

Society of Actuaries' Liability Modeling Project

IASB's *Insurance Contracts* Exposure Draft: Where are we now? Where are we going?

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Contents

- Brief History of the Insurance Contracts Project
- Impact of Preliminary Views (PV) comments on Exposure Draft (ED)
- ED Highlights
- Earnings patterns from the Society of Actuaries study for life, annuity and health products
- What others think – preliminary feedback
- Next steps



Brief History



History of Project - IASB

- International Accounting Standards Board
 - London-based, 14 members from 9 countries
 - Dedicated staff
 - Insurance Working Group (IWG)
 - Worked with FASB (U.S. Financial Accounting Standards Board) (2008-2010)
 - Pronouncements:
 - ◆ IAS (International Accounting Standards)
 - ◆ IFRS (International Financial Reporting Standards)
 - These are identical – IAS was published before IFRS



History of Project - Influencers

- Those providing significant input:
 - ◆ CFO Forum (European insurers)
 - ◆ GNAIE – Group of North American Insurance Enterprises
 - ◆ Insurers from Japan
 - ◆ IAA (International Actuarial Association)
 - ◆ IAIS (International Association of Insurance Supervisors)
 - ◆ European Union (EU) – they mandate the IASB make the standards, but each country must adopt



History of Project - Objectives

- To provide information to users of financial statements that is relevant for economic decision-making
- To eliminate inconsistencies and weaknesses in existing practices
- To provide comparability across entities, jurisdictions and capital markets



History of Project – Phase 1

- Phase 1 started in 1997
- 2001 Draft Statement of Principles
- 2004 - Phase 1 ended with IFRS4
 - 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*

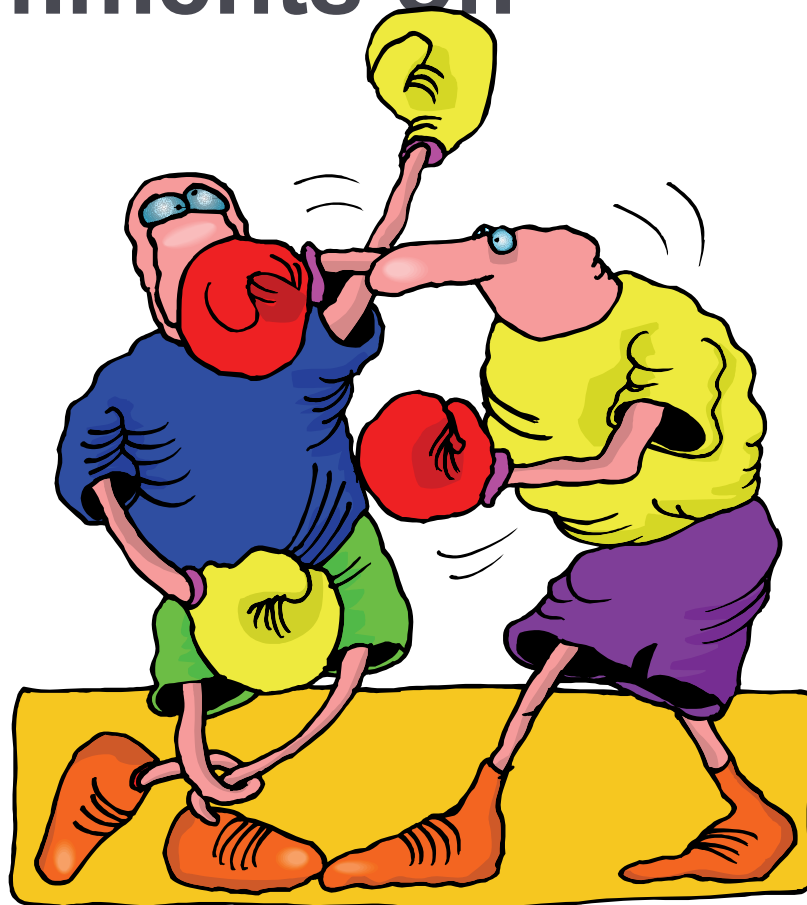


History of Project – Phase 2

- Phase 2 started mid-2004
 - IASB, IASB staff and IWG worked on a discussion paper called “Preliminary Views” or “Discussion Paper,” released in May 2007
 - Main text – 150 pages; Appendices – 80 pages
 - Over 160 Comments letters
 - Had something appealing and something offending to everybody



Impact of Preliminary Views (PV), also called Discussion Paper (DP), Comments on Exposure Draft



Impact of PV Comments # 1

- Unwarranted profits at issue
 - For products without heavy investment component
 - Discounting all cash flows coupled with smaller risk margin (now called Risk Adjustment)
- They listened, and we get
 - Residual Margin, an unearned profit reserve calibrated so no profits appear at issue



Impact of PV Comments # 2

- Unwarranted losses at issue
 - For savings-oriented products
 - Use of risk-free rate as discount rate caused heavy losses at issue

- They listened, and we get
 - A higher discount rate, the risk-free rate plus an illiquidity adjustment



Impact of PV Comments # 3

- Use of “Exit Value” concept
 - Hypothetical; not enough transactions
 - Should reflect own viewpoint, not someone else’s
 - Can’t determine market assumptions

- They listened, and we get
 - Fulfillment value
 - ◆ Based on what you think it takes to fulfill the contract



Impact of PV Comments # 4

- Loss of comparability due to lack of specificity on Risk Margins
 - Cited 8 methods
 - No limitations on range of assumptions

- They listened, and we get
 - Three methods eligible for Risk Margins
 - Coupled with constraints (lower limits) on results



Impact of PV Comments # 5

- Limitation on cash flows
 - Contractual – future premiums not necessarily mandatory
 - Contractual – future dividends and interest credits not mandatory

- They listened, and we get
 - All relevant cash flows included



Impact of PV Comments # 6

- Service Margin
 - What exactly is this?
 - Why would we need this?

- They listened, and we get
 - No Service Margin in the ED



Impact of PV Comments # 7

- Non-performance Risk
 - Including the risk that the insurer will not perform in establishing the discount rate for cash flows
 - This results in lower liabilities for riskier companies

- They listened, and we get
 - No non-performance risk in ED



Course Changes during 2010

- Acquisition costs – headed towards no recognition
 - Significant input by interested parties put these issues back on track
- Unbundling
 - Some clarity needed
 - Introduced in June just before release of ED



The Lesson Learned

- Express your opinion...
 - During the remaining Comment Period (ends November 30)
 - During final deliberations

- They are listening

- Offer solutions



ED Highlights

(as they relate to this presentation)



ED Highlights

- Four Building Blocks
 - Current Estimates of Future Cash Flows
 - Time Value of Money
 - Risk Adjustment
 - Residual Margin
- Contract Classification
- Unbundling
- Other



- Explicit, unbiased and probability-weighted estimate of future cash flows
- Includes all incremental cash flows that will arise as the insurer fulfils the insurance contract
 - Premiums and cash flows that arise from those premiums,
 - Claims and benefits paid to policyholders, plus associated costs,
 - Cash flows resulting from options and guarantees,
 - Incremental costs of selling underwriting and initiating the contract, and
 - Policy administration and maintenance costs.



- Cash flows included if they arise within the contract boundary
 - Boundary is a point at which insurer can terminate or re-underwrite a contract, and
 - Future premiums, claims and expenses are related to those premiums.
- Cash flows are re-assessed at each reporting period
- Stochastic modeling may be required
- Estimates of market variables are to be consistent with observable market prices



Time Value of Money

- Adjusts first building block for time value of money
- The discount rate is based on the characteristics of the insurance liability: currency, duration and liquidity
- Measurement reflects characteristics of the assets backing the insurance liability only if the amount, timing or uncertainty of contract cash flows depend on performance of assets
- Discount rate is a market consistent “risk free rate” adjusted for illiquidity characteristics of liability cash flows
- No further guidance on what is a “risk free rate” or how to calculate the illiquidity premium



Risk Adjustment (RA) 1 of 4

- A liability to reflect uncertainty in the estimate of future cash flows
- Included in the measurement explicitly
- Defined as *“the maximum amount an insurer would rationally pay to be relieved of the risk that the ultimate fulfillment cash flows exceed those expected.”*
- Re-measured at each reporting period
- Estimated at level of portfolio of insurance contracts
- Effects of diversification between portfolios of insurance is not allowed
- Allow one of three techniques
 - Confidence Interval (CI)
 - Conditional Tail Expectation (CTE)
 - Cost of Capital



Risk Adjustment (RA) 2 of 4

- Confidence Interval
 - Likelihood that the actual outcome will be within a specified interval
 - Sometimes called Value at Risk (VaR)
 - Easy to communicate and calculate
 - Not as useful for distributions that are not statistically normal



Risk Adjustment (RA) 3 of 4

- Conditional Tail Expectation
 - Better reflection of extreme losses
 - Focuses on the tail of the probability distribution
 - Judgment needed to determine band and may need to change in the future
 - Tail VaR is similar



Risk Adjustment (RA) 4 of 4

- Cost of Capital
 - Often used in pricing, valuations and regulatory reporting (such as Solvency II)
 - Estimates cost of holding required capital to meet obligations with high confidence
 - Need to determine capital rate that reflects risk relevant to liability



Residual Margin (RM)

- Eliminates any gain at inception of contract
- May not be negative; arises when Present Value (PV) of future cash inflows exceeds sum of PV of future cash outflows plus the Risk Adjustment
- Estimated at portfolio level, split by cohort (contracts with same inception date and similar coverage duration)
- Measured at initial recognition only
- Amortized over coverage period based on expected claims
- Cannot be negative as a loss must be recognized immediately
- Interest accretes using the discount rate locked-in at inception



Contract Classification (simplified)

- Does contract have significant insurance risk?
 - No – measure as investment contract (IAS 39)
 - Yes – does contract need to be unbundled?
 - ◆ If yes, value deposit component under IAS39
 - ◆ If no, value insurance component under Insurance Contracts



Unbundling

1 of 2

- Unbundling is required for all components that are not “closely related” to the insurance coverage
- The ED provides 3 examples of this principle:
 - Account balances – a deposit component with certain characteristics
 - Embedded derivatives
 - Service components
- Any unbundled component is separated without any of the related fees or charges, which are accounted for with the insurance contract



Unbundling

2 of 2

- The more serious implication of these requirements is the separation of the account balance
- The characteristics that need to be met to qualify for the requirements:
 - The deposit must be an explicit account balance with the policyholder
 - The account balance must receive interest based on a crediting rate that is *“based on the investment performance of the underlying investments.”*
 - The crediting rate is not capped



Significant ED items outside of study scope

- Presentation
- Disclosures
- Portfolio / unit of account
- Short term contracts
- Contract boundaries
- Transition
- Implementation issues
- Conflict between RA objective and RA options
- IAS39/IFRS9 Financial Instruments



Society of Actuaries Study



SOA Study – Overview

- Requested by American Academy of Actuaries for their response to IASB
- Sponsored by Financial Reporting Section to provide valuable research to its members
- To be completed November 2010
- 8 companies
- 15 submissions
- 100 page report
- To be available on SOA website:
www.soa.org/research/research-projects/life-insurance/default.aspx



SOA Study – Process

- Project Manager, PricewaterhouseCoopers (PwC)
- Actuarial Task Forces (ATF)
- Explicit Instructions
- Spreadsheet Template
- Conference Calls for Instructions and Questions
- Calculations by ATFs
- Review by PwC
- Overview by Section's Project Oversight Group
- Preparation of draft then final report
- Webcast



Participating ATFs

- Deloitte
- Manulife
- AFLAC
- Ernst & Young
- PolySystems
- New York Life
- Jackson National
- AIG
- Great American
- Lincoln National
- And others



SOA Study – Products

- Traditional Life (Term)
- Traditional Life (Participating)
- Universal Life (UL), with and w/o Guarantees
- Single Premium Fixed Deferred Annuity (SPDA)
- Variable Deferred Annuity with and w/o Guar's
- Single Premium Immediate Annuity (SPIA)
- Long-term Care (LTC)
- Supplemental Health (Medical)
- Equity Indexed Annuity



SOA Study – Deliverables

- New Business Only (one year's issues)
- US GAAP – Balance Sheet and Income Statement
- IFRS – Balance Sheet and Income Statement
- Alternative Scenarios
- Observations – why results are what they are
- Observations – areas where new or more research is needed



Variations Requested

- Include/exclude acquisition costs
- Composite margin
- Investment / Discount rate
- Change in estimate after issue
- Change in experience after issue
- Alternative levels of RA (200% of CofC)
- Alternative RA methods

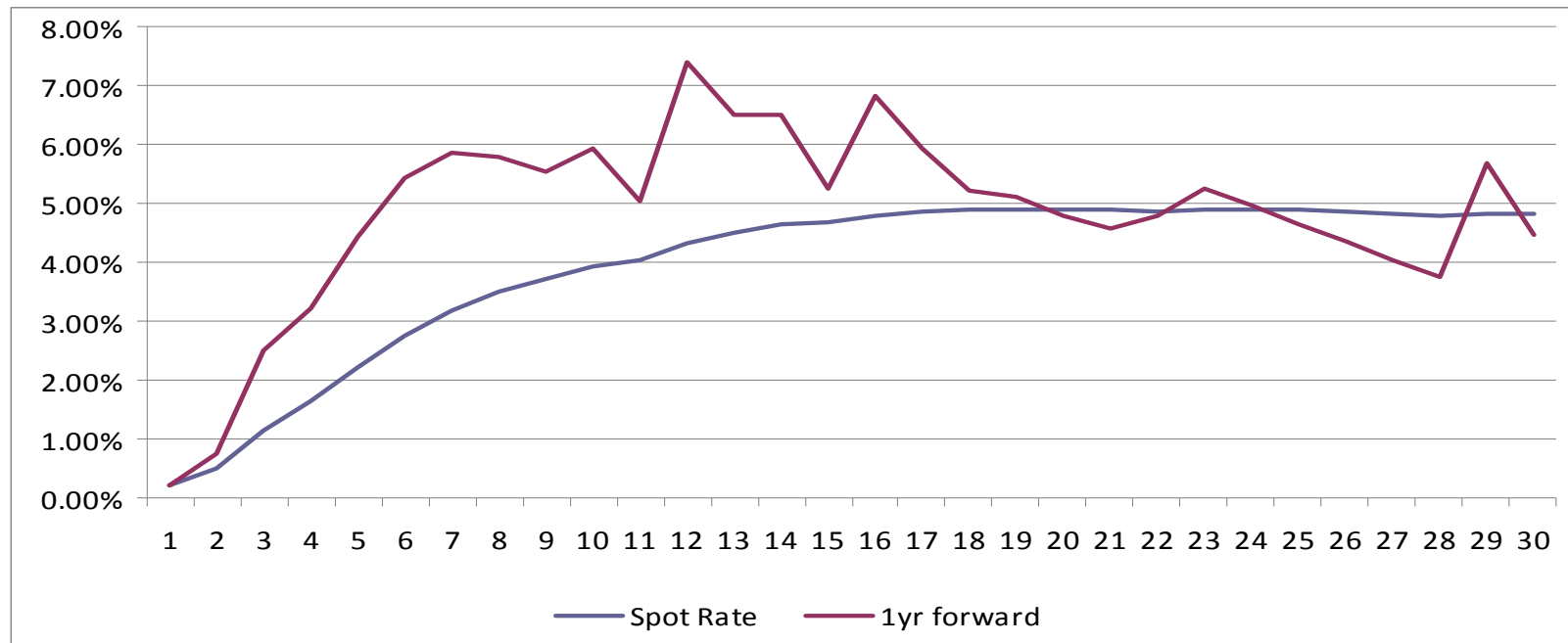


Discount Rates

- Risk-Free Rates
- Illiquidity Premium
- Par WL, variable annuity use investment earned rate
- No adjustment for own credit risk



Risk-Free Discount Rates



June 30 2009 one year forward rates were smoothed to remove anomalous pattern



Illiquidity Adjustment to Discount Rates

- .73 basis points for SPIA
- .37 basis points for all other products
- Based on May 2010 study by Groupe Consultatif in Europe
- Not an adjustment for “own credit risk” or “non-performance”



Risk Adjustment Choices

- Confidence Interval (CI)
- Conditional Tail Expectation (CTE)
- Cost of Capital (C of C)

- We used C of C



Risk Adjustment – Cost of Capital Calculation

Risk Adjustment liability equals

Present Value of

Cost of Capital rate \times capital needed in year t

Where

PV uses discount rate from the scenario,

Cost of capital rate is 6%, and

Capital need in year t comes from factors on next slide



Risk Adjustment Capital Factors

Fixed Annuity and Immediate Annuity: 2.3% of Account Value plus 6.16% of premium

Par WL and UL: 2.3% of claims plus 1.8% of face amount plus 6.16% of premium

Term life: 1.8% of face plus 6.16% of premium

Supplemental Health: 10% of claims plus 8.54% of premium

Long Term Care: 15.4% of Claims plus 47.74% of premiums



Risk Adjustment Calibration

- The Base Line used 200% of CAL (Company Action Level) of U.S. RBC which represents an estimate of a component of economic capital
- For perspective,
 - Most companies are at 300 to 750%
 - An A company is 300%
 - Company Action is required at 100%
- But remember, we don't incorporate economic cost of investments and financial risk (credit risk and ALM), which regulatory capital does include
- Remeasured each period



Residual Margin

- Amount needed to avoid profit at issue
- Is a “plug” based on level of Current Estimate plus Risk Adjustment
- Cannot be negative
- Amortized by ratio of PV expected benefits at time t divided by PV expected benefits at issue
- Accretes with interest, using the discount rates in effect at issue



Composite Margin

- Not for IASB but for FASB
- Equates to Risk Adjustment plus Residual Margin
- Amortization without interest accretion
- Amortization based on premiums and claims



Other Basic Assumptions

- Investment Income – Based on GAAP Net Assets
- No reflection of volatility due to asset fair value valuation
- Investment Earned Rate – based on ATF pricing assumptions
- Pre-tax
- Earnings paid out as Shareholder Dividend Annually
- Base studies – actual experience equals expected

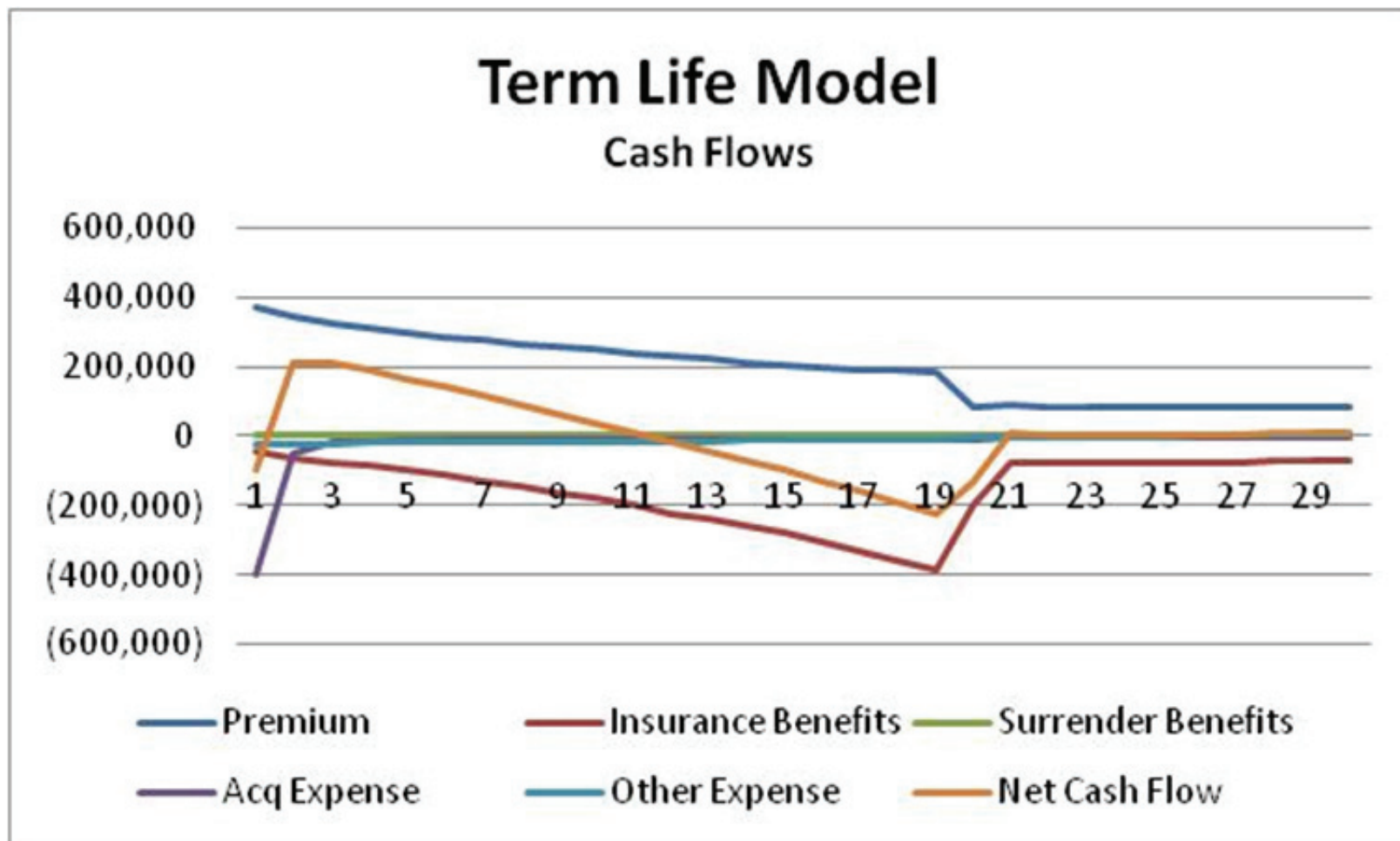


Term Life Product

- 20 Year Level Term with ART Rates Starting Year 21
- One year's issues
- No reinsurance

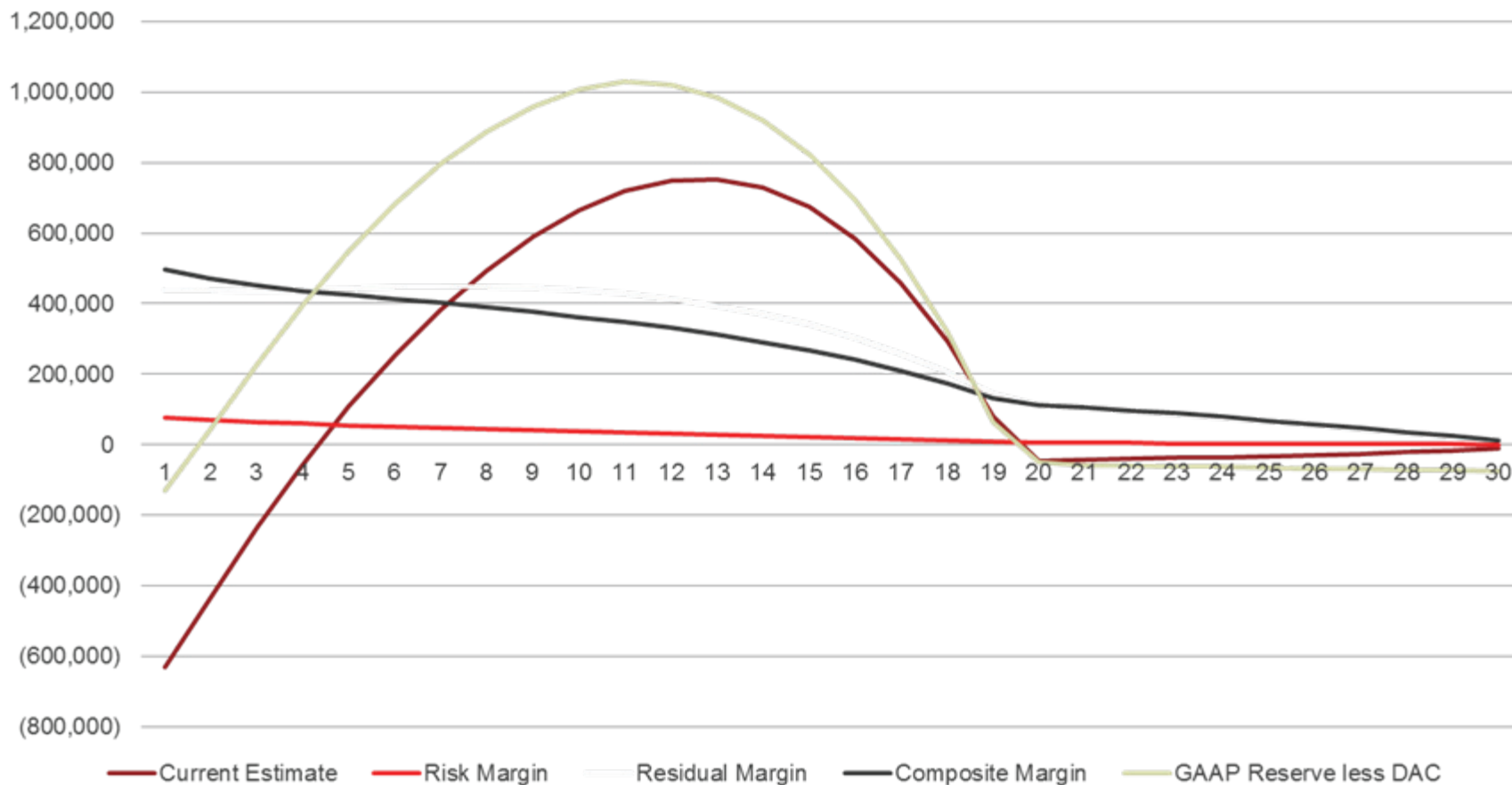


Term Life – Cash Flows

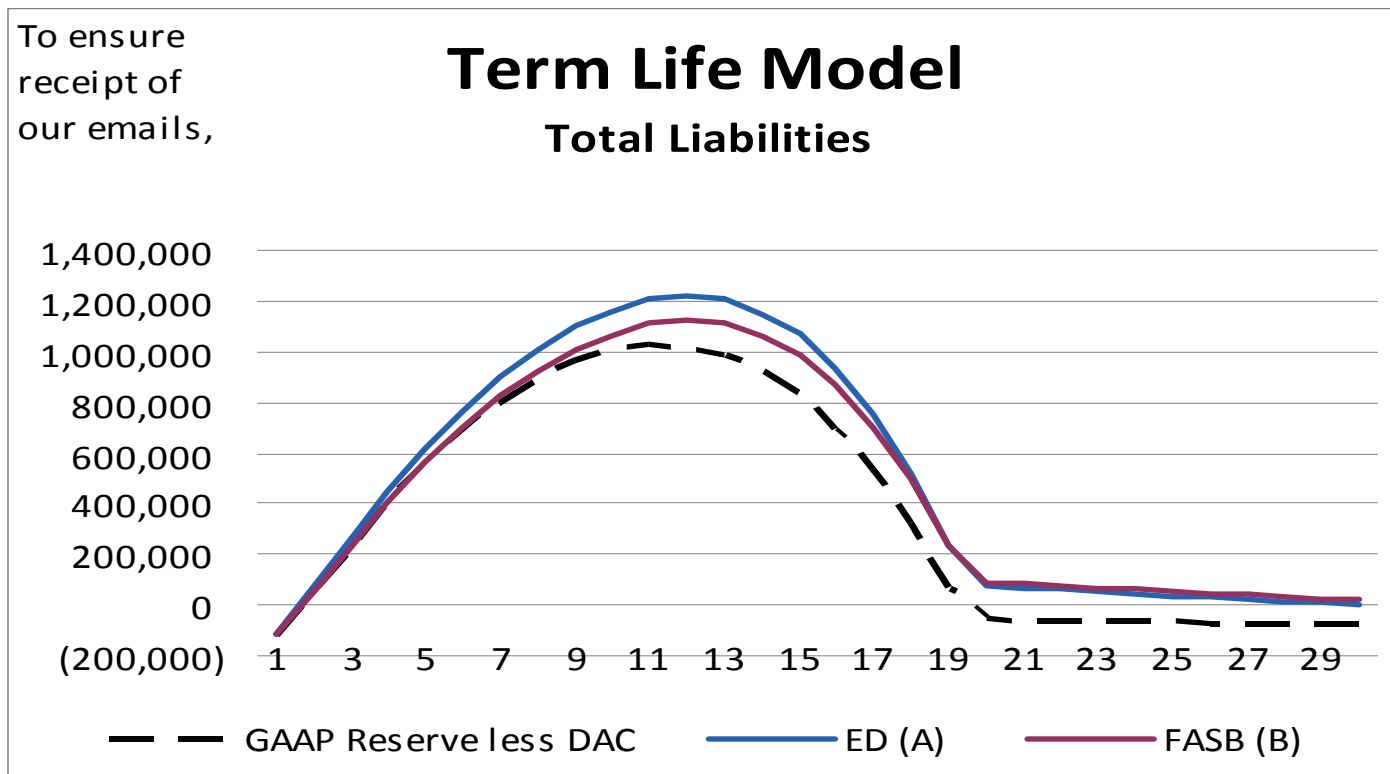


Term Life – Liability Components

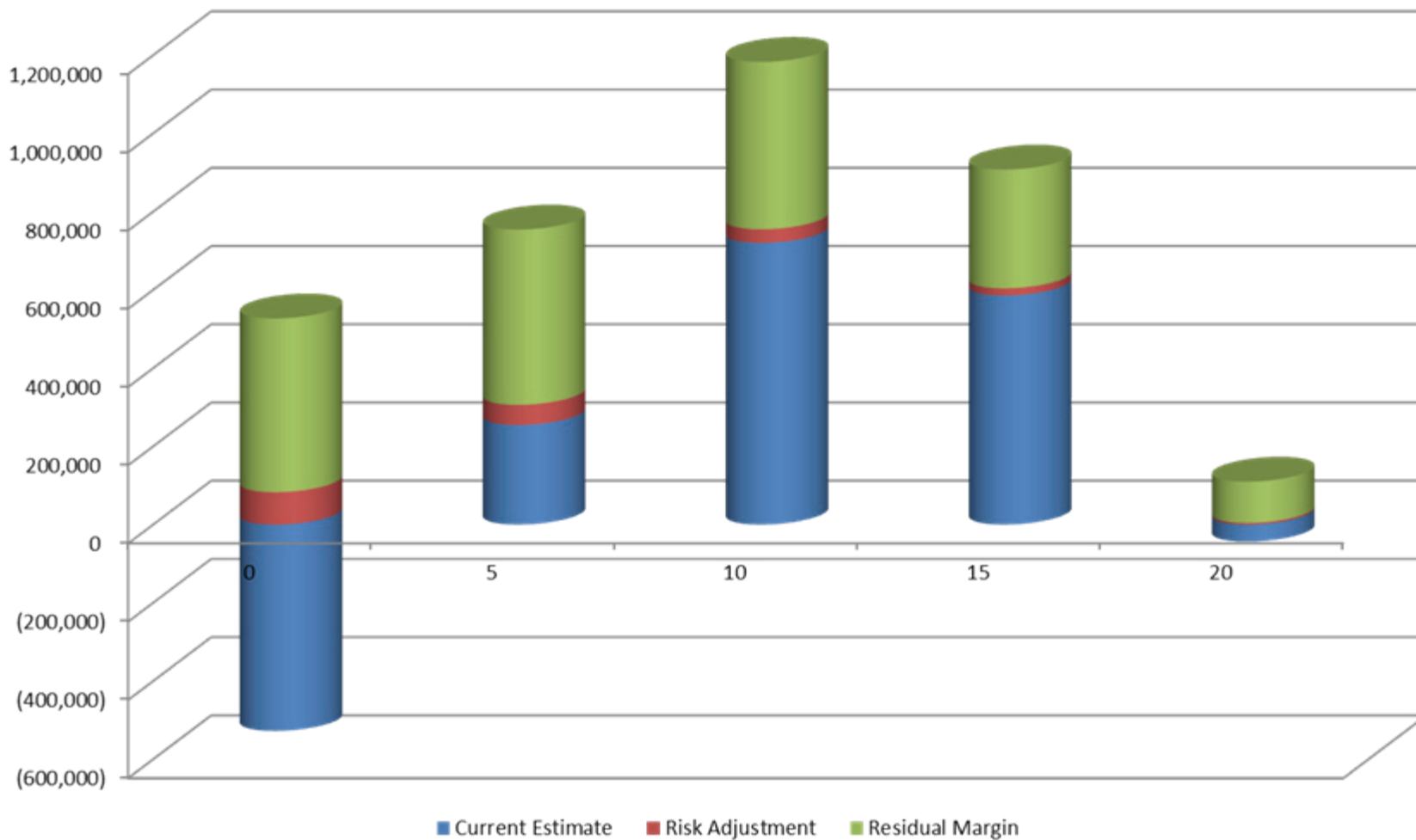
Term Life Model
Liabilities



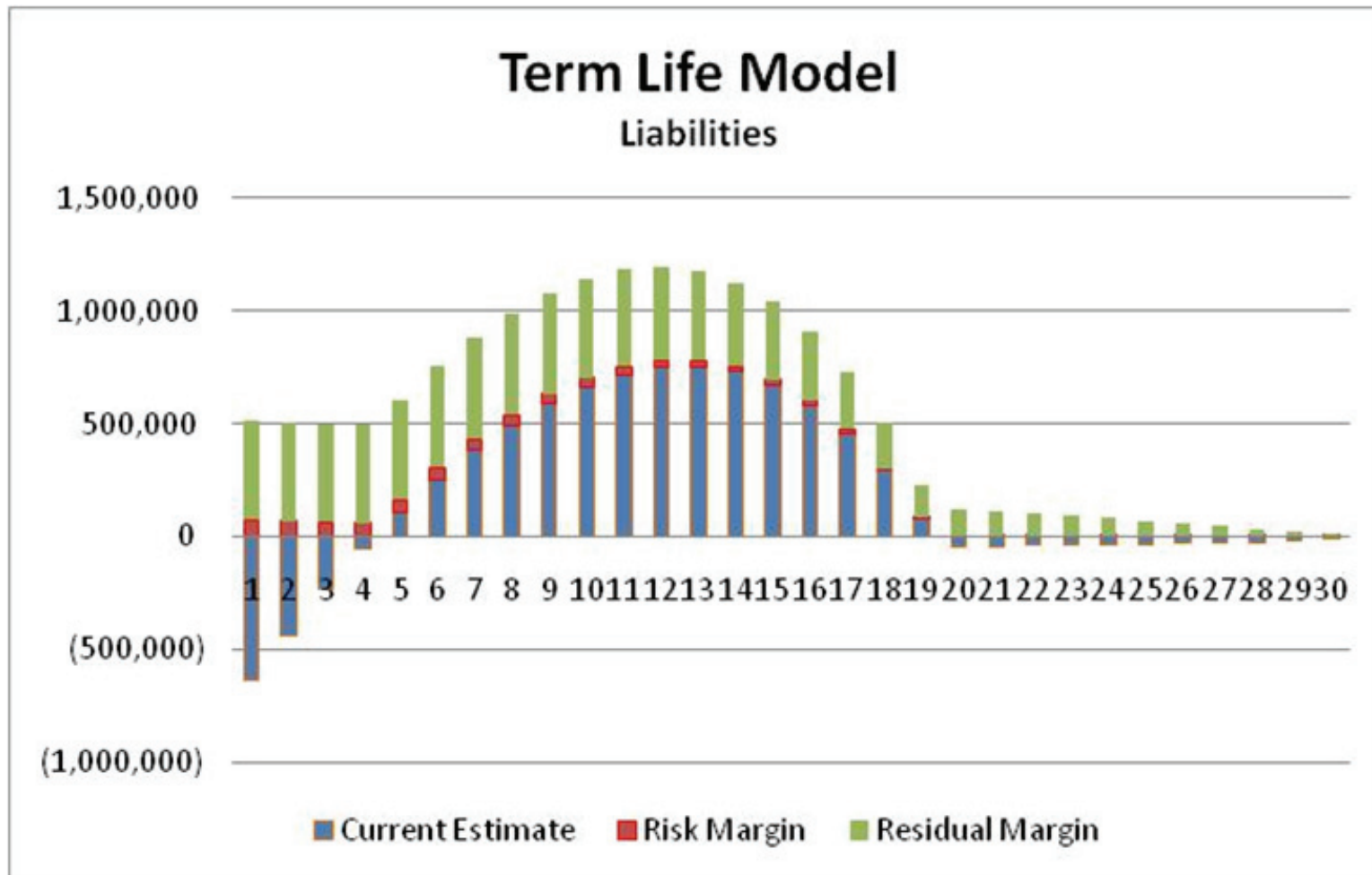
Term Life Liabilities – 3 Models



Term Life Liability Components

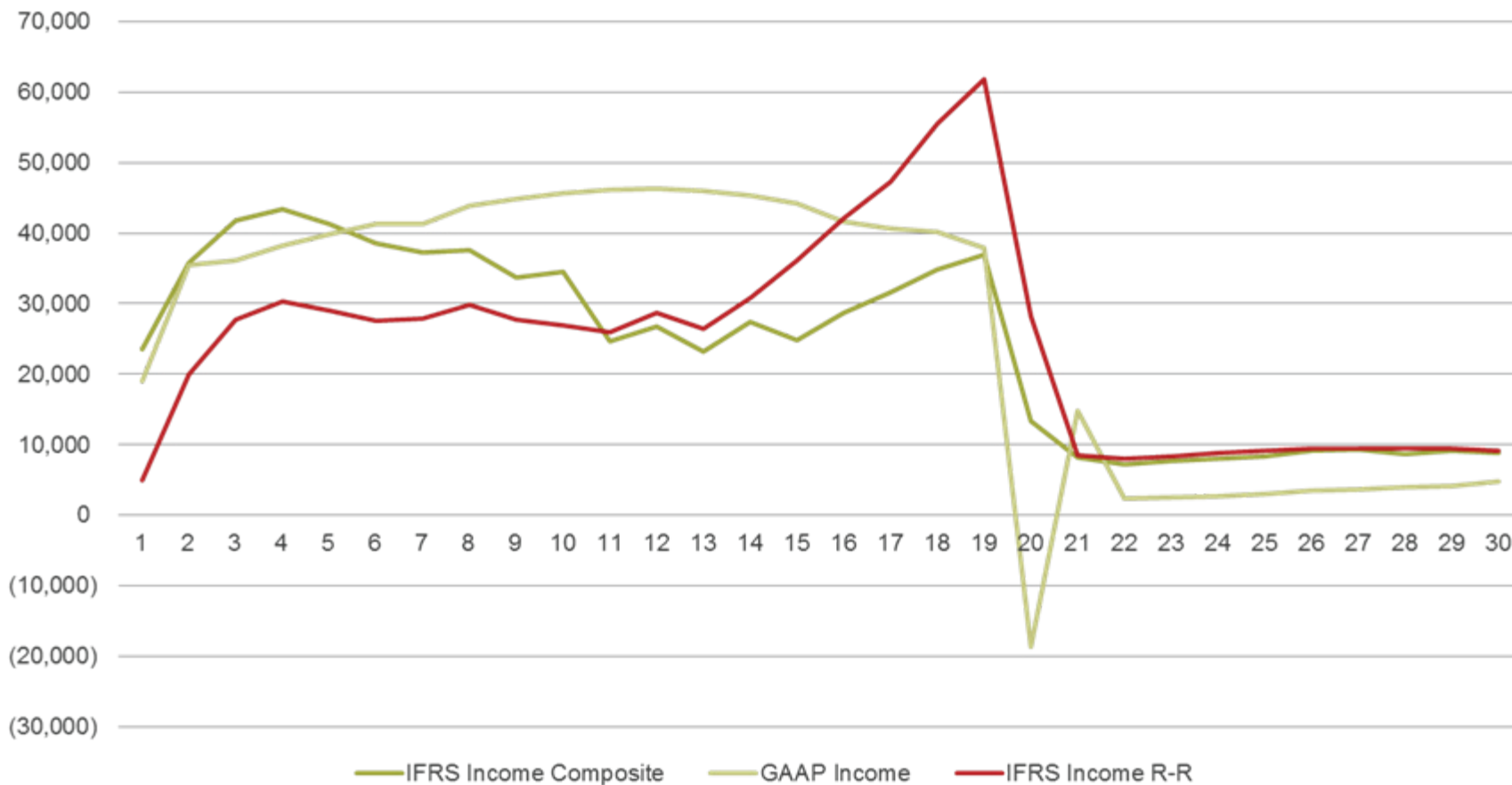


Term Life Liability Components

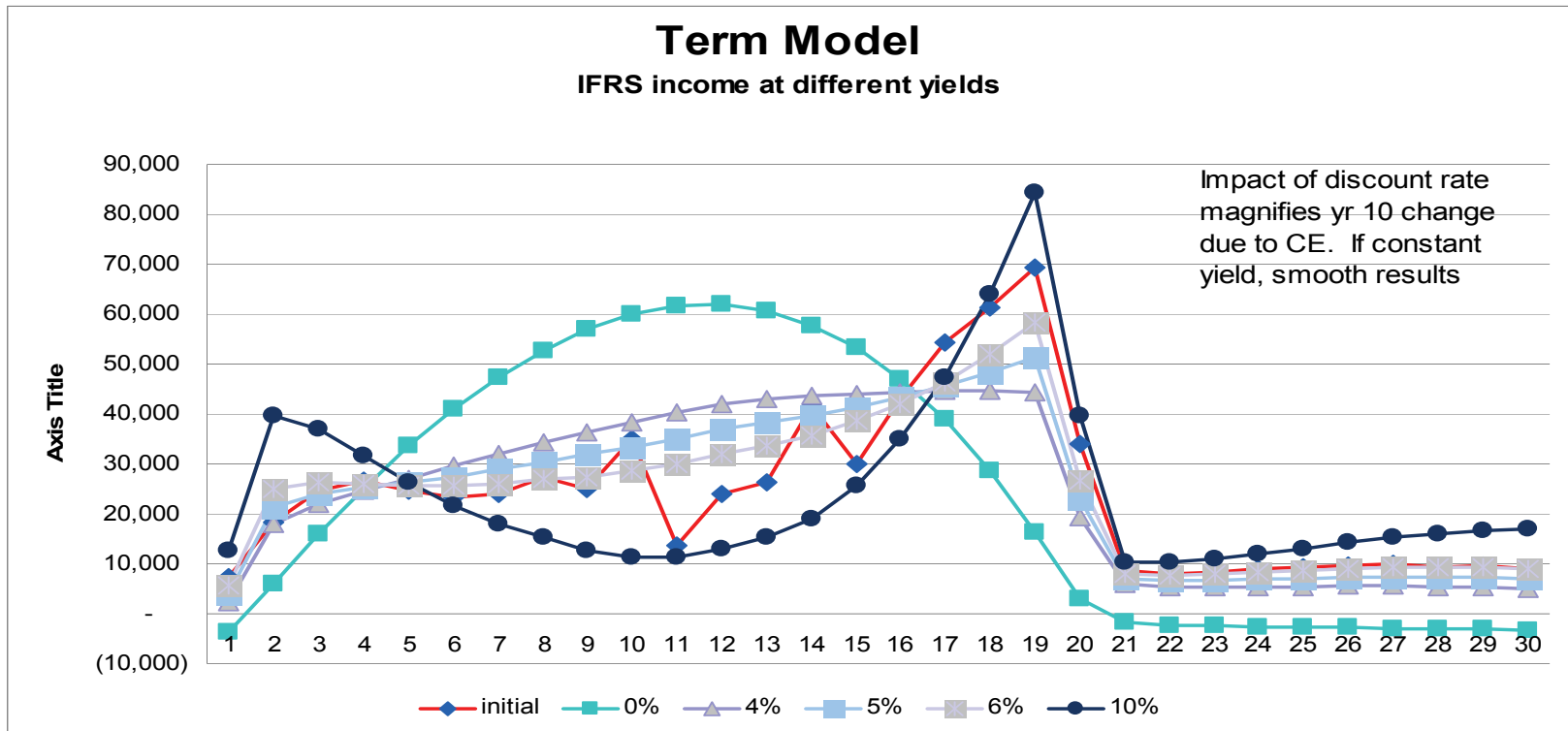


Term Life Income Comparison

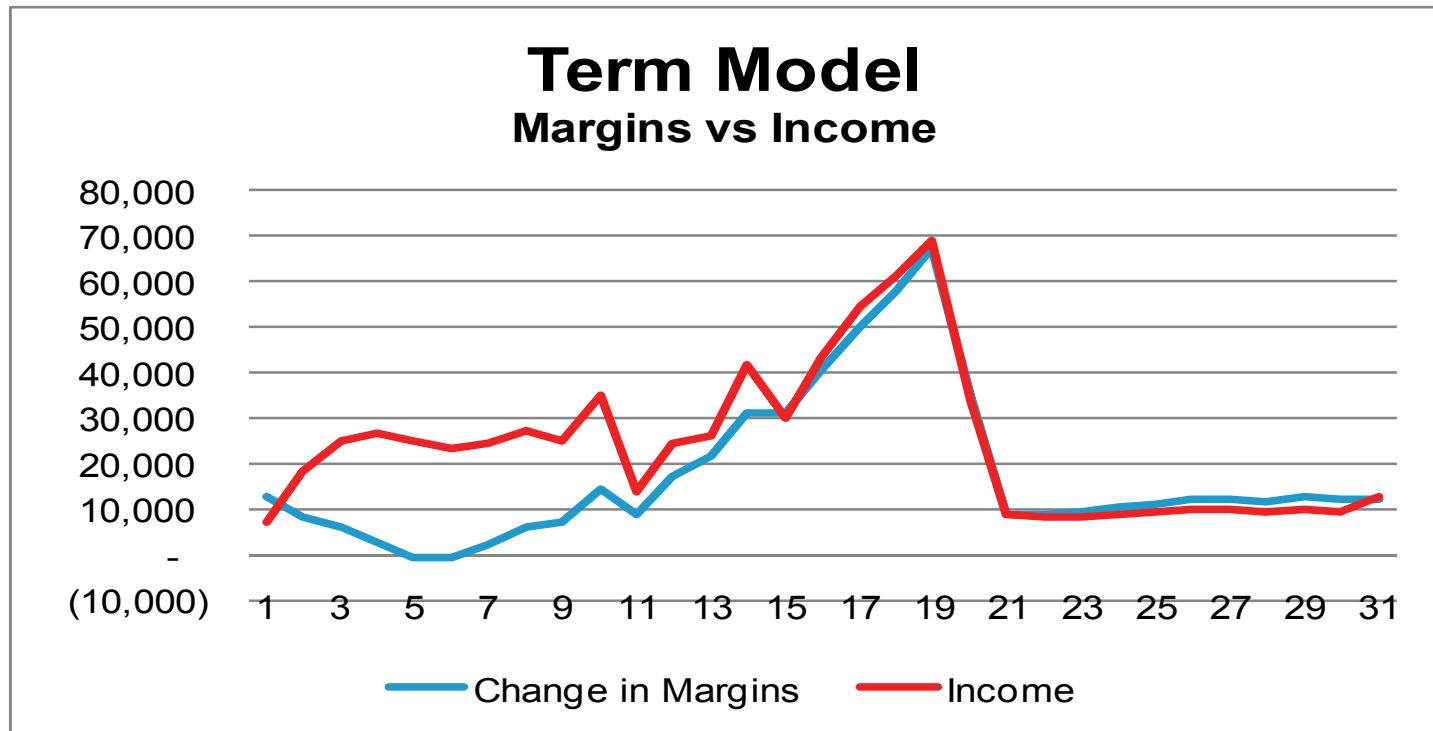
Term Life Model
Income Comparison



Term Life – Impact of Discount Rates



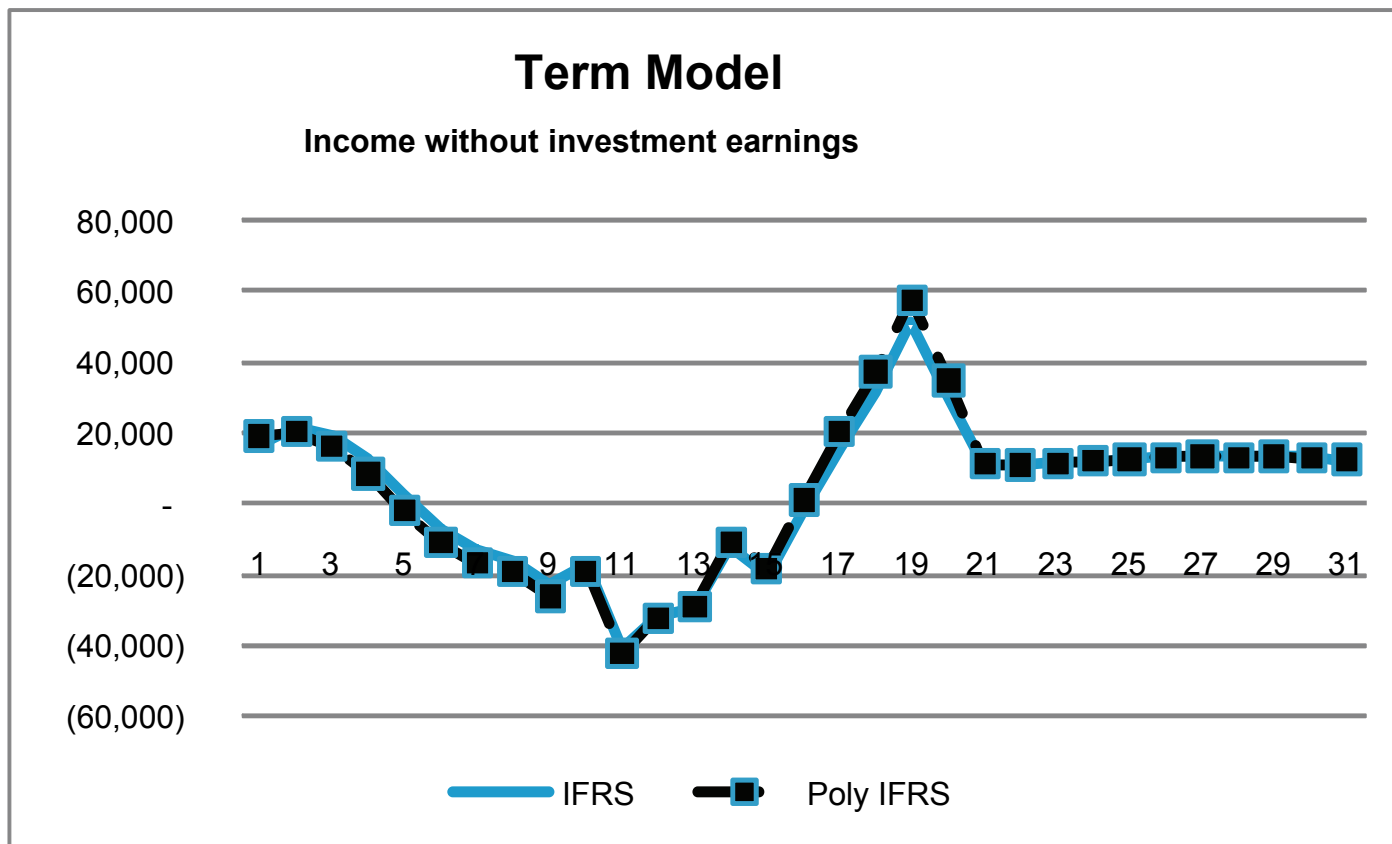
Term Life IFRS Margins vs. Income



Term Life – Results Verification

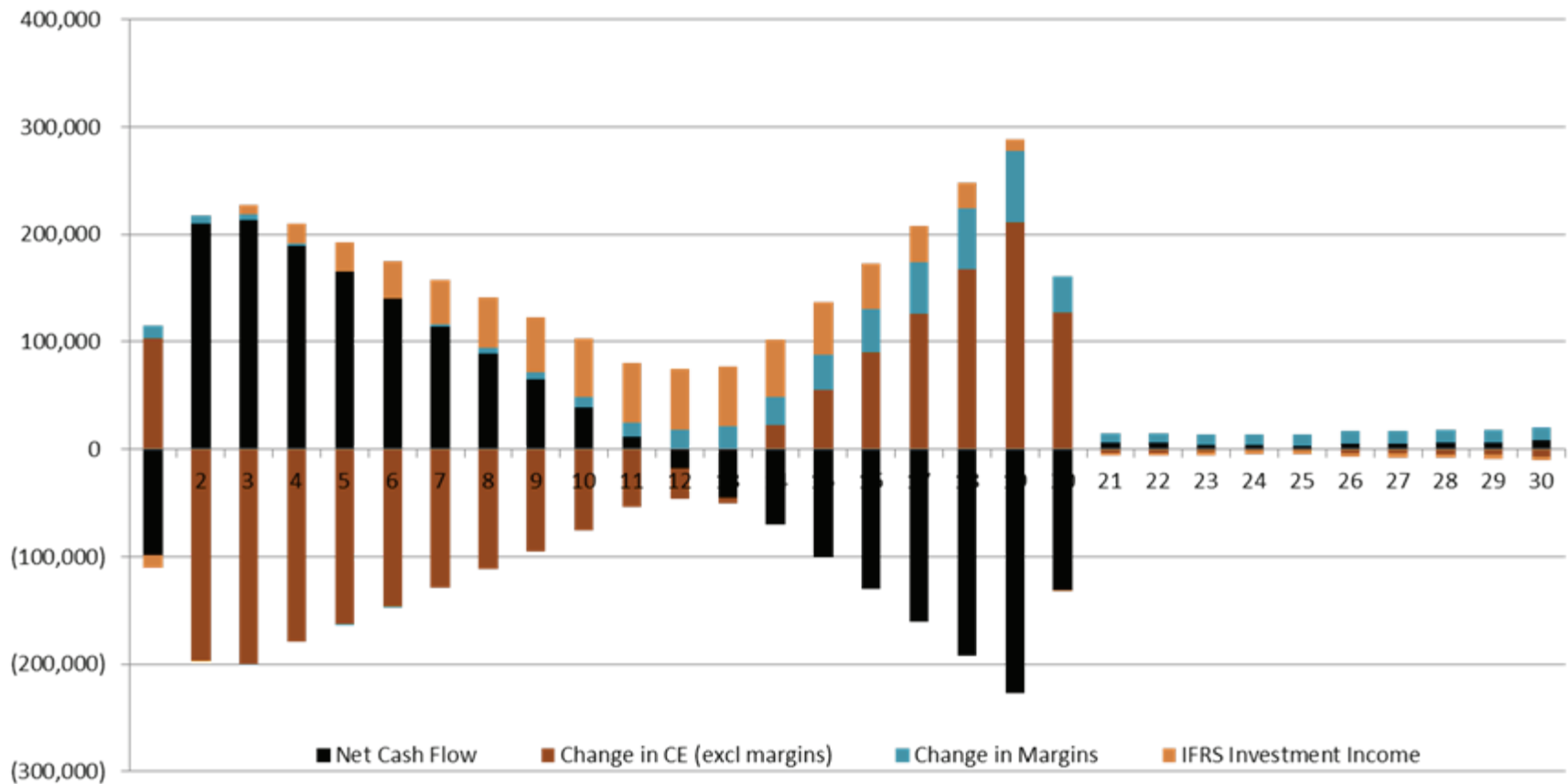
Solid – Margin change only;

Box – earned rate is discount rate; assets equal IFRS liability



Term Life IFRS income components

Term Life

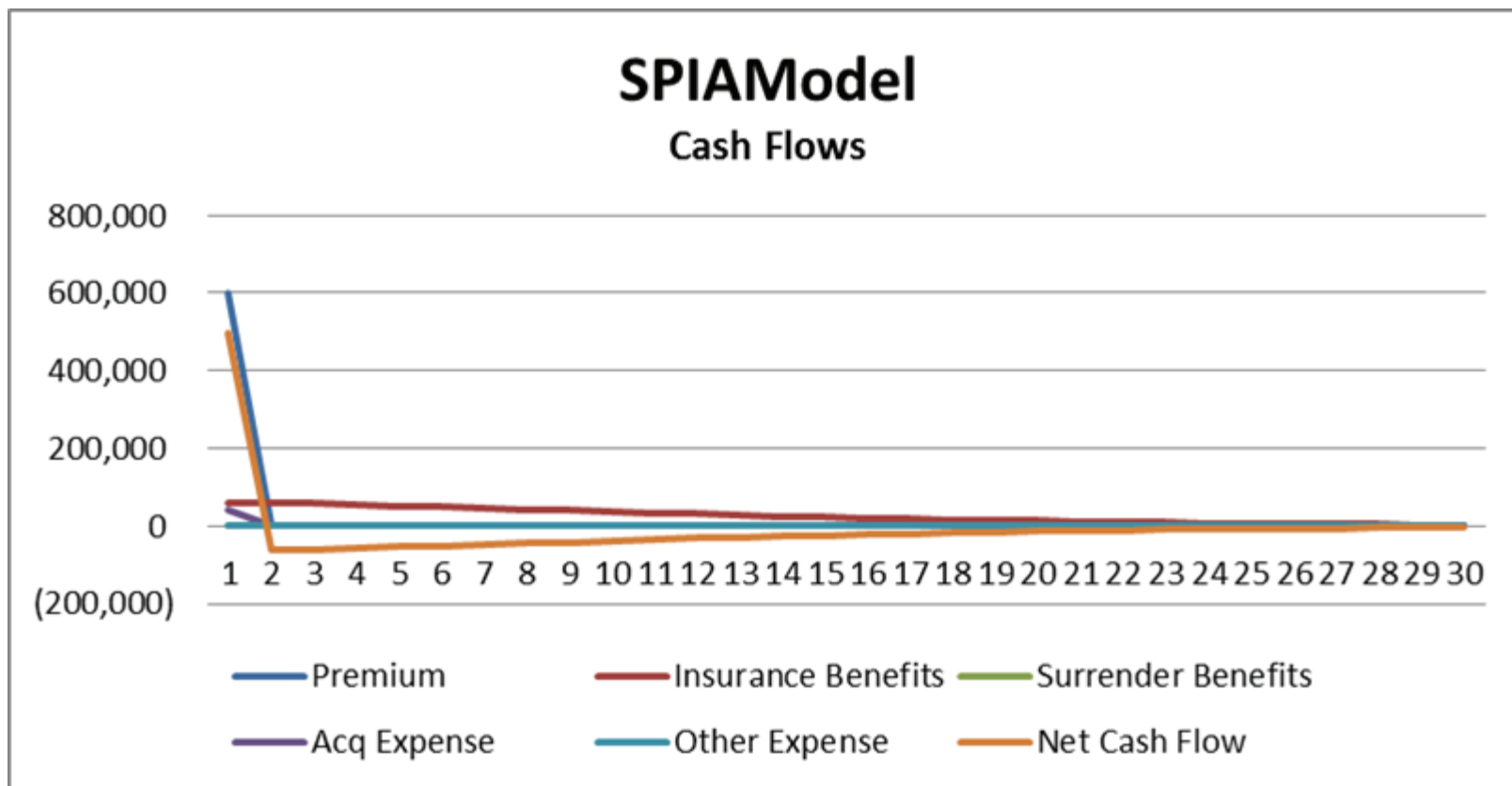


Single Premium Income Annuity

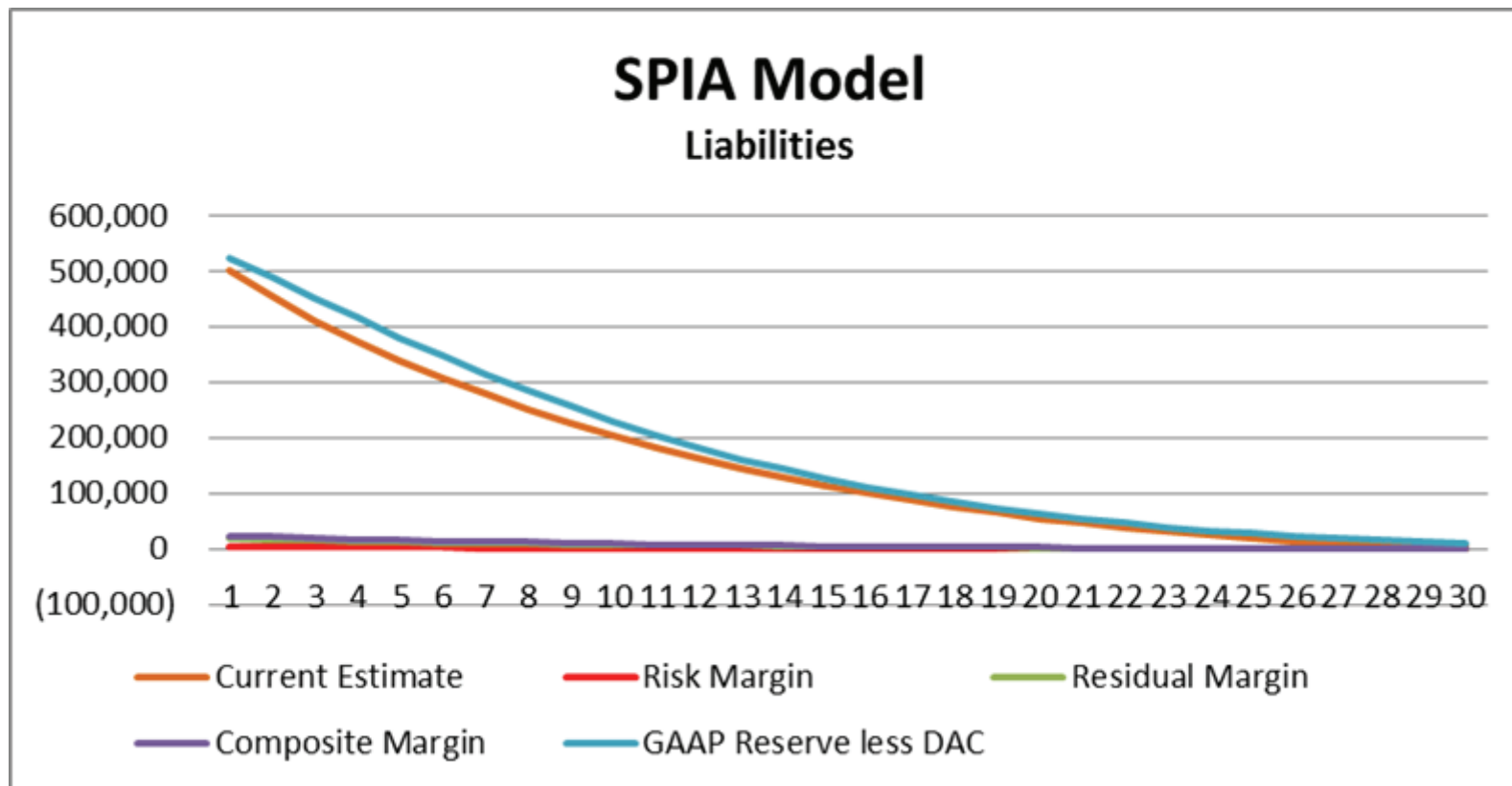
- Six cells: male, female; 65, 75 & 85
- All life only



SPIA Cash Flows

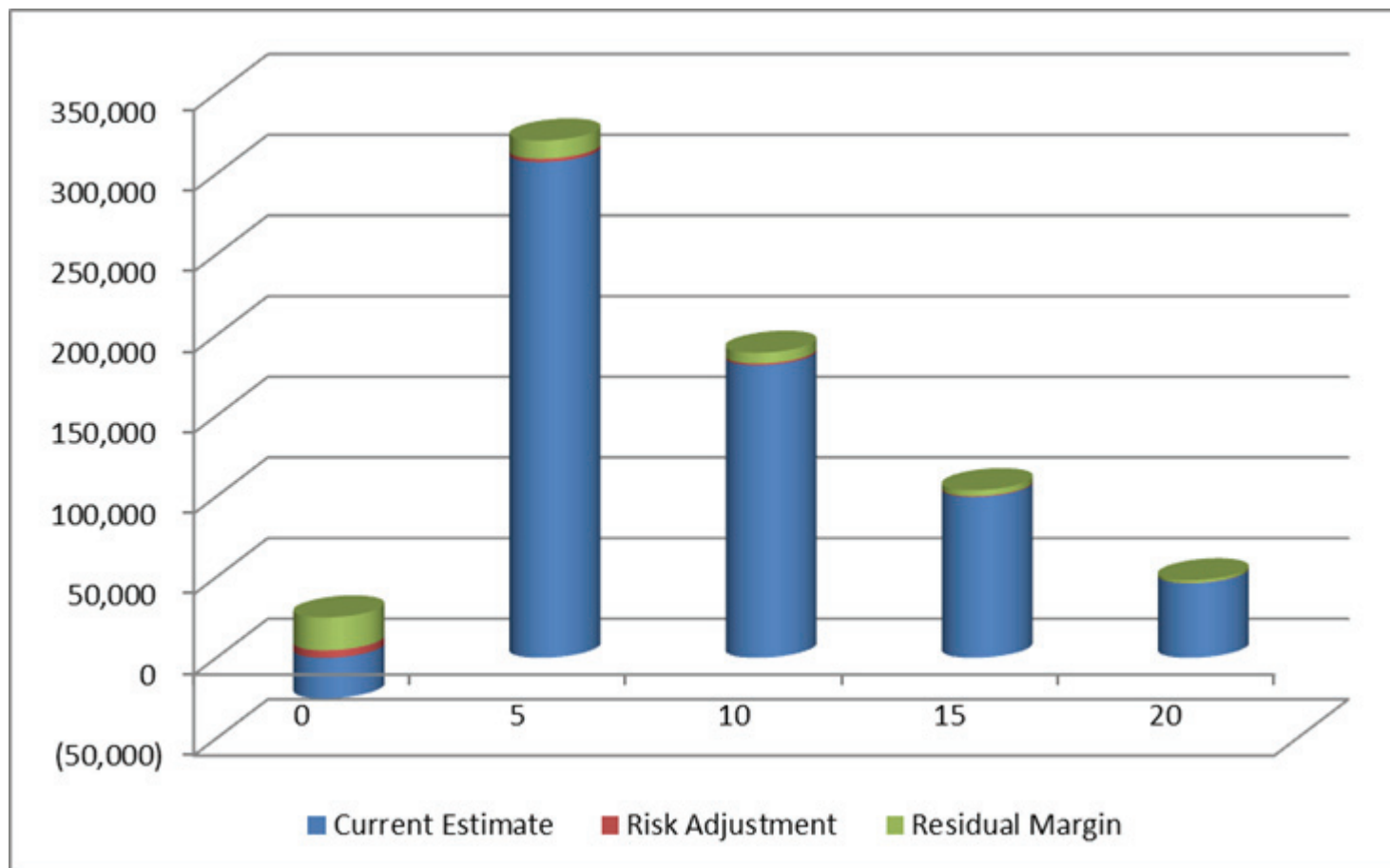


SPIA Liability Comparison



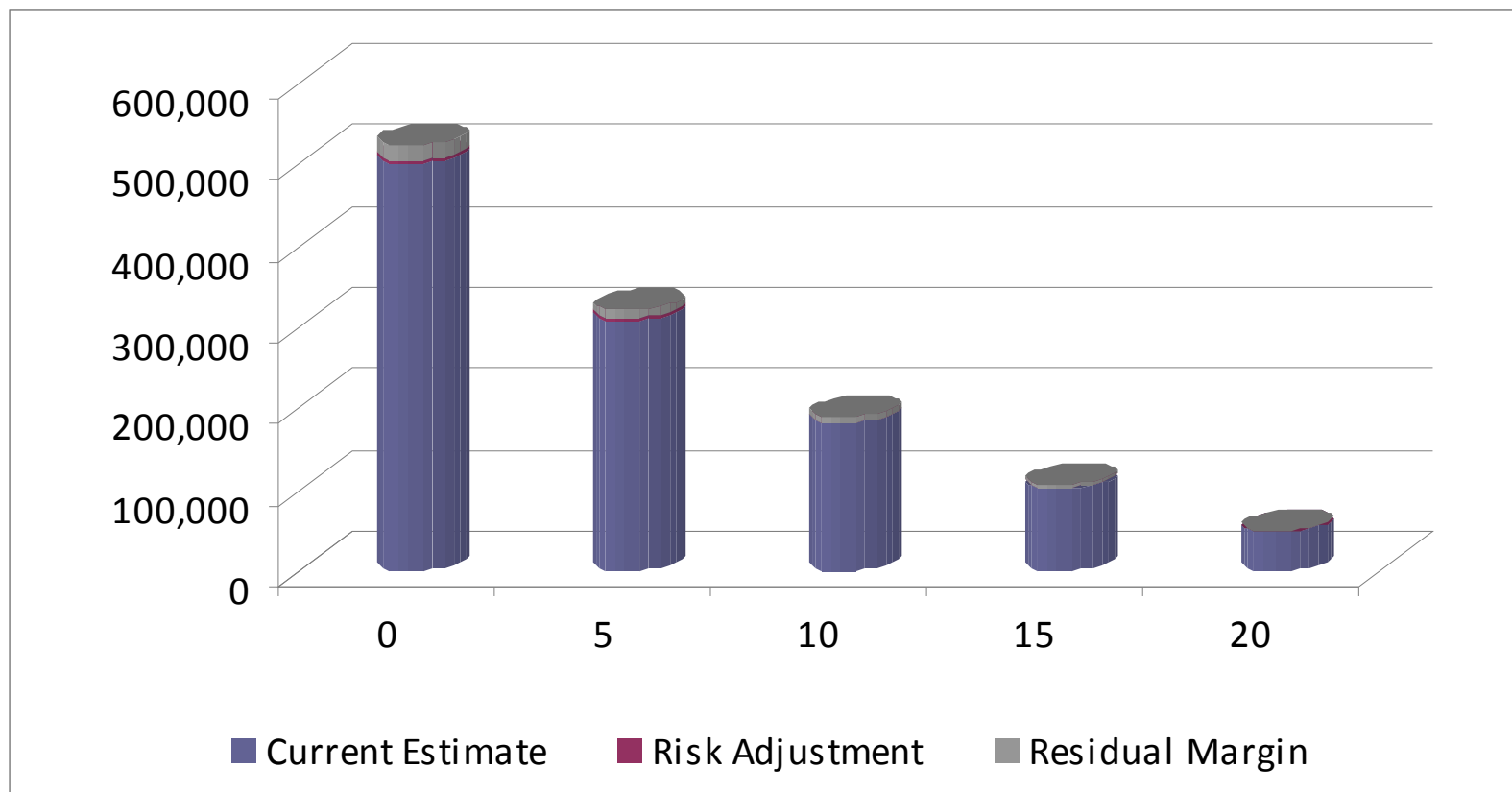
SPIA Liability Components

time zero is one second before issue

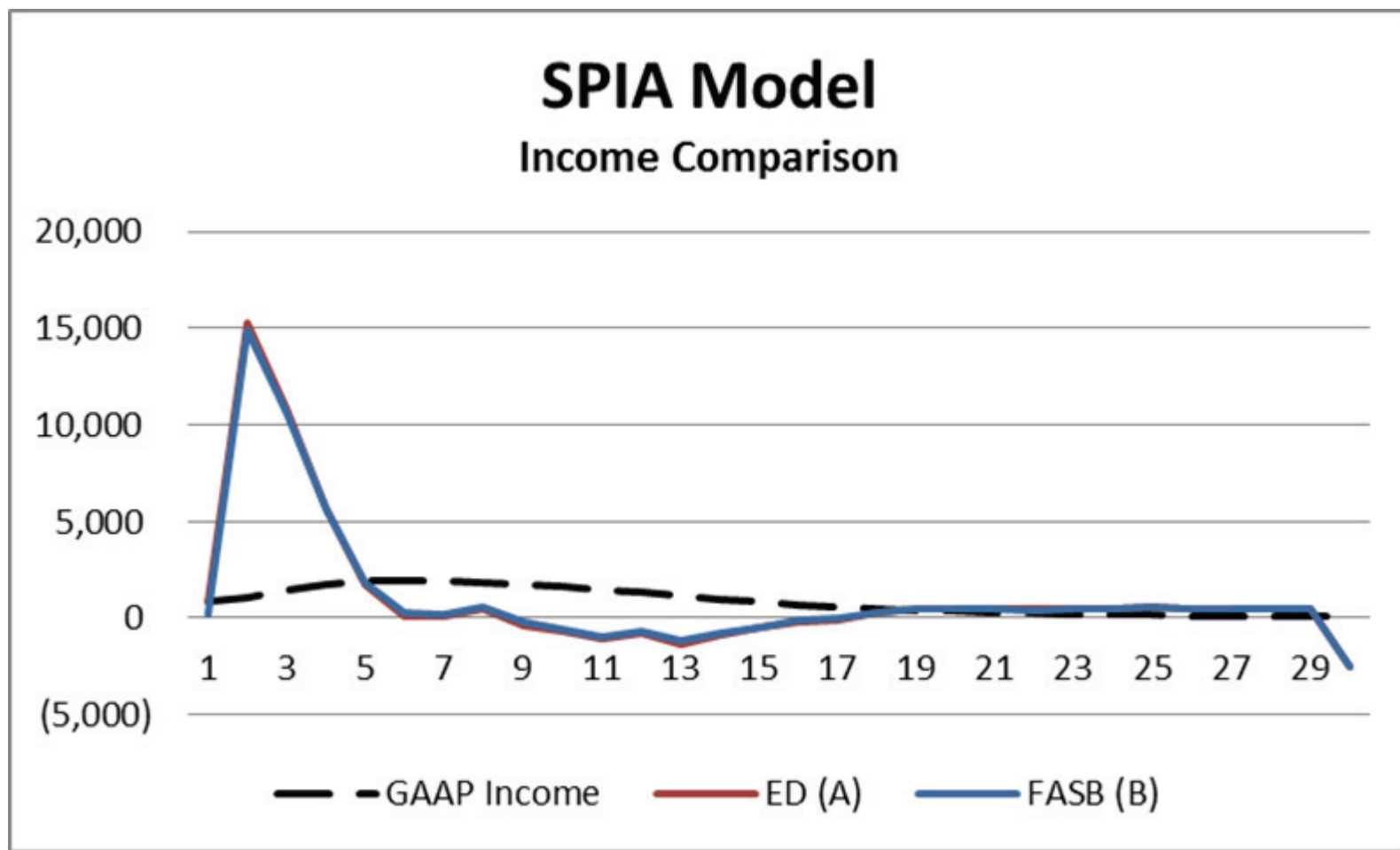


SPIA Liability Components

time zero is one second after issue



SPIA Income Comparison

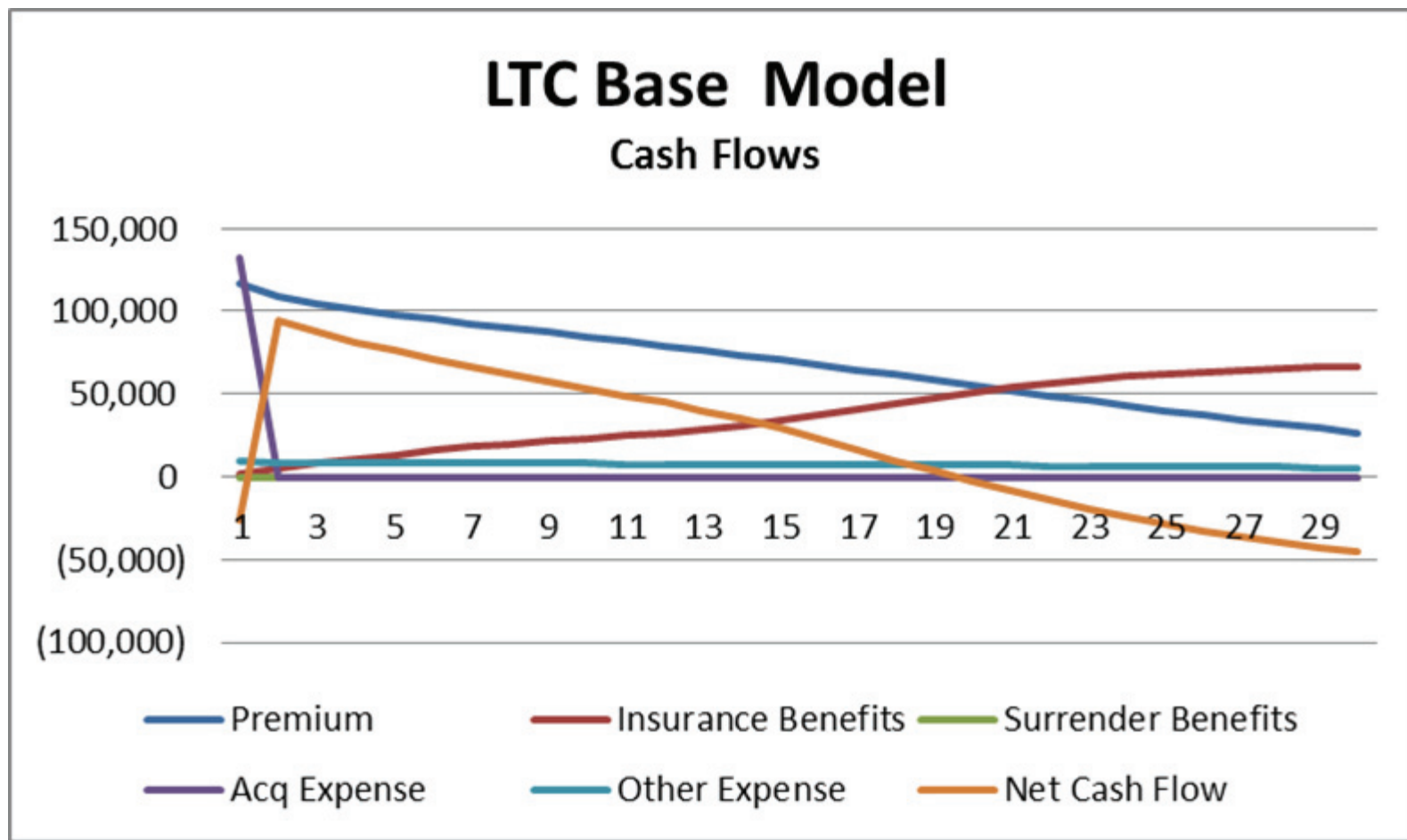


Long Term Care (LTC) Product Features

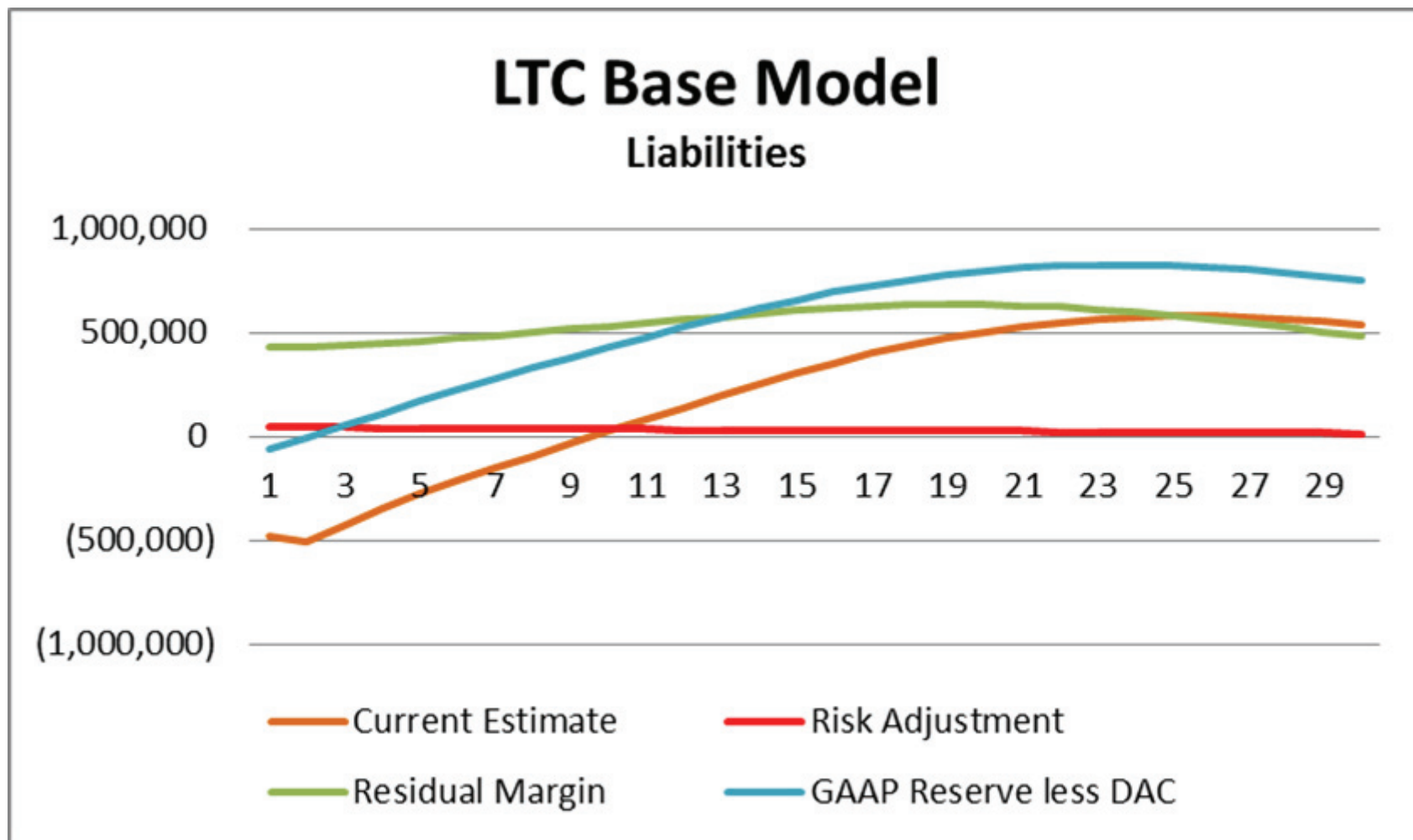
- A health type policy, paying an annuity-type benefit based on poor health
- Premiums to age 100
- Benefits to age 115
- Issue ages 45, 55 and 65



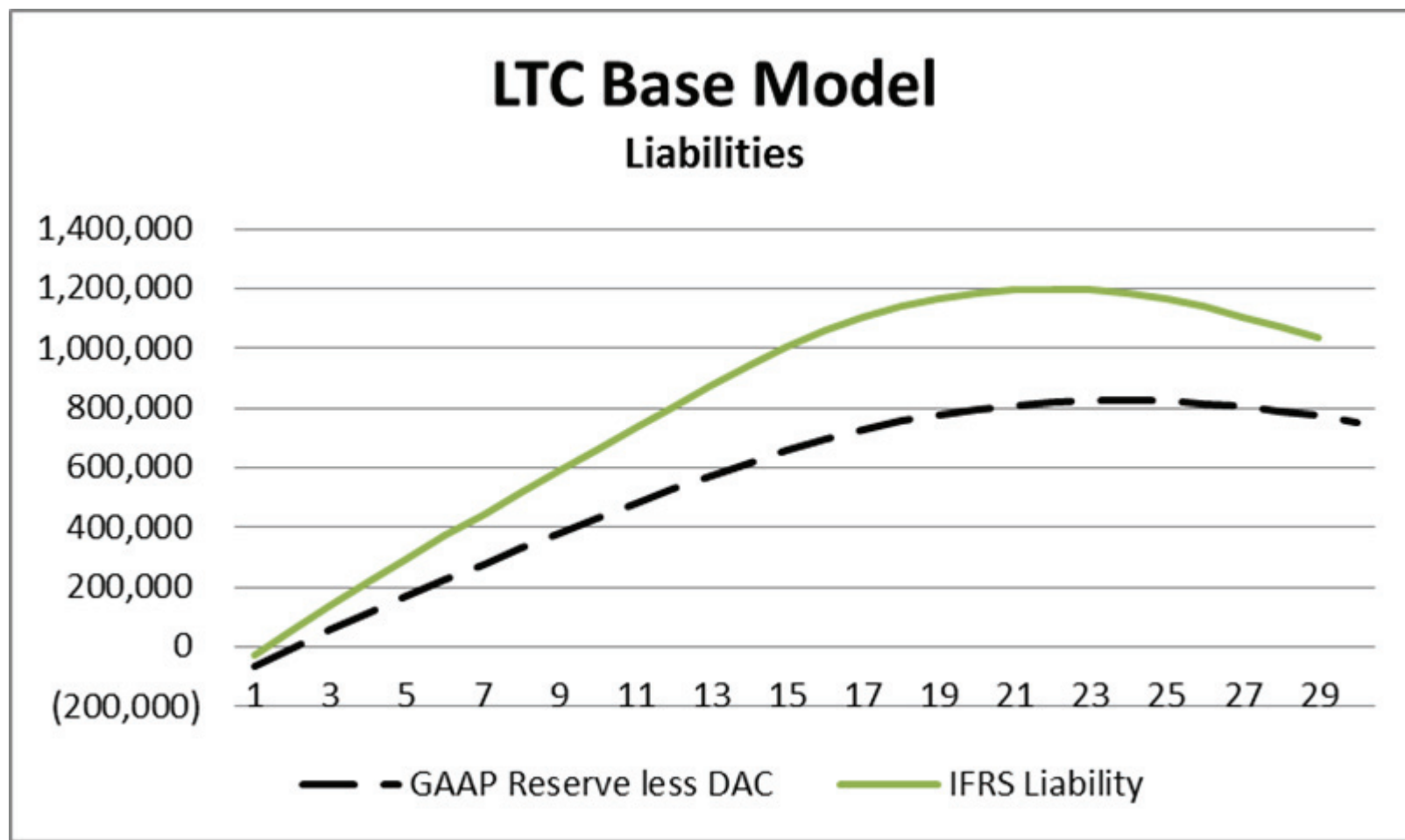
LTC Contract Cash Flows



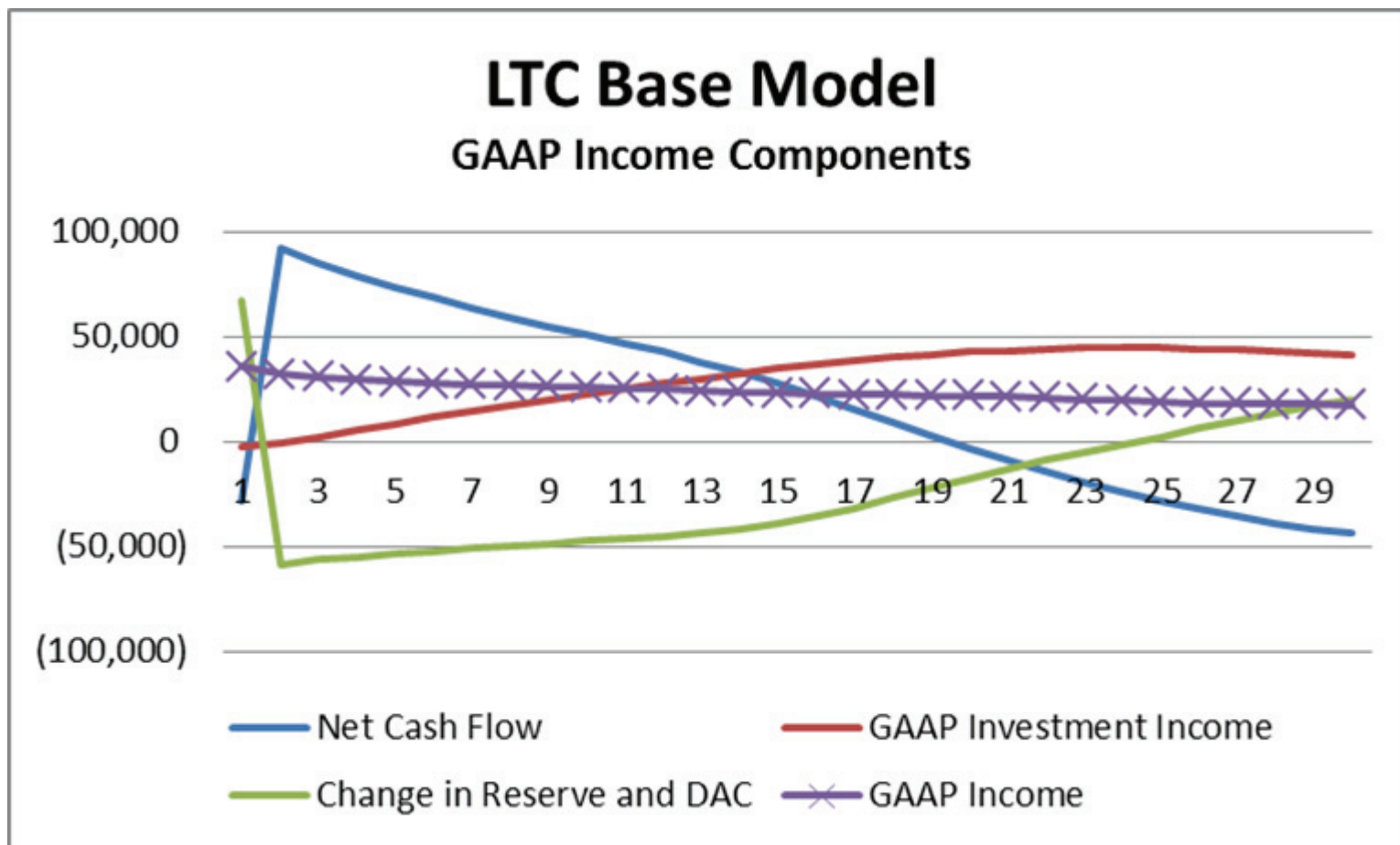
LTC Comparative Liability Levels



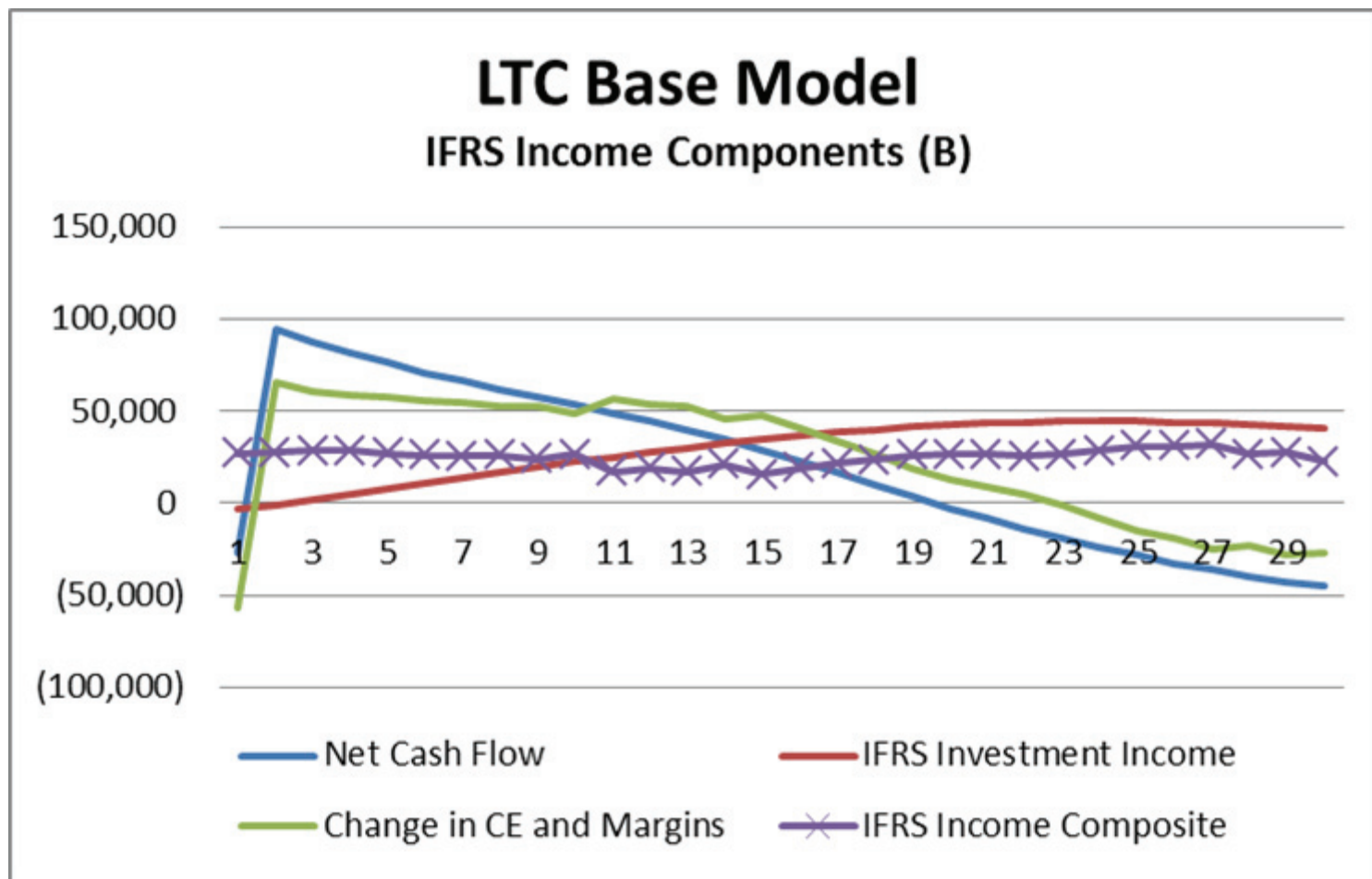
LTC Total Liabilities



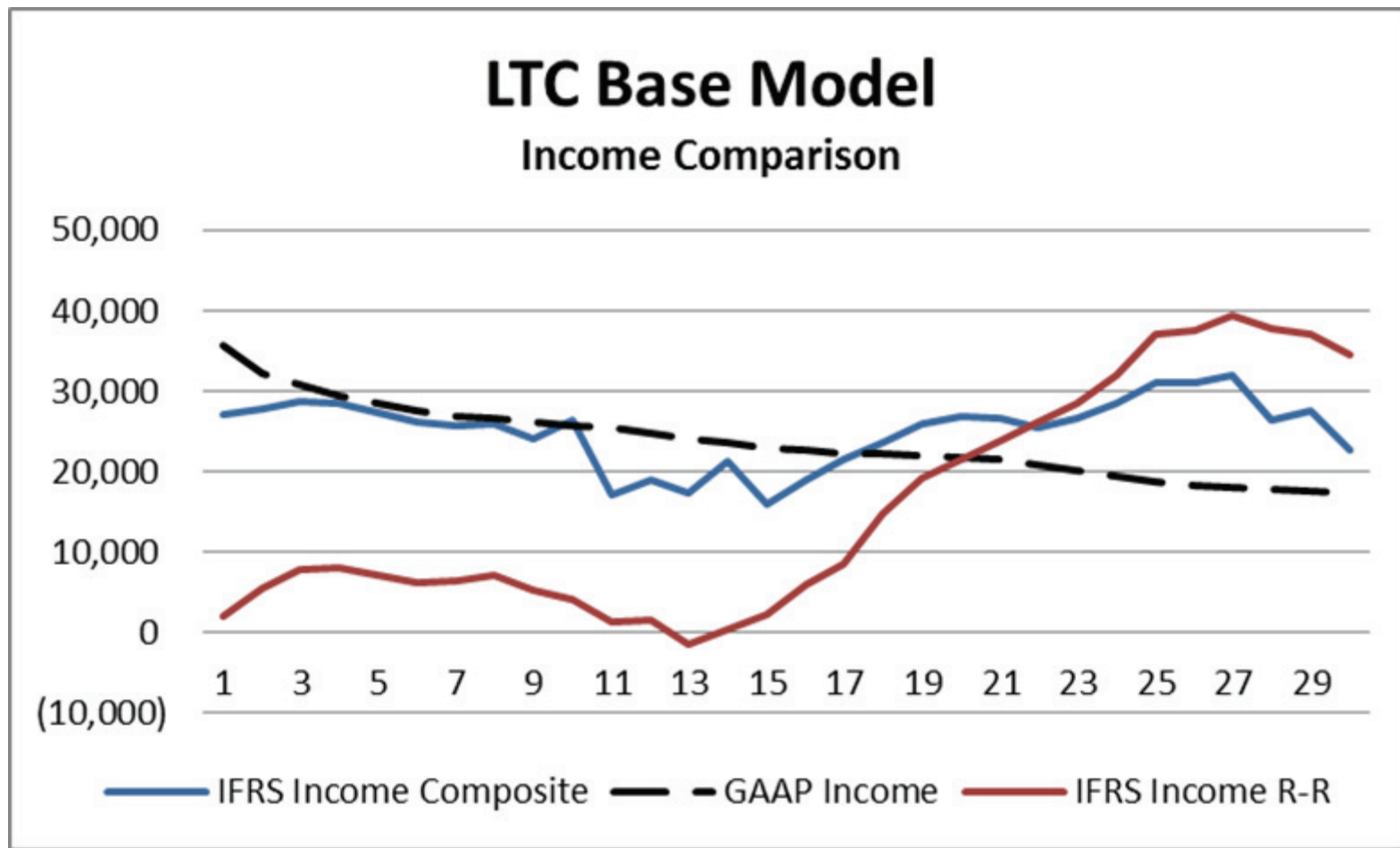
LTC Elements of GAAP Income



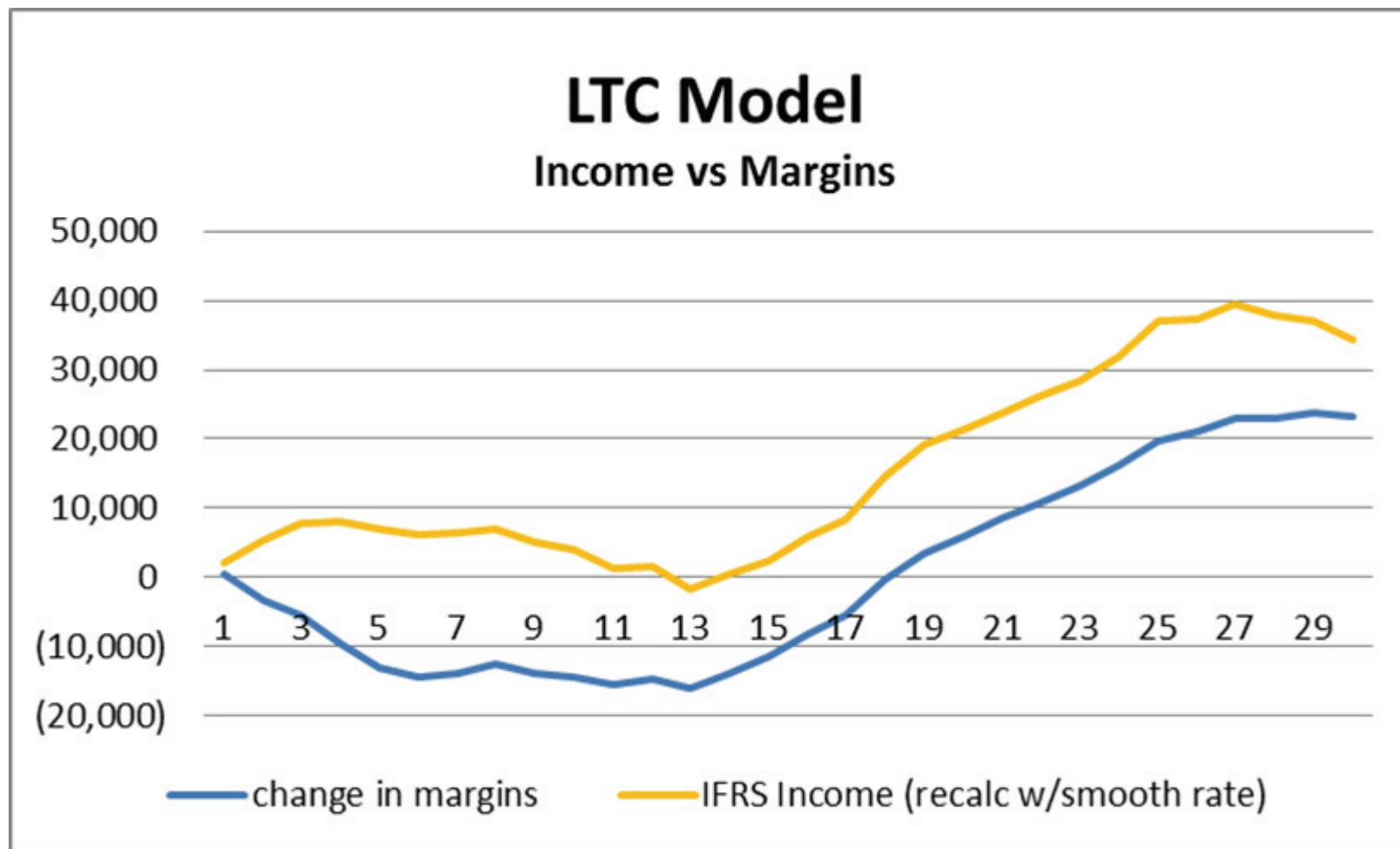
LTC Components of IFRS Income



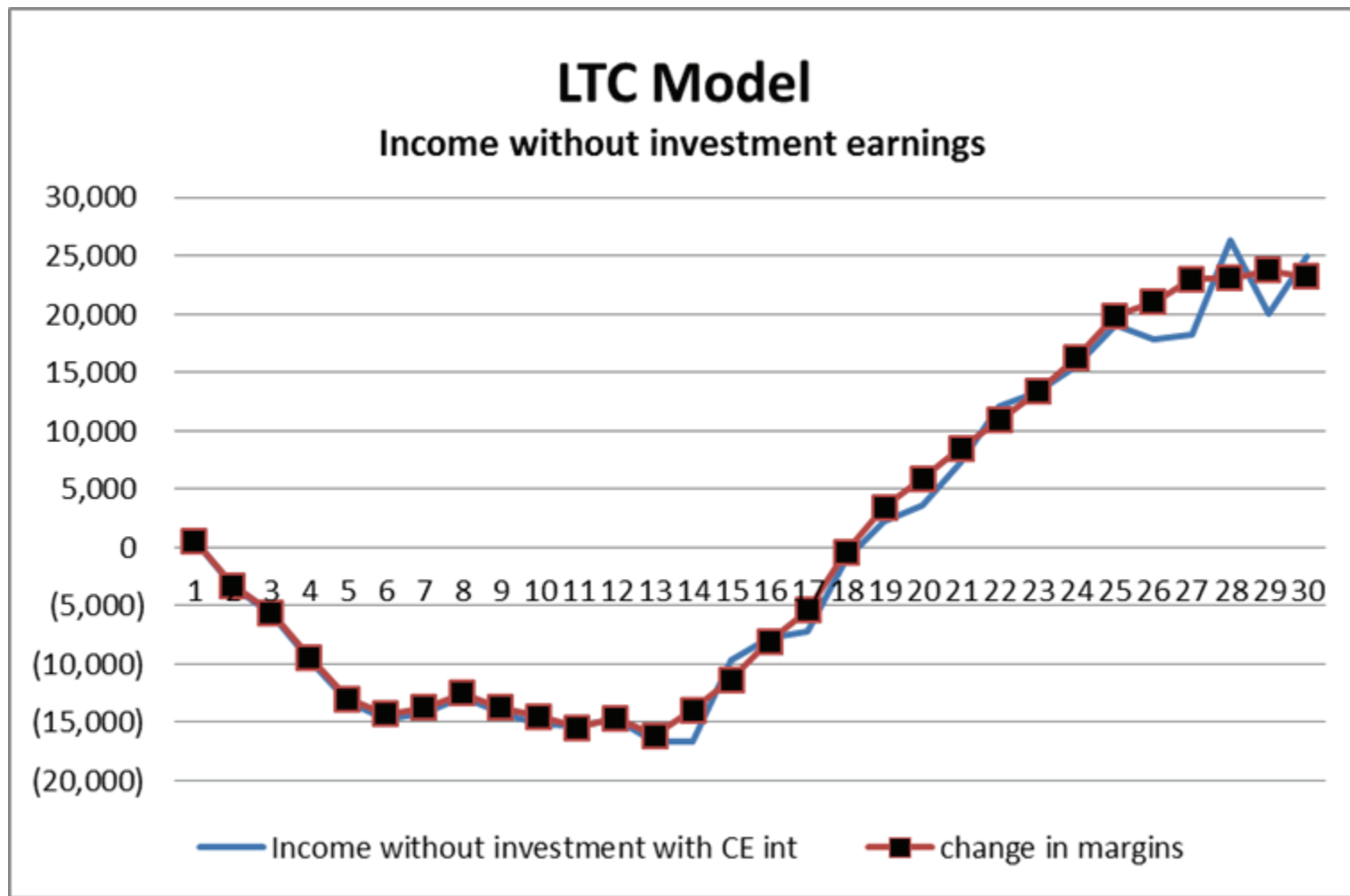
LTC Income Comparison



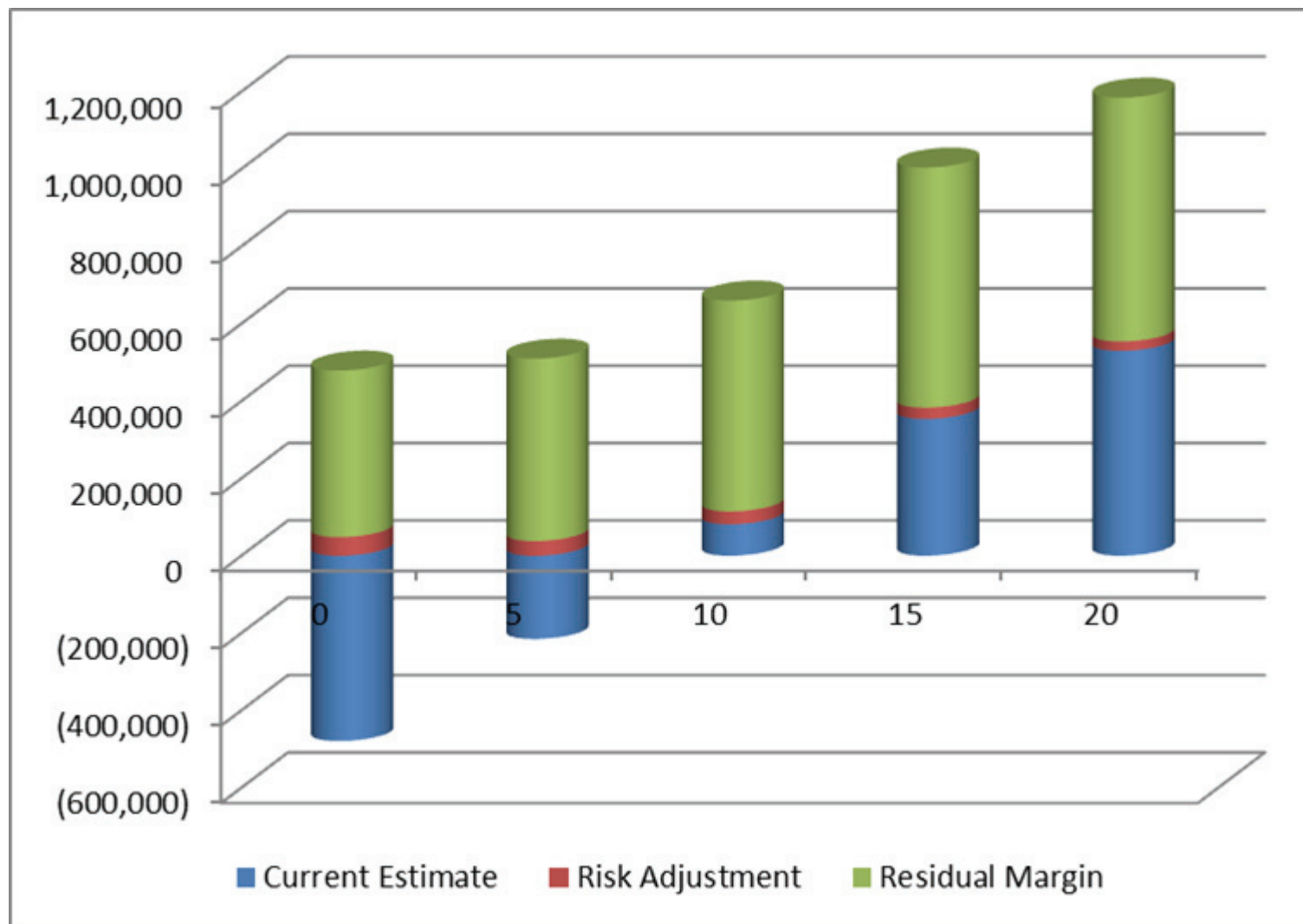
LTC IFRS Income, Margins 1 of 2



LTC IFRS Income, Margins 2 of 2



LTC components of IFRS liability



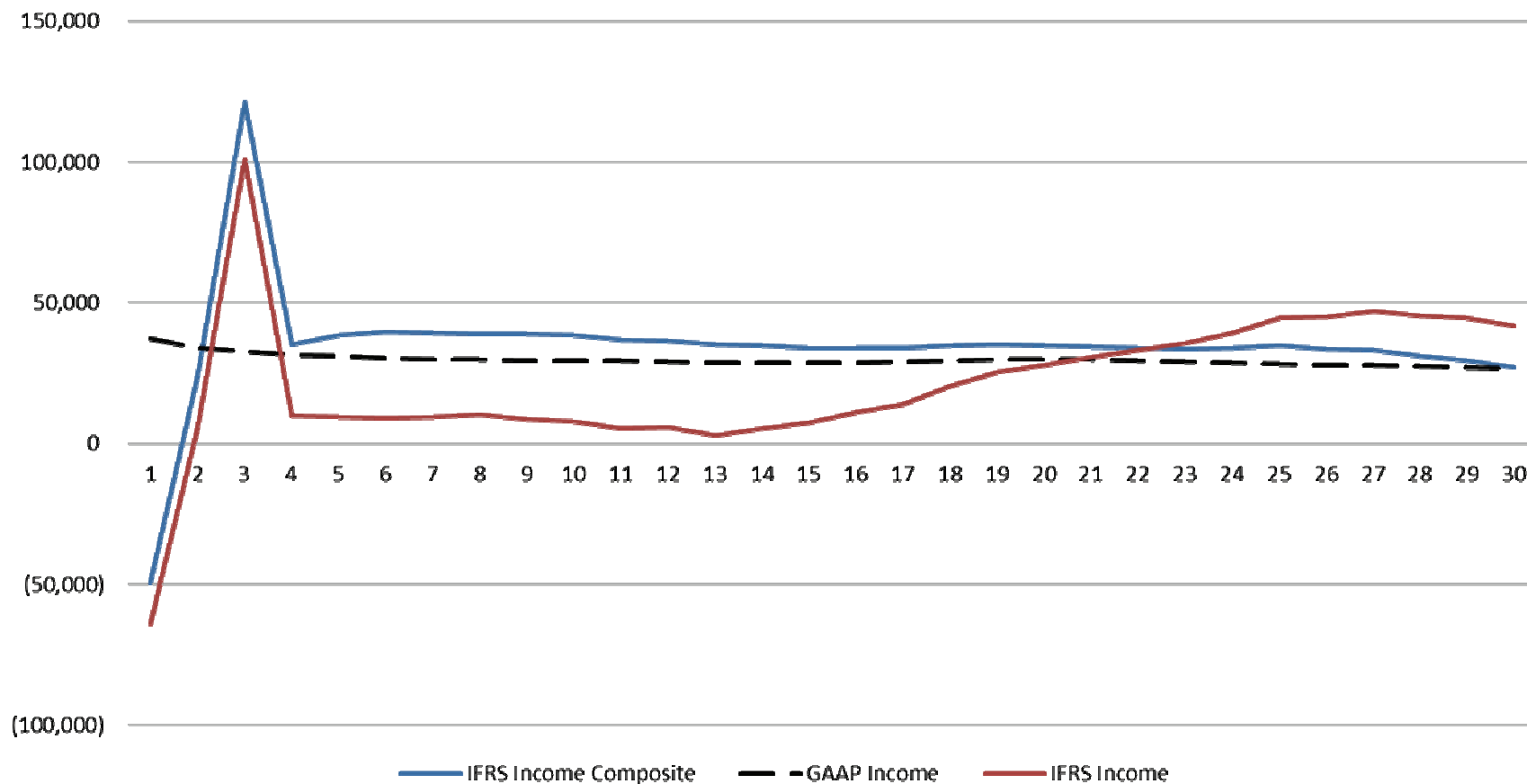
LTC Sensitivity Test 1 of 2

- Experience is positive; morbidity is 85% of expected, starting day one
- This observation is reflected in Current Estimate in year 3



LTC Sensitivity Test 2 of 2

LTC 85pct Morb Model
Income Comparison

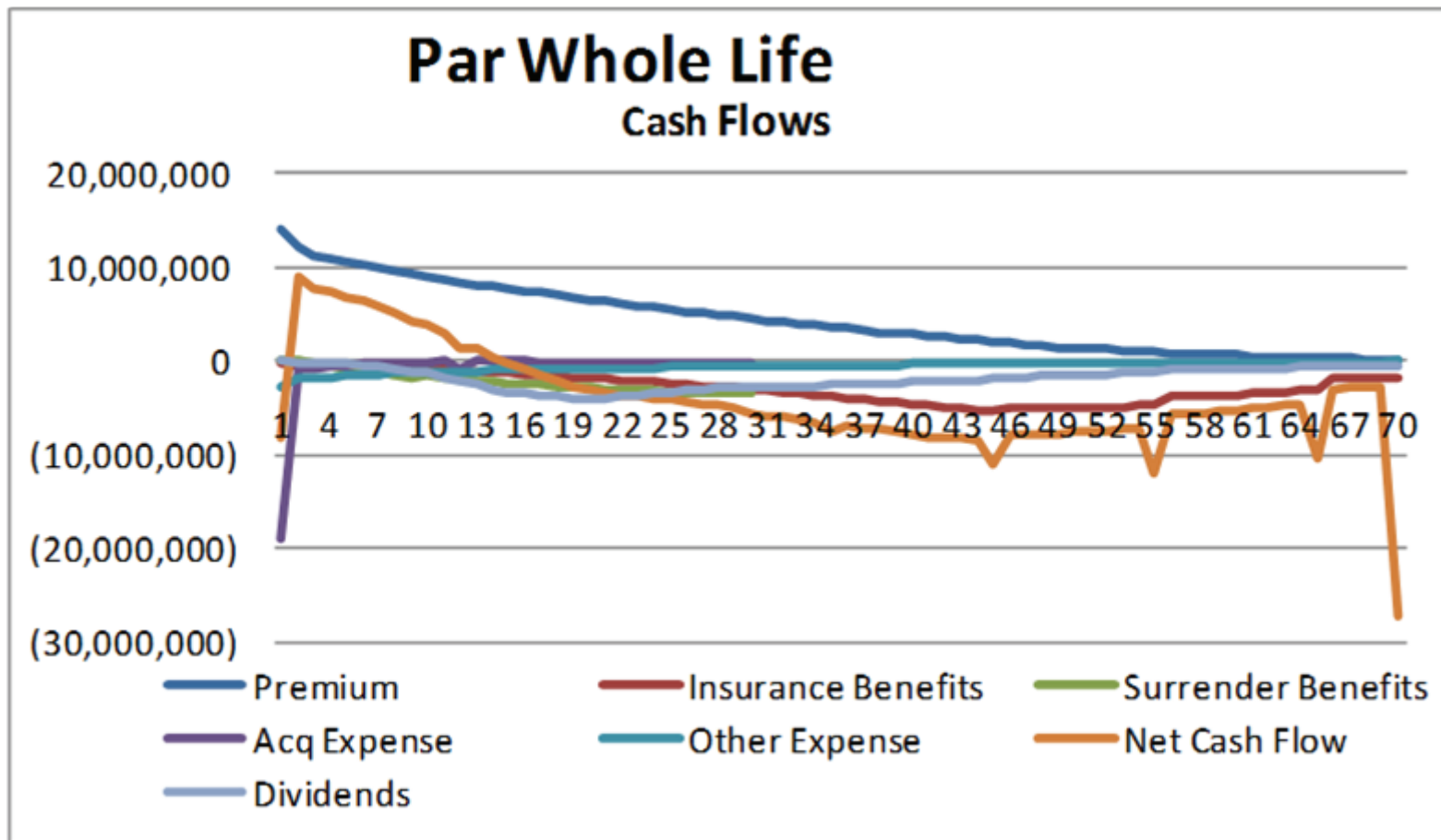


Participating Whole Life – Product Features

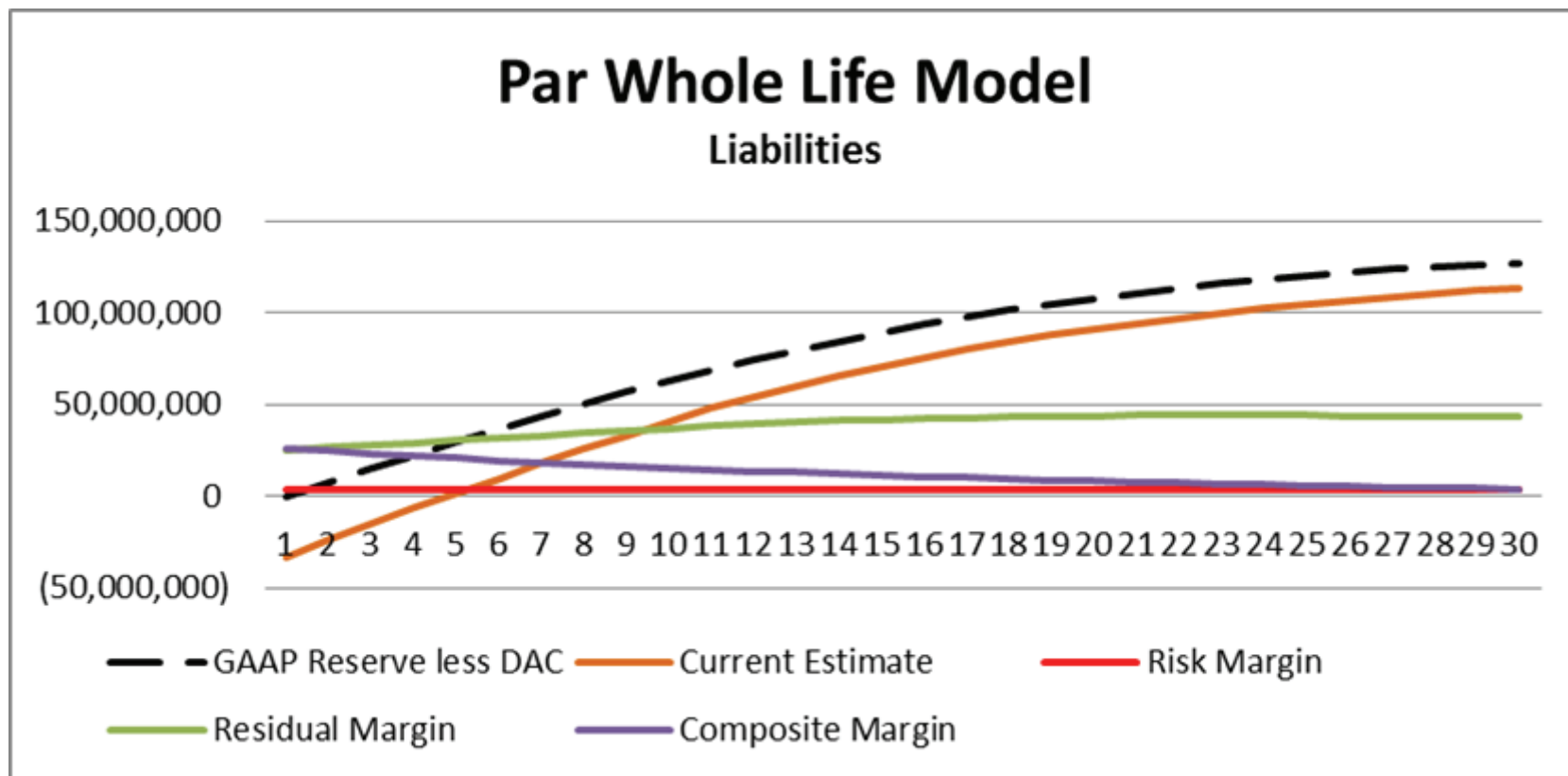
- Whole Life – to age 100
- Policyholder dividends every year
- Interest element of dividend is based on actual investment returns
- No earning restrictions to shareholders
- Discounted at asset earned rate



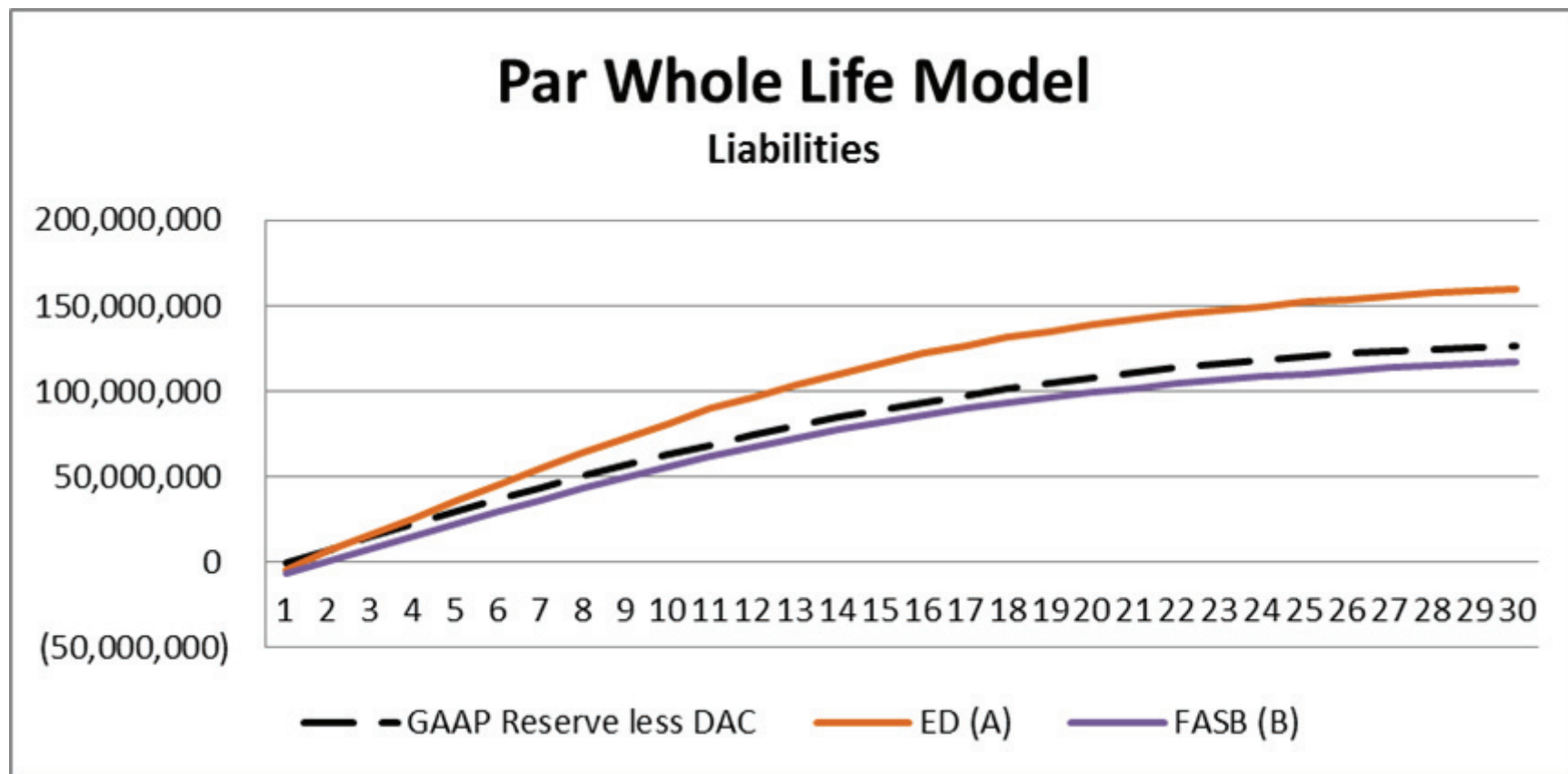
Participating Whole Life – Cash Flows



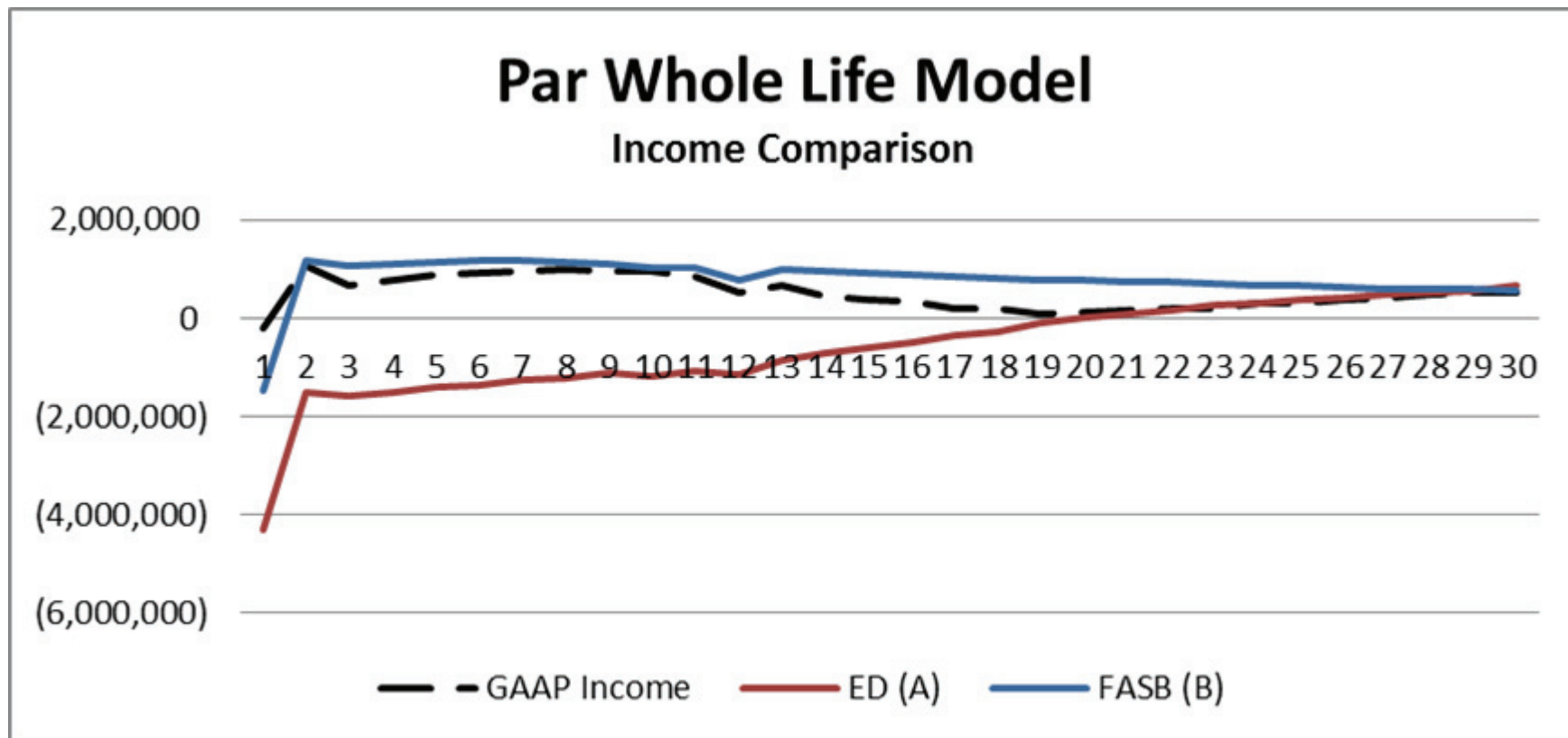
Par WL – Liability elements 1 of 2



Par WL – Liability elements 2 of 2

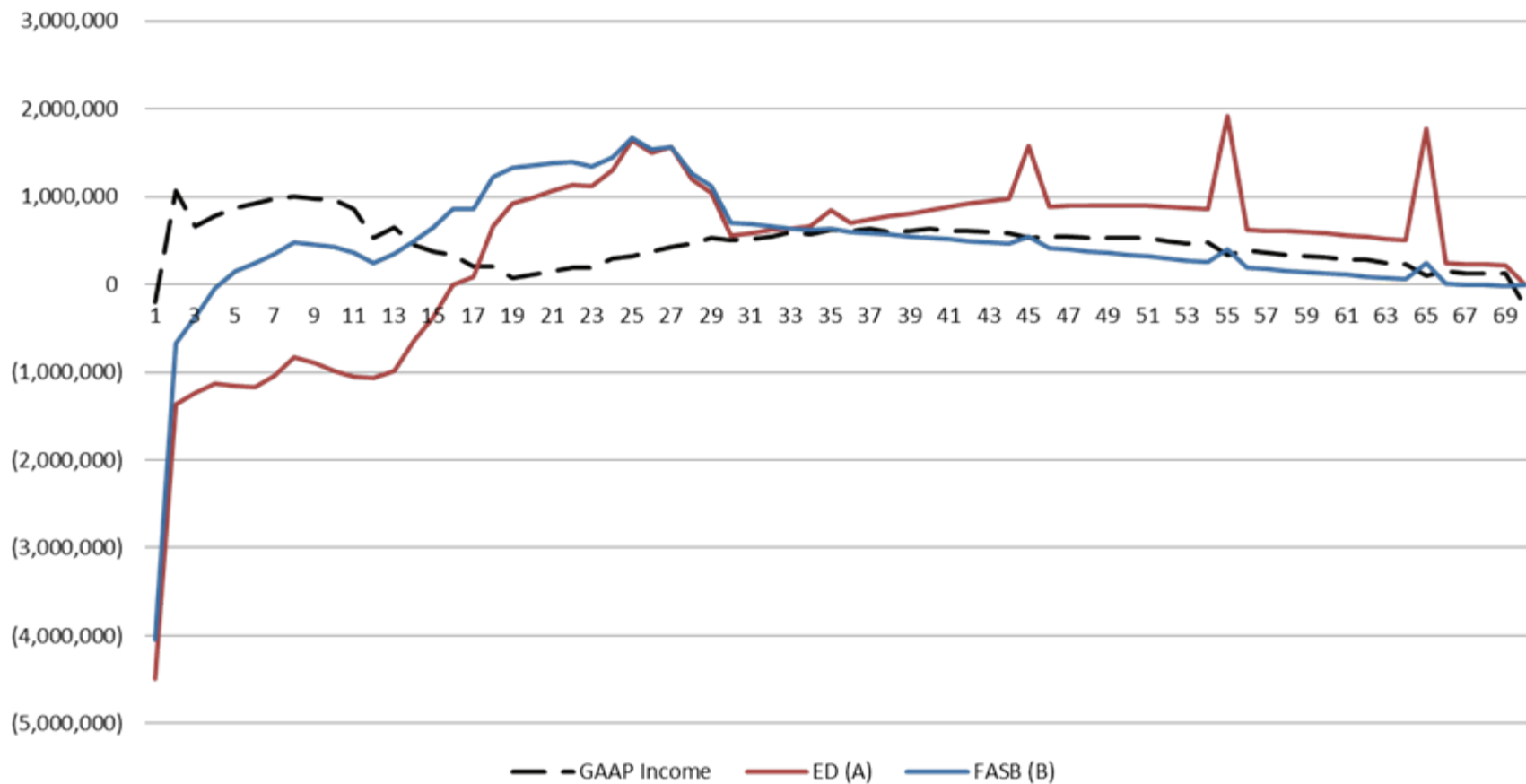


Par WL – Income Comparison

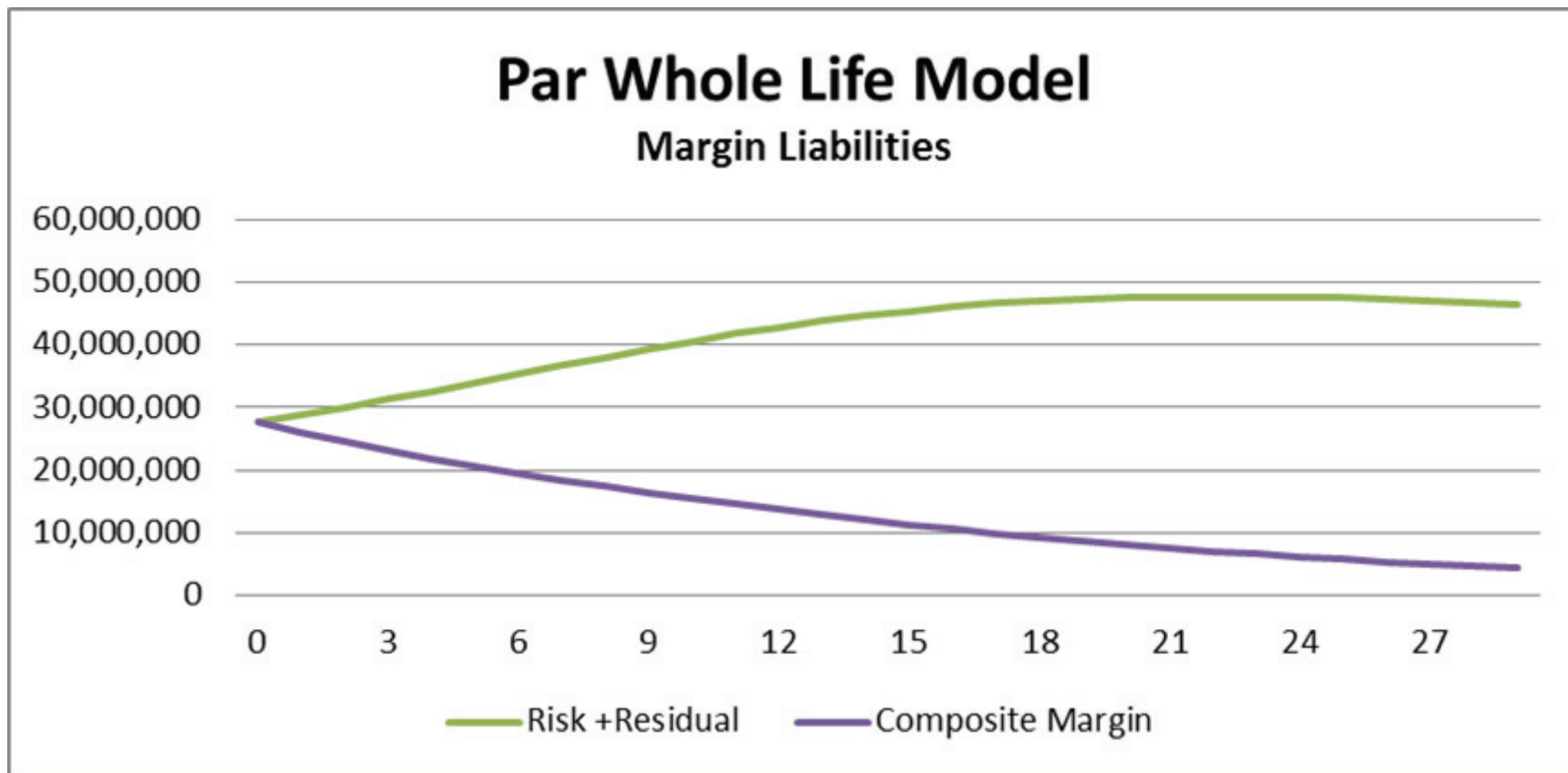


Par WL – longer income comparison

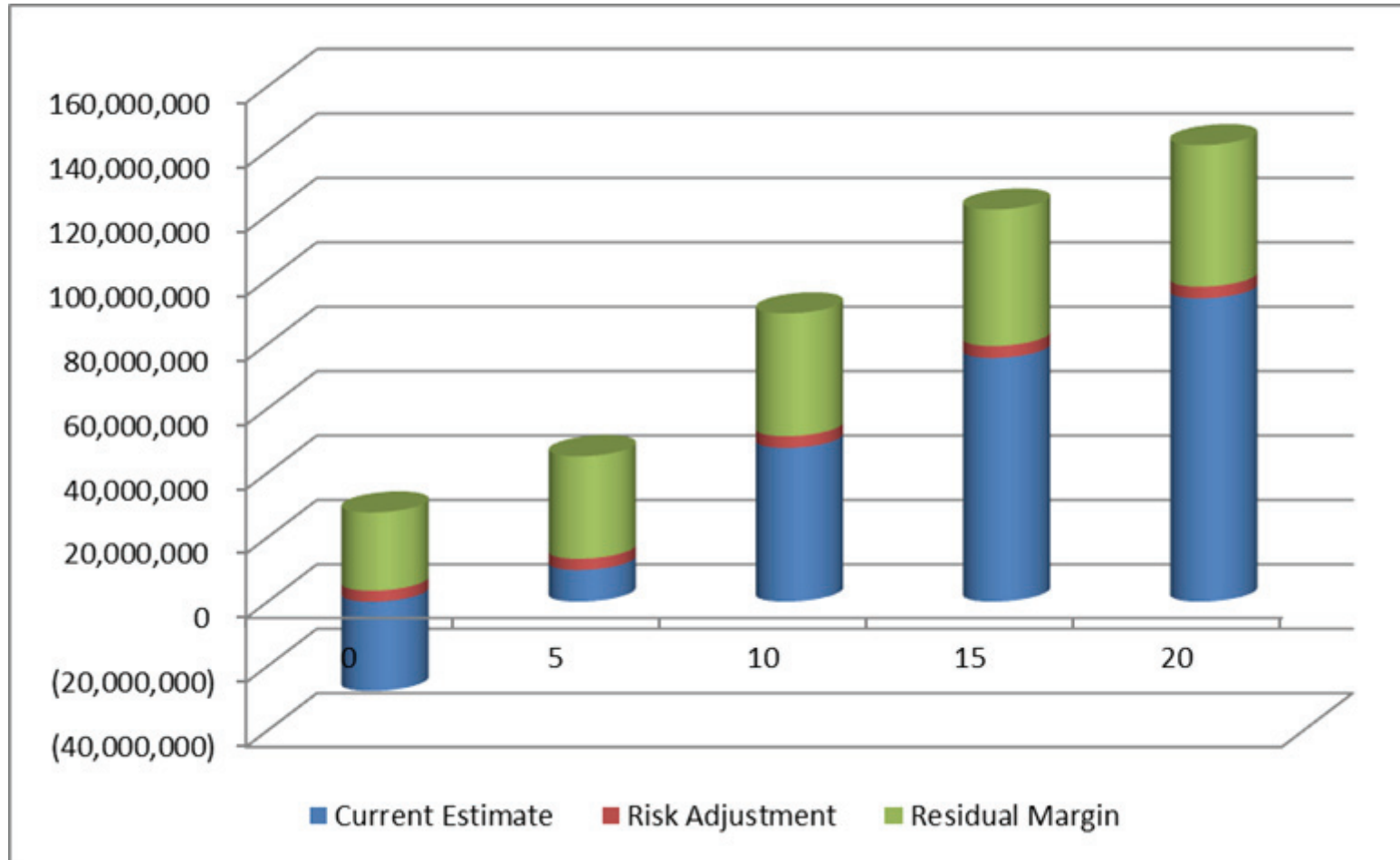
Par Whole Life
Income Comparison



Par WL – Size of Margins



Par WL - Components of IFRS liabilities



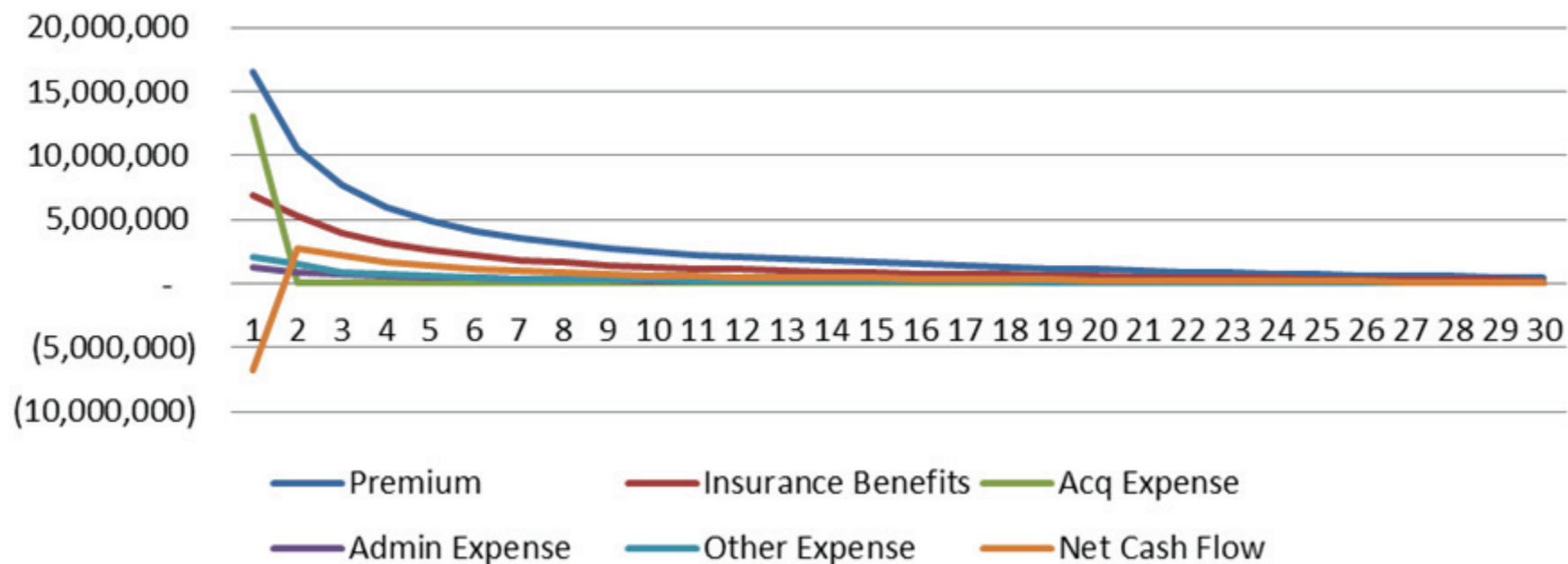
Accident Product

- Premiums, benefits to age 65
- Notice, claim costs are higher at younger ages

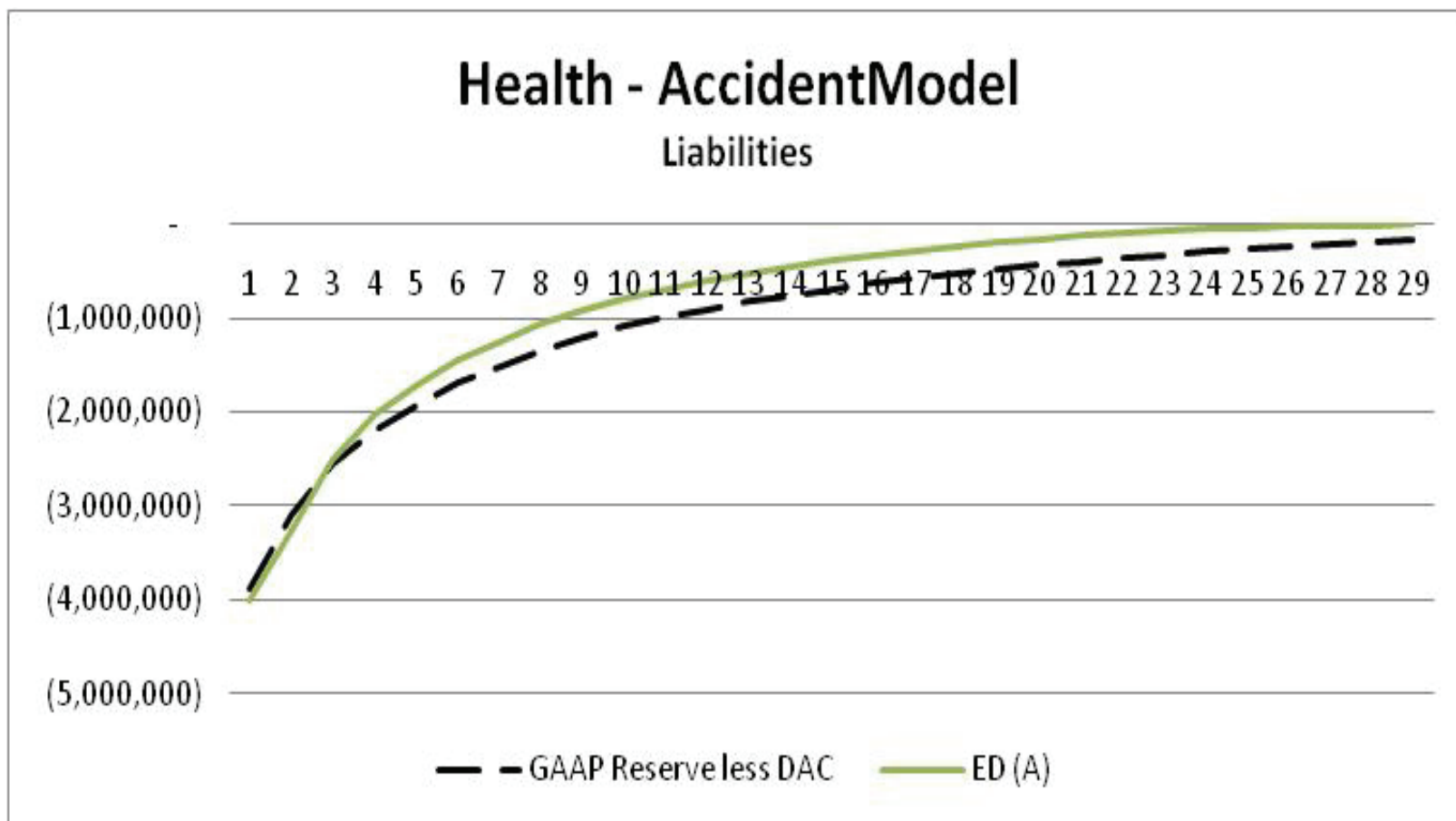


Accident – Cash Flows

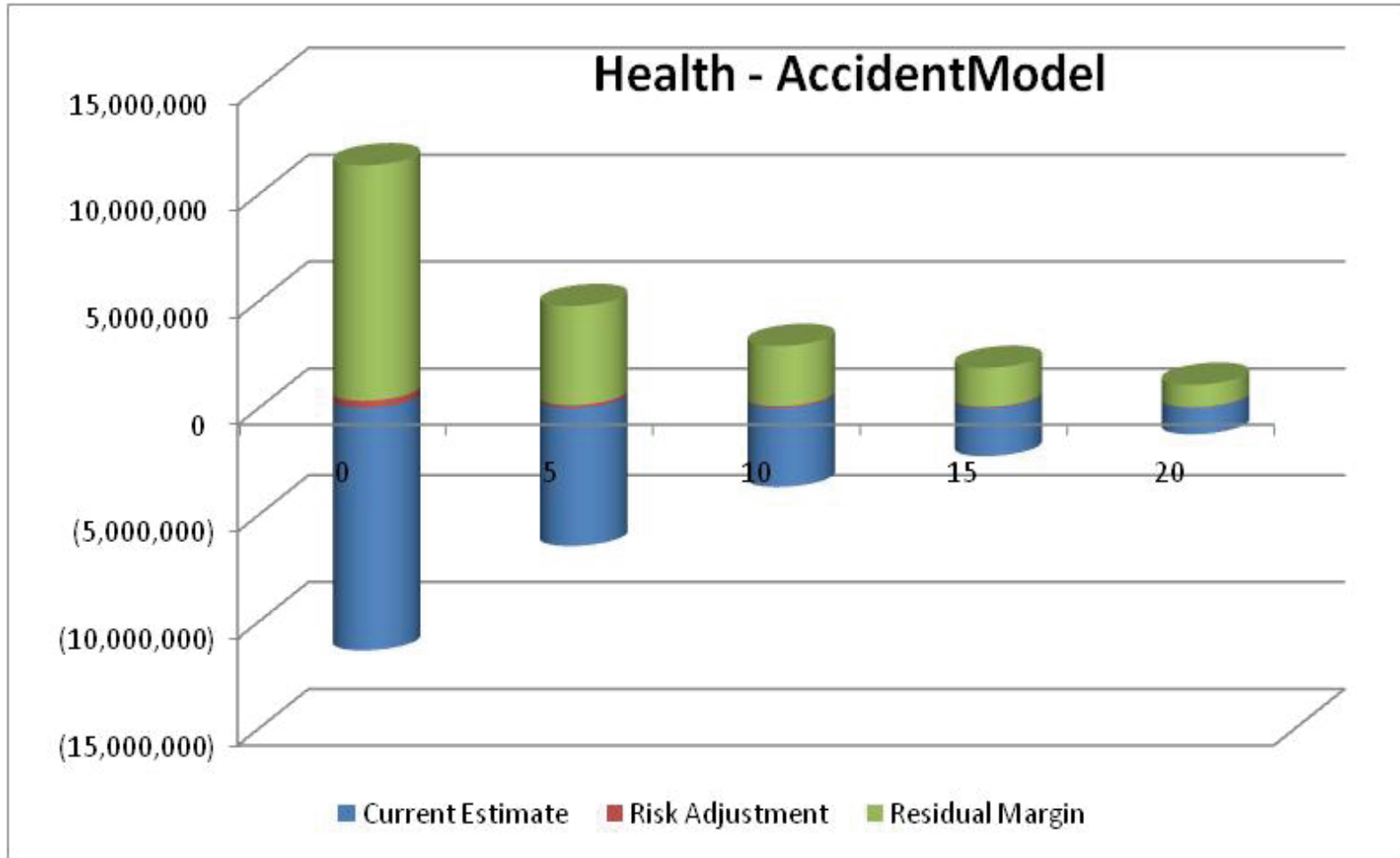
Health - Accident Model Cash Flows



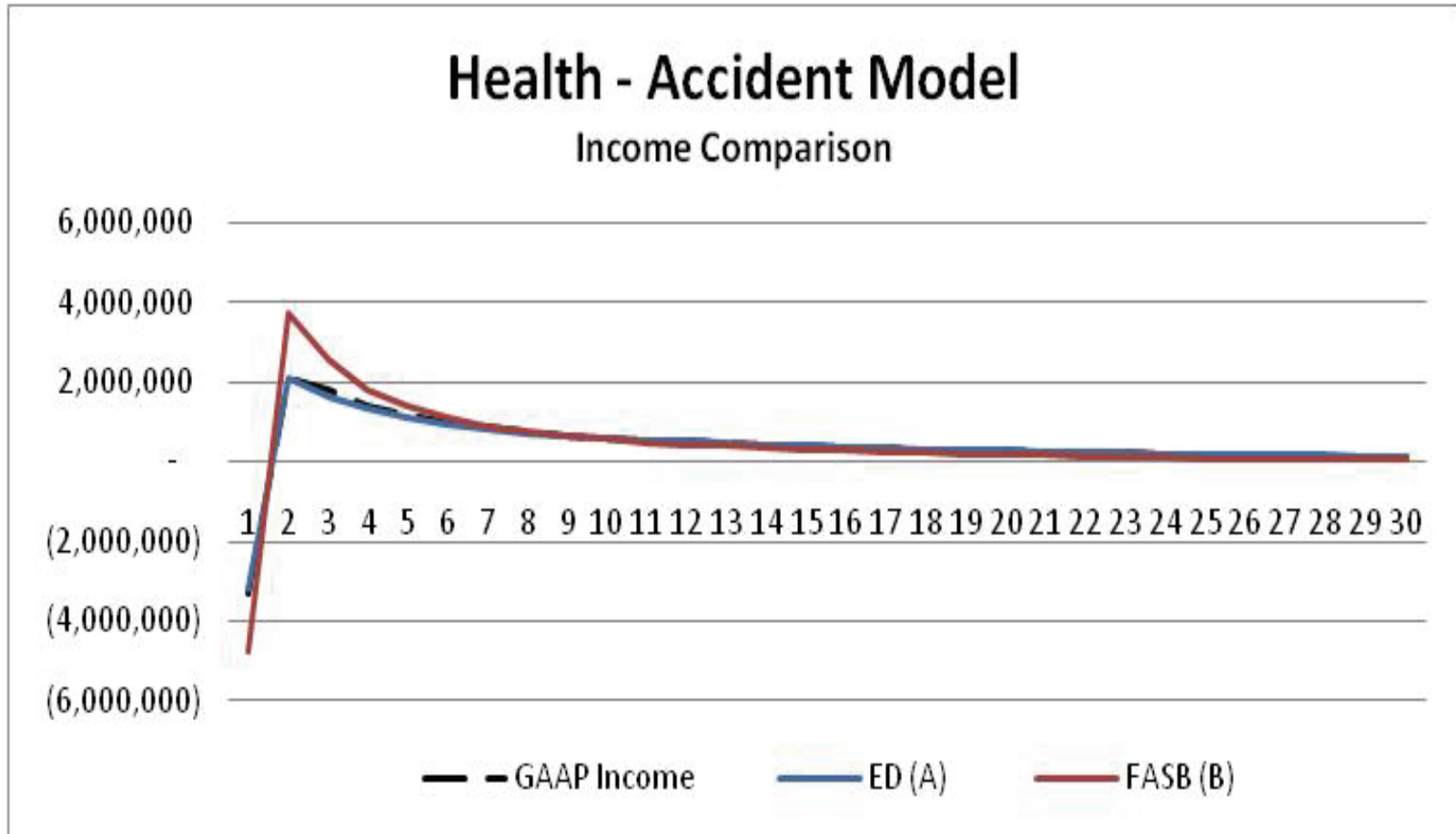
Accident – Liability Comparison



Accident – IFRS liability components



Accident – Income Comparison

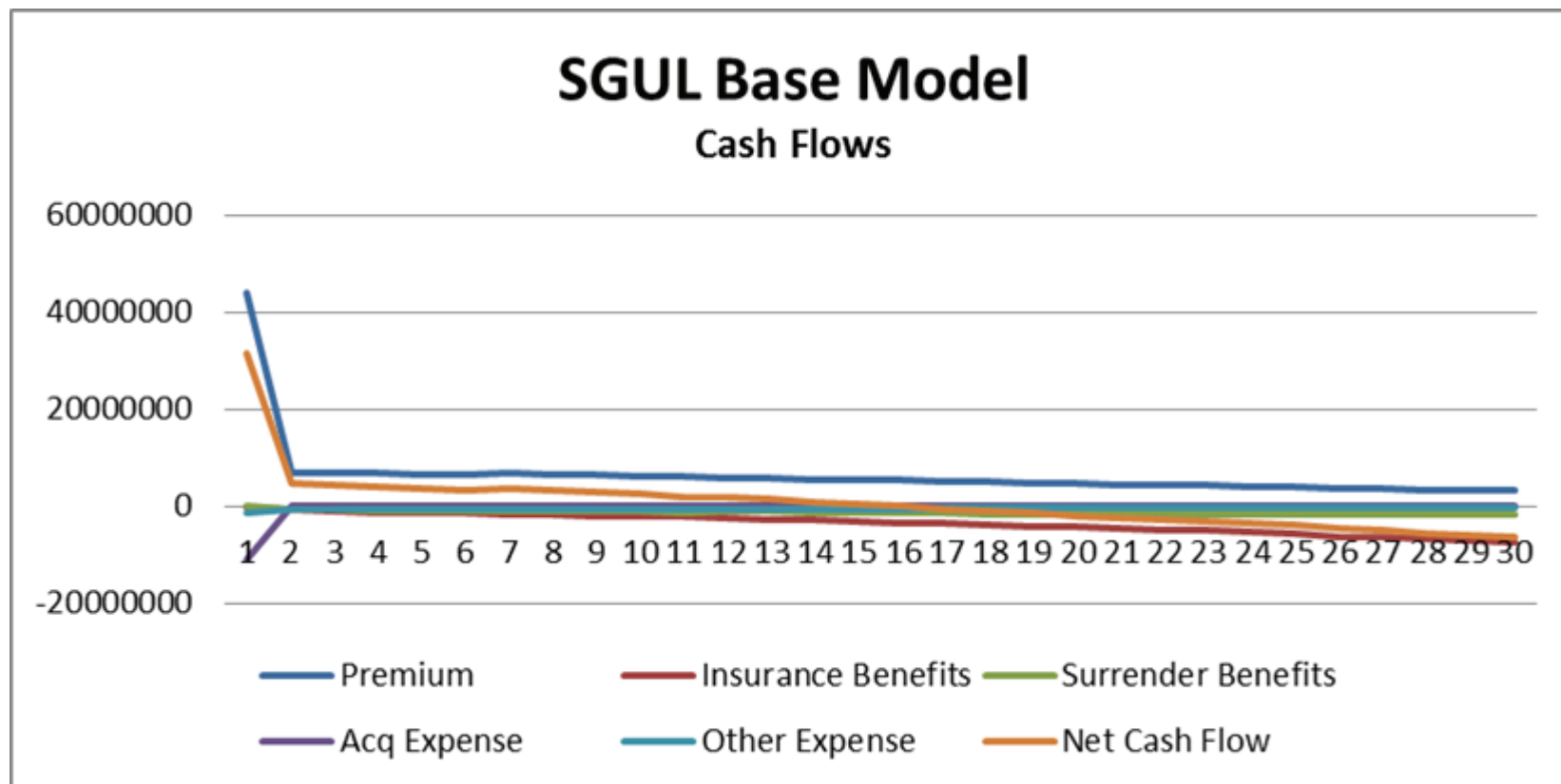


Bundled vs. Unbundled Product

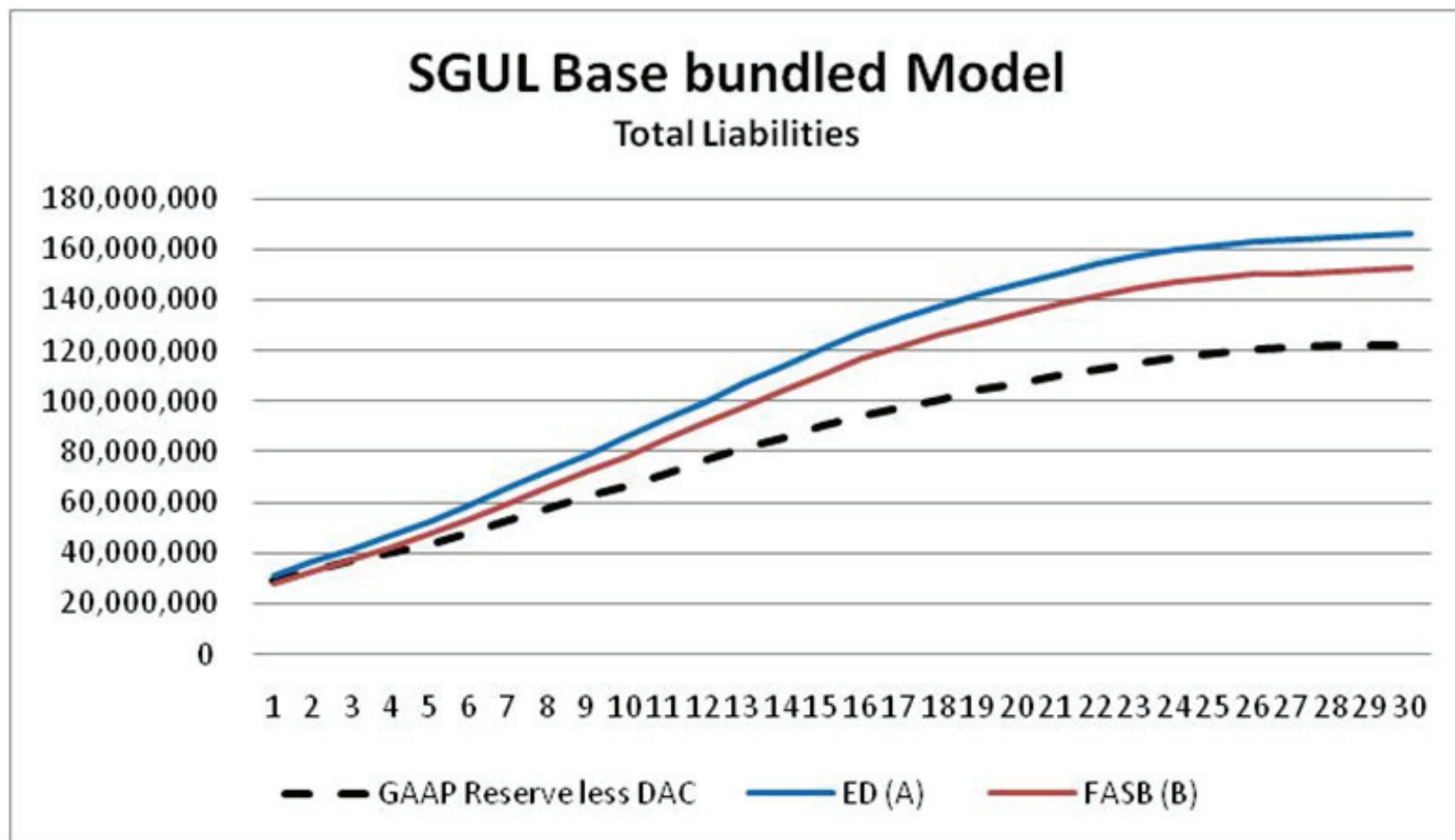
- Universal Life with secondary guarantee (SGUL)
- As long as a minimum level of premiums are paid, the policy will not lapse
- Coverage to age 100, premiums to age 100, Cost of insurance charges, expense loads and excess interest credited to the account
- Discount rate is risk-free plus illiquidity
- The unbundled CE is PV Death Claims (NAR only) plus PV Expenses less PV of policy charges (COI's, loads and surrender charges)



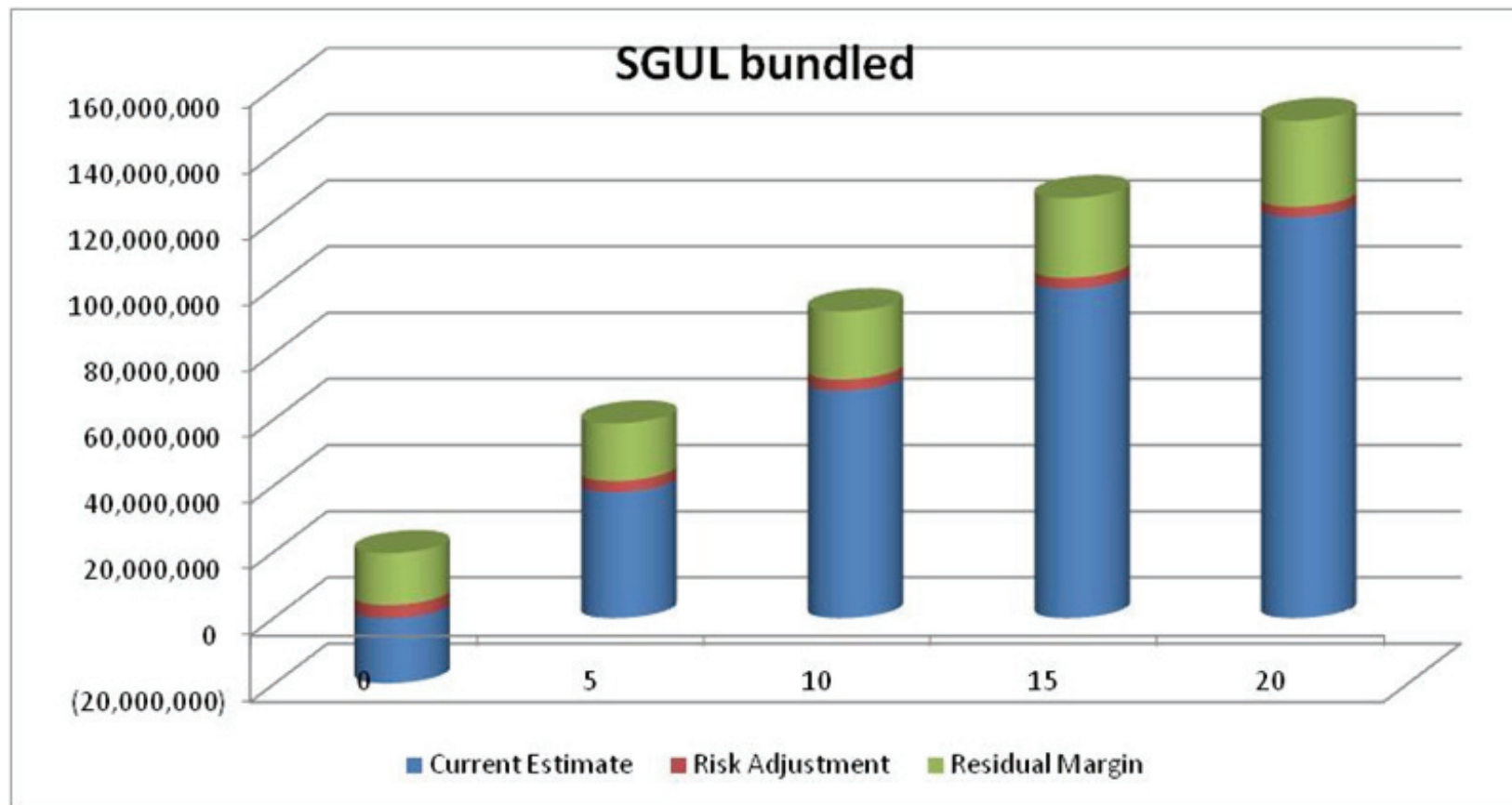
UL cash flows



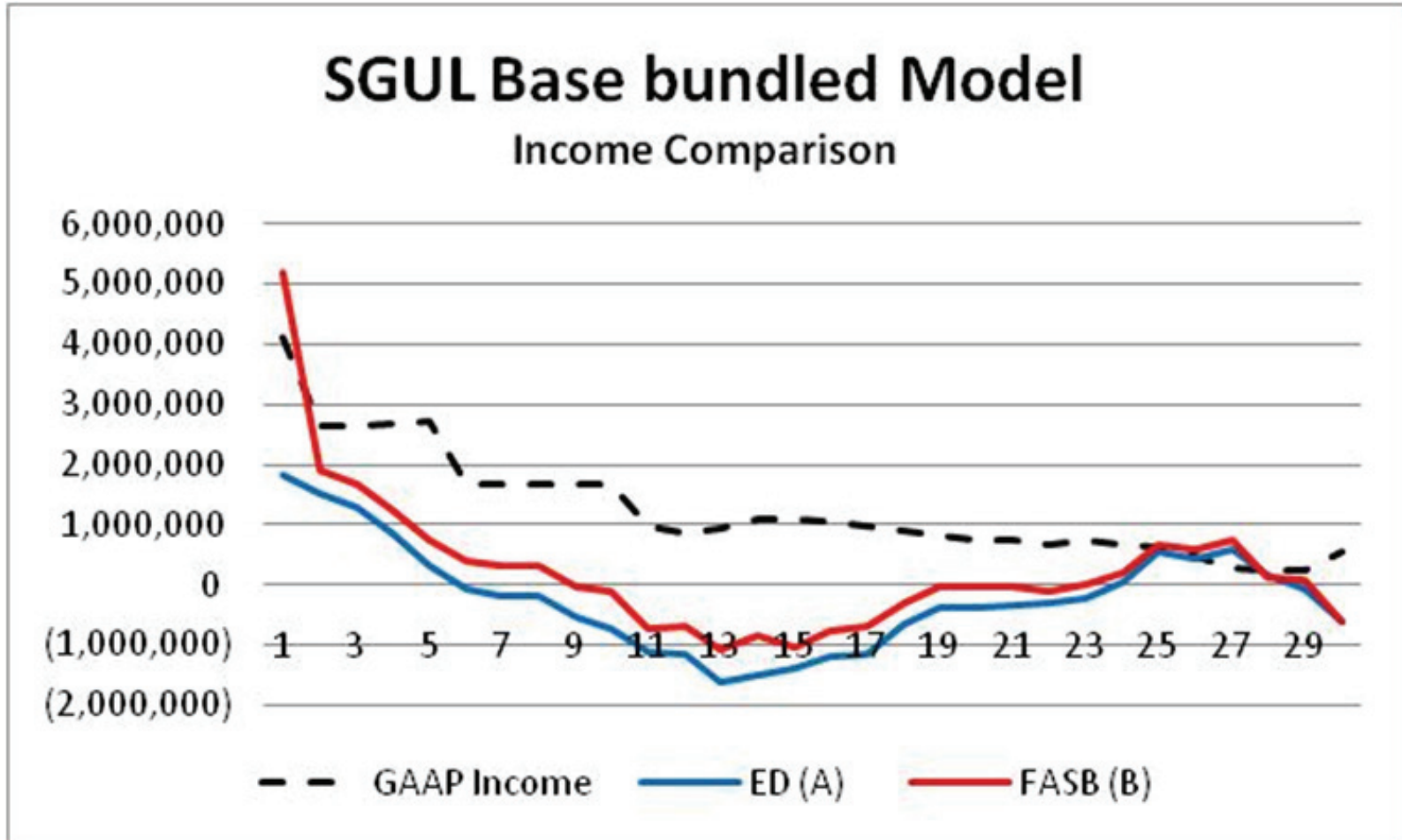
UL Bundled Liabilities



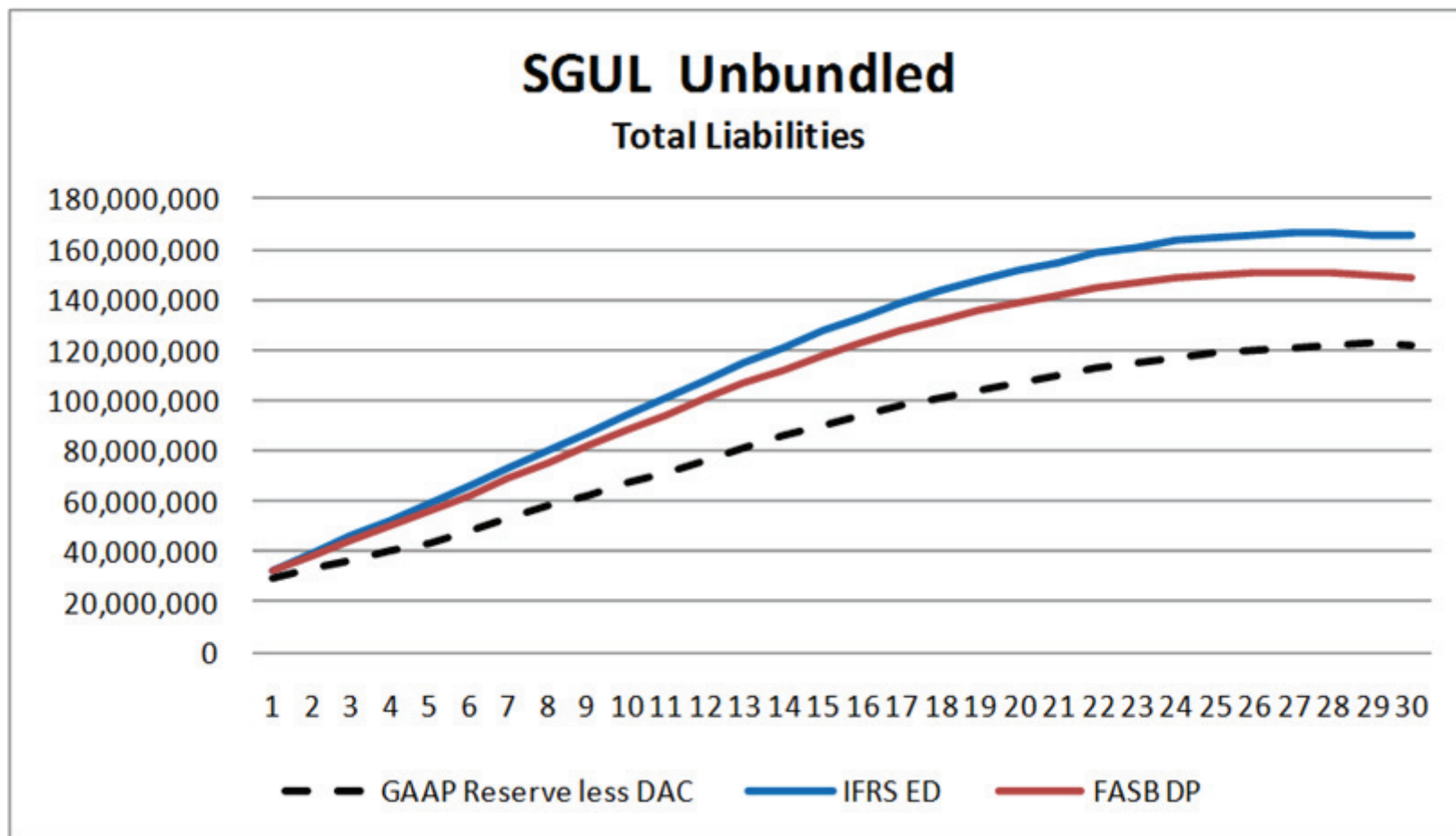
UL Bundled Liabilities



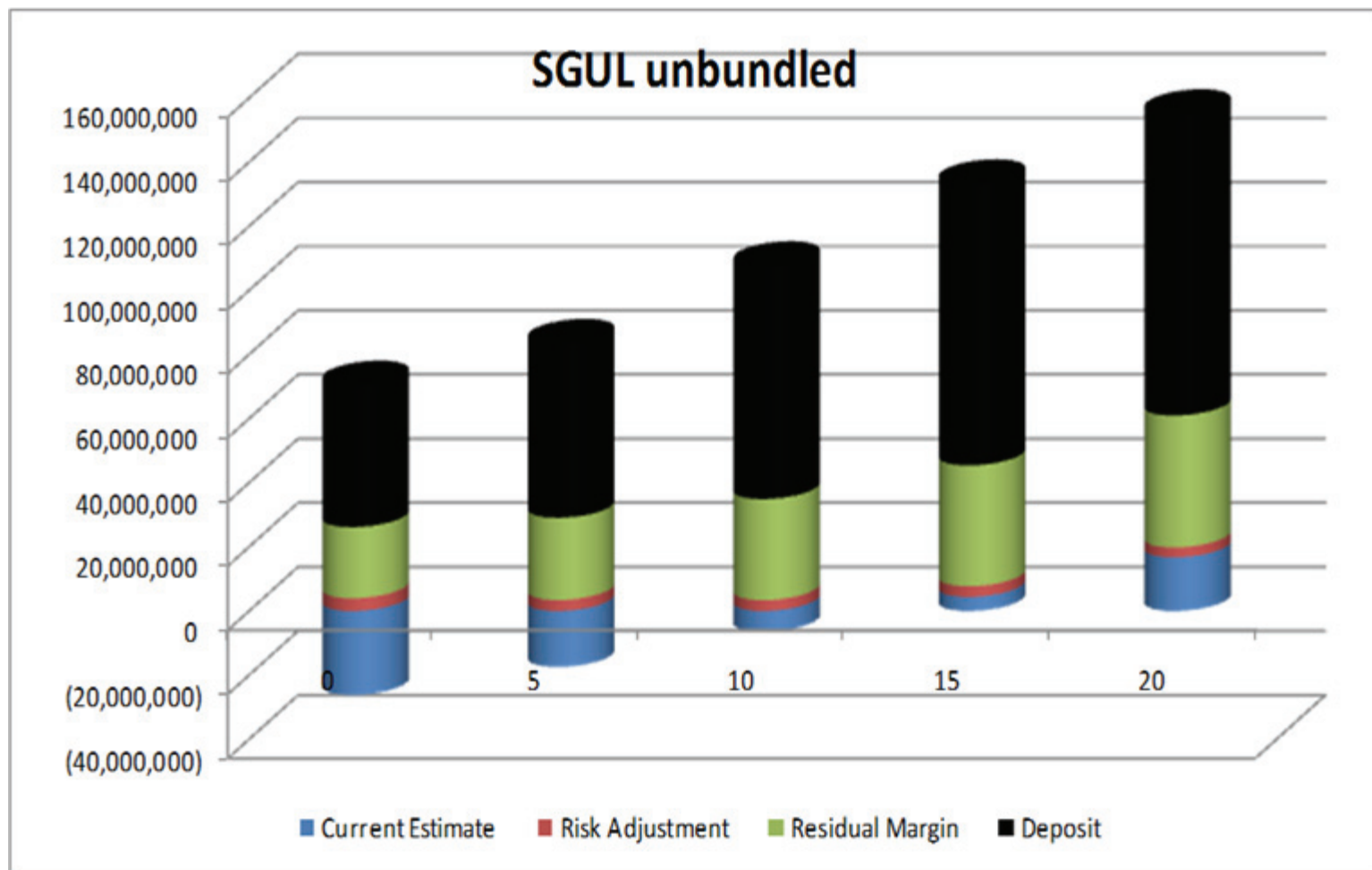
UL Bundled Income Comparison



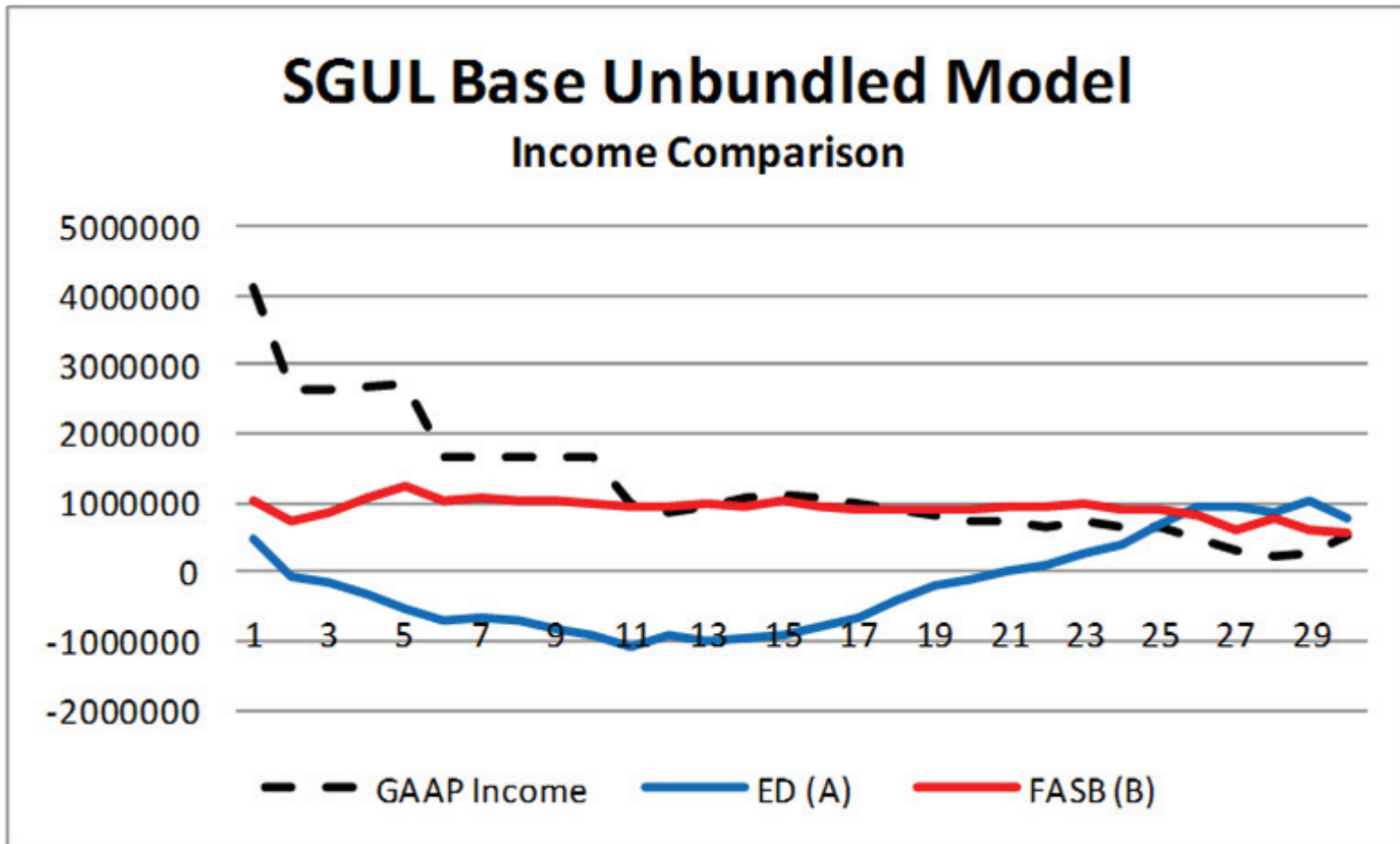
UL Unbundled Liabilities



UL Unbundled Liabilities



UL Unbundled Income Comparison



What Others Think

Preliminary Feedback



Investors – PwC survey 1 of 2

- Interviewed 40 investment professionals
- Their concerns:
 - They don't want bigger, blacker box
 - Lack of transparency is leading to undervaluing of insurers
 - Want pragmatism over theory



Investors – PwC survey 2 of 2

- Investors' desires:
 - Reflect the underlying economic reality
 - Utilize the company's business model
 - Match revenues and expenses
 - Insurers can have their own accounting model
 - Release no profits at issue
 - Establish explicit risk margin



International Actuarial Association (IAA)

- Key issues likely to be emphasized:
- RA stated objective should be redefined. The stated method doesn't imply the three methods described
- Discount rate – in general agrees
- RM remeasurement – re-assess the propriety of amortizing based on claims and benefits
- Transition – need a RM on existing business
- Acquisition costs should be incremental at the portfolio level, not the contract level
- Unbundling – make it clear that unit-linked and universal life contracts are not to be unbundled



UK actuarial profession

- These are “best estimate” positions and unofficial
- Positive:
 - Fulfillment is much better than exit value
 - Contract boundaries are fine
 - Participating provisions are fine
- Neutral:
 - No objection to de-linking asset and liabilities (unlike Canada and US)
 - Not enthusiastic about risk free + illiquidity premium for discount rate but less worry than other countries
- Negative:
 - Restrictions on extent of acquisition costs that can be taken into account
 - Attempt to restrict RA techniques
 - Residual Margin – it *is* OK to show day one profits
 - If there must be a RM, then remeasure it every period as the RA is
 - Unbundling is too complicated and does not reflect reality of contracts



CFO Forum 1 of 2

- Agrees that discount rate should not reflect own credit risk and should include the effect of liquidity
- Does risk-free mean swap rates as used in Market Consistent Embedded Value and Solvency II?
- Support the explicit Risk Adjustment (RA)
- Supports the Cost of Capital method for calculating RAs but doesn't believe methods should be restricted to the three in the ED
- Concerned about limiting benefit of diversification in calculation of risk margin to the portfolio level
- Concerned that Residual Margin is not subsequently re-measured, leading to income statement volatility



CFO Forum 2 of 2

- Reflection of incremental acquisition costs is better than the PV position, but differing distribution models will result in different amounts of expenses included in the initial liability
- Unearned Premium Reserve approach for short duration contracts should be optional and is inconsistent with Solvency II
- Does not support unbundling. The contract should be recognized as a whole, reflecting the basis on which the company manages. Unbundling would be less transparent to users. Unbundling would be costly to implement
- Supports proposed presentation
- Concerned about income statement volatility
- A challenge to implement
- Concerns regarding consistency with Solvency II



■ Supports:

- Fulfillment objective
- Building blocks approach
- Risk Adjustment & Residual Margins

■ Concerns:

- Discount rate – results will be unreliable, irrelevant and difficult to explain
- Discount rate – will lead to unintended consequences to consumers and the economy
- Risk adjustment methodology limitations
- Transition
- Unbundling
- Wants a second Exposure Draft with a Qualitative Impact Studies
- Basically, it is unusable as a measurement basis for investors



American Academy of Actuaries (AAA)

- Include all acquisition costs and overhead in Current Estimate
- Discount rate for each CE scenario should be consistent with the economic assumptions used to generate the cash flows
- Don't limit RA methods to three
- Concerns over link between objective of RA to the methods articulated
- Agree there should be no gain at issue
- In general, supports unbundling
- Transition – do not agree with no RM on existing business
- The insurance contracts ED and IFRS 9 (Financial Instruments) need to be aligned so that assets and liabilities are accounted for consistently



Group of North American Insurance Enterprises (GNAIE)

- Need separate models for short-term and long-term business
- All measurement should be based on fulfillment value, not based on an amount an insurer would rationally pay to be relieved of its obligations
- Since performance of life and annuity contracts are inextricably linked to earnings on assets; ignoring their impact will be disruptive, causing distorted earnings and withdrawal of products
- Approach for short term products doesn't add value and shouldn't have to use interest discounting
- Wants Composite Margin, not the Risk Adjustment plus Residual Margin
- If Risk Adjustment is used, allow more than three methods
- At transition, do allow Residual Margins on existing business
- Retain key indicators (premium, claims) in income statement
- No unbundling



International Association of Insurance Supervisors (IAIS)

- Discount rate - why differ from IAS19 (pensions, which uses a high quality corporate bond rate)
- Discount rate – not comfortable with risk free plus illiquidity
- Objective for RA doesn't match with fulfillment value
- Need more than just 3 sanctioned methods for determining RA
- Incremental Acquisition Costs are acceptable if done at the portfolio, not contract, level
- At transition, don't put future profits on existing business into shareholders' equity
- Most other issues – much diversity in opinions



Life Reinsurer in Sixty Countries

■ ED needs significant enhancements

- Discount rate – using (lower) rates not linked to policyholder pricing will lead to product withdrawal
- Discount rate – use of current curves with amortized cost assets will lead to volatility in earnings
- Discount rate – too much inconsistency in selection of illiquidity adjustment. 2008 MCEV disclosures showed companies varied illiquidity premiums from 0 to 300 basis points
- Supports Risk Adjustment plus Residual Margin
- The maximum amount an insurer would pay to be relieved of risk is somewhat nebulous
- Unbundling – not well-defined; costly to account; little value to users
- Presentation – wants premiums, claims
- Disclosures – complexity and extensiveness reduces usefulness. Readers will be overwhelmed with these disclosures. Disclosures will be expensive to prepare. Should pare back.
- At transition, need Residual Margin on all business. Otherwise inconsistent results will appear for many years



Next Steps



Next Steps

- Comment Period Ends November 30
- IWG Meeting in London November 11–12
- Further Outreach (for example, early November staff road trip to USA)
- Field Testing
- Board Deliberations
- Standard Issued July 2011
- Implementation...2 – 3 Years Later
- SEC decision on convergence – late 2011



Questions & Answers

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Opinions expressed are those of the
speaker and not of the Society of
Actuaries or its members

