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The Case Against Banking's Case for Less Capital

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Wouldn't it be nice if there was a way to make banks safer, healthier and able to lend more? There is a way, and it's called equity.

If banks were less heavily indebted and relied more on unborrowed money, also called equity or capital, to fund their loans and other assets, they could avoid getting into financial trouble if they incurred losses. They would be better able to continue lending. And the financial system would be less fragile.

Yet bankers fight regulation that would require them to have more equity. They routinely claim that having more equity would lower their return on equity. A lower return, they say, would harm their shareholders and could make investment in their shares unattractive relative to other industries. The suggestion seems to be that society should be concerned with the banks' return on equity and that, unless some specific return is delivered to banks' shareholders, we would all suffer. This line of argument is fundamentally flawed.

The focus on return on equity (ROE) is deeply embedded in the culture of banking. A typical statement in a leading textbook, written by a prominent academic and former central banker, is that bank capital "has both benefits and costs. Bank capital is costly because, the higher it is, the lower will be the return on equity for a given return on assets."

False Claims

Such claims sometimes refer to the actual returns in any given year, and sometimes to an average of returns. In either case, the claim is false. If in some year a bank happens to earn low returns on its investments, its ROE is actually higher if it has more equity.

Even if the average return on equity is lower when a bank has more equity, shareholders needn't be harmed. In financial markets, returns can't be judged without accounting for the risk taken, and the risk to shareholders is directly affected by the amount of equity. In targeting high returns

on equity, bankers may actually benefit themselves while harming shareholders by exposing them to risk without properly compensating them.

When banks borrow heavily, they increase risks to shareholders, creditors and the overall financial system. In doing so, they may harm the economy and hurt taxpayers. For the bankers, however, borrowing a lot and avoiding equity may provide fat bonuses if the risks turn out well, or if the risks do not materialize for a while and high profits can be recorded, without much of a penalty on the downside.

To understand the mechanics of ROE, consider the following mortgage example. (You may want to get out a pencil and paper to follow along.) A borrower -- let's call her Kate -- buys a \$300,000 house and pays 4 percent interest on her mortgage. To simplify, let's assume that she pays all principal and interest at the end of one year, at which point she sells the house.

If Kate puts down \$30,000 and borrows \$270,000, the 4 percent in interest amounts to \$10,800 and she owes \$280,800 on her mortgage at the end of the year.

If she puts down \$60,000 and borrows \$240,000 at 4 percent, her interest cost is \$9,600 and she owes \$249,600 at year-end.

Kate's ROE is calculated by what she makes per dollar of her initial investment, or down payment. For example, if she puts down \$30,000 and the house sells for \$345,000 (a 15 percent increase in value), she ends up with \$64,200 after paying the interest due and the mortgage. This represents a return of \$34,200 on her \$30,000 investment, or 114 percent.

Upside, Downside

Let's assume the very same scenario (the house sells for \$345,000 at the end of one year, and the mortgage interest rate is 4 percent), except this time Kate puts down twice as much for the down payment, or \$60,000. In this case, her return on equity is only 59 percent, much smaller than the 114 percent she would earn if she put down only \$30,000. The leverage created by borrowing is wonderful on the upside, when the returns that are generated for the borrower are higher than the rate paid to borrow.

There's a catch, however. What if the house declines in value? In that case, Kate's down payment must absorb losses after paying her mortgage debt. For example, suppose the house value declined by 5 percent, to \$285,000. If Kate initially put down \$30,000, and pays 4 percent mortgage interest, her final equity is \$4,200 and her return on equity is minus 86 percent. In other words, she loses 86 percent of her investment. If she puts down \$60,000, her final equity is \$35,400. She loses 41 percent of her investment. Her ROE of minus 41 percent is higher with more equity, not lower. In fact, the ROE is always higher with more equity if the house increases in value by less than the 4 percent interest rate.

The leverage created by borrowing magnifies rates of return on the upside and on the downside. It magnifies the risk of each dollar invested. The borrower keeps all the upside once debt is paid, but on the downside, with less equity, it doesn't take much for the equity to be wiped out. Even with a 5 percent decline in the value of the house, Kate has almost no equity left. Should the house decline in value below the \$280,800 that Kate owes in the \$30,000 down-payment example, she would end up with no equity.

The same issues arise when corporations, including banks, borrow. If a corporation uses more equity (the same as the down payment on a house), its actual ROE will be lower in good times -- when the assets earn more than the interest rate on the debt. But losses and ROE will be greater when the return on assets fails to cover the borrowing rate.

On average, of course, banks hope to -- and usually do -- earn returns well in excess of their borrowing rates. In such cases, more equity and less debt will lower the average ROE of the bank. However, a decline in average ROE doesn't mean that shareholders are harmed. Whereas shareholders receive, on average, less return per dollar invested, they also bear less risk. As a result, they require less in returns as compensation for bearing risks.

Risk, Return

In financial markets, investors require lower returns on safe investments, such as government bonds, than on very risky investments, such as new ventures. Shareholders are harmed by

having more equity only if the average ROE actually decreases by more than the required ROE. The required ROE depends on the risk to which shareholders are exposed, and that depends on the extent of borrowing. The heavier the borrowing, the more risky is the equity and the higher is the ROE that investors require to compensate them for bearing the risk.

Bankers often announce high targets for ROE. They also tell politicians, regulators and the public that shareholders “require” them to strive to hit those targets. In the years before the financial crisis, Josef Ackermann, the chief executive officer of Deutsche Bank from 2002 to 2012, repeatedly said he would aim to achieve an ROE of 25 percent -- his idea of a well-performing bank -- before taxes.

Targeting ROE presumes that it makes sense to use ROE as a meaningful measure of performance, or of how managers benefit shareholders. However, without taking account of the amount of the bank's indebtedness, and, more generally, of the risk in each dollar of equity the bank has invested, ROE isn't a meaningful measure of performance or shareholder value. And if no account is taken of the market environment, such as market rates of interest, comparison of ROE with a given benchmark isn't meaningful. Implying otherwise is a fallacy, an article of the bankers' new clothes.

The average of Deutsche Bank's pretax ROEs from 2003 to 2012 was actually just 11.7 percent. When a bank sets a target that is way out of line with experience, it can't reach that target merely by becoming better at what the bank has done before. Reaching the target may be possible only if the bank takes large risks.

Compensation

Bankers may target high ROE because it affects their compensation. If compensation depends on ROE, bankers have direct incentives to take risks. Bank managers also have incentives to increase borrowing because this tends to increase the average ROE, especially if they can borrow at favorable rates because creditors believe the government will bail them out. As long as the gambles are successful, managers, and possibly shareholders, gain on the upside. Losses, however, may harm creditors and taxpayers. Even shareholders can be harmed if managers go after high ROE with insufficient concern for risk. Those shareholders who are more daring can take steps to increase their average investment returns by themselves, for example by borrowing on their own account to create leverage.

If bank managers find ways to hide risks for a while, for example by trading in derivatives markets, investors and regulators might not even be aware of them. By the time the risks

materialize, the managers may have already reaped the bonuses.

The large ROEs that banks achieved before the financial crisis triggered large bonuses for bankers, even as banks took on significant risk and increased their reliance on borrowing. When banks suffered large losses during and after the crisis, however, bankers' compensation didn't decrease proportionally to reflect the decline in ROE.

The ROE culture extends beyond the banks. Analysts and journalists commenting on the quarterly or annual reports of a bank will usually highlight the bank's earnings and mention the ROE but say little about risks. Risks are difficult to observe, measure and explain in an accessible way. By contrast, earnings and ROE figures provide precise numbers to discuss and compare. The focus on ROE encourages excessive borrowing and risk taking to benefit bankers. And claims that public policy should be concerned with banks' ROE are fallacious and should have no place in the debate.

When bankers take risks, others -- besides their shareholders -- are affected. Borrowing generally creates conflicts of interest between borrowers and creditors. Borrowers benefit from the full upside of risks taken, while creditors may share the downside. This situation biases borrowers toward more borrowing, making borrowing addictive and creating resistance to the use of equity once debt is in place.

Addictive Borrowing

Because banks borrow so heavily, they are particularly attracted to further borrowing. If depositors and other lenders to banks believe that the government will make sure they will be paid, borrowing is even more attractive to banks, because the interest they must pay does not reflect risk. However, the deposit insurance fund and ultimately taxpayers are affected by the risk. Governments often step in to support banks using taxpayer money, particularly when many banks are in trouble.

Risks to taxpayers are especially large when bank managers follow similar strategies, so that many banks may experience losses at the same time. Such herding behavior can be attractive because it provides a way to deflect blame when things go wrong. Excuses like "we all made this mistake," or "we aren't immune to a crisis in the overall system," are meant to reduce personal responsibility. When many banks experience losses, the government might feel compelled to provide support, making herding behavior even more attractive.

Risk taking isn't problematic if those who take risks bear the full consequences and the risks don't harm others. Such is not the case in banking. Bankers are the main beneficiaries of excessive borrowing and risk, benefiting at the expense of others, without bearing the full consequences. Most important, excessive borrowing and risk taking by banks are costly to taxpayers and make the financial system fragile, endangering and harming the public unnecessarily.

(Anat Admati is a professor of finance and economics at the Stanford Graduate School of Business, and Martin Hellwig is a director at the Max Planck Institute for Research on Collective Goods in Bonn. This is the second in a series of three excerpts from their new book [<http://bankersnewclothes.com/>](http://bankersnewclothes.com/), "The Bankers' New Clothes: What's Wrong With Banking and What to Do About It," to be published Feb. 24 by Princeton University Press. The opinions expressed are their own. Read Part 1 [.<http://www.bloomberg.com/news/2013-02-03/emperors-of-banking-have-no-clothes.html>](http://www.bloomberg.com/news/2013-02-03/emperors-of-banking-have-no-clothes.html) .)

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