

# Package ‘capitalR’

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**Type** Package

**Title** Capital Budgeting Analysis, Annuity Loan Calculations and Amortization Schedules

**Version** 1.3.0

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**Description**

Provides Capital Budgeting Analysis functionality and the essential Annuity loan functions. Also computes Loan Amortization Schedules including schedules with irregular payments.

**License** GPL-3

**Encoding** UTF-8

**LazyData** true

**RoxygenNote** 6.1.1

**Suggests** knitr, rmarkdown

**VignetteBuilder** knitr

**NeedsCompilation** no

**Repository** CRAN

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 annuity

*Annuity Loan Calculation*


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**Description**

Calculates the payment, present value, future value, rate, or the number of periods

**Usage**

```
annuity(type = c("pv", "fv", "pmt", "nper", "rate"), pv, fv = 0, pmt,
        n, r, end = TRUE)
```

**Arguments**

type	Loan parameter to return. ("pv", "fv", "pmt", "nper", "rate")
pv	Present Value
fv	Future Value
pmt	Periodic Payment
n	Number of Periods
r	Rate
end	Logical, set to TRUE. If FALSE, payments are made at the beginning the period.

**Value**

Returns the selected Annuity Loan Parameter

**Examples**

```
annuity(type = "pmt", pv = -2000, fv = 0, n = 4 * 12, r = 0.06/12, end = TRUE)
```

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 ear

*Effective Annual Rate*


---

**Description**

Effective Annual Rate

**Usage**

```
ear(apr, n, p = 5)
```



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 geometric

*Geometric Mean Return*


---

**Description**

Geometric Mean Return

**Usage**

```
geometric(c)
```

**Arguments**

c                      Periodic returns in decimal form

**Value**

Returns the Geometric Mean Return

**Examples**

```
geometric(c(0.05, 0.02, -0.03, 0.09, -0.02))
```

---

ipmt

*Interest Payment*


---

**Description**

Calculates the interest portion of the payment in period "x"

**Usage**

```
ipmt(pv, fv = 0, n, r, x, end = TRUE)
```

**Arguments**

pv                      Present Value  
 fv                      Future Value  
 n                        Number of Periods  
 r                        Rate  
 x                        Period in which to calculate the interest portion of the payment  
 end                      If FALSE, payments are made at the beginning of the period

**Value**

Returns the Interest Portion of the Payment in Period "x"

**Examples**

```
ipmt(pv = 20000, fv = 0, n = 5 * 12, r = 0.05/12, x = 12, end = TRUE)
```

---

 irregular

*Amortization Schedule With Irregular Payments*


---

**Description**

Creates an amortization schedule of a loan with irregular payments and withdrawals

**Usage**

```
irregular(payments, dates, apr, pv, info = TRUE)
```

**Arguments**

payments	Vector of payments, the first payment must be 0
dates	Vector of dates, the first date is the date of origination
apr	Annual rate
pv	Present Value
info	Logical, if set to 'TRUE' information about the dataframe arrangement will be printed

**Value**

Returns the irregular Amortization Schedule in a Dataframe

**Examples**

```
irregular(payments = c(0, 200, -100), dates = c("2019-01-01", "2019-02-08", "2019-03-20"),
  apr = 0.05, pv = 2000, info = FALSE)
```



**Value**

Returns the Present Value

**Examples**

`pv(5000, 0.08/12, 5*12)`

---

r.calc

*Return Calculation*

---

**Description**

Return Calculation

**Usage**

`r.calc(vector)`

**Arguments**

vector            Vector from which to calculate the periodic return

**Value**

Returns the Periodic Percent Return

**Examples**

`r.calc(c(100, 75, 50, 80, 125))`

---

schedule

*Amortization Schedule*

---

**Description**

Creates an amortization schedule of a loan

**Usage**

`schedule(r, n, pv, fv = 0, end = TRUE)`

**Arguments**

r	Rate
n	Number of Periods
pv	Present Value
fV	Future Value, set = 0
end	If FALSE, payments are made at the beginning of the period

**Value**

Returns the Amortization Schedule in a dataframe

**Examples**

```
schedule(r = 0.06/12, n = 10 * 12, pv = -5000, fv = 0, end = TRUE)
```



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