

# Chapter 1

## The Theory of Interest

It is well known that 100 \$ to be received after 1 year is worth less than the same amount today.

The way in which money changes its value in time is a complex issue of fundamental importance in Mathematical Finance.

In this chapter, we discuss the following 2 questions:

- What is the future value of an amount invested or borrowed today?
- What is the present value of an amount to be paid or received at a certain time in the future