

**ECON 305**  
**INTERNATIONAL ECONOMICS I**  
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**Key to Exercise 6**  
**Economic Growth and International Trade**

1. In a two-good world, consider the following information for a small country, which is engaged in trade.

	1995	2000	2005
Production of Good X	100 Units	120 Units	140 Units
Production of Good Y	60 Units	66 Units	86 Units
Consumption of Good X	80 Units	92 Units	110 Units
Consumption of Good Y	70 Units	80 Units	101 Units

(a) What is the volume of trade and the trade pattern for the country in 1995? In 2000? In 2005?

We may answer this question by simply calculating “Production – Consumption” for each good in each year. The country makes an export (import) if “Production – Consumption” is positive (negative).

	1995	2000	2005
Export of Good X	20 Units	28 Units	30 Units
Import of Good Y	10 Units	14 Units	15 Units

Note that international price must be  $\frac{P_X}{P_Y} = 0.5$ . Why?

(b) What type of production effect occurs between 1995 and 2000? Between 2000 and 2005? Explain.

We may answer this question in two ways. Firstly, we may compare production ratios of Y and X for 1995, 2000, and 2005 (recall that Y/X gives the slope of a ray crossing the origin and 1995 production bundle).

	1995	2000	2005
Y/X (production)	0.60	0.55	0.61
Production Effect		Pro-trade effect	Anti-trade effect

Secondly, we may calculate and compare percentage changes in the production of X and Y from 1995 to 2000, and from 2000 to 2005.

	1995-2000		2000-2005	
	X	Y	X	Y
% Change	20%	10%	16.67%	30.3%
Production Effect	Pro-trade effect		Anti-trade effect	

(c) What type of consumption effect occurs between 1995 and 2000? Between 2000 and 2005? Explain.

We may again answer this question in two ways. Firstly, we may calculate and compare consumption ratios of X and Y for 1995, 2000, and 2005.

	1995	2000	2005
X/Y (consumption)	1.14	1.15	1.08
Consumption Effect		Anti-trade effect	Pro-trade effect

Secondly, we may calculate and compare percentage changes in the consumption of X and Y from 1995 to 2000, and from 2000 to 2005.

	1995-2000		2000-2005	
	X	Y	X	Y
% Change	15%	14.3%	19.57%	26.25%
Consumption Effect	Anti-trade effect		Pro-trade effect	

(d) What is the ‘overall effect’ on trade of this country’s growth between 1995 and 2000? Between 2000 and 2005? Explain.

We may answer this question by looking at percentage growth rates in production and trade (exports or imports).

	1995-2000		2000-2005	
	X	Y	X	Y
Exports /Imports growth rate (%)	40%	40%	7.1%	7.1%
Production growth rate (%)	10%	20%	16.67%	30.3%
“Overall Effect”	Pro-trade		Anti-trade	

On Average, the growth rate of production is between 10% and 20% for 1995-2000. However, trade grew by 40%. Hence, the overall effect is pro-trade. For the period 2000-2005, average production growth is somewhere between 16.6% and 30.3%, while trade grows just 7.1%. Hence, the overall effect is anti-trade.

2. Countries A and B have two factors of production, capital and labor, with which they produce two goods, X and Y. Technology is the same in the two countries. X is capital intensive; A is capital abundant. Analyze the effects on the terms of trade and the welfare of the two countries of the following under small country assumption:

- An increase in A’s capital stock.
- An increase in A’s labor supply.
- An increase in B’s capital stock.
- An increase in B’s labor supply.

Answers are straightforward and discussed in your textbook.