

POW! Frontier Features

ver 1.60

✓ = available

✓ *New* = new

✍ = forthcoming

SA = SA only

		AA	SA
Problem Size Capabilities	Universe assets	240	Unlimited
	Portfolio assets	100	Unlimited
	Regular factors	Unlimited ¹	
	Constant group factors	Unlimited ¹	
	General constraints	Unlimited ¹	

		Wizard	Automation
Model types handled	Full covariance	✓	✓
	Factor with no/diagonal/full residuals	✓	✓
	Orthogonal factor	✓	✓
	Constant group models	✓	✓
	Combinations of the above	✓	✓
	Ability to damp or switch off portions of model	✓	✓
Sub-types handled	Cross-sectional	✓	✓
	Time-series	✓	✓
	APT	✓	✓
	Scenario	✓	✓
	Black-Litterman / Reverse optimisation	See note 2	✓
	Currency	✓	✓
	Style and constrained regression	✓	✓
	Hedge (long/short) Portfolios	✓	✓
Asset types handled	Conventional (bonds, shares, funds etc)	✓	✓
	Zero-weight assets (futures, forwards etc)	✓	✓
Asset units	Percentage weights	✓	✓
	Base currency value	✓	✓
	Local currency value	SA ✓	SA ✓
	Numbers of shares	SA ✓	SA ✓

			Wizard	Automation
Transaction Costs	Based on:	Sales	✓	✓
		Purchases	✓	✓
		Combined	✓	✓
	Form	Simple linear	✓	✓
		Piece-wise linear	SA ✓ New	SA ✓ New
		Free-trade region	SA ✓ New	SA ✓ New
Constraints	Budget	All assets: yes/no/variable	✓	✓
		Conventional assets: yes/no/variable	✓	✓
		Zero-sum assets: yes/no/variable	✓	✓
	Turnover	✓	✓	
	Selective turnover	✓	✓	
	Shortfall	✓	✓	
	Holding space:	Absolute	✓	✓
		Relative to benchmark holding	✓	✓
		Relative to current holding	✓	✓
	Asset holding units:	Percentage weights	✓	✓
		Base currency value	✓	✓
		Local currency value	✓	✓
		Numbers of shares	✓	✓
	General linear:	User-defined group	✓	✓
		Portfolio within portfolio	✓	✓
		Factor	✓	✓
	Frontier segment	Truncatable by return, risk, risk aversion	✓	✓
		Upper frontier or both upper and lower	✓	✓
	Parametric in	Risk aversion	✓	✓
		Constraints, benchmark etc	See note 3	✓
Time		See note 3	✓	
Frontier points selectable by	Return (absolute/rel to bm/rel to initial)	✓	✓	
	Tracking error	✓	✓	
	Risk aversion	✓	✓	
	Ordinal corner point	✓	✓	
	Maximum confidence of meeting target	✓	✓	

			Wizard	Automation
Data returned	Portfolio return (absolute/rel to bm/rel to initial)		✓	✓
	Portfolio return gross/net of transaction costs		✓	✓
	Portfolio absolute risk and tracking error		✓	✓
	Portfolio turnover		✓	✓
	Confidence of meeting target/Probability of shortfall		✓	✓
	Return at given confidence level		✓	✓
	Asset weights (absolute/rel to bm/rel to initial)		✓	✓
	Factor weights and contributions to risk and return		✓	✓
	Total covariance matrix implied by factor model		✓	✓
	Risk aversion		✓	✓
Reports	Standard templates	Efficient portfolio weights and characteristics	✓	
		Efficient factor weights and characteristics	✓	
		Total risks and returns	✓	
	User-specified	Unlimited	✓	✓
Graphics	Efficient frontier as	Relative return vs tracking error/shortfall risk	✓	
		Absolute return vs tracking error/shortfall risk	✓	
		Target probability vs tracking error/shortfall risk	✓	
		Absolute risk vs absolute return scatter plot	✓	
		Return at confidence line	✓	
	Assets	Efficient weights, absolute/relative	✓	
		Efficient trades	✓	
	Factors	Efficient weights/contributions, absolute/relative	✓	
		Efficient changes in weights/contributions	✓	
	User-specified	Unlimited	✓	
Data input/callable from	Excel 97, 2000 and XP		✓	
	Excel, with CSV for risk matrices		SA ✓ New	SA ✓ New
	MS Access + all other OLE automation clients			✓
	Visual Basic 5.0, 6.0			✓
	MS Access + all other OLE automation clients			✓
	C++			✓
OS supported	Windows 95, 98, ME		✓	✓
	NT 3.51 and 4.0 (for Intel), 2000, XP		✓	✓

Notes

- 1 In **POW! Frontier Wizard**, the total number of columns needed in the U.Main sheet to set betas and constraint coefficients cannot exceed 250; however using the sparse factor facility even large factor groups such as country and industry can be compressed down to no more than a pair of columns.
- 2 **POW! Bayes**, a module permitting the implementation of Black-Litterman and other Bayesian procedures in **POW! Frontier** is available separately; reverse optimisation, asset and portfolio tracking error, and related calculations can also be carried out using the **POW! VarPf** Excel Bridge functions
- 3 **NEW!** A separate Back Test Wizard add-in designed to work with **POW! Frontier** is available