Package ‘easingr’

September 2, 2014

Title Fetch and plot credit easing policy tool data.

Version 1.0.1

Date 2014-09-02

Author Matt Barry <mrb@softisms.com>

Maintainer Matt Barry <mrb@softisms.com>

Description Forms queries to submit to the Cleveland Federal Reserve Bank web site's credit easing policy tools data site. Provides various query functions according to the easing data desired. By default the download includes easing tool weekly time series data starting January 2007. The functions return a class of type easing which contains a list of items related to the query and its graphical presentation. The list includes the time series data as an xts object. The package provides two lattice time series plots to render the data in a manner similar to the bank's own presentation.

License MIT + file LICENSE

URL https://github.com/mrbcuda/easingr

BugReports https://github.com/mrbcuda/easingr/issues

Imports utils, xts, lattice, latticeExtra

NeedsCompilation no

Repository CRAN

Date/Publication 2014-09-02 22:20:10

R topics documented:

`easingAreaChart` *Credit easing data as a stacked area chart.*

Description

Provides a convenience function for passing an `easing` object to `xyplot` to render a sand (stacked area) chart.

Usage

```
easingAreaChart(e)
```

Arguments

`e`	an object of class `easing` as returned by `getEasingData` and its many offspring.

Details

Provides several assumptions about the display of the `easing` data to correspond to similar presentations at the Cleveland Fed's data site. To implement the stacked area chart the function first computes the column-wise value accumulations, then passes these values to the `latticeExtra` `xyarea` polygon rendering tools. Plots the columns in reverse stacking order to show the desired overlaps.

See Also

xyplot.easing easingLineChart getEasingData

Examples

```
es <- getEasingSummary()
easingAreaChart(es)
```

easingLineChart — *Credit easing data as an unstacked line chart.*

Description

Provides a convenience function for passing an `easing` object to `xyplot`.

Usage

```
easingLineChart(e)
```

Arguments

e	an object of class `easing` as returned by `getEasingData` and its many offspring.

Details

Provides several assumptions about the display of the `easing` data to correspond to similar presentations at the Cleveland Fed's data site.

See Also

xyplot.easing easingAreaChart getEasingData

Examples

```
## Not run:
es <- getEasingSummary()
easingLineChart(es)

## End(Not run)
```

easingr — *Credit easing policy tool data.*

Description

Fetches credit easing policy tool data as time series and provides plots.

Details

Downloads the credit easing policy tool weekly data in its original CSV format from the Federal Reserve Bank of Cleveland's web site, and then translates that data into an `xts` time series object with easing method dollar value histories as columns. Provides custom `lattice` line and area plot functions for data presentation.

Author(s)

Matt Barry <mrb@softisms.com>

References

Federal Reserve Bank of Cleveland research data site http://www.clevelandfed.org/research/data/credit_easing/index.cfm

---

`getEasingAgencyDebt` *Get credit easing credit agency debt data.*

Description

Downloads FRB credit easing policy tools federal agency debt and mortgage-backed securities data.

Usage

```
getEasingAgencyDebt(startDate = "012007", endDate = "122100")
```

Arguments

`startDate`	query start date string in MMYYYY format, default 012007
`endDate`	query end date string in MMYYYY format, default 122100

Details

Downloads the Cleveland FRB data product for credit easing policy tools federal agency debt and mortgage-backed securities weekly time series, including columns for

- federal agency debt
- mortgage-backed securities

Value

A list of class `easing`

See Also

getEasingData getEasingSummary getEasingDetails getEasingLending getEasingCreditDepository getEasingCredtExtensions getEasingProvidingLiquidity getEasingMaidenLane getEasingTraditionalHoldings getEasingLongTermPurchases

Examples

```
## Not run:
ad <- getEasingAgencyDebt()
head(ad$df)

## End(Not run)
```

`getEasingCreditDepository` *Get credit easing credit to depository institutions*

Description

Downloads FRB credit easing policy credit to depository institutions data.

Usage

```
getEasingCreditDepository(startDate = "012007", endDate = "122100")
```

Arguments

`startDate`	query start date string in MMYYYY format, default 012007
`endDate`	query end date string in MMYYYY format, default 122100

Details

Downloads the Cleveland FRB data product for credit easing policy credit to depository institutions weekly time series, including columns for

- primary credit
- secondary credit
- seasonal credit

Value

A list of class `easing`

See Also

getEasingData getEasingSummary getEasingDetails getEasingLending getEasingCreditExtensions getEasingProvidingLiquidity getEasingMaidenLane getEasingTraditionalHoldings getEasingAgencyDebt getEasingLongTermPurchases

Examples

```
## Not run:
cd <- getEasingCreditDepository()
head(cd$df)

## End(Not run)
```

`getEasingCreditExtensions` *Get credit easing credit extensions data*

Description

Downloads FRB credit easing policy credit extensions data.

Usage

```
getEasingCreditExtensions(startDate = "012007", endDate = "122100")
```

Arguments

`startDate`	query start date string in MMYYYY format, default 012007
`endDate`	query end date string in MMYYYY format, default 122100

Details

Downloads the Cleveland FRB data product for credit easing policy credit extensions weekly time series, including columns for

- primary/other broker dealer
- credit to AIG
- other credit

Value

A list of class `easing`

See Also

getEasingData getEasingSummary getEasingDetails getEasingLending getEasingCreditDepository getEasingProvidingLiquidity getEasingMaidenLane getEasingTraditionalHoldings getEasingAgencyDebt getEasingLongTermPurchases

Examples

```
## Not run:
ce <- getEasingCreditExtensions()
head(ce$df)

## End(Not run)
```

`getEasingData` *Get credit easing data.*

Description

Downloads Cleveland FRB credit easing policy tool data.

Usage

```
getEasingData(id = NA, startDate = "012007", endDate = "122100")
```

Arguments

`id`	the query type identifier code as specified by the FRB data site, default NA
`startDate`	the desired start month and year number in MMYYYY format, default 012007
`endDate`	the desired end month and year number in MMYYYY format, default 122100 for all available data

Details

Forms a query using the given `id` and submits the query to the data site, thereby downloading the requested data in CSV format. Transforms the CSV into a data frame, transforms the character date into `Date` objects, and then an `xts` object.

Value

A list of class `easing` containing query items and `xts` result.

List of class type `easing` containing `xts` time history object `df`, query start date `startDate`, query stop date `stopDate`, plot colors array `colors`, plot main title `main`, and plot y-axis label `ylab`.

Note

Meant for internal use by the other, more specific, query functions.

References

http://www.clevelandfed.org/research/data/credit_easing/index.cfm

See Also

getEasingSummary getEasingDetails getEasingLending getEasingCreditDepository getEasingCreditExtensions getEasingProvidingLiquidity getEasingMaidenLane getEasingTraditionalHoldings getEasingAgencyDebt getEasingLongTermPurchases

Examples

```
## Not run:
getEasingData(id=1)

## End(Not run)
```

---

getEasingDetails *Get credit easing details.*

Description

Downloads FRB credit easing policy details data.

Usage

```
getEasingDetails(startDate = "012007", endDate = "122100")
```

Arguments

`startDate`	query start date string in MMYYYY format, default 012007
`endDate`	query end date string in MMYYYY format, default 122100

Details

Downloads the Cleveland FRB data product for credit easing policy detail weekly time series, including columns for

- traditional security
- securities lent to dealers
- repurchase agreements
- other fed assets
- currency swaps
- term auction credit
- primary dealer
- primary credit
- secondary credit
- seasonal credit
- maiden lane 1
- maiden lane 2
- maiden lane 3
- asset-backed commercial paper
- net portfolio holdings commercial paper
- other credit

- credit to AIG
- mortgage-backed securities
- federal agency debt securities
- term asset-backed securities
- long-term treasury purchases

Value

A list of class `easing`

See Also

getEasingData getEasingSummary getEasingLending getEasingCreditDepository getEasingCreditExtensions getEasingProvidingLiquidity getEasingMaidenLane getEasingTraditionalHoldings getEasingAgencyDebt getEasingLongTermPurchases

Examples

```
## Not run:
ed <- getEasingDetails()
head(ed$df)

## End(Not run)
```

`getEasingLending` *Get credit easing lending.*

Description

Downloads FRB credit easing policy lending data.

Usage

```
getEasingLending(startDate = "012007", endDate = "122100")
```

Arguments

`startDate`	query start date string in MMYYYY format, default 012007
`endDate`	query end date string in MMYYYY format, default 122100

Details

Downloads the Cleveland FRB data product for credit easing policy lending weekly time series, including columns for

- repurchase agreements
- credit to depository institutions
- other fed assets
- currency swaps
- term auction credit
- securities lent to dealers
- credit extensions

Value

A list of class `easing`

See Also

getEasingData getEasingSummary getEasingDetails getEasingCreditDepository getEasingCreditExtensions getEasingProvidingLiquidity getEasingMaidenLane getEasingTraditionalHoldings getEasingAgencyDebt getEasingLongTermPurchases

Examples

```
## Not run:
el <- getEasingLending()
head(el$df)

## End(Not run)
```

---

getEasingLongTermPurchases

Get credit easing long-term treasury purchases data.

Description

Downloads FRB credit easing policy tools long-term treasury purchases data.

Usage

```
getEasingLongTermPurchases(startDate = "012007", endDate = "122100")
```

Arguments

`startDate`	query start date string in MMYYYY format, default 012007
`endDate`	query end date string in MMYYYY format, default 122100

Details

Downloads the Cleveland FRB data product for credit easing policy tools long-term treasury purchases weekly time series, including columns for

- treasury purchases

Value

A list of class `easing`

See Also

getEasingData getEasingSummary getEasingDetails getEasingLending getEasingCreditDepository getEasingCredtExtensions getEasingProvidingLiquidity getEasingMaidenLane getEasingTraditionalHoldings getEasingAgencyDebt

Examples

```
## Not run:
lt <- getEasingLongTermPurchases()
head(lt$df)

## End(Not run)
```

`getEasingMaidenLane` *Get credit easing credit Maiden Lane data.*

Description

Downloads FRB credit easing policy tools Maiden Lane data.

Usage

```
getEasingMaidenLane(startDate = "012007", endDate = "122100")
```

Arguments

`startDate`	query start date string in MMYYYY format, default 012007
`endDate`	query end date string in MMYYYY format, default 122100

Details

Downloads the Cleveland FRB data product for credit easing policy tools Maiden Lane weekly time series, including columns for

- Maiden Lane 1
- Maiden Lane 2
- Maiden Lane 3

Value

A list of class `easing`

See Also

getEasingData getEasingSummary getEasingDetails getEasingLending getEasingCreditDepository getEasingCredtExtensions getEasingProvidingLiquidity getEasingTraditionalHoldings getEasingAgencyDebt getEasingLongTermPurchases

Examples

```
## Not run:
ml <- getEasingMaidenLane()
head(ml$df)

## End(Not run)
```

---

getEasingProvidingLiquidity

Get credit easing credit providing liquidity data

Description

Downloads FRB credit easing policy tools providing liquidity to key credit markets data.

Usage

```
getEasingProvidingLiquidity(startDate = "012007", endDate = "122100")
```

Arguments

`startDate`	query start date string in MMYYYY format, default 012007
`endDate`	query end date string in MMYYYY format, default 122100

Details

Downloads the Cleveland FRB data product for credit easing policy tools providing liquidity weekly time series, including columns for

- Maiden Lane
- asset-backed commercial paper
- net portfolio holdings commercial paper
- term asset-backed securities

Value

A list of class `easing`

See Also

getEasingData getEasingSummary getEasingDetails getEasingLending getEasingCreditDepository getEasingCredtExtensions getEasingMaidenLane getEasingTraditionalHoldings getEasingAgency-Debt getEasingLongTermPurchases

Examples

```
## Not run:
pl <- getEasingProvidingLiquidity()
head(pl$df)

## End(Not run)
```

`getEasingSummary` *Get credit easing summary.*

Description

Downloads FRB credit easing policy summary data.

Usage

```
getEasingSummary(startDate = "012007", endDate = "122100")
```

Arguments

`startDate`	query start date string in MMYYYY format, default 012007
`endDate`	query end date string in MMYYYY format, default 122100

Details

Downloads the Cleveland FRB data product for credit easing policy summary weekly time series, including columns for

- traditional security holdings
- long-term treasury purchases
- lending to financial institutinos
- liquidity to key credit markets
- federal agency debt mortgage backed securities purchases

Value

A list of class `easing`

See Also

getEasingData getEasingDetails getEasingLending getEasingCreditDepository getEasingCreditExtensions getEasingProvidingLiquidity getEasingMaidenLane getEasingTraditionalHoldings getEasingAgencyDebt getEasingLongTermPurchases

Examples

```
## Not run:
es <- getEasingSummary()
head(es$df)

## End(Not run)
```

---

getEasingTraditionalHoldings

Get credit easing credit traditional security holdings data.

Description

Downloads FRB credit easing policy tools traditional security holdings data.

Usage

```
getEasingTraditionalHoldings(startDate = "012007", endDate = "122100")
```

Arguments

`startDate`	query start date string in MMYYYY format, default 012007
`endDate`	query end date string in MMYYYY format, default 122100

Details

Downloads the Cleveland FRB data product for credit easing policy tools traditional security holdings weekly time series, including columns for

- traditional security holdings

Value

A list of class `easing`

See Also

getEasingData getEasingSummary getEasingDetails getEasingLending getEasingCreditDepository getEasingCredtExtensions getEasingProvidingLiquidity getEasingMaidenLane getEasingAgencyDebt getEasingLongTermPurchases

Examples

```
## Not run:
th <- getEasingTraditionalHoldings()
head(th$df)

## End(Not run)
```

---

xyplot.easing *Credit easing data xyplot*

Description

Provides a convenience function for passing an easing object to xyplot.

Usage

```
xyplot.easing(x, ...)
```

Arguments

x	an object of class easing as returned by getEasingData and its many offspring.
...	other parameters passed to xyplot.

See Also

easingLineChart easingAreaChart getEasingData

Examples

```
## Not run:
require(lattice)
ad <- getEasingAgencyDebt()
xyplot(ad)

## End(Not run)
```

Index