

The Global Economy

IB SL Study Guide

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International Trade

International trade allows countries to specialise in what they produce most efficiently, raising living standards globally. The IB syllabus examines the theory of comparative advantage, the gains from trade, and the effects of trade restrictions.

Why Countries Trade

Countries trade because they differ in their productive capabilities. Trade allows each country to specialise in what it produces most efficiently and to obtain goods it cannot produce as cheaply domestically.

WORKED EXAMPLE

Practice Question 1: Gains from Trade

If two countries have different opportunity costs of producing the same two goods, which outcome is most likely if they specialise according to comparative advantage and engage in free trade?

A) One country will gain while the other country will lose, depending on who has absolute advantage
B) Neither country will gain because trade redistributes existing output rather than creating new value
C) Both countries can gain by consuming beyond their individual production possibilities
D) Only the country with lower overall productivity will gain

Answer: C

Explanation: Specialisation according to comparative advantage allows both countries to produce more total output together than they could in isolation. By trading, each can consume beyond its own production possibilities frontier, obtaining a combination of goods that would be impossible to produce domestically with the same resources. This mutual gain is the fundamental justification for free trade. Option A wrongly assumes trade is zero-sum; option B ignores the efficiency gains from specialisation; option D reverses the logic of comparative advantage.

Two theories of trade advantage:

Absolute Advantage

A country has an **absolute advantage** in producing a good if it can produce more of that good with the same resources than another country (or the same amount with fewer resources).

Example:

Country	Output per worker per day: Wheat	Output per worker per day: Cloth
Country A	10 units	5 units
Country B	4 units	8 units

Country A has an absolute advantage in wheat ($10 > 4$). Country B has an absolute advantage in cloth ($8 > 5$). Both can gain by specialising and trading.

Comparative Advantage

Comparative advantage is the ability to produce a good at a **lower opportunity cost** than another country. This is the more powerful and more frequently tested theory.

Key insight: Even if one country has an absolute advantage in producing everything, trade is still mutually beneficial — each country should specialise in the good for which it has the lower opportunity cost.

Calculating opportunity cost:

Using the table above:

- **Country A:** To produce 1 unit of cloth, it gives up $\frac{10}{5} = 2$ units of wheat. To produce 1 unit of wheat, it gives up $\frac{5}{10} = 0.5$ units of cloth.
- **Country B:** To produce 1 unit of cloth, it gives up $\frac{4}{8} = 0.5$ units of wheat. To produce 1 unit of wheat, it gives up $\frac{8}{4} = 2$ units of cloth.

Country A's comparative advantage: Wheat (opportunity cost of 0.5 cloth, versus Country B's 2 cloth).

Country B's comparative advantage: Cloth (opportunity cost of 0.5 wheat, versus Country A's 2 wheat).

Conclusion: Both countries benefit if Country A specialises in wheat and Country B in cloth, and they trade at a price between 0.5 and 2 units of cloth per unit of wheat.

MEMORISE THIS

Comparative advantage is about **opportunity cost**, not absolute productivity. A country always has a comparative advantage in something, even if it is less productive than its trading partner in every good — as long as its relative disadvantage is smaller in one good than another.

EXAM ALERT

IB exams frequently present a table of output data and ask you to (a) identify which country has absolute advantage in each good, and (b) calculate opportunity costs to determine comparative advantage. Always show your calculations — the marks are in the working, not just the conclusion.

WORKED EXAMPLE

Multiple Choice — Comparative Advantage

Using one day of labour, Country P can produce either 12 units of textiles or 6 units of electronics. Country Q can produce either 10 units of textiles or 10 units of electronics. Which statement is correct?

- A. Country P has a comparative advantage in electronics because its opportunity cost is lower
- B. Country Q has a comparative advantage in textiles because it can produce more electronics
- C. Country P has a comparative advantage in textiles; Country Q in electronics**
← CORRECT
- D. Neither country gains from trade because Country Q has an absolute advantage in electronics

Why: Compare opportunity costs. In Country P, producing 1 textile costs $\frac{6}{12} = 0.5$ electronics; in Country Q, 1 textile costs $\frac{10}{10} = 1$ electronics. Country P sacrifices fewer electronics per textile ($0.5 < 1$), so it has the comparative advantage in textiles. Conversely, 1 electronic costs $\frac{12}{6} = 2$ textiles in P but only $\frac{10}{10} = 1$ textile in Q, so Country Q has the comparative advantage in electronics. Each country should specialise where its opportunity cost is lower — option C. Option A inverts the calculation; option B confuses absolute output with comparative advantage; option D wrongly assumes absolute advantage prevents gains from trade.

Terms of Trade

The **terms of trade (ToT)** measure the relative price of a country's exports compared to the price of its imports.

$$\text{Terms of Trade} = \frac{\text{Index of export prices}}{\text{Index of import prices}} \times 100$$

Interpretation:

- An **improvement** in the terms of trade (ToT rises): export prices rise relative to import prices — the country can buy more imports for a given volume of exports. Generally beneficial.
- A **deterioration** in the terms of trade (ToT falls): export prices fall relative to import prices — the country must export more to buy the same volume of imports. Detrimental, especially for commodity-exporting developing nations.

Causes of ToT changes:

- Changes in world commodity prices (e.g., oil price shocks, coffee price volatility).
- Exchange rate changes (currency appreciation → export prices rise in foreign currency → ToT may improve).

- Inflation differentials between countries.

WORKED EXAMPLE

Multiple Choice — Terms of Trade

A developing country's export price index falls from 100 to 90 while its import price index rises from 100 to 120 over the same period. Which statement best describes the change in its terms of trade?

- A. The terms of trade improve to 133.3, raising real national income
- B. The terms of trade are unchanged because both indices moved
- C. The terms of trade deteriorate to 75, so the country must export more to buy the same volume of imports ← CORRECT**
- D. The terms of trade deteriorate to 30, halving the country's purchasing power

Why: $ToT = \frac{\text{export price index}}{\text{import price index}} \times 100 = \frac{90}{120} \times 100 = 75$. The index has fallen from 100 to 75 — a deterioration of 25%. Falling export prices combined with rising import prices means each unit of exports now buys fewer imports, so the country must export a larger volume to maintain the same import volume. This is a common pressure on commodity-exporting developing economies (the Prebisch-Singer hypothesis). Option A inverts the ratio; option B ignores the relative movement; option D miscalculates the index.

Free Trade vs Protectionism

Free trade allows goods and services to move across borders without government-imposed barriers, enabling specialisation according to comparative advantage.

Protectionism involves government policies that restrict imports to protect domestic industries.

The Case for Free Trade

- **Efficiency gains:** Resources are allocated according to comparative advantage — global output is maximised.
- **Consumer benefits:** Lower prices and greater variety through access to cheaper imports.
- **Economies of scale:** Firms can produce for larger global markets, reducing average costs.
- **Competition:** Exposure to foreign competition encourages domestic efficiency and innovation.
- **Dynamic gains:** Technology transfer, learning-by-doing spillovers.

Protectionist Instruments

Tariffs

A **tariff** is a tax imposed on imported goods.

Diagram analysis:

- World price P_w is below the domestic equilibrium price.
- Without tariff: domestic quantity supplied Q_1 , domestic quantity demanded Q_4 , imports = $Q_4 - Q_1$.
- Tariff t raises the price to $P_w + t$.
- At the higher price: domestic supply rises to Q_2 , demand falls to Q_3 , imports fall to $Q_3 - Q_2$.
- **Effects on welfare:**
 - Consumers lose surplus (area A + B + C + D) — they pay more and buy less.
 - Domestic producers gain surplus (area A).
 - Government gains tariff revenue (area C = tariff per unit $\times$ import quantity).
 - Net welfare loss = triangles B + D (production inefficiency + consumption inefficiency — the deadweight welfare loss).

MEMORISE THIS

Tariff welfare areas (ABCD framework):

- A = producer surplus gain (domestic producers benefit from higher price)
- B = production inefficiency DWL (resources drawn into inefficient domestic production)
- C = government tariff revenue
- D = consumption inefficiency DWL (consumers priced out of the market)
- Net welfare cost to domestic economy = B + D

Import Quotas

An **import quota** is a direct quantitative limit on the volume of a good that can be imported.

Diagram analysis: A quota shifts the domestic supply curve right by the quota amount. The price effect is similar to a tariff — domestic price rises above P_w .

Key difference from a tariff: The revenue equivalent of a tariff (area C in the tariff diagram) goes instead to foreign exporters (or domestic importers who receive import licences) — not to the domestic government. This makes quotas generally less efficient than tariffs from the domestic economy's perspective.

Subsidies to Domestic Producers

A **subsidy** to domestic producers reduces their costs, enabling them to compete with cheaper imports without raising the consumer price.

Diagram analysis: Domestic supply shifts right. The world price is unchanged. Domestic quantity supplied increases; import volume decreases. Consumer price is unchanged (still at P_w).

Effect: Domestic consumers are not worse off (price is unchanged). Domestic producers are protected and expand output. The government bears the fiscal cost.

Administrative Barriers (Non-Tariff Barriers)

- **Health and safety standards:** Domestic standards that imports must meet — if set above international norms, they act as barriers.
- **Bureaucratic customs procedures:** Delays and paperwork impose costs on importers.
- **Local content requirements:** Rules requiring domestic inputs in production.
- **Voluntary export restraints (VERs):** Agreements where foreign firms “voluntarily” limit exports under threat of tariffs.

Arguments for Protectionism

- **Infant industry argument:** New domestic industries may need temporary protection to develop economies of scale before they can compete internationally. (Counter: protection may become permanent; difficult to pick winning industries.)
- **National security:** Strategic industries (defence, food, energy) should not depend on foreign suppliers.
- **Protect employment:** Prevent job losses in import-competing industries. (Counter: resources are more efficiently redeployed elsewhere; retaliation may destroy export jobs.)
- **Anti-dumping:** Respond to foreign firms selling below cost (dumping) to gain market share.
- **Correct a trade deficit:** Reduce imports to improve the current account. (Counter: trade deficits may reflect efficient capital inflows; protectionism invites retaliation.)

 WORKED EXAMPLE

Practice Question 2: Protectionism vs Free Trade

A developing country's government imposes a tariff on imported steel to protect its domestic steel industry. Which of the following is the most likely short-run consequence?

A) Domestic steel producers expand output and hire more workers, while consumers pay lower prices
B) Domestic steel producers gain market share but downstream industries using steel face higher input costs
C) The government loses tariff revenue because imports fall to zero
D) Consumer surplus increases because domestic production expands

Answer: B

Explanation: A tariff raises the domestic price of imported steel, allowing domestic producers to expand output and hire workers without lowering their price (they gain producer surplus). However, industries that use steel as an input—such as construction, automobile manufacturing, and machinery—now face higher costs, reducing their competitiveness. Consumers also pay more for steel products, losing consumer surplus. The government does collect tariff revenue on remaining imports (they don't fall to zero unless the tariff is prohibitive). Option A is wrong because consumer prices rise; option C overstates the import reduction; option D reverses the consumer effect.

 EXAM ALERT

The infant industry argument is the most defensible protectionist case in IB essays. However, the standard counter-argument is time-consistency: the government must credibly commit to removing protection once the industry matures, and historically this rarely happens (rent-seeking, political lobbying). Always present both sides in a Paper 1 evaluation.

WORKED EXAMPLE

Multiple Choice — Tariffs and Quotas

A government replaces an existing import tariff with an import quota that restricts imports to exactly the same lower volume. Assuming the import licences are allocated to foreign exporters, what is the most likely consequence for the domestic economy?

- A. Domestic consumer prices fall back to the world price level
- B. Domestic producer surplus decreases relative to the tariff outcome
- C. The government loses the revenue it previously collected, with that gain transferring to foreign exporters ← CORRECT**
- D. The deadweight welfare loss is eliminated because quantities are fixed directly

Why: A tariff and an equivalent quota both raise the domestic price above the world price by the same amount and restrict imports to the same volume, so consumer surplus loss, domestic producer surplus gain (area A), and the deadweight loss triangles (B + D) are identical. The key difference is area C: under a tariff this is government revenue, but under a quota with licences held by foreign exporters, that rectangle accrues to the foreign exporters instead. The domestic economy is therefore worse off under the quota — option C. Options A and B are wrong because the price and producer effects are unchanged; option D is wrong because the deadweight losses persist regardless of the instrument.

Economic Integration

Economic integration describes the degree to which countries remove barriers to trade and coordinate economic policies among themselves.

Levels of Integration (from least to most integrated)

Level	Key feature	Example
Preferential Trade Agreement (PTA)	Reduced (not zero) tariffs among members	Various bilateral deals
Free Trade Area (FTA)	Zero tariffs among members; each keeps own external tariffs	NAFTA/USMCA, ASEAN
Customs Union	FTA + common external tariff	Mercosur
Common Market	Customs union + free movement of labour and capital	EU Single Market (pre-political union)
Economic Union	Common market + harmonised economic policies	European Union
Monetary Union	Economic union + single currency	Eurozone

Trade creation: Integration leads to lower-cost imports replacing higher-cost domestic production — efficiency gain.

Trade diversion: Lower-cost imports from outside the bloc are replaced by higher-cost imports from within the bloc (because intra-bloc tariffs are removed but external tariffs remain). This is a welfare loss.

The World Trade Organization (WTO)

The **WTO** is the multilateral institution that:

- Administers international trade rules (agreements governing tariffs, services, intellectual property).
- Provides a dispute settlement mechanism for trade conflicts.
- Promotes trade liberalisation through negotiating rounds (e.g., the Doha Development Round).

Principles: Non-discrimination (Most Favoured Nation clause — tariff concessions given to one member must be given to all); National Treatment (imported goods must be treated no less favourably than domestic goods once inside the border).

WORKED EXAMPLE

Practice Question 3: Economic Integration

A country joins a free trade area with its regional neighbours. Which outcome is most likely to represent trade creation rather than trade diversion?

- A) The country imports shoes from a higher-cost member of the free trade area instead of from a lower-cost non-member country B) The country shifts from importing expensive domestic substitutes to cheaper imports from member countries C) Government tariff revenue increases because trade with member countries expands D) The country stops importing from non-member countries entirely

Answer: B

Explanation: Trade creation occurs when a free trade area removes tariffs, allowing a country to replace higher-cost domestic production with lower-cost imports from member countries—an efficiency gain. Option B describes this: domestic producers were previously protected by tariffs, but now cheaper imports from the FTA partners displace them. Option A is trade diversion (shifting from a lower-cost external supplier to a higher-cost FTA member—a welfare loss). Option C is wrong because tariff revenue falls when intra-FTA trade is duty-free. Option D overstates the effect.

Exchange Rates

An **exchange rate** is the price of one currency in terms of another.

Floating Exchange Rate

In a **freely floating** (flexible) exchange rate system, the exchange rate is determined entirely by the forces of supply and demand in the foreign exchange market. The government and central bank do not intervene.

Demand for a currency comes from:

- Foreign buyers of domestic exports (need domestic currency to pay).
- Foreign investors buying domestic assets.
- Speculation (anticipating appreciation).

Supply of a currency comes from:

- Domestic buyers of imports (supply domestic currency to buy foreign currency).
- Domestic investors buying foreign assets.
- Speculation (anticipating depreciation).

Determinants of exchange rate:

- Relative inflation rates (higher inflation → currency depreciates).
- Relative interest rates (higher rates attract capital inflows → currency appreciates).
- Current account balance (persistent deficits → currency depreciation tendency).
- Speculation and market sentiment.
- Economic growth prospects.

Fixed Exchange Rate

In a **fixed (pegged)** exchange rate system, the government or central bank sets the exchange rate at a specific value and intervenes to maintain it.

To defend an overvalued fixed rate: The central bank must buy domestic currency using its foreign exchange reserves (or raise interest rates to attract capital inflows).

To defend an undervalued fixed rate: The central bank sells domestic currency (buying foreign currency), accumulating reserves.

Problems with a fixed rate:

- Requires large foreign exchange reserves to defend.
- A speculative attack can exhaust reserves, forcing a devaluation (e.g., 1992 UK ERM crisis).
- Loses monetary policy independence — interest rates must serve the exchange rate target, not domestic macro goals.

Managed Float (Dirty Float)

A **managed float** is a hybrid system in which the exchange rate is primarily market-determined, but the central bank intervenes occasionally to reduce excessive volatility or to keep the rate within an informal target range.

Most major economies operate managed floats in practice.

Effects of Exchange Rate Changes

Currency depreciation (domestic currency falls in value):

- **Exports:** Domestic goods become cheaper in foreign currency → export volume may rise.
- **Imports:** Foreign goods become more expensive in domestic currency → import volume may fall.
- **Current account:** If the Marshall-Lerner condition holds, depreciation improves the current account balance.
- **Inflation:** Import prices rise → cost-push inflation (imported inflation).
- **Debt:** Foreign-currency-denominated debt increases in domestic currency terms.

Currency appreciation (domestic currency rises in value):

- Exports become more expensive → export volume may fall.
- Imports become cheaper → import volume may rise.
- Current account may deteriorate.
- Inflation reduced (cheaper imports).

WORKED EXAMPLE

Practice Question 4: Exchange Rate Policy

A country with a persistent current account deficit operates a fixed exchange rate regime. To defend the fixed rate and prevent depreciation, which policy combination is the central bank most likely to use?

A) Lower interest rates and sell domestic currency from reserves B) Raise interest rates and buy domestic currency using foreign reserves C) Impose import quotas and expand the money supply D) Reduce government spending and lower the exchange rate target

Answer: B

Explanation: A current account deficit puts downward pressure on the currency (high demand for foreign currency to pay for imports). To defend a fixed rate and prevent depreciation, the central bank must increase demand for the domestic currency. It can do this by (1) raising interest rates to attract capital inflows (foreign investors buy domestic currency to purchase domestic bonds) and (2) directly buying domestic currency in the foreign exchange market using its foreign reserves. Option A would worsen the pressure; option C mixes trade policy with monetary expansion (which would increase depreciation pressure); option D describes a devaluation, not defence of the existing peg.

WORKED EXAMPLE

Worked Example — Exchange Rate Impact

A car exported by a domestic manufacturer costs 25,000 dollars in the domestic market.

Scenario A — Domestic currency depreciates: Exchange rate moves from 1 dollar = 0.90 euros to 1 dollar = 0.75 euros.

Price in euros before depreciation: $25,000 \times 0.90 = 22,500$ euros. Price in euros after depreciation: $25,000 \times 0.75 = 18,750$ euros.

The car is now nearly 17% cheaper in European markets — the manufacturer is more competitive. Export volumes should rise (depending on the price elasticity of demand abroad).

Scenario B — An imported component that costs 5,000 euros now costs: Before: $5,000/0.90 = 5,556$ dollars. After: $5,000/0.75 = 6,667$ dollars.

The import costs more in domestic currency — a 20% increase — contributing to cost-push inflation and rising production costs for firms that rely on imported inputs.

WORKED EXAMPLE

Multiple Choice — Exchange Rates

The central bank of a country operating a freely floating exchange rate raises its policy interest rate well above rates in other economies, while inflation remains stable. In the foreign exchange market, what is the most likely effect on the country's currency?

- A. The currency depreciates because higher interest rates reduce domestic investment
- B. The currency appreciates because higher returns attract foreign capital inflows, raising demand for the currency ← CORRECT**
- C. The currency is unaffected because interest rates only influence the goods market
- D. The currency depreciates because exporters demand more foreign currency

Why: Higher domestic interest rates make the country's financial assets more attractive to foreign investors seeking higher returns. To buy those assets, investors must first buy the domestic currency, increasing demand for it in the foreign exchange market. Greater demand, holding supply constant, shifts the demand curve right and the exchange rate appreciates. This is the standard hot-money channel — option B. Option A reverses the capital-flow logic; option C ignores the financial account; option D confuses the supply side without justifying net depreciation.

Balance of Payments

The **balance of payments (BoP)** is a systematic record of all economic transactions between residents of a country and the rest of the world over a given period.

Structure of the Balance of Payments

Current Account:

- **Trade in goods (visible trade):** Exports minus imports of physical goods.
- **Trade in services (invisible trade):** Tourism, financial services, education, transport.
- **Primary income:** Investment income (dividends, interest) and compensation of employees (cross-border workers).
- **Secondary income:** Transfers — foreign aid, remittances, contributions to international organisations.

Capital Account: Mainly capital transfers and acquisition/disposal of non-produced, non-financial assets (e.g., debt forgiveness, patents). Relatively small in most economies.

Financial Account: Net purchases and sales of financial assets:

- Direct investment (FDI).
- Portfolio investment (stocks, bonds).
- Other investment (bank loans, trade credit).

- Reserve assets (changes in the central bank's foreign exchange reserves).

Current Account Balance

Current account balance = $X - M$ + Primary income net +
Secondary income net

Current account deficit: Imports of goods, services, and income exceed exports — the country is spending more abroad than it is earning from abroad.

Current account surplus: The country earns more from abroad than it spends — a net creditor position.

Relationship Between the Accounts

The BoP **always balances** by accounting convention:

Current Account + Capital Account + Financial Account = 0

A current account deficit must be financed by a surplus on the financial account — foreign investors must be buying domestic assets (FDI, bonds, shares) to provide the foreign currency that pays for the import excess. Alternatively, the central bank depletes its reserves.

Sustainability: A persistent current account deficit is sustainable only if foreign investors continue to finance it. If confidence falls, the financing can dry up rapidly — forcing a painful adjustment (sharp currency depreciation, rise in domestic interest rates).

IB TIP

A current account deficit is not automatically “bad.” It may reflect productive investment inflows (foreign firms building factories) that generate future export capacity. It becomes problematic if it reflects overconsumption financed by short-term borrowing — particularly for developing economies with limited foreign exchange reserves.

WORKED EXAMPLE

Multiple Choice — Balance of Payments

A country records a current account surplus of \$40 billion in a given year. Assuming the capital account is negligible and the central bank does not change its reserves, which of the following must be true?

- A. The country's exports of goods must exceed its imports of goods by \$40 billion
- B. The country's government must be running a budget surplus of \$40 billion
- C. The country has a net financial account deficit of approximately \$40 billion, meaning it is a net lender to the rest of the world ← CORRECT**
- D. The country's currency must be appreciating by an amount equivalent to \$40 billion

Why: The balance of payments always sums to zero: Current Account + Capital Account + Financial Account = 0. A current account surplus of +\$40 billion must be offset by a financial account of approximately -\$40 billion (with the capital account negligible). A financial account deficit means the country is acquiring more foreign assets than foreigners are acquiring of its assets — it is a net lender abroad, exporting capital. Option A is wrong because the current account includes services and income, not just visible trade; option B confuses the external balance with the government's fiscal balance; option D conflates a flow identity with an exchange-rate movement.

Economic Development

Economic development goes beyond GDP growth to encompass improvements in living standards, health, education, and equality. Developing economies face distinct structural challenges that require tailored policy responses.

Characteristics of Developing Countries

Economic development is a multi-dimensional concept that includes not just income growth but also improvements in living standards, health, education, freedom, and sustainability.

Common characteristics of lower-income developing countries:

- **Low GDP per capita:** Insufficient income to meet basic needs.
- **High proportion of primary sector employment:** Agriculture and resource extraction dominate; vulnerable to commodity price volatility.
- **Poverty and inequality:** High poverty rates, large informal sector, often high Gini coefficient.
- **Poor infrastructure:** Inadequate roads, power, water, sanitation — raises costs and reduces productivity.
- **Low human development:** High infant mortality, low life expectancy, limited access to education.

- **Political instability and weak institutions:** Corruption, poor rule of law, insecure property rights — deter investment.
- **Dependence on foreign aid or remittances:** Vulnerability to external shocks.

Barriers to Economic Development

Poverty trap: Low income → low savings → low investment → low growth → low income. Breaking out requires an external injection of capital (aid, FDI, remittances) or a structural transformation.

Lack of human capital: Poor nutrition and health reduce worker productivity. Limited education constrains technological adoption.

Lack of physical capital: Inadequate infrastructure and machinery.

Corruption and governance failures: Divert public resources from productive investment; deter private and foreign investment.

International trade barriers: Developed-country agricultural subsidies and tariffs restrict market access for developing-country exports, undermining comparative advantage.

Debt burden: Many developing countries carry heavy external debt — interest payments crowd out public spending on health, education, and infrastructure.

Brain drain: Skilled workers emigrate to higher-income countries — loss of human capital investment.

WORKED EXAMPLE

Practice Question 5: Development Barriers

A developing country has a high savings rate and receives substantial foreign aid, but economic growth remains stagnant. Corruption is widespread, property rights are poorly enforced, and government officials frequently divert public funds. Which explanation best accounts for the lack of development despite available capital?

A) The country lacks comparative advantage in any tradable goods B) Institutional failures prevent capital from being allocated to productive investment C) The country's exchange rate is overvalued, reducing export competitiveness D) Foreign aid creates dependency and discourages domestic entrepreneurship

Answer: B

Explanation: Even when capital is available (through savings or aid), poor institutions — corruption, weak property rights, lack of rule of law — prevent that capital from flowing to productive uses. Investors (both domestic and foreign) are deterred because returns can be expropriated, contracts are not enforced, and funds are stolen. Public investment is diverted from infrastructure and education to private enrichment. This institutional barrier is often the binding constraint on development, not the availability of capital itself. Option A is implausible (every country has some comparative advantage); option C may be a factor but doesn't explain why aid isn't helping; option D describes a potential aid problem but the scenario specifies corruption and governance as the clear issue.

Strategies for Development

Strategy	Mechanism	Risk
Foreign aid	Transfers resources to fund investment	Dependency; corruption; fungibility
FDI attraction	Inflow of capital, technology, jobs	Profit repatriation; enclave industries
Microfinance	Small loans to entrepreneurs without collateral	High interest rates; overindebtedness
Fair trade	Higher prices for commodities from developing countries	Limited scale; may distort markets
Debt relief	Reduces debt service burden; frees fiscal space	Moral hazard for future lending
Trade liberalisation	Access to export markets encourages specialisation	Infant industries vulnerable; structural adjustment costs
Education and health investment	Build human capital — long-run productivity	Long time lags; requires sustained funding

WORKED EXAMPLE

Practice Question 7: Development Strategies

A developing country receives a large inflow of foreign direct investment (FDI) from a multinational corporation building a mining operation. The project employs local workers and exports valuable minerals. However, five years later, national income has risen only slightly, and poverty rates remain high. Which factor best explains this outcome?

A) The FDI was too small to affect a large economy B) Profits are repatriated to the foreign parent company, and the operation has limited linkages to the domestic economy C) The government imposed excessive taxes, deterring further investment D) Foreign aid decreased because donors viewed FDI as substituting for aid

Answer: B

Explanation: This describes an “enclave economy” problem: the FDI creates an isolated export sector with minimal connections to the rest of the domestic economy. Profits flow back to the multinational’s home country (repatriation), and the operation imports specialized equipment and expertise rather than sourcing inputs locally. Employment is limited to low-skill extraction jobs. GDP may rise (the mining output counts), but most of the income leaves the country, and broader economic development (poverty reduction, diversification) does not occur. Option A is implausible given that the country is developing (likely small); option C is speculative; option D confuses different capital sources.

Sustainable Development

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland Commission, 1987).

Three Dimensions of Sustainable Development

Economic sustainability: Growth must be based on productive investment and diversification, not depletion of non-renewable resources. GDP growth must be accompanied by improvements in productivity, not just resource extraction.

Social sustainability: Growth must be inclusive — reducing extreme poverty, improving access to healthcare and education, reducing gender and income inequality. Growth that benefits only a small elite is not socially sustainable (and may be politically unstable).

Environmental sustainability: Economic activity must be kept within planetary boundaries — respecting ecosystems, biodiversity, and climate stability. Non-

renewable resources should be used at rates that allow substitution; renewable resources should not be harvested beyond their regeneration rate.

WORKED EXAMPLE

Practice Question 8: Sustainable Development

A developing country achieves 8% annual GDP growth by rapidly expanding palm oil production, clearing primary rainforest for plantations. Export revenues surge, but income inequality worsens as large landowners capture most gains while smallholder farmers are displaced. Which dimension(s) of sustainable development are most clearly violated?

A) Economic sustainability only, because the growth model depends on depleting natural capital B) Environmental and social sustainability, because deforestation destroys ecosystems and the growth is not inclusive C) Social sustainability only, because inequality has increased D) None—the country has achieved high GDP growth, which is the primary development objective

Answer: B

Explanation: This scenario violates both environmental sustainability (clearing primary rainforest destroys biodiversity, contributes to climate change, and depletes a non-renewable ecosystem—once cleared, it cannot regenerate at the same scale) and social sustainability (the benefits accrue to elites while small farmers lose their land—inequality rises, and the growth is not inclusive). Economic sustainability may also be questionable (the model depends on finite land availability), but the clearest violations are environmental and social. Option D reflects an outdated view that equates development with GDP growth alone, ignoring the Brundtland definition and the SDG framework.

The UN Sustainable Development Goals (SDGs)

The 17 SDGs (adopted 2015, target year 2030) provide a global framework:

- **SDG 1:** No poverty
- **SDG 7:** Affordable and clean energy
- **SDG 10:** Reduced inequalities
- **SDG 13:** Climate action
- **SDG 17:** Partnerships for the goals

IB examiners expect students to apply SDG concepts when evaluating development strategies.

EXAM ALERT

For development and sustainability questions, IB Paper 1 evaluations must balance economic growth objectives against social equity and environmental sustainability. A top-band answer acknowledges these tensions — e.g., rapid export-led growth may increase GDP per capita but worsen inequality (SDG 10) and environmental damage (SDG 13).

Terms of Trade Calculations

The **terms of trade index** is calculated as:

$$ToT = \frac{P_X}{P_M} \times 100$$

where P_X is the index of export prices and P_M is the index of import prices, both relative to a base year (base = 100).

Change in terms of trade:

$$\% \Delta ToT = \frac{ToT_{\text{new}} - ToT_{\text{old}}}{ToT_{\text{old}}} \times 100$$

WORKED EXAMPLE

Worked Example — Terms of Trade Calculation

Base year: export price index = 100, import price index = 100. $ToT_0 = 100$.

Year 1: Export prices rise by 15% (index = 115). Import prices rise by 5% (index = 105).

$$ToT_1 = \frac{115}{105} \times 100 = 109.5$$

The terms of trade improved by 9.5% — the country can buy more imports per unit of exports than before.

Year 2: Export prices fall to index = 95 (commodity price collapse). Import prices stay at 105.

$$ToT_2 = \frac{95}{105} \times 100 = 90.5$$

A significant deterioration — the country must export more to maintain the same volume of imports.

Implications for a commodity-exporting developing country: A ToT deterioration reduces national income in real terms — a 10% fall in ToT is equivalent to losing 10 cents of purchasing power on every dollar of exports. This vulnerability to commodity price cycles (the Prebisch-Singer hypothesis predicts a long-run secular decline in primary commodity prices relative to manufactured goods) is a key barrier to development for many lower-income economies.

HL Marshall-Lerner Condition and the J-Curve

HL examines the precise conditions under which a currency depreciation will improve a country's current account balance, and why the response may follow a J-curve pattern in the short run before the long-run improvement materialises.

The Marshall-Lerner Condition

When a currency depreciates, the effect on the current account depends on the **price elasticities of demand** for exports and imports.

The Marshall-Lerner condition states that a currency depreciation will improve the current account balance **if and only if** the sum of the absolute values of the price elasticities of demand for exports and imports is greater than one:

$$|PED_X| + |PED_M| > 1$$

Intuition:

- A depreciation lowers the foreign-currency price of exports → demand for exports rises (if elastic, volume rise outweighs price fall → export revenue in domestic currency rises).
- A depreciation raises the domestic-currency price of imports → demand for imports falls (if elastic, import spending in domestic currency falls).
- If both elasticities are large enough, the combined volume effects dominate the price effects, and the current account improves.

If the condition is not met ($|PED_X| + |PED_M| < 1$): Demand for both exports and imports is inelastic — the volume responses are small relative to the price changes. Export revenue falls in foreign currency terms (price fell more than volume rose); import spending rises in domestic currency (price rose more than volume fell). The current account **deteriorates**.

⚠ EXAM ALERT

The Marshall-Lerner condition is about whether the current account improves following a depreciation — not whether trade balances automatically. In the short run, elasticities are typically low (contracts are fixed, habits are slow to change), so the condition may not hold immediately. This leads directly to the J-curve.

The J-Curve Effect

The **J-curve** illustrates the typical pattern of the current account following a currency depreciation:

1. **Short run (condition not met):** Import and export contracts are pre-existing — volumes do not immediately change, but the price effects are felt immediately. Import costs rise in domestic currency (depreciation makes imports costlier),

while export revenues in domestic currency do not rise quickly (foreign buyers have existing contracts). The current account **deteriorates** initially.

2. **Medium to long run (condition met):** Firms and consumers adjust behaviour. Exporters gain market share as foreign buyers switch to now-cheaper domestic goods. Domestic consumers substitute away from more expensive imports. Volumes adjust. If $|PED_X| + |PED_M| > 1$, the current account **improves** beyond its original level.

The J-curve shape: Starting at the pre-depreciation current account balance, the balance first worsens (the bottom of the J), then improves, eventually settling at a better position than before (the right arm of the J).



WORKED EXAMPLE

Practice Question 6: Marshall-Lerner and J-Curve (HL)

A country's currency depreciates by 15%. Six months later, the current account deficit has widened rather than narrowed. Assuming the Marshall-Lerner condition will eventually be satisfied, which explanation is most consistent with this outcome?

A) The sum of export and import demand elasticities is already greater than one, so the theory has failed
B) In the short run, trade volumes are slow to adjust while prices change immediately, causing the J-curve deterioration phase
C) The depreciation has triggered retaliation from trading partners, raising tariffs on the country's exports
D) Import demand is perfectly inelastic, so the current account can never improve regardless of the exchange rate

Answer: B

Explanation: The J-curve predicts exactly this pattern: immediately after depreciation, import spending rises in domestic currency (higher prices, unchanged volume) while export revenue does not rise quickly (contracts are fixed, foreign buyers haven't yet responded to the lower price). The current account deteriorates in the short run. Over time, as contracts expire and behaviour adjusts, export volumes rise and import volumes fall—if the Marshall-Lerner condition holds, the current account will improve beyond its original level. Option A contradicts the premise; option C introduces an external shock not in the scenario; option D is inconsistent with the premise that Marshall-Lerner will eventually be satisfied.

IB TIP

For HL essays on exchange rate policy, always connect the Marshall-Lerner condition (the long-run prerequisite for improvement) with the J-curve (the short-run pattern). A government that depreciates the currency hoping to improve the current account must be prepared for an initial worsening — and must ensure the policy persists long enough for elasticities to rise and the J-curve to turn upward.

►Watch: **Comparative Advantage and Trade**

VIDEO

►Watch: **Exchange Rates and Balance of Payments**

VIDEO

Practice Questions

Short-answer (Paper 2 style):

1. The table below shows production data for two countries.

Country	Rice (tonnes/worker/day)	Steel (tonnes/worker/day)
X	12	3
Y	8	4

- (a) Identify which country has an absolute advantage in each good. (2 marks)
 - (b) Calculate the opportunity cost of producing one tonne of steel in each country and identify which country has a comparative advantage in steel. (2 marks)
2. Using a diagram, explain the effects of a tariff on consumers, domestic producers, and the government. (4 marks)
 3. Distinguish between a current account deficit and a financial account surplus and explain how they are related. (4 marks)
 4. Explain two barriers to economic development faced by lower-income countries. (4 marks)
 5. **HL** A country has an export price index of 120 and an import price index of 96 (base year = 100 for both). Calculate the terms of trade and state whether this represents an improvement or deterioration from the base year. (4 marks)
 6. **HL** Explain the Marshall-Lerner condition and explain why a depreciation may initially worsen the current account balance. (4 marks)

IB TIP

Multiple-choice practice for this unit is distributed throughout the guide — look for the **Multiple Choice** boxes at the end of the International Trade, Terms of Trade, Protectionism, Exchange Rates, and Balance of Payments sections above.

Essay questions (Paper 1 style):

7. (a) Explain, using the theory of comparative advantage, why countries benefit from free international trade. (10 marks) (b) Evaluate the case for protectionism in developing countries wishing to industrialise. (15 marks)
 8. (a) Explain how a depreciation of the exchange rate affects a country's macroeconomic performance. (10 marks) (b) Evaluate the effectiveness of exchange rate depreciation as a policy tool for correcting a current account deficit. (15 marks)
- Answer guidance — Question 1
 - Answer guidance — Question 5 (HL)
 - Answer guidance — Question 8(b) evaluation points