

## Text Lecture 1.1 – Credit Risk

So...here we are.

I am very glad to see you here.

Today, we can officially start our "An Introduction to Credit Risk Management" Mooc.

I really hope that this course will be an interesting course for you.

But, most of all, I hope it will be fun, because we will approach credit risk in very unconventional ways.

Because - you know - there is no need of being boring.

At least... not always.

Today we will start our course with the most important definition of the entire course, with the object of the course, that is to say: what is credit risk?

And I will tell you a secret.

Many "experts" out there do not really know the right definition of credit risk.

You will.

So, let's start!

Credit risk is one of the fundamental risks for banks and companies, together with market risk and operational risk.

Imagine we hold a portfolio of loans or securities. A good definition of credit risk is the following: "Credit risk is the risk that the value of our portfolio varies, because of the unexpected changes in the credit quality of trading partners or issuers. This subsumes both losses due to defaults, and losses caused by variations in the credit quality of a counterparty, in an external or internal rating system."

Therefore credit risk can be divided into two sub-risks. Both of them may lead to losses, and we will see together how to deal with that.

From one side, we have default risk; from the other, the so-called credit deterioration.

Most people forget this second source of risk, and they typically reduce credit risk to default risk. This is not correct.

Credit risk includes both: default risk and the risk of credit deterioration.

Default risk is easy to understand.

Default risk is the risk of losing money because of the default of our counterparty. As a consequence, our credit is totally or partially lost.

If you are a bank, this may be given by a corporate client not able to repay a loan, or a retail customer not repaying a mortgage.

But it can also be a bond default, that is to say the case in which the bond issuer has run out of cash to pay its bondholders.

In all these cases we may lose a lot of money. We will see how to estimate the probability of default of a counterparty.

Credit deterioration is a little bit more subtle.

It is linked to changes in the credit quality of a counterparty. How is this quality computed? We will see that we can use different methods, but the most used one are credit ratings. We will discover that these ratings can be external or internal, that is to say: we can rely on the ratings computed by third parties, namely rating agencies, or we can compute our own ratings. Just be patient, and you will be an expert in this.

For now, we can say that a change in the credit quality of a counterparty may have a direct and an indirect influence on credit risk.

If a AAA bond is downgraded to BBB, this implies that the bond is becoming much riskier, and it also have effects on a series of quantities and measures we may have to compute as risk managers.

In this course we will deal with both aspects of credit risk. But, in order to do that in the right way, we have to contextualize credit risk within the framework of the so-called Basel accords.

Basel accords are the topics of this and next week.

See you next time.

Bye.