# The Funding of Subsidiaries Equity, "Double Leverage," and the Risk of BHCs

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 $<sup>^{1}</sup>$ The views expressed hereafter are those of the authors and do not necessarily reflect the views of the ESM.



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- follows a rigorous econometric analysis based on a number of different specification/estimation strategies
- does not content itself with correlations but tries to uncover some degrees of causality (e.g. Granger causality, IV, etc.)





- A higher DLR  $\frac{xE(S)}{E(HC)}$  is associated with/causes more volatile stock returns
- $\bullet$  This relationship is non-linear, mostly driven by holding companies with a large  $DLR \geq 100\%$
- Capital ratios and the global financial crisis could influence the market effect of DLR
- The type of subsidiaries matters: stock returns are more volatile when holding companies invest in bank subsidiaries







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  - The impact of regulatory capital and the crisis on the marginal effect of DLR: Capital dampens the marginal effect of DLR in OLS but reinforces it in the panel regression
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- Potential collinearity issue: DLR and size might be highly correlated
  - Useful to provide a correlation matrix of independent variables
- The impact of the crisis deserves further exploration
  - Potential reverse causality? Banks (double) leverage up in the upturn because
    - Risks were compressed
    - Capital requirements (based on a VaR calculation) allow more leverage
  - Is there a change of behaviour before and after the crisis?





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- Dependent variable (stdev): a measure of risks or risk-taking?
  - Stock returns are the result of BHC's operating and risk policies
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  - Are all BHCs in the sample publicly listed? What about unlisted companies?
- To what extent does double leverage differ from leverage?
  - Is DLR a proxy for leverage?







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- Basel III (and Basel II) requires BHC to deduct from their own equity significant holdings of other financial intermediaries
- Recent banking regulations (CRR) in Europe are even tougher
  - Articles 36 and 43-49
  - Double leverage de facto impossible





#### Minor comments

- Useful to provide additional information on the sample
  - How many BHCs? How many subsidiaries on average?
- Some suggestions on the structure of the paper (to make the main story/results more salient)
  - Section 2, which is useful for readers to understand the key concepts, is a bit too long
  - Focus on one baseline regression + one or two most relevant alternatives



