

Modelling of the Cash-Flows

Assumptions: Let the current swap holdings be as follows.

- 3m-Swap with fixed leg $(1, 1, 1, 0, 0, \dots, 0)$ and notional amount 100
- 1y-Swap with fixed leg $(1.5, 1.5, \dots, 1.5, 0, 0, \dots, 0)$ and notional amount 90

The floating leg is derived from the 1m-yields.

Python: We keep track of the holdings in terms of two vectors.

```
fixed_cash_flows=(2.5, 2.5, 2.5, 1.5, 1.5, ..., 1.5, 0, 0, ..., 0)
```

```
swap_volume=(190, 190, 190, 90, 90, ..., 90, 0, 0, ..., 0)
```

Constraint: The upcoming component of `swap_volume` is supposed to be smaller or equal than 90% of the balance sheet total.