

There are 10 questions, worth 10 points each. When a question asks for a brief explanation, that means 1-2 sentences.

Facts about Globalization

1. Describe the education distribution of the foreign-born (immigrant) population of the US.

It is bimodal -- a large % of the US population with no high school degree, and a large % of the US population with advanced degrees are foreign born.

2. List three ways in which world trade in goods and services has changed in the last 30-40 years.

- Trade has grown rapidly
- Manufacturing trade has grown more quickly than agriculture or mining
- Traded goods have become more complex.
- Countries specialize vertically (i.e. in stages of production rather than in finished goods).
- For the US, trade is increasingly unbalanced (imports > exports)

3. For the US, which has grown faster: merchandise trade or international investment?

International investment. As a % of GDP international investment grew from nearly 0 to almost 100%. In contrast, trade has grown from about 4% to about 10% of GDP.

Balance of Payments

4. Using the national output = national income accounting identity, write down the equation showing on what the trade balance depends.

The trade balance (exports – imports) = national savings – domestic investment.

National output = national income

$$C + I + G + X = C + S + T + M$$

C = consumption

I = investment

G = government purchases

X = exports

S = private savings

T = tax receipts

M = imports

Cancelling C from both sides and rearranging.

$$X - M = S + (T - G) - I$$

The trade balance (exports – imports) = national savings – domestic investment.

5. How can international borrowing raise a country's future income?

By lowering the cost of capital (interest rates) and increasing productive investment.

6. Does international borrowing necessarily raise a country's future consumption levels? Briefly explain.

No.

If the borrowing is used for current consumption rather than investment, incomes will not rise, and future consumption must fall in order to pay off borrowing.

The following set up is used in questions 7-10.

Suppose the country initially has a zero trade balance. Congress passes a new program to provide prescription drug benefits to senior citizens at a cost of \$400 billion but does not raise taxes to pay for the benefit or cut other spending programs.

Suppose (Q7-8) that private savings and domestic investment are unchanged.

7. How will this affect national savings and the trade balance?

National savings and the trade balance falls.

Explanation: National savings = private saving + public savings = $S + (T - G)$.

If G goes up and S, T are fixed, then national savings falls.

$$X - M = S + (T - G) - I$$

So if I is also fixed, this should cause X-M to fall. If we're starting from $X = M$, then this policy will cause a trade deficit.

8. What happens to the net foreign wealth of the US ? Briefly explain.

It falls.

If the trade balance is negative, $(X - M) < 0$, then the country is importing capital to finance the imports. That is, foreign persons now own more US assets, so this is a decline in the net foreign wealth of the US.

9. We initially supposed that domestic investment stayed constant. What might cause domestic investment to fall as a result of the changes in policy? Briefly explain.

By increasing G and not T , the government is using up capital that private markets would otherwise have employed. This increase in the demand for capital causes interest rates to rise. With higher interest rates, fewer private investment projects will be undertaken.

(This will be true unless the US faces a fixed world interest rate (i.e. able to borrow as much capital as it wants without changing the interest rate). In this case borrowing does not crowd out private investment.)

10. We initially supposed that private savings stayed constant. Give two distinct reasons that private savings might rise as a result of the changes in policy. Briefly explain.

One, the domestic savings supply schedule slopes upward. This means that a rise in interest rates (see the answer to 4) causes domestic savers to supply more capital.

Two, Ricardian equivalence. Leaving aside the current interest rate, savers see the accumulated government debt and believe that in the future they will have to pay higher taxes or enjoy lower benefits, so they save more now to be ready for that in the future.