# Package 'CHNCapitalStock'

June 25, 2020

**Title** Compute Chinese Capital Stocks

**Version** 0.0.2

**Description** Compute Chinese capital stocks in provinces level, based on Zhang (2008) <DOI:10.1080/14765280802028302>.

**License** GPL-2

**Encoding** UTF-8

**LazyData** true

**URL** https://github.com/common2016/CapitalStock

**RoxygenNote** 7.1.0

**Depends** R (>= 2.10)

**Imports** magrittr, dplyr

**Suggests** testthat

**NeedsCompilation** no

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**Repository** CRAN

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## R topics documented:

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asset                             *Assets*

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### Description

A dataset containing investment, the indices of investment and the price indices of investment

### Usage

```
asset
```

### Format

An object of class data.frame with 2002 rows and 5 columns.

### Details

@format A data frame:

**prv** provinces

**yr** year

**invest** total fixed capital formation

**InvestIndex** index of fixed capital formation

**InvestPrice** price index of investment in fixed assets

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CompK                             *Compute Capital Stock in Chiniese Provinces*

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### Description

This function compute capital stock of provinces in China using the method by Zhang (2008).

### Usage

```
CompK(
  yr = NULL,
  invest = NULL,
  InvestPrice = NULL,
  delta = 0.096,
  prv,
  bt = 1952
)
```

## Arguments

| | |
|---|---|
| yr | a numeric vector about years. If you only need capital stock before 2017, you can use its default NULL. If you need to compute capital stocks in other years (for example 2018,2019), you can set, for example, yr = c(2018,2019). |
| invest | a numeric vector about investment, its length equal the length of yr, and its units is 100 million in current price. |
| InvestPrice | a numeric vector about price indices of investment, its length equal the length of yr, and it is a fixed base index with equaling 1 in bt. |
| delta | a rate of depreciation, a scalar number. |
| prv | a province name, a scalar character. It's Chinese phonetic alphabets. |
| bt | a scalar number, such as 2000. It means computing capital stock with its price equal 1 in bt |

## Value

The function return a data.frame, and its 1st column is province, 2nd column is year, 3rd column is capital stock, 4th column is the price index of investment.

## Note

The parameter InvestPrice is a fixed base index with equaling 1 in 1952 by default. However, we often only get a price indices of investment with equaling 1 in last year. You can use data(asset) to get InvestPrice in any year (before 2017) with equaling 1 in 1952. So, it is easy then.

## References

Zhang, J., Estimation of China's provincial capital stock (1952-2004) with applications. *Journal of Chinese Economic and Business Studies*, 2008. 6(2): p. 177-196.

## Examples

```
# Compute capital stock in Xinjiang province in 1952-2017
CompK(prv = 'xinjiang')
# Compute capital stock in Xinjiang province in 1952-2017 with its price equaling 1 in 2000
CompK(prv = 'xinjiang', bt = 2000)
# compute capital stock in Beijing in 2018 and 2019
CompK(yr = 2018:2019, invest = c(10801.2,11100),
   InvestPrice = c(1.86*1.03,1.86*1.03*1.021),
   prv = 'beijing',delta = 0.096)
# ...
# beijing 2018 35023.74246
# beijing 2019 37336.21755
```

# Index