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PMWR provides several methods for toLatex.

Monthly returns

For a timeseries (e.g. zoo or xts), the function returns provides monthly returns.

```
> returns(DAX, period = "month")
```

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | YTD |
|------|------|-----|------|------|------|------|------|------|------|------|-----|------|-----|
| 2014 | -1.0 | 4.1 | -1.4 | 0.5 | 3.5 | -1.1 | -4.3 | 0.7 | 0.0 | -1.6 | 7.0 | -1.8 | 4.3 |
| 2015 | 9.1 | 6.6 | 5.0 | -4.3 | -0.4 | -4.1 | 3.3 | -9.3 | -5.8 | 12.3 | 4.9 | -5.6 | 9.6 |

To have such a table placed into a \LaTeX file, you can put the following snippet into a Sweave file.

```
\begin{tabular}{rrrrrrrrrrrrrrr}
<<results=tex,echo=false>>=
toLatex(returns(DAX, period = "month"), ytd = "\\textsc{ytd}")
@
\end{tabular}
```

The results will look like this:

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | YTD |
|------|------|-----|------|------|------|------|------|------|------|------|-----|------|-----|
| 2014 | -1.0 | 4.1 | -1.4 | 0.5 | 3.5 | -1.1 | -4.3 | 0.7 | 0.0 | -1.6 | 7.0 | -1.8 | 4.3 |
| 2015 | 9.1 | 6.6 | 5.0 | -4.3 | -0.4 | -4.1 | 3.3 | -9.3 | -5.8 | 12.3 | 4.9 | -5.6 | 9.6 |

NAVseries

Summaries of NAVseries contain a number of statistics that can be placed into \LaTeX templates.

```
> returns(DAX, period = "annualised")
```

```
6.9% [02 Jan 2014 -- 30 Dec 2015]
```

To do so, call toLatex with a summary of one or more NAVseries, and a template.

```
> toLatex(summary(as.NAVseries(DAX, title = "DAX"),
  as.NAVseries(REXP, title = "REXP")),
  template = "%title: %return\\% \\\\")
```

```
DAX: 6.9\\% \\  
REXP: 3.8\\% \\  

```


Note that the template was recycled, i.e. it was used for both series. We may also pass separate templates for each series.

```
> tmpl <- c("Equities (%title) made %return\\%, with a drawdown of %mdd\\%;",
            "bonds (%title) returned %return\\%.")
> toLatex(summary(as.NAVseries(DAX, title = "DAX"),
                  as.NAVseries(REXP, title = "REXP")),
          template = tmpl)
```

```
Equities (DAX) made 6.9\\%, with a drawdown of 23.8\\%;
bonds (REXP) returned 3.8\\%.
```

The keyword %sparkline adds a sparkline:

```
> toLatex(summary(as.NAVseries(DAX, title = "DAX")),
          template = "The DAX %sparkline made %return\\% during the period.")
```

The DAX  made 6.9% during the period.


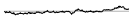




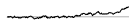
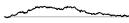




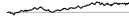

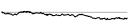

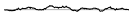




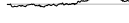




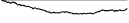


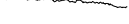




















Since templates are recycled, we can easily create rows for \LaTeX tables, such as this one:

| | | Return p.a. | Volatility |
|------|---|-------------|------------|
| DAX |  | 6.9 | 18.0 |
| REXP |  | 3.8 | 1.9 |

...which is produced by the following call:

```
> toLatex(summary(as.NAVseries(DAX, title = "DAX"),
                  as.NAVseries(REXP, title = "REXP")),
          template = "%title & %sparkline & %return & %volatility \\\\"")
```

When several NAV series are passed to toLatex, all sparkline plots use the same y-scale. It is then straightforward to produce tables such as the following one, in which we have sorted 50 random series by total return (see the vignette source for the code).

| Return | Vol | | Return | Vol | | Return | Vol | |
|--------|-----|---|--------|-----|---|--------|-----|---|
| 38.9 | 1.0 |  | 4.0 | 1.0 |  | -8.9 | 1.0 |  |
| 27.2 | 1.0 |  | 2.2 | 1.0 |  | -9.1 | 1.0 |  |
| 25.9 | 1.1 |  | 2.0 | 0.9 |  | -10.8 | 1.0 |  |
| 22.4 | 1.0 |  | 1.5 | 0.9 |  | -10.9 | 1.0 |  |
| 21.1 | 1.0 |  | 1.4 | 1.0 |  | -12.5 | 1.0 |  |
| 14.0 | 1.0 |  | 0.9 | 0.9 |  | -12.7 | 1.0 |  |
| 11.6 | 1.0 |  | 0.3 | 1.0 |  | -14.4 | 1.0 |  |
| 11.5 | 1.0 |  | -0.3 | 1.1 |  | -14.7 | 1.0 |  |
| 9.4 | 1.0 |  | -1.6 | 0.9 |  | -18.7 | 1.0 |  |
| 8.3 | 1.1 |  | -1.9 | 1.0 |  | -18.9 | 1.0 |  |
| 7.9 | 1.0 |  | -2.4 | 1.0 |  | -21.4 | 0.9 |  |
| 7.3 | 1.0 |  | -3.3 | 1.0 |  | -21.8 | 0.9 |  |
| 6.8 | 1.1 |  | -5.5 | 0.9 |  | -21.8 | 1.0 |  |
| 6.4 | 1.1 |  | -6.1 | 1.0 |  | -21.9 | 1.0 |  |
| 6.0 | 1.0 |  | -7.4 | 1.1 |  | -23.5 | 1.0 |  |
| 5.6 | 0.9 |  | -7.6 | 1.1 |  | -26.1 | 1.0 |  |
| 5.1 | 1.1 |  | -7.8 | 0.9 |  | | | |