# Package 'pwt' 

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Title Penn World Table (Versions 5.6, 6.x, 7.x)
Description The Penn World Table provides purchasing power parity and national income accounts converted to international prices for 189 countries for some or all of the years 1950-2010.

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## Description

Purchasing power parity (PPP) and national income accounts in international prices for 152 countries over 1950-1992 (1985 as base year).

## Usage

data("pwt5.6")

## Format

A data frame with 6,536 observations of 34 variables.
country factor with country name.
wbcode factor with World Bank country code.
continent factor indicating continent.
benchmark factor. Has the country ever participated in an international benchmark study?
year year.
pop population in 1000s.
rgdpch real GDP per capita (chain-weighted index, in constant US dollars).
rgdpl real GDP per capita (Laspeyres index, US dollars in 1985 prices).
c real consumption share of GDP (\% in 1985 prices).
i real investment share of GDP (\% in 1985 prices).
g real government share of GDP (\% in 1985 prices).
rgdptt real GDP per capita in constant dollars adjusted for changes in terms of trade (1985 international prices for domestic absorption and current prices for exports and imports).
y per capita GDP relative to US (US $=100, \%$ in current prices).
cgdp real gross domestic product (GDP) per capita (US dollars in current prices).
cc real consumption share of per capita GDP (\% in current prices).
ci real investment share of per capita GDP (\% in current prices).
cg real government share of per capita GDP (\% in current prices).
p price level of GDP (\% PPP GDP/ US dollar exchange rate).
pc price level of consumption ( $\%$ [PPP of $c] / x r a t$ ).
pi price level of investment (\% [PPP of i]/xrat).
pg price level of government (\% [PPP of g]/xrat).
xrat exchange rate (US dollars).
rgdpeqa real GDP per equivalent adult (US dollars in 1985 prices).
rgdpwok real GDP per worker (US dollars in 1985 prices).
kapw non-residential capital stock per worker (US dollars in 1985 prices).
kdur producer durables (\% of kapw) (in 1985 prices).
knres non-residential construction (\% of kapw in 1985 prices).
kother other construction (\% of kapw in 1985 prices).
kres residential construction (\% of kapw in 1985 prices).
ktranp transportation equipment (\% of kapw in 1985 prices).
open openness (exports+imports)/nominal GDP.
rgnp real gross national product (\% of per capita GDP).
ipri gross domestic private investment (\% of gross domestic investment in current prices).
stliv standard of living index (consumption plus government consumption minus military expenditure, \% of GDP).

## Details

The Penn World Table provides purchasing power parity and national income accounts converted to international prices for 152 countries for some or all of the years 1950-1992.

This version contains data from PWT version 5.6. As far as possible the original data from PWT has been preserved. For example, percentages have been maintained rather than converted to fractions.

## Source

Alan Heston and Robert Summers, Penn World Table Version 5.6. URL http: //pwt . econ. upenn. edu/.

## pwt6. 1

Penn World Table 6.1

## Description

Purchasing power parity and national income accounts in international prices for 168 countries over 1950-2000 (1996 as base year).

## Usage

data("pwt6.1")

## Format

A data frame with 8,568 observations of 28 variables.
country factor with country name.
isocode factor with ISO 3166-1 alpha-3 country code.
year year.
pop population.
xrat exchange rate (US dollars).
ppp purchasing power parity over GDP.
cgdp real gross domestic product (GDP) per capita (US dollars in current prices).
cc consumption share of per capita GDP (\% in current prices).
cg government share of per capita GDP (\% in current prices).
ci investment share of per capita GDP (\% in current prices).
p price level of GDP (US=100 in current prices).
pc price level of consumption (US=100 in current prices).
pg price level of government (US=100 in current prices).
pi price level of investment (US=100 in current prices).
openc openness ( $\%$ in current prices).
cgnp ratio of GNP to GDP (\% in current prices).
csave current savings (\% in current prices).
y per capita GDP relative to the United States (US=100 in current prices).
rgdpl real GDP per capita (Laspeyres index, US dollars in 1996 prices).
rgdpch real GDP per capita (chain-weighted index, US dollars in 1996 prices).
rgdpeqa real GDP per equivalent adult (chain-weighted index, US dollars in 1996 prices).
rgdpwok real GDP per worker (chain-weighted index, US dollars in 1996 prices).
rgdptt real gross domestic income (rgdpl adjusted for terms of trade changes, US dollars in 1996 prices).
openk openness in constant prices (\% in 1996 prices).
$\mathbf{k c}$ consumption share of rgdpl (\% in 1996 prices).
kg government share of rgdpl (\% in 1996 prices).
$\mathbf{k i}$ investment share of rgdpl (\% in 1996 prices).
grgdpch growth rate of real GDP per capita (constant prices: chain series).

## Details

The Penn World Table provides purchasing power parity and national income accounts converted to international prices for 168 countries for some or all of the years 1950-2000. The European Union or the OECD provide more detailed purchasing power and real product estimates for their countries and the World Bank makes current price estimates for most PWT countries at the GDP level.
This version contains data from PWT version 6.1. As far as possible the original data from PWT has been preserved. For example, percentages have been maintained rather than converted to fractions.

## Source

Alan Heston, Robert Summers and Bettina Aten, Penn World Table Version 6.1, Center for International Comparisons at the University of Pennsylvania (CICUP), October 2002. URL http: //pwt.econ. upenn.edu/.

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pwt6.2
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Penn World Table 6.2

## Description

Purchasing power parity and national income accounts in international prices for 188 countries over 1950-2004 (2000 as base year).

## Usage

data("pwt6.2")

## Format

A data frame with 10,340 observations of 27 variables.
country factor with country name.
isocode factor with ISO 3166-1 alpha-3 country code.
year year.
pop population.
xrat exchange rate (US dollars).
ppp purchasing power parity over GDP.
cgdp real gross domestic product (GDP) per capita (US dollars in current prices).
cc consumption share of per capita GDP (\% in current prices).
ci investment share of per capita GDP (\% in current prices).
cg government share of per capita GDP (\% in current prices).
p price level of GDP (US=100 in current prices).
pc price level of consumption (US=100 in current prices).
pg price level of government (US=100 in current prices).
pi price level of investment (US=100 in current prices).
openc openness ( $\%$ in current prices).
cgnp ratio of GNP to GDP (\% in current prices).
y per capita GDP relative to the United States (US=100 in current prices).
rgdpl real GDP per capita (Laspeyres index, US dollars in 2000 prices).
rgdpch real GDP per capita (chain-weighted index, US dollars in 2000 prices).
rgdpeqa real GDP per equivalent adult (chain-weighted index, US dollars in 2000 prices).
rgdpwok real GDP per worker (chain-weighted index, US dollars in 2000 prices).
rgdptt real gross domestic income (rgdpl adjusted for terms of trade changes, US dollars in 2000 prices).
openk openness in constant prices (\% in 2000 prices).
kc consumption share of rgdpl ( $\%$ in 2000 prices).
$\mathbf{k g}$ government share of rgdpl (\% in 2000 prices).
$\mathbf{k i}$ investment share of rgdpl (\% in 2000 prices).
grgdpch growth rate of real GDP per capita (constant prices: chain series).

## Details

The Penn World Table provides purchasing power parity and national income accounts converted to international prices for 188 countries for some or all of the years 1950-2004. The European Union or the OECD provide more detailed purchasing power and real product estimates for their countries and the World Bank makes current price estimates for most PWT countries at the GDP level.
This version contains data from PWT version 6.2. As far as possible the original data from PWT has been preserved. For example, percentages have been maintained rather than converted to fractions.

## Source

Alan Heston, Robert Summers and Bettina Aten, Penn World Table Version 6.2, Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania, September 2006. URL http://pwt.econ.upenn.edu/.

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pwt6.3 Penn World Table 6.3
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## Description

Purchasing power parity and national income accounts in international prices for 189 countries over 1950-2007 (2005 as base year).

## Usage

data("pwt6.3")

## Format

A data frame with 11,020 observations of 36 variables.
country factor with country name.
isocode factor with ISO 3166-1 alpha-3 country code.
year year.
pop population.
xrat exchange rate (US dollars).
currency factor with national currency unit.
ppp purchasing power parity over GDP.
cgdp real gross domestic product (GDP) per capita (US dollars in current prices).
cc consumption share of per capita GDP (\% in current prices).
cg government share of per capita GDP (\% in current prices).
ci investment share of per capita GDP (\% in current prices).
p price level of GDP (US=100 in current prices).
pc price level of consumption (US=100 in current prices).
pg price level of government (US=100 in current prices).
pi price level of investment (US=100 in current prices).
openc openness ( $\%$ in current prices).
cgnp ratio of GNP to GDP (\% in current prices).
y per capita GDP relative to the United States (US=100 in current prices), Geary-Khamis method.
yeks per capita GDP relative to the United States (US=100 in current prices), EKS method.
ycpdw per capita GDP relative to the United States (US=100 in current prices), weighted CPD method.
rgdpl real GDP per capita (Laspeyres index, US dollars in 2005 prices), derived from growth rates of $\mathrm{c}, \mathrm{g}, \mathrm{i}$.
rgdpl2 real GDP per capita (Laspeyres index, US dollars in 2005 prices), derived from growth rates of domestic absorption.
rgdpch real GDP per capita (chain-weighted index, US dollars in 2005 prices).
rgdptt real gross domestic income (rgdpl adjusted for terms of trade changes, US dollars in 2005 prices).
openk openness in constant prices (\% in 2005 prices).
kc consumption share of rgdpl (\% in 2005 prices).
kg government share of rgdpl (\% in 2005 prices).
ki investment share of rgdpl (\% in 2005 prices).
rgdpeqa real GDP per equivalent adult (chain-weighted index, US dollars in 2005 prices).
rgdpwok real GDP per worker (chain-weighted index, US dollars in 2005 prices).
rgdpl2wok real GDP per worker (Laspeyres 2 index, US dollars in 2005 prices).
rgdpl2pe real GDP per person engaged (Laspeyres 2 index, US dollars in 2005 prices).
rgdpl2te real GDP per person counted in total employment (Laspeyres 2 index, US dollars in 2005 prices).
rgdpl2th real GDP per hour worked by employees (Laspeyres 2 index, US dollars in 2005 prices).
grgdpch growth rate of real GDP per capita (chain-weighted index).
grgdpl2 growth rate of real GDP per capita (Laspeyres 2 index).

## Details

The Penn World Table provides purchasing power parity and national income accounts converted to international prices for 189 countries for some or all of the years 1950-2007. The European Union or the OECD provide more detailed purchasing power and real product estimates for their countries and the World Bank makes current price estimates for most PWT countries at the GDP level.
This version contains data from PWT version 6.3. As far as possible the original data from PWT has been preserved. For example, percentages have been maintained rather than converted to fractions. China is contained in two versions. For all details see the official documentation.

## Source

Alan Heston, Robert Summers and Bettina Aten, Penn World Table Version 6.3, Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania, August 2009. URL http://pwt.econ. upenn.edu/.

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pwt7.0
```

Penn World Table 7.0

## Description

Purchasing power parity and national income accounts in international prices for 189 countries over 1950-2009 (2005 as base year).

## Usage

data("pwt7.0")

## Format

A data frame with 11,400 observations of 41 variables.
country factor with country name.
isocode factor with ISO 3166-1 alpha-3 country code.
year year.
pop population (in thousands).
xrat exchange rate to US dollar (national currency units per US dollar).
currency factor with national currency unit.
ppp purchasing power parity (PPP) over gross domestic product (GDP) (in national currency units per US dollar).
tcgdp total PPP converted GDP, Geary-Khamis method, at current prices (in milion International dollar).
cgdp PPP converted GDP per capita, Geary-Khamis (G-K) method, at current prices (in International dollar).
cgdp2 PPP converted GDP per capita, average GEKS-CPDW, at current prices (in International dollar).
cda2 PPP converted domestic absorption per capita, average GEKS-CPDW, at current prices (in International dollar).
cc consumption share of PPP converted GDP per capita at current prices (cgdp), (\%).
cg government consumption share of PPP converted GDP per capita at current prices (cgdp), (\%).
ci investment share of PPP converted GDP per capita at current prices (cgdp), (\%).
p price level of GDP, G-K method (US=100).
p2 price level of GDP, average of GEKS-CPDW (US=100).
pc price level of consumption (PPP over consumption/xrat).
pg price level of government consumption (PPP over government consumption/xrat).
pi price level of investment (PPP over investment/xrat).
openc openness at current prices (\%).
cgnp ratio of GNP to GDP (\%).
y PPP converted GDP per capita relative to the United States, G-K method, at current prices, (cgdp), (US=100).
y2 PPP converted GDP per capita relative to the United States, average GEKS-CPDW, at current prices, (cgdp2), (US=100).
rgdpl PPP converted GDP per capita (Laspeyres), derived from growth rates of c, g, i, at 2005 constant prices (2005 International dollar per person).
rgdpl2 PPP converted GDP per capita (Laspeyres), derived from growth rates of domestic absorption, at 2005 constant prices ( 2005 International dollar per person).
rgdpch PPP converted GDP per capita (chain series), at 2005 constant prices (2005 International dollar per person).
kc consumption share of PPP converted GDP per capita at 2005 constant prices (rgdpl), (\%).
kg government consumption share of PPP converted GDP per capita at 2005 constant prices (rgdpl), (\%).
ki investment share of PPP converted GDP per capita at 2005 constant prices (rgdpl), (\%).
openk openness at 2005 constant prices (\%).
rgdpeqa PPP converted GDP chain per equivalent adult at 2005 constant prices (2005 International dollar per equivalent adult).
rgdpwok PPP converted GDP chain per worker at 2005 constant prices (2005 International dollar per worker).
rgdpl2wok PPP converted GDP Laspeyres per worker at 2005 constant prices (2005 International dollar per worker).
rgdpl2pe PPP converted GDP Laspeyres person engaged at 2005 constant prices (2005 International dollar per person engaged).
rgdpl2te PPP converted GDP Laspeyres per person counted in total employment at 2005 constant prices ( 2005 International dollar per person counted in total employment).
rgdpl2th PPP converted GDP Laspeyres per hour worked by employees at 2005 constant prices (2005 International dollar per hour).
rgdptt PPP converted Gross domestic income (RGDPL adjusted for Terms of Trade changes) at 2005 constant prices ( 2005 International dollar per person).
grgdpch growth rate of PPP converted GDP chain per capita (rgdpch), (\%).
grgdpl2 growth rate of PPP converted GDP Laspeyres2 per capita (rgdpl2), (\%).
grtgdp growth rate of total PPP converted GDP Laspeyres2, (\%).
grda growth rate of per capita PPP converted domestic absorption, (\%).

## Details

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## Source

Alan Heston, Robert Summers and Bettina Aten, Penn World Table Version 7.0, Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania, May 2011. URL http://pwt.econ. upenn.edu/.
pwt7.1 Penn World Table 7.1

## Description

Purchasing power parity and national income accounts in international prices for 189 countries over 1950-2010 (2005 as base year).

## Usage

data("pwt7.1")

## Format

A data frame with 11,590 observations of 33 variables.
country factor with country name.
isocode factor with ISO 3166-1 alpha-3 country code.
year year.
pop population (in thousands).
xrat exchange rate to US dollar (national currency units per US dollar).
currency factor with national currency unit.
ppp purchasing power parity (PPP) over gross domestic product (GDP) (in national currency units per US dollar).
tcgdp total PPP converted GDP, Geary-Khamis method, at current prices (in milion International dollar).
cgdp PPP converted GDP per capita, Geary-Khamis (G-K) method, at current prices (in International dollar).
cgdp2 PPP converted GDP per capita, average GEKS-CPDW, at current prices (in International dollar).
cda2 PPP converted domestic absorption per capita, average GEKS-CPDW, at current prices (in International dollar).
cc consumption share of PPP converted GDP per capita at current prices (cgdp), (\%).
cg government consumption share of PPP converted GDP per capita at current prices (cgdp), (\%).
ci investment share of PPP converted GDP per capita at current prices (cgdp), (\%).
p price level of GDP, G-K method (US=100).
p2 price level of GDP, average of GEKS-CPDW (US=100).
pc price level of consumption (PPP over consumption/xrat).
pg price level of government consumption (PPP over government consumption/xrat).
pi price level of investment (PPP over investment/xrat).
openc openness at current prices (\%).
y PPP converted GDP per capita relative to the United States, G-K method, at current prices, (cgdp), (US=100).
y2 PPP converted GDP per capita relative to the United States, average GEKS-CPDW, at current prices, (cgdp2), (US=100).
rgdpl PPP converted GDP per capita (Laspeyres), derived from growth rates of c, g, i, at 2005 constant prices (2005 International dollar per person).
rgdpl2 PPP converted GDP per capita (Laspeyres), derived from growth rates of domestic absorption, at 2005 constant prices ( 2005 International dollar per person).
rgdpch PPP converted GDP per capita (chain series), at 2005 constant prices (2005 International dollar per person).
kc consumption share of PPP converted GDP per capita at 2005 constant prices (rgdpl), (\%).
$\mathbf{k g}$ government consumption share of PPP converted GDP per capita at 2005 constant prices ( rgdpl ), (\%).
ki investment share of PPP converted GDP per capita at 2005 constant prices (rgdpl), (\%).
openk openness at 2005 constant prices (\%).
rgdpeqa PPP converted GDP chain per equivalent adult at 2005 constant prices (2005 International dollar per equivalent adult).
rgdpwok PPP converted GDP chain per worker at 2005 constant prices (2005 International dollar per worker).
rgdpl2wok PPP converted GDP Laspeyres per worker at 2005 constant prices (2005 International dollar per worker).
rgdptt PPP converted Gross domestic income (RGDPL adjusted for Terms of Trade changes) at 2005 constant prices ( 2005 International dollar per person).

## Details

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