

#### Problems With Commercial Banks

Massive infrastructure, HR & compliance costs



7% fi

7% GDP consumed by financial services

Chronic bad judgement making loans



Digitization of money creates civil liberties danger

We are closing your bank account.

You were involved in crypto.

No appeals process !!!



# Fiat Money

FACT 98% of money is created by commercial banks

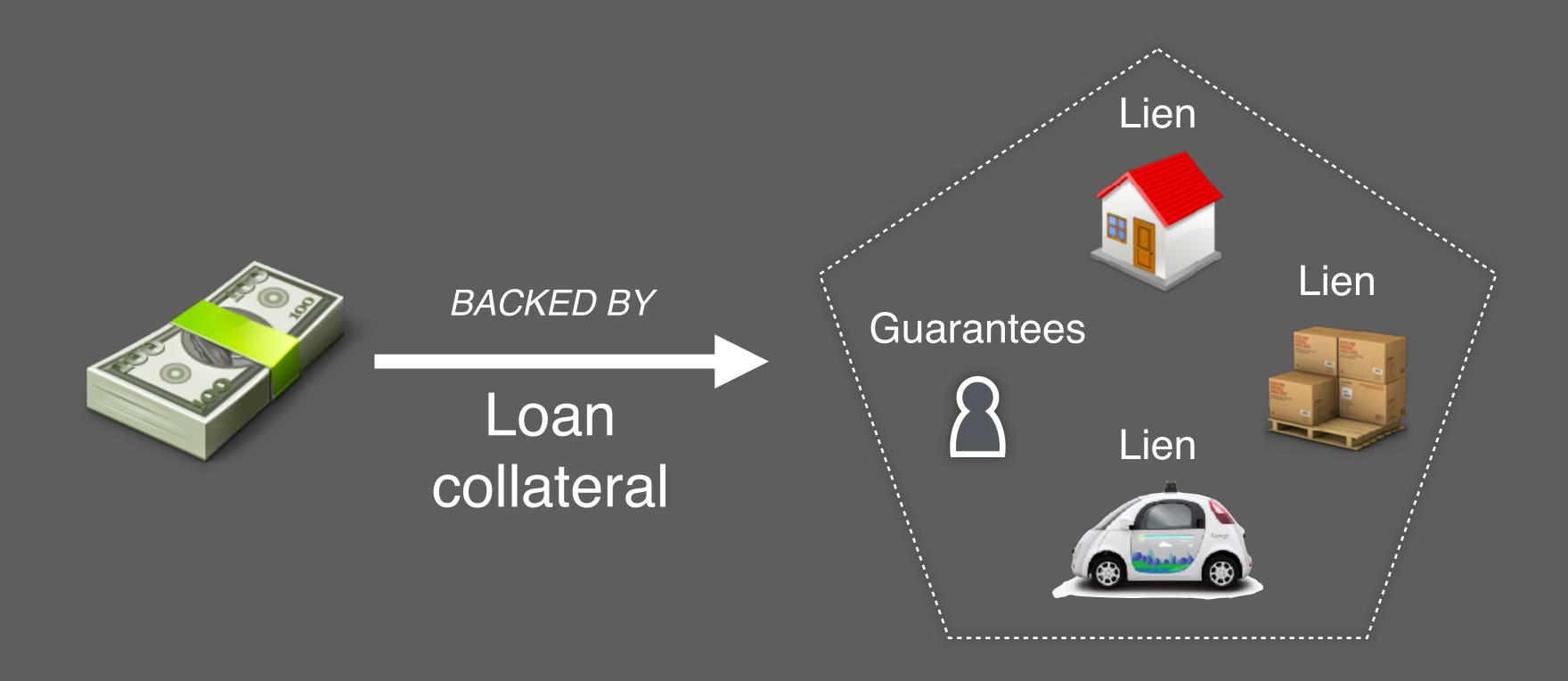
#### **CREATE NEW MONEY**



#### **BALANCE SHEET**

- Loan is asset
- Money is liability

# Fiat Money



Fiat money is a kind of aggregate IOU backed by legal claims on assets and cash flows

Ahhhhhhhhhhh... make a World Computer...

Give out loans algorithmically

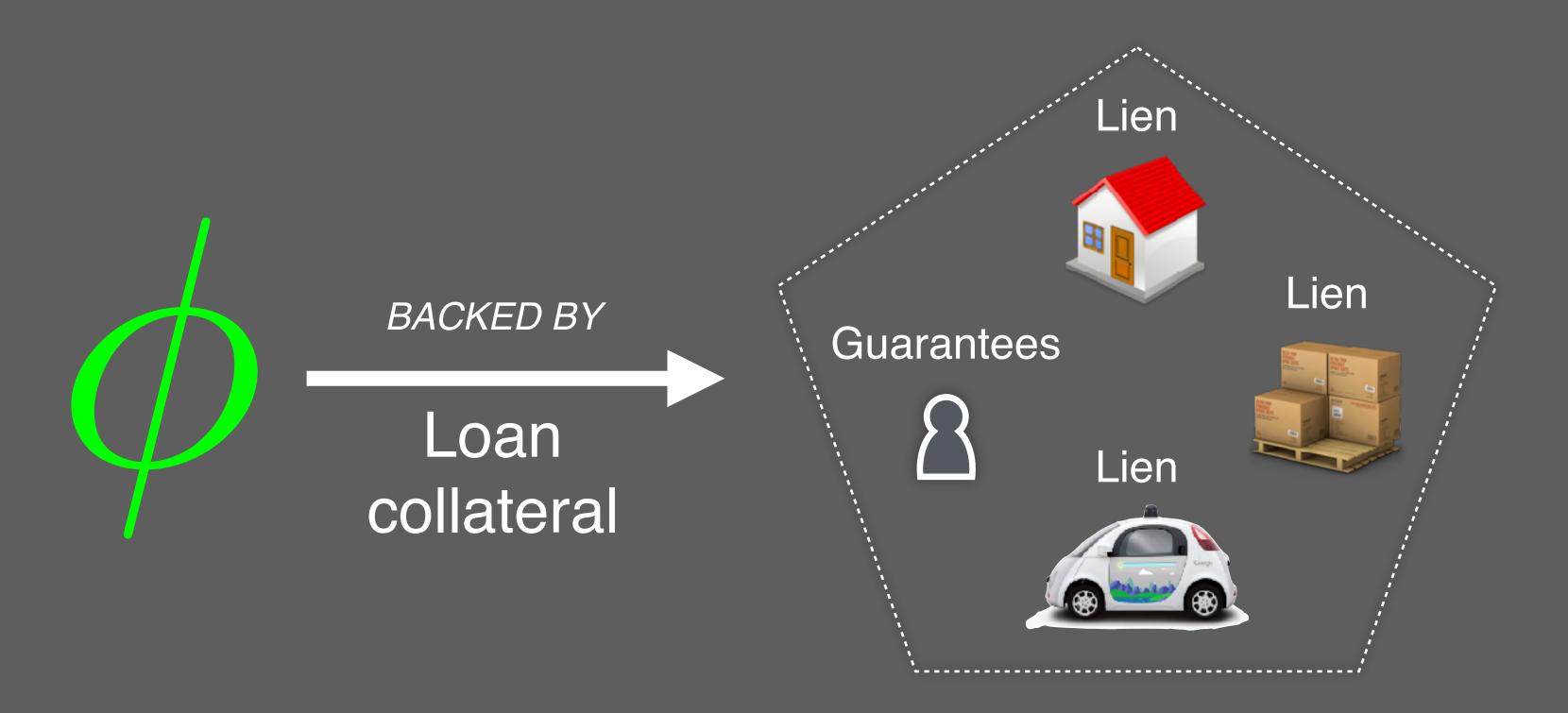
& create stable currency backed by loan collateral

## PHI is Currently In The Works



Systems planned for DFINITY computer shall also export PHI to

# PHI Money



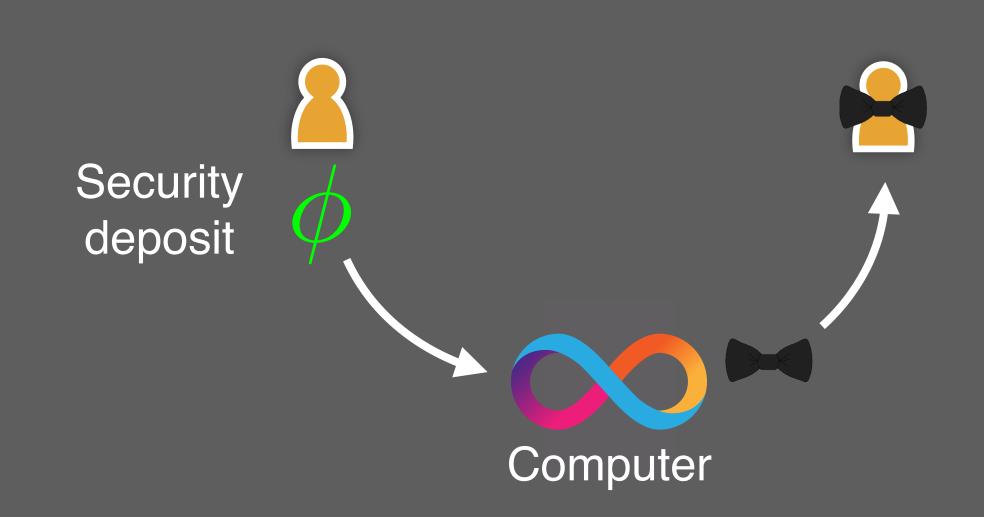
Phi money is also an aggregate IOU backed indirectly by legal claims on assets and cash flows

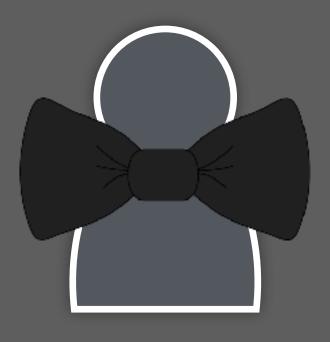
### PHI Localization

PHI currency works together with the local currency



# Anyone Can Be A PHI Validator





**Example (paid in PHI)** 

Deposit

\$50,000

Max Loan

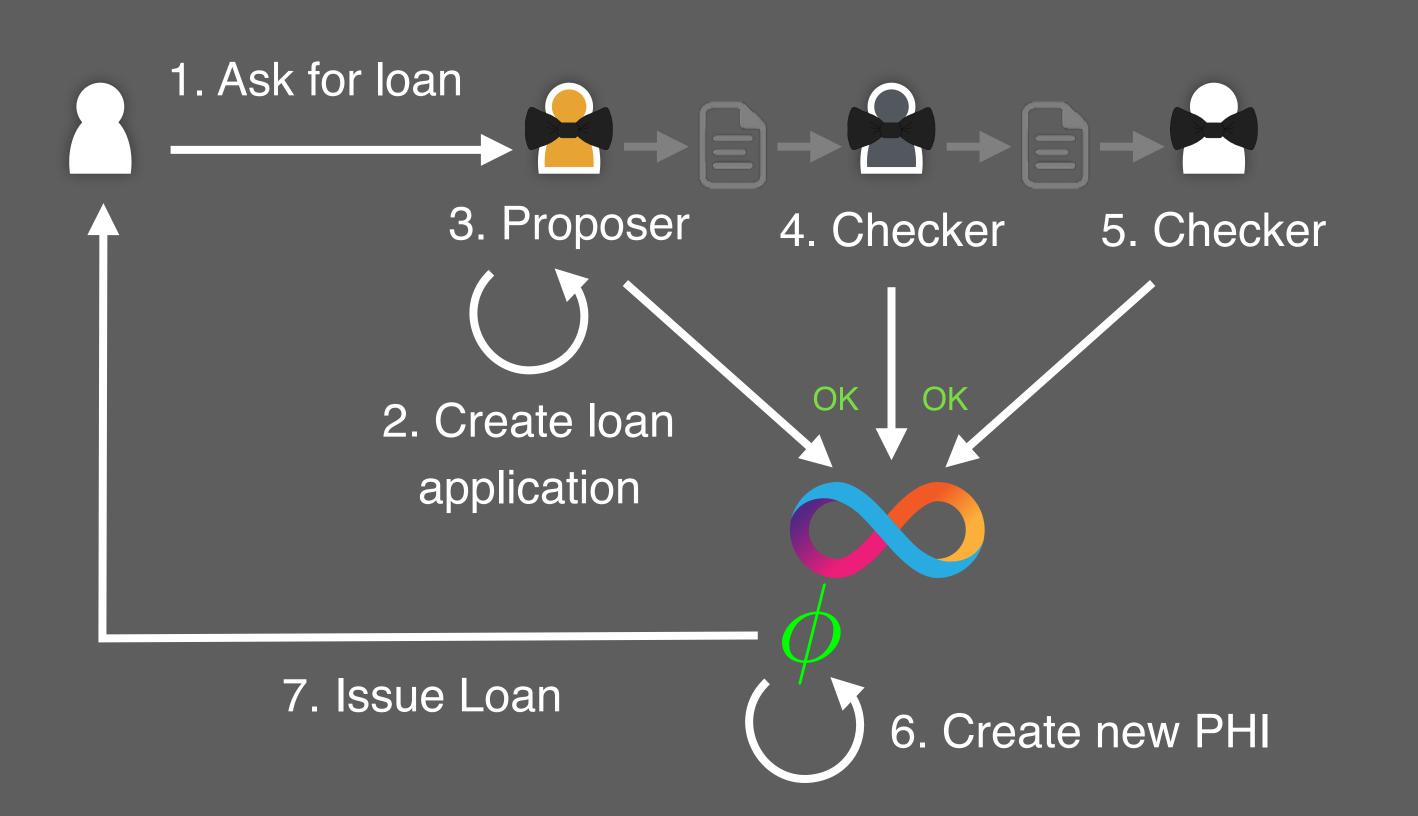
\$5,000

Max Loans

\$500,000

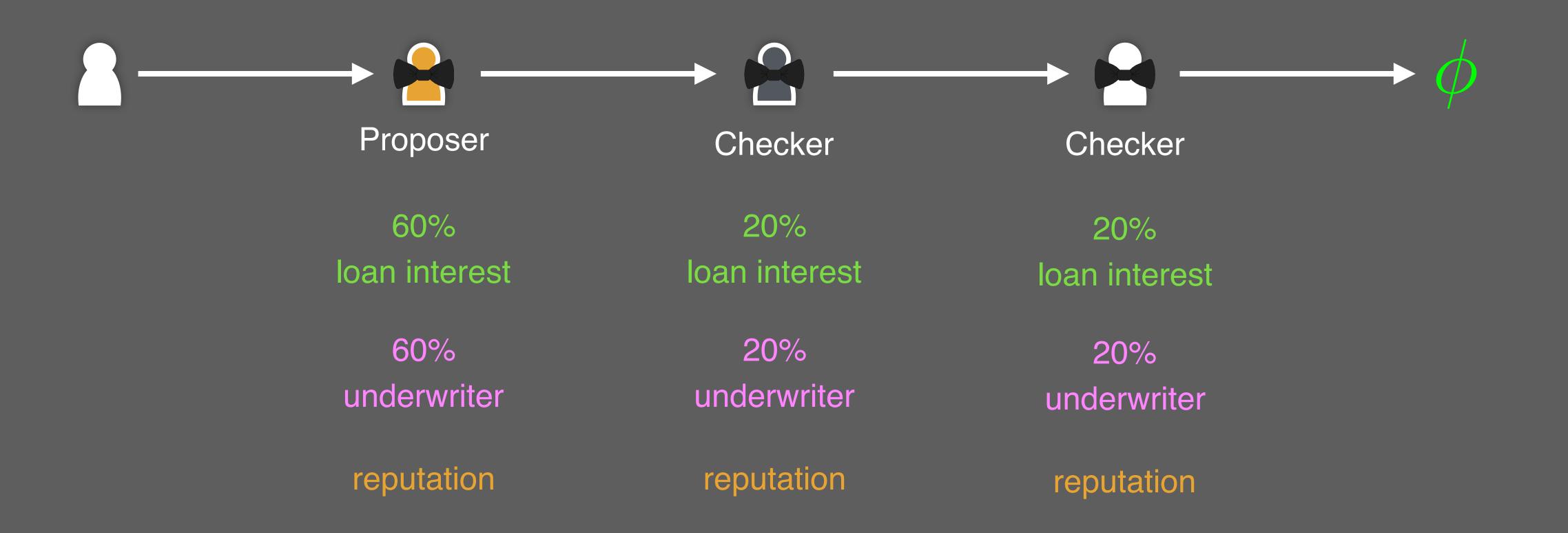
Anyone can become a PHI Validator by making a security deposit to the computer. If a loan you approve becomes delinquent the computer takes compensation from your deposit.

### How Computer Issues Loans



- Random sequence validators
  - Who's next is unknowable
- Length sequence is unknowable
- Choice validators
  - Size of their deposit
  - Reputation
- Loan application
- Format is open standard

#### Validator Incentives



## Validator Reputation



Loans performing

Deposit size maintained

Incompetence & game playing are losing strategies

The lower your reputation falls the longer the validation chains and the harder it is to make returns from your security deposit, which can get



Loans have delinquent payments

Deposit size decreasing

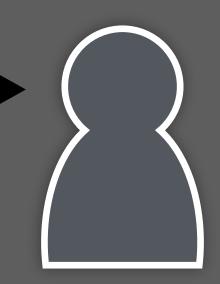
Other validators reject loans

If validation decision rejected by others, can appeal and computer decides using new random sequence

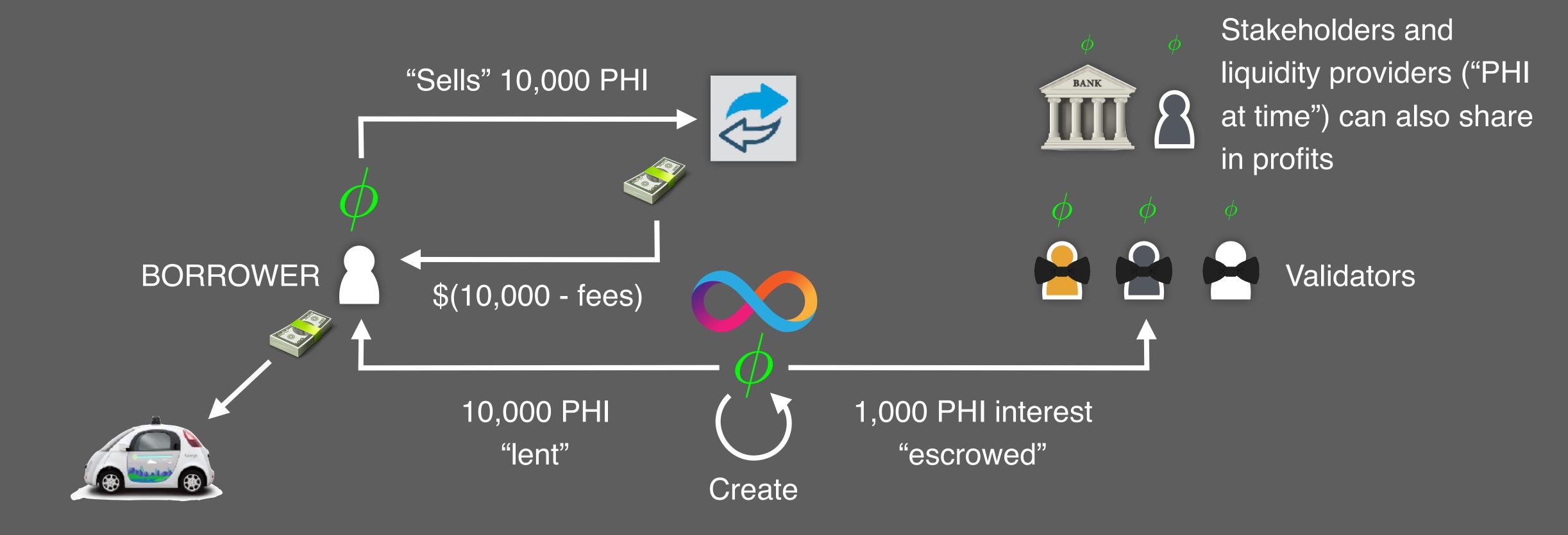


So the computer gives out loans algorithmically using "randomness". Can DFINITY's Threshold Relay technology power this?

Absolutely! The randomness it creates is perfect

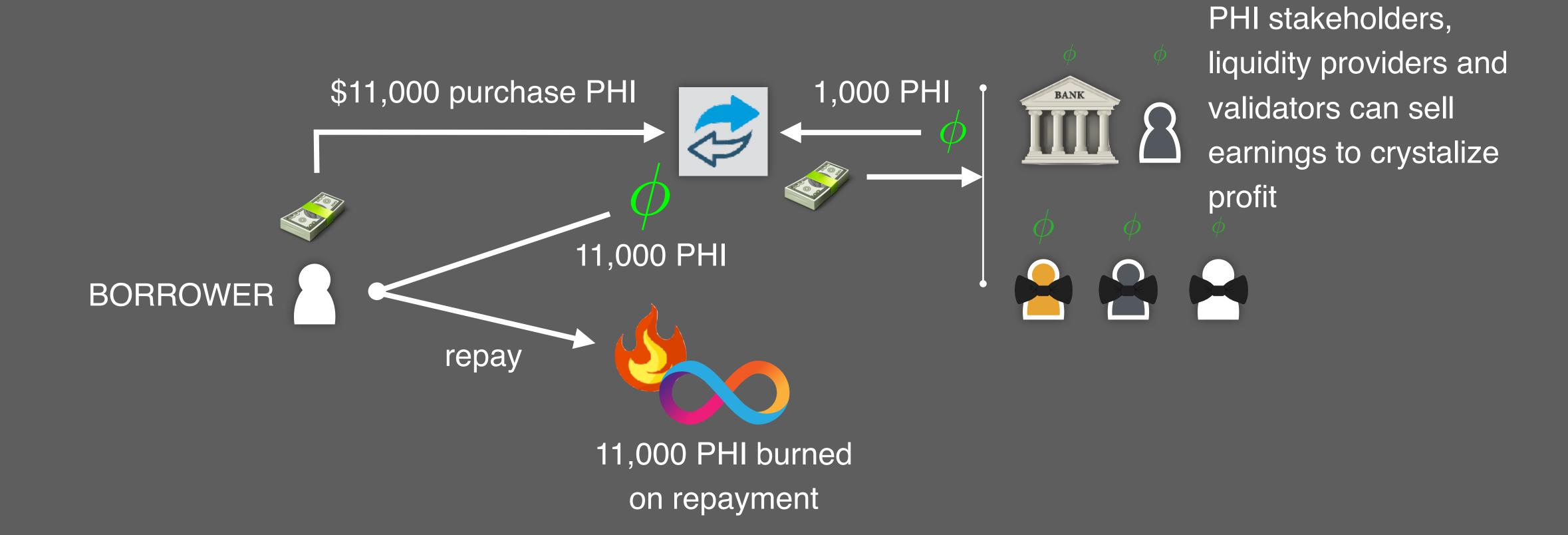


### PHI Loan Flows



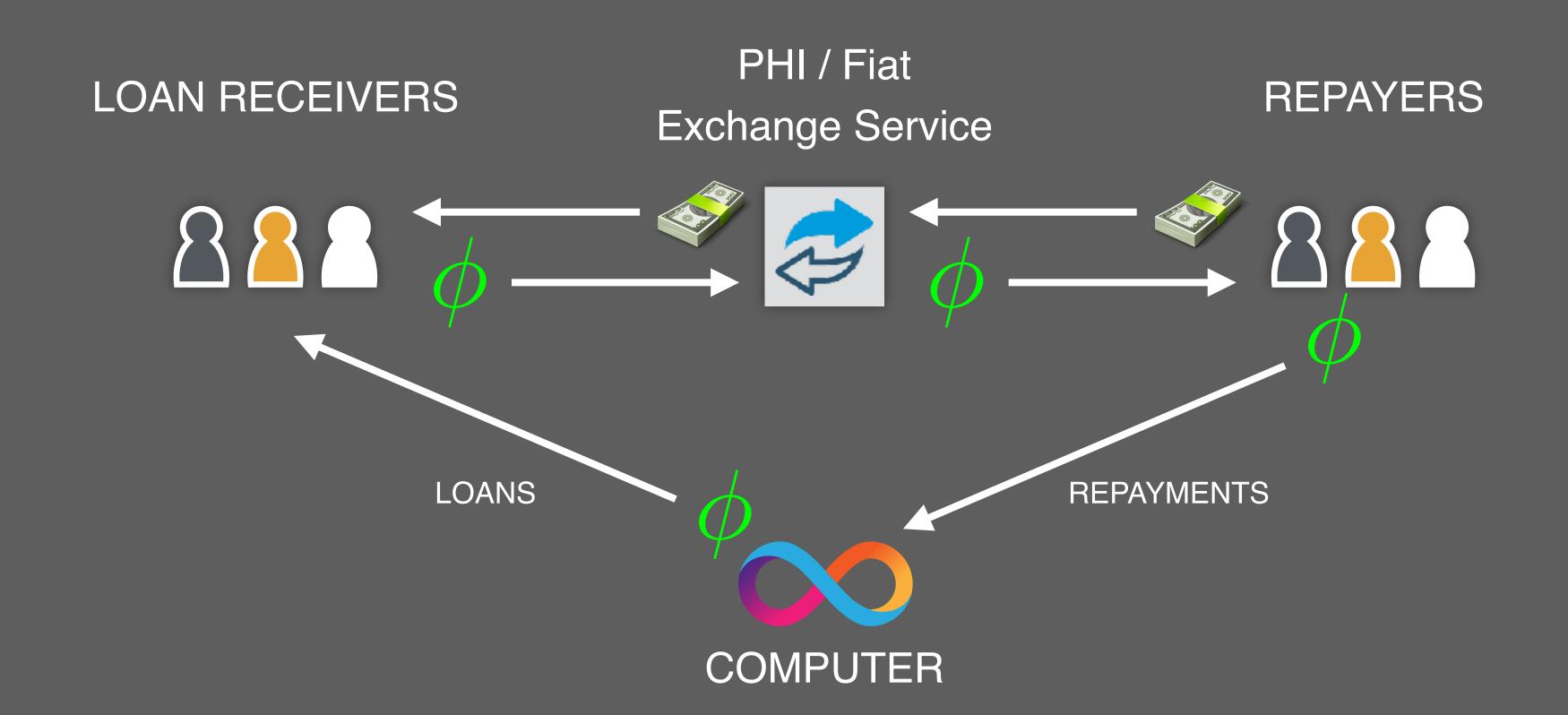
Total PHI created (loan + interest) = borrower's obligations in \$ = 11,000 PHI-USD

# PHI Repayment Flows



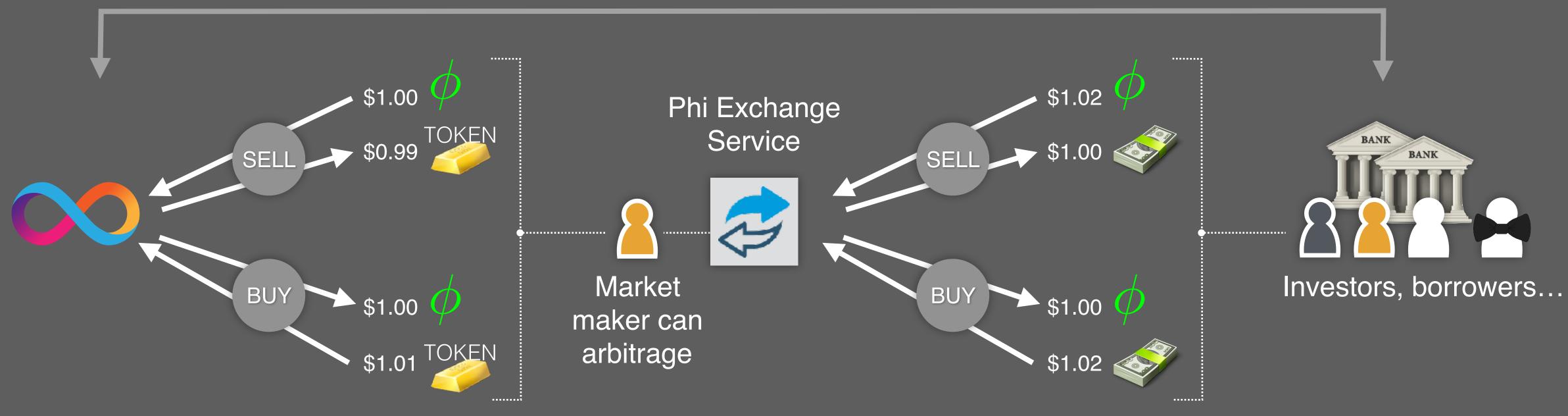
Borrower buys PHI to pay back the principle and interest. All PHI burned on repayment

# PHI Balance



# PHI Market Making

Those not happy with exchange service fees or prices can go directly to World Computer resident systems



The Computer maintains outer spread by buy/selling PHI. The simple version involves value tokens from reliable providers

### Legal Force No Banks



You did not repay the computer !!!

The computer took repayment from my deposit. Our original contract now activates, and you owe ME the money !!!



# PHI Modern Banking UX



The "bank branch" of the future is virtual not physical. Consumers do not need to touch PHI currency



#### http://twitter.com/dominic\_w

