credit

January 2009

Why Basel's not faulty

The tenets of the Basel II Capital Accord are fundamentally sound; it's the methods that the banks are using to implement them that are not so sound.

Chris Marrison

Some government representatives have suggested that Basel II should be abandoned because it is procyclical, i.e. it requires banks to hold more capital in bad times thereby exacerbating any credit crunch. This suggestion may be a sensible view if the plan is to replace bank capital with government ownership, but otherwise it requires a more considered analysis.

In essence, the Basel II Accords say that the amount of capital should be proportional to the risk of the bank. Clearly this is better than Basel I where a high risk loan and a low risk loan attracted the same capital, thereby encouraging banks to make more risky loans. Basel I also encouraged banks to ignore risk by securitizing assets so that they would not be counted in the capital calculations. Basel II covers these gaps, but at the expense of requiring some measurement of risk. The Basel Accords themselves are relatively neutral as to how the risks should be measured. However, banks have generally chosen to implement risk models that create procyclicality unnecessarily.

As an example, consider a medium- or long-term commercial real estate loan. In good times the rents will be high and property values will be high so that key financial ratios such as the debt service coverage ratio and the loan-to-value will look very strong. If these are fed into a standard scorecard or regression model they will indicate a healthy deal and require low capital. **However, these ratios are based on valuations at the top of a bubble and therefore the scorecards falsely undercount the risk.**

The flaw in these models is that they do not have a component that includes mean reversion, i.e. that when market prices are above the long term trend, they are more likely to fall, and when they are below trend, they are more likely to recover. Such a factor can be added to scorecards and regression models, but mean reversion is naturally embedded in simulation models. The main point here is that a large part of the apparent procyclicality of Basel II is caused by the models that banks have chosen to implement. It is not Basel II that needs to change, but the way it has been implemented by the banks.

Even including the effects of mean reversion, the true risk has truly increased, therefore any capital that is based on a direct measure of risk will still have a degree of procyclicality. In making capital a simple multiple of risk throughout the cycle, there is some double-think. The double-think is along the lines of, "in good times you need to hold

8% capital in case of bad times, and in bad times you still need to hold 8% capital". There is no recognition that the capital built up in good times will almost certainly be consumed during bad times.

Moving target

One solution to this is that the regulators change the percentage at different stages of the economic cycle in a similar way to which central banks deliberate and change interest rates. A less political and more mechanical approach would be to scale capital to GDP (or stock market) growth over the last few quarters. In good times, capital ratios increase at the time when capital is easy to acquire and in bad times capital ratios decrease. This would not only help to make capital requirements counter-cyclical, it would also tend to dampen lending in times of unusual growth and free up new lending in times of depression.

Overall, most of the procyclicality issues around Basel II could be solved by modifying the models used to measure the risk within banks, and by a simple adjustment to the overall required capital ratio. Without Basel II, or some other risk-adjusted measure of capital, we are left with government ownership or the failed blunt instrument of Basel I which got us into this crisis by allowing the banks to create then ignore off-balance sheet risks in the first place.

— Dr. Chris Marrison is the CEO of consultancy and software vendor Risk Integrated in New York