Competitive Markets Part I

I think the environment has become more competitive. That has made industry more concerned with (a) its customers, (b) the quality of its products and (c) its brand image in the marketplace.

~Ratan Tata

The Market Supply Curve

- The market supply curve determines the equilibrium price faced by an individual producer.
  - Equilibrium price – the price at which the quantity of a good demanded in a given time period equals the quantity supplied
  - Market supply – the total quantities of a good that sellers are willing and able to sell at alternative prices in a given time period, *ceteris paribus*

The Market Supply Curve

- The market supply curve is the sum of the marginal cost curves of all the firms.
- Marginal cost (MC) – the increase in total cost associated with a one-unit increase in production

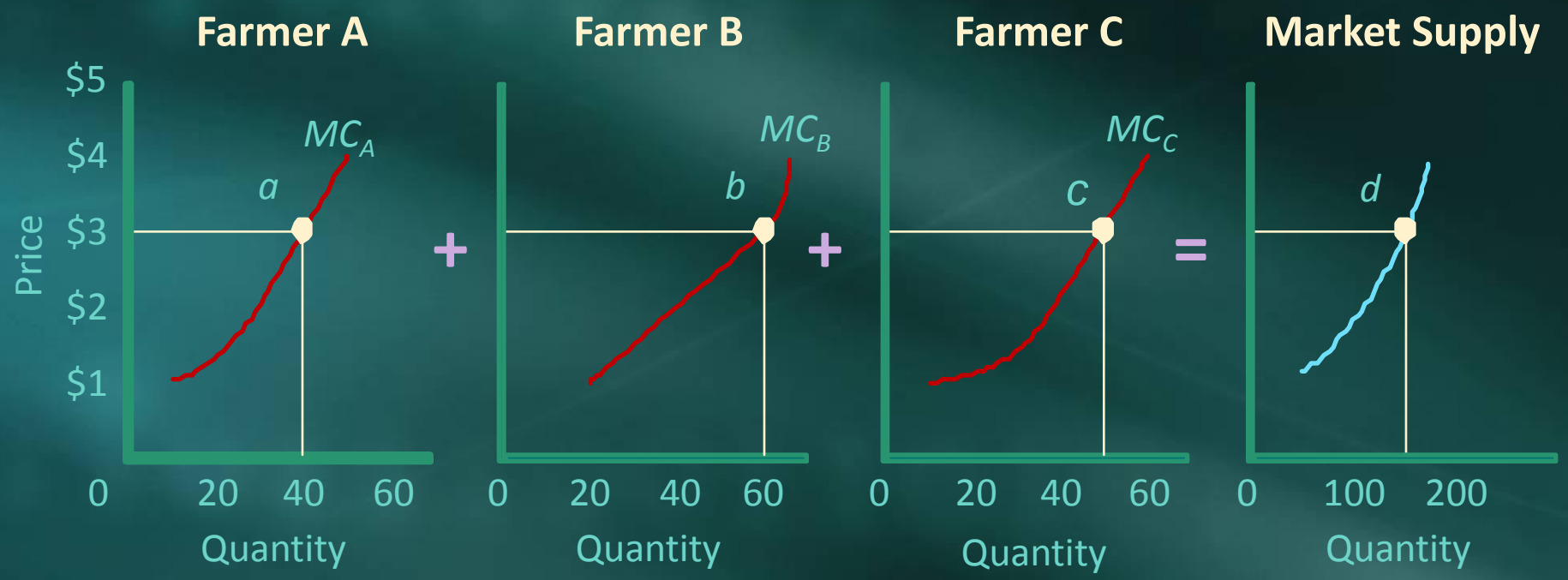
The Market Supply Curve

Whatever determines marginal cost also determines the competitive firm's supply response.

The Market Supply Curve

- The market supply of a competitive industry is determined by
  - the price of factor inputs
  - technology
  - expectations
  - taxes
  - the number of firms in the industry

Charts: Competitive Market Supply



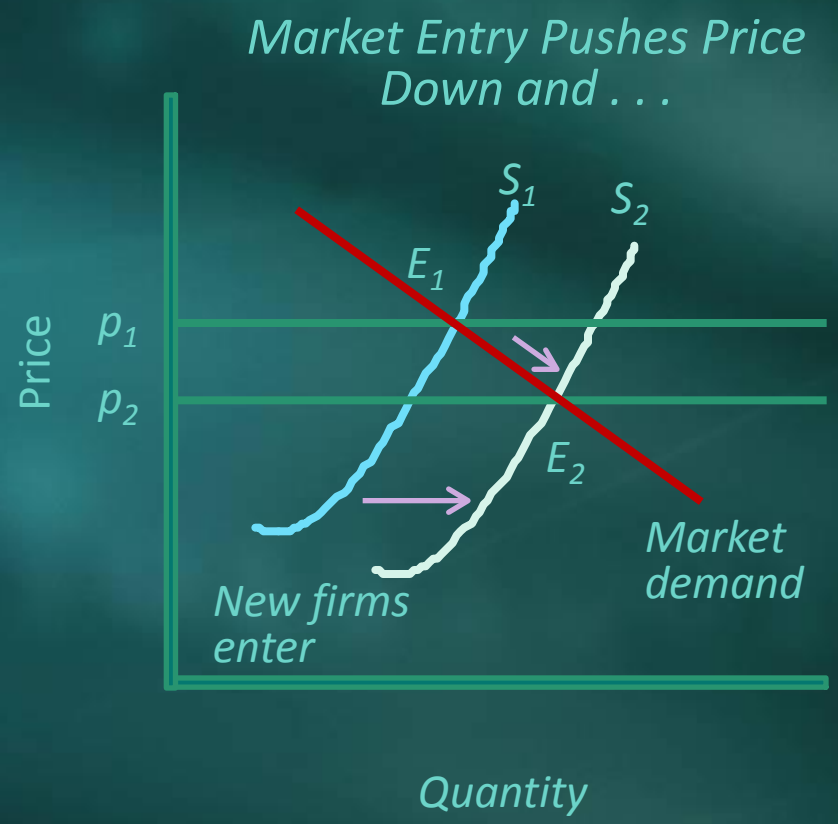
Entry and Exit

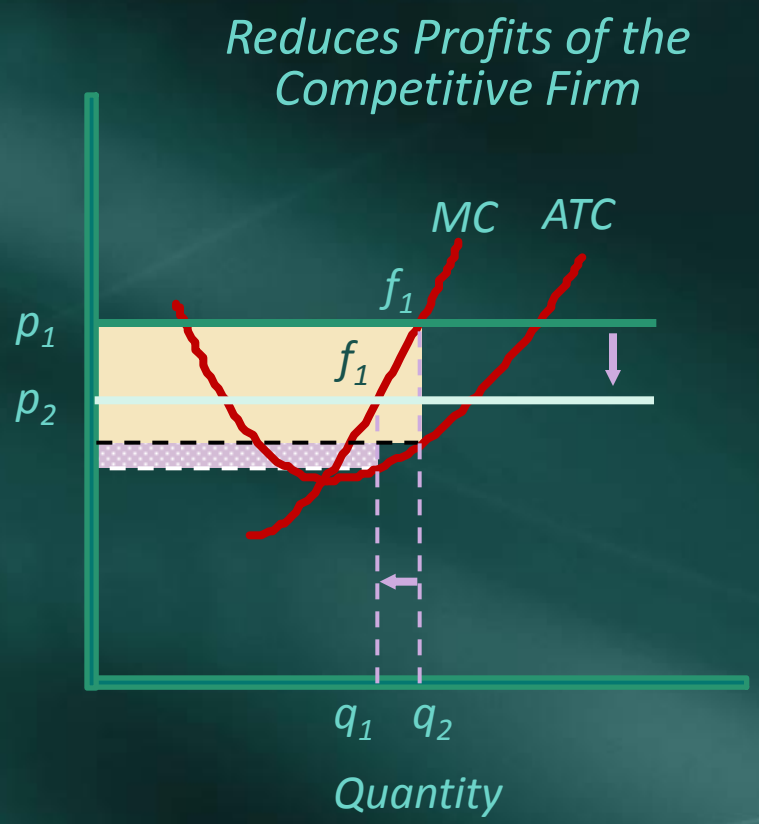
- Investment decisions shift the market supply curve to the right.
  - Investment decision – the decision to build, buy or lease plant and equipment; to enter or exit an industry

Entry and Exit

- The profit motive drives these investment decisions.
  - If there are economic profits, more firms will enter the industry increasing market supply.
  - Each firm will respond to the resulting lower price and profits by reducing output.

Charts: Market Entry





Tendency Toward Zero Profits

- An increase in market supply causes the economic profits to disappear.
  - Economic profits – the difference between total revenues and total economic costs

Tendency Toward Zero Profits

- When economic profits disappear, entry ceases and the market price stabilizes.
- A competitive market is a market in which no buyer or seller has market power.

Tendency Toward Zero Profits

As long as it is easy for existing producers to expand production or for new firms to enter an industry, economic profits will not last long.

Low Barriers to Entry

Barriers to entry are obstacles that make it difficult or impossible for would-be producers to enter a particular market.

Low Barriers to Entry

- Barriers to entry may include
  - patents
  - control of essential factors of production
  - control of distribution outlets
  - well-established brand loyalty
  - government regulation

Market Characteristics of Perfect Competition

- Structures, behaviors and outcomes of a competitive market:
  - Many firms – none of which has a significant share of total output
  - Perfect information – buyers and sellers have complete information on supply, demand and prices

Market Characteristics of Perfect Competition

- Structures, behaviors and outcomes of a competitive market:
  - Identical products – products are homogeneous; one firm's products is the same as any other's
  - MC = p – all competitive firms seek to expand output until marginal cost equals the product's market price

Market Characteristics of Perfect Competition

- Structures, behaviors and outcomes of a competitive market:
  - Low barriers to entry – entry barriers are low, economic profits will attract more firms
  - Zero economic profit – market supply expands as long as there are economic profits, pushing prices and economic profits down

Competition at Work: Microcomputers

- Few, if any, product markets are perfectly competitive.
- Many industries function much like a competitive market.
- The *microcomputer market* illustrates how the process of competition works.

Market Evolution

- As in other industries, the computer industry has evolved over time.
- It was never a monopoly, nor was it ever perfect competition.

Initial Conditions: The Apple I

- Steve Jobs and Steven Wozniak created the Apple Computer Corporation in 1977.
- Other companies noted the profits and, due to the low barriers to entry, followed Apple's lead.

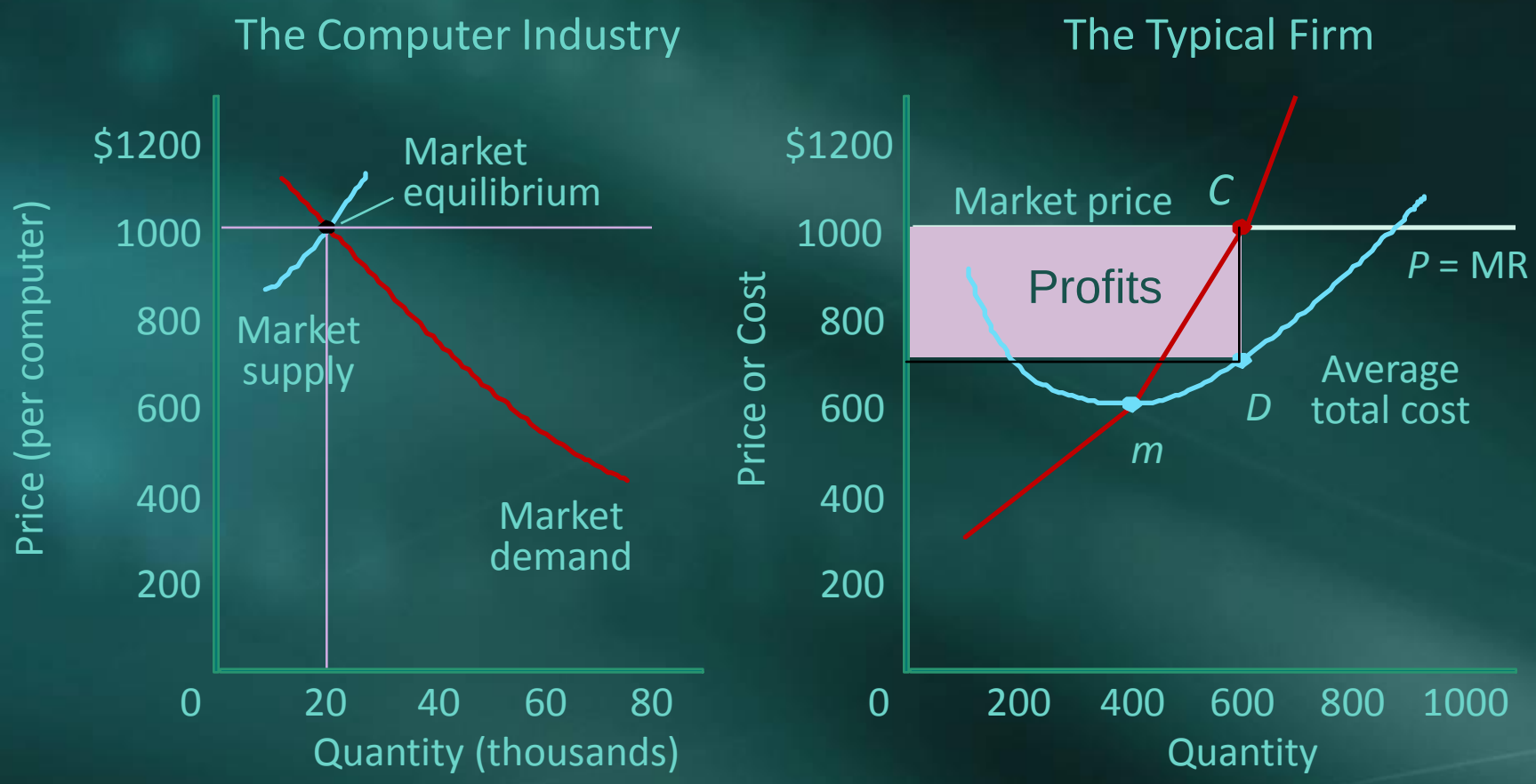
The Production Decision

- Each competitive firm seeks to make the best short-run production decision.
  - Production decision – the selection of the short-run rate of output (with existing plant and equipment) … How many computers can we make with what we currently have?

The Production Decision

To maximize profit, each competitive firm seeks the rate of output at which marginal cost equals price.

Charts: Initial Equilibrium in the Computer Market



Profit Calculations

- A profit-maximizing producer seeks to maximize total profit.
- This is not necessarily or even very frequently the same thing as maximizing profit per unit.

Profit Calculations

Profit per unit is total profit divided by the quantity produced in a given time period, price minus average total cost.

Total profit = profit per unit x quantity sold

Table: Computer Revenues, Costs and Profits

Output / Month	Price	Total Revenue	Total Cost	Total Profit
0			$ 60,000	–$60,00
100	$1000	$100,000	$90,000	$10,00
200	$1000	$200,000	$130,000	$70,00
300	$1000	$300,000	$180,000	$120,00
400	$1000	$400,000	$240,000	$160,00
500	$1000	$500,000	$320,000	$180,00
600	$1000	$600,000	$420,000	$180,00
700	$1000	$700,000	$546,000	$154,00
800	$1000	$800,000	$720,000	$80,00
900	$1000	$900,000	$919,800	–$19,80

Table: Computer Revenues, Costs and Profits

Output / Mo	P = MR	MC	ATC	Profit / Unit
0				
100	$1,000	$ 300	$ 900	$ 100
200	$1,000	$400	$650	$350
300	$1,000	$500	$600	$400
400	$1,000	$600	$600	$400
500	$1,000	$800	$640	$360
600	$1,000	$100	$700	$300
700	$1,000	$1,260	$780	$220
800	$1,000	$1,740	$900	$100
900	$1,000	$1,998	$1,022	–$22

The Lure of Profits

In competitive markets, economic profits attract new entrants.

Low Entry Barriers

Low entry barriers permit new firms to enter competitive markets.

Continued in *Competitive Markets Part II*