Numerix
Case Study

Glitnir Bank

Glitnir Bank, a government-formed, Icelandic bank that is now officially dissolved, utilized Numerix Valuation Services to perform accurate valuations for all derivative instruments on its books, in order to pay off its creditors and reach settlements with its counterparties.

AT A GLANCE

Challenge

Glitnir Bank needed to perform accurate valuations in order to pay off its creditors and reach settlements with its counterparties. Essentially, the Bank needs to ensure the remaining assets from its derivatives portfolio, post-bankruptcy, are equitably distributed amongst its list of creditors.

Solution

Since April 2010, Numerix has been working with Glitnir Bank to value approximately 3,500 trades, represented by more than 300 different counterparties. To perform these valuation services, Numerix CrossAsset Excel has been used throughout the project.

“Since we began the bond and derivative valuation project, we have relied on Numerix calculations and been happy with the outcome. Contact with Numerix has always been easy, as well as adjusting the size of the Numerix team {as needed} to the workload at each point...I have been very happy with the robustness of the calculations Numerix has provided.”

— Hreggviður Ingason, Derivatives Expert, Glitnir Bank

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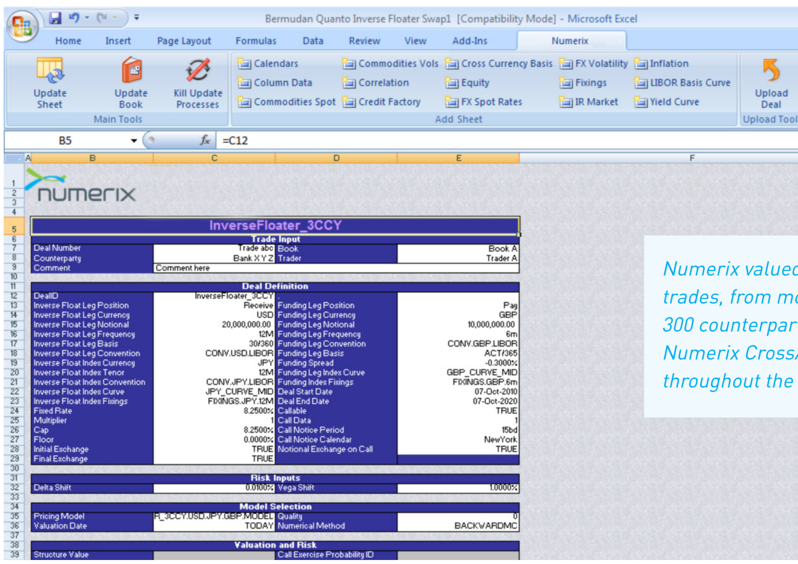
GLITNIR BANK BUSINESS CHALLENGES

Due to its ability to accurately value any financial instrument, Numerix was selected by the Winding-up Board (WuB) of Glitnir hf. to perform independent valuations.

The Bank needed to ensure the remaining assets post-bankruptcy were equitably distributed amongst its list of creditors. There were, at times, large discrepancies between a creditor claim on a single trade and the corresponding Numerix valuation—but, the Numerix Financial Engineering, Client Solutions, Expert Service Practitioners and Partner Relations Teams all worked to resolve these discrepancies. When necessary, Numerix also worked collaboratively with Deloitte UK, Slaughter and May and Morrison & Foerster.



Numerix valued over 3,500 trades, from more than 300 counterparties—using Numerix CrossAsset Excel throughout the project.

HOW NUMERIX SOLVED GLITNIR'S BUSINESS CHALLENGES

Since the time Glitnir Bank selected Numerix as its third-party valuation services provider in April 2010, Numerix has independently valued over 3,500 trades, from more than 300 counterparties.

Numerix CrossAsset was used, including numerous asset specific models, both standalone and with the Numerix Hybrid model. Many of the deals were highly complex to value. For example, Numerix was able to accurately value a structured note having 20 underlying Equity shares with 5 different currencies. Numerix used a mix of Equity Basket, Interest Rate and Foreign Exchange models for the valuation. The deal had a complicated coupon structure, which is both equity-linked and path dependent. In addition, Numerix carefully chose the appropriate models for various auto callable

Numerix CrossAsset was used to value the following instruments:

- *Vanilla IRS*
- *FX Forwards*
- *FX Resets*
- *FX Options*
- *Cross Currency IRS Resets*
- *Structured Commodity Baskets*
- *Quanto Equity Baskets*
- *Fixed Bond Accrued Interest/Floating Rate Accrued Interest*
- *Zero Coupon Bond Pro-Rated Redemptions*
- *Structured Bonds*
- *Structured Notes*
- *Structured Swaps, and other instruments*

notes, and was able to effectively manage the complexities of these deals, due to their high sensitivity to volatilities. (i.e. these type of deals can be early terminated if the underlying basket breaches certain barriers).

The market data-agnostic approach to Numerix analytics allowed us to utilize various market data providers to accommodate the specific requests of Glitnir and its creditors. Some of these providers included: Thomson Reuters, The Icelandic Central Bank, and numerous independent broker quotes. Multiple scenarios were generated to determine a range of possible values.

Glitnir Bank was pleased with both the flexibility of the Numerix framework and the strength of its partner network, which created many important benefits. These attributes enabled Numerix to incorporate a variety of different market data components, which allowed for multiple unique valuations of each trade on multiple dates. In fact, valuing each trade under different market scenarios and on different dates allowed the Winding-up Board to determine an appropriate range of fair market values for each trade. In addition to valuing each trade using different market data and different valuation dates, multiple models and methods were utilized to value each trade. This expanded the range of potential fair market values and also allowed for the reverse engineering of contested counterparty marks.

The valuation output came primarily in Excel format, where the trade characteristics, market data components, models/methods utilized, and payoff script were transparent and easily viewed. When relevant, the Numerix Financial Engineering Team would provide a description of the trade outcome including assumptions, calibration techniques, model and method selection, etc. to accompany the numerical calculations. For most vanilla trade types, the Bank provided flat files that they had extracted from source systems with basic trade characteristics. With these types of files, Numerix had to make numerous assumptions regarding the trade type and run multiple scenarios for numerous valuation dates. For other trade types, we received redacted term sheets and/or confirms and structured & valued the trades.

The Numerix Team size ebbed & flowed depending on the Bank's needs, urgency and size of the work to be done. Numerix utilized approximately eight different financial engineers, and one primary project manager oversaw the project from start to finish. The Bank also utilized Deloitte UK to aggregate and compare Numerix's third-party independent valuations with the claims from each counterparty. A large amount of explanation and assumption testing was required, so as to ensure the valuations would hold up in mediation, and potentially even in court proceedings.

ABOUT NUMERIX

Numerix is the award winning, leading independent analytics institution providing cross-asset solutions for structuring, pre-trade price discovery, trade capture, valuation and portfolio management of derivatives and structured products. Since its inception in 1996, over 700 clients and 80 partners across more than 25 countries have come to rely on Numerix analytics for speed and accuracy in valuing and managing the most sophisticated financial instruments.