Text Lecture 1.3 – Basel III

Hi, welcome back.

In this class we deal with Basel III, as promised.

And I am pretty sure that you want me to keep my promises.

So, let's start.

Unfortunately the implementation of Basel II coincided with the worst financial crisis the markets had experienced since the Great Depression. This was the 2007-2008 world crisis, whose consequences are still present today.

Some commentators have even blamed Basel II for the crisis. According to them, from one side Basel II gave too much freedom to banks, in computing quantities such as the PD and LGD, thus increasing risk; while, from the other, it introduced too much rigidity in the way banks had to hedge risk, not allowing them to react quickly enough.

The main flaws of the Basel II construction can be summarized as follows.

First, it became clear that the capital reserves required by Basel II were insufficient in bad market conditions, as those of a world crisis.

Surprisingly, Basel II contained no uniform definition of capital for banks, thus increasing the uncertainty on the markets.

Inadequate risk management approaches were another flaw of Basel II.

In particular, it became evident that Basel II underestimated liquidity risk and excessive leverage as possible causes of financial distress for banks.

Finally, on a more technical level, some academic criticism, which was ignored when Basel II was released, finally showed to be correct. In particular, some measures of risk such as the Value-at-Risk appeared to be pro-cyclical. In fact, Basel II required banks to increase their capital ratios when facing greater risks. Naturally this could require them to lend less during a recession or a credit crunch, thus possibly aggravating the downturn.

In 2009 the Basel Committee started discussing on a new version of the Basel Accords, thus opening the road to Basel III.

The first version of Basel III appeared in 2011, together with what is known as Basel 2.5, a set of more stringent rules for market risk.

The implementation of Basel III started in 2013 and it is now ongoing.

It should be fully operative by 2019.

Basel III, as we have said last time, is not a major transformation of Basel II, but rather an attempt to overcome the flaws of Basel II.

The key points of Basel III are new capital definitions and requirements, the introduction of the so-called capital buffers, a stronger attention for leverage ratio and liquidity risk, and a stricter definition and treatment of counterparty credit risk.

For us, in this course, the first and the last points are the most important, as you can imagine.

In Basel III, the total capital of a bank consists of three components.

The first one is called Tier 1, or core capital. It is made up of share capital and retained earnings, but it does not include goodwill or deferred tax assets.

Tier 1 capital must be at least 4.5% of risk-weighted assets at all times.

Tier 1 capital is then extended with an additional component, very creatively called Additional Tier 1. This component includes extra items, such as non-cumulative preferred stocks.

Preferred stocks are a special class of shares, which have features not possessed by common stocks. Typically they have preferences in dividends, that is: if dividends are paid, they first have to be paid to preferred stock owners. In non-cumulative preferred stocks, dividends do not accumulate if they are unpaid.

Tier 1 and Additional Tier 1 capitals must be at least 6% of RWA at all times.

Then we have Tier 2 capital, which contains supplementary capital, for example debt subordinated to depositors, with an original maturity of 5 years.

Tier 1 and 2 together must be at least 8% of RWA.

In Basel III, there is no longer a Tier 3 capital, as in Basel II. This is why we have not introduced Tier capitals until now. It is better to use the Basel III definition.

Capital buffers are additional amounts of capital that banks are required to maintain under Basel III.

They are the conservation buffer and the countercyclical buffer. Both buffers must be met with Tier I capital.

Imagine that a bank experiences a loss. The bank is said to be going-concern if the loss is entirely covered by Tier 1 capital. If the loss also affects Tier 2 capital, the bank is said to be gone-concern.

The conservation buffer corresponds to 2.5% of the risk-weighted assets. It is meant to ensure that banks build up capital during good times, so that they are more able to cover losses during periods of financial difficulty.

The countercyclical buffer goes from 0 to 2.5%.

The conservation buffer is compulsory for all banks, while the countercyclical buffer is left to the discretion of national authorities, hence it can vary from country to country.

Because of the conservation buffer, the total capital requirements of a bank increase to 10.5% of RWA at all times. In reality, during crises, banks can decrease until 8%, but then they are obliged to bring capital back as soon as possible.

In addition to the capital requirements based on risk-weighted assets, according to Basel III, banks are supposed to maintain a minimum leverage ratio of 3%.

The leverage ratio is the ratio of capital to total exposure, and it can be seen as a measure of the riskiness of a bank.

In the Basel III framework, national regulators may impose stricter regulations. In the US, for example, for some Systemically Important Financial Institutions (SIFI) the leverage ratio is at least 6%. A Systemically Important Financial Institution is any financial institution whose failure may trigger a financial crisis. They are also known as Too Big To Fail, and Too Interconnected To Fail.

Liquidity risk is the risk that manifests itself in situations in which a party that is interested in trading an asset cannot actually do it because nobody in the market wants to trade for that asset.

For banks this generally happens because banks have the tendency to finance their long-term needs with short-term funding.

In good times, this is generally not a problem. If a bank is perceived as safe and healthy, it will have no problem in getting funding.

But, in bad times, liquidity risk can lead a bank to the impossibility of rolling over and financing itself. This is essentially what happened to Northern Rock in the UK, and Lehman Brothers in the US.

Then we have counterparty credit risk.

Under Basel III, for each of its derivatives counterparties, a bank must compute a quantity known as credit value adjustment, or CVA.

The value of CVA can vary because of changes in the market variables influencing the value of the derivatives, or because of variations in the credit spreads that are applicable to the counterparty.

This is an interesting, even if not trivial topic. If you want, it can be the topic of Week 7.

And this was Basel III in a nutshell.

Now, it is time to start with some serious credit risk management.

So…see you next time. Bye!