Questions - Chapter 30 Financial Crises

Question 30.1

The Argentinian economic crisis of 2002 can for an important part be illustrated with the first generation model of currency crises. Argentina has a long history of financial instability which is rooted in an enduring gap between the federal government’s ability to raise money and the demands for spending from Argentina’s politically powerful provinces. This gap was financed by borrowing from the Central Bank. In the 1980s this led to a period of hyperinflation. Inflation was only stabilized after 1991 when the Argentine peso was by law fixed to the US dollar at an exchange rate of one peso for one dollar. During the 1990s, however, government debt continued to rise. After 1997 the situation became critical when Argentina was hit by the devaluation of the Brazilian real and a considerable international revaluation of the dollar.

30.1A How, according to the first generation model of currency crises, could Argentina keep its exchange rate fixed while government debt held by the Central Bank was rising?

30.1B Why did the situation become critical after the devaluation of the Brazilian real and the revaluation of the dollar?

30.1C In order to prevent a financial crisis, the IMF lend Argentina large sums of money in 2000. The IMF did not demand a tight fiscal policy. Why was the policy of the IMF only temporarily successful?

30.1D In 2001 the Argentina government enacted a set of measures which effectively froze all bank accounts (which first led to noisy and later to violent demonstrations). Why did the government do this?

30.1E Why do you think the government had to give up the fixed exchange rate regime at the start of 2002?

Question 30.2

Box 29.1 in the main text describes the speculative attack on the British Pound and the Italian Lire on Black Wednesday (16 September 1991). This crisis clearly shows the importance of the second generation crisis models.

30.2A Why can Black Wednesday not be described by the first generation models of

---

1 This question is based on Paul Krugman’s “Currency crises”.

© Oxford University Press, 2012. All rights reserved.
financial crises?

30.2B In the main text the three core assumptions of second generation models are mentioned. What are these assumptions and explain how Britain and Italy answer to these assumptions?

30.2C Describe how a full-fledged financial crisis may arise from these three assumptions.

30.2D After the exit of Britain and Italy from the European Monetary System there was mounting pressure on the French authorities to devalue the Franc. Why do you think France was contaminated by the British and Italian crises?

Question 30.3

Financial crises can be disastrous for an economy. The IMF has estimated that the costs associated with a crisis can amount up to 20 percent of GDP. Regretfully there is no standard toolkit available for governments and financial institutions to prevent a financial crisis. In some situations a certain policy may prevent a crisis while in other circumstances the same policy may instead worsen a crisis. Below a number of policies are listed that have been used in the wake of a crisis. Describe how these policies may have either a good or a bad effect on the economy. Pay special attention to the confidence of investors and the cause of a crisis (using the models from three generations).

30.3A Fiscal austerity

30.3B Capital controls

30.3C (IMF) credit line

30.3D Debt rollover and standstill

30.3E Bank holiday

Question 30.4

Academics have spent considerable effort to predict currency crises. Developing a so called “early warning system” is considered very useful. With such a system financial market participants may determine beforehand whether to invest in an economy and policy advisors may be able to take actions to prevent a currency crisis.
In their paper “Leading indicators of currency crises” Kaminsky, Lizondo and Reinhart² develop such an early warning system. A number of potential indicators are monitored in the 24 months before a crisis. If a certain indicator departs from “normal” during this period (exceeds a certain threshold value) this is taken as a warning signal of a currency crisis. The table below shows some of the most reliable indicators of a currency crisis found by Kaminsky et al.

<table>
<thead>
<tr>
<th>Early warning signals</th>
</tr>
</thead>
<tbody>
<tr>
<td>M2 / international reserves</td>
</tr>
<tr>
<td>Real exchange rate</td>
</tr>
<tr>
<td>Trade balance</td>
</tr>
<tr>
<td>Stock prices</td>
</tr>
<tr>
<td>Output</td>
</tr>
</tbody>
</table>

30.4A Why are early warning systems better in predicting first generation type currency crises instead of second generation type currency crises?

30.4B Explain why the international reserves can be used as an early warning signal of a currency crises. Should this indicator increase or decrease in order to signal a crisis?

30.4C Explain why the real exchange rate and the trade balance can be used as a warning signal of a crisis. Keep in mind that excessive spending by the government leads to a higher demand for both traded and nontraded goods.

30.4D Based on the indicators in the table every government could in principle publicly announce whether it is crisis prone or not. Do you think it is a good idea for a government to do this?

Question 30.5

The economic costs of financial crises can be very large as shown in paragraph 30.7 of the main text. So one may wonder whether it is worth to liberalize the capital account and risk a currency crisis. Some economists argue that the economic costs of financial crisis are indeed

² G. Kaminsky, S. Lizondo and C.M. Reinhart, Leading indicators of currency crises, IMF staff papers, Vol. 45 no. 1, March 1998
too big and countries should therefore opt for capital controls. Others however claim that capital account liberalization fosters growth by a more efficient allocation of resources. These gains in economic growth are well worth the costs of financial crises.

A survey of this issue is given by the IMF researchers Edison, Klein, Ricci and Sløk in their paper “Capital account liberalization and economic performance: Survey and synthesis”. Locate this paper on the internet and answer the following questions.

30.5A Why, according to the authors, is there no agreement among different researchers about the relationship between capital account liberalization and economic growth?

30.5B What do the regression results of the authors suggest? Does this surprise you given their employer?

30.5C Based on the survey, do you think developing countries should open their capital accounts?

**Question 30.6**

It is not always clear-cut whether a country experiences a financial crisis or not. A country that is forced to devalue its currency after a speculative attack is of course in a financial crisis. It is difficult however to judge whether a country that fences off a speculative attack is also in a financial crisis.

To recognize a currency crisis Eichengreen, Rose and Wyplosz have therefore developed a widely used indicator:

\[
\text{Index} = \frac{\Delta e}{e} - \frac{\sigma_e}{\sigma_R} \frac{\Delta R}{R} + \frac{\sigma_e}{\sigma_i} \frac{\Delta i}{i}
\]

in which the change in the exchange rate (e), official foreign exchange reserves (R) and the short-term interest rate (i) are added and weighted by the standard deviation of the rate of change (σ). A currency crisis is defined as a period when the index is at least two standard deviations above its mean.

---

Select a country (maybe every student in class can select a different country) and search the internet for monthly time series data on the exchange rate, official foreign exchange reserves, and the short-term interest rate. For some developing countries the short-term interest rate may not be available. In this case you can delete the interest-term from the equation above. Has your country experienced a currency crisis during its history?