

# Integrated FP&A Projections and “what-if” Analysis

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November 13, 2017

# Agenda

1. Fin Tech in Life Insurance
2. Market Observations
3. Diversity of Requirement
4. Solution

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Fin Tech in Life  
Insurance

# Where Is Fin Tech in Life Insurance

- » Distribution: Provide quick quotes (generally term insurance & AD&D)
- » Improved underwriting
- » Health and wellness screening
- » Fitness apps to modify rates
- » Provide simple products

One area that has not had as much attention is addressing senior leaders in the decision making area.

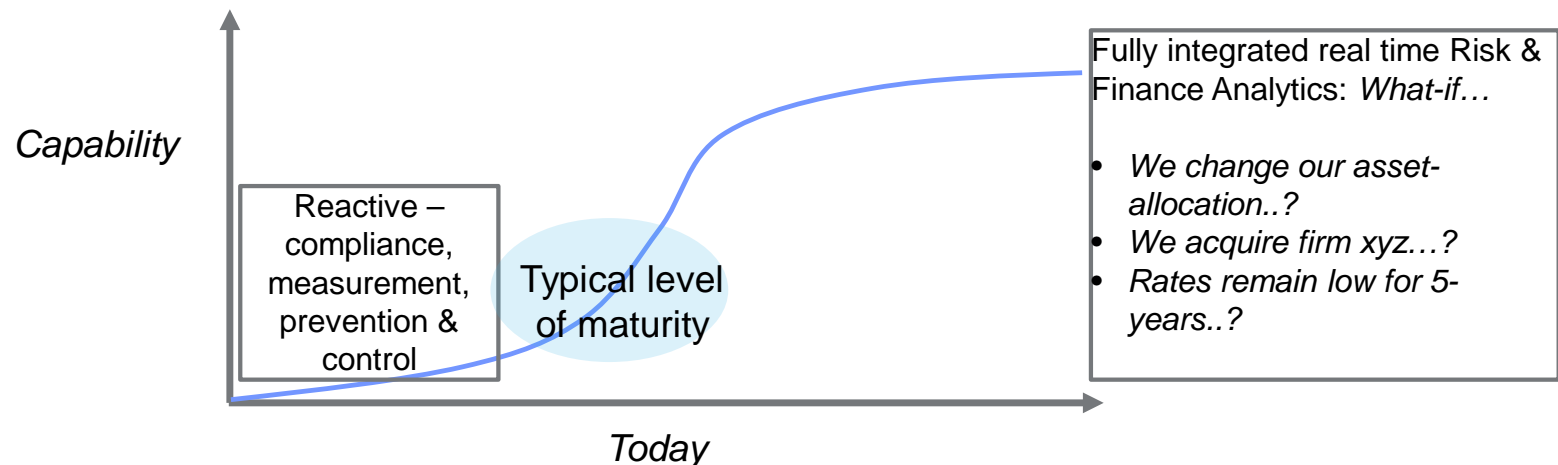
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Market Observations

# Some Market Observations

## Risk function transition to business partner

- » For the last few years **insurer's risk functions** are transitioning from a pure risk compliance role to being a **strategic business partner**
- » This has meant a focus on **ERM**, establishing **ORSA** (Own Risk & Solvency Assessment) and enhancing **stress testing capabilities**
- » However, the significant investments that have been made on risk infrastructure have generally been on **complying with regulation**
- » As a consequence many insurers are at an **early stage** in developing truly companywide ERM, Stress Testing, ORSA capabilities



# Some Market Observations

## What we have heard

- » They try to answer these questions today – but only with:
  - **Manual** effort,
  - **Ad-hoc** modelling and data-collection
  - **Not as frequently or timely** as is wished
- » Generally **not integrated** into **business planning/FP&A** process to truly provide a consistent view of risk & business issues
- » What is really needed is the **right information, at the right time – with confidence**
  - Modelling results translated into **risk/business Management Intelligence**, covering multiple KRIs/KPIs
  - Results available **when required** – not after the fact
  - **Reliable and transparent** results, derived from the existing models - need for strong model and data governance

# 3

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## Diversity of Requirement



# Why Nothing Has Been Done

## **Difficulty of a single solution**

- » There is no single model that the business can readily use. Modelling the business relies on a range of more granular modelling capabilities (liability valuation, asset pricing, capital calculations etc.) that are cumbersome, slow and not very well integrated

## **Needs to address different perspectives**

- » There are a range of senior stakeholders (e.g., CFO/CRO/CIO) within the business and each will have a slightly different perspective/need for the business modelling capability

## **Needs to address various lenses**

- » The impact needs to be known under Stat, GAAP, and Economic lenses

# Key Stakeholders and Their Needs

**CRO**

*Chief Risk Officer*

- Risk-based measurement
- ORSA & Stress Testing

**CFO**

*Chief Financial Officer*

- Capital Planning & Allocation
- Profitability & Product Pricing

**CIO**

*Chief Investment Officer*

- Asset Liability Management
- Strategic Asset Allocation

## Key Business Needs

# Key Stakeholders and Their Needs

## Chief Risk Officer (CRO)

### Risk-based measurement

- Need the ability to have a risk conversation with the business
- For risk reporting (e.g. Solvency, Capital requirements, Risk limits etc.) monitoring in real time is important, particularly understanding volatility. Forward looking assessment becoming a priority to help with communication internally and externally
- Expect evolution towards risk-based performance metrics – linking capital requirements with profitability

### ORSA & Stress Testing

- ORSA is seen as a reporting exercise driven by regulation. Not gained much traction by focusing on ORSA. Better to focus on the business need

## Chief Finance Officer (CFO)

### Capital Planning & Allocation

- As part of the annual business planning process the finance area will want to be able to allocate available capital to business units
- Risk based capital means that the CFO area needs to work more closely with CRO area or whoever owns the capital model

### Profitability & Product Pricing

- Profitability is the key driver for the CFO area
- Expect they will also evolve towards risk-based performance metrics – linking profitability with equity and capital requirements

# Key Stakeholders and Their Needs

## Chief Investment Officer (CIO)

### Asset Liability Management & Strategic Asset Allocation

- Effectively the Strategic Asset Allocation is an output of the Asset Liability Management activities
- The CIO area will want to be able to assess the impact of different asset portfolios on the insurance portfolio across a range of dimensions: Returns, Duration and Cashflow Matching, Cashflow shortfall, Capital Requirements, etc.

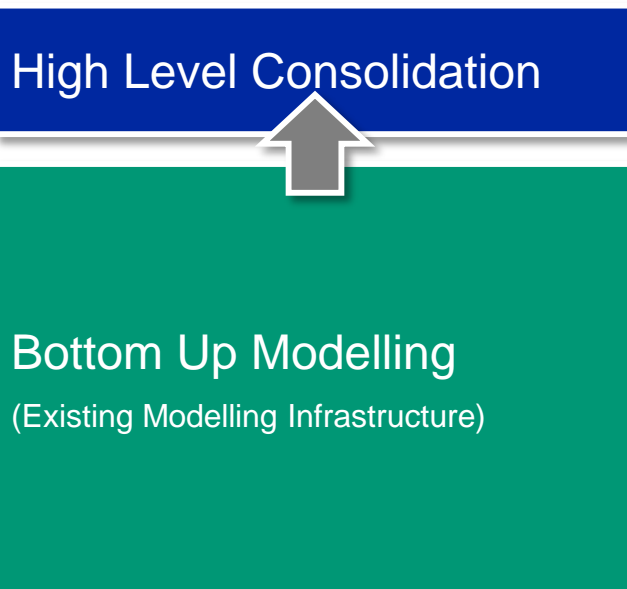
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Solution

# Current Solution

The bottom up approach is the traditional way of tackling the problem. Re-run the “heavy models” and consolidate the results in a Spreadsheet

## 1. Bottom Up



### High Level Consolidation

- Typically a spreadsheet, level of sophistication likely to be variable

### Bottom Up Modelling

- Range of modelling capabilities: asset and liability cashflow models, capital models, etc.
- Increased focus on automation, integration and performance

- This approach works to an extent but it is not easy for senior management to use or access
- Spreadsheets very quickly become complex with significant reliance on the heavy models re-runs

# Better Solution

A better approach for business level modelling leverages both the top down and bottom up modelling solution

## Combined Modelling Framework

- Top down modelling works well for certain “what-ifs”
- Top down modelling provides the first order change
- Bottom up approach could be cumbersome
- A combined top down & bottom up approach in a controlled environment is the solution

## 2. Combined

Top Down Modelling  
Framework

Bottom Up Modelling  
(Existing Modelling Infrastructure)

- The bottom up approach needs to leverage clustering and scenario reduction techniques
- The top down part should allow the users to define how cash flow are flexed as one size does not fit all

# Elements of the Solution

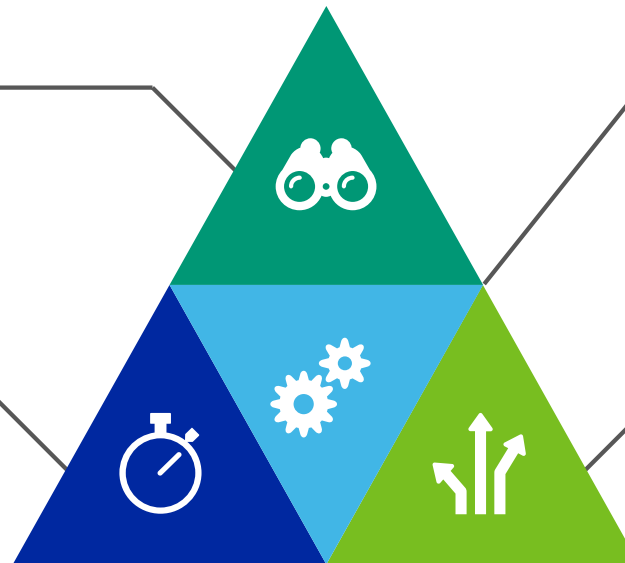
Enabling effective risk-based decision making through:

## Business Insight

Timely forward looking insight is critical to empower senior management to navigate the uncertain waters of the insurance industry

## Timely

Senior management require analysis from their business models in hours rather than weeks



## Modelling Capability

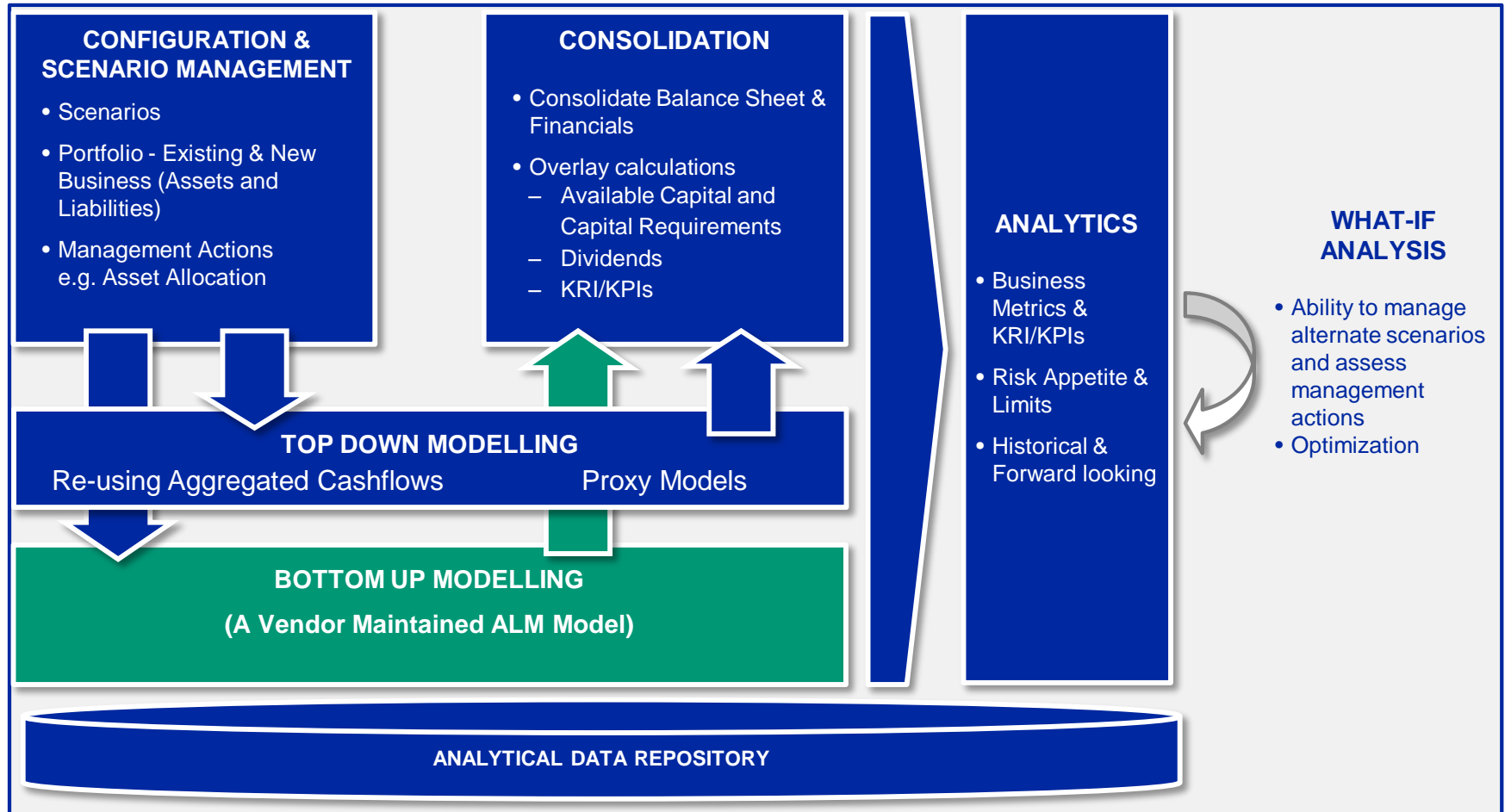
Insurance firms need a top down centralized business modelling capability that delivers analysis across a range of business metrics quickly and with sufficient accuracy

## What-If Analysis

Need to be able to assess the impact of different business scenarios and management actions to inform decision-making

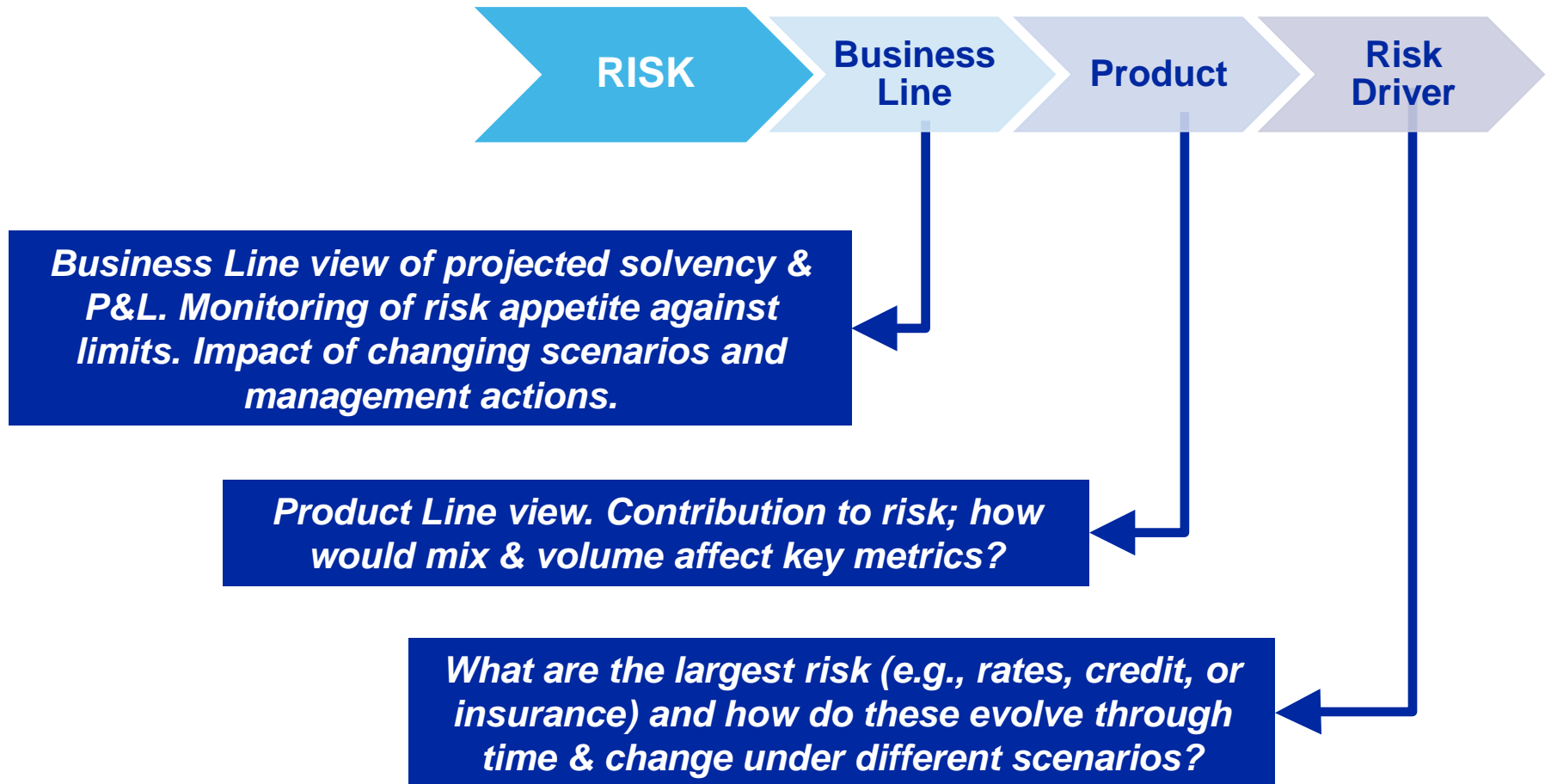


# Target Operating Model of the Solution



# Solution: Actionable Risk Analytics

Layered approach with drill down to the underlying drivers



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