Practice Problems – Set 1

Answer Key

This practice set is based on Chapters 12–20 of Feenstra & Taylor. Work through all questions to prepare for the Final Exam.

1. (15 points) IS-LM-FX: Foreign Shock Under Float and Fixed.

   Home (small open economy) and Foreign are initially in equilibrium. The foreign country unexpectedly *increases* its money supply. Assume sticky prices throughout.

   (a) What is the direct impact of the foreign money supply increase on the foreign interest rate i^*?

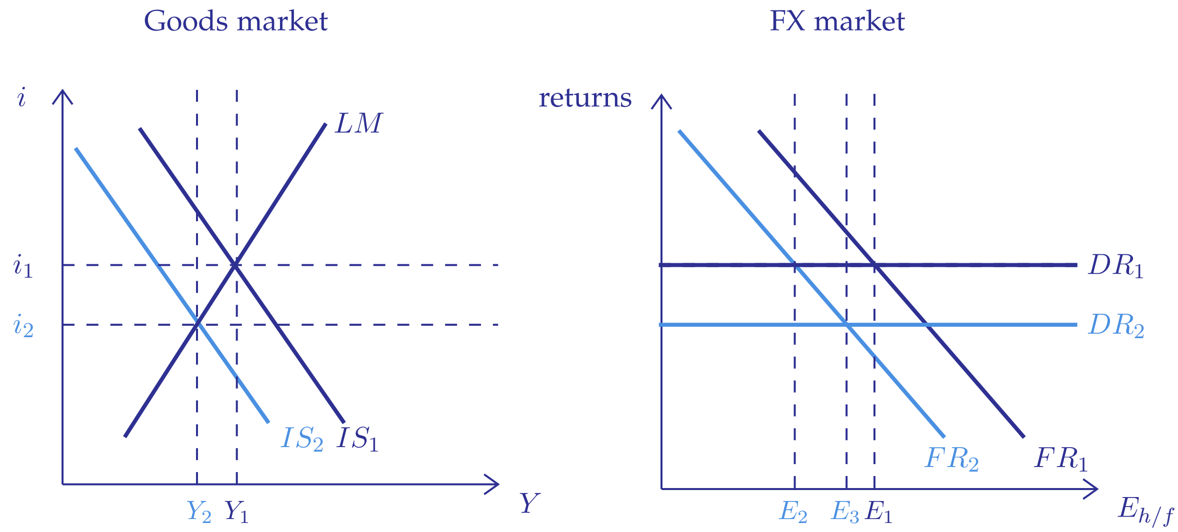
An increase in the foreign money supply creates excess money supply in the foreign money market. To restore equilibrium, the foreign interest rate i^* must *fall*.

Note the intuition is the exact same as when the change in money supply changes at home and it is reflected in the domestic interest rate.

   (b) Trace the full effect on Home under a **floating** exchange rate. Which IS-LM-FX curves shift at Home, and in what direction? What are the new equilibrium values of Y, i, and $E_{h/f}$ relative to their initial values? Use a diagram.

The fall in i^* reduces the foreign return, shifting the **FR curve downward** in the FX market. At the unchanged DR (given by Home's i_1), the exchange rate must fall on impact — the home currency *appreciates* to E_2 (overshooting). The appreciation worsens the trade balance, shifting the **IS curve to the left**. As IS shifts left, i falls, shifting **DR downward** to DR_2. The new DR_2 intersects FR_2 at the long-run equilibrium E_3, which is still appreciated relative to E_1 but *less* appreciated than the impact level E_2: $E_1 > E_3 > E_2$.

- $Y_2 < Y_1$: output falls
- $i_2 < i_1$: home interest rate falls
- $E_1 > E_3 > E_2$: exchange rate appreciates at long run, overshooting on impact

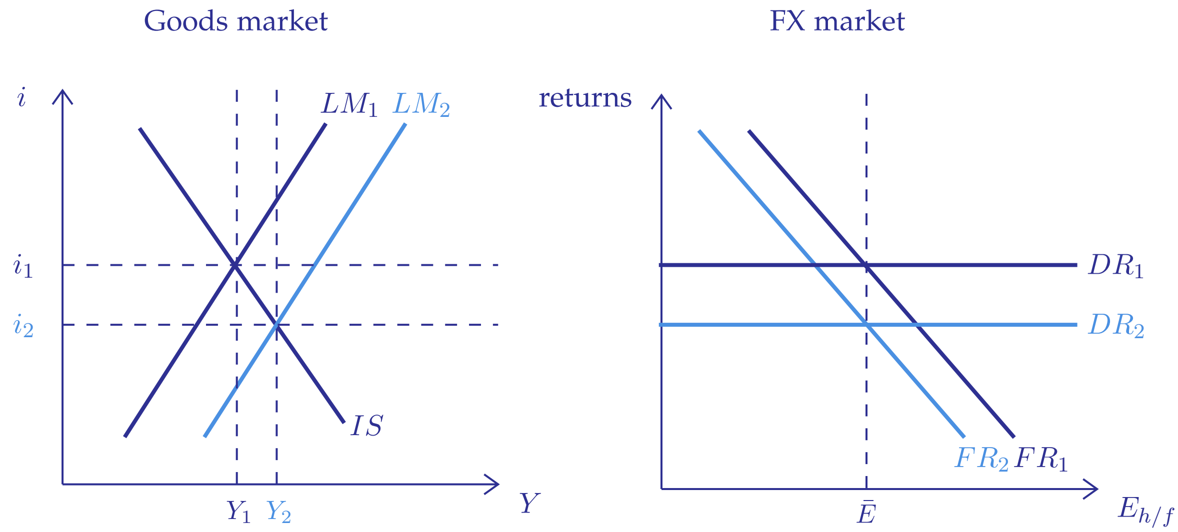


On impact, FR shifts down to FR_2 while DR is still at DR_1 (at i_1), giving the overshooting exchange rate E_2. As the IS shifts left and i falls to i_2, DR shifts down to DR_2, which intersects FR_2 at the long-run equilibrium $E_3 > E_2$. The currency is still appreciated at the long run ($E_3 < E_1$) but less so than at the moment of impact.

(c) Under a **fixed** exchange rate regime, what must the home central bank do to prevent the exchange rate from changing? What happens to Y and i under the fixed regime?

Under a fixed exchange rate the central bank must prevent the appreciation, i.e., it must keep $E_{h/f} = \bar{E}$. Since the drop in i^* creates appreciation pressure, the central bank must *expand the money supply* (buy foreign currency), shifting the **LM curve to the right** until the home interest rate i equals the (now lower) foreign rate i^*_{new}. The IS curve does not shift: since E never changes, the trade balance is unaffected.

Result under fixed: $i_2 = i^*_{\text{new}} < i_1$, $E_{h/f} = \bar{E}$ unchanged, and $Y_2 > Y_1$ — output *rises* as the economy moves down along the unchanged IS curve to the new lower interest rate. The lower i stimulates investment, expanding output. This contrasts with the floating case where the appreciation partially cushioned the IS but left output lower: under the fixed regime the CB's monetary expansion fully accommodates the lower world rate, delivering a larger output gain.



FR shifts down (lower i^*) and the CB expands the money supply, shifting LM right to restore $i = i^*_{\text{new}}$. DR shifts down to DR_2, which intersects FR_2 at exactly $\bar{E}$ — the peg holds. IS is unchanged throughout. Output rises from Y_1 to Y_2 as the economy slides down the IS curve to the lower interest rate.

(d) Compare the effects of the fall in i^* under the floating and fixed exchange rate regimes. Which regime delivers a better output outcome, and why?

	Y	i	$E_{h/f}$
Floating	$Y_2 < Y_1$	$i_2 < i_1$	$E_2 < E_1$ (appreciates)
Fixed	$Y_2 > Y_1$	$i_2 < i_1$	$\bar{E}$ (unchanged)

Under **floating**, the fall in i^* shifts FR down, causing an appreciation of the home currency. The appreciation worsens the trade balance, shifting IS left. Output falls despite the lower interest rate, because the contractionary TB effect dominates.

Under **fixed**, the CB expands the money supply to match the lower i^*, shifting LM right. The exchange rate never moves, so IS is unchanged. The economy simply moves down the IS curve to a lower i and higher Y — the lower interest rate stimulates investment without any offsetting TB deterioration.

The **fixed regime delivers a better output outcome** for this particular shock. The intuition is that the appreciation under floating is the source of the output loss: by preventing it, the fixed regime turns a contractionary shock into an expansionary one. This is one of the arguments in favor of fixed exchange rates for small open economies that are heavily exposed to foreign interest rate fluctuations.

2. (12 points) OCA – Symmetry-Integration Diagram.

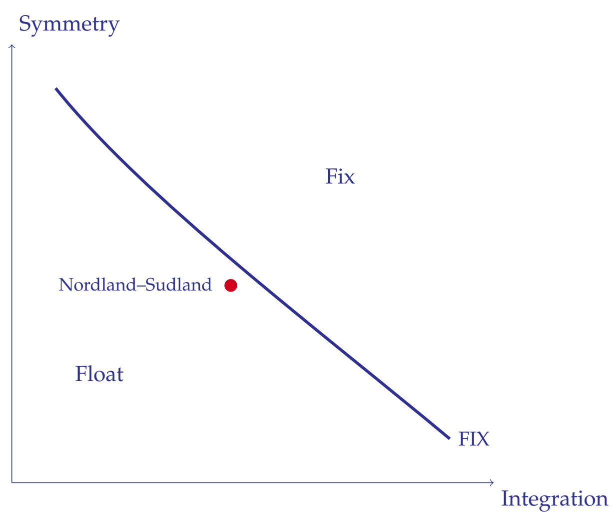
Two small open economies, Nordland and Sudland, are considering whether to form a currency union (i.e., irrevocably fix their exchange rate).

(a) Describe the two key criteria that determine whether a currency union is beneficial. For each criterion, explain whether a higher value makes the union more or less desirable.

(i) Economic Integration: the volume of trade, financial flows, and factor mobility between the two economies. *Higher integration* ⇒ *union more desirable*: the gains from exchange-rate stability (reduced transaction costs, price transparency, elimination of currency risk premia) are larger when trade and financial linkages are more intense.

(ii) Symmetry of Shocks: the degree to which the two economies experience common (correlated) output and demand shocks. *More symmetric shocks* ⇒ *union more desirable*: if the two countries are hit by the same shocks, they would ideally want the same monetary policy response. Losing independent monetary policy is therefore low-cost. Asymmetric shocks create divergent policy needs, which is costly under a common currency because one country cannot devalue to absorb a negative shock.

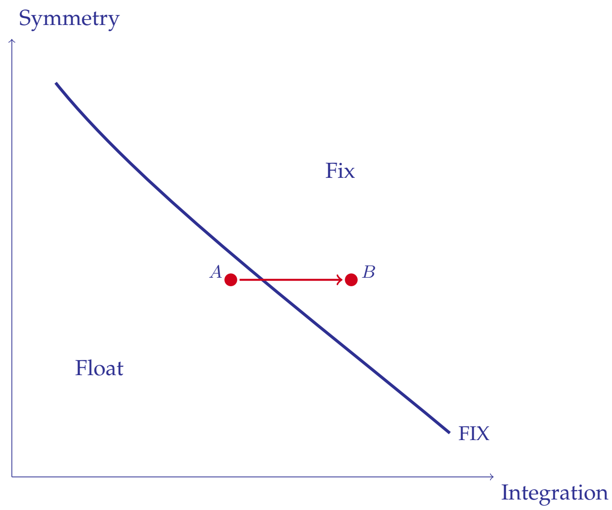
(b) Sketch the symmetry-integration diagram (integration on the horizontal axis, symmetry on the vertical axis). Draw the FIX line and label the "Fix" and "Float" regions. Mark Nordland-Sudland at a point just below the FIX line where integration is moderate and shocks are moderately correlated.



The point is just below the FIX line, meaning the net benefit of fixing is slightly negative — a common currency is not yet optimal.

(c) An unexpected surge in bilateral trade between the two countries permanently doubles their trade share. Show on your diagram what happens and whether the union becomes more or less attractive. Briefly discuss the concept of endogenous OCA criteria in this context.

Higher bilateral trade increases economic integration, shifting the point to the *right* on the horizontal axis. If this moves the point across the FIX line, the net benefit of fixing becomes positive and the currency union becomes *more* attractive. This illustrates *endogenous OCA* *criteria*: fixing itself tends to boost trade (by eliminating currency risk and transaction costs), which in turn makes fixing more beneficial. Countries that form a union may therefore find that the union becomes more justified over time.



Point A is the initial position (just below the FIX line, union not yet optimal). The trade surge shifts the pair rightward to B, which lies above the FIX line — the union is now optimal. The symmetry level is unchanged (horizontal shift only), consistent with the idea that the trade shock affects integration but not the correlation of shocks.

3. (10 points) The Monetary Policy Trilemma.

The Trilemma (impossible trinity) states that a country cannot simultaneously have (i) free capital mobility, (ii) a fixed exchange rate, and (iii) independent monetary policy.

(a) State the Trilemma precisely and explain why a country can only choose two of the three properties at once. Use the UIP condition in your answer.

With free capital mobility, UIP must hold:

$$i = i^* + \frac{E^e - E}{E}.$$

Under a credible fixed exchange rate, $E = E^e = \bar{E}$, so the depreciation term is zero, forcing $i = i^*$. The domestic interest rate is pinned to the foreign rate. The central bank cannot deviate from i^* without triggering capital flows that break the peg. Hence monetary policy independence is lost. To regain it, the country must either (a) allow the exchange rate to float (give up fixed E), or (b) impose capital controls (give up free mobility).

(b) For each of the following countries, identify which corner of the trilemma they occupy and which property they sacrifice:

(i) The United States (free float, open capital account)

(ii) Hong Kong (currency board pegged to USD, open capital account)

(iii) China (managed exchange rate, significant capital controls)

(i) **US**: free capital mobility + independent monetary policy. Sacrifices: fixed exchange rate (dollar floats freely).

(ii) **Hong Kong**: free capital mobility + fixed exchange rate (currency board). Sacrifices: independent monetary policy (HK interest rates track US rates mechanically).

(iii) **China**: fixed/managed exchange rate + (partial) monetary independence. Sacrifices: free capital mobility (capital controls limit cross-border flows).

4. (12 points) Dollar Liabilities and Foreign Monetary Tightening.

In 1979–1982, the US Federal Reserve implemented a sharp monetary contraction, raising US interest rates from roughly 6% to 20%. Many Latin American countries (Mexico, Brazil, Argentina) had large external debts denominated in US dollars.

(a) How would the US monetary contraction affect the US dollar's value relative to Latin American currencies? Use UIP to explain.

Higher US interest rates $i_\$^*$ make dollar deposits more attractive. By UIP, for the home currency to be held, either i_{home} must rise to match, or the home currency must depreciate so the depreciation term compensates. Latin American countries could not immediately raise interest rates by 14 percentage points without catastrophic output losses, so their currencies *depreciated sharply* against the dollar. UIP:

$$i_{\text{home}} = i_\$^* + \frac{E^e - E}{E}$$

With $i_\$^*$ rising sharply and i_{home} constrained, the equilibrating mechanism was a sharp depreciation of E (more local currency per dollar).

(b) How would the depreciation of Latin American currencies affect their external wealth? Be precise about the direction of the valuation effect.

With large dollar-denominated *liabilities*, a depreciation of the local currency against the dollar means the local-currency *value of liabilities increases*, while dollar-denominated assets do not increase proportionally (given they did not hold as many as liabilities). External wealth $W = \text{Assets} - \text{Liabilities}$ therefore *decreases* sharply.

This is a negative valuation effect driven by currency composition mismatch (borrowing in dollars, earning in local currency). Several Latin American countries experienced severe contractions in external wealth, contributing to the debt crisis of the early 1980s.

(c) What policy response would prevent a depreciation? What would be the trade-off?

To prevent depreciation, these countries would have needed to *raise domestic interest rates* to match the US rate (i.e., defend a de facto peg via contractionary monetary policy).

Trade-off: a massive monetary contraction would have pushed output well below potential, deepening recession. They faced a painful dilemma — accept depreciation and a balance-sheet crisis, or accept interest-rate parity and an output collapse. Many could not do either sustainably, leading to debt defaults.

5. (12 points) Non-Credible Peg and Policy Dilemma.

Prime Minister Tufton leads Valdoria, which pegs its currency (the albion) to the wotan. A mild recession has emerged: output is 1% below target. Investors are beginning to question the credibility of the peg.

(a) Explain why a non-credible peg forces the central bank to keep interest rates *higher* than under a credible peg (at the same foreign rate). Use the UIP condition.

Under UIP:

$$i_{\text{albion}} = i_{\text{wotan}} + \Delta^e,$$

where Δ^e is expected depreciation. Under a *credible* peg $\Delta^e = 0$, so $i_{\text{albion}} = i_{\text{wotan}}$. Under a *non-credible* peg, investors assign a positive probability to depreciation, so $\Delta^e > 0$. UIP then requires $i_{\text{albion}} > i_{\text{wotan}}$ — the home central bank must raise rates to prevent investors from abandoning the currency. The difference $i - i^*$ is the *currency premium* that compensates for depreciation risk.

(b) Why does the recession make the peg *harder* to maintain, even if nothing has changed in fundamentals?

With output already below target, raising interest rates (as required by the non-credible peg) deepens the recession further. The political and economic cost of maintaining the peg rises. Investors observe this and rationally update upward their probability of peg abandonment, which increases the currency premium, which requires even higher rates, which deepens the recession further. This feedback loop can lead to a *self-fulfilling crisis*: the government eventually abandons the peg, not because fundamentals are unsustainable, but because the defense itself has become too costly.

(c) Tufton is considering the statement: "We shall never surrender our peg to the wotan." Explain one advantage and one risk of making this statement.

Advantage: A credible "never abandon" commitment eliminates the currency premium entirely (forces $\Delta^e = 0$), which reduces the required interest rate and eases the recession.

If investors believe it completely, the self-fulfilling crisis is averted.

Risk: If investors do not find the statement credible (because they believe future output losses will eventually force abandonment), the statement provides no relief. Worse, if the peg is eventually abandoned despite the statement, the loss of credibility for future commitments is severe — other policies made by this government become suspect. A statement that is not believed is worse than no statement.

6. (10 points) Currency Boards.

(a) Define a currency board. How does it differ from an ordinary fixed exchange rate regime?

A currency board is an institutional arrangement under which the central bank commits to a 100% backing ratio: every unit of base money is fully backed by foreign reserves ($B = 0$, equivalently $R = M$). Unlike a simple fixed exchange rate, the central bank in a currency board *cannot* expand domestic credit: it can only issue money by purchasing foreign currency at the fixed rate. This means it cannot act as lender of last resort, cannot monetize fiscal deficits, and cannot use monetary policy to smooth business cycles. The peg is therefore much more automatic and credible, but at the cost of complete monetary policy independence.

(b) Why is it typically *impossible* to launch a successful speculative attack against a currency board, but possible against an ordinary peg?

With 100% reserves backing, the central bank can in principle honor every claim for foreign currency, no matter how large. Any speculative attack — investors selling domestic currency for foreign reserves — is simply met by the central bank exchanging domestic currency for foreign reserves one-for-one. The exchange rate never changes. In an ordinary peg, domestic credit creates a gap between M and R: reserves are only a fraction of the money supply. Once investors collectively demand more than that fraction, the bank runs out of reserves and is forced to float. The currency board eliminates this vulnerability by construction.

(c) Describe one episode in history where a currency board ultimately failed anyway, and briefly explain why.

Argentina's currency board (the Convertibility Plan, 1991–2002) is the canonical example. It was backed 100% and initially eliminated hyperinflation. It failed because: (1) Argentina accumulated large dollar-denominated sovereign debt through fiscal deficits; (2) when the economy entered recession (1998–2001), the politically required fiscal expansion was incompatible with the peg; (3) investors recognized that the dollar debt burden, combined with a prolonged recession, would force devaluation or default, and a speculative attack drained reserves. The currency board failed not because the peg was technically indefensible in a narrow sense, but because underlying fiscal and debt dynamics undermined the political sustainability of the commitment.

7. (10 points) Lender of Last Resort Under a Fixed Exchange Rate.

(a) What is a lender of last resort (LoLR)? Why might a central bank want to act as LoLR?

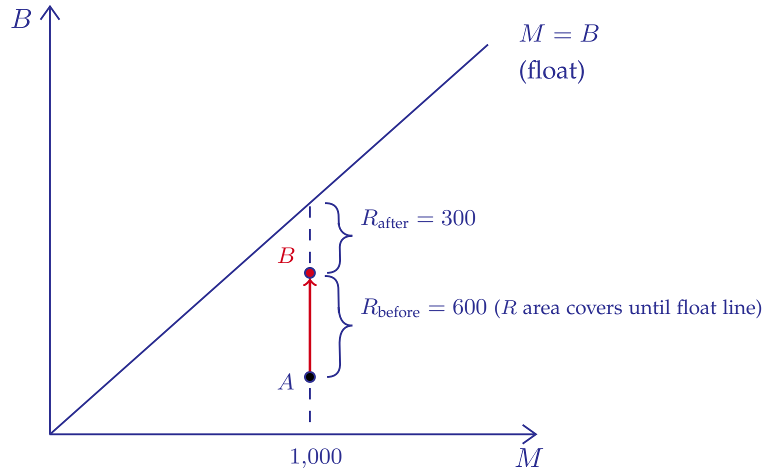
A lender of last resort is an institution (usually the central bank) that stands ready to provide emergency liquidity to solvent but illiquid banks facing a run. The rationale: bank runs can be self-fulfilling (depositors withdraw because they expect others to withdraw), and without a LoLR, a solvent bank can be destroyed by a pure panic. The LoLR provides enough liquidity to stop the run, allowing the bank to survive and preventing a systemic financial crisis.

(b) Explain the tension between the LoLR role and maintaining a fixed exchange rate. Suppose the central bank extends F$400 million in emergency credit to a distressed bank. Show what happens to the central bank balance sheet (assume the initial balance sheet has $M = 1{,}000$, $B = 300$, $R = 700$) and explain the implications for peg defense. Use either or both a figure and a balance sheet table in your answer.

When the central bank lends to a distressed bank, it expands *domestic credit* B. To keep M constant (as required by the fixed exchange rate and unchanged P, Y), it must simultaneously sell an equal amount of foreign reserves R. The balance sheet changes as follows:

Assets	**Before**	**Change**	**Liabilities**	
R	700	$-400 = 300$	M	1,000
B	300	$+400 = 700$		
Total	1,000	$= 1{,}000$	**Total**	1,000

The backing ratio falls from $700/1{,}000 = 70\%$ to $300/1{,}000 = 30\%$. Every unit of LoLR lending is a one-for-one swap of reserves for domestic credit on the asset side — exactly the opposite of what strengthens peg defense. In a severe banking crisis requiring large-scale LoLR support, reserves can be exhausted quickly, transforming a banking crisis into a currency crisis (a *twin crisis*).



The diagram shows the balance sheet moving from point A (before LoLR, $B = 300$) upward to point B (after LoLR, $B = 700$), while staying on the same vertical line at $M = 1{,}000$. The gap to the floating line shrinks from 700 to 300 — the central bank is now only half as resilient to a speculative attack as before. This is the fundamental tension: acting as LoLR moves the balance sheet toward the floating line, exactly undoing the reserve buffer that defends the peg.

(c) What does a *currency board* imply for the ability to act as LoLR?

A currency board — by design — prohibits any expansion of domestic credit. Therefore, the central bank *cannot* act as LoLR under a currency board: it has no ability to inject emergency liquidity without either breaking the currency board rule or having a foreign lender (e.g., the IMF) supply reserves. This is a major vulnerability of currency boards in countries with fragile banking systems.

8. (15 points) Expectation Shock: Floating vs. Fixed Exchange Rate.

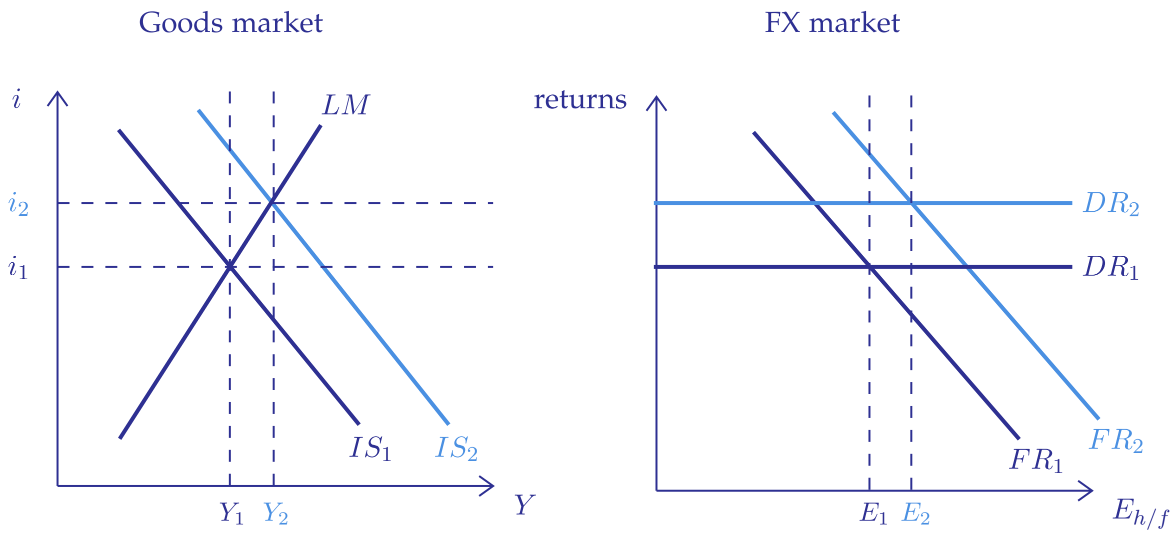
Home (small open economy) is initially at equilibrium (Y_1, i_1, E_1). Investors abroad suddenly *expect* the home currency to depreciate (an expectation shock: $E^e_{h/f} \uparrow$), even though no actual depreciation has occurred yet.

(a) Under a **floating** exchange rate, trace the adjustment. Which curves shift? What are the effects on Y, i, and $E_{h/f}$?

The expectation of depreciation shifts the **FR curve upward** (foreign return is now higher at every current E, because holding foreign currency is expected to yield a capital gain). For given i and E, FR now exceeds DR, so the exchange rate must *rise* immediately (home currency depreciates) to restore FX equilibrium.

The depreciation improves the trade balance, shifting the **IS curve to the right**. With LM unchanged, the equilibrium moves along LM to higher i and higher Y.

Final effects: $Y_2 > Y_1$ (output rises), $i_2 > i_1$ (interest rate rises), $E_2 > E_1$ (home currency depreciates). DR shifts right (higher i_2) to meet FR at E_2.

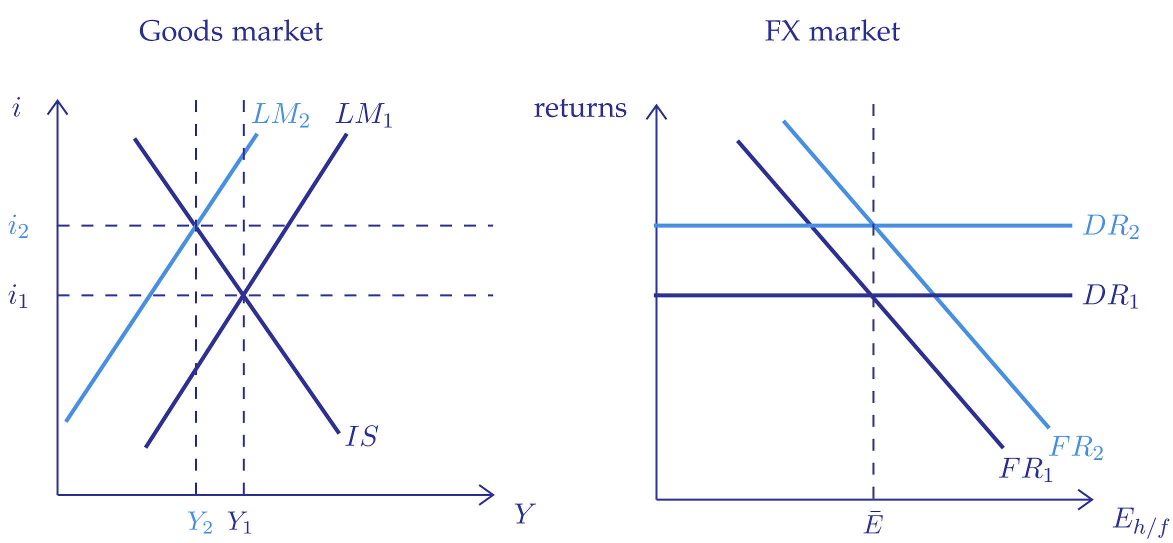


(b) Under a **fixed** exchange rate, trace the adjustment. What must the central bank do?

The same upward shift in FR creates depreciation pressure. The central bank must prevent E from rising by *contracting the money supply* (shifting LM to the *left*), raising i until DR shifts up enough to keep the equilibrium exchange rate at $\bar{E}$.

This requires $i_2 > i_1$: the domestic interest rate must rise to offset the expected depreciation premium. There is no IS shift (the actual exchange rate never changes, so the trade balance is unaffected).

Final effects: $Y_2 < Y_1$ (output falls), $i_2 > i_1$ (interest rate rises), $E = \bar{E}$ unchanged.



IS is unchanged throughout (no TB effect since E is fixed). LM shifts left as the CB contracts money supply, raising i to i_2. DR shifts up to DR_2, which intersects FR_2 at exactly $\bar{E}$ — the peg holds. Output falls from Y_1 to Y_2 as the economy moves up along the unchanged IS curve to the higher interest rate.

(c) Compare the two regimes in one or two sentences. Under which regime is the expectation shock more damaging to output?

Under the floating rate, the expectation of depreciation is partially self-correcting: the actual depreciation raises net exports and output. Under the fixed rate, the central bank must validate the higher currency risk premium with a contractionary monetary response, which reduces output. The **fixed rate regime is more damaging to output** in response to an adverse expectation shock.

9. (20 points) Speculative Attacks and Peg Collapse.

A small open economy has maintained a fixed exchange rate $\bar{E}$ for several years, but persistent current account deficits have steadily eroded its stock of foreign reserves $\mathcal{R}$. Market participants begin to doubt that the central bank has sufficient reserves to sustain the peg. As a result, they revise upward their expected future exchange rate: $E^e_{h/f} \uparrow$. The central bank attempts to defend $\bar{E}$ by contracting the money supply, but reserve losses accelerate as the attack intensifies.

(a) Recall that the foreign return in the FX market is:

$$FR = i^* + \frac{E^e_{h/f} - E_{h/f}}{E_{h/f}}$$

and that under uncovered interest parity (UIP), the domestic interest rate must satisfy:

$$i = i^* + \frac{E^e_{h/f} - E_{h/f}}{E_{h/f}}$$

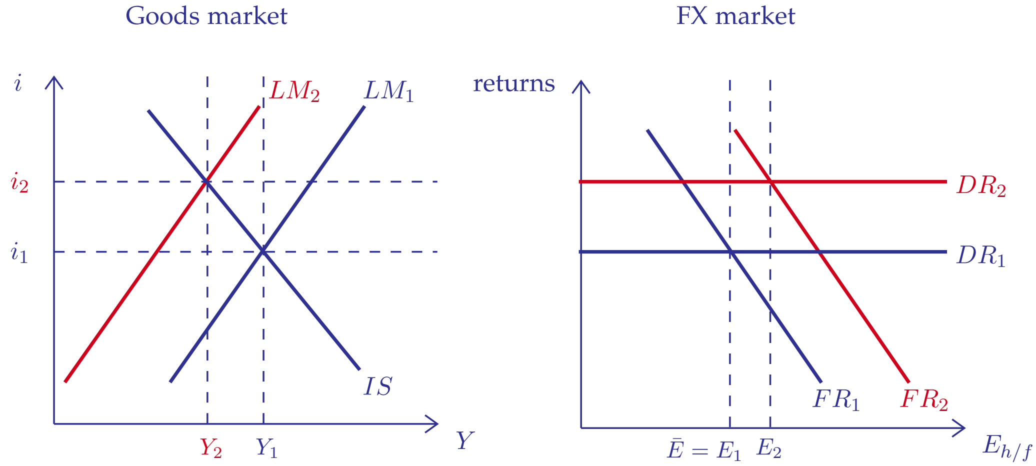
How does the revision in expectations ($E^e_{h/f} \uparrow$) affect the FR curve? What interest rate must the central bank maintain to keep $E_{h/f} = \bar{E}$, and what does this imply for monetary policy and output? Use an IS-LM-FX diagram to illustrate.

When $E^e_{h/f} \uparrow$, foreign assets become more attractive at every (spot) exchange rate: the FR curve shifts **up**, creating depreciation pressure on the home currency.

To keep $E_{h/f} = \bar{E}$, UIP requires:

$$i = i^* + \frac{E^e_{h/f} - \bar{E}}{\bar{E}}$$

Since $E^e_{h/f} > \bar{E}$, the required domestic interest rate is **above** i^*. The central bank must raise i by selling foreign reserves and buying domestic currency, contracting the money supply ($M \downarrow$) and shifting LM **left**. With IS unchanged (the exchange rate has not actually moved, so there is no competitiveness effect), the new goods-market equilibrium has lower output and a higher interest rate.



Effects of the defense phase:

- FR shifts right/up: depreciation pressure at $\bar{E}$
- IS unchanged: exchange rate has not moved
- LM shifts left: CB contracts money supply to raise i
- $Y\downarrow$, $i\uparrow$, $E_{h/f} = \bar{E}$ (peg holds, for now)
- $\mathcal{R}\downarrow$: foreign reserves falling

Key insight: The stronger the loss of credibility (the larger $E^e_{h/f} - \bar{E}$), the higher the interest rate required and the larger the output contraction needed to defend the peg.

(b) Describe the dynamic of a speculative attack. If private agents believe the peg will collapse, what do they do, and how does this affect the central bank's reserve position? Why is the attack self-fulfilling?

If agents believe the peg will collapse and the currency will depreciate, they have a strong incentive to attack immediately:

- They sell home-currency assets and buy foreign-currency assets (capital flight).
- To defend $\bar{E}$, the CB must absorb all of this selling, buying home currency with its foreign reserves.
- This drains $\mathcal{R}$ rapidly.

The self-fulfilling nature arises because the attack itself causes the reserve depletion that makes collapse inevitable:

- Even if the CB *could* have sustained the peg absent the attack, the sudden surge in reserve demand forces collapse.

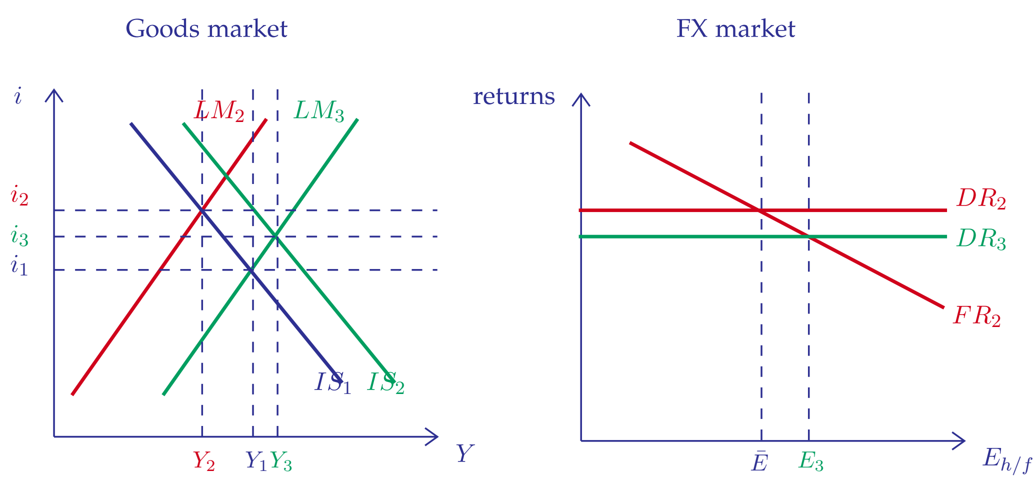
- Agents who attack profit if the peg collapses: they bought foreign currency cheaply at $\bar{E}$ and now hold it at the post-collapse depreciated rate.
- The dominant strategy for any agent who believes others will attack is therefore to attack as well.

This coordination problem means that even a fundamentally sound peg can collapse if credibility is lost. It is a key insight from these models (called second-generation currency crisis setups): a peg may be in a *bad equilibrium* simply because everyone expects it to be.

(c) Once reserves are exhausted the central bank abandons the peg. Using IS-LM-FX diagrams, trace the effects of the collapse. What happens to Y, i, and $E_{h/f}$ relative to (i) the pre-crisis equilibrium and (ii) the defense phase? Summarize the full sequence in a table.

When the peg is abandoned, two things happen simultaneously:

- The CB releases the money supply constraint: LM shifts back right toward its pre-crisis position.
- The exchange rate jumps to its new market-clearing level $E_3 > \bar{E}$ (large depreciation). This improves competitiveness and the trade balance: IS shifts right.



Note: In this plot we assume LM, and DR go back to their previous (pre-shock) positions, that is: $LM = LM_3$, $DR = DR_3$. This is why the LM, DR curves are not visible (the new ones are superimposed on them).

Summary of the full sequence:

	Y	i	$E_{h/f}$
Pre-crisis equilibrium	Y_1	i_1	$\bar{E}$
Defense phase	$Y_2 < Y_1$	$i_2 \gg i_1$	$\bar{E}$
Post-collapse equilibrium	$Y_3 > Y_2$	$i_1 < i_3 < i_2$	$E_3 > \bar{E}$

The economy endures a sharp contraction during the defense phase, then partially recovers after the collapse as the depreciation boosts competitiveness and the money supply constraint is lifted. Whether Y_3 exceeds Y_1 is ambiguous: it depends on the relative magnitude of the rightward IS shift and the extent to which LM recovers. This boom-bust pattern is a characteristic feature of historical currency crises.

(d) The boom-bust pattern in the table above is a stylized feature of historical currency crises. Briefly identify one real-world episode that fits this pattern and explain which elements of the model are most consistent with what happened, and where the model falls short.

Example: East Asian Crisis, 1997–98 (Thailand, Indonesia, South Korea).

These countries maintained de facto pegs to the U.S. dollar. When doubts arose about reserve adequacy and current account sustainability, investors attacked the pegs. Central banks raised interest rates sharply to defend — consistent with the defense phase: $i \uparrow\uparrow$, $Y \downarrow\downarrow$, reserves draining rapidly. Once pegs collapsed, currencies depreciated 30–50%, export competitiveness recovered, and output began recovering within 1–2 years — consistent with the post-collapse IS shift and recovery toward Y_3.

Most consistent model elements:

- The self-fulfilling nature of the attack: Thai fundamentals were weak but not obviously crisis-inducing absent the confidence shock.
- The contractionary defense phase: Thai interest rates exceeded 20% annualized during the defense period.
- The post-collapse depreciation-driven recovery: Korean exports surged after the won depreciated, shifting IS rightward as the model predicts.

Where the model falls short: Balance-sheet effects. Many firms and banks had dollar-denominated liabilities. The depreciation that the model predicts should be expansionary (IS right) was partially offset by balance-sheet contractions, as the domestic-currency value of foreign debt surged. This channel is absent from the basic IS-LM-FX framework and helps explain why the post-collapse recovery was slower and more painful than the model suggests.