

# Chapter 4

---

## **Demand and Supply, Offer Curves and the Terms of Trade**

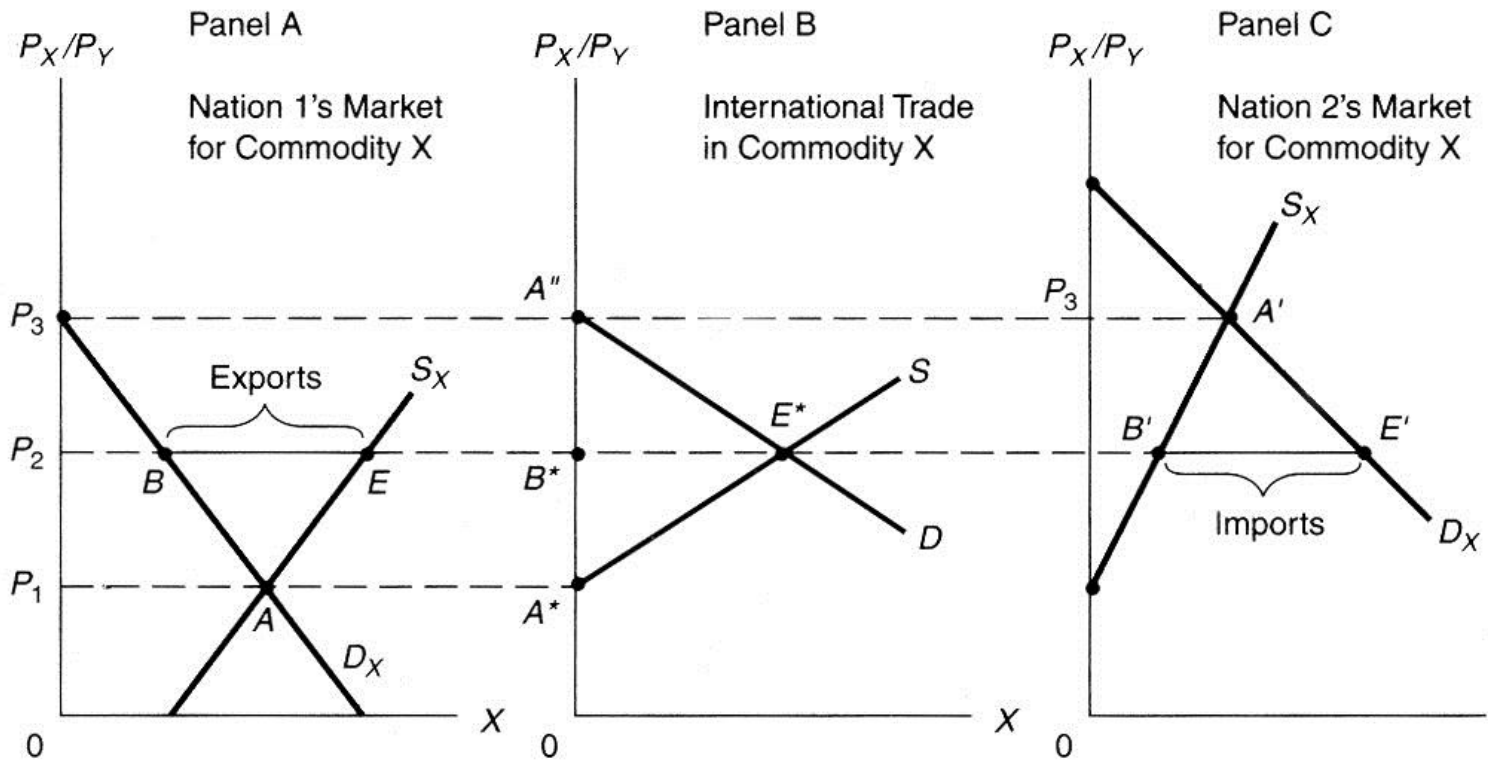
# 4.1 Introduction

---

- Chapter 3 showed:
  - ✓ a difference in relative commodity prices between two nations in isolation is a reflection of their comparative advantage and
  - ✓ with trade, the equilibrium-relative commodity price is determined somewhere between the autarkic relative prices.
- Chapter 4 presents a more rigorous theoretical way of determining the equilibrium-relative commodity price with trade.
  - ✓ 4.2 Partial Equilibrium Analysis
  - ✓ 4.3-4.4 General Equilibrium Analysis

# 4.2 The Equilibrium-Relative Commodity Price with Trade – Partial Equilibrium Analysis

Figure 4.1. The Equilibrium-Relative Commodity Price with Trade – Partial Equilibrium Analysis



## 4.3 Offer Curves

---

### 4.3A. Origin and Definition of Offer Curves (Reciprocal Demand Curves)

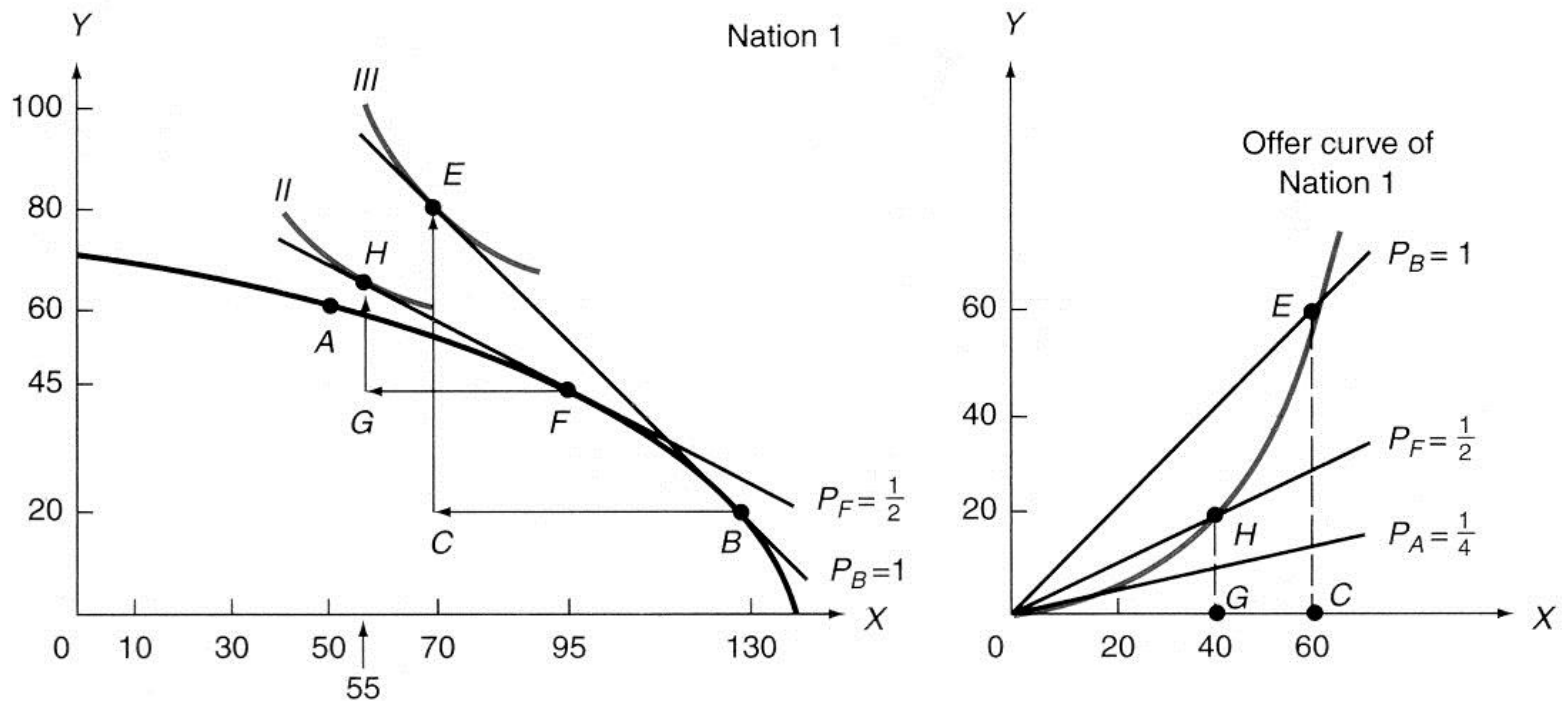
- Introduced by Marshall and Edgeworth
- Definition:

The offer curve of a nation shows the nation's willingness to import and export at various relative commodity prices.

# 4.3 Offer Curves

## 4.3B. Derivation and Shape of the Offer Curve of Nation 1

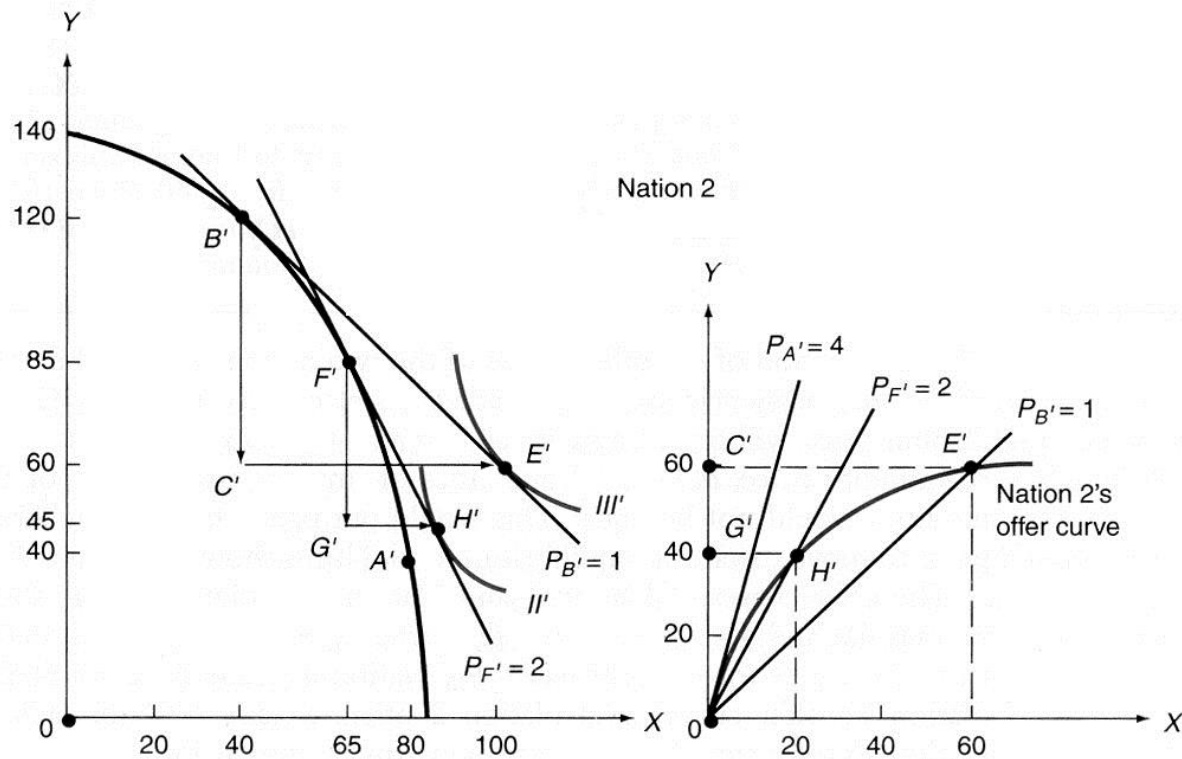
Figure 4.3. Derivation of the Offer Curve of Nation 1



# 4.3 Offer Curves

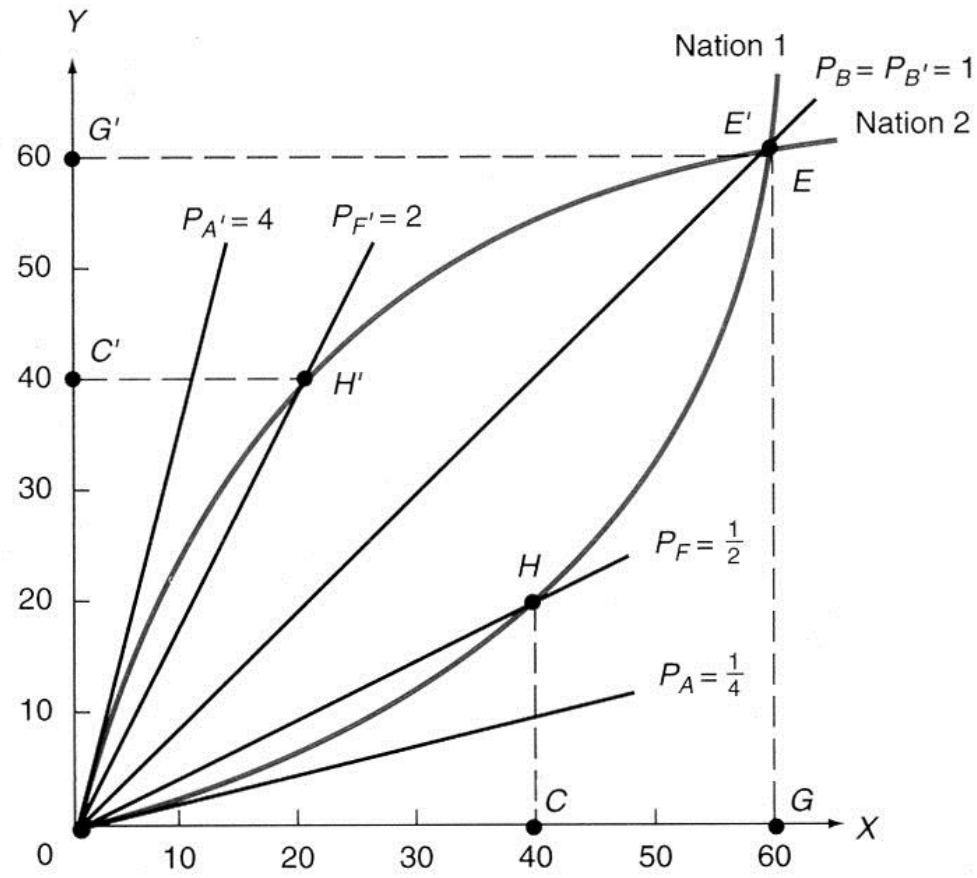
## 4.3C. Derivation and Shape of the Offer Curve of Nation 2

Figure 4.4. Derivation of the Offer Curve of Nation 2



# 4.4 The Equilibrium-Relative Commodity Price with Trade-General Equilibrium Analysis

Figure 4.5. Equilibrium-Relative Commodity Price with Trade



## 4.6 The Terms of Trade

---

### 4.6A. Definition and Measurement of the Terms of Trade

- Definition: The terms of trade of a nation are defined as the ratio of the price of its export commodity to the price of its import commodity.

i.e., The TOT of Nation 1 =  $P_x/P_y$

The TOT of Nation 2 =  $P_y/P_x$

- If  $P_x/P_y$  increases, the TOT of Nation 1 improve and the TOT of Nation 2 deteriorate.
- In a world of many trade commodities, the terms of trade of a nation are given by the ratio of the price index of its exports of the price index of its imports.



## 4.6 The Terms of Trade

### 4.6B. Illustration of the Terms of Trade

#### Case Study 4-3 The Terms of Trade of the G-7 Countries

	1972	1974	1980	1986	1990	1996	1998	2000	2001	% Change 1972-2001
United States	123	104	87	104	98	100	104	97	99	-20
Canada	115	131	111	95	100	101	96	103	103	-10
Japan	95	70	52	77	73	92	97	96	97	2
Germany	109	97	89	100	102	100	99	93	95	-13
France	95	84	85	94	94	99	99	95	95	0
United Kingdom	107	82	91	94	101	101	103	103	104	-3
Italy	110	83	93	97	98	104	107	100	102	-7

Source: Elaborated from data IMF, *International Financial Statistics* (Washington, D.C., 2002)

## 4.6 The Terms of Trade

### 4.6B. Illustration of the Terms of Trade

Case Study 4-4 The Terms of Trade of Industrial and Developing Countries  
(1995=100)

	1972	1973	1974	1978	1979	1980
Industrial countries	105	104	93	95	93	85
Developing countries	60	63	85	86	95	105
Asia	98	99	98	99	101	98
Middle East	137	134	109	143	138	131
Western Hemisphere	37	41	103	91	139	181
	1985	1986	1990	1998	2000	2001
Industrial countries	84	93	95	99	97	98
Developing countries	99	90	101	101	108	-
Asia	95	94	100	98	94	-
Middle East	117	120	159	107	156	139
Western Hemisphere	177	99	121	113	113	106

Source: Elaborated from data IMF, *International Financial Statistics* (Washington, D.C., 2002)