

Package ‘fpp3’

February 1, 2023

Title Data for “Forecasting: Principles and Practice” (3rd Edition)

Version 0.5

Description All data sets required for the examples and exercises in the book “Forecasting: principles and practice” by Rob J Hyndman and George Athanasopoulos <<https://0Texts.com/fpp3/>>. All packages required to run the examples are also loaded.

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URL <https://github.com/robjhyndman/fpp3package>,
<https://0Texts.com/fpp3/>

BugReports <https://github.com/robjhyndman/fpp3package>

Depends R (>= 3.5.0)

Imports cli (>= 1.0.0), crayon (>= 1.3.4), dplyr (>= 0.7.4), fable (>= 0.3.0), fabletools (>= 0.3.0), feasts (>= 0.1.7), ggplot2 (>= 3.1.1), lubridate (>= 1.7.4), magrittr (>= 1.5), purrr (>= 0.2.4), rstudioapi (>= 0.7), tibble (>= 1.4.2), tidyr (>= 0.8.3), tsibble (>= 0.9.3), tsibbledata (>= 0.2.0)

Encoding UTF-8

LazyData true

RoxygenNote 7.2.3

NeedsCompilation no

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aus_accommodation	<i>Australian accommodation data</i>
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Description

aus_accommodation is a quarterly ‘tsibble’ containing data on Australian tourist accommodation from short-term non-residential accommodation with 15 or more rooms, 1998 Q1 - 2016 Q2. The data set also contains the Australian Consumer Price Index (CPI) for the same period. Takings are in millions of Australian dollars, Occupancy is a percentage of rooms occupied, CPI is an index with value 100 in 2012 Q1.

Format

Time series of class ‘tsibble’

Source

Australian Bureau of Statistics, Cat No 8635.0, Table 10, and Cat No 6401.0, Table 1.

Examples

```
aus_accommodation
```

aus_airpassengers	<i>Air Transport Passengers Australia</i>
-------------------	---

Description

Total annual air passengers (in millions) including domestic and international aircraft passengers of air carriers registered in Australia. 1970-2016.

Format

Annual time series of class 'tsibble'.

Source

World Bank.

Examples

```
aus_airpassengers
```

aus_arrivals	<i>International Arrivals to Australia</i>
--------------	--

Description

Quarterly international arrivals to Australia from Japan, New Zealand, UK and the US. 1981Q1 - 2012Q3.

Format

Quarterly time series of class 'tsibble'.

Source

Tourism Research Australia.

Examples

```
aus_arrivals
```

bank_calls

Call volume for a large North American commercial bank

Description

Five-minute call volume handled on weekdays between 7:00am and 9:05pm, beginning 3 March and 24 October 2003 (164 days).

Format

Time series of class ‘tsibble’ at 5 minute intervals.

Source

Jonathan Weinberg

References

Weinberg, Brown & Stroud (2007) "Bayesian forecasting of an inhomogeneous Poisson process with applications to call center data" *Journal of the American Statistical Association*, 102:480, 1185-1198.

Examples

bank_calls

boston_marathon

Boston marathon winning times since 1897

Description

Winning times for events at the Boston Marathon. 1897-2019.

Format

Annual time series of class ‘tsibble’.

Source

Boston Athletic Association. <https://www.baa.org/races/boston-marathon/results/champions>

Examples

boston_marathon

canadian_gas	<i>Monthly Canadian gas production</i>
--------------	--

Description

Monthly Canadian gas production, billions of cubic metres, January 1960 - February 2005

Format

Monthly time series of class 'tsibble'.

Source

Hyndman, R.J., Koehler, A.B., Ord, J.K., and Snyder, R.D., (2008) *Forecasting with exponential smoothing: the state space approach*, Springer.

References

<http://www.exponentialsMOOTHING.net>

Examples

```
canadian_gas
```

fpp3_conflicts	<i>Conflicts between fpp3 packages and other packages</i>
----------------	---

Description

This function lists all the conflicts between packages in the fpp3 collection and other packages that you have loaded.

Usage

```
fpp3_conflicts()
```

Details

Some conflicts are deliberately ignored: `intersect`, `union`, `setequal`, and `setdiff` from `dplyr`; and `intersect`, `union`, `setdiff`, and `as.difftime` from `lubridate`. These functions make the base equivalents generic, so shouldn't negatively affect any existing code.

Value

A list object of class `fpp3_conflicts`.

Examples

```
fpp3_conflicts()
```

fpp3_packages	<i>List all packages loaded by fpp3</i>
---------------	---

Description

List all packages loaded by fpp3

Usage

```
fpp3_packages(include_self = FALSE)
```

Arguments

include_self Include fpp3 in the list?

Value

A character vector of package names.

Examples

```
fpp3_packages()
```

guinea_rice	<i>Rice production (Guinea)</i>
-------------	---------------------------------

Description

Total annual rice production (million metric tons) for Guinea. 1970-2011.

Format

Annual time series of class 'tsibble'.

Source

World Bank.

Examples

```
guinea_rice
```

insurance

Insurance quotations and advertising expenditure

Description

Monthly quotations and monthly television advertising expenditure for a US insurance company. January 2002 to April 2005

Format

Monthly time series of class 'tsibble'.

Source

Kindly provided by Dave Reilly, Automatic Forecasting Systems.

Examples

```
insurance %>%  
  ggplot(aes(x=TVadverts, y=Quotes)) + geom_point()
```

prices

Price series for various commodities

Description

Annual prices for eggs, chicken, copper, nails, oil and wheat. Eggs, chicken, nails, oil and copper in \$US; wheat in British pounds. All prices adjusted for inflation.

Format

Annual time series of class 'tsibble'.

Source

Makridakis, Wheelwright and Hyndman (1998) **Forecasting: methods and applications**, John Wiley & Sons: New York. Chapter 9.

Examples

```
prices %>% autoplot(wheat)
```

souvenirs

Sales for a souvenir shop

Description

Monthly sales for a souvenir shop on the wharf at a beach resort town in Queensland, Australia.

Format

Monthly time series of class 'tsibble'.

Source

Makridakis, Wheelwright and Hyndman (1998) **Forecasting: methods and applications**, John Wiley & Sons: New York. Exercise 5.8.

Examples

```
souvenirs %>% autoplot(Sales)
```

us_change

Percentage changes in economic variables in the USA.

Description

us_change is a quarterly 'tsibble' containing percentage changes in quarterly personal consumption expenditure, personal disposable income, production, savings and the unemployment rate for the US, 1970 to 2016. Original \$ values were in chained 2012 US dollars.

Format

Time series of class 'tsibble'

Source

Federal Reserve Bank of St Louis.

Examples

```
us_change
```

us_employment	<i>US monthly employment data</i>
---------------	-----------------------------------

Description

us_employment is a monthly 'tsibble' containing US employment data from January 1939 to June 2019. Each 'Series_ID' represents different sectors of the economy.

Format

Time series of class 'tsibble'

Source

U.S. Bureau of Labor Statistics

Examples

```
us_employment
```

us_gasoline	<i>US finished motor gasoline product supplied.</i>
-------------	---

Description

Weekly data beginning Week 6, 1991, ending Week 3, 2017. Units are "million barrels per day".

Format

Time series object of class 'tsibble'.

Source

US Energy Information Administration.

Examples

```
us_gasoline
```

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