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Is the Comprehensive Assessment able to capture banks' risks?☆

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ABSTRACT

We evaluate the Comprehensive Assessment by analysing the database made available by the European Central Bank. We show that the capital deficit of a bank identified by the Comprehensive Assessment is positively related to a market-based risk measure of the bank, such as its historical volatility, and that the post-adjustment leverage ratio, but not the pre-adjustment leverage ratio or the risk-weighted capital ratio, is related to it. These results show that the Comprehensive Assessment captures banks' riskiness and that the leverage ratio is a better indicator than the risk-weighted capital ratio.

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1. Introduction

On 26 October 2014 the European Central Bank (ECB) released the results of the Comprehensive Assessment (hereinafter the CA) (European Central Bank, 2014). The CA marked an important step towards the European Banking Union; it was completed a few days before the Single Supervisory Mechanism came into force with the transfer of the oversight of the Eurozone's largest banks to the ECB. The exercise represents the first attempt at a "comprehensive" analysis of the Eurozone banking system by establishing a level playing field for banking supervision.

The CA is made up of two pillars, the Asset Quality Review (AQR) and the Stress Test (ST), and the latter is based on two different scenarios (a Baseline Scenario (BS) and an Adverse Scenario (AS)). The AQR is a point-in-time assessment of the accuracy of the carrying value of a bank's assets as of 31 December 2013, and is intended to be a detailed review of both the financial and the non-financial assets on a bank's balance sheet. The ST is a "benchmark" stress test, i.e. a forward-looking examination of whether the bank would remain solvent in the two hypothetical scenarios, after having taken into account the new information arising from the AQR. The two scenarios of the ST are country specific: the BS is derived from

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Table 1
Sample by country.

	Number of banks		
	ECB data	EBA data	Listed
Austria	6	6	3
Belgium	6	5	2
Cyprus	4	3	1
Estonia	3	0	0
Finland	3	1	0
France	13	11	3
Germany	25	24	4
Greece	4	4	4
Ireland	5	3	3
Italy	15	15	11
Latvia	3	1	0
Lithuania	3	0	0
Luxembourg	6	2	0
Malta	2	1	1
Netherlands	7	6	1
Portugal	3	3	2
Slovakia	3	0	0
Slovenia	3	3	0
Spain	15	15	6
Total	129	103	41

the European Commission's three year forecasts, and the AS is obtained through a downward perturbation of the Baseline Scenario.

In this note we investigate whether the CA is able to capture the riskiness of European banks.[1] Focusing our attention on banks that are listed on a stock exchange, we relate a "market" risk measure (historical volatility) to the capital deficit detected by the CA. We build on the work of Acharya and Steffen (2014), who discovered the following puzzle: curiously enough, there is a negative relationship between the capital deficit determined by the CA and the riskiness of the bank according to the benchmark adopted in their analysis (SRISK)[2]; if the total losses detected by the CA are considered, the relationship turns out to be positive. They suggest that these contradictory results are mainly due to the use of risk weights in the regulatory capital benchmark, and that the results can be reconciled by considering a pure leverage regulatory capital ratio. In our analysis we show that the CA's capital deficit is positively related to the volatility of a bank, and therefore we can infer that the CA is aligned with a historical (backward-looking) measure of a bank's riskiness. This evidence suggests that some bank risk is caught by the CA capital deficit, although it is evaluated according to a risk-weighted capital benchmark. On the other hand, in line with Acharya and Steffen (2014), we observe that the volatility is related to the post-CA leverage ratio but not to the post-CA risk-weighted capital ratio. Neither of them, computed before the CA, are related to the volatility. This evidence shows that markets did not trust the ratios before the CA, and confirms previous literature showing that the leverage ratio is more effective than the Common Equity Tier 1 (CET1) ratio (Common Equity Tier 1 capital as a percentage of risk-weighted assets) in representing bank risk.

2. Descriptive analysis

For the AQR the CA examined 130 banks with total assets of €22 trillion (tr) and risk-weighted assets (RWA) of €8.5 tr, which represent 81.6% of the banking system under the umbrella of the Single Supervisory Mechanism; 103 of these financial institutions are also involved in the ST analysis (a data set provided by the European Banking Authority). Among these, 41 banks are listed on European stock exchanges. In Table 1 we report the number of banks covered by the CA for each country, giving the figures for the whole sample, those that underwent the ST analysis and, among these, the publicly listed banks.

The CA determines the capital adjustment of each bank. The adjustment is the CET1 delta due to the AQR or to the ST (taking into account the AQR adjustment), i.e. the balance sheet adjustment due to the AQR or to the estimated loss in the scenario of the ST. The bank's capital shortfall (SF) is obtained as the difference (if positive) between the CET1 ratio

[1] Several limitations to the CA have been underlined in recent literature (see e.g. Acharya and Steffen (2014), Barucci et al. (2015)). For example, we can mention: i) the CA mainly concentrates on traditional credit activity rather than on the financial assets of the banks (e.g. in the AQR €43 bn come from credit adjustments out of the €48 bn total adjustments); and ii) the CA seems to be characterized by double standards because the outcome seems to depend on the country where the bank group is incorporated; the size and the use of national discretions have played a relevant role; non-core countries have been penalized by the AQR.

[2] The SRISK is a forward-looking riskiness measure, based on a stress test (stock market decline of 40% over six months) with a 5.5% prudential capital ratio threshold; see Acharya et al. (2012), Acharya et al. (2014).

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