Package 'rMorningStar'

January 16, 2021

Title Mutual Funds Performance Metrics

Version 1.0.7

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].

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R topics documented:

`export.portfolio` *export.portfolio*

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 funs

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 funs

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 funs

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 funs

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 funs

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 funs

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 funs

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 funs

Examples

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

---

ms.5yBeta *ms.5yBeta*

Description

Gives the ouptput 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 funs

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 funs

Examples

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

`ms.5yReturn` *ms.5yReturn*

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 funs

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 groth 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 = '3y')
```

---

ms.HoldingsTurnover *ms.HoldingsTurnover*

Description

Gives the ouptput 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')
```

ms.LastClose *ms.LastClose*

Description

Gives the ouptput 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')
```

ms.LastDividend *ms.LastDividend*

Description

Gives the ouptput 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')
```

`ms.PercentChange` *ms.PercentChange*

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')
```

`ms.Rating` *ms.Rating*

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 funs

Examples

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

`ms.ReturnRating` *ms.ReturnRating*

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 funs

Examples

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

ms.RiskCategory *ms.RiskCategory*

Description

Gives the ouptput 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')
```

ms.RiskRating *ms.RiskRating*

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 funs

Examples

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

`ms.stdev` *ms.stdev*

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 cmputed by MorningStar.

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

Value

Gives the Morningstar Top 10 Holding Plot of the Fund

Examples

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

ms.Yield *ms.Yield*

Description

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

Usage

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

ms.YTDCategoryReturn *ms.YTDCategoryReturn*

Description

Provides the Category Return of the Security

Usage

```
ms.YTDCategoryReturn(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 funs

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 funs

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` *PortfolioManager*

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 portfoluio.

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