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Does the tax advantage of debt impact financial stability?

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The tax deductibility of interest expenses on debt is an often neglected factor in the policy debate on bank capital requirements. A more equal tax treatment of debt and equity funding could enhance financial stability by giving banks an incentive to reduce leverage.

Tax deductibility of debt and bank capital structure

The 2008-09 financial crisis spurred both regulators and politicians around the world to rethink bank capital regulation. However, ensuring that regulation enhances financial stability by providing proper risk-taking incentives and sufficient loss-absorbing capacity for banks remains a difficult task.

Given that over-leveraged banks may significantly contribute to systemic risk and financial instability, an important policy issue is whether the reduction of tax advantages for debt can be expected to lead to better capitalised banks. For example, Admati and Hellwig (2013), Goodhart and Schoenmaker (2010) and Thakor (2014) all argue that the tax deductibility of interest on debt impacts the funding decisions of banks, potentially leading to more leverage than would be optimal from a financial stability point of view. Indeed, in many countries the cost of debt is tax-deductible whereas the remuneration for equity (dividends) is not. This tax discrimination gives a bank– as any other firm – an incentive to take on more debt. This article (based on Schepens, 2016) discusses the potential impact of tax deductibility of interest expenses on banks' capital structure by analysing the impact of the introduction of a tax deduction for equity in Belgium in 2006. The findings suggest that treating equity and debt more equal increases bank capital buffers, while the scope for unintended side effects on bank activities is limited.

Setting of the case study

In order to better understand the role tax incentives could play in bank capital regulation, the study analysed the impact of a change in tax legislation in Belgium in 2006 that reduced the discrimination between debt and equity funding by introducing a tax deduction for equity.[2] Since 2006 financial and non-financial firms that are permanently established in Belgium have been allowed to deduct an amount from their taxable base, depending on their book value of equity.[3] More specifically, the deductible amount equals the book value of equity multiplied by an annually set deduction rate. During the period analysed (2006-07), the deduction rate equalled the average ten-year Belgian government bond rate in the year t-1, with a maximum set at 6.5 % and with the restriction that the rate was not allowed to change by more than 1 percentage point year over year. For example, the deduction rate equalled 3.44% when the new legislation was first introduced. This change effectively reduced the relative tax advantage of debt over equity and, therefore, amounts to an ideal "experiment" for studying the impact of tax deductibility on bank capital decisions.

The research set-up follows a so-called difference-in-differences approach. The evolution of the capital ratio – defined as total equity over total assets - of 33 banks that were operating in Belgium and subject to the change in tax legislation ("treated banks") is compared with that of a group of similar banks in other European countries that did not experience such a change ("control banks"). The main assumption is that the behaviour of the treated banks would have been similar to the behaviour of the control banks if there had been no change in tax legislation. If this assumption holds, then the evolution of the capital ratio of the

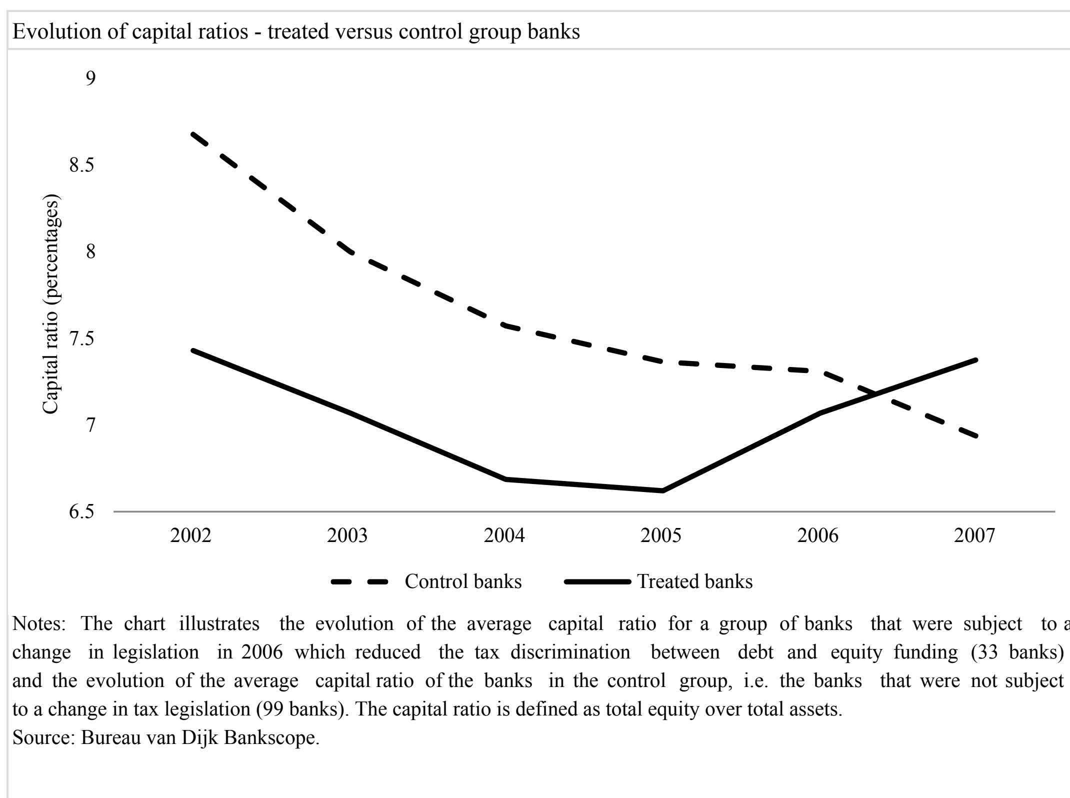
control banks can be used as a credible reference point for the capital ratio of the treated banks. The analysis is carried out for the period 2003-07, thus including three years before the tax change and two years after.

The impact of reducing the relative tax advantage of debt

The first important result is that reducing the relative tax advantage of debt had a positive impact on bank capital ratios. Reducing the relative tax advantage of debt funding vis-à-vis equity funding increased the capital ratio of the average treated bank by 0.94 percentage point in the two years after the implementation of the new legislation. The level reached represents an increase of more than 13% compared with that of the average bank in the control sample. Put differently, the capital ratios of the treated banks (i.e. the banks that experienced a reduction in tax discrimination) were 13% higher than would have been expected on the basis of the evolution of the capital ratio of similar banks in the control group. The chart below illustrates this finding. It shows that, until 2005, the evolution of the average capital ratio was fairly similar for the banks in the control group and the treated banks, but that in 2006 and 2007 this was no longer the case. The average capital ratio of the treated banks increased from 6.79% during the period 2003-2005 to 7.21% in 2006-2007. Concurrently, the ratio for the control group banks dropped from 7.64% to 7.12%.

The results also indicate that the capital structure reaction is similar for banks with both high and low ex ante capital levels, which makes the reduction in tax discrimination more appealing for prudential authorities than if only well-capitalised banks had reacted.

Evolution of capital ratios - treated versus control group banks



Notes: The chart illustrates the evolution of the average capital ratio for a group of banks that were subject to a change in legislation in 2006 which reduced the tax discrimination between debt and equity funding (33 banks) and the evolution of the average capital ratio of the banks in the control group, i.e. the banks that were not subject to a change in tax legislation (99 banks). The capital ratio is defined as total equity over total assets.
Source: Bureau van Dijk Bankscope.

Second, the results show that the impact of the change in tax treatment is driven by an increase in equity and not by a reduction of bank activities. This indicates that the scope for unintended side effects on bank activities is limited. Additionally, it indicates that the observed changes in capital ratios are unlikely to be driven by a reduction in loan demand, which could have been caused by the fact that the tax change also affected non-financial firms, i.e. the economy at large.

Concluding remarks

The results described in this article contribute to both the long-term discussion on the impact of the tax deductibility of debt on capital structure decisions and to the regulatory debate on bank capital. The findings suggest that a more equal tax treatment of debt and equity creates desirable incentives for banks. It encourages banks to increase their equity, without having negative consequences for bank activities. Given that tax issues are typically dealt with by treasuries and not by bank regulators, this result stresses the importance of proper coordination and collaboration between these authorities. Finally, it is important to

note that reducing the tax discrimination between debt and equity by introducing a tax deduction for equity is only one way of steering bank incentives. An alternative option might be to reduce the tax deduction on debt.

References

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[2]The law was approved on June 30, 2005. However, given the many uncertainties and ambiguities surrounding the actual implementation, several adjustments were made in September and October 2005. In theory, firms and banks could thus have already started to make changes to their capital structure in November and December 2005. In practice, however, this is most likely too short notice to make substantial changes to the capital structure of a bank, as (i) it takes some time to get fully informed on the actual consequences of the new law and (ii) it takes time to implement capital structure choices. As such, the paper analyses the impact from 2006 onwards.
[3]The regular tax deductibility of interest expenses on debt was also kept in place.

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