QUESTIONS - CHAPTER 29 TARGET ZONES

Question 29.1

29.1A The figures below show the development of inflation and unemployment in the US and Argentina in the 1980s. Draw rational expectations equilibria for both countries in two diagrams. Which government has ‘hard-nosed’ preferences and which has ‘wet’ preferences?

Source: IFS, IMF

29.1B In 1991 Argentina decided to peg its exchange rate to the US dollar. What would have motivated Argentina to do so? What implications does this peg have for its long-run inflation rate?

29.1C The figures below show the inflation and unemployment rates in the US and Argentina. Was the peg successful? As a foreign exchange trader, would you trust the commitment of the Argentinian government based on the figures below?

Source: IFS, IMF
The elections are nearing and the Argentine government wants to be re-elected. A clear popularity issue is the stubbornly high unemployment rate.

29.1D Draw two loss-curves for Argentina: one assuming that the inflation-unemployment trade-off in the 1990s is in line with its preferences and another where the preferences are less ‘hard-nosed’. Also depict the monetary preferences of the US, assuming for simplicity that the natural rate of unemployment and Phillips-curve are the same for both countries. Explain your graph.

29.1E What happens to the exchange rate (eventually) after the change in preferences?

29.1F What kind of relationship do you expect to exist between government elections and exchange rates?

Question 29.2

In the euro area, the ECB is responsible for monetary policy. Germany, Spain and the euro area as a whole, all have the same Phillips-curves, policy preferences and long-run unemployment levels (5 per cent). The ECB has a long-run inflation target of 2 per cent.

29.2A Draw the equilibrium Phillips-curve and loss-curve for Germany, Spain and the euro area in a graph.

Spain receives a positive short-term economic shock. Germany however, experiences a negative short-term economic shock. Assume that the ECB succeeds in keeping the inflation rate at 2 per cent.

29.2B Draw in your diagram the new Phillips-curves and indicate the level of unemployment and inflation for Spain and Germany after the changes.

29.2C Suppose the ECB wants to accommodate the German economic shock, because it is the biggest euro area economy. Will it tighten or loosen its monetary policy? Indicate such a change in your graph.

29.2D What is the consequence for Spain of this ECB policy?

29.2E Would a policy rule mitigate this coordination problem?

Question 29.3

29.3A What is a target zone model?

29.3B What is meant by leaning against the wind?

29.3C What is the honeymoon effect? How does this hold up empirically?
Question 29.4

Figure 29.10, which is reproduced below, highlights the workings of the target zone model. Suppose first that a country has a freely floating exchange rate (so there is no upper or lower limit to the exchange rate yet). The dashed line, crossing the origin, represents movement of the exchange rate $s$ in response to changes in fundamentals $v$.

Figure 29.10

![Diagram showing the workings of the target zone model]

29.4A Give a number of examples of fundamentals $v$ that may influence the movement of the exchange rate.

29.4B Given that $v$ is characterised by a Brownian motion process, what is the expected change in the exchange rate on points such as $h_0$ and $h_2$?

Suppose now that the government introduces a target zone.

29.4C What is the expected exchange rate change at point $h_0$? Is this a feasible outcome in a fully credible target zone model?

29.4D Does it make sense for the government to announce its intentions when it wants to introduce the target zone?
Question 29.5
The target zone model does not hold up very well empirically. Furthermore, many exchange rate targeting countries do not explicitly announce their targets. Rather, they pursue an exchange rate intervention policy called “leaning against the wind”. This means that for some deviation from the target exchange rate (a fixed number), the authorities will intervene, but not to the full extent of the deviation. For example, if the target of exchange rate fundamentals is \( v=0 \), then the authorities could follow the decision rule like \( \Delta v_t = -\alpha v_{t-1} \), for \( 0 < \alpha < 1 \).

Here \( \alpha \) measures the extent of the authorities reaction.

29.5A Draw a figure as figure 29.11, including the free float line, the target zone s-shape.

29.5B What impact does the amount of volatility have on size of the honeymoon effect? Explain.

29.5C Now add a “leaning against the wind” exchange rate line.

29.5D How do the “leaning against the wind” and target zone model compare in terms of reducing volatility and the honeymoon effect?

29.5E What does this conclusion imply for policymakers?

Question 29.6
Chapter 29 highlights many obstacles for countries that pursue a fixed exchange rate policy. Yet, many countries seek to maintain some fixed exchange rate regime.

29.6A What are the benefits of a fixed exchange rate regime?

29.6B Why are there some many typologies of exchange rate regimes in between a fully free float and a fully fixed exchange rate?

Many countries that have a history of high inflation seek to reduce it by pegging their currency to that of another country with a history of low inflation.

29.6C Which credibility problems does such a country face when it pegs its exchange rate?

29.6D Can you think of policy measures that would build such credibility?

29.6E Are the same inflation-unemployment preferences enough for a country to successfully maintain a fixed exchange rate? Explain.