Phoenix Group Uses F3 for Asset Liability Management

Highlights

Client

The Phoenix Group

Business objectives

- Optimize balance sheet usage
- Meet Solvency II requirements

Requirements

- Robust and flexible modeling to manage investment risk on their £7 billion annuity book

FINCAD solution

F3

FINCAD features

Analytics solution to bridge the gap between actuarial and asset manager models

Success factors

- Ability to create and manage bespoke ALM models for multiple asset classes
- On-demand scenario analysis
- Scalability

Phoenix Group's Challenge

The Phoenix Group is the largest UK consolidator of closed life assurance funds, with over 5 million policyholders and assets of £68.6 billion as at 31 December 2013. Its vision is to be the saver-friendly, industry solution for the safe, innovative and profitable management of closed life funds.

In 2012, Phoenix established a dedicated Financial Management Group (FMG) to develop strategies for investment, asset allocation and ALM. As part of this team, Prasun Mathur is responsible for optimizing shareholder risk-adjusted return arising from Phoenix's £7bn annuity book. To optimize their ALM strategy, and subsequently their return, FMG chose to bring quantitative financial analytics in-house.

Phoenix already had robust actuarial models to value risk and produce various regulatory reporting metrics, however, FMG needed to augment their existing actuarial risk monitoring process. FMG needed analytics that could bridge actuarial metrics (measuring Phoenix's regulatory balance sheet) and asset management metrics. This was a big challenge since actuarial fixed income modeling is quite different than fixed income modeling performed by asset managers. FMG needed the flexibility to create bespoke fixed income asset models that could be applied across various market scenarios. This solution would also help in measuring performance of the assets adjusted for the regulatory capital they are expected to hold.

In addition, with the European insurance industry entering into a new Solvency II based regulatory regime, Phoenix needed to be able to interpret and analyze regulations and evolve internal models to manage risks. This requires significant computing and modeling power to run through various scenarios and evaluate the best way of calculating capital, subject to Solvency II constraints.

"On-demand scenario analysis helps us make more accurate, timely, and thus, effective, investment decisions."

FINCAD's Solution

FMG reviewed a range of solutions, including standard off-the-shelf asset management software, actuarial modeling platforms, and analytics libraries developed by banks.

FINCAD's award-winning F3 technology was selected for its flexibility and ease-of-use. F3 also had the necessary API to create bespoke models for multiple asset classes and then to perform fast risk and return calculations across numerous scenarios.

The Results

Using F3, the Phoenix Group was able to model all assets within the annuity book and measure risk as actuaries and asset managers do on various regulatory and economic metrics. F3 seamlessly overlays Phoenix's actuarial assumptions into the modeling. This helps more frequent and timely monitoring of risks and returns in the annuity books, and thus, more effective investment decisions are made possible. Material reductions in market risks were thus made possible.

The firm now uses F3 to perform scenario and what-if analyses, as well as stress test the portfolios to test liquidity and proposed investment strategies. This helps the firm better react to changes (actual and predicted) in the market and appropriately manage its risk levels.

F3 is also used to model various risk mitigating hedging strategies. For example, this includes calculating the tenor and notional of baskets of swaptions to hedge interest rate exposure, in addition to a variety of DV01 hedging strategies. Knowing the impact of these potential strategies helps the firm choose the most appropriate one to optimize its hedges.

> *"This was the ideal pricing and risk platform solution for us. Using F3, we have been able to validate and augment our existing risk monitoring processes. Frequent scenario analysis helps make more accurate, timely and thus, more effective investment decisions. As a consequence, we have been able to reduce market risks and improve the firm's balance sheet. Once set up, the F3 models work seamlessly to reflect the change in risks and returns across various economic and regulatory reporting metrics and on-the-fly scenarios."*
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> Prasun Mathur, *Deputy Head of Investment Risk & ALM Strategy, The Phoenix Group*

About FINCAD

An established leader with more than 25 years of experience, FINCAD provides innovative and trusted financial analytics software to organizations worldwide.
With deep market understanding, a client-centered business approach, and unmatched quantitative and software engineering expertise, FINCAD is uniquely positioned to lead the market in enterprise valuation and risk technology. FINCAD serves more than 1,000 organizations across the globe. To learn more about FINCAD's award-winning solutions, please visit fincad.com.

Global Support

Vancouver
New York
London
Dublin

FinancialCAD Corporation

USA/Canada	1 800 304 0702
Vancouver	1 604 957 1200
New York	1 646 435 5920
Europe	00 800 304 07020
London	44 20 3743 6131
Dublin	353 1 400 3100
Fax	1 604 957 1201
Email	info@fincad.com

fincad.com

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