

Discussion of “New Models of the Economy and the Financial System” by Charles Goodhardt and Dimitri Tsomocos

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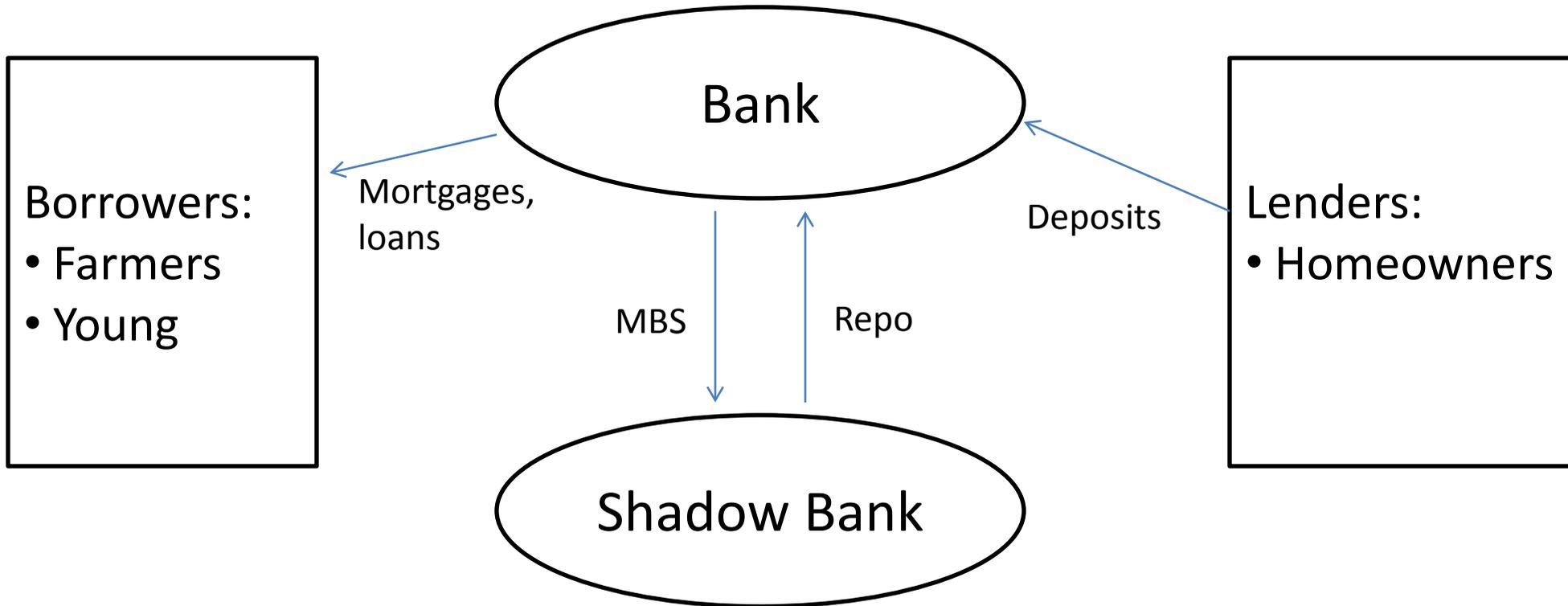
OFR-FSOC Inaugural Conference: The Macroprudential Toolkit

The views expressed in this presentation are those of the author and do not necessarily reflect the views of the Federal Reserve Bank of New York or the Federal Reserve System.

Overview

- Goodhardt –Tsomocos’ present a conceptual framework for financial stability policy analysis
- Total of 8 papers, I focus the discussion on the most policy relevant paper: Goodhardt, Kashyap, Tsomocos & Vardoulakis (GKTV)
 - Definition of macroprudential policy
 - Structure of GKTV’s financial system
 - Macroprudential policies
 1. Countercyclical capital requirements
 2. Countercyclical haircuts
 3. Countercyclical LTVs
 4. Liquidity coverage ratio
 - Stylized empirical facts to guide theory

Setup of Goodhardt, Kashyap, Tsomocos & Vardoulakis



Macroprudential Tools in GKTV

Liquidity

Coverage ratio =
 $\text{Cash} + \text{loans} /$
 $\text{cash} + \text{loans} +$
 MBS RR

Loan to Value =
 $\text{Mortgages} /$
 borrower net worth

Bank

Assets	Liabilities
Cash	Deposits
Bridge Loans	Central Bank Loans
Mortgages	Equity
MBS reverse repos	

Not considered:

- NSFR
- DTI
- Stress tests
- Central bank policies

Shadow Bank Haircut =
 $\text{Shadow Bank Equity} / \text{MBS}$

Capital ratio =
 $\text{Bank equity} /$
 reverse repos^*
 risk weight

How Macroprudential Policies Mitigate Systemic Risk

1. Cyclical tools lean against building risks

Rationale: Financial sector procyclicality generates vulnerabilities

2. Cyclical tools create buffers and increases resilience

Rationale: Policy cannot eliminate procyclicality entirely
Policy should reduce the potential harm

I will discuss the operation of the policies within the GKTV model

1. Countercyclical Capital

Policy Motivation

- Creates buffer and builds resilience
- Leans against greater risk by raising the cost of credit

Finding of the GKTV Paper

1. Tighter requirements reduce total lending and increase share of shadow banking
2. Households consume less housing services and face less risk
3. Capital is inflated in booms making it difficult to use pre-emptively
4. Differential impact on welfare

Evidence and Implementation

- Scant direct empirical evidence (a bit on risk weights)
- Indirect evidence from Spain and UK
- Implementation within Basel 3 framework

2. Countercyclical Variation in Haircuts

Policy Motivation

- Policy complements cyclical capital requirements
- Leans against build up of risks in funding contracts, futures, and derivatives

Insight of the GKTV paper

1. Mortgages are moved back to banks in crisis creating fire sales
2. Tighter haircuts reduce lending but increase stability
3. Impact on welfare is small and ambiguous

Evidence and Implementation

- Empirical evidence only in the form of simulations
- Regulatory basis for implementation not entirely clear in the US
- Potentially reduces scope for regulatory arbitrage of cyclical capital policies

3. Variable LTV Ratios

Policy Motivation

- LTV caps reduce borrower and lender exposure to asset price declines
- LTV caps reduce borrower defaults and lean against price appreciation

Finding of the GKTV Paper

1. Higher LTVs lead to lower lending and higher stability (less default)
2. Reduces fire sales and shadow bank instability
3. Borrowers' utility decreases, while lender utility increases
4. Problematic as pre-emptive tool due to inflated housing values in the boom

Evidence and Implementation

- Challenge is regulatory arbitrage
- Suggestive evidence from Korea and Hong Kong suggests that tighter LTV/DTI policies reduce transactions activity, property price appreciation rates, price appreciation expectations, and speculative activity

4. Liquidity Coverage Ratio

Policy Motivation

- Protects the bank against wholesale funding shocks
- Slows down liquidity crisis by requiring enough cash to self-insure for 30 days

Finding of the GKTV Paper

1. Good pre-emptive tool
2. High LCR generates fire sale incentives and margin spiral in crisis
3. Suggests that LCR should be time varying
4. LCR has distributional effects as well

Evidence and Implementation

- BCBS proposal in observation period
- Liquidity regulation is currently not designed to be time varying

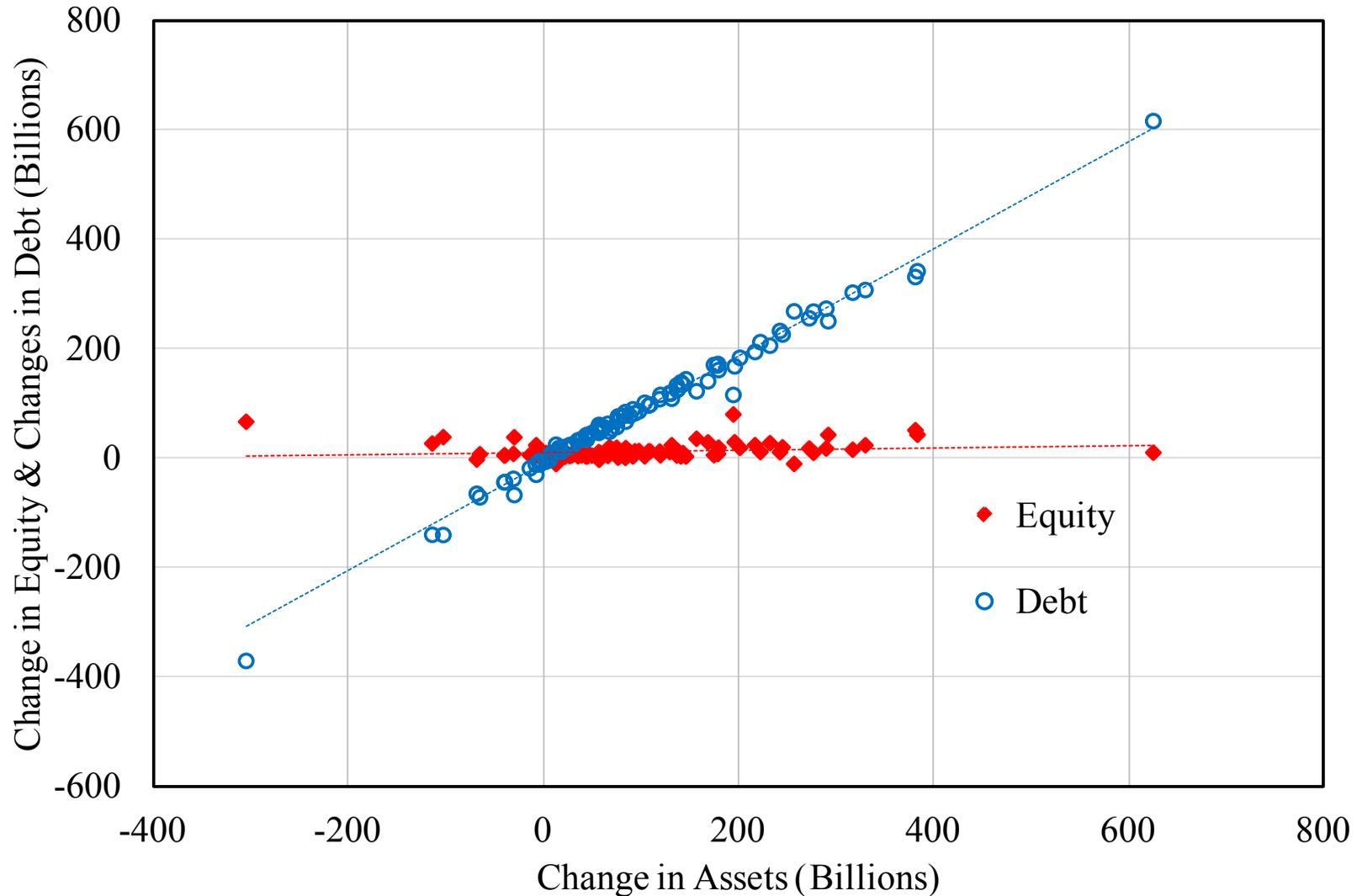
Comments about the Conceptual Framework

Goodhardt – Tsomocos approach (including the other 7 papers)

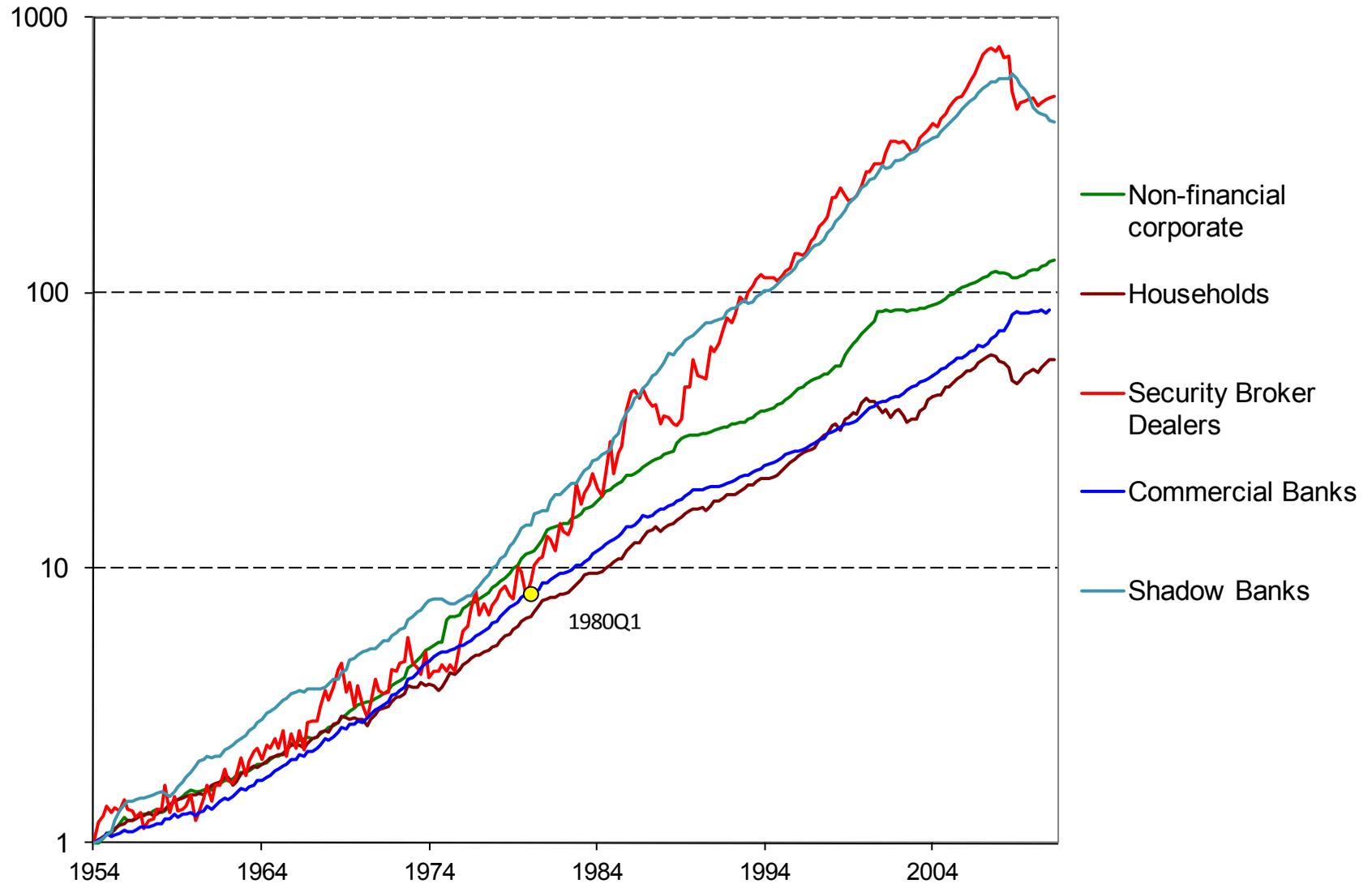
- Default in general equilibrium with incomplete markets
- Endogenous role of financial intermediaries
- Framework goes well beyond the “toy model” banking literature
- General equilibrium approach is necessary to build conceptual foundation for financial stability policy
- However:
 - Is the modeling framework taking the right shortcuts?
 - E.g. issuance of capital is not possible
 - Whether these assumptions are justified has to be judged empirically

Procyclical Leverage of the Financial Sector

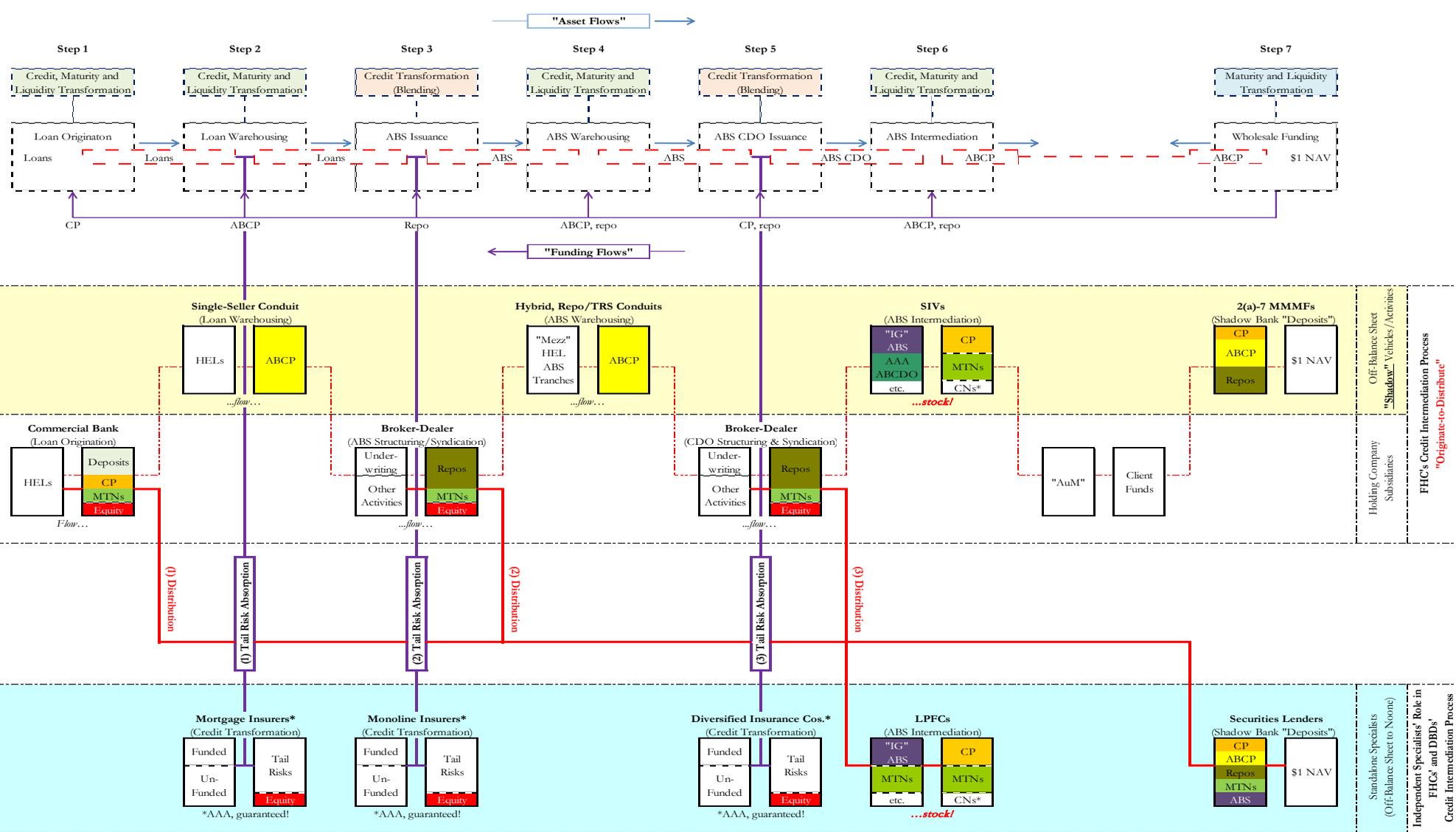
Commercial Banks (Call Reports)



Rise of Shadow Banking System



Shadow Banking



Source: Shadow Banking (Peters, Adrian, Ashcraft, Boesky) (2010)