Much talk about bank complexity

• For the right reasons:
  – Does it brew risk?
  – Inefficient?
  – Hard to resolve?
  – Externalities?

• Possible solutions:
  – break ups, size capping, altogether activity restrictions.
“Static” approach

- Observe reality today, acknowledge existence of large and complex firms, take measures.
- Less emphasis on dynamic considerations
- How did we get to these realities? How do large and complex financial institutions today become such? Why?
Focus on organizational complexity

• Focus on number/types of subsidiaries under common ownership and control

• Natural policy implications
  – Resolution
  – Externalities
  – Complexity of regulation. Gauging effectiveness of oversight
Evolution on the banking side

- Geographic deregulation allowed banks to consolidate and acquire sufficient scale
- Scale allows potential expansion of organizational footprint
- Financial Modernization Act of 1999 sanctions the expansion
- But repeal of Glass-Steagall brewing for a long time well before GLB
- Proxmire Financial Modernization Act of 1988!
Complementary explanation

• Transformation in the “technology” of financial intermediation (Cetorelli, Mandel and Mollineaux, 2012).
• In a traditional model, the intermediary is a central broker providing liquidity services to its fund suppliers and efficient, long term credit allocation to those demanding funds.
Complementary explanation

- Deposit taking, loan making operations defines traditional “boundaries” of the banking firm.
- The balance sheet of this broker is the *locus* of intermediation activity.
- Its risks and the associated, well-known externalities also stem from banks' balance sheet.
- Justifies a system of monitoring and regulation focused on banks’ balance sheets.
The emergence of shadow banking

• Significant financial innovation in recent times, independent of and driven by existing regulation
• Significant migration of financial intermediation activity away from banks' balance sheet
• Evolution of more complex “credit intermediation chains” (Poszar, Adrian, Ashcraft and Boesky, 2013)
The emergence of shadow banking

- Emergence and growth of specialized nonbank entities catering to the process of shadow intermediation
- Example from asset securitization “chains”: growing importance of specialty lenders, underwriters, broker dealers, guarantors, asset managers, ...
Importance of these innovations well understood and anticipated

- “Congress [should not] ignore the technological, economic, and competitive forces shifting the financial markets away from traditional banking channels toward increased use of the securities markets for financial intermediation. . . . The securitization of assets has reduced the need for bank loans even further.” (Isaac and Fein 1988).

- “if securitization were to continue to spread rapidly to other types of credit, the historic role of the deposit-based credit intermediation process could be seriously jeopardized” (Federal Reserve Bank of New York 1986)
Back to the banks

• Banks do not sit still observing this evolution
• Transformation into conglomerates
• Expansion of the “boundaries” of the baking firm
Organizational adaptation

• Conglomeration is the organizational “solution” to integrate intermediation chains
Banks broad acquisition of nonbank entities

Source: Cetorelli, McAndrews and Traina, 2014
Subsidiary Composition
Number of BHC Subsidiaries, by type

Bank, Non-bank, and Nonfinancial

Non-bank Financials Decomposed

Excludes Goldman Sachs, Morgan Stanley, American Express, and CIT Group
Source: FR Y-10, FR Y-9C, CALL Reports; Authors' Calculations
Implications

• Little shadow intermediation truly “in the shadow”
• Still, challenges for prudential monitoring
• Externalities not necessarily from banks’ balance sheet. Or at least not necessarily through traditional banking activities
• Revisiting supervisory “boundaries” for effective oversight
• Regulatory adaptation as well
But reality even more complex

• A hybrid is an offspring of two species that in a new environment is better suited for survival than its own parents

• Evolution in the financial “ecosystem” have driven the emergence of hybrid intermediaries
A world with *hybrid intermediaries*

- The modern BHC just described is the quintessential hybrid intermediary
- But no reason for *nonbank* financial firms to turn into hybrid intermediaries as well
Organizational adaptation

• Conglomeration is the organizational “solution” to integrate intermediation chains

Financial conglomerate

- Commercial bank
- Brokers Dealers
- Insurance firms
- Asset managers
- Specialty lenders
- ...

BHC

Specialty lender

Asset managers

...
## Buyer/Target Industry Types

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<td>2</td>
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<td><strong>Total</strong></td>
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<td><strong>1,094</strong></td>
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<td><strong>150</strong></td>
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<td><strong>1,778</strong></td>
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Significant “off-diagonal” mergers and acquisitions in nonbank sectors as well
Nonbank hybrid intermediaries. An example

- Focus on **securities lending**
- An example of a modern credit intermediation chain
- Multiplicity of entities and markets involved
- Provision of intermediation services required
- Emergence of nonbank hybrid intermediaries possible
Securities lending intermediation chain

Securities lenders (Beneficial owners)

Securities borrowers (e.g. Hedge Funds)

securities

collateral
Securities lending intermediation chain

Securities lenders (Beneficial owners)

Agent lenders

Securities dealers

Securities borrowers (e.g. Hedge Funds)
Securities lending intermediation chain

- Securities lenders (Beneficial owners)
  - Non-cash collateral
  - Agent lenders
  - Cash collateral
  - Cash reinvestment vehicles
  - Repos
  - Securities dealers
- Securities borrowers (e.g. Hedge Funds)
- Securities
- Collateral
Financial intermediation risks in securities lending

Securities lenders (Beneficial owners)

Agent lenders

Securities borrowers (e.g. Hedge Funds)

Non-cash collateral

Cash collateral

Cash reinvestment vehicles

Agent lender indemnification (credit transformation)

Securities dealers

Repos

Securities Dealers
Financial intermediation risks in securities lending

Securities lenders (Beneficial owners)

Agent lenders

Securities dealers

Securities borrowers (e.g. Hedge Funds)

Non-cash collateral

Cash collateral

Cash reinvestment vehicles

Repos

Securities Dealers

Agent lender indemnification (credit transformation)
Financial intermediation risks in securities lending

1. Agent lender indemnification (credit transformation)

2. Securities borrowers (e.g., Hedge Funds)

- Securities lenders (Beneficial owners)
- Non-cash collateral
- Agent lenders
- Securities dealers
- Cash collateral
- Cash reinvestment vehicles
- Repos
- Securities Dealers

Reinvestment
Cash collateral
Demand liability
Term investment
Maturity transformation
Liquidity transformation
Credit transformation
Leverage
Who are the dominant intermediaries in sec lending?

• The largest intermediaries are, in fact, BHCs.
• But growing role from non-BHCs as well
• Both BHCs and non-BHCs providing intermediaries services in securities lending have conglomerate structures with entities along the entire securities lending intermediation chain
• They are, in this space, examples of hybrid intermediaries
Summary

• Insights in the organizational dynamics within the financial industry

• Suggested the emergence and growth of *hybrid intermediaries* as a natural adaptation to an evolving system of intermediation

• Transformation from the bank side (into complex BHCs)

• But transformation from the *nonbank* side of the industry as well
Implications

• New challenges for an effective monitoring and regulation of financial intermediation activity
• Activities spanning multiple products, markets and processes. Constantly changing
• Challenges for effective coordination across regulatory agencies, with separate authority over different entity types
• And harder international coordination as well
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