FIS TREASURY AND RISK MANAGER - QUANTUM EDITION

INTEREST RATE RISK MANAGEMENT

Piotr Kiepuszewski, 08 March 2023

FIS

A leader in technology and services for merchants, banks and corporates across the globe.

$87B
MARKET CAP.

450
SOLUTIONS

20K
CLIENTS

$14B
REVENUE

$10T
ANNUALLY GLOBAL MOVE

79B
GLOBAL TRANSACTIONS PROCESSED

62K
COLLEAGUES IN 52 COUNTRIES

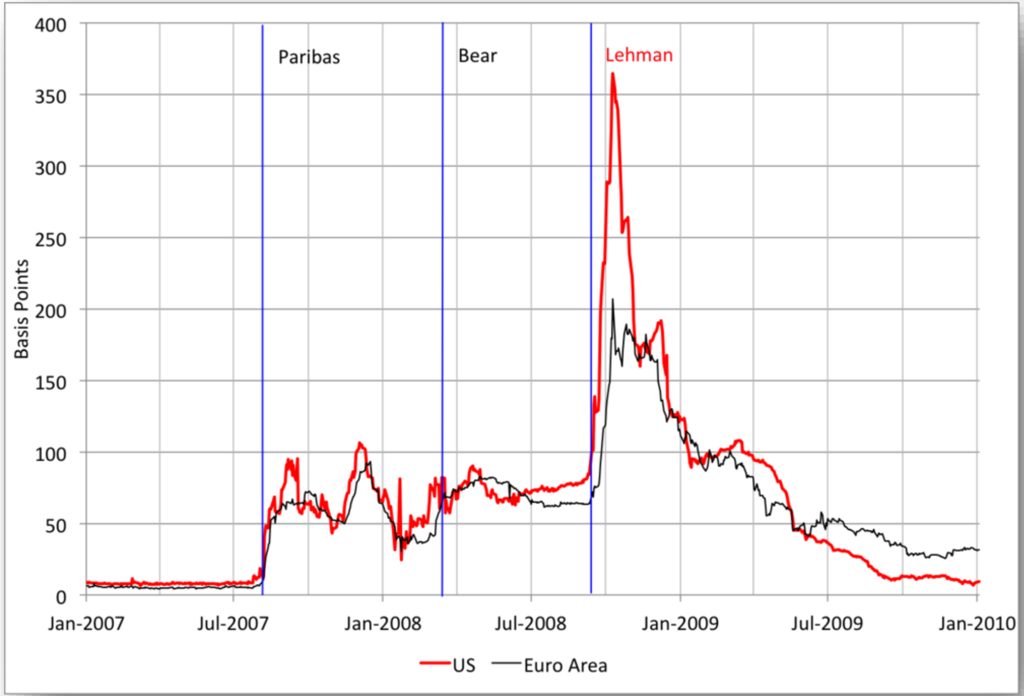
198
OPERATIONAL FACILITIES WORLDWIDE

Serving 60% of the
top 10 largest merchants

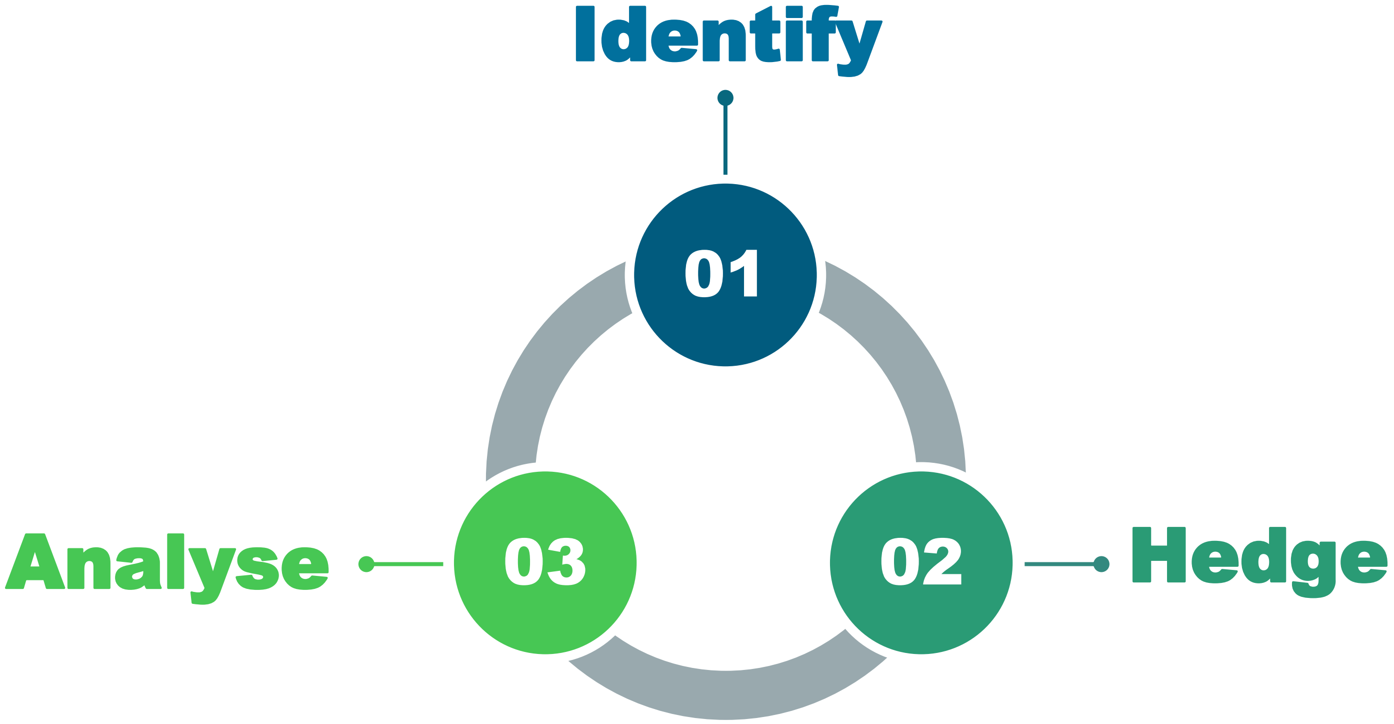
Serving 90% of the
top 20 private equity firms

Serving 90% of the
top 50 largest global banks

WHERE WERE YOU ON 15 SEPTEMBER 2008?



INTEREST RATE RISK MANAGEMENT



IR EXPOSURE IDENTIFICATION

01
02
03

Full Portfolio Analysis

All treasury transactions, incl. RFR benchmarks

IR Risk Measurement

Flexible and aligned to your needs

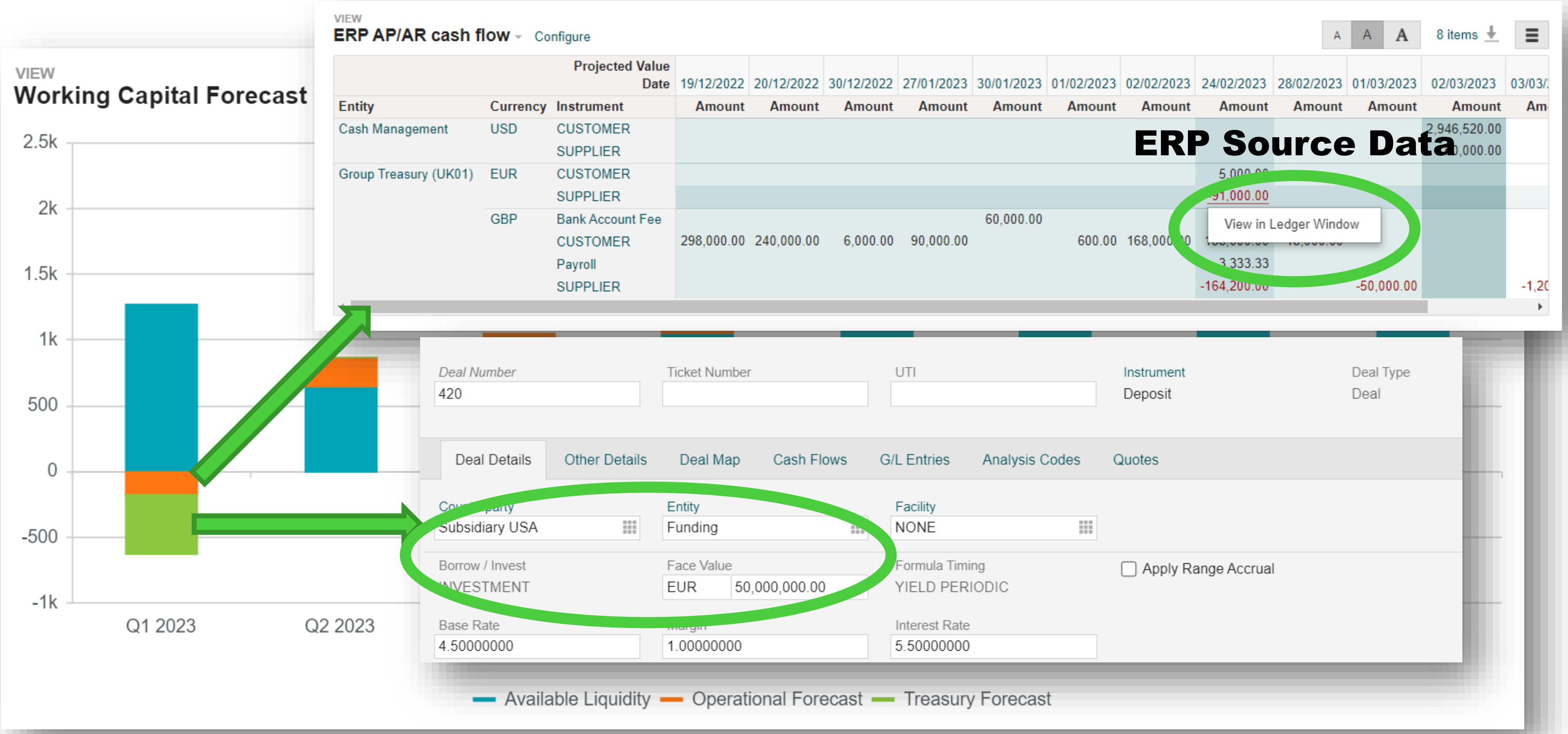
Live Dashboards

On demand view of IR exposures

FIS

FUNDING DECISIONS

Time-bucketed liquidity forecast, by source



IR EXPOSURE IDENTIFICATION

Fixed/Floating Portfolio Analysis and Policy Limits

CASH FLOW — QUERY **ANALYTICS**

Cashflow Gaps

483277 a minute ago Previous Runs... Configure

VIEW
by I

Cur
EUR

VIEW

by Repricing Date

Configure

A A A 10 items

Time Profile End		Jan-23	Apr-23	Jul-23	Oct-23	Jan-24	Apr-24	Jul-24	Oct-24
Currency	Fixed Floating	Face Value Base	Face Value Base	Face Value Base	Face Value Base	Face Value Base	Face Value Base	Face Value Base	Face Value Base
EUR		0	0	0	0	0	0	0	
GBP									
USD									

Cashflow Gaps — by Currency

latest - 8 minutes ago

3 items

Time Profile	Quarterly 1	Quarterly 2	Quarterly 3	Quarterly 4	Quarterly 5	Quarterly 6	Quarterly 7	Quarterly 8
Currency	BP Delta Base	BP Delta Base	BP Delta Base	BP Delta Base	BP Delta Base	BP Delta Base	BP Delta Base	BP Delta Base
EUR	1,304	251	315	524	59,826	4	10	183,370
GBP	-47	-1	36	-3	69	-4	101	50,250
USD	5,273		-3		-5		-8	-12,037
Grand Total	6,531	250	348	521	59,890	0	103	221,582

IR EXPOSURE IDENTIFICATION

Full Portfolio Analysis
Coverage of all treasury transactions

IR Risk Measurement
Flexible and aligned to your needs

Live Dashboards
On demand view of IR exposures

IR EXPOSURE HEDGING

Hedging Policy Implementation

Recognition of hedging thresholds

Hedging Proposals

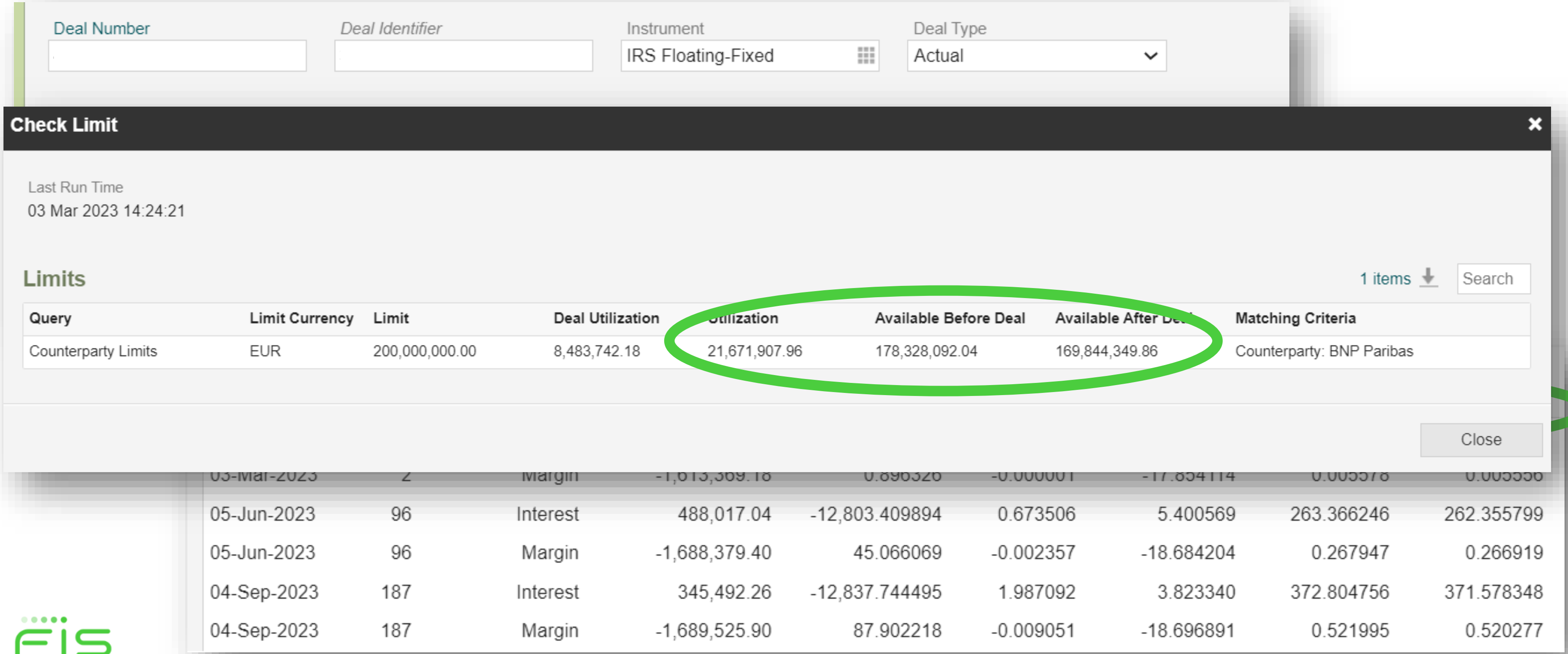
Suggested hedging transactions

Hedge Accounting

Various HR types, with hedge automation

IR EXPOSURE HEDGING

Pre-hedge transaction checks



Deal Number	Deal Identifier	Instrument	Deal Type
		IRS Floating-Fixed	Actual

Check Limit

Last Run Time
03 Mar 2023 14:24:21

Limits 1 items Search

Query	Limit Currency	Limit	Deal Utilization	Utilization	Available Before Deal	Available After De	Matching Criteria
Counterparty Limits	EUR	200,000,000.00	8,483,742.18	21,671,907.96	178,328,092.04	169,844,349.86	Counterparty: BNP Paribas

Close

03-Mar-2023	2	Margin	-1,613,369.18	0.896326	-0.000001	-17.654114	0.005578	0.005556
05-Jun-2023	96	Interest	488,017.04	-12,803.409894	0.673506	5.400569	263.366246	262.355799
05-Jun-2023	96	Margin	-1,688,379.40	45.066069	-0.002357	-18.684204	0.267947	0.266919
04-Sep-2023	187	Interest	345,492.26	-12,837.744495	1.987092	3.823340	372.804756	371.578348
04-Sep-2023	187	Margin	-1,689,525.90	87.902218	-0.009051	-18.696891	0.521995	0.520277

IR EXPOSURE HEDGING

Hedging policy and hedge proposals

VIEW

by Fixed/Floating - in Thousands Configure

	Time Profile End	Mar-23			Jun-23			Sep-23			Dec-23		
Currency	Fixed Floating	Cashflow (Base)	Fix-to-Float %	Policy Limit %	Cashflow (Base)	Fix-to-Float %	Policy Limit %	Cashflow (Base)	Fix-to-Float %	Policy Limit %	Cashflow (Base)	Fix-to-Float %	Policy Limit %
EUR	Fixed	4,727.5	100.5	85.0	-5,424.2	90.5	85.0	-5,901.4	94.6	85.0	-5,378.1	93.1	85.0
	Floating	-24.4	-0.5	45.0	[illegible]	[illegible]	[illegible]	-338.3	5.4	45.0	-401.1	6.9	45.0

IRS Hedge

500M EUR 1Y Float-Fix IRS

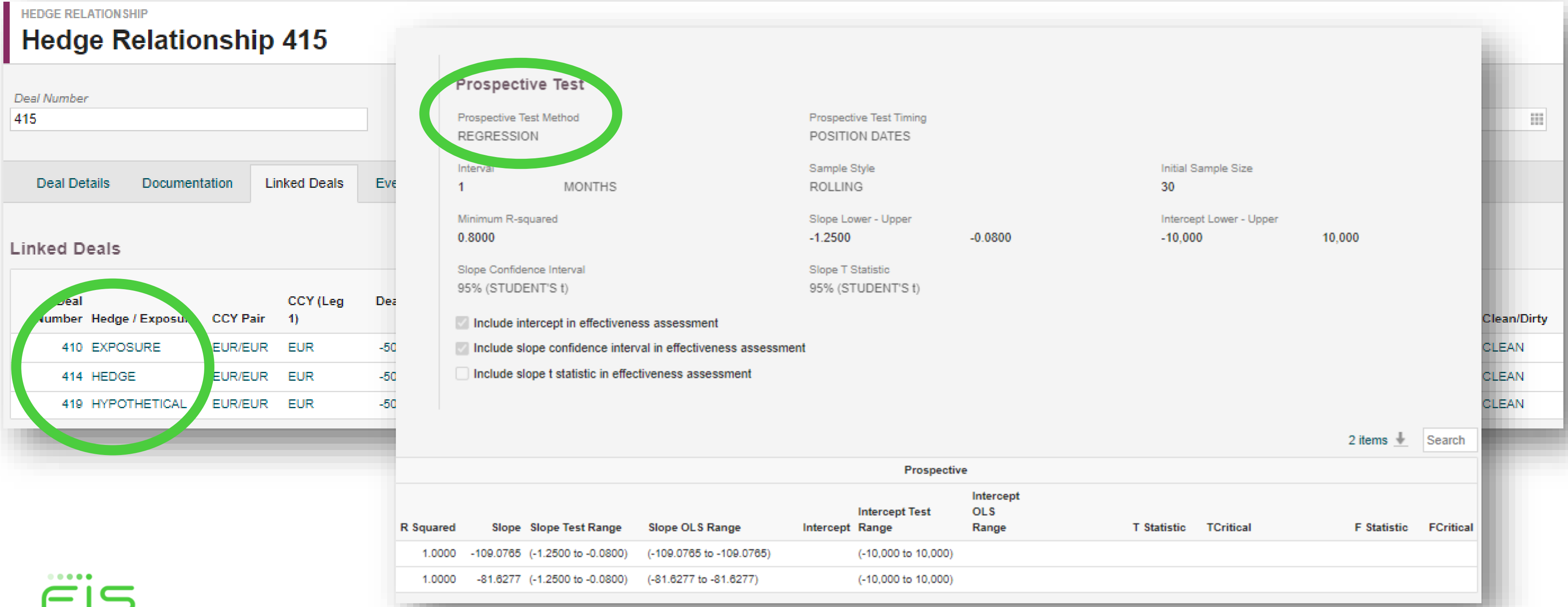
VIEW

by Fixed/Floating - in Thousands Configure

	Time Profile End	Mar-23			Jun-23			Sep-23			Dec-23		
Currency	Fixed Floating	Cashflow (Base)	Fix-to-Float %	Policy Limit %	Cashflow (Base)	Fix-to-Float %	Policy Limit %	Cashflow (Base)	Fix-to-Float %	Policy Limit %	Cashflow (Base)	Fix-to-Float %	Policy Limit %
EUR	Fixed	8,319.8	151.7	85.0	-1,668.6	55.8	85.0	-2,145.8	53.7	85.0	-1,663.3	43.6	85.0
	Floating	-2,835.5	-51.7	45.0	[illegible]	44.2	45.0	[illegible]	46.3	45.0	[illegible]	[illegible]	45.0

IR EXPOSURE HEDGING

Hedge Accounting and Automation



IR EXPOSURE HEDGING

01
02
03

Hedging Policy Application
Recognition of hedging thresholds

Hedging
Suggested hedging transactions

Hedge Accounting
Various HR types, with hedge automation

Advanced Hedging Policy Rules
Automated notification for policy breaches

Automated dealing
Time saving and lower risk of manual errors

Better Financial Reporting
Sophisticated HA requirements met

POST-TRADE ANALYTICS

01
02
03

Will my hedge be effective tomorrow?

Changing market conditions

How will it perform when stressed?

Modeling black swans

How effective was my hedging policy?

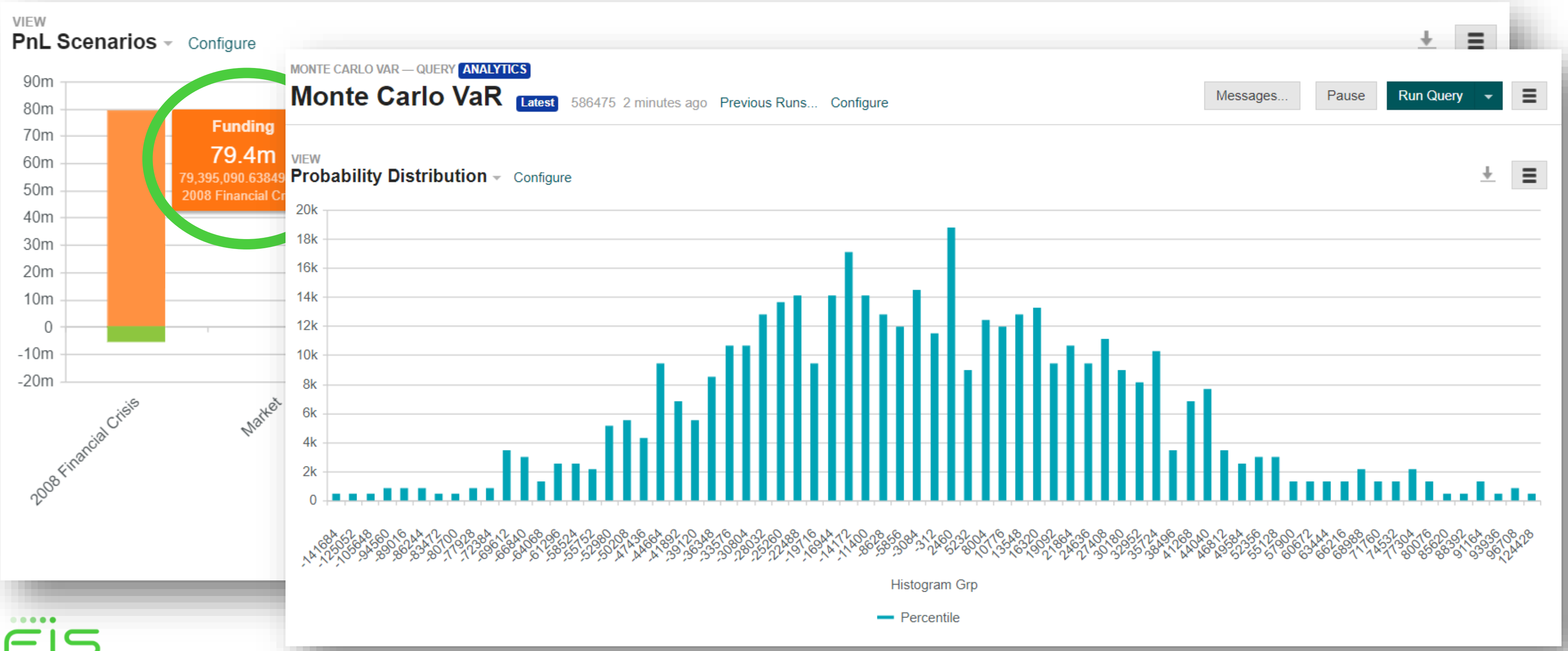
Policy backtesting

POST-TRADE ANALYTICS

Scenario definition

POST-TRADE ANALYTICS

Impact assessment



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POST-TRADE ANALYTICS

Will my hedge be effective tomorrow?
Changing market conditions

How will it perform when stressed?
Modeling black swans

How effective was my hedging policy?
Policy backtesting

Configurable Scenario Analysis
User-friendly scenario definition

Value at Risk
Historical, Variance-Covariance, Monte Carlo

On-Demand Reporting Suite
Based on historical data

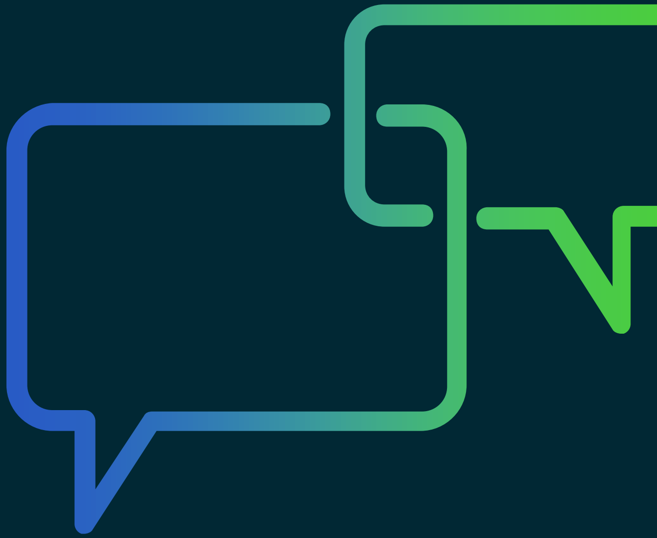
FIS SOLUTIONS & IR RISK MANAGEMENT

IR EXPOSURES IDENTIFICATION

IR EXPOSURES HEDGING

POST-TRADE ANALYTICS

Q&A



IR HEDGING WORKFLOW

- Identifying IR risk exposures
- Validation of hedging policy
- Hedging decision
  - Hedge proposal
  - Trade capture
  - Post-trade analysis
- Portfolio stress test
- IR risk dashboard

YOUR OBJECTIVES

TREASURY AND INTEREST RATE RISK

"I want to have transparency around my IR risk exposures"

- ✔ IR analysis of all treasury transactions
- ✔ IR risk measurement aligned with your policy
- ✔ Flexible user-configurable reporting

"I want to make effective hedging decisions"

- ✔ Pre-hedge limits check
- ✔ Incorporation of hedging policy
- ✔ Hedging proposals / simulations

"I want to simulate market impact on my portfolio"

- ✔ Scenario analysis
- ✔ Liquidity impact assessment
- ✔ P/L impact assessment

FUNDING DECISIONS

Time-bucketed liquidity forecast, by source

VIEW
Period Configure

A A A 3 items

	Header	in EUR							
	Period	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24	Sep-24	Dec-24
Type	**DealType**	**Amount**	**Amount**	**Amount**	**Amount**	**Amount**	**Amount**	**Amount**	**Amount**
Available Liquidity	Actual	1,276.4	647.8	860.7	1,045.7	1,245.2	1,478.1	1,669.2	1,926.7
Operational Forecast	Actual	[illegible]	212.2	194.4	202.3	191.0	213.5	236.0	224.8
Treasury Forecast	Actual	-457.2	0.7	-9.4	-2.8	41.9	-0.3	-0.7	-3.1
Grand Total		Funding	[illegible]	**1,045.7**	**1,245.2**	**1,478.1**	**1,691.3**	**1,904.6**	**2,148.3**

500M EUR
1Y Fixed
Borrowing

Period Configure

A A A 3 items

	Header	in EUR							
	Period	Mar-23	Jun-23	Sep-23	Dec-23	Mar-24	Jun-24	Sep-24	Dec-24
Type	**DealType**	**Amount**	**Amount**	**Amount**	**Amount**	**Amount**	**Amount**	**Amount**	**Amount**
Available Liquidity	[illegible]	1,276.4	1,147.7	1,354.9	1,534.2	1,728.1	1,455.5	1,646.6	1,904.1
Operational Forecast	[illegible]	[illegible]	212.2	194.4	202.3	[illegible]	213.5	236.0	224.8
Treasury Forecast	Actual	42.7	-5.0	-15.1	-8.4	-463.6	-0.3	-0.7	-3.1
Grand Total		[illegible]	**1,354.9**	**1,534.2**	**1,728.1**	[illegible]	**1,668.7**	**1,881.9**	**2,125.7**