

State transition

LOAN

REGISTERED, WORKING, DUE, PAST_DUE, CLOSED, TERMINATED

COLLATERAL

EMPTY, AVAILABLE, IN_USE, MARGIN_CALL, LIQUIDATION_IN_PROGRESS, LIQUIDATION

FIL loan ETH collateral

Lender

- ① setMoneyMarketBook
LEND 5Y 15000 FIL 15%

- ④ 10000 FIL Transfer
Notify Payment
with TxHash

- ⑧ AUTO LIQUIDATION
15% → 120%
margin level

Borrower

- ② Upsize ETH

1240 ETH
(820 ETH = 10000 FIL)
EMPTY → AVAILABLE

- ③ makeLoanDeal
Take LEND to Borrow
5Y 10000 FIL

REGISTERED
AVAILABLE

- ⑤ Confirm Payment
5Y 10000 FIL

WORKING
IN-USE (10000 FIL
820 ETH)

- ⑥ 1Y-2 weeks later
15% coupon DUE
IN-USE

- ⑦ 2 weeks later
PAST DUE

$$1500 \text{ FIL} \rightarrow 1800 \text{ FIL} = 147 \text{ ETH}$$

$$147 \text{ ETH} \leftarrow$$

LIQUIDATION IN PROGRESS

$$1240 \text{ ETH} \quad (151\% \text{ cover})$$

$$\text{In Use: } 10000 \text{ FIL} = 820 \text{ ETH}$$

⑨ Update State

WORKING

IN USE \rightarrow MARGIN CALL

$$1093 \text{ ETH} \quad (133\% \text{ cover})$$

$$1093 / 820 = 1.33$$