Package 'fEcofin'

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Title Economic and Financial Data Sets

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Depends R (>= 2.6.0), utils

Suggests RUnit

Maintainer Rmetrics Core Team <Rmetrics-core@r-project.org>

Description Environment for teaching "Financial Engineering and Computational Finance"

NOTE SEVERAL PARTS ARE STILL PRELIMINARY AND MAY BE CHANGED IN THE FUTURE. THIS TYPICALLY INCLUDES FUNCTION AND ARGUMENT NAMES, AS WELL AS DEFAULTS FOR ARGUMENTS AND RETURN VALUES.

LazyLoad yes

LazyData yes

License GPL (>= 2)

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R topics documented:

`fEcofin-package` *Economic and Financial Data Package*

Description

Package of econometric and financial data sets.

Details

Package:	fEcofin
Type:	Package
Version:	261.73.1
Date:	2008
License:	GPL Version 2 or later
Copyright:	(c) 1999-2008 Diethelm Wuertz and Rmetrics Foundation
URL:	`http://www.rmetrics.org`

Overview of Topics:

1. Bond Market Data Sets
2. Portfolio Data Sets
3. Time Series Data Sets
4. World Federation of Stock Exchanges Data Sets
5. CIA Factbook Data Sets
6. Performance Analytics Data Sets

1. Bond Market Data Sets

contains demo data sets from the Bond Market.

The data sets are:

`bundesbankNSS`	Nelson-Siegel-Svensson Coefficients,
`mk.zero2`	US zero-coupon yield curve,
`mk.maturity`	US term structure maturities.

2. Portfolio Data Sets

contains demo data sets for portfolio optimization.

The data sets are:

`altInvest`	Monthly Alternative Investment Data Set,
`annualInvest`	Annual Investment Data Set,
`assetsCorr`	US Asset Correlation Matrix,

berndtInvest	Berndt's Investment Data Set,
jobstCov	Covariance Matrix of 30 Stocks,
largecap.ts	Monthly US Largecap Equities,
microcap.ts	Monthly US Microcap Equities,
midcap.ts	Monthly US Midcap Equities,
smallcap.ts	Monthly US Smallcap Equities,
midcapD.ts	Daily US Midcap Equities,
returns.three.ts	Returns,
SWXLP	Swiss Pension Fund LPP-2000,
LPP2005REC	Swiss Pension Fund LPP-2005.
equityFunds	Equity Funds.

3. Time Series Data Sets

contains demo time series data sets for economic and financial market analysis.

The data sets are:

bmwRet	Daily BMW Stock Returns,
CPI.dat	US Consumer Price Index,
IP.dat	US Industrial Production Index,
danishClaims	Danish Fire Losses,
dem2gbp	DEM/GBP Foreign Exchange Rate,
DowJones30	Down Jones 30 Stocks,
ford.s	Daily Ford Stock Prices,
hp.s	Daily Hewlett-Packard Stock Prices,
klein	Klein's US Economic Data Set,
kmenta	Kmenta's US Economic Data Set,
msft.dat	Microsoft Stock Prices,
nelsonplosser	Nelson-Plosser US Economic Time Series,
nyse	NYSE Composite Index,
recession	US Recession Data Set,
shiller.dat	Shiller's Data Set,
shiller.annual	Shiller's Annual Data Set,
singleIndex.dat	US Index and Price Data Records,
sp500dge	Daily DGE SP500 Returns,
sp500index	Daily SP500 Index Returns,
surex1.ts.dat	Exchange Rate Spot Returns,
yhoo.df	Yahoo Stock Prices.

4. World Federation of Stock Exchanges Data Sets

contains data sets of financial and economic market statistics from exchange data collected by the World Federation of Stock Exchanges.

The data sets are:

wfe1	Market capitalization of domestic companies,
wfe2	Total number of companies with shares listed,

wfe3	Total value of share trading,
wfe4	Market value of bonds listed,
wfe5	Total value of bond trading, and
wfe6	Price earning ratio an gross dividend yield.

5. CIA Factbook Data Sets

A collection and description of functions to extract financial and economic market statistics from the data available in the CIA World Factbook.

The functions are:

ciaCountries	Returns a list of CIA country codes,
ciaIndicators	Returns a list of CIA indicator codes,
ciaByCountry	Returns all Indicators by country,
ciaByIndicator	Returns for all countries indicator ranking.

6. Performance Analytics Data Sets

contains data sets for use in the examples of portfolio performance analytics.

The data sets are:

edhec.tS	composite hedge fund style index returns,
managers.tS	fixed income benchmarks.

BondsData *Bonds Data Sets*

Description

A collection and description of data sets from the Rmetrics Package fBonds.

The data sets are:

bundesbankNSS	Nelson-Siegel-Svensson Coefficients,
mk.zero2	US zero-coupon yield curve,
mk.maturity	US term structure maturities.

Format

Time series files are in CSV Excel spreadsheet format. The delimiter is a semicolon.

Details

Bundesbank Nelson-Siegel-Svensson Coefficients:

bundesbankNSS coefficients for the Nelson-Siegel-Svensson yield curve. from the German Bundesbank.
The data set ranges from 1973-01-03 to 1996-07-23.
The columns are named: BMW.RET.
Source: German Bundesbank.

US zero-coupon yield curve:

mk.zero2 is a data set with a 67 x 55 values representing the US zero-coupon yield curve.
The data set ranges from August 1985 to February 1991.
The columns are named:
Source:

US term structure maturities:

mk.maturity is a numeric vector of length 55, giving the fifty-five maturities in terms of years for the term structure.
The data set ranges from August 1985 to February 1991.
The columns are named:
Source:

References

McCulloch J. H. (1990); *US term structure data: 1946-87*, Handbook of Monetary Economics, Friedman B.M. and Hahn F.H. (eds.), Elsevier Science.

McCulloch J. H. and Kwon, H.C. (1993); *US term structure data: 1947-1991*, Working Paper No. 93-6, Department of Economics, Ohio State University.

CIAFactbook *CIA Factbook*

Description

A collection and description of functions to extract financial and economic market statistics from the data available in the CIA World Factbook.

The functions are:

ciaCountries	Returns a list of CIA country codes,
ciaIndicators	Returns a list of CIA indicator codes,
ciaByCountry	Returns all Indicators by country,
ciaByIndicator	Returns for all countries indicator ranking.

Usage

```
ciaCountries()
ciaIndicators()

ciaByCountry(code = "CH", from = FALSE, names = FALSE, details = FALSE)
ciaByIndicator(code = 2001, from = FALSE, details = FALSE)

## S3 method for class 'ciaCountries':
print(x, ...)
## S3 method for class 'ciaIndicators':
print(x, ...)
```

Arguments

code	[ciaByCountry] - a character string denoting the country code. [ciaByIndicator] - a character string or integer denoting the indicator code.
details	a logical flag. Should details be printed? By default FALSE.
from	a logical flag. If set to TRUE an additional column will be returned with the information when the data were recorded.
names	a logical flag. If set to TRUE then the full names of the countries will be returned in an additional column
x	x an object of class ciaCountries or ciaIndicators as returned by the functions ciaCountry or ciaIndicator, respectively.
...	arguments to be past to the print method.

Value

ciaCountries
returns a data frame with countries and contry codes.

ciaIndicators
returns a data frame with indicator codes.

ciaByCountry
returns a data frame with indicators by country.

ciaByIndicator
returns a data frame with ranked data for a given indicator.

Author(s)

Diethelm Wuertz for the Rmetrics R-port.

References

CIA, 2004, *CIA Factbbook 2004*, http://www.cia.gov/cia/publications/factbook.

Examples

```
## Pie Chart from CIA Oil Production Indicator (Code 2173):
   # Search for Code:
   ciaIndicators()
   # Create Pie Chart:
   OilProduction = as.integer(as.vector(ciaByIndicator(2173)[2:11, 2]))
   names(OilProduction) = as.vector(ciaByIndicator(2173)[2:11,1])
   print(OilProduction)
   pie(OilProduction, col = rainbow(10))
   title(main = "Oil Production 2004\n bbl/day")
   mtext("Source: CIA World Factbook", side = 1)
```

PerformanceAnalyticsData

Performance Analytics Data Sets

Description

A collection and description of data sets used in the examples of the contributed R package "PerformanceAnalytics".

The data sets are:

`edhec.tS`	composite hedge fund style index returns,
`managers.tS`	fixed income benchmarks.

Format

All files are in CSV Excel spreadsheet format. The delimiter is a semicolon. The time stamps are ISO-8601 formatted.

Details

EDHEC composite hedge fund style index returns:

"The EDHEC Risk and Asset Management Research Centre plays a noted role in furthering applied financial research and systematically highlighting its practical uses. As part of its philosophy, the centre maintains a dialogue with professionals which benefits the industry as a whole. At the same time, its proprietary R&D provides sponsors with an edge over competition and joint ventures allow selected partners to develop new business opportunities.

To further assist financial institutions and investors implement the latest research advances in order to meet the challenges of the changing asset management landscape, the centre has spawned two consultancies and an executive education arm. Clients of these derivative activities include many of the leading organisations throughout Europe". [Source: EDHEC website]

see http://www.edhec-risk.com/about_us

Data used in PerformanceAnalytics and related publications with the kind permission of the EDHEC Risk and Asset Management Research Center.

Hypothetical Alternative Asset Manager Data and Fixed Income Benchmarks:

A data frame that contains columns of monthly returns for six hypothetical asset managers (HAM1 through HAM6), the EDHEC Long-Short Equity hedge fund index, the S&P 500 total returns, and total return series for the US Treasury 10-year bond and 3-month bill. Monthly returns for all series end in December 2006 and begin at different periods starting from January 1996.

References

Berndt E.R. (1991); *The Practice of Econometrics: Classic and Contemporary*, Addison-Wesley Publishing Co.

EDHEC (2003); *About EDHEC Alternative Indexes*, EDHEC-Risk, http://www.edhec-risk.com/indexes/pure_style/about.

Vaissie Mathieu (2003); *A Detailed Analysis of the Construction Methods and Management Principles of Hedge Fund Indices*, http://www.edhec-risk.com/site_edhecrisk/public/indexes/EDHEC_Publications/RISKReview10727051880657935 13.

Carl P., Peterson B.G. (2007); *PerformanceAnalytics: Econometric Tools for Performance and Risk Analysis*, http://cran.r-project.org/doc/packages/PerformanceAnalytics.pdf.

Examples

```
## Load Example Data Set:
   data(edhec.tS)
   edhec.tS
```

`PortfolioData` *fPortfolio Data Sets*

Description

Data sets used in the examples of the 'fPortfolio' package.

The data sets are:

`altInvest`	Monthly Alternative Investment Data Set,
`annualInvest`	Annual Investment Data Set,
`assetsCorr`	US Asset Correlation Matrix,
`berndtInvest`	Berndt's Investment Data Set,
`jobstCov`	Covariance Matrix of 30 Stocks,
`largecap.ts`	Monthly US Largecap Equities,

microcap.ts	Monthly US Microcap Equities,
midcap.ts	Monthly US Midcap Equities,
smallcap.ts	Monthly US Smallcap Equities,
midcapD.ts	Daily US Midcap Equities,
returns.three.ts	Returns,
SWXLP	Swiss Pension Fund LPP-2000,
LPP2005REC	Swiss Pension Fund LPP-2005.
equityFunds	Equity Funds.

Format

Time series files are in CSV Excel spreadsheet format. The delimiter is a semicolon.

Details

Monthly Alternative Investment Data Set:

altInvest is a monthly investment data set comparing equity and bond returns with an alternative investment in hedge funds. The data set ranges from 1996-07-01 to 2003-11-01. The columns are named: FUSEX, FBIDX, VANUS.
FUSEX is the "Fidelity Spartan US Equity Index Inv" Fund. The investment seeks to provide investment results that correspond to the total return performance of common stocks publicly traded in the US. The fund normally invests at least 80% of assets in common stocks included in the Standard and Poor's 500 index, which broadly represents the performance of common stocks publicly traded in the US. In addition, the fund lends securities to earn income [Google].
FBIDX is the "Fidelity US Bond Index" Fund. The investment seeks to provide investment results that correspond to the total return of the bonds in the Lehman Brothers Aggregate Bond index. The fund normally invests at least 80% of total assets in bonds included in the Lehman Brothers Aggregate Bond index. It uses statistical sampling techniques based on duration, maturity, interest rate sensitivity, security structure, and credit quality [Google].

VANUS is the Van Global Hedge Fund Index.

Annual Investment Data Set:

annualInvest is a monthly investment data set.
The data set ranges from 1973-12-31 to 1994-12-31.
The columns are named: TBills3m, LongBonds, SP500, Wilshire5000, NASDAQ, LehmanBonds, EAFE, Gold.
Source:

US Asset Correlation Matrix:

assetsCorr is an upper correlation matrix of US investments.
The columns are named: LargeStocksUS, SmallStocksUS, CorporateBondsUS, TreasuryBondsUS, RealEstateUS, StocksCanada, StocksUK, StocksGermany, StocksSwitzerland, StocksEmergingMarkets.

Source:

Berndt's Investment Data Set:

`berndtInvest` is a monthly data set of US equities including market risk free returns.
The data set ranges from 1978-01-01 to 1987-12-01. The columns are named: CITCRP, CONED, CONTIL, DATGEN, DEC, DELTA, GENMIL, GERBER, IBM, MARKET, MOBIL, PANAM, PSNH, TANDY, TEXACO, WEYER, RKFREE.
Source:

Covariance Matrix of 30 Stocks:

`jobstCov` is a covariance data set of 30 Stocks.
The columns are named: Stock01, ..., Stock30.
Source:

US Largecap Equities:

`largecap.ts` is a monthly data set of US largecap equities.
The data set ranges from 1997-01-31 to 2001-12-31.
The columns are named: AMAT, AMGN, CAT, DD, G, GENZ, GM, HON, KR, LLTC, MSFT, ORCL, PG, PHA, SO, TXN, UTX, WM, WYE, YHOO, market, t90.
Source:

US Microcap Equities:

`microcap.ts` is a monthly data set of US microcap equities.
The data set ranges from 1997-01-31 to 2001-12-31.
The columns are named: GHI, PBCI, BY, SPNC, ZIF, NHC, NXR, HMSY, MPR, PRCP, EVST, XLA, WSTL, GAIT, JOUT, IIVI, DMCO, FNIS, IOMT, FBCI, market, t90.
Source:

US Midcap Equities:

`midcap.ts` is a monthly data set of US midcap equities.
The data set ranges from 1997-01-31 to 2001-12-31.
The columns are named: MAT, EMN, LEG, AAPL, UTR, HB, BNK, APA, LNCR, BMET, DBD, FAST, AF, CPWR, EC, SNV, HSY, TXT, APCC, LXK, market, t90.
Source:

US Smallcap Equities:

`smallcap.ts` is a monthly data set of US smallcap equities.
The data set ranges from 1997-01-31 to 2001-12-31.
The columns are named: MODI, MGF, MEE, FCEL, OII, SEB, RML, AEOS, BRC, CTC, TNL, IBC, KWD, TOPP, RARE, HAR, BKE, GG, GYMB, KRON, market, t90.

Source:

Daily US Midcap Equities:

`midcapD.ts` is a daily data set of US midcap equities.
The data set ranges from 2000-01-03 to 2001-12-31.
The columns are named: LSCC, CSGS, EC, NYB, ALTR, APH, CLS, NET, SBUX, AYE, ASBC, SBL, PCZ, OSI, TRP, ROH, SU, MTD, RAD, GUC, market.
Source:

Monthly Returns:

`returns.three.ts` is a monthly data set of returns.
The data set ranges from 1991-02-28 to 1995-12-29.
The columns are named: RAL, GMH, IVX.
Source:

Swiss Pension Fund LPP-2000:

`SWXLP` is a daily data set of the Swiss pension fund benchmark LPP-2000.
The data set ranges from 2000-01-03 to 2007-05-08.
The columns are named: SBI, SPI, SII, LP25, LP40, LP60.
Source:

Swiss Pension Fund LPP-2005:

`LPP2005REC` is a daily data set of the Swiss pension fund benchmark LPP-2005.
The data set ranges from 2005-11-01 to 2007-04-11.
The columns are named: SBI, SPI, SII, LMI, MPI, ALT, LPP25, LPP40, LPP60.
Source:

Equity Funds:

`equityFunds` is a daily data set of Equity Funds.
The data set ranges from 2002-01-01 to 2007-05-31.
The columns are named: EASTEU, LATAM, CHINA, INDIA, ENERGY, MINING, GOLD, WATER.
Source:

Van Hedge Fund Indices:

The *Van Hedge Fund Indices* were one of the first performance benchmarks based on a large and representative sample of hedge fund returns. Published from 1995 until now, the Van Indices reflect the average performance of hedge funds back to 1988. The Indices are produced on a monthly basis. They represent the average performance of hedge funds around the world and therefore tracks the performance of the overall hedge fund universe.

All Index returns are based on hedge funds returns that are net of fees. They are simple non-dollar-weighted averages. Indexes for different time periods may be based on different funds, depending on the hedge funds reporting to VAN at the time. The database, used in construction of the Indices, contains information on approximately 5,300 hedge funds.

The Van Global Hedge Fund Index is reported on a percentage-change basis. The Index was set at an initial value of 1,000 as of its January 1, 1988 inception.

The csv data file consists of 16 columns, the first with the date entries formatted as "%m/%d/%Y", followed by 14 columns with the Index, and the last column with the Global Hedge Fund Index.

The Indexes are:

AggressiveGrowth
DistressedSecurities
EmergingMarkets
FundofFunds
Income
Macro
MarketNeutralArbitrage
MarketNeutralHedging
MarketTiming
Opportunistic
SeveralStrategies
ShortSelling
SpecialSituations
Value
VanGlobalHedgeFundIndex

Source: With permission from Van Hedge Fund Advisors International, Inc.
http://hedgefund.com/

Examples

```
## -
```

`TimeSeriesData` *Time Series Data Sets*

Description

A collection and description of data sets used in the examples of the Rmetrics packages.

The data sets are:

`bmwRet`	Daily BMW Stock Returns,
`CPI.dat`	US Consumer Price Index,
`IP.dat`	US Industrial Production Index,
`danishClaims`	Danish Fire Losses,
`dem2gbp`	DEM/GBP Foreign Exchange Rate,
`DEM98NYC`	BID prices of USDDEM FX rates recorded at NYC,

DEM98ZRH	BID prices of USDDEM FX rates recorded at ZRH,
DowJones30	Down Jones 30 Stocks,
ford.s	Daily Ford Stock Prices,
hp.s	Daily Hewlett-Packard Stock Prices,
klein	Klein's US Economic Data Set,
kmenta	Kmenta's US Economic Data Set,
msft.dat	Microsoft Stock Prices,
nelsonplosser	Nelson-Plosser US Economic Time Series,
nyse	NYSE Composite Index,
recession	US Recession Data Set,
shiller.dat	Shiller's Data Set,
shiller.annual	Shiller's Annual Data Set,
singleIndex.dat	US Index and Price Data Records,
sp500dge	Daily DGE SP500 Returns,
sp500index	Daily SP500 Index Returns,
surex1.ts.dat	Exchange Rate Spot Returns,
yhoo.df	Yahoo Stock Prices.

Format

All files are in CSV Excel spreadsheet format. The delimiter is a semicolon.

Details

Daily BMW Stock Returns:

bmwRet is a daily data set of the German BMW tock returns.
The data set ranges from 1973-01-03 to 1996-07-23.
The columns are named: BMW.RET.
Source:

US Consumer Price Index:

CPI.dat
contains data representing seasonally adjusted US Industrial Production Index.
The data set ranges from
The columns are named:
Source:

Industrial Production Index::

IP.dat
contains data representing seasonally adjusted US Consumer Price Index.
The data set ranges from
The columns are named:
Source:

Danish Fire Losses:

`danishClaims` contains data representing daily danish fire losses in Million Danish Kronors.
The data set ranges from 1980-01-03 to 1990-12-31.
The columns are named:
Source:

DEM/GBP Foreign Exchange Rate:

`dem2gbp` contains daily observations of the Deutschmark / British Pound foreign exchange log returns. This data set has been promoted as an informal benchmark for GARCH time-series software validation. See McCullough and Renfro [1991], and Brooks, Burke, and Persand (2001) for details. The nominal returns are expressed in percent, as published in Bollerslev and Ghysels (2001).
The data set ranges from 1984-01-03 to 1991-12-31.
The columns are named:
Source: Journal of Business and Economic Statistics, *ftp://www.amstat.org*.

BID Prices of USDDEM FX Rates:

`DEM98NYC` and `DEM98ZRH` contain intra-daily foreign exchange bid prices for the USDDEM exchange rate for the third week in March 1998. One file is recorded in local New York City time, the other in local Zurich time. The data set ranges from:
The columns are named: BID
Source: Diethelm Wuertz and Remo Schnidrig.

Down Jones 30 Stocks:

`DowJones30` contains daily observations from the Dow Jones 30 Index series. Each of the thirty columns represents the closing price of a stock in the Index.
The data set ranges from 1991-01-02 to 2001-01-02.
The columns are named:
Source:

Daily Ford Stock Prices:

`ford.s` contains data representing 2000 daily stock returns for the Ford shares traded at NYSE.
The data set ranges from 1084-01-02 to 1991-12-31.
The columns are named:
Source:

Daily Hewlett-Packard Stock Prices:

`hp.s` contains data representing 2000 daily stock returns for the HP shares traded at NYSE.
The data set ranges from 1084-01-02 to 1991-12-31.
The columns are named:
Source:

Klein's US Economic Data Set:

`klein` contains data for Klein's (1950) simple econometric model of the US economy. The Klein data frame has 22 rows and 10 columns.
The data set ranges from The columns are named: year, c, p, wp, i, k.lag, x, wg, g, tax. They denote:
`year` years 1921-1941, in the POSIX data format %Y-%m-%d,
`c` the consumption,
`p` the private profits,
`wp` the private wages,
`i` the investment,
`k.lag` the capital stock, lagged one year,
`x` the equilibrium demand,
`wg` the government wages,
`g` the government non-wage spending,
`tax` indirect business taxes and net exports.
Source: Greene (1993)

Kmenta's US Economic Data Set:

`kmenta` contains partly contrived data from Kmenta (1986), constructed to illustrate estimation of a simultaneous-equation model. The data set has 20 rows and 6 columns, where the first holds the ISO-8601 formatted date as "%Y-%m-%d". The exogenous variables in the first four columns are based on real data; the endogenous variables in the remaining two columns were generated by simulation.
The data set ranges from
The columns are named: q, p, d, f, a.
They denote:
`q` food consumption per capita,
`p` ratio of food prices to general consumer prices,
`d` disposable income in constant dollars,
`f` ratio of preceding year's prices received by farmers to general consumer prices,
`a` time in years (numbered from 1 to 20).
Source:

Microsoft Stock Prices:

`msft.dat` contains daily stock prices and volumes for the the Microsoft stocks. The data set ranges from 2000-09-27 to 2001-09-27
The columns are named: Open, High, Low, Close, Volume.
Source: www.yahoo.com

Nelson-Plosser US Economic Time Series:

`nelsonplosser` contains the data set listing fourteen US economic time series used by Nelson and Plosser in their seminal paper.
The data set ranges from 1860-12-31 until 1970-12-31.
The columns are named: gnp.r, gnp.n, gnp.pc, ip, emp, ur, gnp.p, cpi, wg.n, wg.r, M, vel, bnd, sp.
They denote:

gnp.r-Real GNP, [Billions of 1958 Dollars], [1909-1970],
gnp.n-Nominal GNP, [Millions of Current USD], [1909-1970],
gnp.pc-Real Per Capita GNP, [1958 Dollars], [1909-1970],
ip-Industrial Production Index, [1967 = 100], [1860-1970],
emp-Total Employment, [Thousands], [1890-1970],
ur-Total Unemployment Rate, [Percent], [1890-1970],
gnp.p-GNP Deflator, [1958 = 100], [1889-1970],
cpi-Consumer Price Index, [1967 = 100], [1860-1970],
wg.n-Nominal Wages, [current Dollars], [1900-1970],
wg.r-Real Wages, [Nominal wages/CPI], [1900-1970],
M-Money Stock (M2), [Billions USD, annual avgs], [1889-1970],
vel-Velocity of Money, [1869-1970],
bnd-Basic Yields 30-year Corporate Bonds, [% pa], [1900-1970],
sp-Stock Prices, [Index; 1941-43 = 100], [1871-1970].
Source:

NYSE Composite Index:

nyse contains daily records of the NYSE Composite Index.
The data set ranges from
The columns are named:
Source: NYSE.

US Recession Data Set:

recession holds the data set used in the regression analysis of US recession. The data include short and long term interest rates from the US, the 3 Month Tbills data from US FED, the 10 Year Tbonds data from US FED, and also the Stock-Watson experimental recession index.
The data set ranges from
The columns are named: cr Source:

Shiller's Data Set:

shiller.dat holds the data used in the book "Irrational Exuberance" by Robert Shiller.
The data set ranges from January 1871 ato March 2001.
The columns are named:
They denote:
price - monthly nominal US SP stock market prices,
dividend - nominal SP Composite Index dividends,
earnings - nominal SP Composite Index earnings,
cpi - US Consumer Price Indexes,
real.price - real US stock market prices,
real.dividend - real SP Composite Index dividends,
real.earnings - real SP Composite Index earnings,
pe.10 - price-earnings ratios.
Source: Robert Shiller.

Shiller's Annual Data Set:

`shiller.annual` holds the annual data used in the book "Irrational Exuberance" by Robert Shiller.
The data set ranges from January 1871 ato March 2001.
The columns are named:
They denote:
They denote:
`price` - monthly nominal US SP stock market prices,
`dividend` - nominal SP Composite Index dividends,
`earnings` - nominal SP Composite Index earnings,
`cpi` - US Consumer Price Indexes,
`real.price` - real US stock market prices,
`real.dividend` - real SP Composite Index dividends,
`real.earnings` - real SP Composite Index earnings,
`pe.10` - price-earnings ratios,
`dp.ratio` - dividend-price ratios,
`dp.yield` - dividend-price yield.
Source: Robert Shiller.

US Index and Price Data Records:

`singleIndex.dat` holds monthly index and price data records. Included are monthly closing prices for Microsoft Corporation (MSFT) and SP500 Index (SP500).
The data set ranges from January 1990 to January 2001.
The columns are named:
Source:

Daily DGE SP500 Returns:

`sp500dge` lists daily returns from the SP500 as used in the paper of Ding, Granger and Engle.
The data set ranges from
The columns are named: Source: Ding, Granger and Engle.

Daily SP500 Index Returns:

`sp500index` lists daily SP500 index values.
The data set ranges from January 1995 until December 1999.
The columns are named:
Source:

Exchange Rate Spot Returns:

`surex1.ts.dat` contains exchange rate spot returns and forward premium data as used in the article of Eric Zivot (2000).
The data set ranges from
The columns are named:

Source:

Yahoo Stock Prices:

`yhoo.df` contains data representing daily transaction information of Yahoo stocks.
The data set ranges from
The columns are named: Date, Open, High, Low, Close, Volume.
Source:

References

Berndt E.R. (1991); *The Practice of Econometrics: Classic and Contemporary*, Addison-Wesley Publishing Co.

Box G.E.P., Jenkins J.M. (1976); *Time Series Analysis: Forecasting and Control*, Holden Day, San Francisco.

Brooks C., Burke S.P., Persand G. (2001); *Benchmarks and the Accuracy of GARCH Model Estimation*, International Journal of Forecasting 17, 45–56.

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Examples

```
## Load Example Data Set:
   data(kmenta)
   kmenta
```

WFEStatistics *WFE Statistics*

Description

Data sets of financial and economic market statistics from the data available from the exchange data collected by the World Federation of Stock Exchanges.

To load statistics from the WFE:

`data(wfe1)`	Market capitalization of domestic companies,
`data(wfe2)`	Total number of companies with shares listed,
`data(wfe3)`	Total value of share trading,
`data(wfe4)`	Market value of bonds listed,
`data(wfe5)`	Total value of bond trading, and
`data(wfe6)`	Price earning ratio an gross dividend yield.

Author(s)

Diethelm Wuertz for the Rmetrics R-port.

References

WFE, 2004, *World Federation of Stock Exchanges, Focus 2004*, http://www.world-exchanges.org.

Examples

```
## Barplot from WFE Capitalization Statistics:
   # Extract Capitalization of/at:
   # NYSE: 7, Tokyo: 37, London: 22, Frankfurt: 15
   # 1991 - 2003 triannual: 3,6,9,12,15
   data(wfe1)
   Table = t(wfe1[c(7,37,22,15),c(3,6,9,12,15)])/1e6
   colnames(Table) = c("NewYork", "Tokyo", "London", "Frankfurt")
   rownames(Table) = as.character(seq(1991, 2003, by = 3))
   Table
   # Create Barplot:
   barplot(Table, beside = TRUE, legend = rownames(Table),
     col = c("lightblue", "mistyrose", "lightcyan", "lavender", "cornsilk"))
   title(main = "Stock Market Capitalization\n 1991 - 2003")
   mtext("Source: World Federation of Exchanges", side = 4,
     line = -2, cex = 0.7)
```

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