

# IRRBB SOLUTION

By NtInsight® for IRRBB

## Overview

In the IRRBB Standards issued by Basel Committee on Banking Supervision on 21 April 2016, previous standards for interest rate risk have been revised to reflect changes in market and supervisory practices. The banks are expected to implement the standards by 2018.

The Numerical Technologies' team is getting prepared for this new requirement with the single platform that can be used for both regulatory calculation and reporting, NtInsight® for IRRBB.

## NtInsight® for IRRBB

NtInsight® for IRRBB follows the standardized framework and in addition to the standardized features, it provides the banks with a more in-depth insight of interest rate risk specifically on their banking books.

After deriving the interest rate shock and applying shock scenarios according to cash flow buckets, the software will perform the indicator calculations under the 6 scenarios specified:

Period	20160630	20160930	20160630	20160930
In reporting currency	△EVE	△NII		
Base Scenario	659	706	-848	-288
Forward Rate Scenario	102,913	46,427	102,913	149,340
Parallel up	-13,577	-7,920	-13,577	-21,498
Parallel down	31,381	17,486	31,381	48,867
Steepener	69,603	25,944	69,603	95,547
Flattener	88,516	35,350	88,516	123,867
Short rate up	819	3,016	819	3,835
Short rate down	-1,190,186	-566,094	-2,326,572	-2,876,185
Maximum	102,913	46,427	102,913	149,340
Period	20160630	20160930		
Tier 1 capital (%)	14	18		

Figure 1: [Software screenshots] Generating standardized report for IRRBB compliance ("T" and "T-1" can be flexibly selected using drop-down boxes)

## Interpreting the Results

Interest rate risk is one of the most important risks that commercial banks are facing. To better manage the interest rate in the banking book, simply relying on two figures, EVE and NII change, will not be enough.

In NtInsight® for IRRBB, besides the reporting form required, the software shows the impact on the full balance sheet and profit and loss statement (P&L). By taking advantage of built-in OLAP feature, the users are able to investigate how much impact can be made within various levels of business units under a certain scenario. Although it is not required by standardized approach, NtInsight® is capable of simulating the future economic values of financial statements, meanwhile taking potential investment plans into consideration. Users can then generate the reporting form and other financial statements for a user-defined time horizon to facilitate decision making and risk management process.

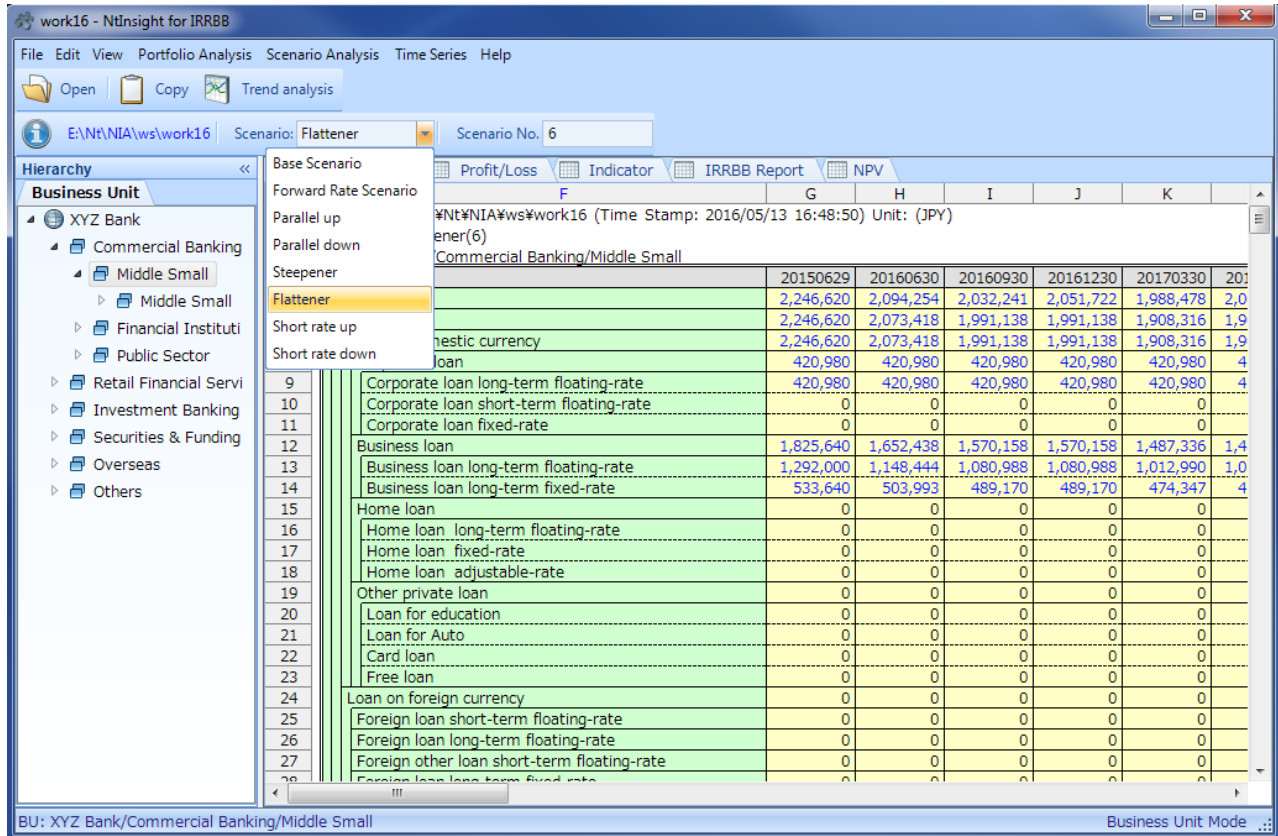


Figure 2: [Software screenshots]

Selecting business unit, “Commercial Banking”—“Middle Small”, to see the balance sheet impact under “Flattener” scenarios (future projections included)

## About Numerical Technologies

Numerical Technologies is a financial risk management software company and consulting firm that specializes in high-performance computing (HPC), parallel Monte Carlo simulation, and financial modeling. Since 1998, we have been helping some of the largest banks and insurance companies globally to quantify risk, identify opportunities, and meet economic and regulatory capital requirements. Numerical Technologies holds office in Singapore and Tokyo. Visit us at [www.numtech.com](http://www.numtech.com) for more information.