AQMetrics ‘40 Act Risk Management

Understanding the Risk and Reward Profile of a 40 Act fund should not be complex. AQMetrics simplifies the calculation and presentation of 40 Act fund risk information. Our 40 Act risk management solution leverages underlying client and market data to deliver an independent, full-service measurement solution that eases the complexity and cost of ensuring regulatory-compliance.

Features include:

- 40 Act investment breach monitoring rules library containing 40 Act rules
- Pre and post trade compliance monitoring and alerting
- Fully auditable alert workflow and documentation management
- Seamless integration to Market Data from a multitude of sources including live feeds from Bloomberg
- Reliable and accurate risk insights. Daily risk reporting
- Ability to handle complex investment instruments. Drill through insight from overall portfolio to individual securities and underlying securities
- 40 Act fund risk assessment through the VaR and Commitment Approach. Risk classification of 40 Act funds based on AQMetrics analytics
- Multiple VaR methodologies. AQMetrics parameters for VaR reporting are flexible and can be changed by end users on an adhoc basis
- Stress- and back-testing

AQMetrics pillars for ‘40 Act risk management

AQMetrics has three main pillars for UCITS risk management:

1. 40 Act Rules Monitoring
2. VaR Reporting
3. 40 Act Risk Reporting

‘40 Act Rule Monitoring

Core to AQMetrics solution is the AQMetrics rules engine. The rules engine consists of rules libraries that combine both hard rules which are codified to match regulatory rules and soft rules which are client specific allowing adjustments to parameters in line with internal risk criteria. The list below summarises the rules libraries available to 40 Act funds from AQMetrics.

Coverage rules analysis when the fund/manager is near the coverage thresholds and approaching a level whereby they are at risk of not honoring their commitments. This set of rules cover multi-asset classes and currencies.

CIU rules examine the fund structure and associates specific thresholds and logic depending on whether there is a fund of fund/master feeder structure in place.

Counterparty Risk exposure rules are only in scope for post trade when the trades are allocated/confirmed.

Issuer Concentration rules examine portfolio holdings to identify an overconcentration with one issuer or issuer type.

Loan rules examine debt coverage and examines cash positions and % of debt types in the portfolio.

What-If Stress testing examines shock scenarios across markets, currency, interest rates and liquidity.

Liquidity Rules include 2 Week Notice to T-Bill Maturity, 2 Week Notice to Deposit Payment, 2 Week Notice to Interest Rate Swap Payment, AUM > $100m, Dollar Cash Amount > $500 million, Movement in Total MtM of Interest Rate Swaps.

Value At Risk (“VaR”)

AQMetrics automatically calculates VaR and continually runs stress- and back-testing to complement its VaR estimation. VaR is calculated intraday or daily depending on the strategy of the UCITS fund.

AQMetrics parameters for VaR reporting are flexible and can be changed by end users on an adhoc basis. The parameters that end users can access from within the AQMetrics VaR reporting module are:

1. Confidence intervals
2. Time Horizon
3. Observation period

4. VaR Method – Monte Carlo or Parametric
5. VaR Approach - Absolute or Relative

By default these parameters are set to a 99% confidence level, one month time horizon, one year observation period. We believe that given the high confidence level required by regulation, shorter observation periods are not appropriate. However, if an end user wishes to change the observation period they can do so easily through selection of an alternative observation period when running VaR reports on an adhoc basis.

Monte Carlo simulation is used by default to calculate VaR numbers at a portfolio level: The system simulates thousands of scenarios based on the assessed behaviours of the risk factors and their relationships, and estimates the possible future behaviour and risk of the portfolio as a whole. The end user can further choose the parametric method. At AQMetrics the essence of parametric VaR is "no data:" while historical data is used to select a distribution and calibrate its parameters, AQMetrics parametric VaR leans on a statistical distribution to infer losses.

Using AQMetrics end users can choose the Absolute or Relative Approach to VaR. The relative approach uses a ratio of up to 200% between the VaR of the portfolio and the VaR of a reference portfolio. The absolute approach is generally used when there is no reference portfolio or benchmark; it allows the one-month VaR to be up to 20% of the NAV.

‘40 Act Risk Reports

The AQMetrics reporting system provides clients with a complete solution to efficiently and effectively meet internal and regulatory reporting commitments. Our catalogue of reports allows clients to choose the set of reports specific to their needs. These reports draw from our library of reports to manage and publish reporting requirements to various regulatory agencies. It allows firms to collate vast amounts of data from disparate systems, asset classes and geographies.

TYPE	SAMPLE REPORTS
Fund	**Valuation Reports:** AUM, AUM Movement, Holdings, Top Positions, Variance Reports **Exposure Reports:** Asset Type, Currency, Instrument, FX, Geography, Derivatives **Audit Reports:** Instrument Audit, Trade Audit, Workflow Audit
Historical	NAV History, Holdings History, Stock Price, FX History
Compliance & Risk	Daily Risk Control, Pre Trade Alert Summary, Post Trade Alert Summary
Summary	Overnight Price Movements, FX Rate Summary, Swap Schedules
Corporate	Risk Registers and Fund Fact Sheets
Filings	Shareholder Disclosures

How we do it

Through AQMetrics established relationships with prime brokers, custodians and administrators, we have the ability to quickly onboard even the largest portfolios and provide a dedicated customer success team to manage the process.

Our goal is to make sure our clients are positioned to respond to both structured and ad hoc demands for risk and exposure information from multiple parties, including portfolio managers, prospective and current investors, boards and regulators. We believe an integrated approach to risk is best suited to meet these multiple needs, as well as provide the flexibility needed in the future. We work with our clients to structure the best solution for their requirements with emphasis on functionality, transparency and cost-effectiveness.