Package 'gvc'

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Version 6.4.0

Title Global Value Chains Tools

Description Several tools for Global Value Chain ('GVC') analysis are implemented.

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Depends R (>= 3.5.0)

License GPL-3

URL https://qua.st/gvc, https://github.com/bquast/gvc

BugReports https://github.com/bquast/gvc/issues

Imports decompr, diagonals

Suggests testthat, knitr, rmarkdown

VignetteBuilder knitr

RoxygenNote 7.2.0

Encoding UTF-8

NeedsCompilation no

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Repository CRAN

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dfddva *Domestic Final Demand Domestic Value Added*

Description

Domestic Final Demand Domestic Value Added

Usage

```
dfddva(x, aggregate = FALSE)
```

Arguments

x	A Leontief decomposed Inter-Country Input Output table as created by decompr, which should be post multiplied with final demand (using the parameter: post="final_demand")
aggregate	should dfddva be aggregated along source industries to a national sum?

Examples

```
# load the decompr package
library(decompr)

# load example data
data(leather)
attach(leather)

# create a leontief decomposed data set
l <- decomp(x = inter,
            y = final,
            k = countries,
            i = industries,
            o = out,
            method = "leontief",
            post = "final_demand")

 # apply dfddva
 dfddva( l )
```

dfdfva *Domestic Final Demand Foreign Value Added*

Description

Domestic Final Demand Foreign Value Added

Usage

```
dfdfva(x, aggregate = FALSE)
```

Arguments

x	A Leontief decomposed Inter-Country Input Output table as created by decompr, which should be post multiplied with final demand (using the parameter: post="final_demand")
aggregate	should dfddva be aggregated along source industries to a national sum?

Examples

```
# load the decompr package
library(decompr)

# load the example data
data(leather)
attach(leather)

# create a leontief decomposed data set
l <- decomp(x = inter,
            y = final,
            k = countries,
            i = industries,
            o = out,
            method = "leontief",
            post = "final_demand")

 # apply dfdfva
 dfdfva( l )
```

downstream *Downstreamness*

Description

Downstreamness

Usage

```
downstream(x)
```

Arguments

x	an object of class "decompr" as created using the load_tables_vectors() function from the decompr package.

Examples

```
# load the decompr package
library(decompr)

# load example data
data(leather)
attach(leather)

# create a leontief decomposed data set
l <- load_tables_vectors(x = inter,
                         y = final,
                         k = countries,
                         i = industries,
                         o = out        )

 # apply downstream
 downstream( l )
```

---

e2r *Exporting to Re-export*

Description

Exporting to Re-export

Usage

```
e2r(x, by = NULL, subset = NULL)
```

Arguments

x	A Leontief decomposed Inter-Country Input Output table as created by decompr
by	variable to subset by
subset	value(s) of the subset variable to select

Examples

```
# load the decompr package
library(decompr)

# load the example data set
data(leather)
attach(leather)

# create a leontief decomposed data set
l <- decomp(x = inter,
            y = final,
            k = countries,
            i = industries,
            o = out)

 # apply the Exporting to Re-export
 e2r( l )
```

`ffddva` *Foreign Final Demand Domestic Value Added*

Description

Foreign Final Demand Domestic Value Added

Usage

```
ffddva(x, aggregate = FALSE)
```

Arguments

`x`	A Leontief decomposed Inter-Country Input Output table as created by decompr, which should be post multiplied with final demand (using the parameter: post="final_demand")
`aggregate`	should dfddva be aggregated along source industries to a national sum?

Examples

```
# load the decompr package
library(decompr)

# load example data
data(leather)
attach(leather)

# create a leontief decomposed data set
l <- decomp(x = inter,
            y = final,
            k = countries,
```

```
            i = industries,
            o = out,
            method = "leontief",
            post = "final_demand")

# apply ffddva
ffddva( l )
```

---

gvc *Global Value Chain analysis*

Description

Several tools for Global Value Chain ('GVC') analysis are implemented.

Author(s)

Bastiaan Quast <bquast@gmail.com> Victor Kummritz

References

Wang, Zhi, Shang-Jin Wei, and Kunfu Zhu. Quantifying international production sharing at the bilateral and sector levels. No. w19677. National Bureau of Economic Research, 2013.

See Also

https://qua.st/decompr

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i2e *Importing to Export*

Description

Importing to Export

Vertical Specialization

Vertical Specialisation

Usage

```
i2e(x, by = NULL, subset = NULL)

vertical_specialisation(x, by = NULL, subset = NULL)

vertical_specialization(x, by = NULL, subset = NULL)
```

Arguments

x	A Leontief decomposed Inter-Country Input Output table as created by decompr
by	variable to subset by
subset	value(s) of the subset variable to select

Examples

```
# load the decompr package
library(decompr)

# load the example data set
data(leather)
attach(leather)

# create a leontief decomposed data set
l <- decomp(x = inter,
            y = final,
            k = countries,
            i = industries,
            o = out)

 # apply the Import to Exports analysis
 i2e( l )
```

---

nrca *New Revealed Comparative Advantage*

Description

New Revealed Comparative Advantage

Usage

```
nrca(x)
```

Arguments

x	A decomposed Inter-Country Input Output table as created by decompr

Examples

```
# load the decompr package
library(decompr)

# load the example data set
data(leather)
attach(leather)
```

```
# perform Leontief decomposition
l <- decomp(x = inter,
            y = final,
            k = countries,
            i = industries,
            o = out,
            method = "leontief",
            post = "exports"    )

# load gvc package
library(gvc)

# perform New Revealed Comparative Advantage
nrca(l)
```

---

upstream *Upstreamness*

Description

Upstreamness

Usage

```
upstream(x)
```

Arguments

x	an object of class "decompr" as created using the load_tables_vectors() function from the decompr package.

Examples

```
# load the decompr package
library(decompr)

# load example data
data(leather)
attach(leather)

# create a leontief decomposed data set
l <- load_tables_vectors(x = inter,
                         y = final,
                         k = countries,
                         i = industries,
                         o = out        )

 # apply upstream
 upstream( l )
```

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