Package ‘dmai’

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Type Package
Title Divisia Monetary Aggregates Index
Version 0.4.0
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Description Functions to calculate Divisia monetary aggregates index as given in Bar-
Depends R (>= 3.1)
Imports dplyr, magrittr, ggplot2, stringr, tibble, tidyR
License GPL-2
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https://myaseen208.github.io/dmai/
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**Description**


**Usage**

```r
## Default S3 method: 
dmai(.data, method = c("Barnett", "Hancock"),
   logbase = NULL)
```

**Arguments**

- `.data` data.frame
- `method` Method to calculate Divisia monetary aggregates index, Barnett or Hancock
- `logbase` base of log to be used in Barnett divisia monetary aggregates index method, default is NULL or 10

**Value**

Divisia Monetary Aggregates Index

**Author(s)**

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**References**


**Examples**

```r
Data <-
  tibble::tibble(
    Date = paste(c("Jun", "Dec"), rep(seq(from = 2000, to = 2017, by = 1), each = 2), sep = "-")
  , x1 = runif(n = 36, min = 162324, max = 2880189)
  , x2 = runif(n = 36, min = 2116, max = 14542)
  , x3 = runif(n = 36, min = 92989, max = 3019556)
  , x4 = runif(n = 36, min = 205155, max = 4008784)
  , x5 = runif(n = 36, min = 6082, max = 186686)
  , x6 = runif(n = 36, min = 11501, max = 50677)
  , x7 = runif(n = 36, min = 61888, max = 901419)
  , x8 = runif(n = 36, min = 13394, max = 347020)
```

```r
dmai(Data, method = c("Barnett", "Hancock"),
   logbase = NULL)
```
```r
dataDate <- as.Date(paste("01", Data$Date, sep = ":"), format = "%d-%b-%Y")

# Divisia monetary aggregates index using Barnett method
DMAIBarnett <- dmai(.data = Data, method = "Barnett", logbase = NULL)
DMAIBarnett1 <- dmai(.data = Data, method = "Barnett", logbase = 10)
DMAIBarnett2 <- dmai(.data = Data, method = "Barnett", logbase = 2)
DMAIBarnett3 <- dmai(.data = Data, method = "Barnett", logbase = exp(1))

# Divisia monetary aggregates index using Hancock method
DMAIHancock <- dmai(.data = Data, method = "Hancock")

library(ggplot2)
ggplot(data = DMAIBarnett, mapping = aes(x = Date, y = DMAI)) +
  geom_point() +
  geom_line() +
  geom_text(aes(label = round(DMAI, 2)), vjust = "inward", hjust = "inward") +
  scale_x_date(
    date_breaks = "6 months",
    date_labels = "%b-%Y"
  ) +
  theme_bw() +
  theme(axis.text.x = element_text(angle = 90))

ggplot(data = DMAIHancock, mapping = aes(x = Date, y = DMAI)) +
  geom_point() +
  geom_line() +
  geom_text(aes(label = round(DMAI, 2)), vjust = "inward", hjust = "inward") +
```
scale_x_date(
    date_breaks = "6 months",
    date_labels = "%b-%Y",
    limits = c(min(DMAIHancock$Date), max(DMAIHancock$Date))) +
theme_bw() +
theme(axis.text.x = element_text(angle = 90))

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**Description**

The dmai package provides functionalities to calculate Divisia monetary aggregates index as given in Barnett, W. A. (1980).

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