

From Fractional Reserve Banking to Electronic Public Money

On the occasion of awarding the
Friede Gard Prize
to
Prof Kaoru Yamaguchi

18 October 2025

Prof Dr Joseph Huber

Emeritus Chair of
Economic Sociology

Martin Luther University
Halle/Wittenberg



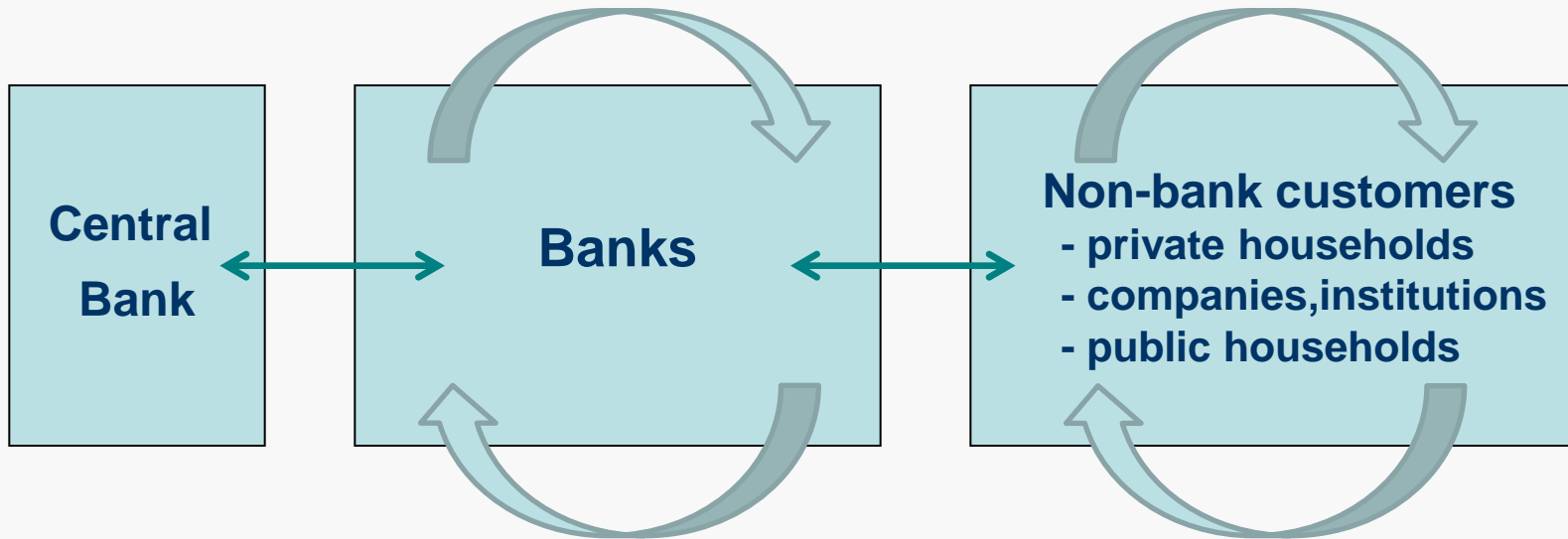
Yamaguchi's work using his
Accounting System Dynamics modelling method

- analyses the functioning of the existing money and banking system, especially: **Fractional Reserve Banking**
- derives from this the monetary reform proposal, that is: **Electronic Public Money**

Two-Tier Split-Circuit Money and Banking System

Interbank circulation of central-bank reserves

General circulation of bankmoney among non-banks

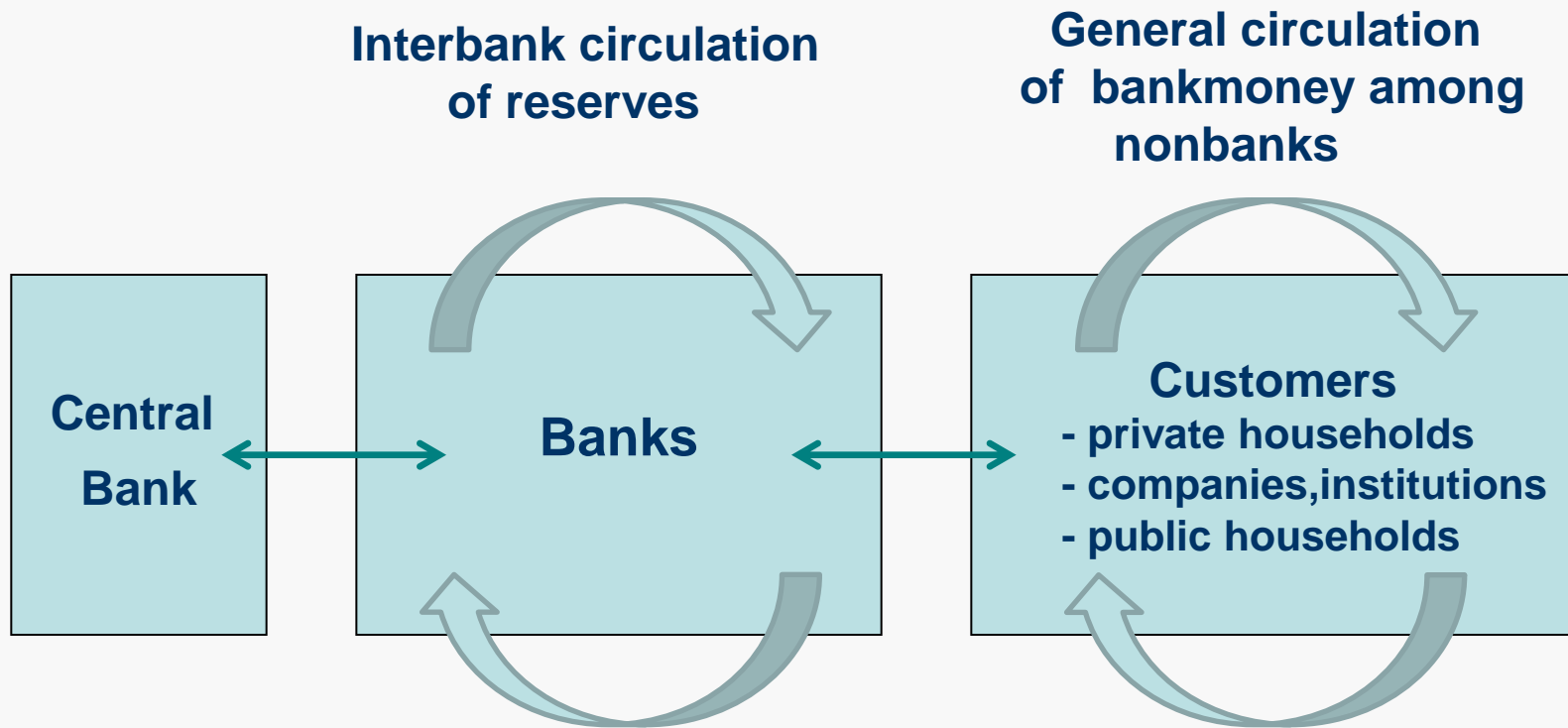


Customer bankmoney transfer from one bank to another

The amount to be transferred

- ▶ is deleted by bank A in the paying customer's current bank account (*bankmoney*)
- ▶ transferred within the interbank circuit by bank A to the recipient's bank B, *using central-bank money (reserves)*
- ▶ re-created as *bankmoney* by bank B into the recipient customer's current there.

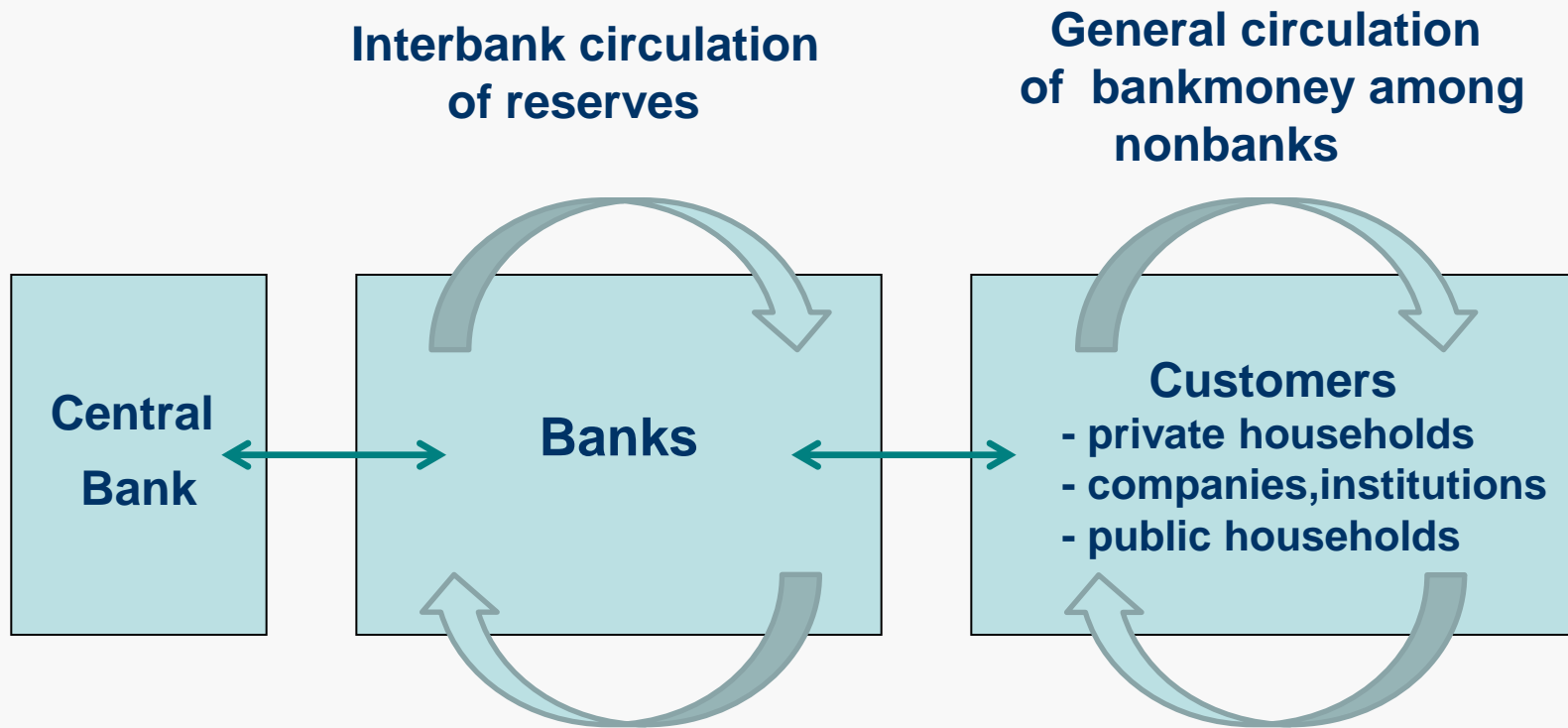
Two-Tier Split-Circuit Money and Banking System



Fractionality of Reserves:

Under business-as-usual banks need reserves in the order of only 2–4 % of the entire stock of bankmoney for maintaining customers' bankmoney circulation.

Two-Tier Split-Circuit Money and Banking System



Today, due to cashless payment, FRB has developed into a veritable bankmoney regime

Both in function and the quantities of money, bankmoney has become the dominant system-defining type of money.

Shortcomings of the bankmoney regime

- Complicated structure, overshooting (inflationary) and hardly controllable dynamics of money creation
- Inherently unstable and prone to crisis, due to FRB and related liquidity and bank-run problems;
- bankmoney thus unsafe if not guaranteed by state central banks and national governments;
- in this regard unduly privileged.
- Fuelling financial and economic boom-and-bust cycles,
- in particular also asset price inflation adding to imbalanced distribution of wealth and income.

Main Approaches to Monetary Reform

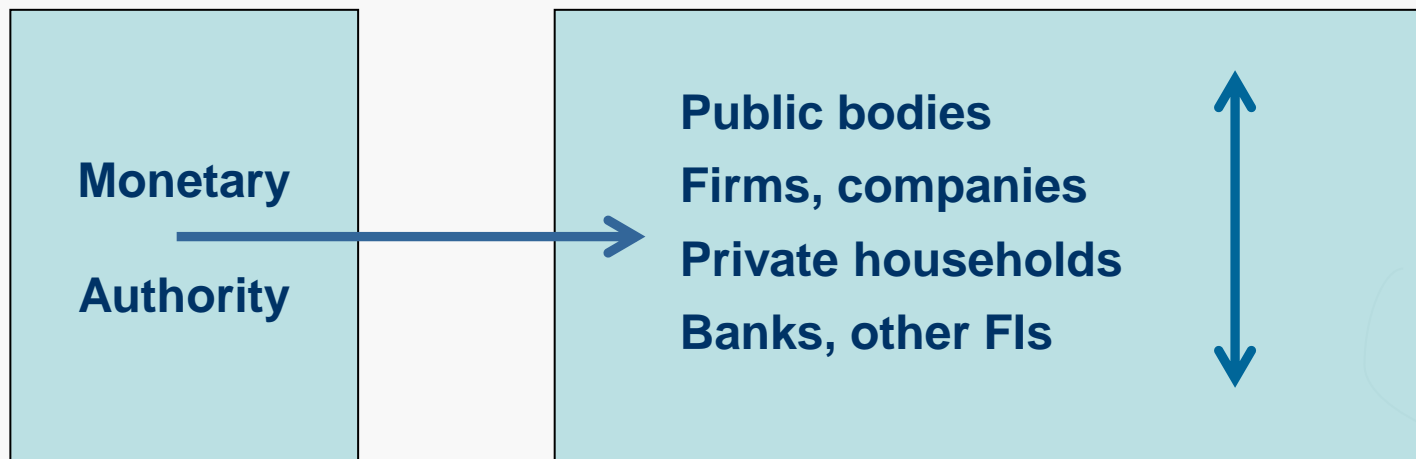
- ▶ **100%-money**, or 100%-banking, or Full-reserve banking
still a two-tier or double-circuit reserve system
as proposed by Irv. Fisher as well as H. Simons, M. Friedman (1930s)
- ▶ **Public money** (aka Sovereign money / dt. Vollgeld, State money, Gov money, Constitutional money)
single-circuit system
as proposed in up-to-date elaboration by **K. Yamaguchi**

Electronic Public Money – integrated single circuit

Like modern form of physical cash

Issuance of EPM.
Basically spent, not loaned,
into circulation by gov

General use of EPM by all actor groups,
banks and non-banks alike



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