Step-by-step plan!

Gym environment

Basic bank environment

Model other cashflows

Funding

Now – only one off. Do we need to refund?

Bank accounts

Import Interest on Bank Accounts \*\*

Apply interest on bank accounts \*\*

Model zero curve movement and correlated rates

Rewards

Model risk and returns (npv and SOT done, NII remains)

Model BPV per time bucket

For NII I will need to split cashflows in interest and principal

Update model at every time step

* Change timestep to 2 weeks
* Roll forward bank account (done)
* New business for mortgages \*\*

Set up customized gym class

Model Buying and selling of Swaps

Set time and run experiments

Train a basis RL model (DQN, DDPG) in Keras

Optimize model performance

Validate models

Develop a visualisation class for path trajectory