Question: Economics **(41 points)**

During 2015 most of the currencies from the important emerging economies suffered from a remarkable depreciation. The Brazilian real lost 33% of its value against the US dollar, the Russian ruble depreciated by 15%, the Turkish lira by 26%, and the South African rand by 25% against the dollar.

At the beginning of January 2016, The Financial Times reported that the median forecast regarding the speed at which the Federal Reserve Bank chairman, Janet Yellen, is expected to raise interest rates in the next two years. According to this projection, the Fed is going to lift rates by 75 basis points in 2016 and by a further 100 basis points in 2017.

a) State and briefly explain the terms in the Uncovered Interest Parity (UIP) equation and demonstrate how it can be used to determine the spot exchange rate, assuming domestic and foreign interest rates as well as the expectation on the future exchange rate are given. Answer this question, assuming that Turkish lira (TRY) is the domestic currency, while the U.S. dollar is the foreign one. (3 points)

b) Give a detailed explanation of how the variables impact upon and determine the spot rate according to the uncovered interest parity equation. Answer the question, assuming first that the expectation on the future exchange rate is given (unchanged), second that it also changes. (6 points)

c) Consider that on January the 9th, 2015, the Turkish lira (TRY) reached its peak against the dollar. At that date, one USD was worth 2.30 TRY, while in December 2015 the average exchange rate was such as to require 2.91 TRY to purchase one USD. During 2015, the Turkish National Bank reduced the interest rate from 7.75% to 7.5%. Assuming an overall (actual and expected) increase in the Fed Fund rate to 2% (starting from 0.25%), discuss whether the movement in the TRY/USD exchange rate can be explained using the uncovered interest rate parity equation. (6 points)

From 2009 to 2015 the 15 most important emerging economies experienced a very strong increase in their GDP, an increase which, however, had been fueled by increasing foreign debt. The IMF estimated that in ten years, from 2004 to 2014, the corporate debt in the emerging economies had more than quadrupled (in nominal dollars). In many economies, the share of bank and corporate debt denominated in foreign currency is very high. For example, the share of dollar-denominated debt of the Brazilian company Petrobras is as high as 70% of its total debt value, while the liabilities of the Russian conglomerate Gazprom, in either dollars or euros, amounts to an astonishing 80% of the total. Given this situation, the currency depreciation mentioned above could lead to extensive, or maybe even systemic, defaults in some emerging economies.

d) Using the Mundell-Fleming model, suggest a fiscal policy that could be used to offset (or reduce) the currency depreciation, and depict the suggested policy using a graph to illustrate your answer. [Hint: Draw the IS-LM and UIP curves to explain the effects of the suggested policy (use two graphs to illustrate your answer). Comment your graphs.] (8 points)

e) Suggest a monetary policy that could be used for the same purpose in d), above, and portray its effects. [Hint: Use two graphs to illustrate your answer.] (7 points)

Consider that many emerging economies, in part due to the reduction in oil and commodity prices, suffered in 2015 from a foreign trade imbalance. For Indonesia, the current account deficit was 1.6% of GDP, for India, again as a share of GDP, it amounted to 0.8%, for Turkey to 5.3%, and for Brazil to 3.4% (Russia is the exception, since it ran a 6.6% surplus). Most of the emerging economies also run a government budget deficit. In Indonesia the budget deficit to GDP ratio was 2.0%, in India 6.6%, in Turkey it was close to 1%, in Brazil it amounted to 7.4% of GDP, while for Russia the deficit was 4% of GDP.

f) First, define the terms budget deficit and the trade balance. Then, analyse how they are affected by the alternative policies suggested in answers to questions d) and e), above. Finally, suggest the policy that will most likely be adopted by many emerging economies. (11 points)