

# Come navigare la crisi nel continuo?

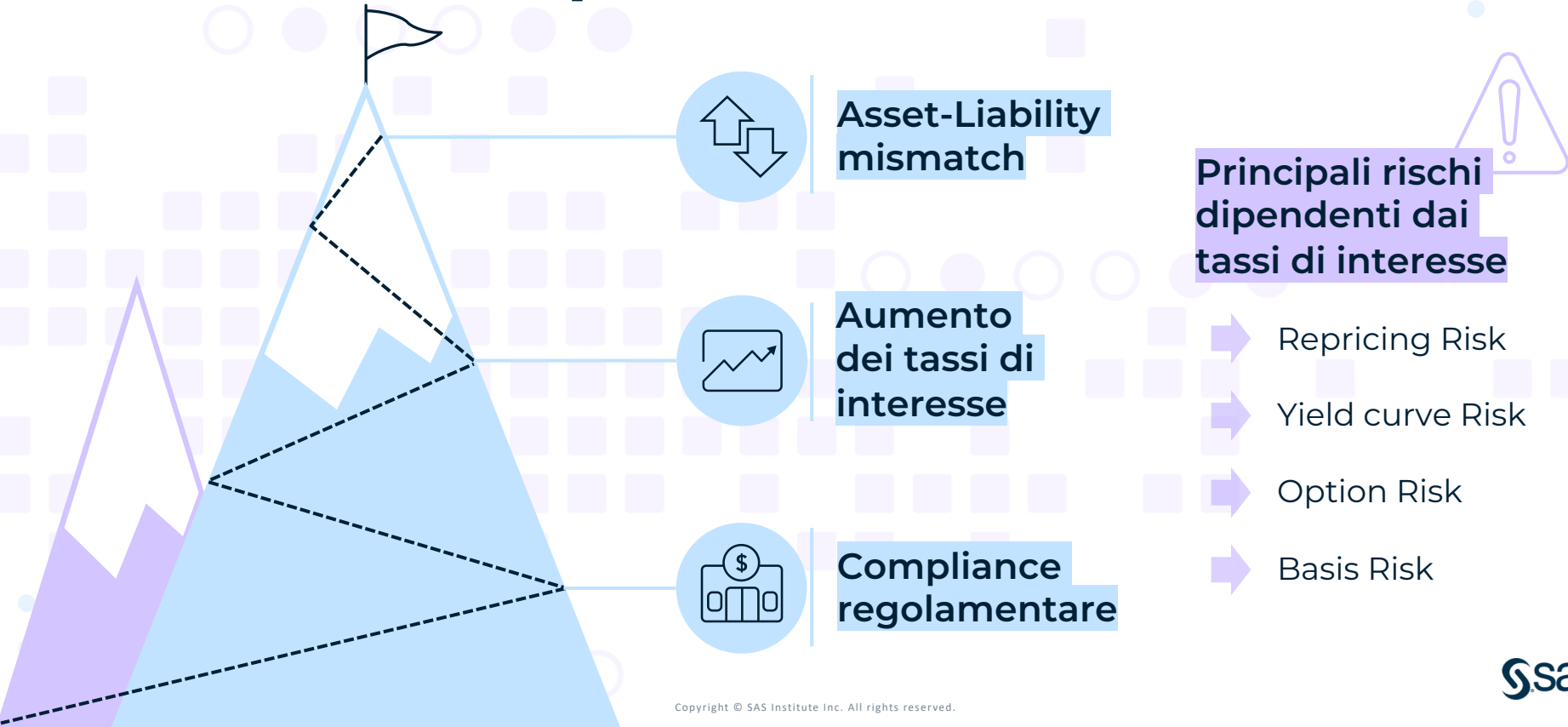
Ripensare il rischio tasso per una gestione integrata del bilancio

Supervision, Risks & Profitability  
6 giugno 2023 – ABIEventi

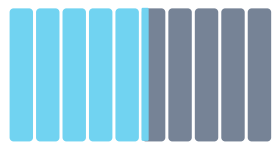
Giada Scalpelli – Senior Customer  
Advisory Risk Management SAS



# Il panorama attuale della gestione del rischio tasso: quali sono le sfide?



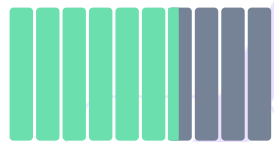
# Le prospettive future dell'ALM: cosa ci attende?



53%

## Integrazione e collaborazione

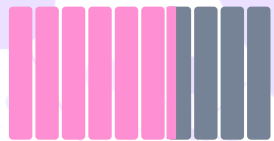
I dipartimenti di Risk, Finance e Treasury collaboreranno molto di più, utilizzando stessi dati e strumenti



65%

## Simulazioni e stress testing

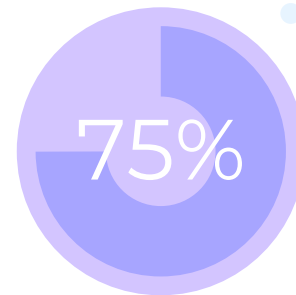
Analisi simulative intraday e stress testing diventeranno parte delle attività business-as-usual



64%

## Tecnologie innovative

Le innovazioni tecnologiche spingeranno verso una completa revisione degli attuali sistemi ALM

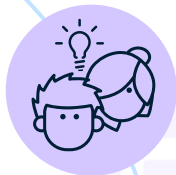


75%

## Integrated Balance Sheet

Entro 3 anni, le banche avranno implementato, beneficiandone, una gestione integrata del bilancio

# Un approccio integrato all'analisi dei rischi finanziari: l'acquisizione di Kamakura



## Thought Leaders

Donald Van Deventer, Robert Jarrow e Martin Zorn fanno parte del team SAS alla guida dello sviluppo di soluzioni rischio e ALM innovative



## Innovazione

L'acquisizione di Kamakura testimonia l'impegno continuo di SAS verso l'innovazione funzionale e tecnologica, in linea con le esigenze del mercato



## The Perfect Match!

La tecnologia all'avanguardia di SAS e l'esperienza di Kamakura nella gestione del rischio finanziario sono la combinazione perfetta per portare valore



# L'approccio SAS alla gestione del rischio tasso: come prepararsi al futuro dell'ALM?



# L'approccio SAS alla gestione del rischio tasso



## METRICHE

- Capacità di calcolare  $\Delta$ EVE e NII
- Altre metriche aggiuntive (EaR, VaR, PV01, Modified Duration)



## SIMULAZIONI DI STRESS

- Applicazione degli scenari di shock standard BCBS
- Yield curve stress shifts per ogni valuta significativa



## IN/ESCLUSIONE DEI MARGINI COMMERCIALI

- Esclusione del margine di interesse commerciale senza modifiche al profilo di pagamento
- Sconto derivante con curve risk-free



## PREPAYMENT E IR OPTIONALITY

- Portafogli prestiti fixed-rate omogenei con baseline CPR e IR shock relativi
- Determinare la variazione del valore delle opzioni di IR (es: floor/cap) per scenario



## ASSUNZIONI NMD

- Replicazione dei portafogli
- Assunzioni per i modelli comportamentali



## RUNOFF/DYNAMIC MODELING

- $\Delta$ EVE su run-off basis
- NII secondo modelli a bilancio costante o modelli con flussi dinamici

# L'approccio SAS alla gestione del rischio tasso



Interfaccia unica per accedere a tutte le analisi ed esplorare i risultati



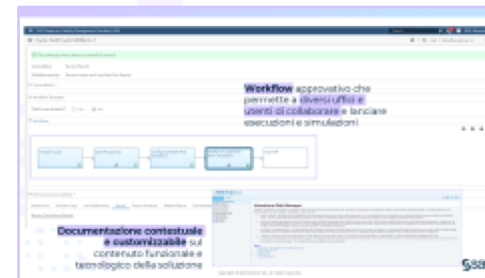
Analisi di scenario & stress test



Maturity Mismatch



Governance del processo



- Global Setup >
- Data >
  - Portfolio >
  - Market >
  - Credit >
  - Counterparties >
- Calibration >
- Modules >
  - ALM >
  - Basel Credit RWA >
  - Basel Liquidity >
  - Basel IRRBB >
  - Credit Risk >
  - FTP (Historical) >
  - Forecast FTP >
  - MKT(FRTB)-SA >
  - SA-CCR >
  - CVA >
  - VaR >
  - Stress Testing >
  - IFRS 9 >
- Reporting
- Report Editor

### System Modules



# L'approccio SAS alla gestione del rischio tasso



Interfaccia unica per accedere a tutte le analisi ed esplorare i risultati



Analisi di scenario & stress test



Maturity Mismatch



Governance del processo



KRM101 | WEB10

Forecast Master | PROD\_FCST\_MAST

Forecast Master ID: RL\_06 | Description: Rollover Multi-Curr (Other)

Product Set ID: Test Floating Rate Coupon | Report Set ID: X

Forecast Products | Source Parameters | Target Parameters | Target Modeling | **Target Allocation** | Product Attributes

Forecast Flag	Reporting Period	Source Prod ID	Target Prod ID	Allocation Flag	Allocation Percentage	Allocation
-ALL-	-ALL-	-ALL-	-ALL-			
Rollover		100	200	Input Allocation		100
Rollover		100	200	Input Allocation		100

Forecast Configuration

- Forecast Master
- Forecast Product Details
- Forecast Cuts
- Product Pricing
- Forecast Limits

Rebalancing

- Rollover
- Supporting
- Calculation
- Transfer Pricing
- Stress Testing
- Hedge
- Credit

Definire autonomamente le assunzioni di crescita ed allocarle secondo la propria strategia

Essere indipendenti nell'utilizzo del sistema, accedendo trasparentemente alle logiche dietro assunzioni e simulazioni



Esplorare e confrontare i **risultati** delle simulazioni



Select the Execution Type

- BS: Constant Balances
- BS: Constant Balances, EBA IR Expectations
- BS: Dynamic Balances, Budget Expectations
- BS: Dynamic Balances, EBA Expectations All
- BS: Dynamic Balances, EBA Expectations All - Simulation
- BS: Dynam

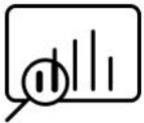
Focus Risk Factors



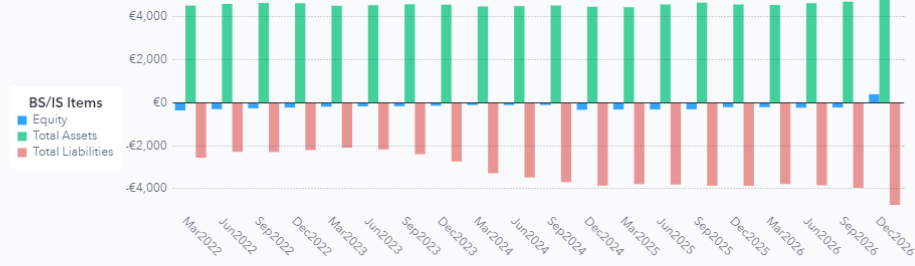
Select the Scenario

- Base Case
- Baseline Rates
- Adverse Rates

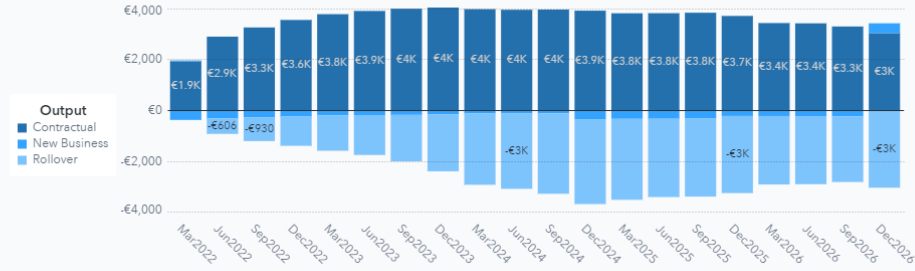
Compare Scenarios



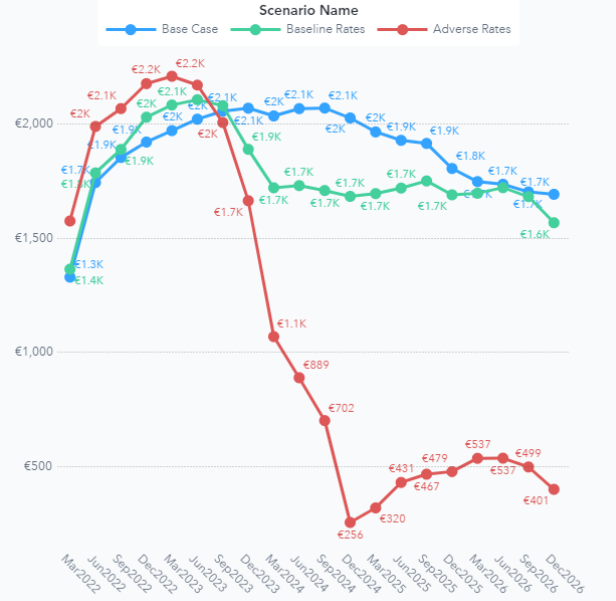
Net Interest Income



Interest Income by Date and Output



Interest Income by Date and Scenario



Confrontare i **risultati** su diversi scenari



# Confrontare i risultati di NII ed EVE su diversi scenari, con un focus specifico sulle sensitività rispetto allo scenario baseline

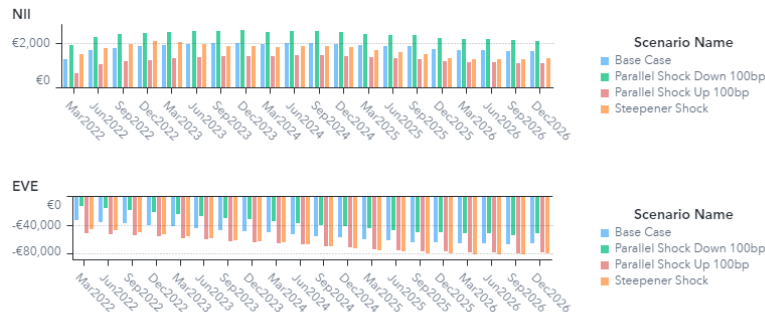
Select the Execution Type

- BS: Constant Balances
- BS: Constant Balances, EBA IR Expectations
- BS: Dynamic Balances, Budget Expectations
- BS: Dynamic Balances, EBA Expectations All
- BS: Dynamic Balances, EBA Expectations All - Simulation
- BS: Dynamic Balances, EBA IR Expectations

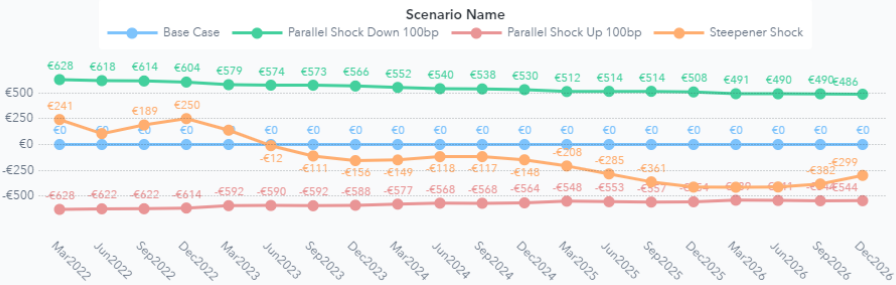
Select the Scenarios to compare

- Base Case
- Flattener Shock
- Parallel Shock Down 100bp
- Parallel Shock Down 200bp
- Parallel Shock Up 100bp
- Parallel Shock Up 200bp
- Steepener Shock

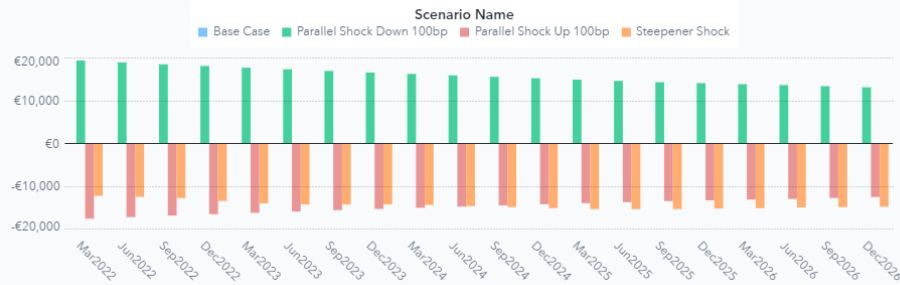
End Period...	Scenario Name	NII	NII Sensitivity	EVE	EVE Sensitivity
Mar2022	Steepener Shock	€1,570.65	€241.17	-€45,823.89	-€12,134.96
	Parallel Shock Up 100bp	€701.76	-€627.72	-€51,148.00	-€17,459.07
	Parallel Shock Down 100bp	€1,957.11	€627.63	-€14,171.03	€19,517.90
	Base Case	€1,329.48	€0.00	-€33,688.93	€0.00
Jun2022	Steepener Shock	€1,848.88	€105.42	-€48,058.78	-€12,347.43
	Parallel Shock Up 100bp	€1,121.33	-€622.13	-€52,813.86	-€17,102.51
	Parallel Shock Down 100bp	€2,361.40	€617.94	-€16,630.03	€19,081.32
	Base Case	€1,743.46	€0.00	-€35,711.35	€0.00
Sep2022	Steepener Shock	€2,042.01	€188.96	-€50,685.48	-€12,639.15
	Parallel Shock Up 100bp	€1,231.54	-€621.51	-€54,782.45	-€16,736.12



NII Sensitivity: Deltas vs Base Case



EVE Sensitivity: Deltas vs Base Case





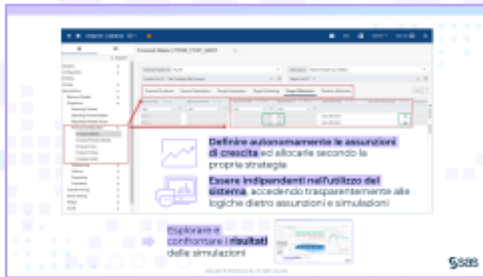
# L'approccio SAS alla gestione del rischio tasso



Interfaccia unica per accedere a tutte le analisi ed esplorare i risultati



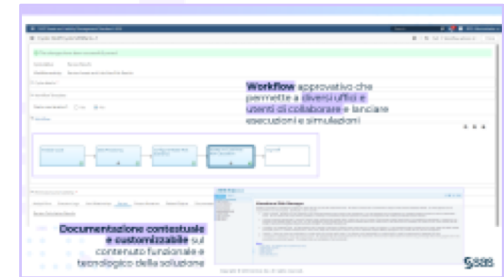
Analisi di scenario & stress test



Maturity Mismatch



Governance del processo



# Monitorare e comprendere il maturity mismatch di attivi e passivi all'interno del portafoglio, confrontando diverse strategie ed evolutive

Select the Execution Type

- BS: Constant Balances
- BS: Constant Balances, EBA IR Expectations
- BS: Dynamic Balances, Budget Expectations
- BS: Dynamic Balances, EBA Expectations All
- BS: Dynamic Balances, EBA Expectations All - Simulation
- BS: Dynamic Balances, EBA IR Expectations

Select the Scenario

Baseline Rates

Adverse Rates

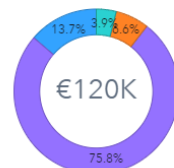
Mar2022  
 Mar2022 Dec2026

Select the Product Type

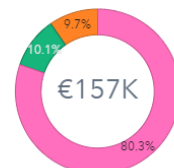
- BANK LOANS
- CENTRAL BANK LOANS
- CORPORATE LOANS
- CORPORATE LOANS\_FLT
- DEPOSITS
- GOVERNMENT LOANS
- MORTGAGE\_FIX
- NON\_INT
- OTHER LOANS
- PRIVATE LOANS
- PRIVATE LOANS



Maturity Bucket Y Short Term

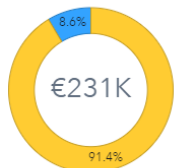


Maturity Bucket Y Medium Term

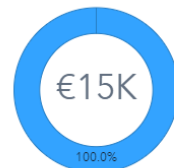


Maturity Bucket Y Long Term

- Product Description
- BANK LOANS
  - CENTRAL BANK LOANS
  - CORPORATE LOANS
  - CORPORATE LOANS\_FLT
  - OTHER LOANS
  - PRIVATE LOANS
  - GOVERNMENT LOANS
  - MORTGAGE\_FIX



Maturity Bucket Y Short Term

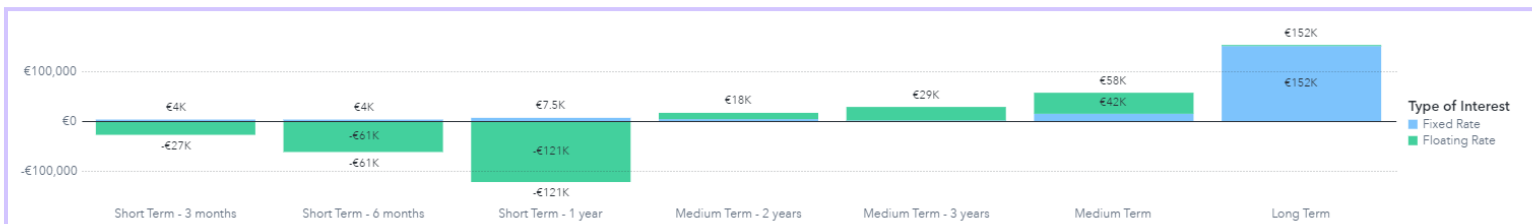


Maturity Bucket Y Medium Term



Maturity Bucket Y Long Term

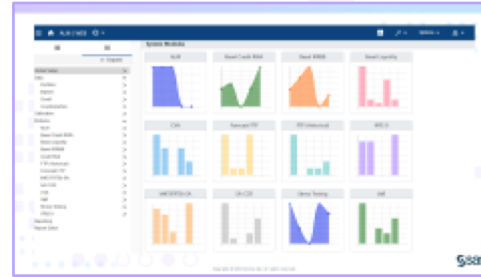
- Product Description
- CORPORATE LOANS\_FLT
  - DEPOSITS



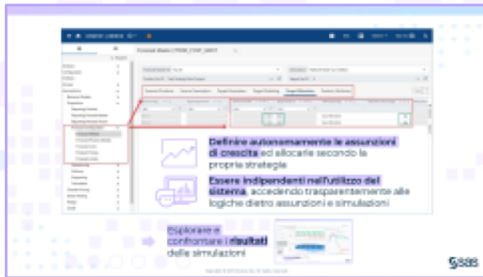
# L'approccio SAS alla gestione del rischio tasso



Interfaccia unica per accedere a tutte le analisi ed esplorare i risultati



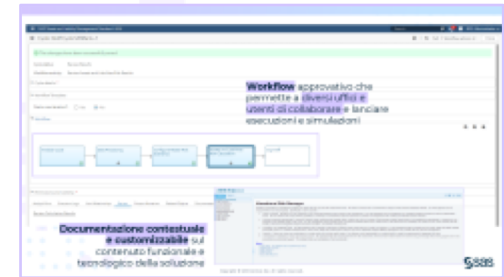
Analisi di scenario & stress test



Maturity Mismatch



Governance del processo



## Cycle: ALM Cycle SASBank\_1

Workflow actions Close

✓ The changes have been successfully saved.

Cycle status: Review Results

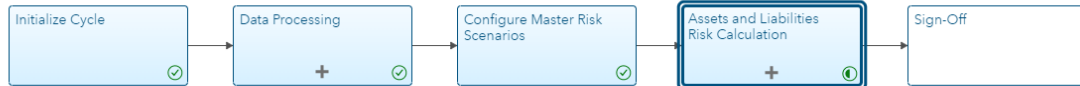
Workflow activity: Review Assets and Liabilities Risk Results

## Cycle details: \*

## Workflow Template:

Start a new iteration?:  Yes  No

## Workflow:



**Workflow** approvativo che permette a diversi uffici e utenti di collaborare e lanciare esecuzioni e simulazioni

## Permissions and visibility: \*

Analysis Runs Execution Logs View Relationships Review Process Narratives Related Objects Documentations

[Review Calculation Results](#)

**Documentazione contestuale e customizzabile** sul contenuto funzionale e tecnologico della soluzione

**KRM Help 10.1**

Comments Search

- ▣ Kamakura Risk Manager
  - ▣ KRM Installation
  - ▣ System Information
  - ▣ Desktop Interface
  - ▣ Product Modeling
  - ▣ Building Blocks in KRM
  - ▣ Getting Started
  - ▣ KRM Functionality
  - ▣ KRM Analytics
  - ▣ KRM Support

### Kamakura Risk Manager

Kamakura Corporation is committed to providing our clients with the very best risk measurement tools. This does not merely mean a commitment to using the most advanced analytical methods. Our whole approach to risk measurement is more encompassing. Specifically, we aim to provide:

- **Clarity of thought.** Kamakura is a key contributor to the world's best thinking across all levels of risk management – from the implications of risk management on competitive position through to the thorny mathematical issues. We have achieved this unique thinking capability by combining our extraordinary depth of experience in practical risk management with a leading and dedicated research function.
- **Advanced Analytical Methodologies.** Kamakura's software suite, Kamakura Risk Manager (KRM), contains not one but a number of the generally accepted, best practice, risk management methodologies - including our own. Analytics are the highest quality in the world. Our risk management experts include director of research Professor Robert Jarow, best known for his interest rate risk modeling work (Heath, Jarow, Morton interest rate risk model) as well as risk management experts and authors (Donald R. van Dender and Konj Imai).
- **Consistent, Fully Integrated Tools.** The KRM Software Suite is actually a single piece of software within which there are a variety of "solutions". A key advantage of KRM is the ability to solve credit, asset and liability, trading and liquidity risks on a consistent analytical basis. KRM's unitary design also means that its users do not have to separately integrate different packages for ALM, market risk and credit risk management.
- **Flexibility.** Clients can choose any combination of our total solution to suit their specific needs. Our software can be implemented in a modular fashion to meet the requirements of independent risk sites.
- **Commitment to installations, training and ongoing support.** We understand the real world requirements for risk measurement. We know that the best model in the world is not good enough without strong support and we are committed to providing that support. This manual is just one manifestation of that commitment.

**More:**

- ▣ Using KRM - Two Different but Complementary Ways
- ▣ KRM Model Overview
- ▣ KRM Solutions
- ▣ KRM Process
- ▣ About this Help File

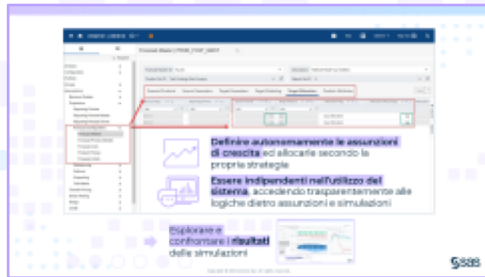
# L'approccio SAS alla gestione del rischio tasso



Interfaccia unica per accedere a tutte le analisi ed esplorare i risultati



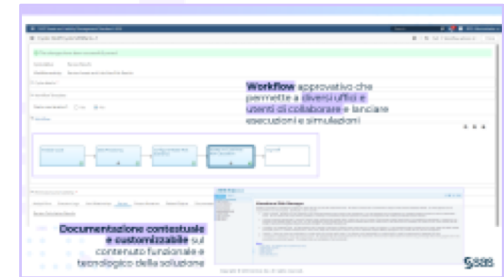
Analisi di scenario & stress test



Maturity Mismatch



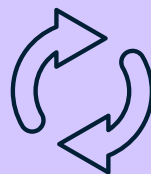
Governance del processo



# Come navigare la crisi nel continuo in ambito ALM?



**Diventando indipendente**  
grazie al potenziamento delle capacità di simulazione macro economica e di crescita



**Cambiando o integrando**  
gli attuali sistemi legacy ALM con un approccio più innovativo, dinamico e strategico



**Prendendo il meglio**  
della tecnologia SAS e dell'esperienza e thought leadership Kamakura



**Grazie!**

[giada.scalpelli@sas.com](mailto:giada.scalpelli@sas.com)