



- a) If you want to have CZK 100,000 next year and expect a yield of 8% p.a., how much do you have to invest today?
- b) How much do you have to invest at the beginning of this year? If you want to have CZK 15,000 at the end of 2021, the interest rate is 2% p.a. with continuous compounding?
- c) What would be the interest rate for a current account at a savings bank (interest only being credited once a year) in order to settle a current account at a bank with 2% interest per year, if the compounding is on a monthly basis in this bank.

Real cash flow and real vs. nominal interest rates

1. Calculate the real interest rate on deposits under the following conditions:
 - a) the interest rate shall be 2,5%, the inflation rate shall be 1,7%.
 - b) the interest rate is 2.3%, the inflation rate is 2.9%.
2. What will be the real value of the deposit of CZK 1 million in two years in the situation from the previous example?
3. What is the real value of a deposit of CZK 42,000 over 3 years at an interest rate of 4.5% and an inflation rate of 1.3%?
4. Calculate the real interest rate from the above example to solve the problem.
5. For 15 years, you want to dispose of CZK 1 million. The nominal interest rate is 5.8% p.a. and the inflation rate is 3.4%.
 - a) How much do you have to deposit?
 - b) What will be the fair value of CZK 1 million after 15 years if you have them at home?
6. We want to dispose of a real amount of CZK 550,000 over 25 years. The nominal interest rate is 2.3% p.a. and the inflation rate is 3.1%. How much do you have to deposit today?
7. How much will be a purchasing power of CZK 1 million in 30 years be expected if inflation is expected to be 5% per year?
8. Calculate the nominal interest rate if the inflation rate is 2.8% and the real interest rate is 0.8%.
9. Calculate the real interest rate if you get CZK 1,115 at the end of the year for CZK 1,000 received for the sale of goods and the price of the goods has risen to CZK 1,095.