
EnCorr Inputs Generator

Using EnCorr's Inputs Generator to Develop Asset Class Assumptions

EnCorr Modules

Analyzer



Explore historical and current investment data

Inputs Generator



Develop, refine, and test asset class assumptions

Optimizer Plus



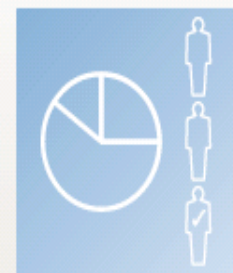
Build and analyze portfolios along the efficient frontier

Attribution



Examine manager style consistency and investment decisions

Allocator



Determine manager mix to implement asset allocation plan

Scenario Builder



Perform "what if" analyses under multiple conditions

Overview

- ▶ Description:
 - ▶ EnCorr Inputs Generator creates, refines, and tests asset class assumptions to be used in the Optimizer.
- ▶ Highlights:
 - ▶ Create optimization inputs by selecting asset classes from various databases or by entering your own inputs.
 - ▶ Select from input methodologies to develop forward looking expected returns.
 - ▶ Analyze the levels of risk and correlation over time.
 - ▶ Run correlation tests to test the stability of your inputs.

Overview

▶ Expected Return Theory:

- ▶ To determine the composition of the optimal portfolio, you need to know the nature of the possible returns of each asset class, along with the relationship between the different asset's returns. These expectations are known as optimization inputs.
- ▶ Optimizer inputs describe the probability distribution of future asset class returns and take into account the risk contained in the various asset classes. Optimization requires three inputs:
 - Expected return of each asset.
 - Standard deviation of the returns.
 - Correlation between asset returns

Overview

► Input Requirements:

Asset Class Assumption	Building Block	CAPM	Black-Litterman	Historical
Selecting Series (Proxies)	x	x	x	x

Input Options	Building Block	CAPM	Black-Litterman	Historical
Holding Period	x	x	x	x
Frequency	x	x	x	x
Calculate Historical Data	x	x	x	x

Default Settings	Building Block	CAPM	Black-Litterman	Historical
Current Risk Free Rate	x	x	x	x

Expected Return	Building Block	CAPM	Black-Litterman	Historical
Current Risk Free Rate	x			
Historical Risk-Free Rate	x			
Premia Baseline Series	x			
Current Risk Free Rate		x		
Premia Baseline Series		x		
Domestic Equity		x		
Market Portfolio		x		
Current Risk Free Rate			x	
Premia Baseline Series			x	
Market Portfolio			x	
Current Risk Free Rate				x

Risk / Correlation	Building Block	CAPM	Black-Litterman	Historical
Standard Deviation	x	x	x	x
Correlation	x	x	x	x

Overview

► Inputs Summary:

File Edit Optimize Options Help

Case Info Optimize Options Expected Return Risk / Correlation

Summary Optional D

Frequency: Monthly
Holding Period: Year

Reset Inputs Data Notes*

	Expected Return	Standard Deviation	Yield	Correlation with S&P 500 TR	Correlation with IA SBBI US Small Stock TR USD	Correlation with MSCI EAFE TR	Correlation with IA SBBI US LT Govt TR USD	Correlation with ML Global Government Bond Ex US	Correlation with Gold TR	Correlation with FTSE NAREIT All REITs TR	Correlation with S&P 500 Ind/Oil&Gas TR
S&P 500 TR	8.893	15.231	0.000	1.00	0.65	0.67	0.02	0.02	-0.15	0.40	0.50
IA SBBI US Small Stock TR USD	11.558	21.756	0.000	0.65	1.00	0.50	-0.10	-0.09	-0.02	0.47	0.25
MSCI EAFE TR	4.119	17.226	0.000	0.67	0.50	1.00	-0.04	0.30	0.05	0.29	0.49
IA SBBI US LT Govt TR USD	4.429	9.324	0.000	0.02	-0.10	-0.04	1.00	0.36	-0.02	0.07	-0.00
ML Global Government Bond Ex US	1.585	9.189	0.000	0.02	-0.09	0.30	0.36	1.00	0.25	0.02	0.14
Gold TR	5.729	14.618	0.000	-0.15	-0.02	0.05	-0.02	0.25	1.00	0.03	0.07
FTSE NAREIT All REITs TR	11.491	15.013	0.000	0.40	0.47	0.29	0.07	0.02	0.03	1.00	0.25
S&P 500 Ind/Oil&Gas TR	14.799	19.303	0.000	0.50	0.25	0.49	-0.00	0.14	0.07	0.25	1.00

Overview

▶ Do's and Don'ts

▶ Avoid Overlap in Asset Classes

- Market Caps: if you already have a large cap index, you do not need include the growth and value component of the index.
- Style: if you decide to breakdown your asset classes by growth and value, then exclude the overall index.
- Maturities: be aware of bonds (within the same sector) that may overlap in maturities.
- Regions: be careful with Global Indices that cover both domestic and non-domestic regions.

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