TOWARDS EFFECTIVE BANKING SUPERVISION

European Central Bank

First Forum on Banking Supervision

Frankfurt, November 4, 2015

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I. BASICS OF REGULATION: WHY SUPERVISE?

(1) REPRESENTATION HYPOTHESIS

- Small depositors cannot monitor BS and O-BS activities.
- Supervisor represents their interests -or that of taxpayers if bailout (alignment of incentives through DIF, which then has dual role).
- Prevention of bank runs: can also be seen as depositor protection.

Strengths of argument

- explains regulation of even small, non-systemic banks,
- unifies rationales for prudential supervision of institutions, including when they are not really exposed to runs (insurance, pensions).

[Dewatripont-Tirole 1994]

(2) CONTAGION AND FIRE SALES

Representation hypothesis *apparently* does not account for

- bailout of investment banks, AIG's holding (2008) or LTCM (1998)
- current emphasis on regulating systemically important financial institutions (SIFIs)

$\Longrightarrow$ *Financial stability* second mission (consistent with first one). More complex because counterparty risk, fire sale externalities, credit to SMEs are endogenous.

Implication of cross exposures and fire sales: ring fenced regulated sector

- directly: no cross exposures, unrevocable lines of credit to shadow banks...
- indirectly: do not rely on assets that are held also by shadow banks for liquidity purposes.

▸ Evolution of Basel philosophy

OUTLINE

Discuss some of the open questions in regulation & supervision

II. Shadow banking

III. Liquidity

IV. Doom loops and capital weights for sovereign

V. Resolution

II. SHADOW BANKING

Traditional banks perform financial intermediation with substantial maturity transformation. So do shadow banks (perhaps even more so).

- Activities: “transformation that takes place without direct and explicit access to public sources of liquidity or credit backstops.” [Poszar et al 2010]
- Broader definitions:
  - anything that encroaches on banks’ business.
  - any financial institution that is not prudentially supervised (private equity, MMMF...)

Not necessarily inconsistent...

Does not mean that shadow banks have no access to public liquidity:

- Indirectly: backstops from retail banks (puts: contingent lines of credit, tail risk insurance)
- Directly: unconventional policies in case of stress, for example
    - Commercial Paper Funding Facility (issuers of CP)
    - Primary Dealer Credit Facility (repo market)
    - Term Asset-Backed Securities Loan Facility (ABS)

BREATHING SPACE OR REGULATORY EVASION?

Positive view: regulatory constraints stifle innovation, distort markets.

Regulatory arbitrage view: shadow banking as a (perhaps unavoidable) nuisance; regulatory arbitrage/cutting regulatory corners

- Have their cake and eat it too (free of constraints in normal times, bailout if tail risk materializes).
- US in 2008. No level playing field?

Behavioral view: shadow banks exploit neglected risk.*

* Gennaioli-Schleifer-Vishny *JoF* 2012, *JoF* 2013, *AER PP* 2015. Good news $\Rightarrow$ overweighting of favorable scenario. Similarly when bad news occur: overreaction. Intermediaries create false substitutes for truly safe bonds.

EXAMPLE: CHINA

Migration obeys good (positive) and bad (regulatory arbitrage) reasons

- Repressed savings: deposit rates regulated to low levels
- Government pressure to lend primarily to SOEs; little lending to SMEs (strict constraint on non-performing loans less adequate for SMEs)
- Escape regulatory pressure (20% reserve ratio at PBOC; loans/deposits $<75\%$)

Outcome: not huge by 2007 US standards, but 2/3 of flows to shadow banking comes from banks (especially big four TBTF banks).
Examples: market WMPs (wealth management products): like MMMFs and regulation Q. Margin lending in stock market. Trusts.

THE COVARIATES OF TRADITIONAL BANKING

Trilogy: Not a coincidence!

1. **Fragile & politically sensitive clients**
   - retail depositors;
   - SMEs that borrow from bank and hoard liquidity there
2. **Safe-asset creation through access to public money**
   - Targeted liquidity (discount window, bailouts, DI)
3. **Prudential supervision**

Quid pro quo

- supervision (LCR, CAR…)
- cheap deposits and liquidity support.

▸ Ongoing work with Emmanuel Farhi

Viewpoint #1: no worry (BRRD $\Rightarrow$ no bailout of shadow banks)

Reputation building (but US in 2008; back to this issue when we discuss resolution).

Viewpoint #2: shadow banking is a concern

Two competing approaches:

- cut the link between retail and shadow banks
- regulate (systematically important?) shadow banks.

	Cut the link	Regulate
Example of policy	• Structural separation • High risk weight for OTC transactions	SIFI regulation
Residual hazards	Risk on retail side (real estate, interest rate, guarantees, “hedging”)	Even larger risk taking opportunities
Political economy	Credibility of no bailout of shadow banks?	• Limited supervisory staff • Moving target

III. LIQUIDITY

Key issue: How much self-insurance?

Liquidity = stores of value that keep their value in those contingencies in which one needs them.

Understanding (inside and outside) liquidity requires:

- departing from Arrow-Debreu (in which refinancing problems never arise). Financial frictions make covering liquidity needs through funding (market) liquidity difficult. Agents may search for ex-ante insurance against credit rationing.

- understanding agents' demand for liquidity

"Reserves"/self insurance

self-hoarding
- low ST debt (relative to earnings)
- liquid assets on balance sheet
- resell, securitize less liquid assets
- projects that will pan out in short term

contracted for
- credit line, CDS, ...

- understanding supply of liquidity
  - three sources of insurance: private (claims on other private sector agents), government, international market.

PUBLIC SUPPLY OF LIQUIDITY

- Provision: OMO/discount window, bailouts, guarantees, automatic stabilizers,...
- Foundations (what is it that the government can do that the private sector can't?)

Regalian taxation power $\Longrightarrow$ re-create missing market between consumers (can't pledge their future endowment) and firms.

[Holmström-Tirole 1998]

Rules vs discretion

Macroprudential aspects

- Private leverage/capital insurance choices depend on anticipated reaction to overall maturity mismatch.

- Policy instruments are imperfectly targeted to the institutions they try to rescue

$\Longrightarrow$ balance-sheet-risk choices are strategic complements.

- When everybody engages in maturity transformation,
  - authorities have little choice but intervening
  - refusing to adopt a risky balance sheet lowers ROE.

[Farhi-Tirole *AER* 2012]

LIQUIDITY REGULATION

(1) *Normal times*: regulation warranted, but trade-off between

- limiting moral hazard (externalities on borrowers, counterparties, Treasury and Central Bank);

  excessive maturity transformation triggers *unpriced* LOLR;
- repressing natural transformation/lending activities (liquidity is costly).

(2) *Tail liquidity risk*: State has not only ability to increase aggregate liquidity supply; but also a comparative advantage in providing liquidity in low-probability events.

Fits well with idea that notions of HQLA differ for LCR and CB-compliant collateral purposes (micro and macro shocks).

IV. DOOM LOOPS AND CAPITAL WEIGHTS FOR SOVEREIGN

- Initial story of the Euro $=$ financial integration
- Re-segmentation of financial markets in Europe $\Rightarrow$ possible spiral (spread $\Rightarrow$ bank losses $\Rightarrow$ bailout $\Rightarrow$ higher spread $\Rightarrow \ldots$)
- Loaded language (deadly embrace/vicious circle/doom loop) signals universal opprobrium.

Number of questions about reasons and implications of these concerns

[Farhi-Tirole 2015]

Do we care? Why not consider only consolidated balance sheets?

"If banks are bailed out by Sovereign, what matters is the total amount owed to foreigners"

"The banks' purchasing domestic bonds is a form of debt buyback; debt buybacks are good for the country (especially if large costs of default)"

Answers:

- Not a buyback in net terms if banks hold fewer foreign assets
- Ex-post bailouts does not mean that state wants to transfer money to banks. But holdings of domestic debt create a put on taxpayer money.

Why did re-nationalization occur when it occurred? Why do domestic regulators turn a blind eye?

Re-nationalization occurs when the legacy debt increases or prospects about the country's fiscal capability worsen, for two possible reasons:

- The put on taxpayer money increases, raising incentives for regulatory evasion
- The State may relax supervision as it counts on legacy debt forgiveness or country solidarity to finance the rescue of its banking sector in case of further difficulties.

[Gennaioli-Martin-Rossi (2014): holdings of public bonds in 191 countries; 20 defaults over 1998-2012. Average domestic bond holding = 9% of assets; 13.5% in countries that default at least once.
During sovereign default:

- bank increase their exposure
- concentrated in large banks]

Implication

A government lacking commitment (not to bail out its banking sector) benefits from relinquishing its regulatory powers to a supranational supervisor by joining a banking union.

CAPITAL WEIGHTS FOR SOVEREIGNS

Absence of capital weights is a form of regulatory forbearance

1. Fragile-sovereign-debt countries may oppose risk weights:
   - Industry protection?
   - Sovereign protection?
   - Efficiency motives?
2. Long term vs. transition
3. Large exposure limit (severely binds for Southern European banks): not a perfect substitute for capital weights:
   - Still no risk penalty on remaining holdings
   - May replace holdings of own sovereign by "diversification" across fragile sovereigns

In steady state…

Risk is fully priced if capital weights

$\Longrightarrow$ two-fold disciplining device:

- Profligate sovereigns
- Risk-taking banks

Basel-imposed risk weights are necessary to close this alley for supervisory dumping (race to the bottom)

…and the transition

No big deal if

- either well-capitalized banks
- or safe (low spread) sovereign

Big deal in, say, Southern Europe:

Impact on sovereigns (although smaller than in long term: stock vs. flow)

Impact on banks: substantial domestic-debt holdings (recent renationalization). Will be forced to recapitalize

- increased discipline
- vs. possibly immediate bailout and doom loop

V. RESOLUTION

BRRD: 8% of non-risk-weighted assets must be bailinable. Open issues:

1) No micro/macro distinction (even under extraordinary stress).

2) Tendency to look at legacy claims, not at more relevant post-reform supply

   Asset income run. Must put limits on:

   - Short-term funding (under 7 days)
   - Pledging of all adequate collateral.

3) Bailinable securities?

   - Priority order be clear
   - Must be 0/1 if short term (runs). Can't easily spread risk.
   - Credibility (would SMEs be bailed in?)

From regulatory doctrine to practice

(<u>One</u>) priority line:

Equity	Subordinated debt, hybrid securities	Senior debt, corporate	Non-eligible deposits (> 100 K€), SMEs' deposits	Retail deposits (< 100 K€), interbank debt (< 7 days)	Covered bonds/ secured debt

LEGAL THEORY

PRACTICE

Attempts to expand bailinable set: Cyprus (non-retail deposits), SNS Reaal (subordinated debt, some hybrids, but not senior debt).

BAILINABLE SECURITIES: THEORY?

Equity vs. 2-tank theory (FSB's TLAC for 30 SIFIs: at least 1/3 debt)?

Modigliani-Miller provides no answer...

- Equity and management have control rights in normal times $\Longrightarrow$ should be accountable (at least for microeconomic risk)
  - Need to have prompt & corrective action
- Should debt claims (junior debt, corporates, SMEs...) be bailinable?
  - No control rights (neither in good times, nor, for banking, in distress): why should they be held accountable?
  - Two views: *certification* (Calomiris-Kahn, Diamond-Rajan...): then should be bailinable. Vs. *simple deposits*: then could be insured (and pay ex ante for this insurance!)
  - Truth is: *fiscal benefit of debt pollutes debate*

    [Admati-Hellwig]

VI. CONCLUDING REMARK

(1) Banking regulation & supervision until recently attracted little attention from economists

(2) Yet it should be science-based

(3) Conversely, economists must learn from practitioners. And they must further invest in

- empirical work (calibration of CAR, LCR…)
- conceptual framework.

Forum will be an important step toward facilitating the realization of these imperatives

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TO ECB BANKING SUPERVISION!

EVOLUTION OF BASEL PHILOSOPHY

BASEL II

Relative to Basel I, attempts at improving measurement of risk, at the cost of more discretion:

- Internal models.
- Market value accounting
- Use of ratings.
- Better measurement of credit risk: *downturn* expected loss-given-default recommended; made mandatory by Basel III.

Like in Basel I, no micro/macro distinction.

BASEL III

Philosophy:

- Multiple metrics (CAR, LCR/NSFR, leverage ratio)
- Macroprudential focus
- Requirements and buffers
    - Requirement = always satisfied
    - Buffer = can be used in certain circumstances.

- Dangerous exposures
  - creation of incentives to move contracts to platforms with central counterparty (good; but still open questions: international context and supervision & liquidity provision?)
  - large exposures limits
- More capital, plus capital buffers in good times
- SIFI buffer.

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ONGOING WORK WITH EMMANUEL FARHI

Objective: shed light on this trilogy

Ingredients of the theory

(1) State is benevolent, but (a) *lacks commitment* (cannot refrain from bailing out fragile agents (depositors, SMEs))
(b) *has limited supervisory capability* (cat-and-mouse idea)

Implications:

- there will be action outside regulated sphere
- temptation of migration: have one's cake and eat it too
- state must make it incentive compatible to remain in regulated sphere.

(2) Limits on safe assets in economy, government's comparative advantage: creation and tail risk insurance

[Holmström-Tirole 1998]

RULES VS. DISCRETION

Rules and automatic stabilizers

- Non-indexed deposit insurance premia
- LTRO (applies to all banks)
- Capital insurance requirement

Discretionary stabilizers

- QE
- Discount window
- ELA

Other aspects of debate: RWA vs leverage ratio; micro vs macro…

Standard trade-off between rules and discretion.

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