KYNEC | APTONOMY

Webinar OTC Pricing in a volatile market place

Robert McWilliam
CEO
Kynec

Philip Staddon
Founding Partner
Aptonomy

OTC Pricing in a volatile marketplace - lessons learnt from the XVA Desk

Agenda

- Short introduction – the evolution of pricing - Paul Manson
- How to price and manage these emerging complexities – Phil Staddon
- Financial Resource Management as the catalyst – Robert McWilliam
- Q and A
- Summary

APTONOMY

KYNEC

Evolution of OTC Pricing

~1996

- CVA Starts
- Most things discounted against LIBOR

mid 2000's

- More banks started CVA valuation
- Starting with pricing and moving to accounting and risk management

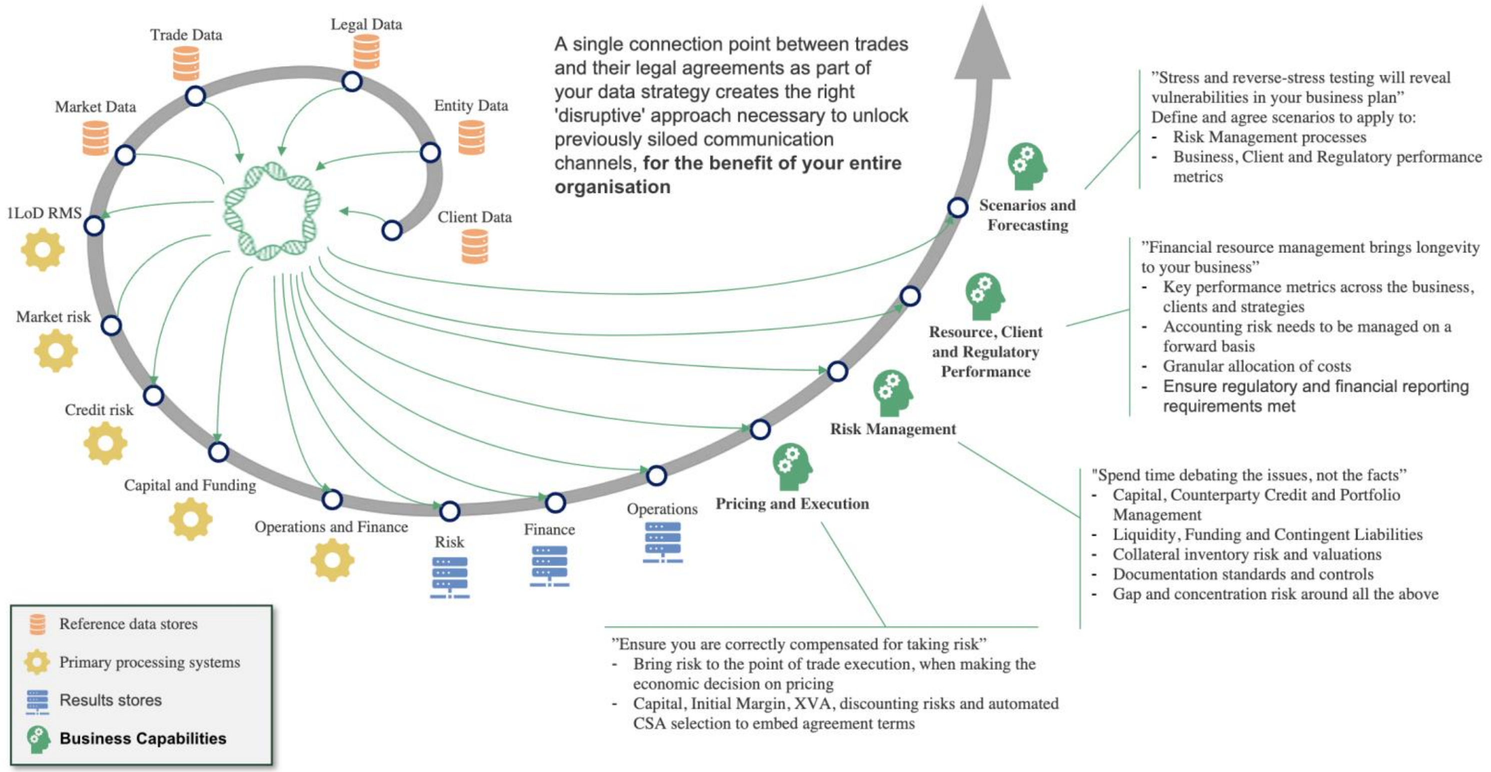
Post 2008 Crisis

- XVA Established
- FVA
- Discounting moves from LIBOR to RFR bringing focus on CSA terms and ColVA
- Mandatory Clearing and UMR increases initial margin requirements and emergence of MVA

Today

- Standard practice to adjust derivative prices for CVA and FVA
- Pricing collateral (ColVA) and initial margin (MVA) is the new frontier
- Capital and balance sheet constraints leading to wider Financial Resource Management focus

How to price and manage these emerging complexities – Phil Staddon

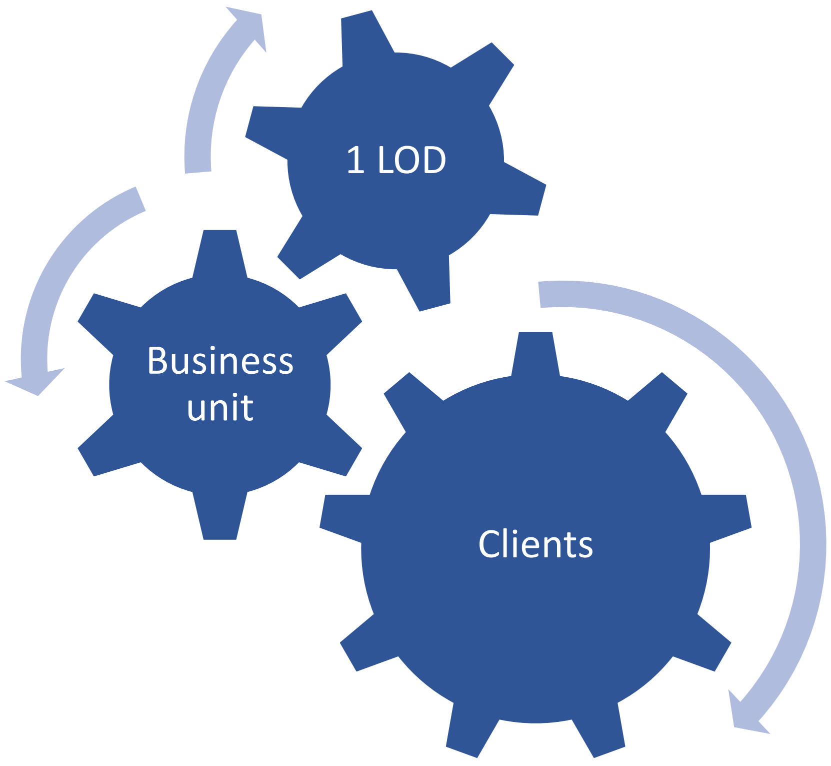


APTONOMY

KYNEC

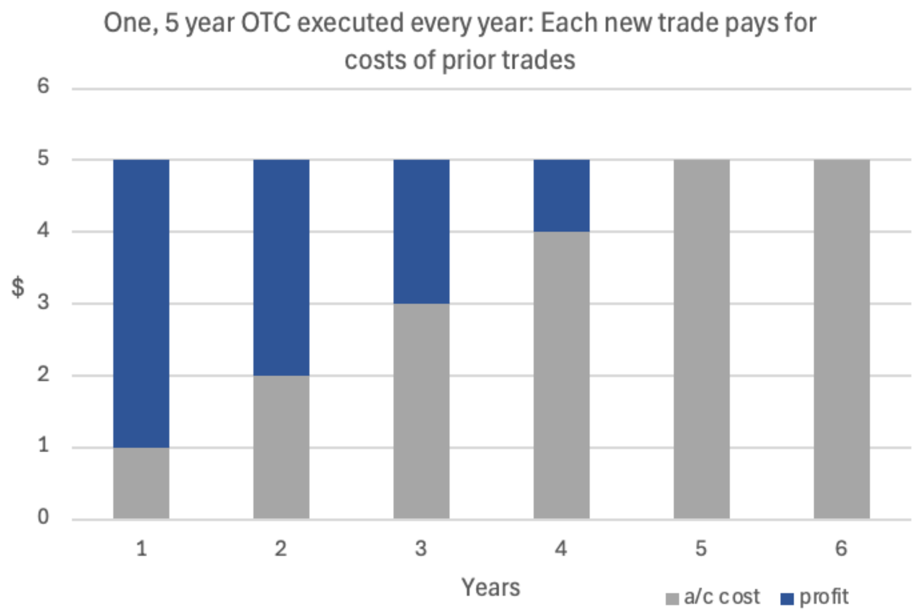
Pricing challenges

- Pricing XVA, or hurdle rates, presents an internal conflict between the business unit facing the client and the owner of the pricing hurdle (1LOD).
- It is important to set levels and agree parameters, including escalation and expected feedback information from each party ahead of time.
- This communication increases the probability of a trade that helps risk management, the business and clients. Ideal is to meet objectives of all three parties.
- Pricing comes before a valuation adjustment however some things make that next step challenging
  - COLVA modelling can be different for CTD between intrinsic and stochastic. Government bond discounting is challenged by the lack of term structure in the repo market, a proxy can be made.
  - MVA portfolios may churn too much so what term structure do you use in the pricing? Might be better to focus on risk reduction and optimization to reduce cost



Financial Resource Management

- Setting the standards for hurdle rates and allocating the costs back to the businesses, typically for capital, funding, liquidity and collateral
- These are mostly accrual costs, yet the revenues that pay for them are MTM. This brings interesting dynamics
- The business reaches equilibrium in the final year of the first trade. In this example 5 years
- Any change in costs has, in this example, a 5x multiplier going forwards. This volatility needs to be managed



- Managing this requires a deep understanding of the portfolio. This should be based on correctly aggregated data which is consistent across credit, XVA, collateral, capital and liquidity. Active use of models and risk measures to filter the portfolio by looking to tail and concentration risks will also help

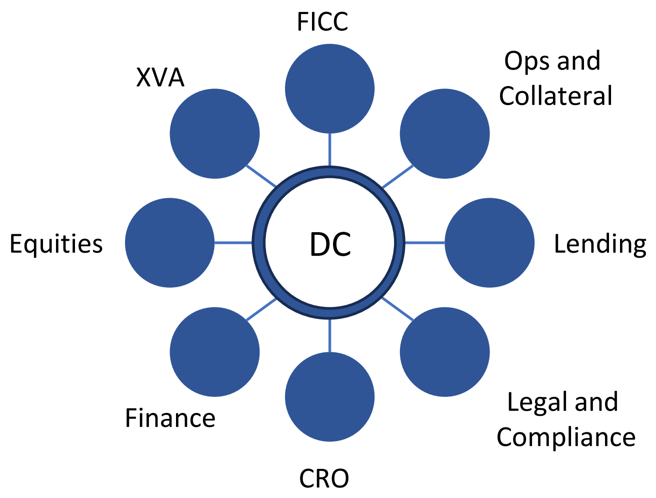
APTONOMY

KYNEC

Crisis Management

- Crisis Management should be tested regularly in greater than real time with multiple issues to resolve
- It should be a ‘set play’ in sporting terms
- The data requirements are material, they should be unquestionably consistent to ensure the “DC” debates the facts not the figures in making their decisions
- If you are liquidating market risk and/or collateral positions, then aim for first mover advantage
- Single sources of data, correctly aggregated by client enables a rapid response with no reconciliations

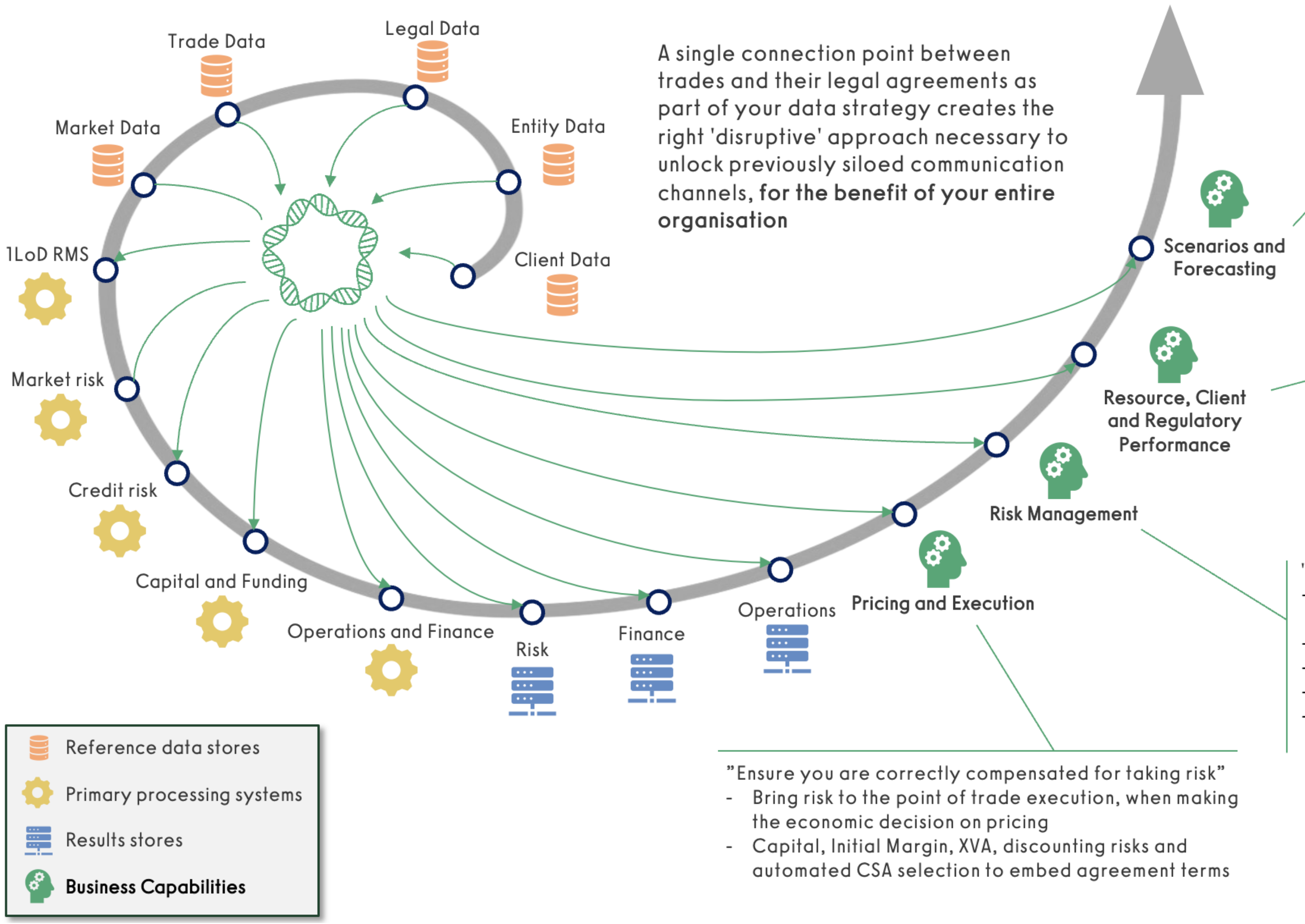
Default committee (DC)



APTONOMY

KYNEC

Data architecture and correct aggregation



"Stress and reverse-stress testing will reveal vulnerabilities in your business plan"
Define and agree scenarios to apply to:
- Risk Management processes
- Business, Client and Regulatory performance metrics

"Financial resource management brings longevity to your business"
- Key performance metrics across the business, clients and strategies
- Accounting risk needs to be managed on a forward basis
- Granular allocation of costs
- Ensure regulatory and financial reporting requirements met

"Spend time debating the issues, not the facts"
- Capital, Counterparty Credit and Portfolio Management
- Liquidity, Funding and Contingent Liabilities
- Collateral inventory risk and valuations
- Documentation standards and controls
- Gap and concentration risk around all the above

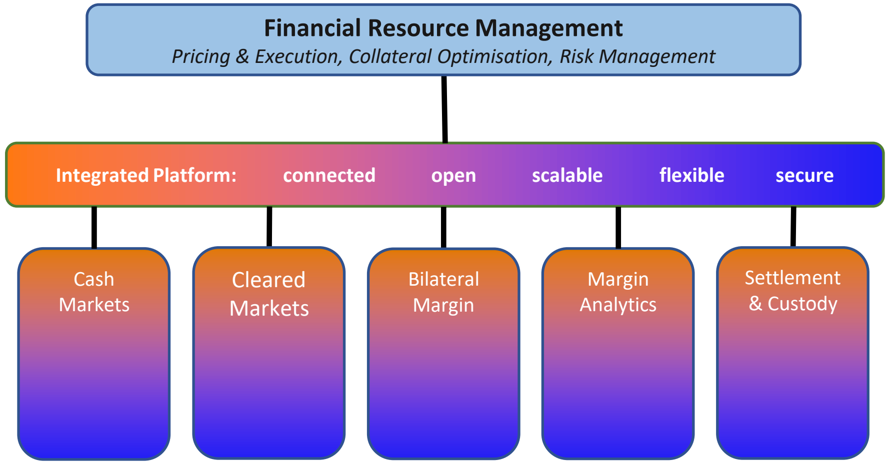
"Ensure you are correctly compensated for taking risk"
- Bring risk to the point of trade execution, when making the economic decision on pricing
- Capital, Initial Margin, XVA, discounting risks and automated CSA selection to embed agreement terms

APTONOMY

KYNEC

Financial Resource Management as the catalyst – Robert McWilliam

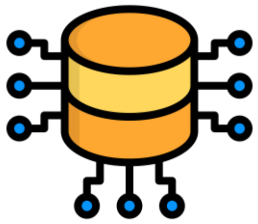
- Too many tactical initiatives delivering quick fixes for quick wins
- Project then stops leaving users unfulfilled and new tactical initiative needs to be kicked off to fix new problem
- At the other extreme, business has little confidence in big strategic projects that take years to deliver any benefits
- Only constant is change - need an open, flexible and scalable solution able to deliver multiple ‘quick wins’
- Fortunately, technology exists today – in the form of platforms - to support these business needs



APTONOMY

KYNEC

Towards Firm-wide FRM



➢ Data sources

- External: CCP, Clearing Brokers, Payment, Settlement and Custody providers
- Internal: FICC, OTC/ETD, Securities Financing, Legal, Risk, Operations

➢ Technology requirements

- Extract data from external and internal sources without disruption
- Map to a common data model for data aggregation and analysis
- Solution must be real-time, scalable, flexible and secure

➢ Business needs

- Dashboards with alerts and insights on current inventory/margin requirements
- Workbench for data mining to explain/validate movements and positions
- Analytics to price trades and stress portfolio
- Ability to call up historical data and display graphically for trend analysis
- Publish reports directly to meet internal and external stakeholder requirements

Quick wins from the strategic foundation

Financial Resource Management - XVA Desk
Pricing & Execution, Collateral Optimisation, Risk Management

Single connection to your Margin Marketplace

Integrated Platform: connected open scalable flexible secure

Cash Markets
Connect to: Repo, Securities Financing systems

Cleared Markets
Connect to: external CCPs and Clearing Brokers

Bilateral Margin
Connect to: collateral systems

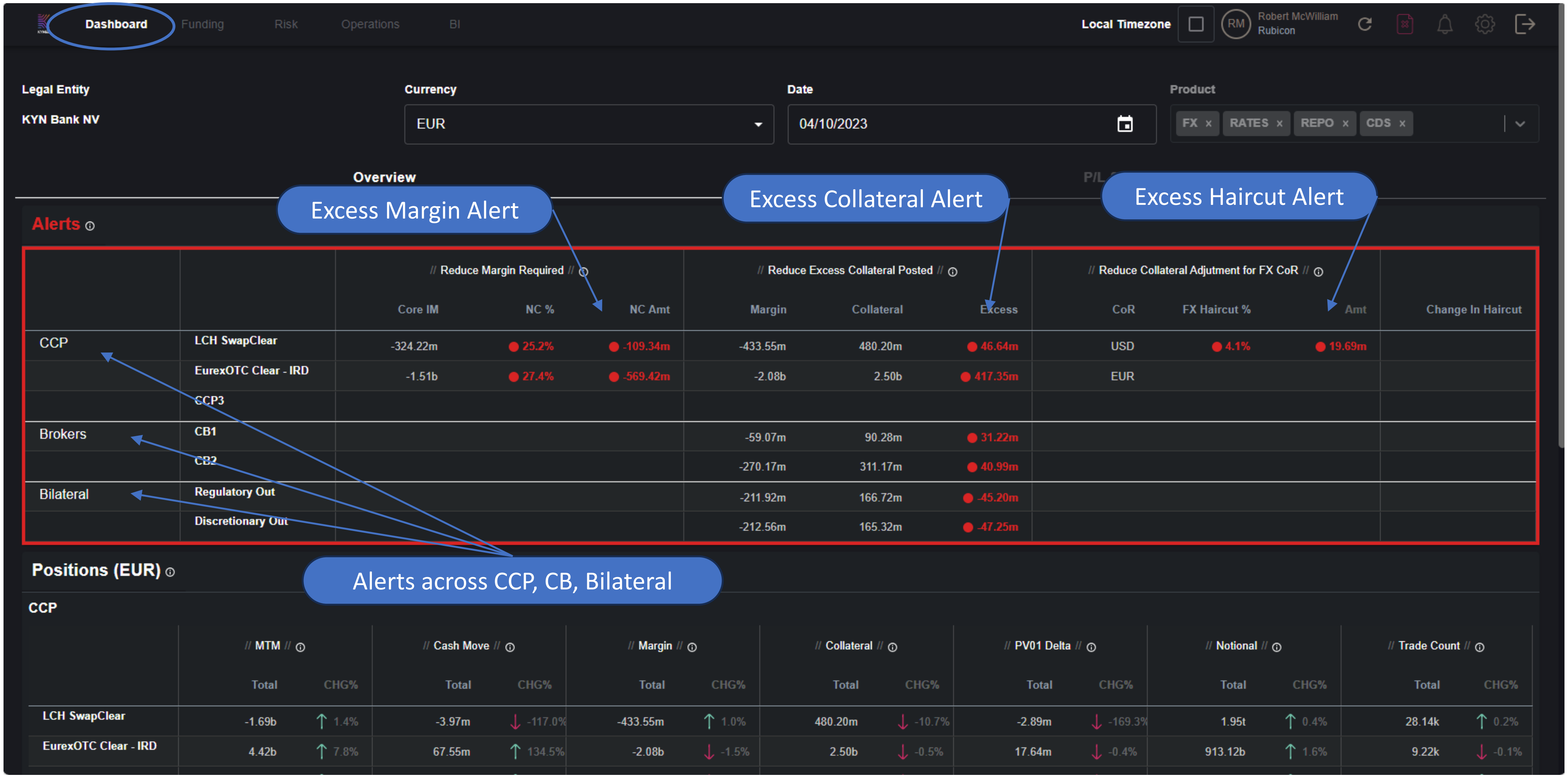
Margin Analytics
Connect to: external vendor and inhouse calculators

Settlement & Custody
Connect to: external CSD, triparty agents, payment banks

APTONOMY

KYNEC

Dashboard Alerts



Alerts

		// Reduce Margin Required //			// Reduce Excess Collateral Posted //			// Reduce Collateral Adjutment for FX CoR //			
		Core IM	NC %	NC Amt	Margin	Collateral	Excess	CoR	FX Haircut %	Amt	Change In Haircut
CCP	LCH SwapClear	-324.22m	25.2%	-109.34m	-433.55m	480.20m	46.64m	USD	4.1%	19.69m	
	EurexOTC Clear - IRD	-1.51b	27.4%	-569.42m	-2.08b	2.50b	417.35m	EUR			
	CCP3										
Brokers	CB1				-59.07m	90.28m	31.22m				
	CB2				-270.17m	311.17m	40.99m				
Bilateral	Regulatory Out				-211.92m	166.72m	-45.20m				
	Discretionary Out				-212.56m	165.32m	-47.25m				

Positions (EUR)

CCP

	// MTM //		// Cash Move //		// Margin //		// Collateral //		// PV01 Delta //		// Notional //		// Trade Count //	
	Total	CHG%	Total	CHG%	Total	CHG%	Total	CHG%	Total	CHG%	Total	CHG%	Total	CHG%
LCH SwapClear	-1.69b	↑ 1.4%	-3.97m	↓ -117.0%	-433.55m	↑ 1.0%	480.20m	↓ -10.7%	-2.89m	↓ -169.3%	1.95t	↑ 0.4%	28.14k	↑ 0.2%
EurexOTC Clear - IRD	4.42b	↑ 7.8%	67.55m	↑ 134.5%	-2.08b	↓ -1.5%	2.50b	↓ -0.5%	17.64m	↓ -0.4%	913.12b	↑ 1.6%	9.22k	↓ -0.1%

APTONOMY

KYNEC


Q&A

KYNEC | APTONOMY

Webinar OTC Pricing in a volatile market place

Robert McWilliam
Financial Resource Management as the catalyst

- Using technology to create a strategic foundation
- Identify the early quick wins
- Create the roadmap to a complete solution

Philip Staddon
How to price and manage these emerging complexities?

- Single sources of data
- Good FRM
- Effective Crisis Management

Webinar recording and Q&A responses will be sent out to all attendees