



# Bank Safety and Soundness

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## Eakinomics: Bank Safety and Soundness

It's October, a nip is in the air, and Congress is gone. So Eakinomics fans, fire up a hot cup of coffee and let's talk...bank capital! That's right, let's dig into leverage ratios and risk-weighted average. What better way to enjoy a fall morning?

Ok, don't answer that. But the passage of the [Economic Growth, Regulatory Relief, and Consumer Protection Act](#) (S. 2155) and the reformed regulatory treatment of banks under the Dodd-Frank Act has re-ignited the issue of how much capital banks should hold. The casual follower of this debate is almost immediately overwhelmed by a sea of acronyms and a plethora of alternative measures of capital adequacy. Fortunately, AAF's Thomas Wade has [demystified](#) the capital adequacy debate. Here are the high points.

The starting point is the bank's balance sheet — a hypothetical one from the study is reproduced below — which must balance. According to Wade: “At its most simple, there are three elements: assets (something of value to a company); liabilities (a company's financial obligations); and capital (a company's assets less its liabilities). Balance sheets are said to ‘balance’ because a company's assets will always equal liabilities and capital.”

<u>Assets</u>		<u>Liabilities</u>	
Reserves & cash items	4,000	Deposits	67,000
Securities	27,000	Debt	15,000
Loans	62,000		
Other assets	7,000	<i>Capital</i>	<i>18,000</i>
<b>TOTAL</b>	<b>100,000</b>	<b>TOTAL</b>	<b>100,000</b>

A key role for capital is to provide a cushion against the loss in value of assets. Notice in this example that assets can decline in value by \$18,000 (an 18 percent decline) and there still will be adequate funds available to meet the banks obligations to repay debt and return deposits. Note as well that a loss of \$18,000 means that the owners of the bank are out \$18,000 that they could have otherwise received in the form of dividends or other returns on capital. Thus, the capital both is “insurance” for the depositors and debtors and a sharp incentive for the bank owners to avoid activities that would produce such losses. At the same time, banks like to keep their capital to the necessary minimum. Raising new capital is costly (banks must pay dividends) and cuts into their bottom line.

That is the essence of the economics. The remainder is to fine-tune the insight in two dimensions. First, banks

differ enormously in size and scope, ranging from community banks to global behemoths. It might make sense to think differently about their capital adequacy and a huge industry of domestic and international regulators is devoted to this task. There is not enough coffee to make that a suitable discussion for this Eakinomics; read the study.

The second dimension is that not all assets are created equal. In the example balance sheet, cash is fairly stable in value and easily can be used to make needed payments. Securities vary, but high-grade securities may fluctuate relatively modestly and be quite liquid — easily sold to raise needed cash. In contrast, individual loans are subject to lots of potential losses (think subprime mortgage in the 2008 crisis) and can be relatively difficult to move in a financial downturn (illiquid). That suggests just adding them up might not give a realistic picture of the capacity to meet obligations.

There are two main ways to incorporate this insight. One approach is to focus on really high-quality capital, known as Tier 1 capital. It consists of equity capital and disclosed reserves — the equivalent of “capital” in our example. One of the two main measures that the Fed uses is known as the leverage ratio. It is simply the ratio of Tier 1 capital to total assets. It can be thought of as a crude approximation of how much cash is on hand to deal with loss in asset values. In our example, the leverage ratio would be 18 percent.

A second approach is to differentiate the assets numerically by “risk-weighting.” The value of each asset the bank holds is multiplied by a percentage reflecting its riskiness, and then they are added up. A riskier collection of assets will have a higher total and will require banks to hold more quality capital (Tier 1 or lower quality Tier 2) to achieve the same level of protection as losses in asset value.

The final step, of course, is to pick a target that constitutes “safe.” Much of the debate is over whether that number should be 5 percent, 8 percent, or 24 percent. And people differ in their preferred measure (leverage ratio, risk-weighted assets, others). But the core issues are straightforward and not mysterious.