HOMEWORK INTERNATIONAL FINANCE (10 points)

Part I

Go to the website investing.com and download monthly data for EURUSD from 1.1.2000 to 15.10.2023.
· Calculate the percentage price changes (price returns) over one-month intervals.
· Draw the histogram of monthly percentage changes in the EUR/USD exchange rate in Excel, where the horizontal axis describes the monthly percentage changes observed for the EUR/USD rate and the vertical axis describes the percentage frequency of occurrence of the rates of the exchange rate.
· Interpret the shape (symmetricity) of the probability distribution and provide the economic interpretation of the probability distribution
· Calculate and interpret the mean and standard deviation for the probability distribution.

Financial managers are also interested in the probability distribution of future spot exchange rates. Given that we observe an exchange rate of s(t) today, we can find the probability distribution of future exchange rates in 180 days from the probability distribution of the percentage change in the exchange rate. For the *s(t)* use the EURUSD market close price on 15.10.2023. The *conditional mean* (the expected mean of this conditional distribution) can be represented by the market forward prices (make the print screen of the website, you take the forward rate from and state the url of the website). Armed with the conditional mean and conditional standard deviation of the future exchange rate, you can determine the probability that the future exchange rate will fall within any given range of exchange rates.

· Please calculate how likely it is that the EUR will strengthen over the next 30 and 180 days to at least an exchange rate of 1.0800.
· Please calculate the price range, where the price of EURUSD might be in 30 and 180 days with the probability of 95.45%. ·

Part II

· Compare your calculations with the Refinitiv FXVE (FX Volatility Explorer Function). Click on Spot Volatility. Comment on similarities/differences with your results.

· Calculate the following scenarios of price and return movement.
(i) Price movement in 1 Month and 6 Months horizon using 10-year historical data
(ii) Return movement in 1 Month and 6 Months horizon using 10-year historical data

· The scenario settings are up to you. Make a print screen and comment on the results.
(Possible comments on results: What price movements (appreciation/depreciation) are the possible threats for exporters and importers? Explain that if the price moves by ….. %, the export/importer receiving/paying 1 000 000 foreign currency face …… (amount of money) risk.

· Compare your calculations with FXVE FX Polls. According to professional analysts and economists, what is the most probable EURUSD price in 1M and 6M? What information are their expectations based on? (Go to FX polls and read relevant analysis).

State the date of your analysis, your name, and UČO. The recommended length of Homework is a minimum of 700 words. State all the sources and hand out the report *in MS Word* and calculations in *MS Excel.* No PDF, please. Upload the currency report to IS by 17th November 2023. Please support all your statements with relevant arguments.