Shadow Banking and Financial Regulation

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Without a safety net, banking is unstable

- Evident from history of banking (*see, e.g.,* Gorton 2009)
- Suggested by economic theory (Diamond & Dybvig 1983)

- And instability creates negative externalities (Reinhart & Rogoff 2009)

Traditional policy response to instability: *social contract*

- Terms of the banking social contract:*
    - *Privileges*: safety net (central bank liquidity & deposit insurance)
    - *Obligations*: prudential regulation (capital requirements, activity restrictions, supervision) and insurance fees

- Historically, social contract has applied to *depository banking*
- Brought stability so long as depository banking was dominant

* I have borrowed the term "banking social contract" from Tucker (2010).

But runs and panics apply to shadow banking too

Short-Term Liabilities of the Financial System (2007)	($tn)
Asset-Backed Commercial Paper	$1.2
Securities Lending	0.6
Broker-Dealer Repo	2.5
Finance Company Commercial Paper	0.4
Money Market Mutual Funds	3.1
Shadow Banking Liabilities	**$7.8**
Memo: Uninsured Deposits	*$2.7*
Total FDIC Insured Deposits	**$4.8**

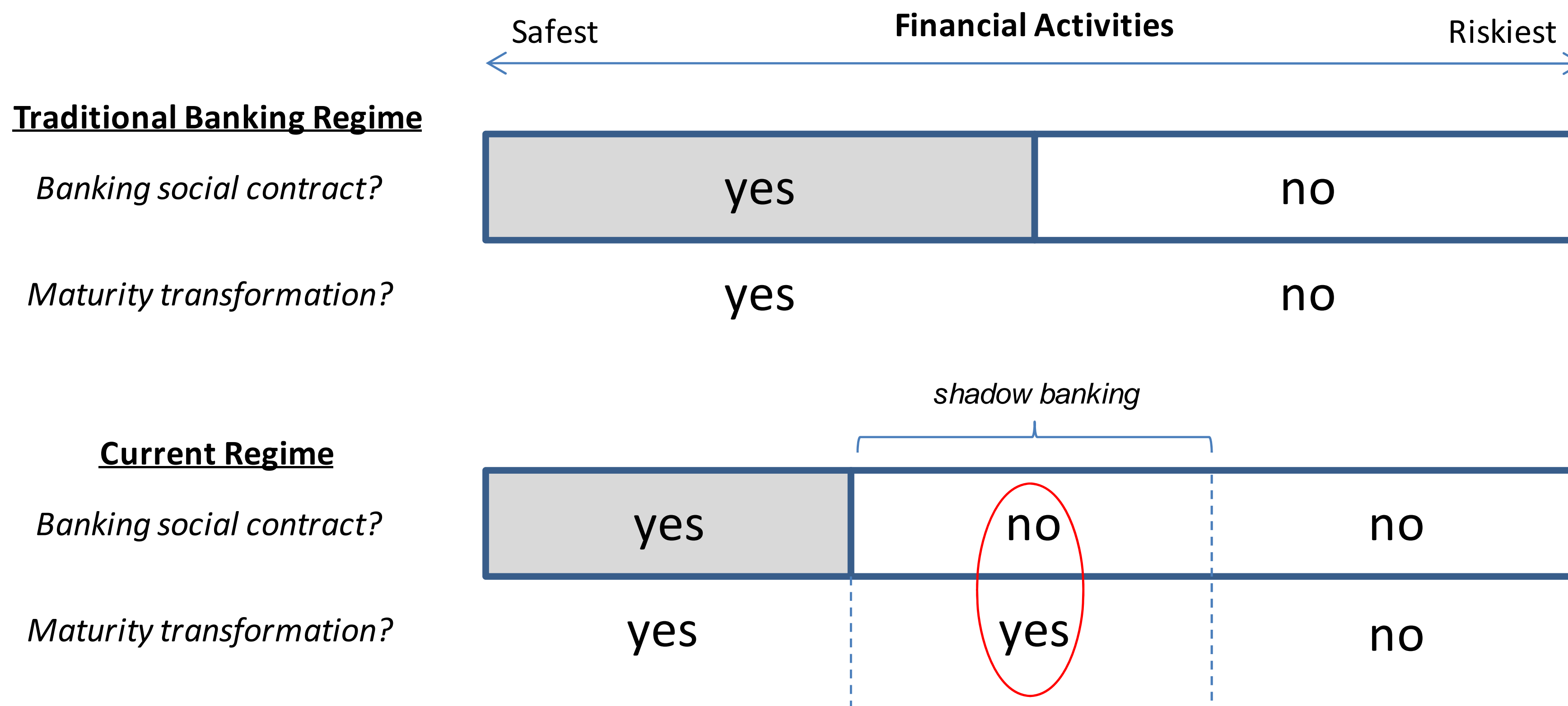
- Shadow banking = short-term funding of financial assets outside the regulated banking system

Source: FDIC; ICI Fact Book; Adam Ashcraft (FRBNY), Discussion Paper, available at http://imf.org/external/np/res/seminars/2009/arc/pdf/ashcraft1.pdf (estimates as of July 2007).

Indeed, the emergency response to the crisis was directed toward protecting "uninsured" short-term creditors

- Primary Dealer Credit Facility (nearly $500bn)
- Commercial Paper Funding Facility ($350bn)
- Asset-Backed Commercial Paper Money Market Mutual Fund Liquidity Facility gave indirect window access to money funds by financing banks' purchases of ABCP ($150bn)
- Term Securities Lending Facility provided collateral substitution for dealers ($235bn)
- Federal Reserve credit to AIG ($90bn) and Maiden Lane programs to finance assets of AIG and Bear Stearns ($70bn)
- FDIC guaranteed senior debt of financial firms, including diversified financial groups with distressed dealer operations ($300bn)
- FDIC unlimited guarantee of uninsured transaction account deposits ($830bn)
- Federal Reserve, FDIC, and Treasury asset wrap for Citigroup ($260bn)
- TARP capital infusions ($250bn), which were primarily directed toward stabilizing firms with uninsured wholesale liabilities
- Allowed the largest dealers to become BHCs on an expedited basis
- Guarantee of the money market mutual fund industry ($3,200bn)

This suggests that a *functional* perspective is needed



- "The shadow banking system … is, in fact, *a real banking system*" (Gorton 2009) (emphasis added)

Where should perimeter of banking social contract be drawn?

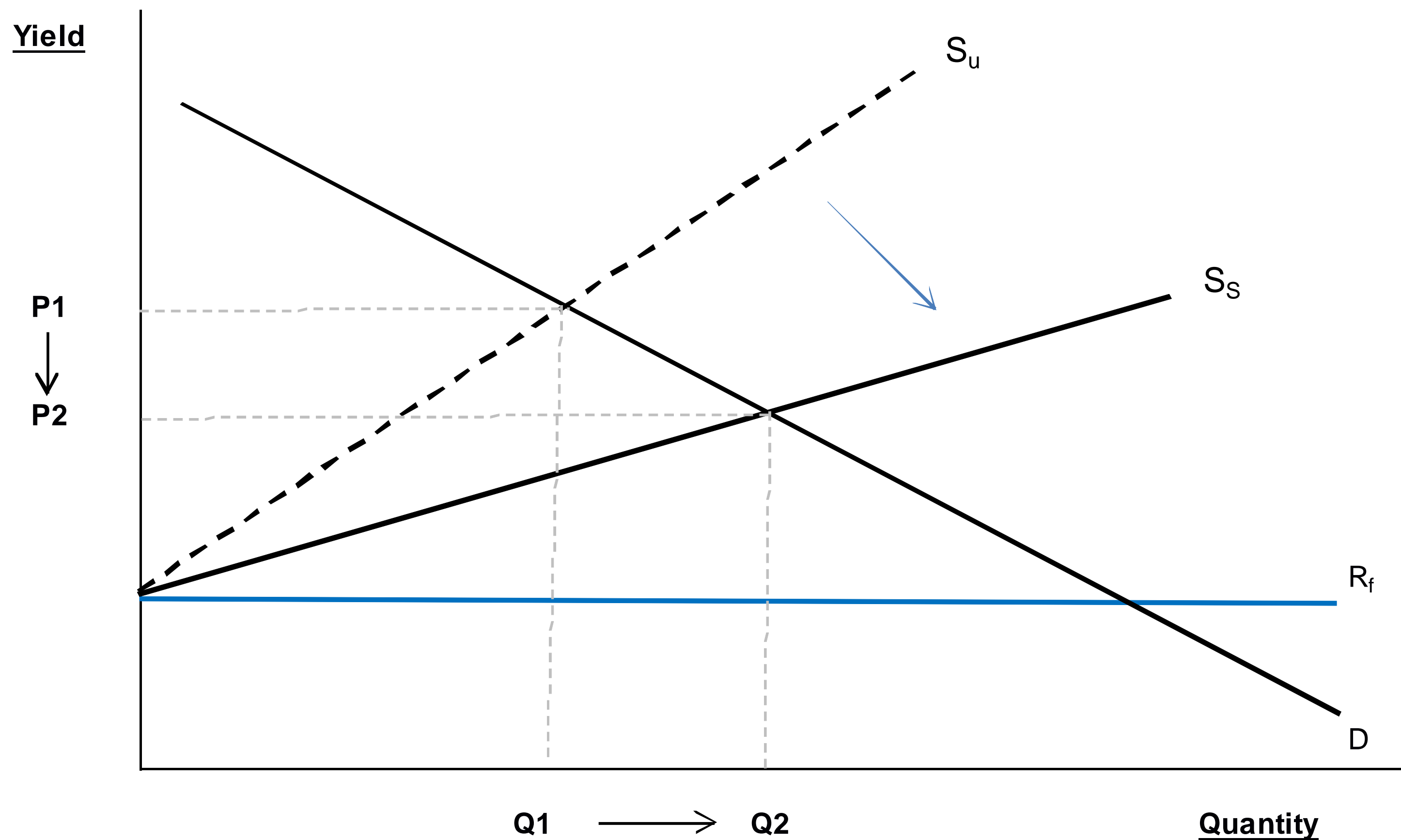
- Conventional view: Limit the safety net as much as possible
  - Need to *avoid moral hazard*
  - Need to *reinforce market discipline* by short-term creditors
  - Deposit insurance is a limited exception for purpose of consumer protection

But there are reasons to doubt efficacy of short-term creditors in serving a market disciplining function

- Informational insensitivity
- Horizontal orientation / collective action problem
- Impose discipline through runs: Over- and under-inclusive

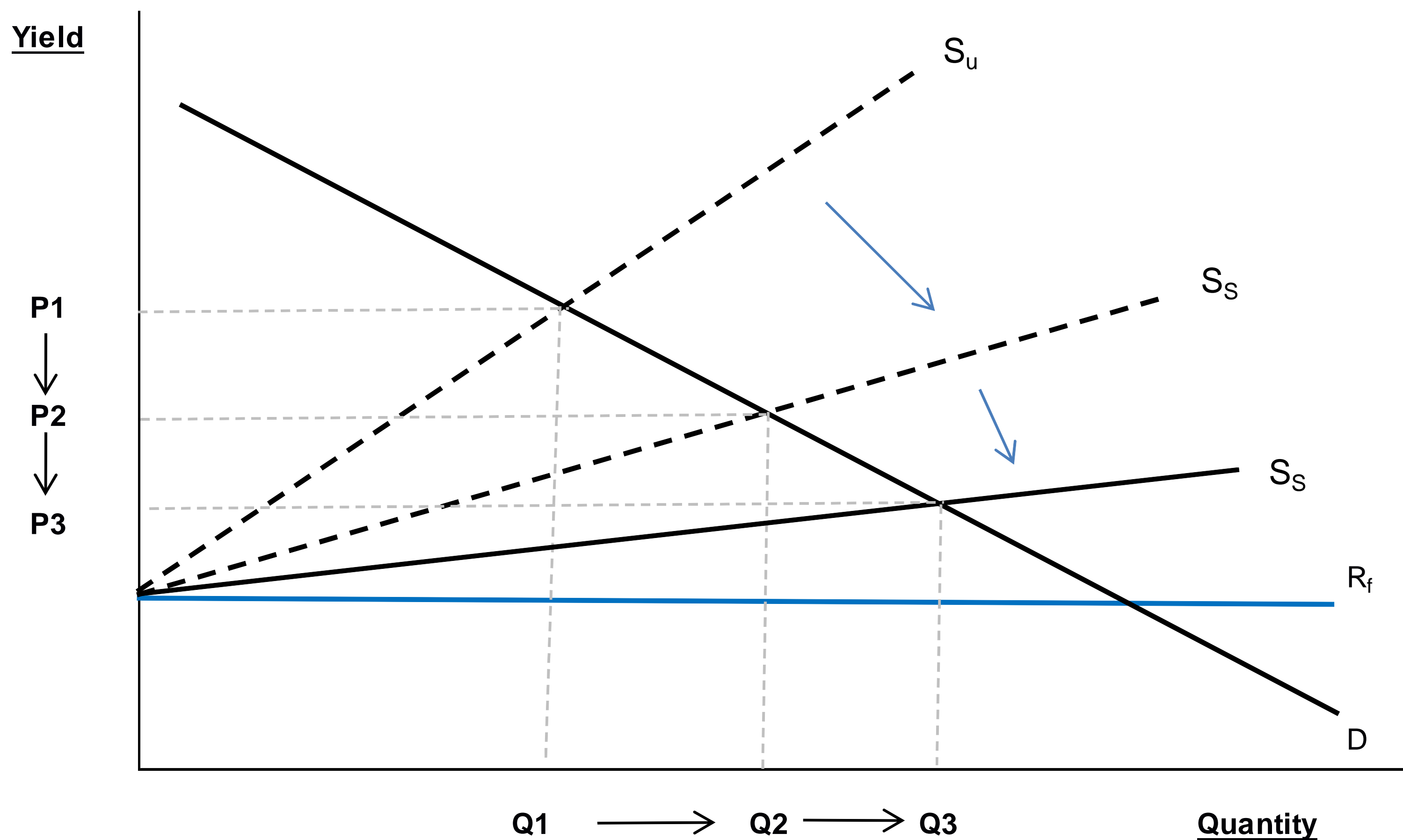
- **JPM Fixed Income Research (6/6/08)**: *"As we have seen demonstrated through the past several months of this crisis, actions that short-term investors view as rational behavior does not always align with what other investors might view as rational."*

And because of externalities, the government can't credibly commit not to protect short-term creditors



- Consequently, *funding is subsidized*

Perverse dynamic: subsidy is function of quantity—and quantity is a function of subsidy



Is Paul Krugman right?

- Krugman on shadow banking:
  - *"It's clear that creditors of shadow banks will be bailed out in time of crisis"* (N.Y. Times, 4/2/10)
  - *"When the next financial crisis arrives — well, it will play just like 2008. President Palin or whoever will find themselves staring into the abyss — and conclude that they have to bail out the financial sector anyway. In a crisis,* the financial system will be bailed out*. That's just a fact of life."* (Blog, 4/3/10) (emphasis in original)

- Alternative view: emergency actions of 2008 were <u>not inevitable</u>

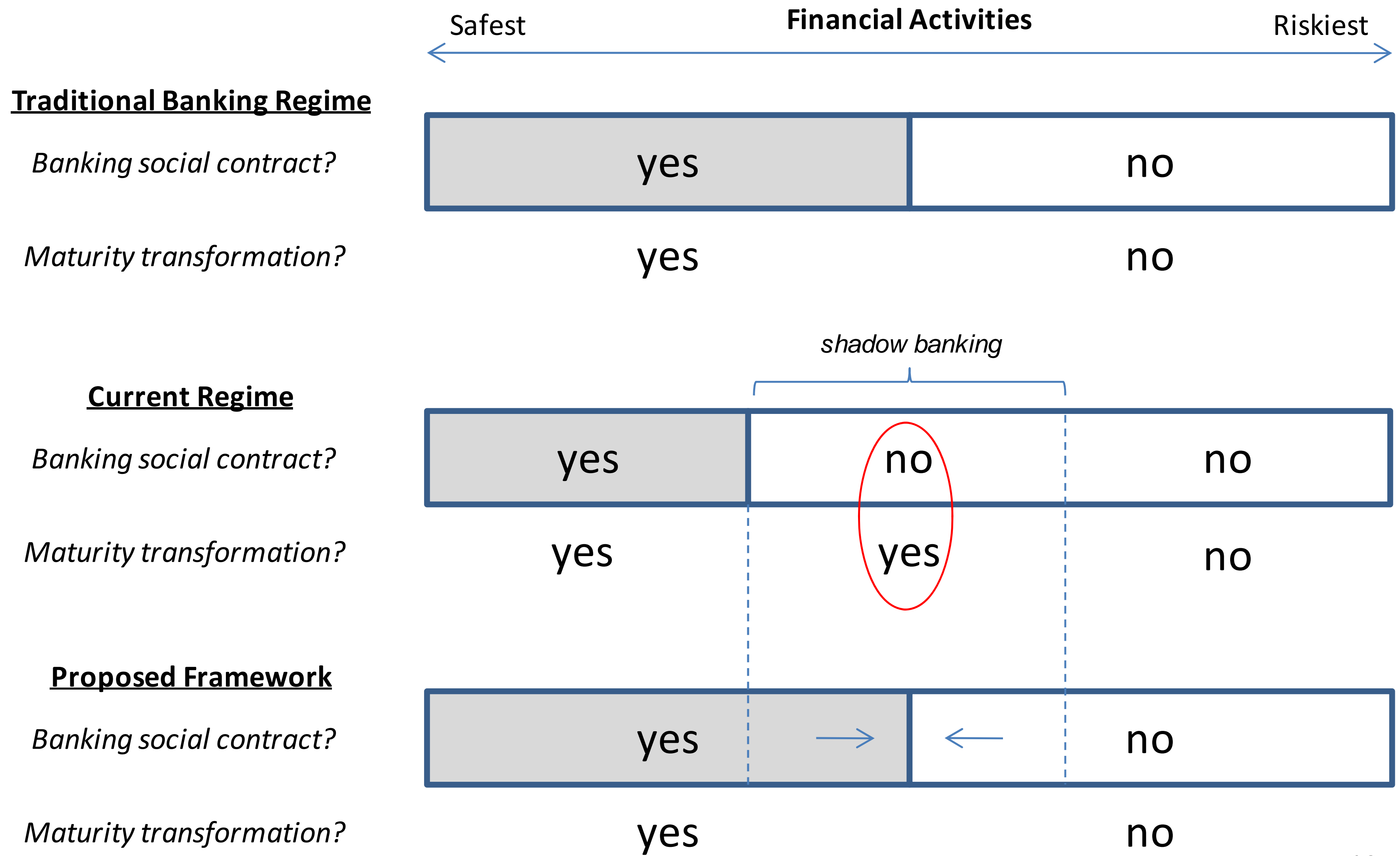
Who’s afraid of moral hazard?

- Banking social contract uses the very same techniques as insurance contracts
    - Capital requirements = insurance deductible or “skin in the game”
    - Banking activity restrictions = restrictive covenants
    - Banking supervision = monitoring by insurer

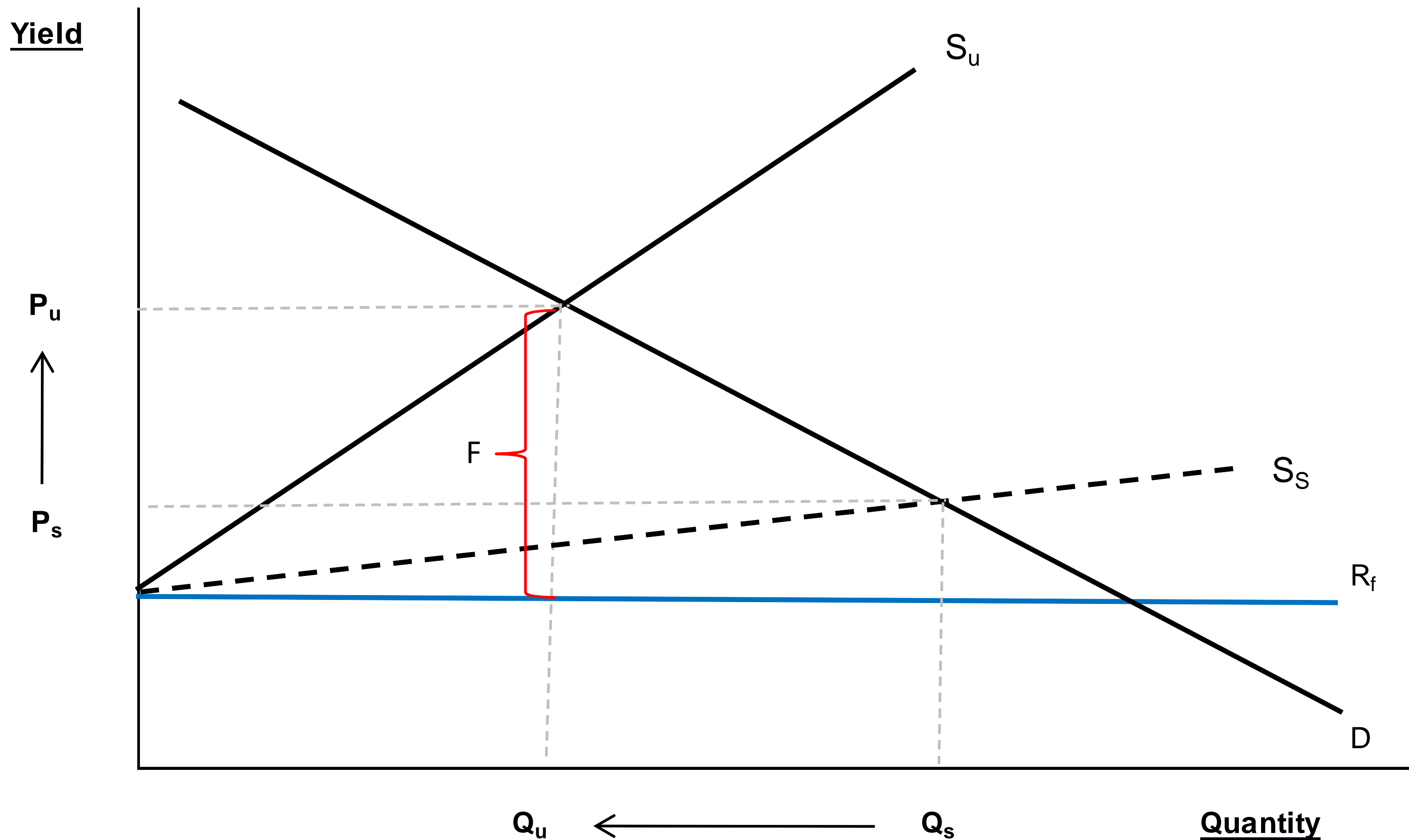
Proposal: Modernize the banking social contract

1. Strictly limit maturity transformation outside social contract
2. Explicit safety net for short-term creditors within social contract
3. Within social contract, impose prudential regulation to limit consequences of moral hazard (capital, supervision)
4. Insurance fees to recapture funding subsidy and mutualize risk among participants

Implies end of shadow banking



Charge fee to recapture subsidy



- Increases cost of funds to issuer; reduces equilibrium quantity of short-term funding

Eligibility criteria (continued)

- Again: Is Paul Krugman right?

  "Now the problem is regulating shadow banking — non-depository banking. So right from the beginning we have the problem of deciding what is a bank, and what liabilities need deposit-type guarantees. All short-term debt? Only some kinds of repo? Who do we need to be worried about?" (Blog, 3/29/10)

- His focus is on the *right* side of the balance sheet (funding)
- Focus should be on the *left* side of the balance sheet (assets)
  - Question is, *what types of activities should be eligible for the social contract*

What activities should be eligible for the social contract?

- Functional, rather than institutional, approach
- Generally, limit to *low-volatility* activities—to limit moral hazard and adverse selection
- Boundary should be expanded <u>if and to the extent that:</u>
  - the economic benefits of incremental maturity transformation <u>exceed</u>
  - the expected costs associated with extending the safety net

Conclusions

- Cash parking becomes a utility, rather than an investment vehicle
- *Long-term* creditors and shareholders would provide market discipline (as with depository firms today)
- Areas for further research:
  - How to price insurance fee?
    - Put pricing: Interacts with capital regime (option moneyness) and activity restrictions (vol)
  - How to determine eligibility?
    - Entails balancing value of incremental maturity transformation against incremental risk to taxpayer

References

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