Examination: 20559 Monetary Economics Winter Term 2012/13

Examiner: Prof. Dr. Horst Gischer

Devices allowed: Pocket calculator, dictionary

Please answer *two* of the following three questions, all questions have equal weights.

1. You decide you would like to retire at age 60, and expect to live until you are 80 (assume there is no chance you will die younger or live longer). You figure that you can live nicely with 60,000 € per year.

   a) Calculate the amount you must save to purchase an annuity paying 60,000 € per year for the rest of your life. Assume the interest rate is 3 %. In doing so, please provide the <u>derivation</u> of the respective formula.

   b) How would your calculation change if you wanted to adjust the annuity for inflation, which is expected to average 2 % for the rest of your life? *(i.e. inflation should impact on your desired annual budget, not on the interest rate level)*

   c) What is the percentage increase in savings from solution a) to solution b)?

2. a) Define the terms “debt market” and “equity market”.

   b) Define the terms “primary market” and “secondary market”.

   c) Define the terms “interest rate risk” and “reinvestment risk” with reference to the market for government bonds.

   d) In a price-quantity-framework, which single determinant could cause the bond supply and demand curve to move in opposite directions? Briefly explain the mechanism.

   e) With respect to a corporate bond, name 6 influencing variables that could have an effect on its yield to maturity (*no further explanation required*).

3. a) Illustrate the monetary policy transmission mechanism. How does an initial reduction in the central bank’s key interest rate transmit to gross domestic product and inflation? Please consider the credit channel, the interest rate channel and the exchange rate channel.

   b) Name and explain three (economic or social) costs of inflation.