

Package ‘fpp’

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Title Data for “Forecasting: principles and practice”

Description All data sets required for the examples and exercises in the book “Forecasting: principles and practice” by Rob J Hyndman and George Athanasopoulos. All packages required to run the examples are also loaded.

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LazyLoad yes

Author Rob J Hyndman <Rob.Hyndman@monash.edu>

Maintainer Rob J Hyndman <Rob.Hyndman@monash.edu>

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fpp-package	<i>Data for "Forecasting: principles and practice"</i>
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Description

All data sets required for the examples and exercises in the book "Forecasting: principles and practice" by Rob J Hyndman and George Athanasopoulos.

Details

Package:	fpp
Type:	Package
License:	GPL2
LazyLoad:	yes

Author(s)

Rob J Hyndman

Maintainer: Rob.Hyndman@monash.edu

See Also

[forecast](#) package

a10	<i>Monthly anti-diabetic drug sales in Australia from 1992 to 2008.</i>
-----	---

Description

Total monthly scripts for pharmaceutical products falling under ATC code A10, as recorded by the Australian Health Insurance Commission.

Usage

```
data(a10)
```

Format

Monthly time series of class `ts`.

Source

Medicare Australia

Examples

```
plot(a10)  
seasonplot(a10)
```

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

Description

Total annual air passengers including domestic and international aircraft passengers of air carriers registered in Australia. 1970-2009.

Usage

```
data(ausair)
```

Format

Annual time series of class `ts`.

Source

World Bank. data.is/x5KiE0

Examples

```
plot(ausair)
```

ausbeer	<i>Quarterly Australian Beer production</i>
---------	---

Description

Total quarterly beer production in Australia (in megalitres) from 1956:Q1 to 2008:Q3.

Usage

```
data(ausbeer)
```

Format

Quarterly time series of class `ts`.

Source

Australian Bureau of Statistics. Cat. 8301.0.55.001.

Examples

```
data(ausbeer)
seasonplot(ausbeer)
```

austa	<i>International vistors to Australia</i>
-------	---

Description

Total international visitors to Australia. 1980-2010. (millions)

Usage

```
data(austa)
```

Format

Annual time series of class `ts`.

Source

International Visitor Survey, Tourism Research Australia.

Examples

```
plot(austa)
```

austourists	<i>International Tourists to Australia: Total visitor nights.</i>
-------------	---

Description

Quarterly visitor nights spent by international tourists to Australia. 1999-2010.

Usage

```
data(austourists)
```

Format

Annual time series of class `ts`.

Source

Tourism Research Australia.

Examples

```
plot(austourists)
```

cafe	<i>Quarterly expenditure on eating out in Australia</i>
------	---

Description

The total quarterly expenditure on cafes, restaurants and takeaway food services in Australia (1982:Q2-2010:Q4)

Usage

```
data(cafe)
```

Format

Annual time series of class `ts`.

Source

Australian Bureau of Statistics. Catalogue No. 8501.0

Examples

```
plot(cafe)
```

credit

Credit ratings on personal loans from an Australian bank.

Description

A random sample of 500 observations of customers applying for personal loans at an Australian bank. All customers were 25 years old or under.

Usage

```
data(credit)
```

Format

A data frame with 500 observations on the following 7 variables.

score a numeric vector giving the credit scores calculated by the bank on a scale from 0 to 100.

savings a numeric vector giving the total personal savings of each customer (in thousands of \$).

income a numeric vector giving the total net income of each customer (in thousands of \$).

fte TRUE if the customer has full time employment, and FALSE otherwise.

single TRUE if the customer is single, and FALSE otherwise.

time.address a numeric vector giving the number of months each customer has lived at their current address.

time.employed a numeric vector giving the number of months each customer has been with their current employer.

Examples

```
data(credit)
```

debitcards

Retail debit card usage in Iceland.

Description

Retail debit card usage in Iceland (million ISK).

Usage

```
data(debitcards)
```

Format

Annual time series of class ts.

Source

Statistics Iceland. <http://data.is/HFzL69>

Examples

```
plot(debitcards)
```

departures

Total monthly departures from Australia

Description

Overseas departures from Australia: permanent departures, long-term (more than one year) residents departing, long-term (more than one year) visitors departing, short-term (less than one year) residents departing and short-term (less than one year) visitors departing.

Usage

```
data(departures)
```

Format

Multiple monthly time series of class `mts` containing the following series:

`permanent` a monthly time series of the permanent departures from Australia.

`reslong` a monthly time series of the long-term resident departures from Australia.

`vislong` a monthly time series of the long-term visitor departures from Australia.

`resshort` a monthly time series of the short-term resident departures from Australia.

`visshort` a monthly time series of the short-term visitor departures from Australia.

Source

Australian Bureau of Statistics. Catalogue No 3401.02.

Examples

```
plot(departures)
```

elecequip

Electrical equipment manufactured in the Euro area.

Description

Manufacture of electrical equipment: computer, electronic and optical products. Data adjusted by working days; Euro area (16 countries). Industry new orders index. 2005=100.

Usage

```
data(elecequip)
```

Format

Time series object of class `ts`.

Source

Eurostat. data.is/y6d08i

Examples

```
plot(elecequip)
```

elecsales

Electricity sales to residential customers in South Australia.

Description

Annual electricity sales for South Australia in GWh from 1989 to 2008. Electricity used for hot water has been excluded.

Usage

```
data(elecsales)
```

Format

Time series object of class `ts`.

Source

Australian Energy Market Operator.

Examples

```
plot(elecsales)
```

`euretail`*Quarterly retail trade: Euro area.*

Description

Quarterly retail trade index in the Euro area (17 countries), 1996-2011, covering wholesale and retail trade, and repair of motor vehicles and motorcycles. (Index: 2005 = 100).

Usage

```
data(euretail)
```

Format

Annual time series of class `ts`.

Source

Eurostat. <http://data.is/IdKyZr>

Examples

```
plot(euretail)
```

`fuel`*Fuel economy data on 2009 vehicles in the US.*

Description

Fuel economy data taken from <http://www.fueleconomy.gov/feg/advancedSearch.htm> with search options

- Year: 2009
- Vehicle/Fuel: Regular Gasoline
- Transmission: Automatic
- Drive Type: FWD, RWD
- Cylinders: 3-5

Then GAS/E85 vehicles were removed.

Usage

```
data(fuel)
```

Format

fuel is a data frame with 134 observations on the following 8 variables.

Model a factor indicating the model of each vehicle.

Cylinders a numeric vector with the number of cylinders of each vehicle

Litres a numeric vector with the engine size in litres.

Barrels a numeric vector containing the energy impact score: an estimate of the average number of barrels of petroleum used per year.

City a numeric vector with estimated city mpg

Highway a numeric vector with estimated highway mpg

Cost a numeric vector containing annual fuel cost in US\$

Carbon a numeric vector containing the carbon footprint: the car's average CO2 emissions in tons per year, along with the CO2 emitted in producing and distributing the fuel.

Source

<http://www.fueleconomy.gov/feg/>

Examples

```
data(fuel)
```

guinearice

Rice production (Guinea)

Description

Total annual rice production (million metric tons) for Guinea. 1970-2009.

Usage

```
data(guinearice)
```

Format

Annual time series of class ts.

Source

World Bank. data.is/whKD8H

Examples

```
plot(guinearice)
```

`h02`*Monthly cortecosteroid drug sales in Australia from 1992 to 2008.*

Description

Total monthly scripts for pharmaceutical products falling under ATC code H02, as recorded by the Australian Health Insurance Commission. Measured in millions of scripts.

Usage

```
data(h02)
```

Format

Monthly time series of class `ts`.

Source

Medicare Australia

Examples

```
plot(h02)
seasonplot(h02)
```

`insurance`*Insurance quotations and advertising expenditure.*

Description

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

Usage

```
data(insurance)
```

Format

Monthly time series of class `ts`.

Source

Kindly provided by Dave Reilly, Automatic Forecasting Systems.

Examples

```
plot(insurance)
```

livestock	<i>Livestock (sheep) in Asia, 1961-2007.</i>
-----------	--

Description

Annual sheep livestock numbers in Asia.

Usage

```
data(livestock)
```

Format

Annual time series of class ts.

Source

United Nations. <http://data.is/GFwxQi>

Examples

```
plot(livestock)
```

melsyd	<i>Total weekly air passenger numbers on Ansett airline flights between Melbourne and Sydney, 1987–1992.</i>
--------	--

Description

Air traffic numbers are in thousands, and divided into first class, business class and economy class. There was a major pilots' industrial dispute during the data period resulting in some weeks with zero traffic. There was also at least two changes in the definitions of passenger classes.

Usage

```
data(melsyd)
```

Format

Multiple time series of class mts.

Source

Ansett Airlines (which no longer exists).

Examples

```
plot(melsyd)
```

oil	<i>Annual oil production in Saudi Arabia</i>
-----	--

Description

Annual oil production (millions of tonnes), Saudi Arabia, 1965-2010.

Usage

```
data(oil)
```

Format

Annual time series of class `ts`.

Source

BP. <http://data.is/GEOHU3>

Examples

```
plot(oil)
```

sunspotarea	<i>Annual average sunspot area (1875-2011)</i>
-------------	--

Description

Annual averages of the daily sunspot areas (in units of millionths of a hemisphere) for the full sun. Sunspots are magnetic regions that appear as dark spots on the surface of the sun. The Royal Greenwich Observatory compiled daily sunspot observations from May 1874 to 1976. Later data are from the US Air Force and the US National Oceanic and Atmospheric Administration. The data have been calibrated to be consistent across the whole history of observations. More information is available at <http://solarscience.msfc.nasa.gov/greenwch.shtml>.

Usage

```
data(sunspotarea)
```

Format

Annual time series of class `ts`.

Source

NASA. http://solarscience.msfc.nasa.gov/greenwch/sunspot_area.txt

Examples

```
plot(sunspotarea)
```

usconsumption	<i>Growth rates of personal consumption and personal income in the USA.</i>
---------------	---

Description

Percentage changes in quarterly personal consumption expenditure and personal disposable income for the US, 1970 to 2010.

Usage

```
data(usconsumption)
```

Format

Time series object of class `ts`.

Source

Federal Reserve Bank of St Louis. <http://data.is/AnVtzB>. <http://data.is/wQPcjU>.

Examples

```
plot(usconsumption)
```

usmelec	<i>Electricity monthly total net generation. January 1973-October 2010.</i>
---------	---

Description

Electricity net generation measured in billions of kilowatt hours (kWh).

Usage

```
data(usmelec)
```

Format

Time series object of class `ts`.

Source

US Energy Information Administration. <http://data.is/zgRWCO>.

Examples

```
plot(usmelec)
```

vn

Quarterly visitor nights for various regions of Australia.

Description

Total quarterly visitor nights from 1998-2011 for eight regions of Australia:

Sydney The Sydney metropolitan area.

NSW New South Wales other than Sydney

Melbourne The Melbourne metropolitan area.

VIC Victoria other than Melbourne.

BrisbaneGC The Brisbane and Gold Coast area.

QLD Queensland other than Brisbane and the Gold Coast.

Capitals The other five capital cities: Adelaide, Hobart, Perth, Darwin and Canberra.

Other All other areas of Australia.

Usage

```
data(vn)
```

Format

Time series object of class `mts`.

Source

Tourism Research Australia.

Examples

```
plot(vn)
```

wmurders	<i>Monthly female murder rate (per 100,000 standard population) in the USA.</i>
----------	---

Description

Total Murdered women, per 100 000 standard population.

Usage

```
data(h02)
```

Format

Monthly time series of class `ts`.

Source

Gapminder Foundation. <http://data.is/XKa24F>

Examples

```
plot(wmurders)
```

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