

# PACING OPTIMIZATION

Forecast and optimize your private equity commitments

FRG

## What is FRG's VOR Pacing Optimization?

Pacing Optimization works with FRG's VOR Private Capital Forecasting (PCF) module to help investment managers plan future commitments to keep their multi-asset portfolios on target.

## Why is Pacing Optimization significant?

VOR PCF Pacing Optimization uses a probabilistic approach to future cash flows, leveraging the FRG cash flow models. These possible values are then used as the basis for an optimization to create a more robust estimate of required future commitments.

## Who should use PCF Pacing Optimization?

PCF Pacing Optimization is intended for managers looking to better plan their future commitments. Is it applicable to mature portfolios looking to maintain allocations, new portfolios looking to build into allocations, or portfolios looking for the best way to grow or shrink current allocations.

Cash flows from private capital vehicles are problematic to model yet have an outsized effect on client portfolios. That's why FRG developed its Private Capital Forecasting (PCF) tool, which helps investors analyze the probability distribution of cash flows generated by private capital investments including Private Equity, Private Debt, and Private Real Assets.

PCF Pacing Optimization takes this tool to the next level, using FRG's cash flow models to give investors a more robust estimate of required future commitments. Allocations through time and across the portfolio are optimized to your targets, while staying inside defined risk limits.

## Advantages

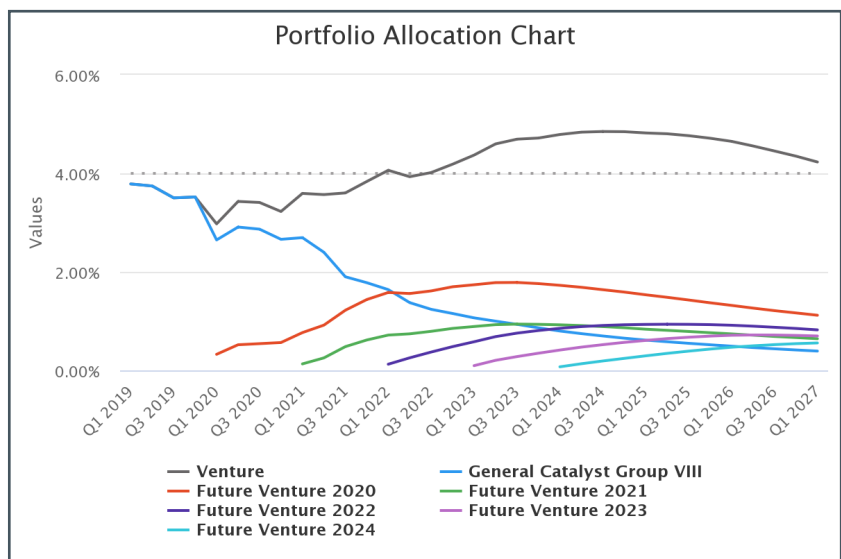
### • Best in Class Cash Flow Models.

Other pacing plans rely on less robust cash flow models. FRG takes a novel approach to modeling portfolio cash flows, using probabilistic, machine learning techniques. Models take into consideration capital markets, macro-economic and other

behavioral variables. Our models have shown significant predictive power, out of sample, above and beyond the Takahashi Alexander (Yale) model consistently for all vintages dating back over 20 years.

- **World class analytics.** FRG's analytics expertise helps investors optimize planned commitments based on the dynamics between fund behavior and the macro-economic environment.

- **Results optimized across the portfolio.** Optimize future commitments then visualize your expected vs. target asset distribution across your entire portfolio.
- **A Probabilistic view.** Gain a probabilistic view of meeting your private equity allocation and maintaining the allocation inside IPS limits.
- **Create multiple scenarios.** See how the commitment plan can change under a variety of scenarios.



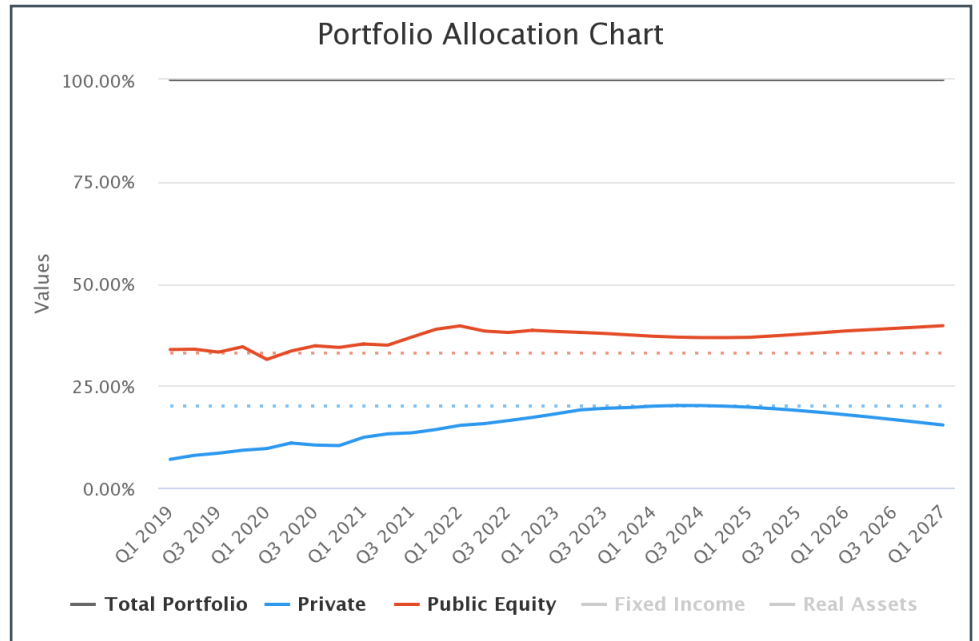
## Features

FRG leverages its experience in solving large scale optimization problems to deliver PCF Pacing Optimization. Clients can analyze existing funds, hypothetical funds, and portfolios including other asset classes using their own market and economic assumptions. This facilitates the testing of various economic assumptions to understand the probable impact on fund cash flows and the dynamics of portfolio allocation through time.

In combination with VOR PCF, investors can:

- Model the risk of Private Capital Portfolios
- Plan future commitments based on probable cash flows
- Stress test their portfolio for different economic scenarios
- Add portfolio target allocations and IPS limits
- Add the universe of potential funds for future vintages
- Solve the optimal pacing plan for multiple potential scenarios

*Portfolio allocations plotted through time versus target given a proposed pacing plan.*



*PCF simulations deliver not just expected value, but also distributional statistics giving the user a view of possible outcomes.*

