CHARTA LEARNING · LESSON NOTES

Currency regimes, trade flows and capital flows

CFA Level I · Economics

You will learn: Tell the eight currency regimes apart and explain the trade-off they share, say when a weaker currency helps the trade balance (Marshall-Lerner, J-curve, absorption), use the balance of payments identity, and explain why governments restrict capital and how.

Running example: Examples use made-up figures: an island whose peso is pegged at 10 pesos per dollar, a trade-balance test with a rate moving from 1.00 to 1.25, and a country with a current account of −60 (billions).

1. The eight currency regimes

- A currency regime is how much a government controls its currency's price. From locked to floating, it controls the price less but gains freedom to set its own interest rates. Locking gives a steadier price and credibility but loses that freedom.
- Locked: dollarisation (another country's money, no own money or central bank); monetary union (shared currency and central bank, like the euro area); currency board (own notes, swappable by law at a fixed rate and fully backed by foreign reserves).
- Middle: fixed (conventional) peg (tied to a currency or basket, moving about 1% either side); target zone (a wider band); crawling peg (target reset on a schedule, often for higher inflation).
- In all three the central bank defends the rate by trading, so it needs reserves. Unlike a currency board it is a policy choice, not law, so it can be dropped.
- Loose: managed float (market sets the price, central bank steers from time to time with no announced target); independent float (market only, rare calming). Gain: own interest-rate policy. Cost: a price that can swing.

2. The trilemma and a peg that breaks

- Trilemma: a country cannot have all three of a fixed exchange rate, free capital movement and its own interest-rate policy; only two. With a fixed rate and free money, cutting rates below the foreign rate sends money out and drains reserves, so it must copy the foreign rate.
- Defending a peg uses reserves, and the market can see them, so pressure builds faster once people suspect the stock is shrinking. Raising interest rates to hold on hurts the economy at home.
- Percentage moves depend on which currency you measure. A broken peg can also bring company failures where firms owe debts in dollars.

EXAMPLE 1: PEG 10 PESOS PER DOLLAR, RESERVES $50BN, CENTRAL BANK SELLS $12BN A MONTH

After months 1, 2, 3	50 − 12; 38 − 12; 26 − 12	**38, 26, 14**
Month 4	14 − 12	**2 left: peg dropped**
Peso after floating at 15 per dollar	worth 0.1000 to 0.0667 dollars	**−33.33%**
Dollar	10 to 15 pesos	**+50.00%**
Debt of $2m in pesos	20m to 30m	**+10m pesos**

Watch out: Mixing up a currency board (law-backed, reserves for every note) and an ordinary peg (policy only).

3. A weaker currency and the trade balance

- Depreciation makes the home currency buy less foreign: exports look cheaper abroad, imports cost more at home. Trade balance = exports − imports.
- The price effect raises the import bill; the quantity effect (fewer units bought) lowers it. Which wins depends on elasticity: % change in quantity ÷ % change in price.
- Marshall-Lerner condition: starting from balanced trade, a depreciation improves the trade balance only if the elasticity of demand for exports plus the elasticity of demand for imports is greater than 1. It is the sum that matters. Below 1 the balance worsens; exactly 1 nothing changes.
- J-curve: right after a depreciation volumes are stuck in contracts and habits but prices change at once, so the balance worsens first, then improves as volumes adjust, if elasticities are high enough.

Depreciation improves the trade balance if elasticity of exports + elasticity of imports > 1

EXAMPLE 2: RATE 1.00 TO 1.25 HOME UNITS PER FOREIGN; EXPORTS 100 × 10, IMPORTS 100 × 10 (BALANCED); EXPORT PRICE ABROAD 8 (−20%), IMPORT PRICE 12.5 (+25%)

Case A: elasticities 1.0 and 0.8 (sum 1.8)	exports 120 × 10 = 1,200; imports 80 × 12.5 = 1,000	**+200**
Case B: elasticities 0.2 and 0.4 (sum 0.6)	exports 104 × 10 = 1,040; imports 90 × 12.5 = 1,125	**−85**
J-curve, case A, just after the fall	volumes stuck: 1,000 − 100 × 12.5	**−250**
Later, volumes adjust	1,200 − 1,000	**+200**

Watch out: Assuming a weaker currency always helps trade.

4. Absorption and the balance of payments

- The elasticities approach looks at one market at a time; the absorption approach looks at the whole country. Income is what it produces; absorption is what it spends (consumption + investment + government). Spending more than it earns means a trade deficit.
- So a depreciation helps only if it raises income relative to spending. At full capacity a weaker currency cannot raise output, so spending must fall instead.
- The balance of payments records every transaction with the rest of the world. Current account: trade in goods and services, income earned, transfers. Capital account (small): debt forgiveness, property rights. Financial account: foreign assets such as shares and bonds, and changes in central bank reserves.
- The three accounts sum to zero, so a current account deficit is matched by a surplus on the others.

Trade balance (X − M) = income (Y) − absorption (A). Current + capital + financial account = 0

EXAMPLE 3 (BILLIONS)

Goods; services	buys 70 more than it sells; sells 10 more than it buys	**−70; +10**
Current account	−70 + 10	**−60**
Capital account	small inflow	**+2**
Financial account	0 − (−60) − 2	**+58**

Watch out: Forgetting the signs: a current account deficit means a surplus elsewhere. The +58 means foreigners on balance lent or invested 58, or the central bank drew down reserves (saved 180, invested 240, gap 60).

5. Capital flows and capital restrictions

- Trade is slow; money is fast, so short-run currency moves often follow capital flows more than trade.
- A one point rise in the interest rate can pull funds in at once and lift the currency even with a trade deficit; a scare can send money out whatever the trade figures say.
- A capital restriction is a rule limiting how freely money crosses a border. Aims: stop sudden outflows that could break a peg or crash the currency; keep policy freedom under a fixed rate (the trilemma); damp bubbles fed by hot money; protect domestic industries and strategic assets.
- Direct controls: bans, quotas, caps on foreign ownership, approval or licence rules.
- Price-based controls make moving money costly: a tax on inflows or foreigners' returns, and an idle deposit requirement (part of an incoming deposit held at the central bank for a set time). Some hit inflows to cool excess, others outflows to stop a flight.

EXAMPLE 4: HOME DEPOSITS 6%, ABROAD 2%, 10% TAX ON MONEY BROUGHT IN (SIMPLE, IGNORING COMPOUNDING AND CURRENCY MOVES)

Yearly interest gap	6% − 2%	**4%**
One-year investor	4% − 10%	**−6% (stays away)**
Five-year investor	5 × 4% − 10%	**+10% (may still come)**
Break-even holding period	10% ÷ 4%	**2.5 years**

Key takeaways

- Eight regimes run from dollarisation to independent float: the more locked, the less policy freedom.
- Trilemma: fixed rate, free capital and own interest-rate policy, only two at once.
- A weaker currency improves the trade balance only if the export and import elasticities sum to more than 1 (Marshall-Lerner), usually after a J-curve dip.
- Trade balance = income − absorption; spending more than you earn means a deficit.
- Current + capital + financial account = 0.
- Governments restrict capital to stop outflows and protect the currency and policy freedom, using direct or price-based controls.

Quick check

1. A country wants a fixed rate and free capital movement. What must it give up?
   Answer: Independent monetary policy: the trilemma.
2. Export elasticity 0.3, import elasticity 0.4, balanced trade. A depreciation does what?
   Answer: Worsens the balance: 0.3 + 0.4 = 0.7, below 1.
3. Current account −40, capital account +5. What is the financial account?
   Answer: +35, since the three sum to zero.