

Discussion of the paper: “Nonconsolidated affiliates, bank capitalization, and risk taking”

Enrico Sette
Bank of Italy

ACPR Conference 2017 - Paris

The opinions expressed are those of the author and should not be interpreted as those of the Bank of Italy.

Intro

Small BHC in the US not required to deduct equity investment in their non-consolidated banking subsidiaries.

- ▶ Paper documents that effective leverage ratios of small US bank holding companies (BHCs) are substantially lower than the reported ratios when taking into account non-consolidated subsidiaries.

- ▶ Propose method to adjust leverage ratios based on pro forma consolidation, showing that it captures the additional risks in nonconsolidated subsidiaries better than capital adjustments based on the deduction approach (Basel III prescribes deduction approach).

General comment

The paper performs a sort of thought experiment: small BHC not subject to formal leverage ratio requirement ($\text{tier1/assets} \geq 3\%$, contrary to large BHC), but the paper computes it and checks how it would have changed if minority-ownership participations were taken into account.

Potentially very interesting because:

- ▶ it is a way to back-up risk transfer in nonconsolidated subsidiaries, which also larger BHC (and BHC in other countries) could do.
- ▶ the paper argues that the deduction method used by the US regulation and which will be used under Basel III has worse correlation with bank risk than pro-forma approach.

General comment

Need some assumptions of external validity:

- ▶ behavior of small BHC could have been different if formal leverage ratio had been in place (even if adjustment for unconsolidated subs not required).
- ▶ extrapolate the impact of pro-forma versus deduction for larger intermediaries. Does the fact that these are formally subject to a leverage ratio make a difference?

Useful to add further discussion of these points.

General comment

Still, important question, potentially very relevant for policy.

In addition, while small BHC are not systemic, they may be very important for the local economy. Their distress may create significant local shocks.

Distress of small banks may have repercussions on the confidence in the whole system. Distress of 4 small local Italian banks made the headlines of national media and had strong "emotional" impact.

pro-forma (decompression) versus deduction approach

The paper adjusts the reported leverage ratio of small BHC to take into account minority ownership of subsidiaries.

Pro-forma: add $\alpha(A_s - E_s)$ to the assets of the BHC. Hence, modify the denominator of the leverage ratio, which becomes:

$$\frac{E_p}{A_p + \alpha(A_s - E_s)}.$$

Deduction: subtract the equity investment in the subsidiary from the equity of the parent (modify the numerator). Leverage ratio is

$$\frac{E_p - \alpha E_s}{A_p}$$

pro-forma (decompression) versus deduction approach

In principle either leverage ratio may be smaller (requiring a larger adjustment), yet paper shows that in the data, pro-forma yields smaller adjustment.

Disadvantage of deduction approach: "assumes" the assets of the subsidiary have similar risk profile to those of the parent.

Disadvantage of pro-forma: lack of data does not allow to take into account internal debt.

Suggestion: if data allow, take only loans and possibly securities in the asset side of the subsidiary to compute the adjustment.

pro-forma (decompression) versus deduction approach

Provide further evidence on which approach is best.

Regress the risk measures on the "bias" (difference in adjustment under the two approaches). Could check whether the bias predicts risk.

Discussion now is mostly based on statistical significance. But it would be useful to discuss magnitudes. Can do this by showing standardized coefficients to compare results using the pro-forma approach with those using the deduction approach.

Relate the bias, especially the cases when the pro-forma approach yields larger leverage adjustment, to BHC characteristics.

Deduction approach less able to predict risk, but more conservative?

Additional evidence supporting the story

Paper is convincing in showing that the equity to asset ratios of small BHC do not reflect the additional risk from minority-owned, non-consolidated subsidiaries, pointing to potential capital arbitrage.

Yet, it may provide additional supporting evidence

- ▶ Structure of small BHC below but close to the threshold is likely to be more complex than that of BHC above the threshold and thus subject to the regulation.
- ▶ Look at the size distribution of BHC and should observe a "mass" probability to the left of the threshold for becoming a large BHC and thus be obliged to deduct equity for nonconsolidated minority owned banking subsidiaries (may be due to leverage ratio regulation, still interesting question, possibly other paper?).

Evidence on risk-taking

Paper shows that the larger the reduction in the leverage ratio brought about by considering the investment in the unconsolidated subsidiaries, the lower the Z-score and the higher the volatility of earnings.

Could also show:

- ▶ that adjustment to capital induces higher default rates on loans.
- ▶ that adjustment induces higher profits, to test whether BHC were actually obtaining higher returns from the higher risk-taking.
- ▶ that impact is larger the more complex the structure (interaction term).
- ▶ interact adjustment with the measure of concentration of the local market, to test for interaction between measure of concentration and incentives to engage in capital arbitrage.

Additional points - I

- ▶ Paper finds a smaller gap between the adjusted and unadjusted capital ratios during the crisis years 2007-2009. It would be useful to discuss the reasons why this is the case.
Tighter supervision?
- ▶ take a stand on whether the preferred specification uses the absolute or the relative adjustment. I find the absolute adjustment more intuitive since these are differences between (leverage) ratios.

Additional points - II

- ▶ Better clarify in the text the threshold for the application of the regulation. In addition, the threshold changed in 2005. What were the consequences of this? How is this treated in the empirical analysis?
- ▶ Why not showing results on the behavior of banks which moved below the threhsold? Threshold moved from \$150mln to \$500mln in 2006. Likely to see that effects increase overtime as they become "free" from the regulation.

Conclusion

Interesting and topical paper.

May provide additional evidence to further nail down the story and its implications.

I strongly suggest you to read it!