

Handout

Loan and loan costs

Note: We recommend that you read Loans and loan costs before completing the tasks in this handout.

Loan costs and term

Iman is taking out a loan of EUR 50,000 for renovating her apartment. She gets the following loan offers:

| | Loan offer 1 | Loan offer 2 |
|---------------------------------|-----------------|------------------------------|
| Loan amount | EUR 50,000 | EUR 50,000 |
| Term: | 15 years | 15 years |
| Nominal interest rate, variable | 5.0% p.a. | 4.8% p.a. |
| Effective interest rate | 5.7% p.a. | 5.9% p.a. |
| Installment: | EUR 396 a month | EUR 2,400 once in six months |

Task 1: Look through the two offers and tell Iman which of the two is better. Explain your recommendation!

When comparing loans with the same term and similar monthly installments, the effective interest rate should be used. In offer 1, the nominal interest rate may be higher, but the effective rate is below that of offer 2. This is why the recommendation should be for offer 1, if the other terms and conditions are the same.

Task 2: Iman's loan officer suggests that she extend her loan's term to 20 years. Explain what extending the loan term would mean for the monthly installments and the entire cost of the loan

As interest is always charged on the outstanding principal for the remaining term, a longer term means higher overall costs. In other words, while the monthly installment may be lower, a longer term entails higher overall interest payments.

Loan repayment

Boris has taken out a EUR 30,000 loan for a home solar electric system. The loan has a fixed nominal interest rate of 6.8% p.a., he is paying back the loan in 72 equal monthly installments, that is, the loan has a term of 6 years. Three years later he sells one of his two cars for EUR 15,000.

Task: Which of the following statements are true, which are false?

| | |
|---|---|
| 1 | Boris can use the money he got for the car for paying back the loan in full, because halfway through the loan term, exactly half of the loan amount is still outstanding. (f) |
| 2 | Boris can use the money he got for the car for paying back the loan in full, because halfway through the loan term, less than half of the loan amount is still outstanding. (f) |
| 3 | The money Boris got for the car is not enough to pay back the loan in full because halfway through the loan term, exactly half of the loan amount is still outstanding, but the bank charges additional fees for early repayment. (f) |
| 4 | The money Boris got for the car is not enough to pay back the loan in full, because halfway through the loan term, more than half of the loan amount is still outstanding. (t) |

Loan agreement and interest

When the general interest rate level was low in 2021, Marion Kern decided to buy the one-bedroom apartment next to her own apartment. She had EUR 70,000 in own funds and took out a EUR 80,000 loan to finance the purchase and the renovation of the smaller apartment.

This is a part of her loan agreement:

| | |
|---|---|
| Kreditvertrag | Nummer.: 11035 733 355 IBAN AT80 2526 0200 4478 5519 |
| Sehr geehrte Frau Kern MSc! | |
| Ihre Bank stellt Ihnen zu nachstehenden Bedingungen einen Kredit in der Höhe von | |
| EUR 83.000,00 (in Worten: Euro Dreiundachtzigtausend und 00/100) | |
| auf IBAN A T80 2526 0200 4478 5519 zur Verfügung. | |
| Verwendungszweck | |
| Kauf Eigentumswohnung | |
| Konditionen/Gebühren | |
| Der Kredit wird zu folgenden Konditionen eingeräumt: | |
| Gesamtkreditbetrag | EUR 79.956,74 |
| Sollzinssatz | 2,950 % p.a. |
| fix bis 01.06.2031 | |
| Nach diesem Termin kommt ein Zinssatz gebunden an den 3 Monats-EURIBOR zuzgl. eines Aufschlages von 0,750 % (kaufmännisch gerundet auf volle 1/8%) zur Anwendung. | |
| Für den Fall, dass der errechnete Sollzinssatz negativ ist oder negativ werden sollte, wird stattdessen ein Sollzinssatz von 0,00001% für die Zinsverrechnung vereinbart. Der Kreditnehmer zahlt also zumindest 0,00001%. | |
| Wenn der errechnete Sollzinssatz in der weiteren Folge wieder positiv wird, dann wird dieser für die Zinsverrechnung zur Anwendung gebracht. | |

Have a good look at the loan agreement and answer the following questions:

- a) What will be the nominal interest rate on June 5, 2027? Is it a variable or fixed interest loan?

| | |
|--------------------------------------|--|
| Fixed or variable rate? | <input checked="" type="checkbox"/> fixed interest rate <input type="checkbox"/> variable interest rate |
| Interest rate on June 5, 2027 | 2.950% |

- b) Look up the current EURIBOR that is used as the reference interest rate, on the internet.

The loan agreement refers to the three-month EURIBOR. Current rate.

- c) The loan agreement mentions two different loan amounts. Explain the reason for this.

The loan amount differs from the actual amount paid out because the bank deducts various costs and fees (e.g. for registering a mortgage with the land registry).