# The Dark-Side of Banks' Nonbank Business: Internal Dividends in Bank Holding Companies

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DISCUSSION
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## Aims and scope (summary)

- US Bank Holding Company (BHC) structures have remained a black box.
- This paper sheds light on the internal capital markets of BHCs!
- Study the workings of internal capital markets within BHCs with bank and non-bank subsidiaries
- Examines internal dividend policies of banks and non-banks and how they vary with own earnings and external dividends of the parent BHC.

# Results and findings (summary)

- BHCs use internal dividends from banks to reallocate cash flows to non-banks and external dividends. ("source of strength" –reversed!)

- The analysis is done in two parts:

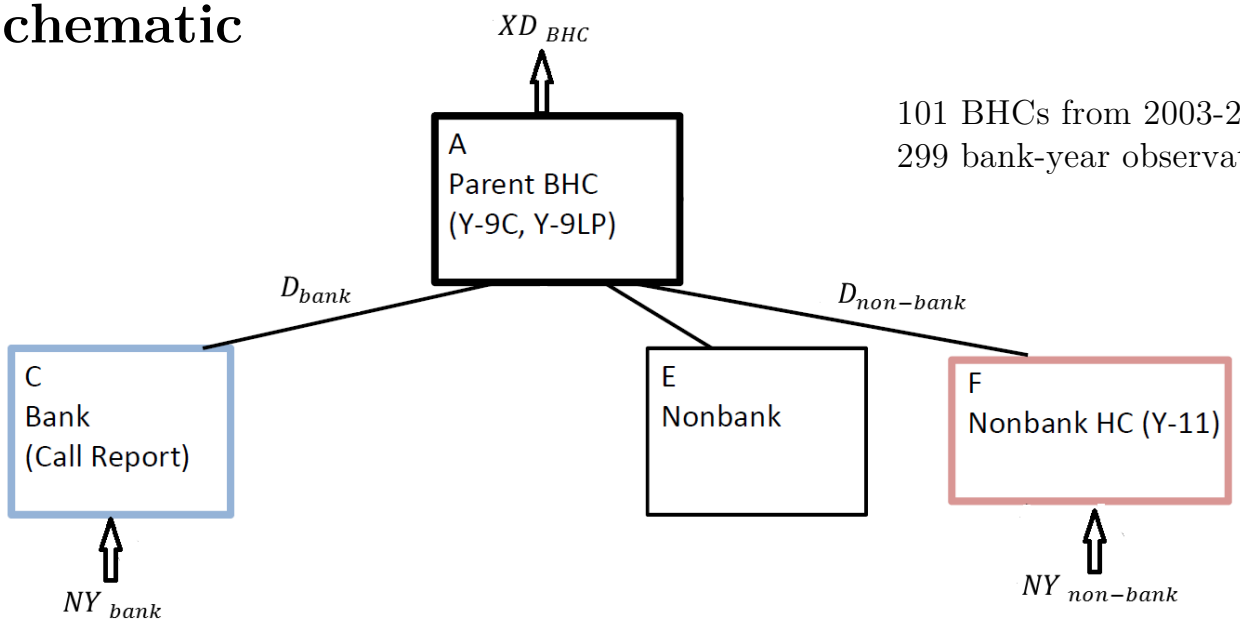
  - Part 1: The bank segment shields the non-bank in bad times from paying internal dividends. (Simple regression: non-causal)

  - Part 2: BHCs bank segment provides funds to the parent as it expands its non-bank segment after **major** acquisitions (diff-in-diff analysis)

## Contribution : A significant step forward!

- This is a significant data undertaking with painstaking attention to detail.
- If you have any doubt, read the data appendix to the paper! Clearly a non-trivial exercise.
- Judicious simplification of what could well be a very complicated
- Paper has gained significant attention from policymakers. Well-deserved!
- Carefully done analysis: My suggestions will be to push towards causality.

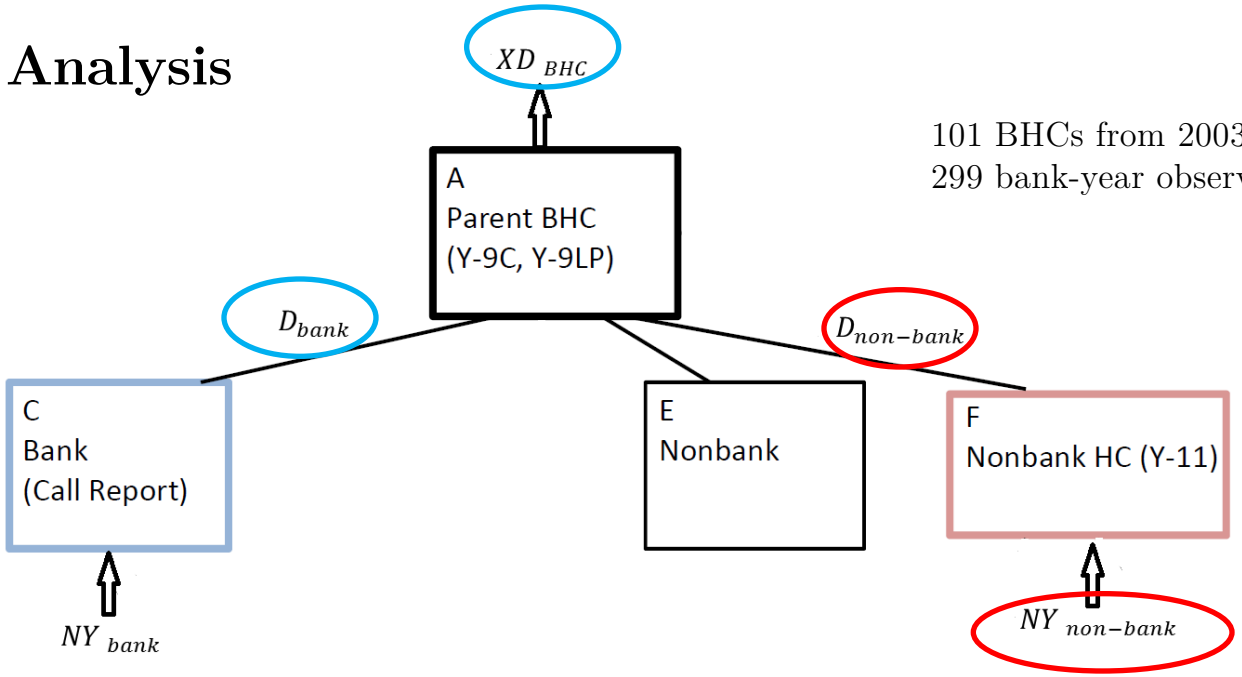
# Part 1: Schematic




101 BHCs from 2003-2007
299 bank-year observations

- $\Delta D_{bank} = \beta_{b1}\Delta XD_{BHC} + \beta_{b2}\Delta NY_{bank} + Controls$
- $\Delta D_{non\text{-}bank} = \beta_{n1}\Delta XD_{BHC} + \beta_{n2}\Delta NY_{non\text{-}bank} + Controls$

# Part 1: Analysis

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**1. Sample Period: 2003-2007**

Associations tell an important story.

Consider further analysis:

- Crisis data?
- Exploit cross-section variation?
- Variation by non-bank type?

| | External Dividends Only | | | |
|---|---|---|---|---|
| | Panel A: Nonbank Segment Δ Internal Dividends | | Panel B: Bank Segment Δ Internal Dividends | |
| | (1) | (2) | (1) | (2) |
| Δ Own Income | 0.302*** | | 0.160* | |
| | (5.77) | | (1.84) | |
| Δ Own Income (+) | | 0.369*** | | 0.339** |
| | | (3.65) | | (2.22) |
| Δ Own Income (-) | | 0.597*** | | 0.044 |
| | | (2.78) | | (0.35) |
| Δ Rest of HC Inc | -0.061 | | -0.189 | |
| | (-1.12) | | (-1.02) | |
| Δ*Rest* of HC Inc (+) | | -0.145* | | -0.259 |
| | | (-1.80) | | (-1.07) |
| Δ*Rest* of HC Inc (-) | | 0.031 | | -0.068 |
| | | (1.06) | | (-0.22) |
| Δ Ext Div | 0.087 | | 0.716*** | |
| | (1.19) | | (3.55) | |
| Δ Ext Div (+) | | -0.119 | | 0.557** |
| | | (-0.61) | | (2.47) |
| Δ Ext Div (-) | | 0.772* | | 1.159*** |
| | | (1.66) | | (3.65) |

## 2. What's driving these results? Use a different metric?

| Bank Segment | Mean | Median | StDev | P75 | P90 |
|---|---|---|---|---|---|
| Bank Assets | | | | | |
| (2014 dollars, billions) | 64.1 | 3.6 | 220.0 | 20.1 | 122.0 |
| Bank Dividends to Consolidated Assets | 0.91% | 0.79% | 0.57% | 1.19% | 1.60% |
| Bank Net Income to Assets | 1.30% | 1.24% | 0.79% | 1.47% | 1.87% |
| Bank Net Income to Consolidated Assets | 1.26% | 1.22% | 0.71% | 1.44% | 1.85% |
| Tier1 Leverage Ratio | 8.49% | 7.87% | 2.52% | 9.13% | 10.55% |
| | | | | | |
| Nonbank Segment | | | | | |
| Non-Bank Assets | | | | | |
| (2014 dollars, billions) | 4.5 | 0.0 | 32.3 | 0.5 | 2.9 |
| Non-Bank Dividends to Consolidated Asset | 0.19% | 0.00% | 1.27% | 0.07 | 0.18% |
| Non-Bank Net Income to Assets | -2.49% | 3.15 | 160% | 6.53% | 15.74% |
| Non-Bank Net Income to Consolidated Assets | 0.34% | 0.04% | 2.15% | 0.10% | 0.21% |
| Non-Bank Equity to Assets | 57.48% | 65.01% | 44.43% | 94.58% | 99.87% |

## 3. Asymmetric response to income

The asymmetric result: 2-sided variation with non-bank income BUT only 1-sided variation in bank income

Question: Is one-sided variation with bank income true of multi-scope BHCs only or also true of single-scope BHCs?

Currently the sample (for this first part) includes only multi-scope banks.

Perhaps an expanded sample that includes BHC with only banks and no non-banks can help resolve some of the selection issues here.

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# Part 2: Using acquisitions (1993-2007)

The difference-in differences specification is as follows:

$$Payout_{jt} = \gamma_1 Conglom_{jt} + \gamma_2 Acquisition_{jt} + \Gamma Controls_{jt} + Year_t + FE_j + \epsilon_{jt}, \qquad (3)$$

where $j$ are the BHCs, $t$ are the years, *Payout* is the bank segments' payout ratio, and the difference-in-differences estimator is the coefficient for the *Acquisition* term. Next, we create an indicator variable called *Conglom* that equals one if the BHC ever obtains a significant non-bank subsidiary during 1993 to 2007 and zero if it remains simple, with no major non-bank affiliates throughout the period. In addition, we define *Acquisition* as equaling one for a BHC after making its largest non-bank acquisition and zero before a BHC makes its largest acquisition or for those that never make a non-bank acquisition.[7] We also add controls for size and capitalization.

## Some questions on Part 2 (the DiD analysis)

- How does one interpret the coefficient for the major (*largest*) acquisition? At the time of the acquisition, does a BHC know this will be its largest acquisition?

- Suggesion: perhaps, use a threshold, say, acquisition above 5% of assets?

- Maybe move to a treatment that is exogenous?

- Suggested candidate: Graham Leach Bliley Act (1999)? Table 1 presents evidence of "a big uptick" in major acquisitions following the GLB 1999 Act.

- Significantly more appealing for researchers and policy

# Overall Comments

- Results are a major contribution to the less known area of BHC internal dividends
- Excellent and important data collection; significant data undertaking
- Very carefully done robustness checks with particular attention to detail with respect to institutional arrangements. Learned a lot!
- Suggestions towards causal inference.