Portfolio calculation

Constants:

|  |  |
| --- | --- |
| **Variable name** | **Description** |
|  | Sum of expected savings |
|  | Target stock exposure weight |
|  | Initial stock target |
|  | Gearing cap |
|  | Risk free rate |
|  | Margin rate |
|  |  |
|  |  |

Period 0 primo flow:

|  |  |
| --- | --- |
| **Variable name** | **Description** |
|  | First savings |
|  | Cash |
|  | New debt |
|  | New investments primo |
|  | Total debt |
|  | Portfolio value primo |
|  |  |

Period 0 ultimo flow:

|  |  |
| --- | --- |
| **Variable name** | **Description** |
|  | Calculate interest |
|  | Market return |
|  | Portfolio value ultimo |
|  | Dollar stock target |
|  | Investment phase |
|  |  |

Period t >= 1 primo flow:

|  |  |
| --- | --- |
| **Variable name** | **Description** |
|  | Savings |
|  | Determine if new debt is needed |
|  | New cash contributions |
|  | New investments primo |
|  | Total debt |
|  | Portfolio value primo |

Period t >= 1 ultimo flow:

|  |  |
| --- | --- |
| **Variable name** | **Description** |
|  | Calculate interest |
|  | Market return |
|  | Portfolio value ultimo |
|  | Dollar stock target |
|  | Phase |

function nd(s, pv\_u, dst, td, cash, phase):

#check if target has been reached

if pv\_u > dst:

#if debt remains pay it off

if td > 0:

debt\_prepayment = min(td, (pv\_u-dst) + cash + s)

function phase\_check(pv\_u, dst, phase, td):

if phase == 4:

return 4

#has target not been reached?

if pv\_u < dst and phase <= 2:

return 1

#any remaining debt?

if td > 0 and pv\_u >= dst:

return 2

#if target has been reached and no debt remains

#is the value still above the target?

If pv\_u > dst:

return 3

else:

return 4