FACTSET 〉 SEE THE ADVANTAGE

FactSet Portfolio Optimizer

Construct optimal, multi-asset class portfolios according to custom investment objectives while simultaneously adhering to specified constraints and costs.

CONSTRUCT A TRUE MULTI-ASSET CLASS PORTFOLIO

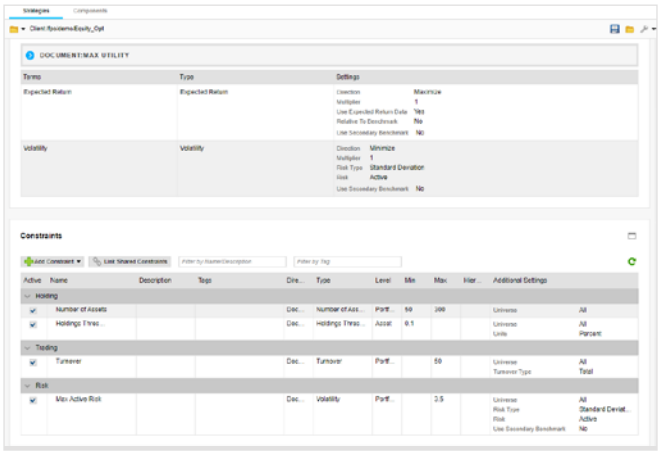
Optimize your portfolio across multiple asset classes at once. While most optimizers divide portfolios into separate, standalone optimization exercises based on asset classes, FactSet's Portfolio Optimizer allows for true cross-asset-class optimizations to better reflect investment intentions and intuitions. Support your equity-only, fixed-income-only, or fund-level-only investment strategies, as well as your multi-asset class portfolio workflows.

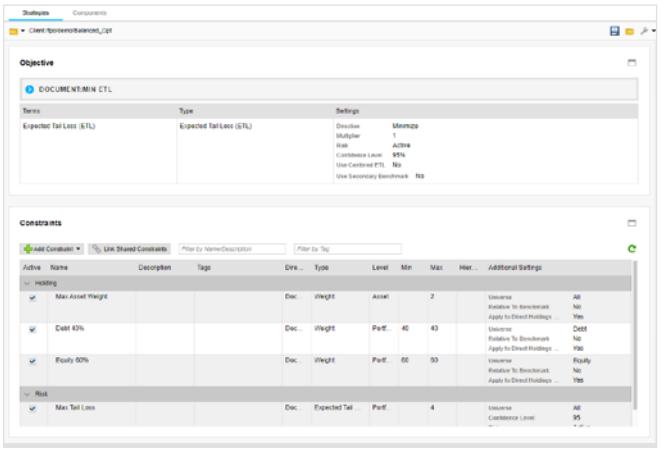
OPTIMIZE BASED ON YOUR PREFERRED APPROACH

FactSet Portfolio Optimizer supports two optimization approaches for a more holistic analysis of risk. Optimize according to a parametric approach based upon minimization of risk according to mean variance. Or, gain a competitive advantage by employing a scenario-based approach, which considers downside risk as measured by Expected Tail Loss (ETL). This offers a particularly useful multi-asset class approach for portfolios that hold assets with non-linear payoffs and non-normal return distributions.

TARGET UNIQUE, CUSTOM OBJECTIVES

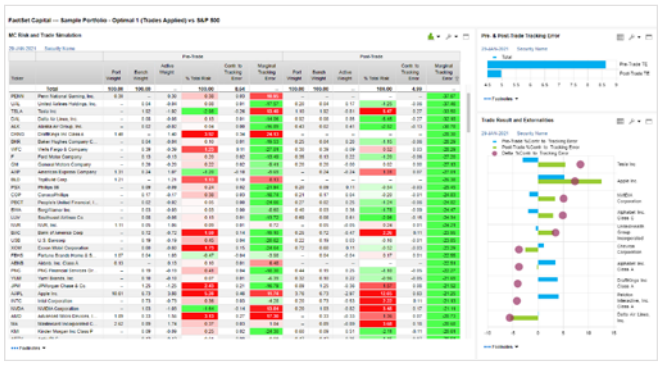
Build the most ideal asset distribution model with a broad range of unique objectives. Leverage traditional objectives to maximize factors such as expected return, minimize costs like financial risk, or introduce objectives including Sharpe Ratio, Stable Tail-Adjusted Return Ratio (STARR), or Diversification Ratio.





BENEFIT FROM SEAMLESS FACTSET INTEGRATION

Gain complete flexibility through the integration between FactSet's multi-asset class Portfolio Analysis engine and FPO. Perform sophisticated analysis directly in Portfolio Analysis rather than within a standalone application. Use the Portfolio Optimizer API to conduct fully customizable quantitative research. Design and automate production processes in the FactSet Quantitative Research Environment (FactSet's secure, hosted, Jupyter Lab environment) or any environment of your choosing.



```
    "ifacctexists": "appenddate",
    "ifofdbdateexists": "replacedate",
    "excludezero": True,
    "archivedate": "20140104"
  }
}

rolling_date = date(2014, 1, 4)
dateS = ''
period = 1
end_date = date(2021, 2, 9)

while rolling_date < end_date:
  dateS = rolling_date.strftime('%Y%m%d')
  risk_model_date = dateS
  backtest_date = dateS
  fpo_output_types['account']['archivedate'] = dateS
  #print(fpo_output_types)

  if period > 1:
    strategy_overrides['constraints'] = {
      "17787663301-0302644b4f9f6": "enable",
      "1778765ed62-3a26e4a7c7b66": "disable"
    }

  print(period, rolling_date.strftime('%Y%m%d'), end = ": ", flush = True)

  optimalResults = fpo.optimize(fpo_strategy, fpo_output_types, fpo_acct, pa_document,
                                portfolio_override, benchmark_override, risk_model_id_override,
                                strategy_overrides,
                                risk_model_date, backtest_date, cash_flow)

  if not 'trades' in optimalResults:
    print(' Issue with this period', flush = True)
  else:
    print(len(optimalResults['optimal']), ' optimal, ', len(optimalResults['trades']), ' trad
  period += 1
  rolling_date = rolling_date + one_week
```