Package 'Qardl'

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Type Package

Title Quantile Autoregressive Distributed Lag Model

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Description Compute the quantile autoregressive distributed lag model of Cho, Jin Seo & Kim, Tae-hwan & Shin, Yongcheol,(2015) <DOI:10.1016/j.jeconom.2015.05.003> and the short and long-run wald tests.

Depends R (>= 3.5)

License GPL (>= 2)

Encoding UTF-8

LazyData true

Imports stats, dplyr, pbapply, quantreg, MASS, Matrix

RoxygenNote 7.2.1

NeedsCompilation no

Repository CRAN

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R topics documented:

exampledata *The example data set*

Description

This is an example data set used only to fit the qardl model

Usage

```
data("exampledata")
```

Format

A data frame with 10000 observations on the following 4 variables.

`...1` a numeric vector

`y` a numeric vector

`z1` a numeric vector

`z2` a numeric vector

Examples

```
data(exampledata)
## maybe str(exampledata) ; plot(exampledata) ...
```

hyptest *hyptest function*

Description

hyptest function

Usage

```
hyptest(formula, data, maxlag = 7, tau = NULL)
```

Arguments

`formula`	y~z1+z2
`data`	the dataframe
`maxlag`	maximum lag number
`tau`	the quantile(s) to be estimated, this is generally a number strictly between 0 and 1

Value

the short-run phi and gamma wald test and the long-run beata wald test

Examples

```
# Quantile ARDL regression
# load data
data(exampledata)
# Fit the model
hyp=hyptest(y~z1+z2,exampledata,maxlag=7, tau=c(0.2,0.5,0.75))
summary(hyp)
```

`qardl` *Qardl function*

Description

Qardl function

Usage

```
qardl(formula, data, maxlag = 4, tau = NULL)
```

Arguments

`formula`	y~z1+z2
`data`	the dataframe
`maxlag`	maximum lag number
`tau`	the quantile(s) to be estimated, this is generally a number strictly between 0 and 1

Value

the short-run and the long-run estimated coefficients of the QARDL model

Examples

```
# Quantile ARDL regression
# load data
data(exampledata)
# Fit the model
reg=qardl(y~z1+z2,exampledata,maxlag=7, tau=0.5)
reg
```

summary.hyptest *Summary of a hyptest*

Description

summary method for a hyptest.

Usage

```
## S3 method for class 'hyptest'
summary(object, ...)
```

Arguments

object	is the object of the function
...	not used

Value

an object of the S3 class summary.hyptest with the following components:

summary.qardl *Summary of a ardl model*

Description

summary method for a qardl model.

Usage

```
## S3 method for class 'qardl'
summary(object, ...)
```

Arguments

object	is the object of the function
...	not used

Value

an object of the S3 class summary.qardl with the following components:

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