To make the mapping between continuous time and discrete time straightforward, our convention is that lower-case variables reflect rates while the corresponding upper-case variable is the corresponding factor over a discrete interval of time.

So, for example, if the annual interest rate is $\mathsf{r} = 0.03$ or three percent, then the annual interest factor is $\mathsf{R} = 1.03$.

We predefine the following factors:

Python Code	LaTeX Code	LaTeX Output	Description
Rfree	\Rfree	R	The riskfree interest rate
Risky	\Risky	$\mathbf{R}$	The return on a risky asset
Rport	\Rport	$\mathfrak{R}$	The return on the entire portfolio

Table 1 Factors

There are a few cases in which we must depart from the scheme in which lower case letters are the rate associated with the corresponding upper case letter, most notably when the conventional object is designated by a Greek letter that does not have a widely recognized lower case version.

Python Code	LaTeX Code	LaTeX Output	Description
DeprFac	\DeprFac	$\urcorner$	Depreciation factor
deprRte	\deprRte	δ	Depreciation rate
DieFac	\DieFac	$\mathfrak{D}$	Proportion who die
LivFac	\LivFac	$\not\mathfrak{D}$	Proportion who do not die $= (1 - \mathfrak{D})$
DiscFac	\DiscFac	β	The discount factor: $1/(1 + \vartheta)$
discRte	\discRte	ϑ	The discount rate: $\beta^{-1} - 1$
PopFac	\PopGro	Ξ	The growth factor for population
popRte	\popRte	ξ	The growth rate for population

Table 2 Special Cases: Factors and Rates