How do banks adjust to stricter supervision?

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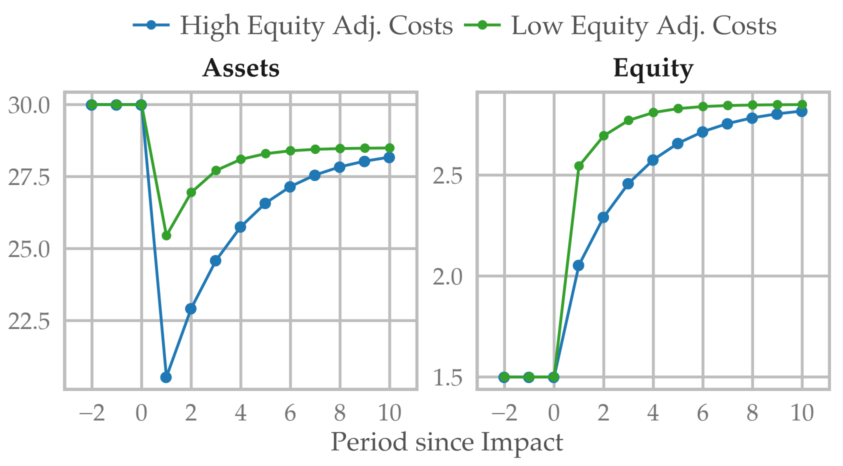
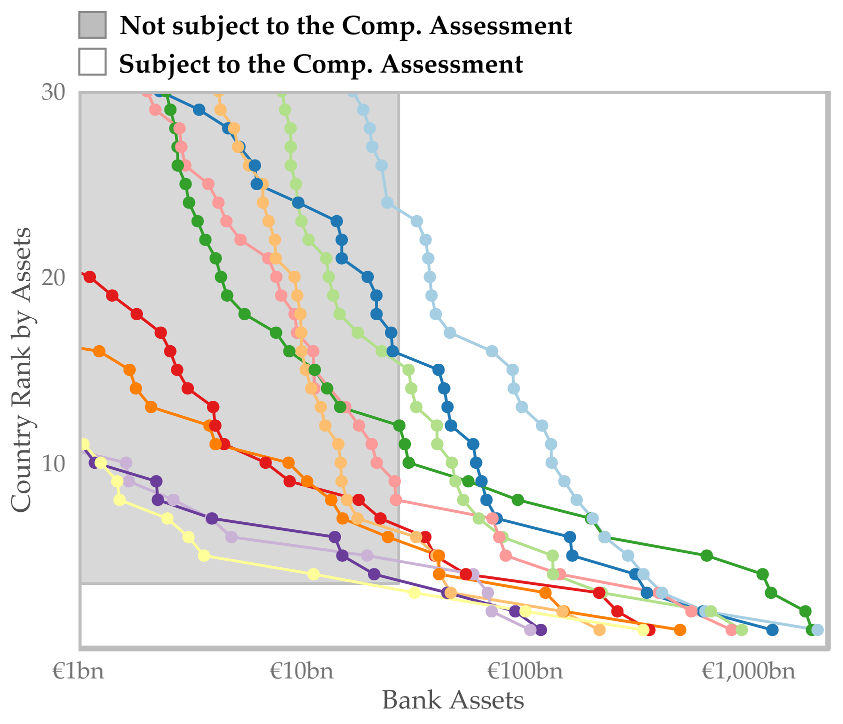
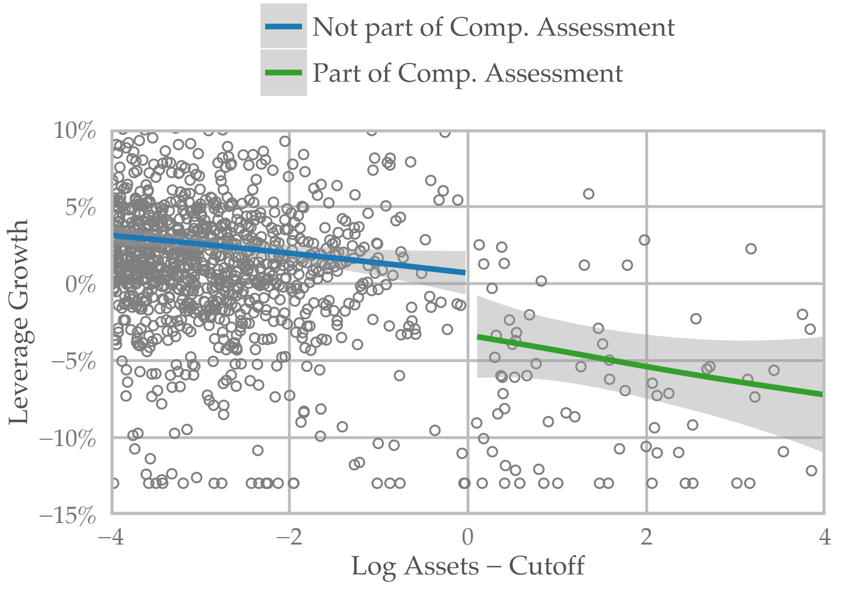
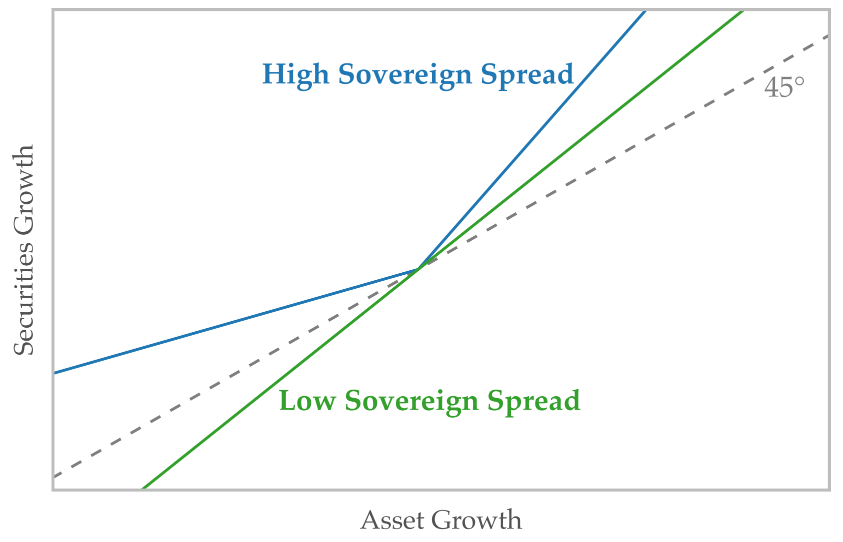
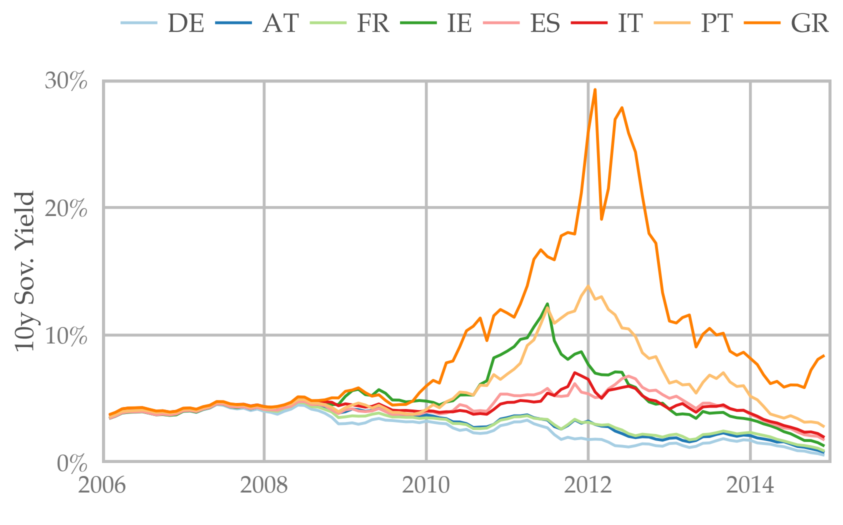
"Now what has been a restriction and we recognised that from the start, is that these exercises, of course, led the banks to be very careful in what they were doing with credit and with possible expansions of their balance sheet. They wanted to be as prepared as possible to pass this exam." –Vítor Constâncio











Banks reduce leverage in anticipation of stricter supervision. Most of the reduction is achieved by shrinking assets rather than by increasing capital. We exploit a cutoff rule in the assignment of the Comprehensive Assessment to establish a plausible counterfactual. Our results highlight the shortcomings of capital ratios when banks are reluctant to raise equity.

Introduction

With the phase-in of Basel III, Dodd-Frank in the US, and the transition to the SSM in Europe, Bank supervision has become much tighter in recent years. **We exploit the phase-in of the SSM to analyze how banks have adjusted their balance sheets in anticipation of tighter supervision** beginning with the 2014 Comprehensive Assessment. Stress-testing and stricter enforcement of existing rules requires more capital. Therefore, we interpret the transfer of supervision to the ECB as an increase in effective capital requirements.

Modelling leverage adjustment

We propose a **simple model of leverage that features equity adjustment costs**. If adjustment costs are small, then bank assets are independent of changes in the capital structure. If banks perceive raising equity as costly, then higher capital requirements cause a contraction in assets, allowing banks to accumulate equity slowly, for example through retained earnings. We show empirically that banks contracted assets ahead of the Comprehensive Assessment, which suggests that they are averse to raising equity in the short run.

Establishing a counterfactual

Banks with assets greater than €30bn were scrutinized, whereas most smaller banks were not. **We restrict attention to banks just around the cutoff**, which would arguably have behaved similarly absent the phase-in of the SSM and the associated Comprehensive Assessment. The Regression Discontinuity Design takes into account that stress-tested banks had different characteristics from non-tested banks.

Results

We find that, on average, banks that were subject to the assessment reduced leverage by 7%, driven by a reduction in assets of 5%. Banks strongly contracted securities (-12%) and repaid wholesale debt (-11%), while loans and deposits are more stable. To study the external validity of our results, we analyze the entire sample of banks that were subject to the assessment—including observations far from the discontinuity—and find similar effects: **banks reduced leverage and achieved higher capital ratios mostly by shrinking assets**. We also find that banks' ex-post performance during the Comprehensive Assessment is correlated with how much they shrank assets in 2013.

Asymmetric pass-through into securities

Our results highlight a special role for securities on bank balance sheets. We find that for a given balance sheet contraction, **banks disproportionately adjust their securities portfolios**. As a consequence, large securities portfolios insulate loan books from asset shrinkage when target leverage changes. However, this buffering feature of securities vanishes when sovereign credit spreads are high: We find that the pass-through of balance sheet contractions to securities is lower for countries with impaired sovereign debt. This suggests that banks are reluctant to sell high-yielding impaired securities.

Weak evidence for a credit crunch

Balance sheet contractions do not necessarily imply a reduction in the supply of new credit. Therefore, we collect disaggregated data on syndicated loan issuance. Controlling for loan demand, we find evidence for a **reduction in loan supply only for weak banks** that were subject to the Comprehensive Assessment. However, there may have been credit crunches in other markets.

Policy implications

Our results suggest that the **Comprehensive Assessment had bite**: banks reduced leverage and repaid wholesale funding in anticipation. Moreover, our results highlight that a large benefit of stress tests may be banks' **balance sheet clean-up before the test** in addition to the potential benefits of increased transparency ex-post (Goldstein, 2014).

However, banks **reduced leverage mostly by shrinking assets** rather than raising equity. This points toward a known shortcoming of microprudential regulation: Capital ratios are pro-cyclical if banks prefer shrinking assets to adjusting equity. Our results show that this matters for stress-testing in practice. **Macroprudential policy** is needed to address the equity shortfall of the system as a whole by incentivizing banks to raise capital (Greenlaw et al., 2012). This could be achieved by calculating **capital ratios based on current as well as lagged assets** (Hanson et al., 2011).

References

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