Morningstar Gross Return Methodology

Data Point Explanation
01 October 2003

Gross Returns

Morningstar calculates gross returns for funds as a simulation of the returns investors would have received had they not paid any expenses.

Monthly Returns

Morningstar first adjusts each monthly return.

$$EGTR_i = \frac{(TR_i + 1)}{(1 - \frac{ER_j}{12})} - 1$$

where

$EGTR_i$	=	Gross Return for month i
TR_i	=	Actual Return for month i
ER_j	=	Expense Ratio for the fiscal year that covers month i

This calculation assumes that the fees are determined based on ending net assets.

If one were to assume that fees are determined as a percentage of the net assets at the beginning of the month, one would calculate a fund's gross adjusted monthly returns as follows:

$$GTR_i = TR_i + \frac{ER_j}{12}$$

where

GTR_i	=	Gross Return for month i (using beginning assets)

In practice, most fund companies determine the amount of expenses based on daily or weekly net assets. Once the fee is determined, it is subtracted from the assets on a daily basis.

Compounded Returns

Once the monthly returns are adjusted for fees, the holding period gross return is calculated by compounding the adjusted monthly returns.