

LIQUIDITY STRESS TESTING

CASH FLOWS

- ▶ **Generate cash flows to maturity**
- ▶ **Cash flow generated using raw transaction/contract data**
- ▶ **Data is taken in near real time, daily batch or block-wise for a group of days**
- ▶ **Pre-payment behaviour factored into cash flows either based on historic cash flows or taken in from third party system**
- ▶ **Ability to deal with hybrid/structured products by building from individual components or by splitting into individual components (top down vs. bottom up)**
- ▶ **Cash flow engine differentiates between contractual, hypothetical, non deterministic/floating and deterministic/fixed cash flows**
- ▶ **Comprehensive coverage of financial instruments. See overleaf for some examples**
- ▶ **Same cash flow engine and data as is used in our Multi-GAAP or IFRS solution, which minimises reconciliation issues to the General Ledger**



▶ Floating cash flows:

- Ability to generate cash flow projections based on interest rate curves OR
- Cash flows can be calculated based on:
 - Last known customer interest rate
 - Customer yield curve
 - Customer yield curve and spread
 - Risk-free interest curve and credit spread curve
- Multiple cash flow projections can be generated for multiple interest rate curves which would either be existing interest rate curves stressed by scenarios or completely new interest rate curves by scenarios
- Business-user parameterised interest rate curves

▶ Cash flow simulation:

- Create synthetic cash flows for different stress scenarios
- Business-user parameterised, therefore firm is self-sufficient and not reliant on FERNBACH for consultation
- Simulate effects to cash flow of:
 - Changes in interest and FX rates
 - Credit defaults
 - Expected rollover of expiring deals
 - Cash flow from a replicating portfolio for savings deposits e.g. tax or salary payments.
 - Cash flows that do not relate directly to transactions

Some of the Financial Instruments Supported

Money Market

- Fixed term deposits
- Money market accounts
- Overnight money
- Forward deposits

Deposits

- Current accounts (Commercial & Retail)
- Savings deposits (Commercial & Retail)

Fixed Income

- Fixed and floating rate bonds
- Dual currency bonds
- Step-ups or Step-downs
- Phased bonds
- Annuity bonds
- Treasury notes/bonds/bills
- Commercial papers
- Certificates of deposit
- Share index linked bonds
- FX linked bonds

Derivatives

- Options on stocks or stock futures
- Swaptions
- Caps, Floors, Collars
- Stock Index Option
- Currency Options
- Bond Option
- Bond Index Option
- OTC Securities Option



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Some of the Financial Instruments Supported - Continued

Loans

- Commercial loans
- Annuity Loans
- Guarantees
- Mortgages
- Syndicated Loans
- Letters of credit
- Factoring

Foreign Exchange

- Spot FX trades
- Forward FX trades
- Currency swaps

Funds

- Stock Fund
- Bond Fund
- Money Market Fund
- Index Fund
- Special Fund