Regulation and structural change in financial systems

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Regulation and structural change in financial systems

- Many changes in financial systems over last decades
  - Some cyclical, notably due to global financial crisis, some due to regulations
- Focus here on structural changes, which can be due to:
  1. Changes in the real economy, “demand”
  2. Changes in financial services provision, “supply”
  3. Changes in regulations, of a “structural” nature
- Question: “*What is optimal financial structure in medium term?*”
- Objective: “*Improve on* both *growth and financial stability*”
- Develop: Guideposts so as to evaluate regulations and actions

Approach and Outline

- Lens of Analysis: *Financial Structure*
  - Theory on financial structures
    - How to define (activities, functions, institutions)? Why may it matter?
  - Snapshot of financial structures in G4 (euro area, Japan, UK, US)
- Financial structures, economic growth, and financial stability
  - But also complementarities, volatility, procyclicality
- Drivers of structures, regulatory trends

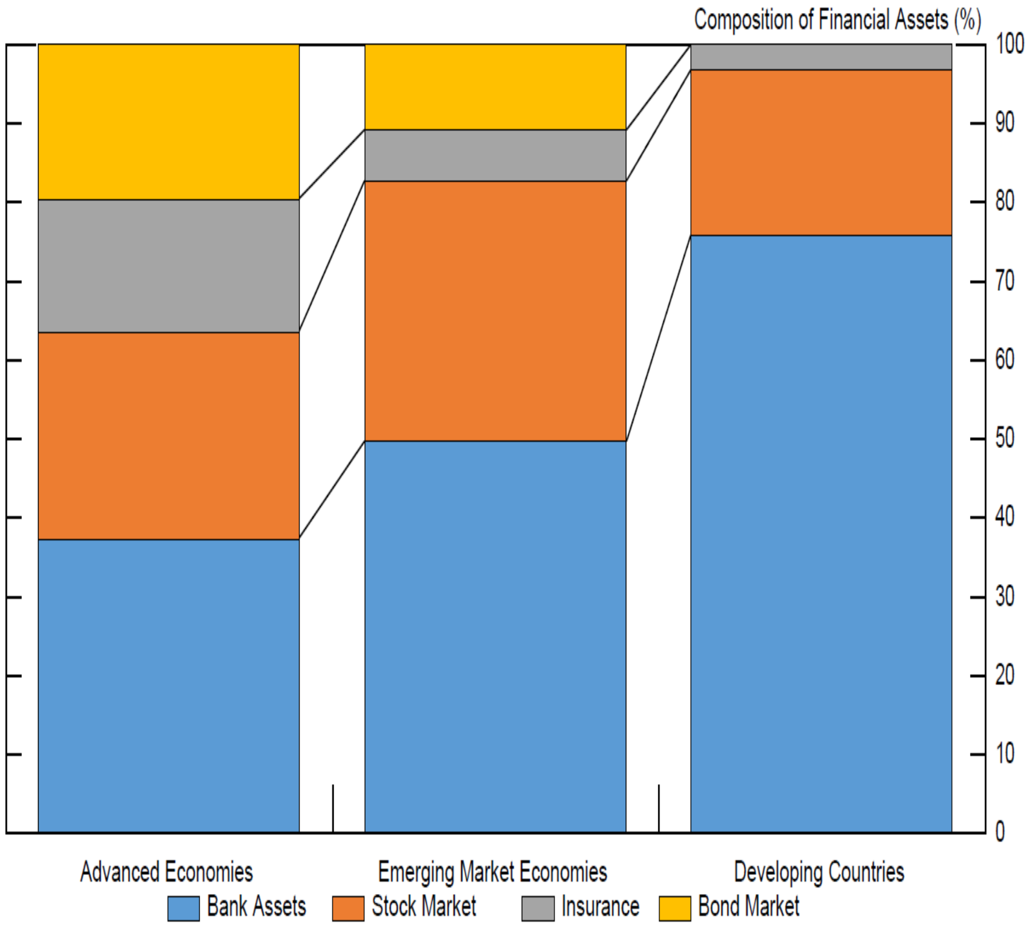
➢ Going forward. Guideposts for regulation, supervisory, other

Analytics on financial structures: distinctions can be blurry, also given complementarity

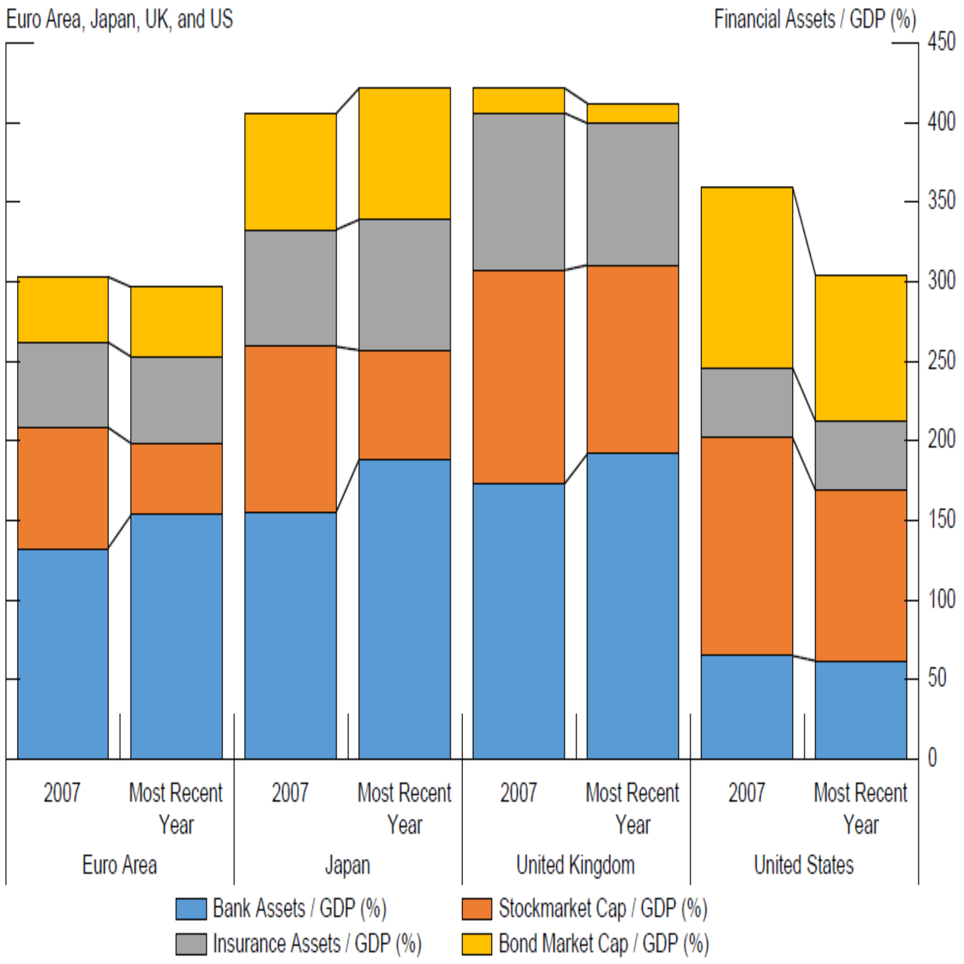
- Financial structures vary in many ways
  - Banks vs. market-based financing, relationship, risk-sharing, information..
  - But also functions, e.g., payments, deposit, credit, insurance, repos..
  - And destination – households, corporations, government, etc. – and sources
- Financial structure matters, as not “first-best, complete market” world
  - Deviations are many: frictions, information asymmetries, enforcement,..
  - Means in second best world, could prefer some mix of functions, services
- Analyses mostly about demand, but supply and complementarity is key too
  - Competition <u>and</u> complementarity, which can vary between/among services
  - Technology determines provision frontier, and drives intra-financial system changes
  - Also supply interests and political economy can drive (regulatory) changes

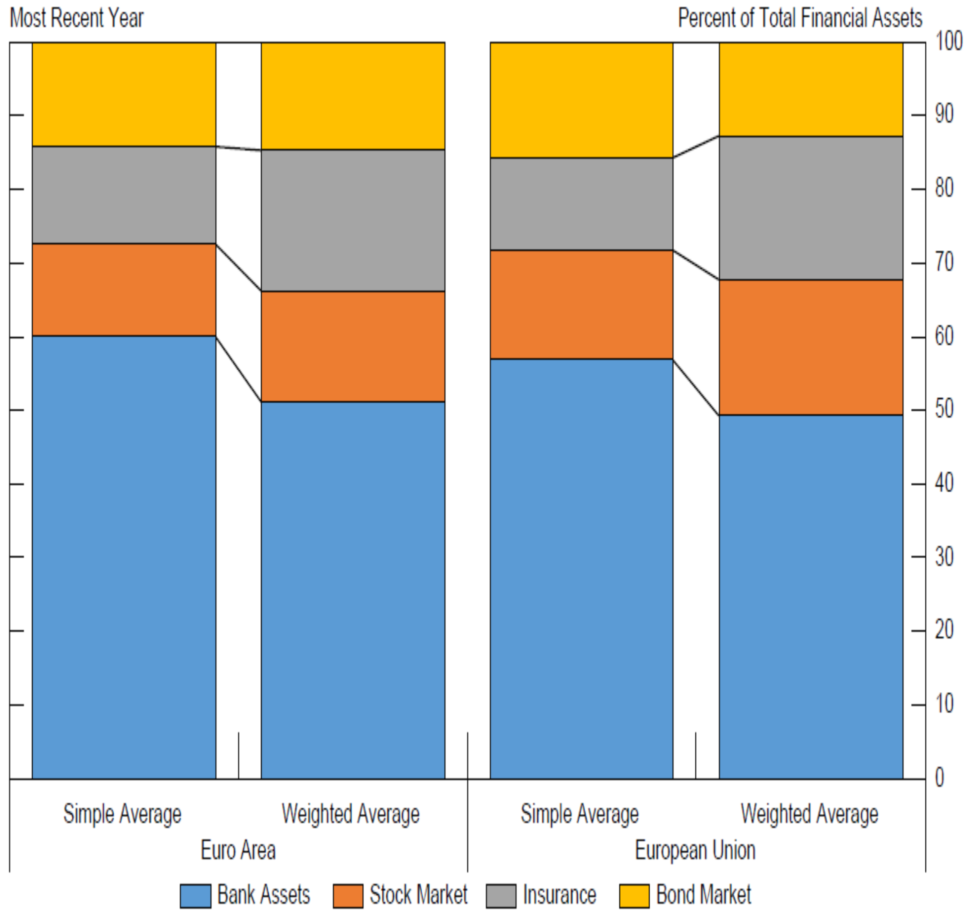
As income rises, structures shift away from bank-based towards market-based financing

- At higher levels of income, more market-based financing
- Over time, supply-side complementarities between banks and markets – at individual institution and system level – have been increasing
- Overall, a rise in market-based recently, but not dominant in all G4 (euro area, Japan, UK, US)

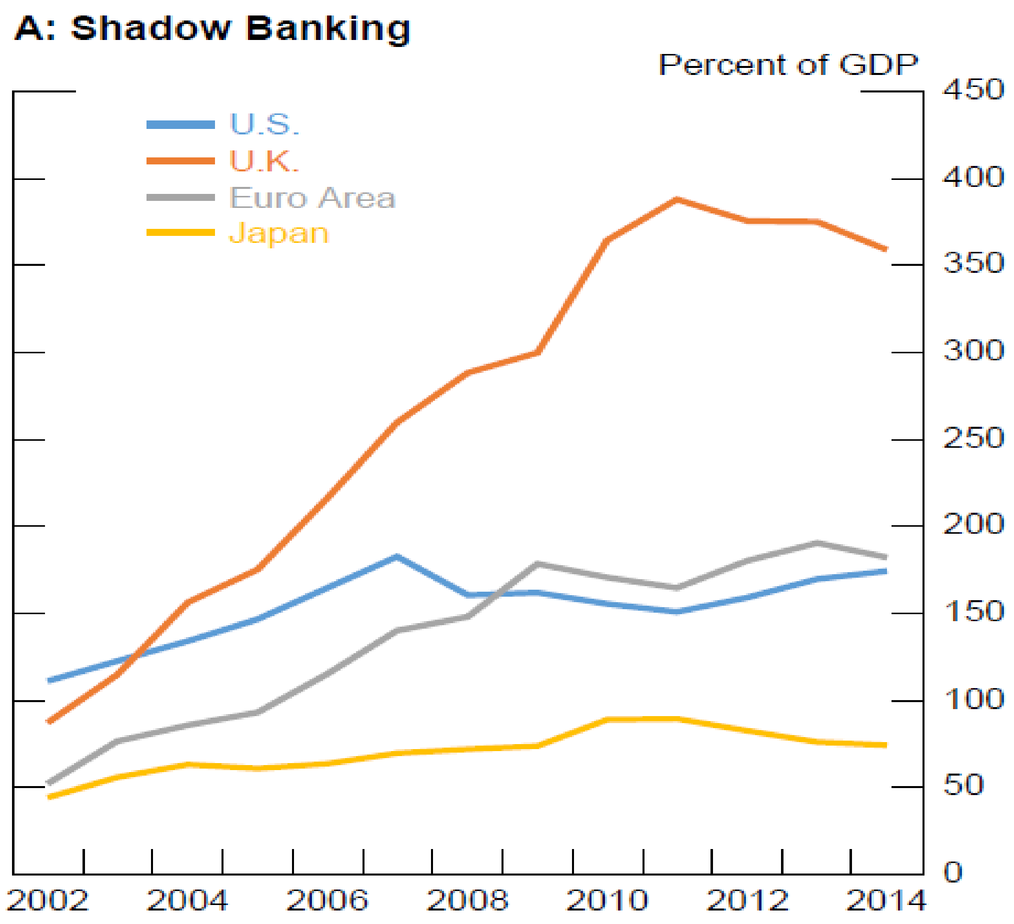


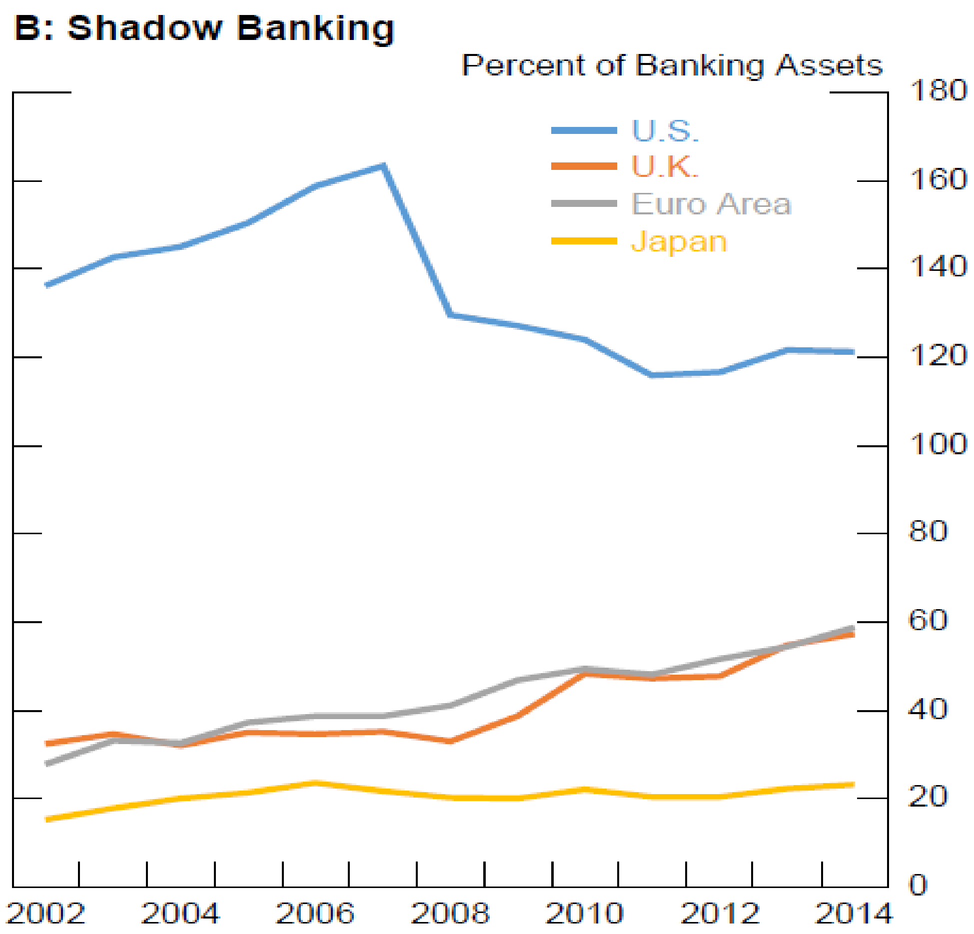
Financial structures in G4: besides US, mostly bank-based, even considering overall EU, euro area



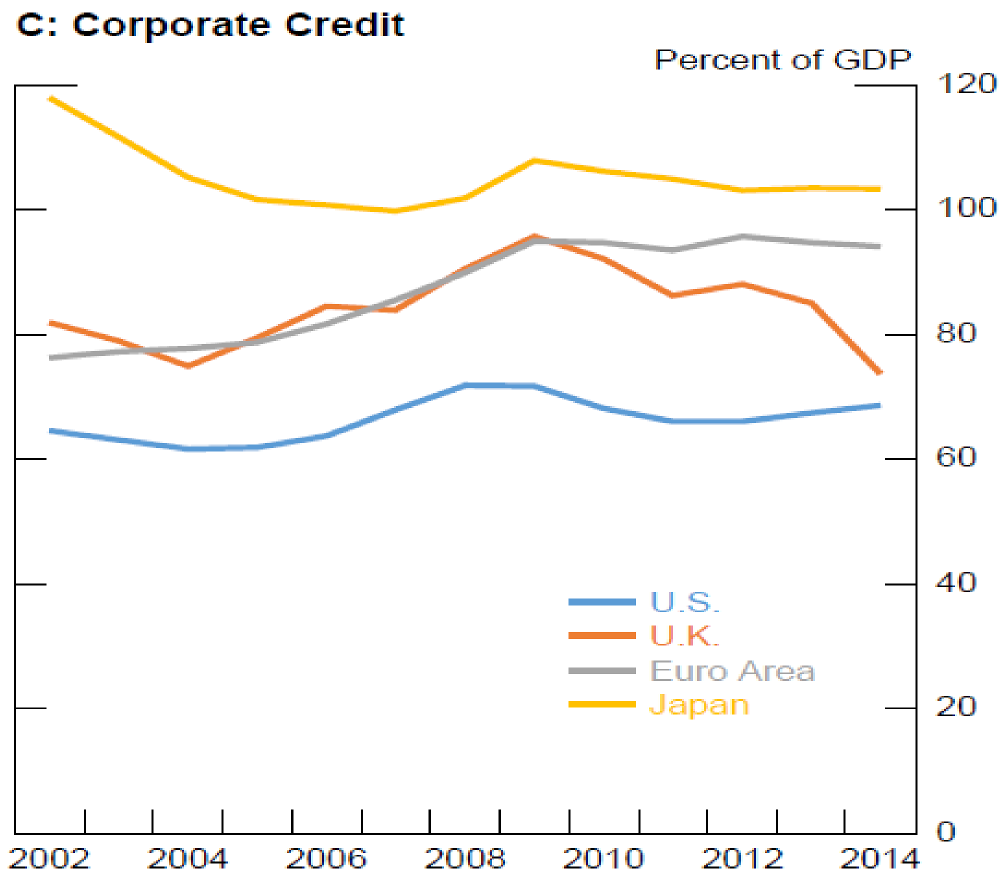


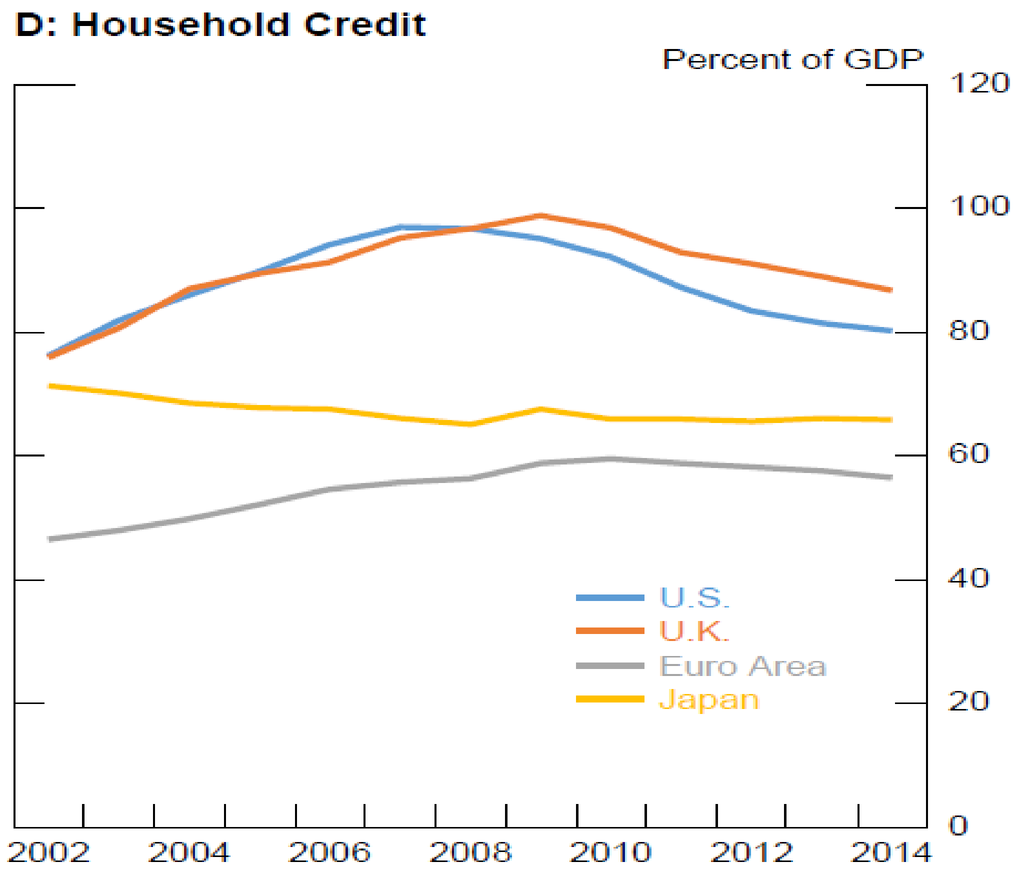
Shadow banking has been increasing in G4s





Corporate sector credit: largest in euro area, Japan
Household credit: (still) largest in US and UK

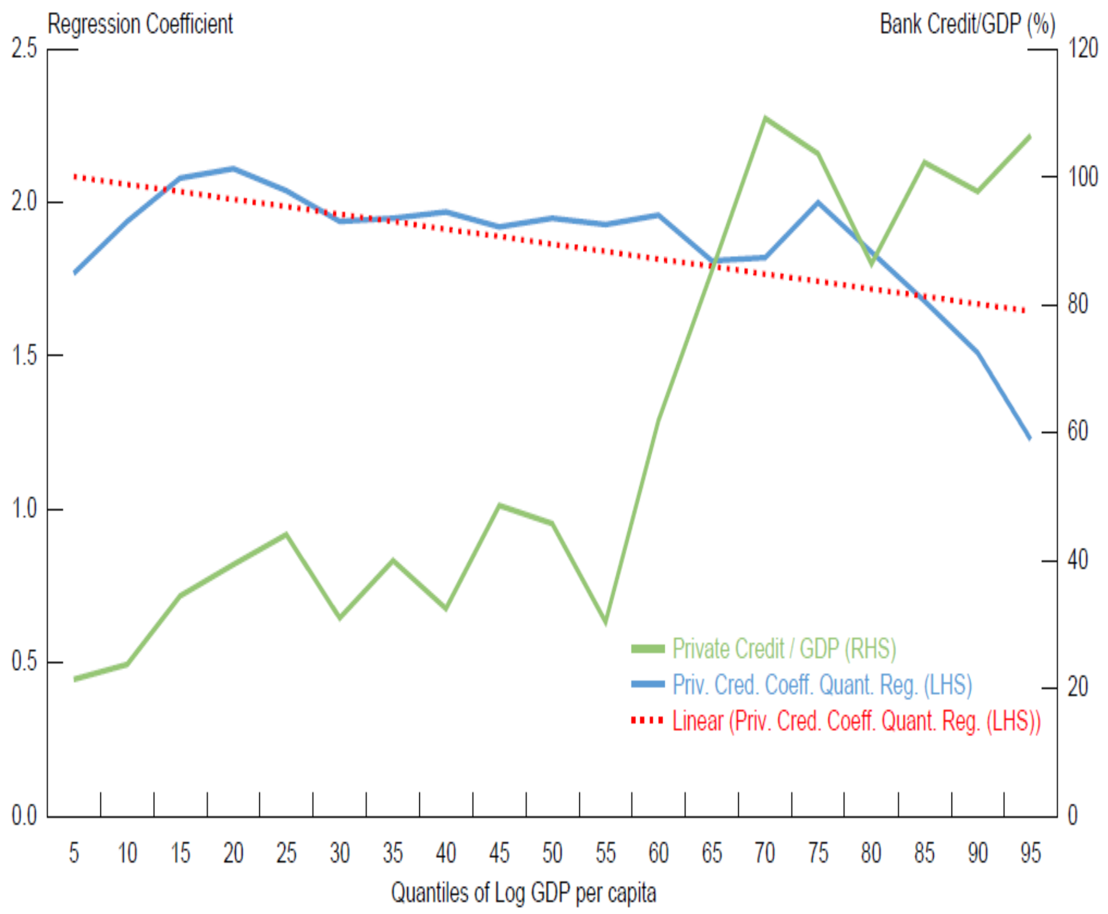


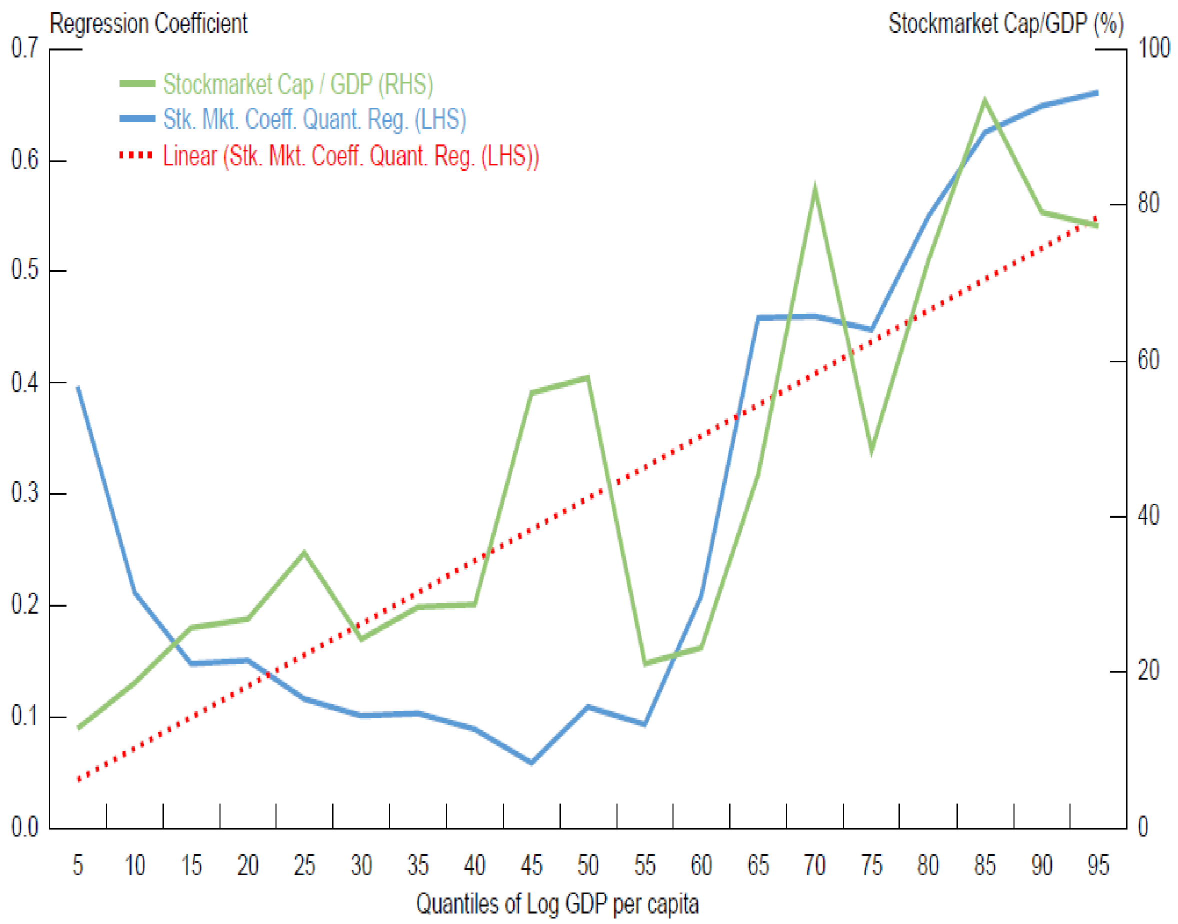


Financial structures affect growth and stability

- Financial structures affect growth, innovation, productivity
  - Bank vs. markets: initially indifferent, given good property rights. Lately shown to affect growth as “optimal” mix depends on income level
  - And destination of financing matters, e.g., housing (-) vs. corporations (+)
- Financial system diversity affects financial stability
  - Crises more likely and recovery from busts worse for bank-dominated systems
    - Especially real estate booms and busts bad
  - Diversity (“spare wheel”) helps, for various reasons
  - Procyclicality over shorter run though higher with market-based financing
- P.S. Financial development and growth
  - Positive, but revisited: declining over time and maybe peaking at high depth

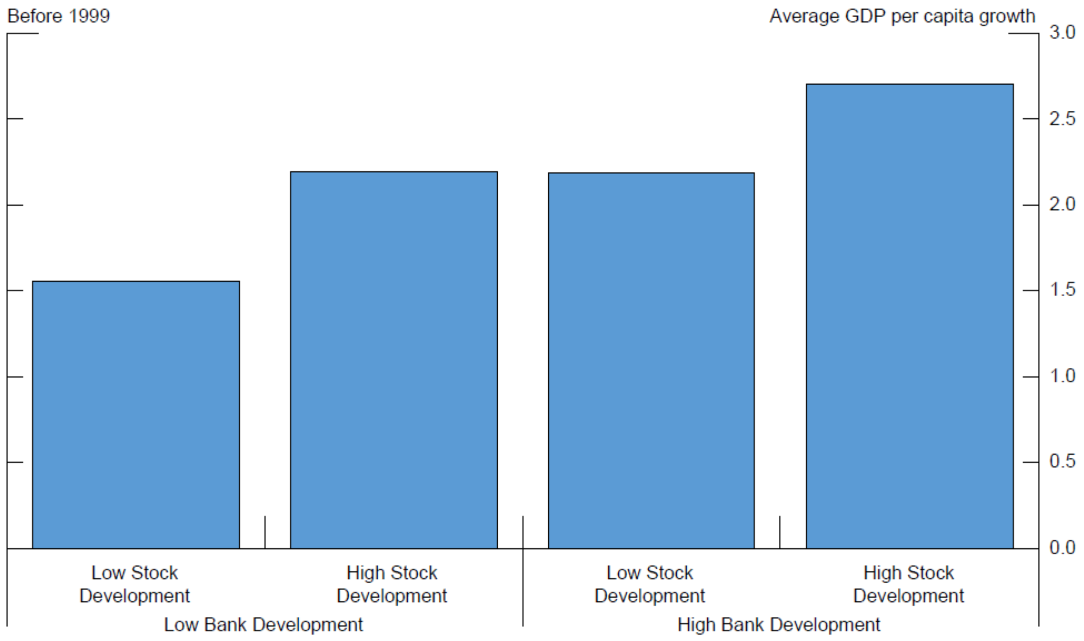
As income rises, contribution to growth of banks declines, stock markets' increases

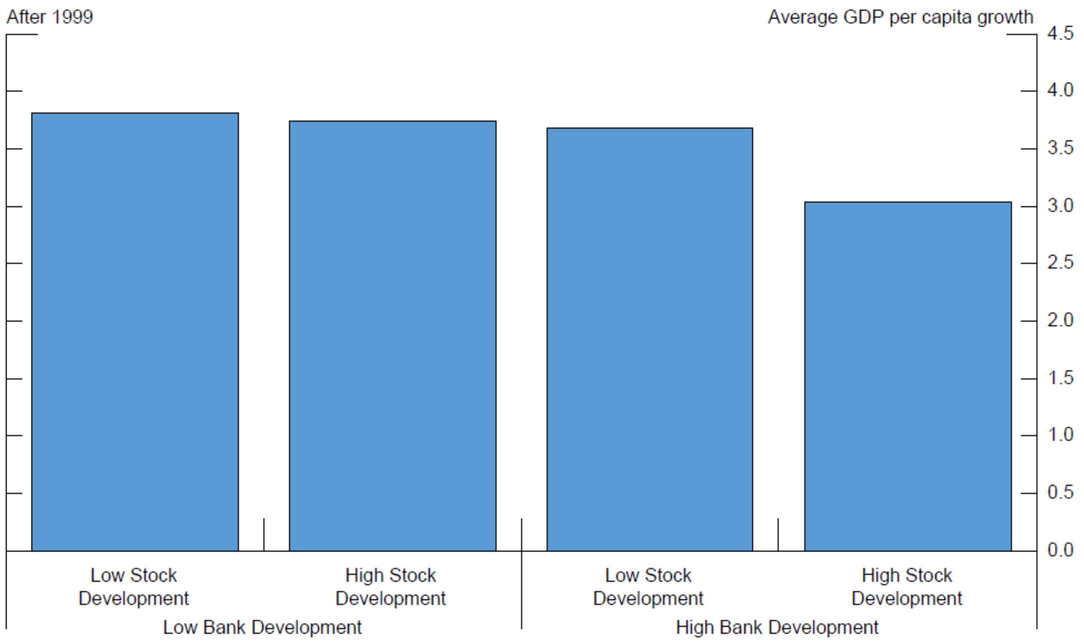




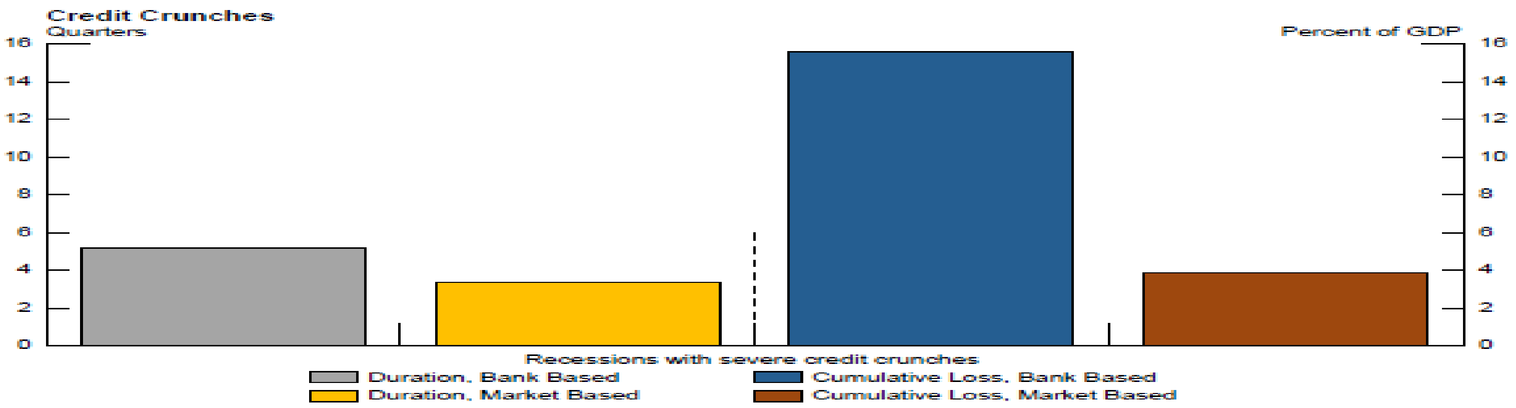
But.. while markets increasingly complement banks, growth impact may be declining..

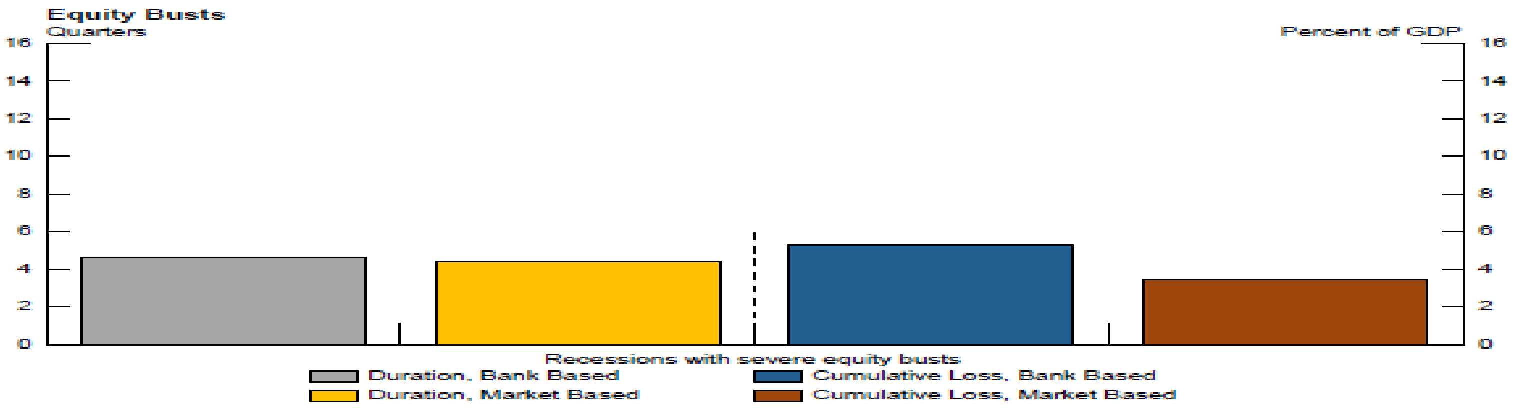
- Many complementarities, at financial institutions' and systems' level
  - Sources of funds, securitization, risk management, economies of scope, …
- But growth benefits of complementarities may have declined





Recessions with credit crunches longer, deeper in bank-based. Equity busts' not so in market-based



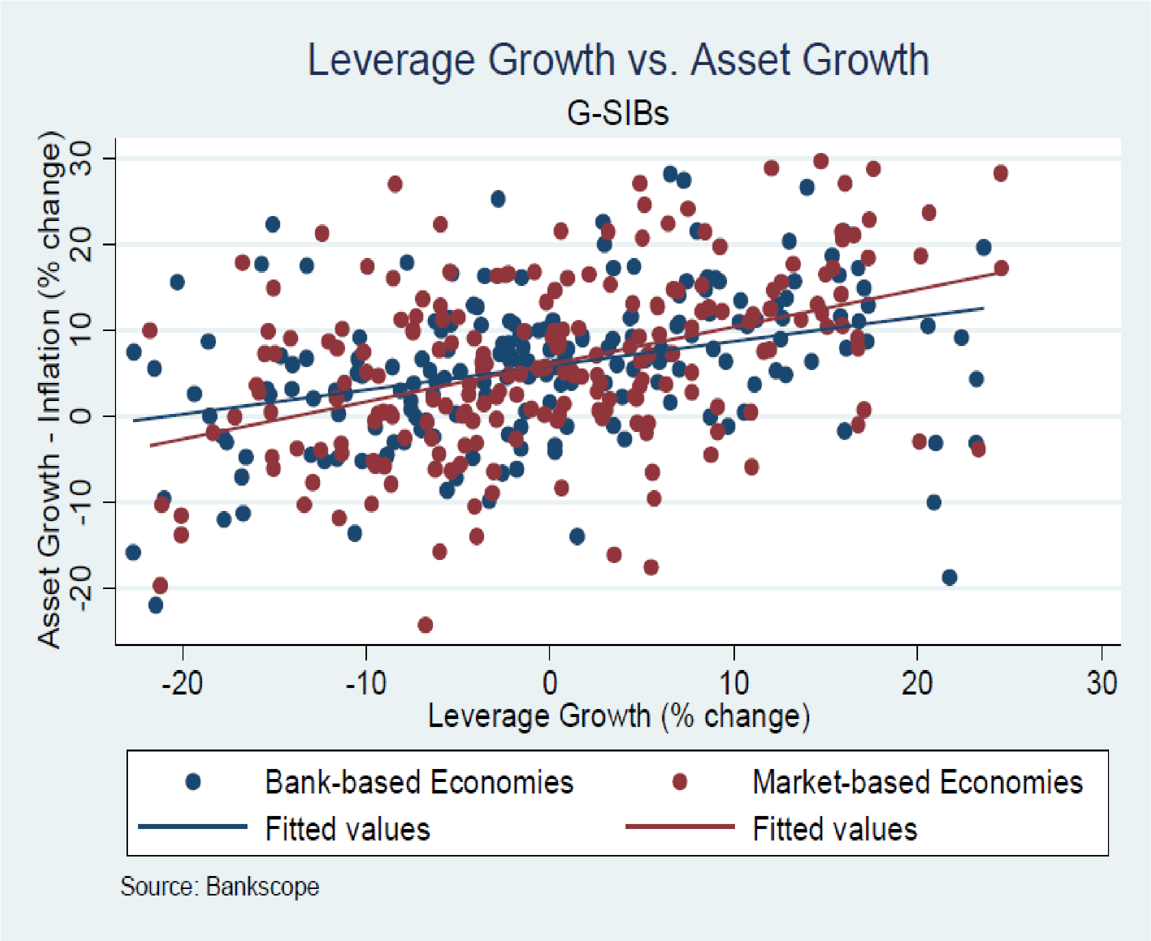


- Largely driven by real estate booms
    - Are more likely followed by banking crises, low growth
    - Recessions deeper, recoveries slower
    - Housing debt predicts lower future growth
- Spare tire benefits
    - Not just diversity

Claessens et al. 2012, updated. Advanced countries sample.

But.. volatility, procyclicality greater with more market-based finance and more diversity..

- Dark side of more market-based
  - Procyclicality in bank balance sheets (leverage ↔ asset growth) in market-based systems double that in bank-based systems
- With more fragmentation and diversity, also greater volatility
  - Easier and more trading, shorter investment horizons, less HTM
  - More peak pricing (also FinTech
  - More collateral, safety demands



What is then “preferred” financial structure, one that better matches demand and supply?

- For “optimal” growth and financial stability, like to see →
- Demand: Economy, growth and financial stability
  - Less bank-based, greater emphasis on markets, more diverse, less TBTF
  - Less housing finance, and more intangible, productive investments
- Supply: Financial system functioning
  - Fewer perverse links banking ↔ shadow systems (to reduce systemic risks
  - Not much more volatility and procyclicality
  - And preferably also lower costs of financial intermediation
- Question: Do regulatory trends support these objectives?

Longer-run regulatory trends. Less structure and conduct; more disclosure, capital based

Structural Regulations		Conduct Regulations		Prudential Regulations	
Functional separation of institutions	↓	Regulations of bank's deposit and lending rates	↓	Deposit insurance	=↑
Entry restrictions	↓	Regulations of fees and commissions	↓	Discount window	=↑
Ownership restrictions	↓	Credit quotas	↓	Restriction on asset concentrations	↓=
Discriminatory rules against foreign investors	↓	Branching limitations	↓	Information disclosure	↑
				Solvency ratios	↑

Some “reversals” in regulatory trend lately, but within limits and many not yet tested

“Structural” measures

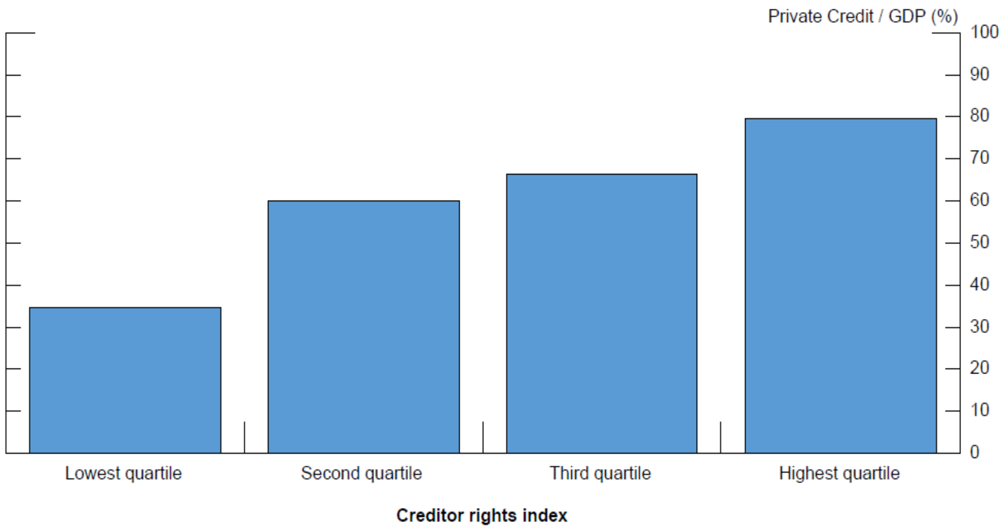
- More formal separation
  - Vickers, Volcker, Liikanen, etc.
  - ➢ But hard to implement and coordinate international, and costly for FIs
- Derivatives on exchanges and CCPs
  - Explicit structure (+conduct) regulation
  - ➢ But can create new TBTFs and need not reduce overall risks
- Shadow banking
  - Less puts, regulatory arbitrage, higher costs for banks’ securities-financing
  - ➢ But hard to calibrate, fine-tune, implement and regulatory perimeter

“Conduct” measures

- LCR, NSFR
  - Away from capital-based only
  - ➢ But can tie up scarce liquidity and collateral in stress and normal times
- Macroprudential policies
  - Directly affect credit allocation, FIs
  - ➢ But require tricky calibrations and proper regulatory governance
- Mutual funds, hedge funds, etc.
  - Some progress on MtM, NAV, redemption gates, fees, other approaches
  - ➢ But hard to calibrate, implement, and limit regulatory perimeter

Implications for reforms. Starting point is legal. Then regulations, at the margin

- Structures depend on “fundamental” factors, notably legal environments
  - Especially important for equity markets, with its much higher sensitivity to property rights



- Many other factors matter: Qualified Financial Contracts (Safe Harbor); Taxation (favors debt); Safety net, political economy (favors banks); etc. etc.
- At margin, potentially important role for regulation

1. Implications for regulation. Assure productive complementarities banks ↔ markets

- Reduce puts for and from banking system to shadow banking
  - Risks comes largely from implicit puts, further cut and limit
  - Reduce regulatory arbitrage for shadow banking, increase skin in the game
  - While being curtailed, also talk of (official) backstop for market-based finance
- Revisit legal privileges for more volatile “financing”
  - Derivative bankruptcy exemptions (“safe harbor type”), to be questioned
  - Also applicable to borrowers, e.g., set low LTVs/recourse in housing finance
- Structural limits can play some role
  - Structural separation measures: maybe. Expect risks migration to banks to continue (given brand recognition, reputation, safety net, etc.

2. Implications for regulation. Reduce risks within non-bank markets

- Regulate intra market-based financing, using activity-based approach
  - Indirect, as in higher capital, liquidity for securities financing transactions
  - Direct, as in minimum haircut, margins, early redemption fees and gates, restrictions on redemptions
  - Compliment with through the cycle margin and risk approaches
- Require better data and disclose more (within some limits
  - Collect and publish margins, overall exposures
  - Encourage and allow for more analyses of intra-financial systems’ activities
  - Assure still incentives for information collection&use by market participants

3. Implications for regulatory approaches. Approach markets more with a system view

- Regulate in more consistent ways
  - Broker-dealers, investment banks, others engaging in large scale maturity transformation, “money” issuance to be regulated as banks, made resolvable
  - Others, such as MMFs, lighter, but then no access to safety net
- Adopt a macroprudential approach for capital market activities
  - Do not rely solely on disclosure, capital, but also macroprudential policies
  - Adopt state-contingent policies, akin to CCyB, “through the cycle” rules
  - Consider a “third pillar” for capital markets’ related institutions and activities allowing for greater capital and other “add-on” requirements
  - Be willing to designate non-bank financial institutions and activities systemic

4. Implications for regulatory approaches. A more dynamic, system view of risks <u>and</u> productivity

- Match demand with supply such that systemic risks and procyclicality less likely arise and productivity can increase. Examples:
  - If procyclicality of some financing a problem in one part, not useful to migrate it where it becomes subject to regulation w/ same issues (e.g., Solvency II)
  - If liquidity risk is a major concern, then move liquidity-sensitive to part of the system best able to absorb such risks (e.g., limit reverse maturity)
  - If systemic risk externalities are key, then seek more “mutual insurance”. If through asset prices, then greater through the cycle capital, provisioning, etc..
  - If productivity is low, then encourage “right” forms of financing, i.e., not debt
- While general equilibrium and dynamics very hard, need to try

5. Implications for regulatory governance and structures. Revisit mandates and tools

- Greater mandates for regulators, allowing more system oversight
  - Make regulatory governance improvements
    - E.g., have securities markets' regulators consider systemic aspects
    - Revisit (intra-)regulatory structure more general, more cooperation
  - Complement market discipline with system view
    - Financial stability reports to include more of market activities
    - Assure market <u>and</u> regulatory discipline complement each other
- Adapt governance of toolkit
  - Cannot aim for full predictability, simplify, use key principles
    - Stress tests of banking systems show some ex-post actions are do-able
  - At the same time, use "sandboxes" for new developments, e.g., FinTech

Main message: Market-based ↑. But Volatility also↑. → Adapt regulation, oversight

1. Financial structures need to move towards market-based finance
   - Bank financing less beneficial for growth <u>and</u> financial stability as economies advance
   - More non-banks, capital market-based financing (especially equity as more geared towards new sources of growth, innovations), yet also more complementary
2. But.. risks and volatility remain, in part as regulations not kept up
   - By forsaking structure and conduct rules, and emphasizing disclosure, capital based regulations, trends encourage more fragmented, procyclical systems, and can also mean mismatch demand and supply. Recent reversals still too timid/limited
3. Regulation and supervisory approaches need to:
   1) Revisit tendency to adopt bank-type regulations for non-bank activities
   2) Extend macroprudential approach to non-bank finance, but make it specific
   3) Ensure systemic oversight of non-bank financial markets

Assumptions and caveats to paper

- Assumed a sensible approach to crisis management, including
  - Reducing non-performing loans, closing weak banks, rationalizing banking systems burdened by banks with low cost efficiencies, etc.
- Did not entertain large scale “redesigns” of money, banking, etc.
  - King, Turner, Wolf, others (narrow, collateral banking, new charters, etc.
- Ignored current macroeconomic, monetary policy conditions
  - Low growth, low interest rates, secular stagnation
- Acknowledge many fundamental drivers not easy to change
  - Legal systems, property rights, taxation
- Societies need to address deeper issues
  - Housing ownership, subsidized finance, tax deduction of interest payments
    - More general, consider productivity of and demand for (e.g., safe assets) finance
  - Society’s choices on what to privatize and “financialize”
    - Social security, transport, education, etc…. Yes or no?

And some trepidation on advice

- Markets do not deliver first-best. But gvt's (and central banks) neither!
  - Bureaucrats cannot and should not control financial system
  - Do not throw out good parts, e.g., securitization, short-term debt
- General equilibrium and systems' endogeneity to regulations, rules
  - Lucas critique: general equilibrium effects very hard to assess
  - Goodhart's law: evasion when something is being targeted
- Financial system architecture remains thorny given lack of knowledge
  - What are market failures, externalities? What role for cognitive biases? Do not know many partial effects, e.g., competition, let alone general equilibrium!
- Thus, can one really do better?
  - Larry Summers, paraphrasing Churchill's on democracy, "Capitalism is the worst form of economics — except for all the others that have been tried." Financial architecture:

➢ While not perfect, aim for open, transparent, diverse, contestable systems..