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Temi di Economia e Finanza

(ABI Research Paper)

Level 3 Assets and Bank Default Risk

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November 2016 - Special Issues VI - Abstract

ABI Associazione Bancaria Italiana | ABISERVIZI PROGETTI SPECIALI

ABI Research Paper Special Issue N. 6

Level 3 Assets and Bank Default Risk

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This version: November 2016

Abstract

We investigate the relationship between Level 3 Assets and Bank default risk. Using data for 94 large European banks from 2013 to 2014, we find that higher values of Level 3 assets increase bank default risk, as proxied by the Z-Score. In terms of economic significance, an increase of 1 percentage point in the Level 3 to total assets ratio raises the bank default risk by 2.1 points; while the same increase in the loans to total assets ratio reduces the bank default risk by 0.2 points. Our results point out that prudential regulation should take proper account of the risks embedded in the valuation of Level 3 assets.

JEL-*Classification*: G21, G28, G32, M41

Keywords: Fair Value Accounting, Level 3 Assets, Bank Default Risk, Prudential Regulation.

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Non-technical summary

One of the most interesting debate in the current financial regulation framework regards the valuation of Level 3 assets. Indeed, as reliable market prices are not available for these financial instruments, banks have to estimate fair values with mark-to-model techniques using unobservable inputs. In turn, this discretion can be used to postpone non-temporary asset impairments that would otherwise reduce capital. Thus, the overestimation of capital allows the bank to take a higher level of risk, relaxing the limit set by the regulatory authorities through the capital adequacy ratio.

Using data from 2013 to 2014 for 94 large European banks, most of them under the Single Supervisory Mechanism, this study answers the following question: Does the share of Level 3 assets actually influence bank default risk?

Our preferred specification, that includes many control variables, country-specific as well as bank-specific, points out that higher values for the Level 3 to total assets ratio cause higher bank default risk, as proxied by the Z-Score. In term of economic significance, an increase of 1 percentage point in Level 3 share causes an increase in bank default risk, as evidenced by a reduction in the Z-Score of 2.1 points. On the contrary, the same increase in the loans to customers to total assets ratio reduces bank default risk as evidenced by an increase in the Z-Score of 0.2 points.

Our results indicate that prudential regulation should take proper account of the risk embedded in the valuation of Level 3 assets.