Redistributive Monetary Policy

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1. I would like to talk about the redistributive role of monetary policy
    a. wealth redistribution and risk redistribution
    b. distribution of wealth matters in a world with financial frictions in which capital cannot flow freely
    c. highly leveraged sectors are vulnerable to shocks leading to large wealth shifts
    d. How does redistributional monetary policy work?
        i. It works through asset prices –
        the fact that different sectors hold different nominal assets
        ii. Through affecting various term spreads and risk premia
    e. How does it mitigates or undo redistribution caused by amplification effects following a negative shock?
    f. How does it affect endogenous risk, i.e. self-generated risk, and balance sheet recessions?
    g. Link the 3 stability concepts:
    financial stability, price stability and fiscal debt sustainability

2. Run-up in debt prior balance sheet recessions
    a. Different sectors
        i. 1980s Japan: non-fin business sector + financial sector
        ii. 2000s US: part of household sector + financial sector

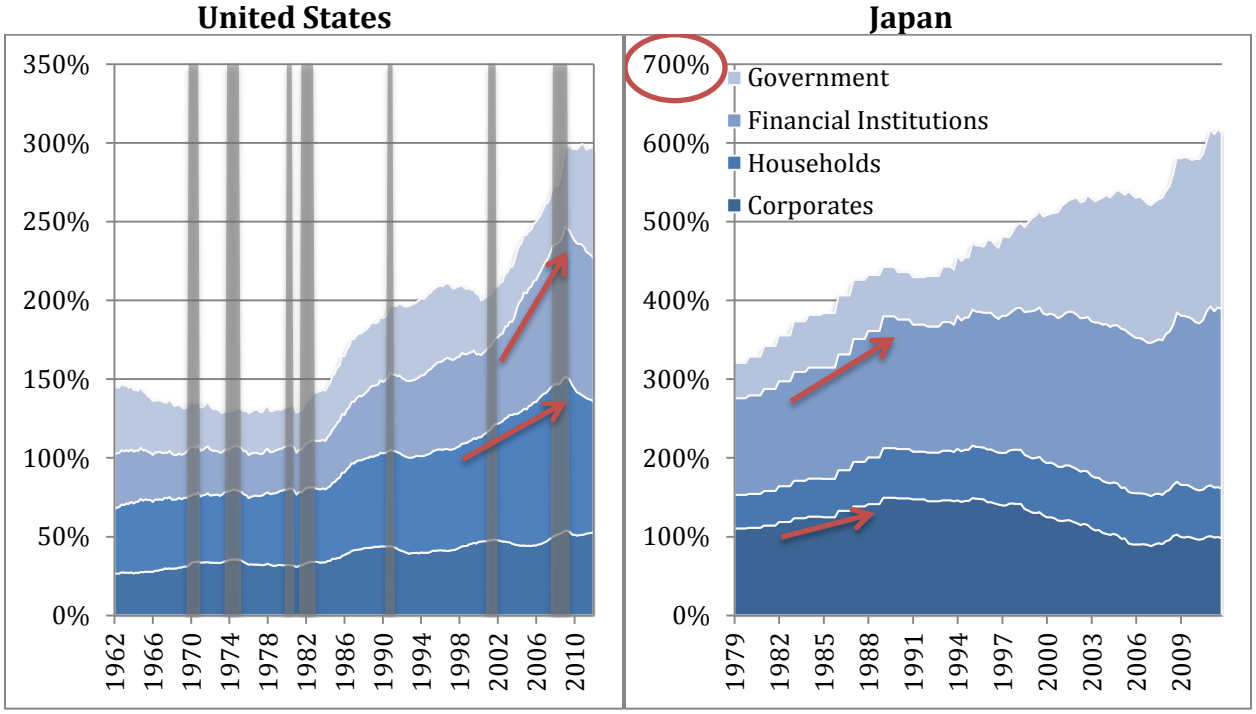

Figure 1

2. Run-up in debt (continued)

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b. Volatility paradox – run-up occurs in quite times

i. Systemic risk is more likely to build up (in the background) when volatility seems to be low.

c. Financial innovation/liberalization

ii. Better hedging of idiosyncratic risk emboldens agents to lever up more on systemic risk

iii. Growth of Shadow banking system (regulatory arbitrage)

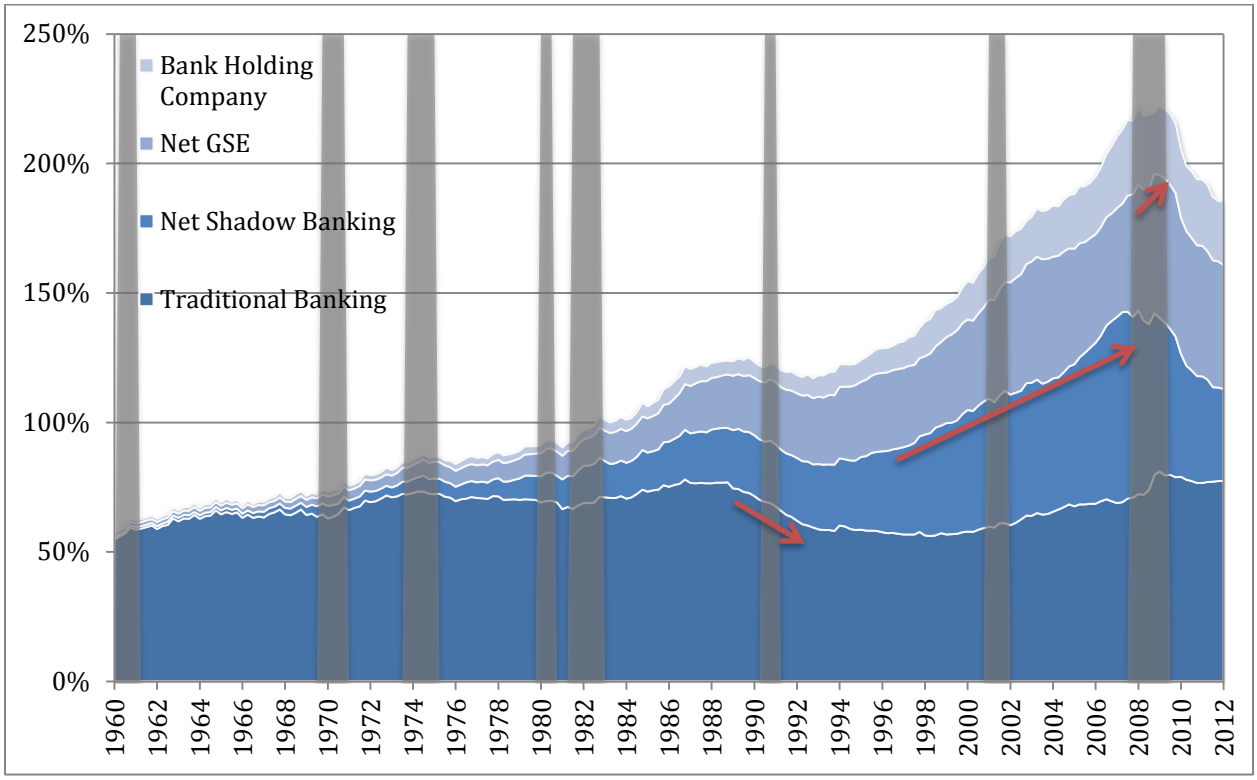


Figure 3

3. Amplification, "endogenous risk" + persistence (in crisis times)
Indebted sector + financial sector

a. Balance sheets are impaired

b. Liquidity spiral/financial accelerator

i. Bernanke-Gertler-Gilchrist, Kiyotaki-Moore

c. (Fisher) deflationary spiral

d. Persistent, since paying down debt has priority

4. Monetary policy (ex-post in a bust phase)
    a. Ex-post objective:
        i. mitigate redistributional effects from endogenous risk/amplification
        ii. DANGER: don't overdo it
    b. works through asset prices (Tobin, Brunner & Meltzer)
    c. Examples
        i. cut of short-term interest rate
        increases value of <u>long-term</u> fixed income assets
        ii. QE on MBS
        mortgage <u>credit spread</u> has two effects
            1. Households' debt service burden falls (refinancing)
            2. House prices rise (fall less), but new mortgage level rises

        Existing home owners + builder benefit
        See Figure 2 in paper
        iii. Forward guidance/QE on 10 Treasuries affects
            1. mortgage rates & mortgage holders + house prices
            2. 10 year – 3 months term spread
                a. High spread: positive related to <u>bank's net interest income</u>
            3. 25 year – 10 year spread
                a. high spread hurts <u>life insurance companies</u> and <u>pension funds</u>

        iv. **QE/forward guidance ≠ further interest rate cut** (below zero)
            1. Redistributional effects are very different
                a. Interest cut widens term spread => banks' income ↑
                b. Forward guidance narrow spread => banks' income ↓

    d. Assume/<u>redistribute (tail) risk</u>
        i. Risk redistribution = future wealth redistribution contingent on event
        ii. <u>Purchasing programs</u> – upside and downside
            1. Interest rate risk
            2. Credit risk
        iii. <u>Lending programs</u> – only downside
            1. Joint event: collateral is insufficient and counterparty fails

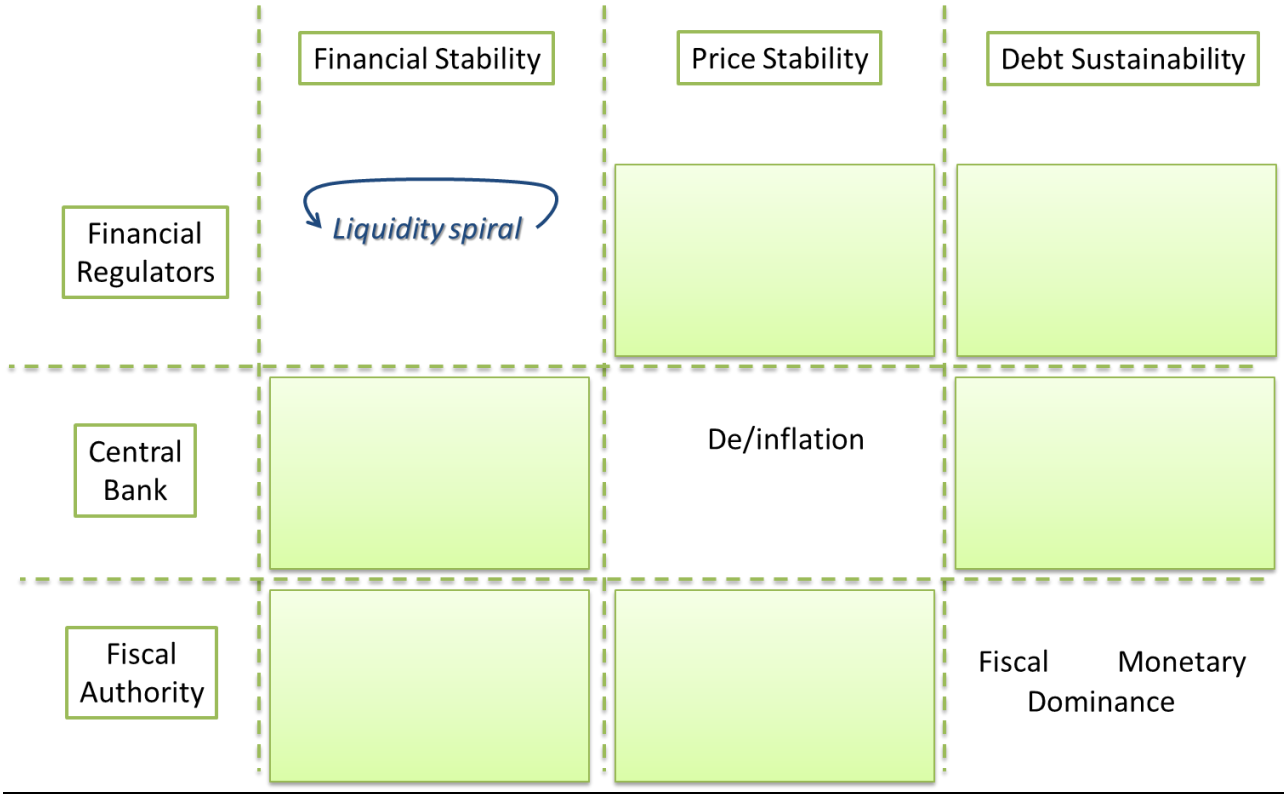
    e. Not a zero sum game –
    reduce endogenous risk – self-generated by the system

    f. When is ex-post redistribution <u>most desirable</u>?
        i. Endogenous risk is large
            1. Technological and market liquidity is low
            gap between first and second best use is large
            (e.g. foreclosure is very costly)
        ii. Exogenous risk is small

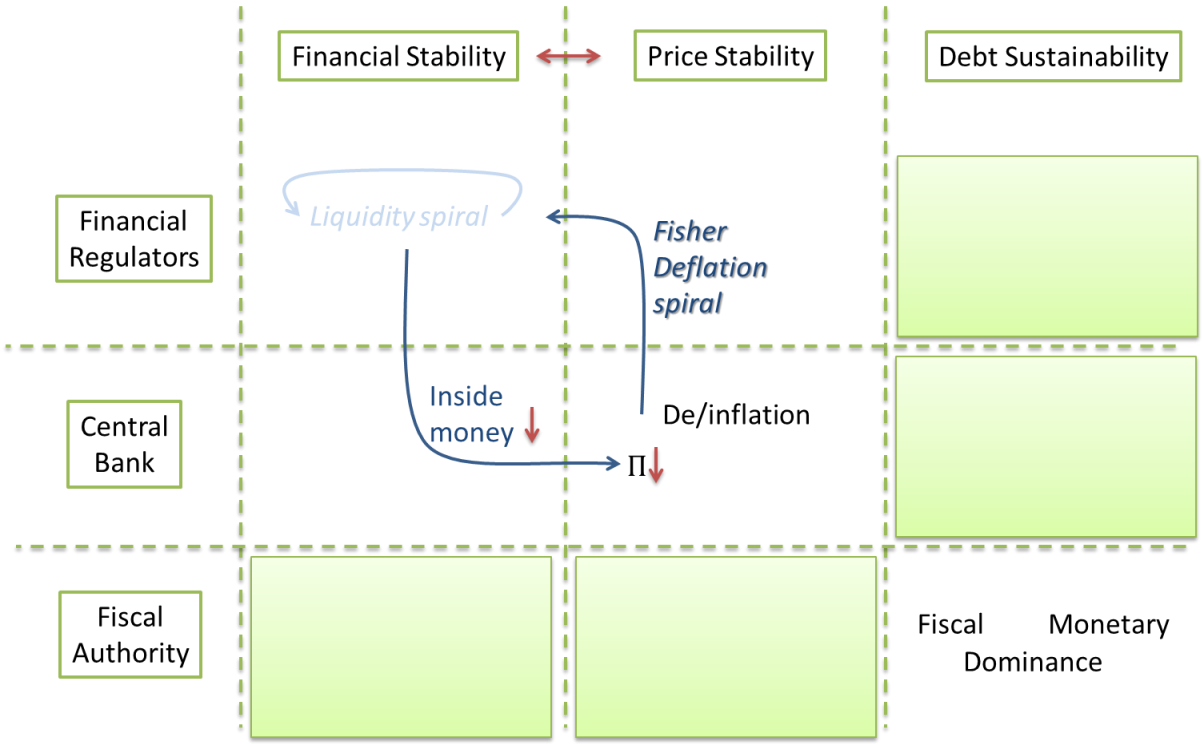
5. Ex-ante Monetary Policy Rules – Implementation problem
    a. Insurance arrangement across sectors - completes markets
    b. Moral Hazard – limits "implementable" rules
        i. Punish the weak and strengthen the cautious within sector
    c. Interest rule is not sufficient
        i. Interaction between different monetary instruments
        ii. Rule/action should depends on which spread to target, which sector suffers debt overhang (Japan 1990s, US 2010s)
        iii. Example
            1. Forward guidance: low interest rate for long => low term spread
            2. Further interest rate cut => high term spread
    d. Target excessive spreads (risk premia)
        i. Average across assets within asset class

6. "3 stability concepts" and "3 responsibilities"

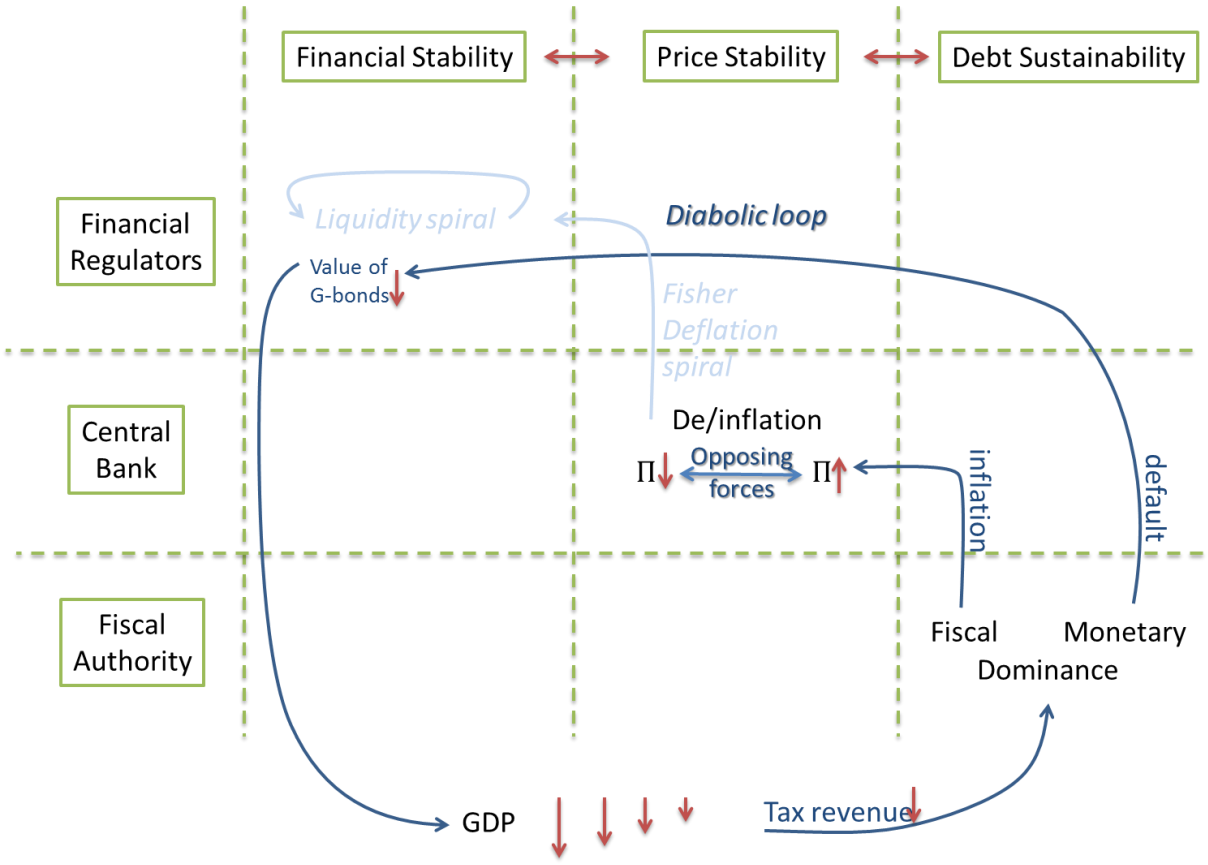
Mundell's View: Separation



Adding **Fisher Deflation Spiral**



Adding **Diabolic Loop – Connecting The I Theory with FTPL**



7. Opposing deflationary and inflationary forces are very strong
    a. Difficult to balance
    b. System is very unforgiving towards small mistakes
    c. Divergence in inflation expectations (extremes are more likely)

8. Preventive MP + macro-prudential tools
    a. Early warning signals
        i. credit growth and imbalances
        ii. excessive draw downs in final phase
    b. Volatility paradox + financial innovation
    c. Quantity controls through macro-prudential tools (LTV, …)

9. Conclusions
    a. new perspective – focus on
        i. Financial frictions (nominal debt), less on price stickiness
        ii. Store of value role of money and not only unit of account.
    b. Redistributive wealth and risk (future contingent wealth)
    c. MP reduces endogenous (self-generated) risk – completes markets large gap between first and second best use of physical capital
    d. Operationally: Target excessive spreads
    e. Forward guidance/QE ≠ further interest rate cut
    f. Separation principle fails
        i. Fisher deflation spiral links financial stability to price stability
        ii. FTPL links fiscal sustainability to price stability
        iii. Diabolic loop links financial stability to fiscal sustainability
    g. Opposing deflationary and inflationary forces