

# Package ‘rMorningStar’

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**Title** Mutual Funds Performance Metrics

**Version** 1.0.6

**Description** Collection of functions to calculate performance metrics of mutual funds/exchange traded funds. This package aids investors in researching mutual funds/exchange traded funds for their investment decision. Also, this package contains tools to manage a portfolio of different mutual fund/exchange traded funds. For more information see Bruce J. Feibel [2003, ISBN:978-0471445630].

**License** GPL-3

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---

export.portfolio	<i>export.portfolio</i>
------------------	-------------------------

---

## Description

Exports the portfolio into a csv file

## Usage

```
export.portfolio(portfolio, path)
```

## Arguments

portfolio	portfolio as created by Portfolio.Manager
path	Location on the disk where the portfolio should be saved

**Details**

Export your portfolio

**Value**

Export portfolio into a csv file

---

`ms.10yCategoryReturn`    *ms.10yCategoryReturn*

---

**Description**

Provides the Category Return of the Security

**Usage**

`ms.10yCategoryReturn(ticker)`

**Arguments**

*ticker*            Enter the TICKER

**Details**

Gives the category return for the input TICKER (Fund)

**Value**

The output gives the category return of the funds

**Examples**

`ms.10yCategoryReturn('FXAIX')`

ms.10yExcessCategoryReturn  
*ms.10yExcessCategoryReturn*

---

**Description**

Provides the Excess Category Return of the Security

**Usage**

ms.10yExcessCategoryReturn(ticker)

**Arguments**

ticker            Enter the TICKER

**Details**

Gives the Excess category return for the input TICKER (Fund)

**Value**

The output gives the Excess category return of the funds

**Examples**

ms.10yExcessCategoryReturn('FXAIX')

---

ms.10yReturn            *ms.10yReturn*

---

**Description**

Provides the Total Return of the Security

**Usage**

ms.10yReturn(ticker)

**Arguments**

ticker            Enter the TICKER

**Details**

Gives the stated return for the input TICKER (Fund)

**Value**

The output gives the stated return of the funds

**Examples**

```
ms.5yReturn('FXAIX')
```

---

`ms.1mCategoryReturn`     *ms.1mCategoryReturn*

---

**Description**

Provides the 1 month Category Return of the Security

**Usage**

```
ms.1mCategoryReturn(ticker)
```

**Arguments**

ticker            Enter the TICKER

**Details**

Gives the category return for the input TICKER (Fund)

**Value**

The output gives the category return of the funds

**Examples**

```
ms.1mCategoryReturn('FXAIX')
```

---

`ms.3yAlpha`*ms.3yAlpha*

---

**Description**

Provides the Total Return of the Security

**Usage**

```
ms.3yAlpha(ticker)
```

**Arguments**

ticker            Enter the TICKER

**Details**

Gives the 3-Year Alpha for the input TICKER (Fund)

**Value**

The output gives the 3-Year Alpha of the funds

**Examples**

```
ms.3yAlpha('FXAIX')
```

---

`ms.3yCategoryReturn`*ms.3yCategoryReturn*

---

**Description**

Provides the Category Return of the Security

**Usage**

```
ms.3yCategoryReturn(ticker)
```

**Arguments**

ticker            Enter the TICKER

**Details**

Gives the category return for the input TICKER (Fund)

**Value**

The output gives the category return of the funds

**Examples**

```
ms.3yCategoryReturn('FXAIX')
```

---

`ms.3yExcessCategoryReturn`  
*ms.3yExcessCategoryReturn*

---

**Description**

Provides the Excess Category Return of the Security

**Usage**

```
ms.3yExcessCategoryReturn(ticker)
```

**Arguments**

ticker            Enter the TICKER

**Details**

Gives the Excess category return for the input TICKER (Fund)

**Value**

The output gives the Excess category return of the funds

**Examples**

```
ms.3yExcessCategoryReturn('FXAIX')
```

ms.3yRank

*ms.3yRank*

---

**Description**

Provides the 3y Rank of the Security

Provides the 5y Rank of the Security

**Usage**

```
ms.3yRank(ticker)
```

```
ms.5yRank(ticker)
```

**Arguments**

ticker            Enter the TICKER

**Details**

Gives the stated rank for the input TICKER (Fund)

Gives the stated rank for the input TICKER (Fund)

**Value**

The output gives the stated rank in caegory of the funs

The output gives the stated rank in caegory of the funs

**Examples**

```
ms.3yRank('FXAIX')
```

```
ms.3yRank('FXAIX')
```

---

ms.3yReturn

*ms.3yReturn*

---

**Description**

Provides the 3y Return of the Security

**Usage**

```
ms.3yReturn(ticker)
```



**Arguments**

    ticker           Enter the TICKER

**Details**

    Gives the stated return for the input TICKER (Fund)

**Value**

    The output gives the stated return of the funds

**Examples**

    ms.3yReturn('FXAIX')

---

ms.5yBeta

*ms.5yBeta*

---

**Description**

    Gives the output of input Performance Metric as provided by the MorningStar Performance Results

**Usage**

    ms.5yBeta(ticker)

**Arguments**

    ticker           Ticker of the Fund

**Details**

    Morningstar provides a great deal of useful information in its print publications and in its Principia Plus CD-ROM data service. Use this function for performance metric calculations.

**Value**

    The output provides the Input Performance Metric as given by MorningStar.

**Examples**

    ms.5yBeta('FXAIX')

ms.5yCategoryReturn    *ms.5yCategoryReturn*

---

**Description**

Provides the Category Return of the Security

**Usage**

ms.5yCategoryReturn(ticker)

**Arguments**

ticker            Enter the TICKER

**Details**

Gives the category return for the input TICKER (Fund)

**Value**

The output gives the category return of the funds

**Examples**

ms.5yCategoryReturn('FXAIX')

---

ms.5yExcessCategoryReturn  
*ms.5yExcessCategoryReturn*

---

**Description**

Provides the Excess Category Return of the Security

**Usage**

ms.5yExcessCategoryReturn(ticker)

**Arguments**

ticker            Enter the TICKER

**Details**

Gives the Excess category return for the input TICKER (Fund)

**Value**

The output gives the Excess category return of the funds

**Examples**

```
ms.5yExcessCategoryReturn('FXAIX')
```

---

<i>ms.5yReturn</i>	<i>ms.5yReturn</i>
--------------------	--------------------

---

**Description**

Provides the Total Return of the Security

**Usage**

```
ms.5yReturn(ticker)
```

**Arguments**

ticker          Enter the TICKER

**Details**

Gives the stated return for the input TICKER (Fund)

**Value**

The output gives the stated return of the funds

**Examples**

```
ms.5yReturn('FXAIX')
```

---

`ms.AvgForCategory`      *ms.AvgForCategory*

---

**Description**

Gives the ouptput of input Performance Metric as provided by the MorningStar Performance Results

**Usage**

```
ms.AvgForCategory(ticker)
```

**Arguments**

*ticker*              Ticker of the Fund

**Details**

Morningstar provides a great deal of useful information in its print publications and in its Principia Plus CD-ROM data service. Use this function for performance metric calculations.

**Value**

The output provides the Input Performance Metric as given by MorningStar.

**Examples**

```
ms.AvgForCategory('FXAIX')
```

---

`ms.ExpenseRatio`      *ms.ExpenseRatio*

---

**Description**

Gives the ouptput of input Performance Metric as provided by the MorningStar Performance Results

**Usage**

```
ms.ExpenseRatio(ticker)
```

**Arguments**

*ticker*              Ticker of the Fund

**Details**

Morningstar provides a great deal of useful information in its print publications and in its Principia Plus CD-ROM data service. Use this function for performance metric calculations.

**Value**

The output provides the Input Performance Metric as given by MorningStar.

**Examples**

```
ms.ExpenseRatio('FXAIX')
```

---

*ms.FundCat*

*ms.FundCat*

---

**Description**

Gives the ouptput of input Performance Metric as provided by the MorningStar Performance Results

**Usage**

```
ms.FundCat(ticker)
```

**Arguments**

*ticker*            Ticker of the Fund

**Details**

Morningstar provides a great deal of useful information in its print publications and in its Principia Plus CD-ROM data service. Use this function for performance metric calculations.

**Value**

The output provides the Input Performance Metric as given by MorningStar.

**Examples**

```
ms.FundCat('FXAIX')
```

`ms.FundName``ms.FundName`

---

**Description**

Provides the Fund Name

**Usage**

```
ms.FundName(ticker)
```

**Arguments**

ticker            Enter the TICKER

**Details**

Gives the stated TICKER Fund Name

**Value**

The output gives the Fund Name

**Examples**

```
ms.FundName('FXAIX')
```

---

`ms.GrowthTrack``ms.GrowthTrack`

---

**Description**

Plots the growth of input amount in a fund

**Usage**

```
ms.GrowthTrack(  
  ticker,  
  growth_amount = 10000,  
  benchmark = "^GSPC",  
  time_period = c("1m", "3m", "6m", "YTD", "1y", "3y", "5y", "max")  
)
```

**Arguments**

ticker	Fund TICKER
growth_amount	Amount invested in the fund, Default: 10000
benchmark	Benchmark to compare the fund with, Default: '^GSPC'
time_period	Investment Horizon: c("1m", "3m", "6m", "YTD", "1y", "3y", "5y", "max")

**Details**

Plots the cumulative growth of the fund in a mutual fund/ETFs and compares it with the input benchmark.

**Value**

Plots the growth of the investment (Mutua Fund/ETFs) and compares it with provided benchmark

**Examples**

```
ms.GrowthTrack('FXAIX', time_period = 'YTD')
```

---

```
ms.HoldingsTurnover    ms.HoldingsTurnover
```

---

**Description**

Gives the output of input Performance Metric as provided by the MorningStar Performance Results

**Usage**

```
ms.HoldingsTurnover(ticker)
```

**Arguments**

ticker	Ticker of the Fund
--------	--------------------

**Details**

Morningstar provides a great deal of useful information in its print publications and in its Principia Plus CD-ROM data service. Use this function for performance metric calculations.

**Value**

The output provides the Input Performance Metric as given by MorningStar.

**Examples**

```
ms.HoldingsTurnover('FXAIX')
```

---

<code>ms.LastClose</code>	<i>ms.LastClose</i>
---------------------------	---------------------

---

**Description**

Gives the output of input Performance Metric as provided by the MorningStar Performance Results

**Usage**

```
ms.LastClose(ticker)
```

**Arguments**

ticker	Ticker of the Fund
--------	--------------------

**Details**

Morningstar provides a great deal of useful information in its print publications and in its Principia Plus CD-ROM data service. Use this function for performance metric calculations.

**Value**

The output provides the Input Performance Metric as given by MorningStar.

**Examples**

```
ms.LastClose('FXAIX')
```

---

<code>ms.LastDividend</code>	<i>ms.LastDividend</i>
------------------------------	------------------------

---

**Description**

Gives the output of input Performance Metric as provided by the MorningStar Performance Results

**Usage**

```
ms.LastDividend(ticker)
```

**Arguments**

ticker	Ticker of the Fund
--------	--------------------

**Details**

Morningstar provides a great deal of useful information in its print publications and in its Principia Plus CD-ROM data service. Use this function for performance metric calculations.



**Value**

The output provides the Input Performance Metric as given by MorningStar.

**Examples**

```
ms.LastDividend('FXAIX')
```

---

*ms.NetAsset*

*ms.NetAsset*

---

**Description**

Gives the ouptput of input Performance Metric as provided by the MorningStar Performance Results

**Usage**

```
ms.NetAsset(ticker)
```

**Arguments**

ticker            Ticker of the Fund

**Details**

Morningstar provides a great deal of useful information in its print publications and in its Principia Plus CD-ROM data service. Use this function for performance metric calculations.

**Value**

The output provides the Input Performance Metric as given by MorningStar.

**Examples**

```
ms.NetAsset('FXAIX')
```

---

<code>ms.PercentChange</code>	<i>ms.PercentChange</i>
-------------------------------	-------------------------

---

**Description**

Gives the percent change of the fund

**Usage**

```
ms.PercentChange(ticker)
```

**Arguments**

ticker            Enter the TICKER of the fund

**Details**

Percent Change of the funds from previous Close.

**Value**

Provides the percent change of the fund

**Examples**

```
ms.PercentChange('FXAIX')
```

---

<code>ms.Rating</code>	<i>ms.Rating</i>
------------------------	------------------

---

**Description**

Provides the Morningstar Rating of the Security

**Usage**

```
ms.Rating(ticker)
```

**Arguments**

ticker            Enter the TICKER

**Details**

Gives the stated Morningstar Rating for the input TICKER (Fund)

**Value**

The output gives the Morningstar Rating of the funds

**Examples**

```
ms.Rating('FXAIX')
```

---

<i>ms.ReturnRating</i>	<i>ms.ReturnRating</i>
------------------------	------------------------

---

**Description**

Provides the Morningstar Return Rating of the Security

**Usage**

```
ms.ReturnRating(ticker)
```

**Arguments**

ticker	Enter the TICKER
--------	------------------

**Details**

Gives the stated Morningstar Return Rating for the input TICKER (Fund)

**Value**

The output gives the Morningstar Return Rating of the funds

**Examples**

```
ms.ReturnRating('FXAIX')
```

---

<code>ms.RiskCategory</code>	<i>ms.RiskCategory</i>
------------------------------	------------------------

---

**Description**

Gives the output of input Performance Metric as provided by the MorningStar Performance Results

**Usage**

```
ms.RiskCategory(ticker)
```

**Arguments**

ticker	Ticker of the Fund
--------	--------------------

**Details**

Morningstar provides a great deal of useful information in its print publications and in its Principia Plus CD-ROM data service. Use this function for performance metric calculations.

**Value**

The output provides the Input Performance Metric as given by MorningStar.

**Examples**

```
ms.RiskCategory('FXAIX')
```

---

<code>ms.RiskRating</code>	<i>ms.RiskRating</i>
----------------------------	----------------------

---

**Description**

Provides the Morningstar Risk Rating of the Security

**Usage**

```
ms.RiskRating(ticker)
```

**Arguments**

ticker	Enter the TICKER
--------	------------------

**Details**

Gives the stated Morningstar Risk Rating for the input TICKER (Fund)

**Value**

The output gives the Morningstar Risk Rating of the funds

**Examples**

```
ms.RiskRating('FXAIX')
```

---

ms.stdev	<i>ms.stdev</i>
----------	-----------------

---

**Description**

MorningStar 3-yr Standard Deviation

**Usage**

```
ms.stdev(ticker)
```

**Arguments**

ticker          Enter the TICKER for the security

**Details**

Morningstar's reported standard deviation of fund returns uses both the monthly standard deviation and monthly mean return to compute an annualized value, assuming compounding of the monthly returns and zero serial correlation.

**Value**

Returns the Standard Deviation of the Security as Calculated by MorningStar.

**Examples**

```
ms.stdev('AAPL')
```

---

`ms.summary``ms.summary`

---

**Description**

Summary of the Fund Risk and Returns

**Usage**

```
ms.summary(ticker)
```

**Arguments**

ticker            Enter the TICKER for the security

**Details**

Morningstar provides a great deal of useful information in its print publications and in its Principia Plus CD-ROM data service. This function can be used to get a DataFrame of the summary of the risk and return of the input fund.

**Value**

Returns the Summary of the Security's Risk and Return as Calculated by MorningStar.

**Examples**

```
ms.summary('FXAIX')
```

---

`ms.Top10Holding``ms.Top10Holding`

---

**Description**

Gives the MorningStar Top 10 Holding of the fund

Gives the MorningStar Top 10 Holding Total of the fund

**Usage**

```
ms.Top10Holding(ticker)
```

```
ms.Top10HoldingTotal(ticker)
```

**Arguments**

ticker            Enter the TICKER of the Fund

**Details**

Gives the fund's top 10 Holdings as computed by MorningStar.  
Gives the fund's top 10 Holdings Total as computed by MorningStar.

**Value**

Gives the Morningstar Top 10 Holding of the Fund  
Gives the Morningstar Top 10 Holding Total of the Fund

**Examples**

```
ms.Top10Holding('FXAIX')  
ms.Top10HoldingTotal('FXAIX')
```

---

`ms.Top10HoldingPlot`     *ms.Top10HoldingPlot*

---

**Description**

Gives the MorningStar Top 10 Holding Plot of the fund

**Usage**

```
ms.Top10HoldingPlot(ticker)
```

**Arguments**

*ticker*                    Enter the TICKER of the Fund

**Details**

Gives the fund's top 10 Holdings Plot as computed by MorningStar.

**Value**

Gives the Morningstar Top 10 Holding Plot of the Fund

**Examples**

```
ms.Top10HoldingPlot('FXAIX')
```

---

<code>ms.Yield</code>	<i>ms.Yield</i>
-----------------------	-----------------

---

**Description**

Gives the ouptput of input Performance Metric as provided by the MorningStar Performance Results

**Usage**

```
ms.Yield(ticker)
```

**Arguments**

<code>ticker</code>	Ticker of the Fund
---------------------	--------------------

**Details**

Morningstar provides a great deal of useful information in its print publications and in its Principia Plus CD-ROM data service. Use this function for performance metric calculations.

**Value**

The output provides the Input Performance Metric as given by MorningStar.

**Examples**

```
ms.Yield('FXAIX')
```

---

<code>ms.YTDCategoryReturn</code>	<i>ms.YTDCategoryReturn</i>
-----------------------------------	-----------------------------

---

**Description**

Provides the Category Return of the Security

**Usage**

```
ms.YTDCategoryReturn(ticker)
```

**Arguments**

<code>ticker</code>	Enter the TICKER
---------------------	------------------

**Details**

Gives the category return for the input TICKER (Fund)



**Value**

The output gives the category return of the funds

**Examples**

```
ms.YTDCategoryReturn('FXAIX')
```

---

```
ms.YTDExcessCategoryReturn  
ms.YTDExcessCategoryReturn
```

---

**Description**

Provides the Excess Category Return of the Security

**Usage**

```
ms.YTDExcessCategoryReturn(ticker)
```

**Arguments**

    ticker           Enter the TICKER

**Details**

Gives the Excess category return for the input TICKER (Fund)

**Value**

The output gives the Excess category return of the funds

**Examples**

```
ms.YTDExcessCategoryReturn('FXAIX')
```

---

 ms.YtdRank

*ms.YtdRank*


---

**Description**

Provides the YTD Rank of the Security

**Usage**

```
ms.YtdRank(ticker)
```

**Arguments**

ticker            Enter the TICKER

**Details**

Gives the stated rank for the input TICKER (Fund)

**Value**

The output gives the stated rank in caegory of the funs

**Examples**

```
ms.YtdRank('FXAIX')
```

---

 ms.ytdreturn

*ms.ytdreturn*


---

**Description**

MorningStar YTD Return

**Usage**

```
ms.ytdreturn(ticker)
```

**Arguments**

ticker            Enter the TICKER for the security

**Details**

A traditional measure of performance in the mutual fund industry is the cumulative value of \$1 compounded over a specified number of periods. Morningstar uses such measures on both before-load and after-load fee bases. The value relative at the end of T periods not taking any load charges into account is:

**Value**

Returns the MorningStar YTD Return of the Security as Calculated by MorningStar.

**Examples**

```
ms.ytdreturn('AAPL')
```

---

PortfolioManager	<i>PortfolioManager</i>
------------------	-------------------------

---

**Description**

Gives the detailed Risk-Reward Metrics as Computed by MorningStar

**Usage**

```
PortfolioManager(ticker, view = c("overview", "detailed"))
```

**Arguments**

ticker	Enter the Fund TICKER
view	Choose a View of the Portfolio, Default: c("overview", "detailed")

**Details**

This function can be used to examine and assess your holdings in different funds

**Value**

The output is a tibble that gives the overview of the risk and reward metrics of different holdings in a portfolio.

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