

# Central Bank Deleveraging and Financial Sector Regulation

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Minsky Conference, DC

April 15, 2015

# Why is central banking difficult?

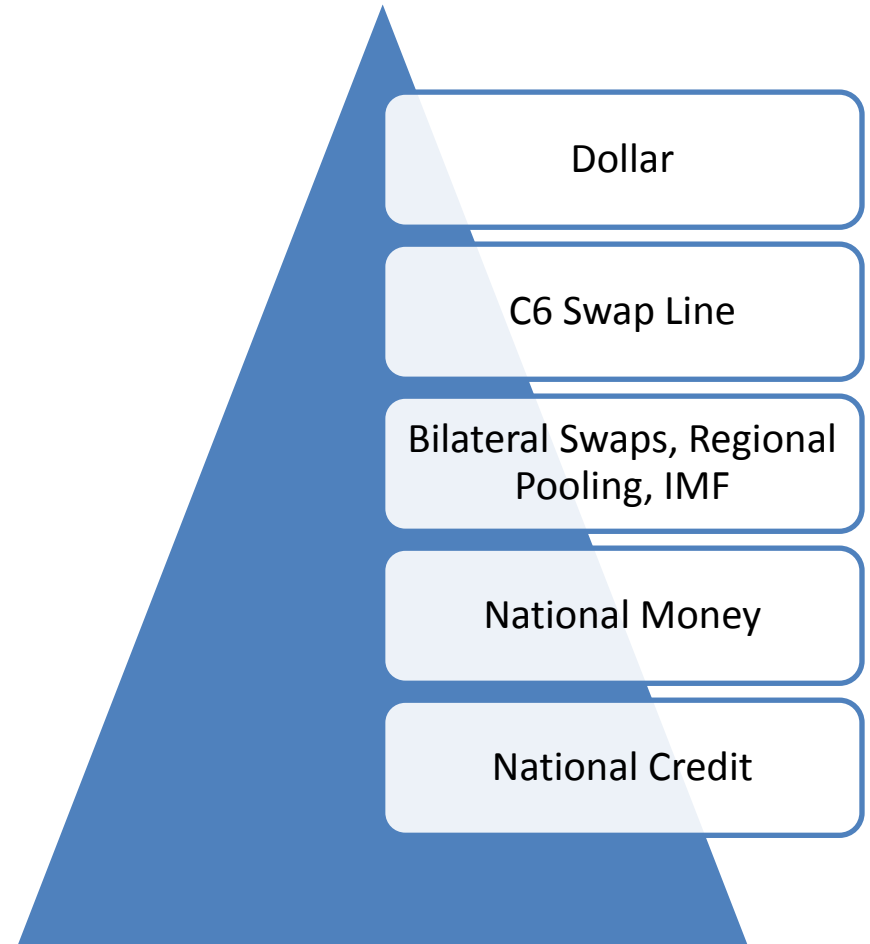
- Essential hybridity
- Inherent hierarchy
- Inherent instability
- Financial globalization

# Essential hybridity

- Bankers' bank
  - Private sector, peace time, private profit
  - Backstop for money market funding (flow)
  - Backstop for capital market lending (stock)
- Government bank
  - Public sector, war time, public purpose
  - Backstop for war debt issuance (flow)
  - Backstop for government debt market (stock)
- Contradictions/Dynamics of Hybridity

# Inherent Hierarchy

- World Reserve Currency
- Central Bank Currency
- Bank Deposits
- Domestic Credit



# Inherent Instability of Credit

- Credit anticipates uncertain future
  - Mistakes are inevitable; externalities and herding
  - Money doesn't manage itself
- Older Versions
  - Hawtrey, trade credit
  - Keynes/Minsky, business investment and credit
- New Market Based Credit
  - Household mortgage credit, not business
  - Capital market securitization, not bank lending
  - Global money market funding, not domestic deposits

# Financial Globalization

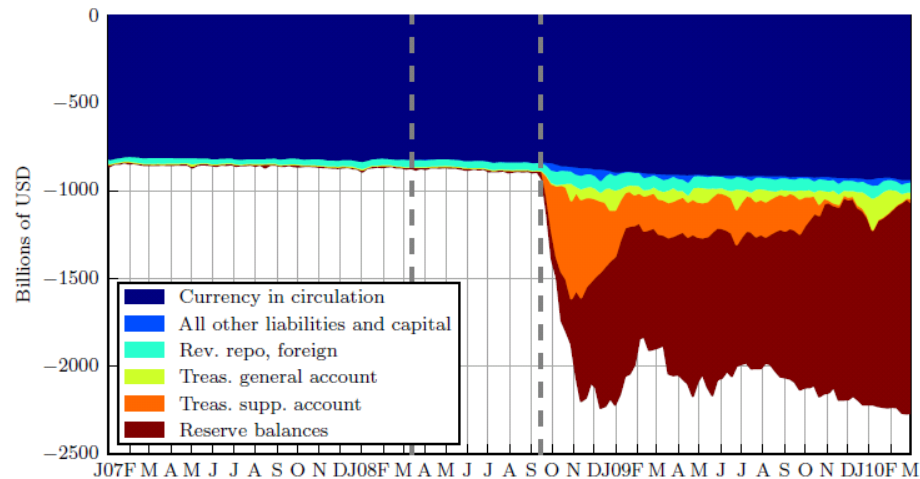
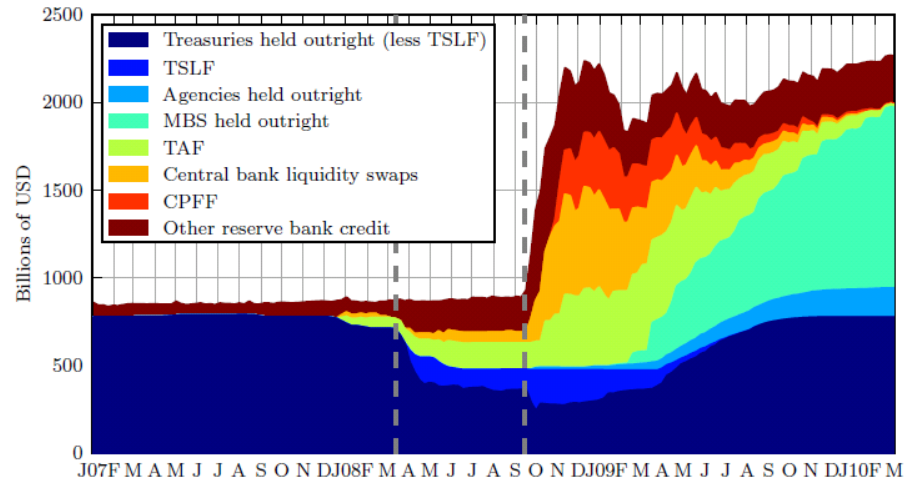
- “an effective, smoothly functioning international capital market is itself an **instrument of world economic growth**, not a nuisance which can be disposed of and the functioning of which can be transferred to new or extended inter-governmental institutions....”
- “the main requirement of international monetary reform is to preserve and improve the efficiency of the private capital market while building protection against its **performing in a destabilizing fashion.**”

(Depres, Kindleberger, Salant 1966)

# Economics not much help

- Technocratic domestic management focus
  - Business cycle stabilization
  - Inflation targeting
- “Keynesian versus Monetarists” frame
  - Fiscal policy versus Monetary Policy
    - IS/LM versus  $MV=PY$ , no central bank qua bank
  - Active Management versus Laissez Faire
    - Discretion versus Rules
  - “New Synthesis” and “Great Moderation”
    - DSGE and Taylor Rule

# A Bagehot Moment





# A Bretton Woods Moment

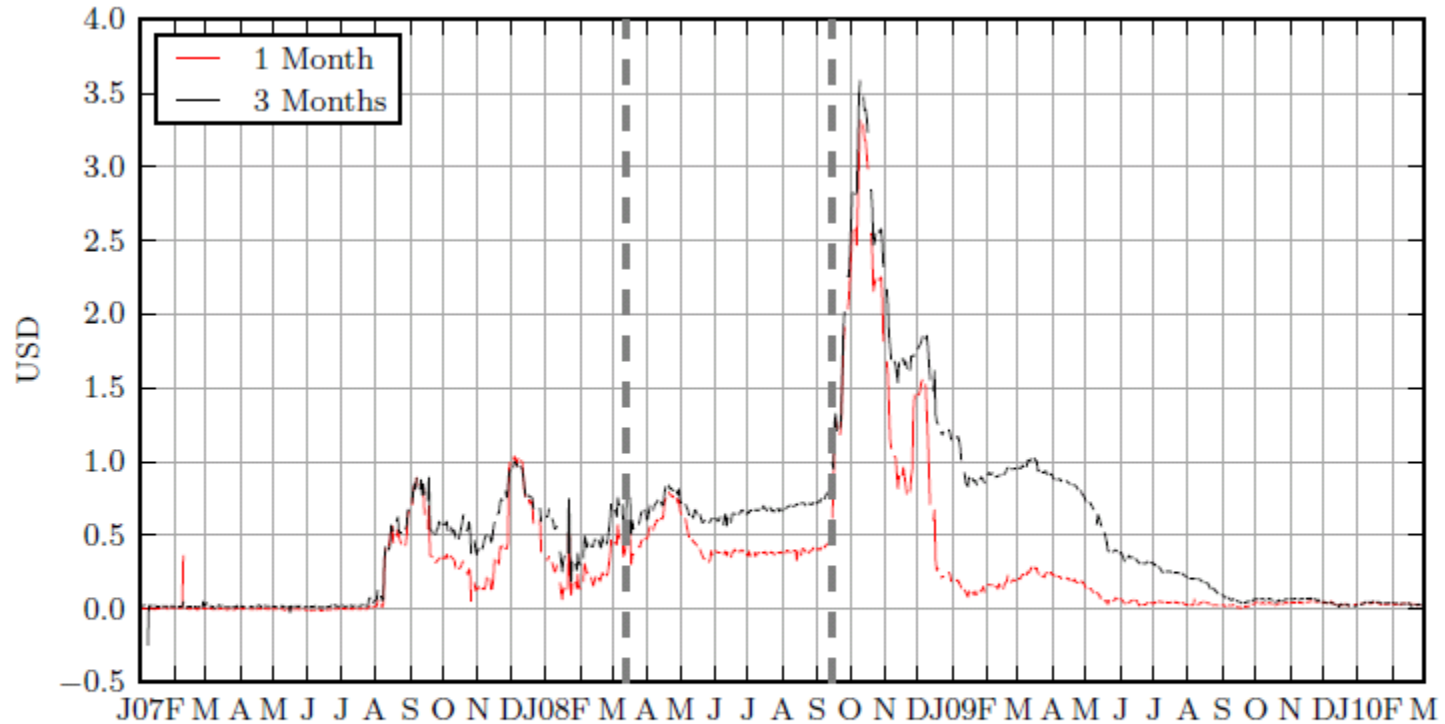


Figure 6: USD OIS-LIBOR spread, 1 and 3 months.

# Transformation of Fed Balance Sheet

- Stage I: Dealer of Last Resort
  - Collapsing private money market; expanding central bank counterparty
  - Collapsing “shadow banking”; expanding central bank “good bank”
- Stage II: Monetary Stimulus (QE 1,2,3)
  - Deliberate distortion of private asset prices
  - Deliberate expansion of central bank balance sheet

# What is “leverage”?

April 8, 2015

April 8, 2015 (restated)

Assets		Liabilities	
Tbonds	2.5	1.3	Currency
MBS	1.9	.3	RRP
		2.8	Deposits

Assets		Liabilities	
TBills	4.4	4.4	Money
TBonds	4.4	4.4	TBills
MBS	1.9	1.9	TBonds

- Assets = 4.48
- Liabilities = 4.42
- Capital = .06

- OIS = 4.4
- IRS = 4.4
- CDS = 1.9

# Shadow Banking and Central Banking

Capital Funding Bank   Global Money Dealer   Asset Manager

Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
RMBS CDS IRS FXS	MM funding	MM funding <b>Reserves</b>  <b>Liquidity put</b>	“deposits” <b>Capital</b>	“deposits”	Capital CDS IRS FXS

Derivative Dealer

Assets	Liabilities
CDS IRS FXS <b>Reserves</b> <b>Liquidity Put</b>	CDS IRS FXS <b>Capital</b>

# Backstopping Market-making, Last Resort

- Global Money Dealer
- Derivative Dealer
- Central Bank (or C6)

Assets	Liabilities
MM funding Reserves <b>Liquidity put</b>	“deposits”
Assets	Liabilities
CDS IRS FXS Reserves <b>Liquidity put</b>	CDS IRS FXS
Assets	Liabilities
Reserves	<b>Liquidity put GMD</b> <b>Liquidity put DD</b>

# What would “Exit” mean?

- Fed makes Outside spread
  - Stabilization not stimulus motive
  - “Tapering”, to allow normalization of **capital** market prices
  - Reverse repo, to allow normalization of **money** market funding price
- Private dealer system makes Inside spread
  - Private profit not Fed gaming motive
  - Short term volatility inevitable, indeed necessary incentive for revival of private market making

# Emerging Market Structure

- Matched Book (e.g. central clearing counterparty)
  - Global **Liquidity** Backstop
  - Private first resort, Public last resort
- Speculative Book (e.g. market-making)
  - Local **Capital** Backstop
  - Private first resort, Public last resort
- Fraught politics of stabilization
  - Liquidity crisis moves prices, causes insolvency
  - Global vs. Local responsibility

# Emerging Monetary Policy Framework

- Monetary Policy transmission
  - From O/N to asset prices through market-makers
    - Money market funding (e.g. 3 month)
    - Capital market lending (e.g. 10 year)
  - Managing balance, Discipline versus elasticity
- International differentiation/management
  - Private finance, dollar and C6, (e.g. FX)
  - Public finance, (e.g. development bank)



# Bottom Line

1. No public deleveraging [sic] until global dealer system prepared to replace with private leveraging [sic]
  - Money dealers
  - Derivative dealers
2. Financial Sector Regulation is about growing a robust infrastructure for market-based credit
  - CCP and speculative dealer system, first resort
  - Central Bank backstop, last resort
3. “Exit” = “Transition to Markets”
  - Including market prices, both money and capital

# Why is Central Banking Difficult?

- Technocratic veil obscures institutional reality
  - Theory: Monetary Walrasianism to DSGE
  - Policy: Large-scale econometric models
- What is missing?
  - Essential hybridity
  - Inherent hierarchy
  - Inherent instability
  - Financial globalization

# New Economic Thinking Needed



“Capitalism is essentially a financial system” (Minsky 1967)

- Banking as Payments System
- Banking as Market-making System

# Further Reading

- Bagehot was a Shadow Banker: Shadow Banking, Central Banking, and the Future of Global Finance  
[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2232016](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2232016)
- China's Engagement with an Evolving International Monetary System: a Payments Perspective  
<https://www.cigionline.org/publications/chinas-engagement-evolving-international-monetary-system-payments-perspective>
- Why Central Banking Should be Re-Imagined  
<http://www.bis.org/publ/bppdf/bispap79i.pdf>
- Essential Hybridity: a Money View of FX  
<http://www.sciencedirect.com/science/article/pii/S0147596713000401>
- [www.coursera.org/course/money](http://www.coursera.org/course/money),  
[www.coursera.org/course/money2](http://www.coursera.org/course/money2)