

Summary solutions ECN320 retake 2025

Part 1. Explain whether the statements are true, false, or whether it depends. (25 points)

- 1.1 An investment in a foreign currency-denominated asset yields a return from the asset itself and, another part, from the foreign currency.

T/D. Think of it in terms of interest-rate parity. The asset, if it increases in value, provides a positive return and if the future exchange rate movement is not covered, then it is possible for there to be a return on holding the foreign currency as well.

- 1.2 The shift from a fixed exchange regime to inflation targeting should help to bring down exchange rate volatility (i.e., greater stability).

T/D. Think of it in terms of PPP. If inflation targeting is successful, then there should be less reason to expect changes in expected inflation, bringing stability to the exchange rate. That is, if $P = P^T$ then there should be no ΔE^e . However, PPP ignores changes in asset-liability position and asset-price changes which might not correlate with the CPI. A fixed exchange regime can be unstable for the same reasons (unless K-controls are effective).

- 1.3 The idea of an exchange rate overshooting is inconsistent with purchasing power parity because it suggests deviations from equilibrium in the short run.

F. Overshooting is consistent with PPP. It can explain why E might deviate from its long-run eqblm. Changes in expectations might be the cause for why E overshoots as it takes more time for prices to catch up.

- 1.4 If capital is relatively mobile, then the private sector will not be crowded out by an increase in its government's spending regardless of whether the country has a fixed or flexible exchange regime.

D. K is relatively mobile here. An $\uparrow G$ causes IS to shift to the right in the case of a fixed or flexible E regime. Under a fixed E regime, this causes an $\uparrow i$ and a $\downarrow E$ which requires the CB to take action (i.e., $\uparrow MS$) to offset these effects. This lessens any crowding out effect esp since K-inflow is mobile (BP is more horizontal). Under a flexible E regime, the CB need not take any action but the ΔI ($\uparrow i$) and $\downarrow E$ can crowd out the private sector, i.e., \downarrow dom investment and \downarrow exports.

- 1.5 If a macroeconomy is experiencing deflation, then it can be that the deflation is both the cause and effect of weak spending.

T. A decrease in AD $\rightarrow \downarrow P$ and the $\downarrow P$ can affect behavior of firms (decrease investment or delay investment decisions) and consumer behavior (consumers delay their purchasing decisions as prices are expected to fall further). A change in expectations of a $\downarrow P$ can $\rightarrow \downarrow P$.

Part 2. Answer each of the following questions or respond to the specific statements (45 pts)

- 2.1 The European Union's (EU) single market requires members to sign up to four freedoms that are enshrined in treaty (e.g., the free movement of goods and services, and the freedom of movement of labor and capital within the bloc). However, members decide whether they would join the single currency, the euro. Keep this in mind when answering the following:

- 2.1.1 Denmark is an EU member that is a small, open economy but which is not part of the eurozone. However, as with any other country, policymakers in Denmark are bound by the macroeconomic trilemma, i.e., the choice of exchange rate regime, the degree of capital mobility and central bank autonomy. Given Denmark's position within the EU which of the difficult policy choices presented by the trilemma might Denmark choose? (10 pts)
- 2.1.2 During the euro crisis, the European Central Bank (ECB) had to rely on non-traditional monetary policy which included negative interest rates. Given your answer in 2.2.1, how might the EC's negative interest rates have affected Denmark's macroeconomy? Explain carefully. (5 pts)

2.1.1 Denmark's trilemma decision

The trilemma is about whether to fix E, K-mkt liberalization and CB autonomy. K-flows are free by treaty so that is a given. Denmark being a relatively small, open economy can imply that intra-EU trade is important which makes keeping the krone fixed to the euro impt. That makes DK's CB less autonomous in terms of its MP. If so, then this really questions the decision to keep the krone because MP is surrendered to keep interest and P in line with the ECB. Under K mobility, with a fixed E, i-parity is simple, i-home = i-foreign. MP loses all autonomy compared with a flex E. The only way to recover it is thru K-controls, which DK cannot do because of treaty.

2.1.2 negative interest rates

If the krone is tied to the euro, then the ECB's decision to go negative i-rate implies the Danish CB must go negative. In going negative the cost of borrowing decreases pushing up asset prices and potentially overheating the Danish economy. If DK's CB did not go negative, then K-inflows from the eurozone could enter raising the value of the krone r.t. the euro hurting its export and import-competing sectors.

- 2.2 Think about the relationship between inflation and unemployment that Phillips observed for the UK and that Solow and Samuelson also observed for the US economy when answering the following:

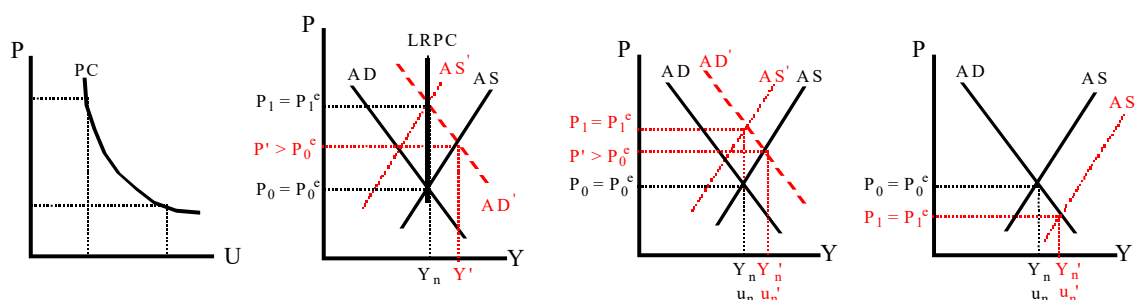
- 2.2.1 In a macroeconomic environment in which there is a high rate of inflation, would one expect a decrease in unemployment, an increase in wages, or both? In your answer explain how this might relate to the original Phillips curve relation. (5 pts)
- 2.2.2 The aggregate supply (AS) curve links output of the goods and services markets with the labor market. AS is expressed mathematically as: $AS = Y^S(W/P; P/P^e; Z)$, where W/P is the real wage rate, P is inflation and P^e is expected inflation, and Z is a catchall of factors that can affect AS. How does an increase in aggregate demand (AD) differ from an increase in AS in terms of the relationship between the natural rate of unemployment and the natural rate of output? (10 pts)

2.2.1 The original PC was an inverse relation between inflation and unemployment (left panel in graph below). So, if inflation increased the thinking was unemployment would be lower. With the advent of the natural rate of output (and the natural rate of unemployment), the PC was thought to be vertical (right panel in graph below). If inflation is expected to increase, workers will negotiate higher wage packets to maintain their real wage. A decrease in unemployment is no longer expected as the thinking is there is a natural rate of unemployment.

2.2.2 AS and AD

An increase in AD causes output to increase and causes employment to rise (fall in unemployment below the natural rate). This will cause P to rise and in time expected P to rise until $P' = P^e$ occurs and unemployment returns to its natural rate and output to the

natural rate. An increase in AS could suggest there is some increase in productivity resulting in higher output at lower prices. Such a situation could lead to increasing output and employment shifting the natural rate of output and lowering the natural rate of unemployment.



2.3 Think about the link between the exchange rates and the foreign currency markets and asset markets when answering the following:

2.3.1 Explain the market for a foreign currency, i.e., the supply and demand for foreign currency. How do changes in the foreign currency market (i.e., a change in equilibrium) relate to the asset market equilibrium (the returns to local currency versus foreign currency assets)? (8 pts)

2.3.2 List some conditions that must hold for the asset market to be in equilibrium. Now, suppose a country's central bank unexpectedly increases the interest rate. Keeping in mind what ensures the tendency for equilibrium in the asset market, how might this affect the forward exchange rate (the future exchange rate)? (7 pts)

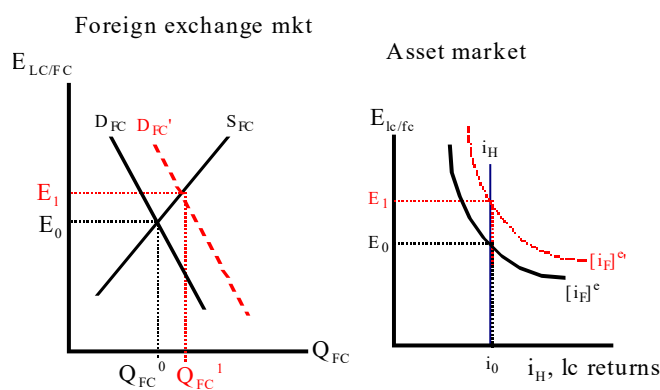
2.3.1 Mkt for foreign currency

D fc: Home's imports of fc denominated goods and services and purchases of fc-denominated assets

S fc: Home's exports of lc denominated goods and services and Foreign's purchases of lc-denominated assets

Eqlbm is achieved by $D=S$ of fc. A change in eqlbm can occur based on expected earnings on fc denominated assets.

2.3.2 The assumption is that lc and fc assets should earn the same when converted into lc returns (assets are identical, no K-controls or other policy constraints (taxes), no transactions costs, and mkts are competitive). If there is a change in expected earnings on fc denominated assets, it can cause E to over or undershoot the long-run eqlbm.



Part 3. Answer the questions related to the macroeconomic scenario described. (30 pts total)

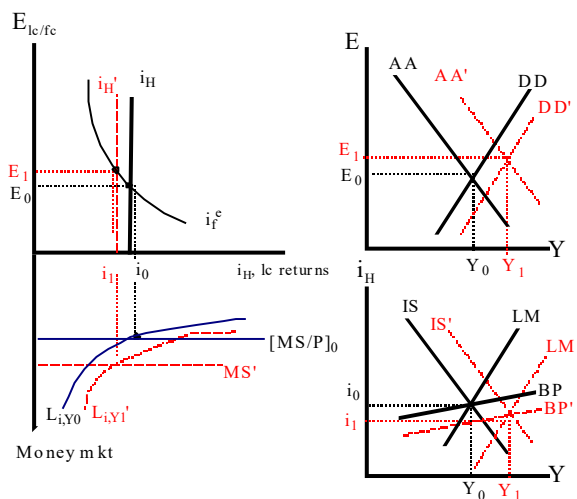
The debate surrounding the causes of the Asian financial crisis (AFC) can be separated into two camps: first is those who view the origin as a domestically grown macroeconomic and financial issue arising from close political-business ties, weak financial structures and poor macro policies; second is the view that the contagion process shifted market sentiment, a concern that started externally by speculators.

Background information

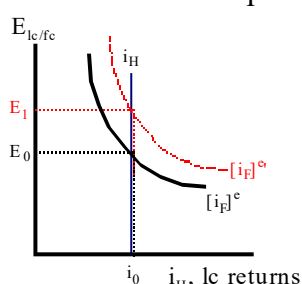
The AFC started in Thailand in 1997. Thailand pursued an export-led development strategy involving a shift from an agricultural-based economy to one focused on manufacturing for export. The strategy resulted in rapid industrial growth, which attracted foreign investment up until 1996. The economic boom in the 1980s saw positive balance of trade (BOT), but the surge in investment and the effect of GDP on imports affected the balance of payments into the 1990s, requiring borrowing or selling assets to finance the difference.

In the 1970s, Malaysia aggressively pursued an export-led growth strategy shifting away from an import-substitution strategy (where domestically produced goods substituted for imports on the local market) in the 1960s. The strategy involved government fiscal and export incentives to promote manufacturing and to attract foreign investment.

3.1 Think about what the macroeconomy policy regime (i.e., fiscal policy, monetary policy and the exchange rate) of Thailand might have looked like during the 1980s. Illustrate the macroeconomic policy effects using the Mundell-Fleming model: the IS-LM-BP and AA-DD framework, and the asset market-money market equilibrium as developed in class. Make your assumptions explicit. (20 pts)



3.2 Think about the policy actions that you assumed in 3.1. What might have contributed to the AFC of the 1990s? Explain whether you fall into the camp that stated that the macroeconomic policy was to blame, or that market sentiment was to blame for contagion? Explain carefully with a relevant graph if possible. (5 pts)



If you stated that expectations changed and K-outflows increased because of either over-investment, decrease returns on K, worsening terms of trade, lower prodvty, and/or slowing growth, then $[i_F]^c \uparrow$.

- 3.3 In the case of Malaysia, whether because of the policies used or the effect of contagion, the local currency depreciated but its central bank used capital controls to try and maintain a fix to the dollar. Explain how capital controls can help with the balance of payments. What would be controlled, capital inflows, outflow, or both? (5 pts)

If the local currency is already depreciating, the central bank can control and slow the rate of depreciating. It does not make much sense to restrict the capital inflow. If before the problem occurred, capital inflows were restricted, then capital outflows (particularly by foreign speculators) would be lower though domestic actors could still try and take out capital as well.
