Package ‘TrueWAP’

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Type Package

Title True Range-Weighted Average Price ('TrueWAP')

Version 0.1.0

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Description This groundbreaking technical indicator directly integrates volatility into price averaging by weighting median range-bound prices using the True Range. Unlike conventional metrics such as TWAP (Time-Weighted Average Price), which focuses solely on time, or VWAP (Volume-Weighted Average Price), which emphasizes volume, 'TrueWAP' captures fluctuating market behavior by reflecting true price movement within high/low performance boundaries.

License GPL (>= 2)

URL https://github.com/CallawayCross/TrueWAP

BugReports https://github.com/CallawayCross/TrueWAP/issues

Depends R (>= 4.3.2)

Imports zoo (>= 1.8-14), TTR (>= 0.24.4)

Encoding UTF-8

LazyData true

RoxygenNote 7.3.2

Suggests knitr, rmarkdown, testthat (>= 3.0.0)

VignetteBuilder knitr

Config/testthat/edition 3

NeedsCompilation no

Repository CRAN

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Contents

`anchoredTrueWAP` *Title anchoredTrueWAP*

Description

Calculates Anchored True Range-Weighted Average Price (TrueWAP)

Usage

```
anchoredTrueWAP(high, low, close, true_range, period)
```

Arguments

`high`	Vector of High Values
`low`	Vector of Low Values
`close`	Vector of Close Values
`true_range`	Vector of True Range Values
`period`	Vector of bars since start of fixed period

Value

Vector of Anchored TrueWAP values

Examples

```
data(nikkei)
anchoredTrueWAP(
high = nikkei$High
, low = nikkei$Low
, close = nikkei$Close
, true_range = nikkei$tr
, period = nikkei$bars_since_segment
)
```

anchoredTWAP *Title anchoredTWAP*

Description

Calculates Anchored Time-Weighted Average Price (TWAP)

Usage

```
anchoredTWAP(OHLC, period)
```

Arguments

OHLC	Data frame object with Open, High, Low, & Close fields
period	Vector of bars since start of fixed period

Value

Vector of Anchored TWAP values

Examples

```
data(nikkei)
anchoredTWAP(
OHLC = nikkei$OHLC
, period = nikkei$bars_since_segment
)
```

anchoredVWAP *Title anchoredVWAP*

Description

Calculates Anchored Volume-Weighted Average Price (VWAP)

Usage

```
anchoredVWAP(HLC3, volume, period)
```

Arguments

HLC3	Vector of High, Low, Close Average Values
volume	Vector of Volume values
period	Vector of bars since start of fixed period

Value

Vector of Anchored VWAP values

Examples

```
data(nikkei)
anchoredVWAP(
HLC3 = nikkei$HLC3
, volume = nikkei$Volume
, period = nikkei$bars_since_segment
)
```

---

nikkei *nikkei*

Description

An example data set of OHLCV data for Nikkei 225 (Osaka), Active Daily Continuation

Usage

```
data("nikkei")
```

Format

A data frame with 4411 observations on the following 27 variables.

`Open` a numeric vector

`High` a numeric vector

`Low` a numeric vector

`Close` a numeric vector

`Volume` a numeric vector

`Adjusted` a numeric vector

`OHLC` a numeric vector

`HLC3` a numeric vector

`tr` a numeric vector

`atr` a numeric vector

`trueHigh` a numeric vector

`trueLow` a numeric vector

`segment` a Date

`Date` a Date

`FirstRowNumSegment` a numeric vector

`RowNum` a numeric vector

`bars_since_segment` a numeric vector

`current_std` a numeric vector

`Mature_Days` a numeric vector

`Mature_STD` a numeric vector

`lags_mature_days` a numeric vector

`lags_mature_std` a numeric vector

`current_sma` a numeric vector

`current_adiv` a numeric vector

`Mature_ADIV` a numeric vector

`Current_IV` a numeric vector

`lags_mature_adiv` a numeric vector

Examples

```
data(nikkei)
## maybe str(nikkei) ; plot(nikkei) ...
```

`TrueWAP` *Title TrueWAP*

Description

Calculates True Range-Weighted Average Price (TrueWAP)

Usage

```
TrueWAP(high, low, close, true_range, period)
```

Arguments

`high`	Vector of High Values
`low`	Vector of Low Values
`close`	Vector of Close Values
`true_range`	Vector of True Range Values
`period`	Rolling window length

Value

Vector of TrueWAP values

Examples

```
data(nikkei)
TrueWAP(
high = nikkei$High
, low = nikkei$Low
, close = nikkei$Close
, true_range = nikkei$tr
, period = 50)
```

TWAP *Title TWAP*

Description

Calculates Time-Weighted Average Price (TWAP)

Usage

```
TWAP(OHLC, period)
```

Arguments

OHLC	Data frame object with Open, High, Low, & Close fields
period	Rolling window length

Value

Vector of TWAP values

Examples

```
data(nikkei)
TWAP(nikkei$OHLC, 50)
```

VWAP *Title VWAP*

Description

Calculates Volume-Weighted Average Price (VWAP)

Usage

```
VWAP(HLC3, volume, period)
```

Arguments

`HLC3`	Vector of High, Low, Close Average Values
`volume`	Vector of Volume values
`period`	Rolling window length

Value

Vector of VWAP values

Examples

```
data(nikkei)
VWAP(nikkei$HLC3, nikkei$Volume, 50)
```

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