
Morningstar EnCorr

Using the Drawdown Tools to Determine
Downturn and Recoveries

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

Definition

- ▶ Ability to track number and magnitude of declines over time
 - ▶ Drawdown begins when negative return is realized
 - Starting point is when the index value declines from a newly established peak
 - Ending point is when the index value comes back up to that Peak

Analyzer Set Up

- ▶ Frequency
- ▶ Beginning and Ending Date
- ▶ Index Value

Date Settings

Date and Frequency Settings

Frequency: Monthly

Beginning: January 1970

Ending: March 2009

Auto-Update End Date (Maximum)

Common Date Range Maximum Date Range

Calendar Settings

Calendar

Non-Calendar

On Month: December

Auto-Update

Index Settings

Index Date: December 1999

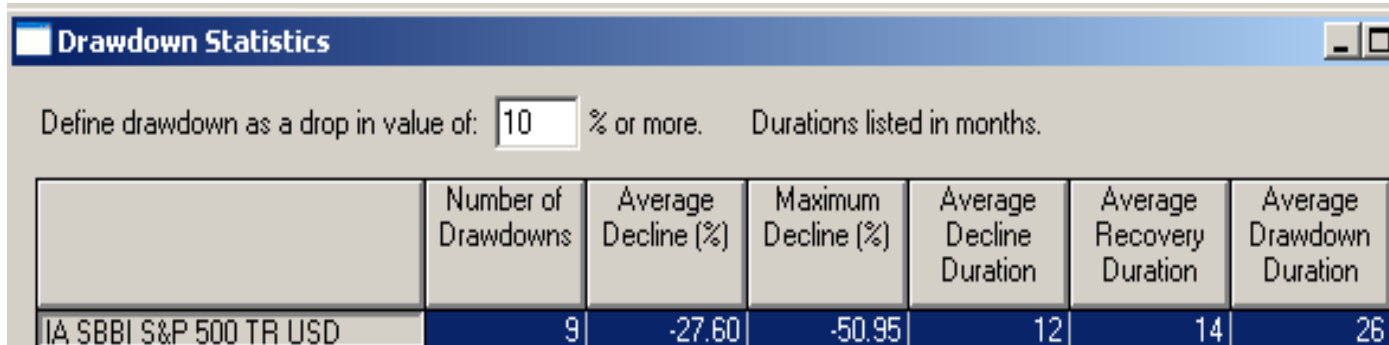
Index Value: 1

Adjust Index Date Automatically

OK Cancel Help

Analyzer Summary

January 1970 to March 2009



Define drawdown as a drop in value of: % or more. Durations listed in months.

	Number of Drawdowns	Average Decline (%)	Maximum Decline (%)	Average Decline Duration	Average Recovery Duration	Average Drawdown Duration
IA SBBI S&P 500 TR USD	9	-27.60	-50.95	12	14	26

- ▶ Define Drawdown -- drop in value of specific % or more
- ▶ # of Drawdowns -- # of times index value was below peak value
- ▶ Average Decline(%) -- average of all declines, from peak to trough
- ▶ Maximum Decline(%) -- largest decline
- ▶ Average Decline Duration -- average duration, from peak to trough
- ▶ Average Recovery Duration -- average duration, from trough to peak
- ▶ Average Drawdown Duration -- average duration, from peak to trough to peak

Analyzer Detail

January 1970 to March 2009

Define drawdown as a drop in value of: % or more. Durations listed in months.

	Number of Drawdowns	Average Decline (%)	Maximum Decline (%)	Average Decline Duration	Average Recovery Duration	Average Drawdown Duration
IA SBBI S&P 500 TR USD	9	-27.60	-50.95	12	14	26

Drawdown Details: IA SBBI S&P 500 TR USD								
	Peak Date	Peak Index Value	Trough Date	Trough Index Value	Recovery Date	Decline (%)	Decline Duration	Recovery Duration
1	Dec-69	0.02	Jun-70	0.02	Dec-70	-19.44	6	6
2	Dec-72	0.03	Sep-74	0.02	Jun-76	-42.63	21	21
3	Dec-76	0.03	Feb-78	0.03	Jul-78	-14.13	14	5
4	Nov-80	0.05	Jul-82	0.04	Oct-82	-16.91	20	3
5	Aug-87	0.16	Nov-87	0.11	May-89	-29.53	3	18
6	May-90	0.19	Oct-90	0.17	Feb-91	-14.70	5	4
7	Jun-98	0.76	Aug-98	0.64	Nov-98	-15.37	2	3
8	Aug-00	1.04	Sep-02	0.58	Oct-06	-44.73	25	49
9	Oct-07	1.2	Feb-09	0.59		-50.95	16	NA

- ▶ **Peak Date:** date of peak; beginning of drawdown
- ▶ **Peak Index Value:** index value at Peak Date
- ▶ **Trough Date:** date of lowest value for specific drawdown
- ▶ **Trough Index Value:** index value on Trough Date
- ▶ **Recovery Date:** date when index value climbed to its last peak level

Average	-27.60	12.44	13.63
Max	-50.95		

Scenario Builder

- ▶ Drawdown Condition Criteria
 - ▶ **Scenario Builder** Condition Criteria Function

Set Drawdown Condition Criteria

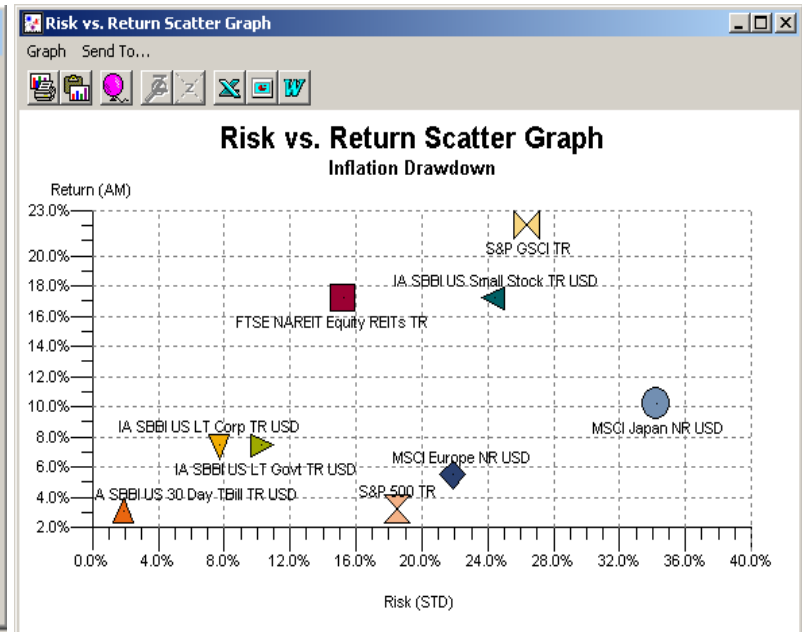
Label:

Select Dates for which...

Is in drawdown decline

Is in drawdown recovery

Where drawdown is a drop of % or more.



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