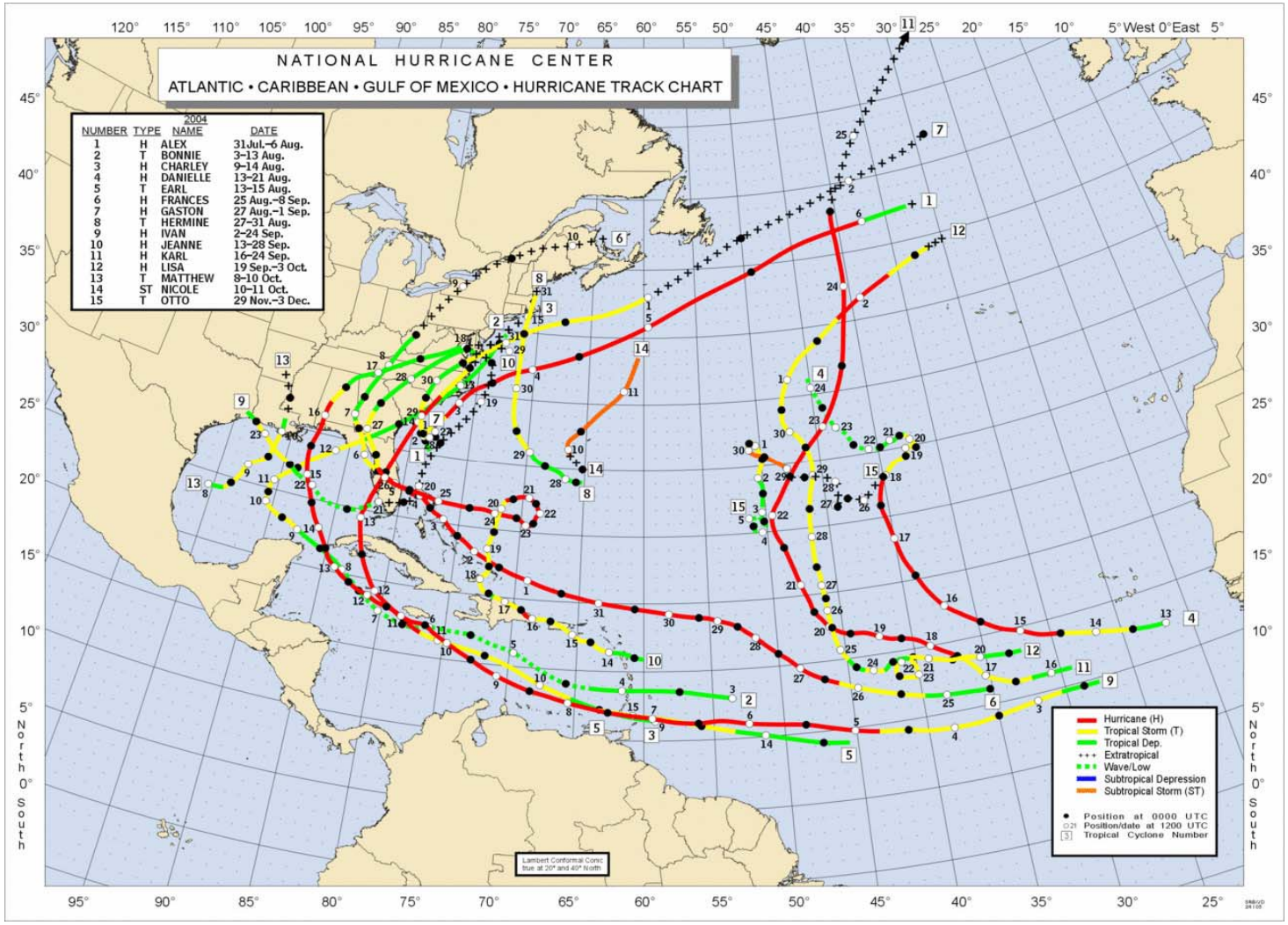

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6. Questions & Answers

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