

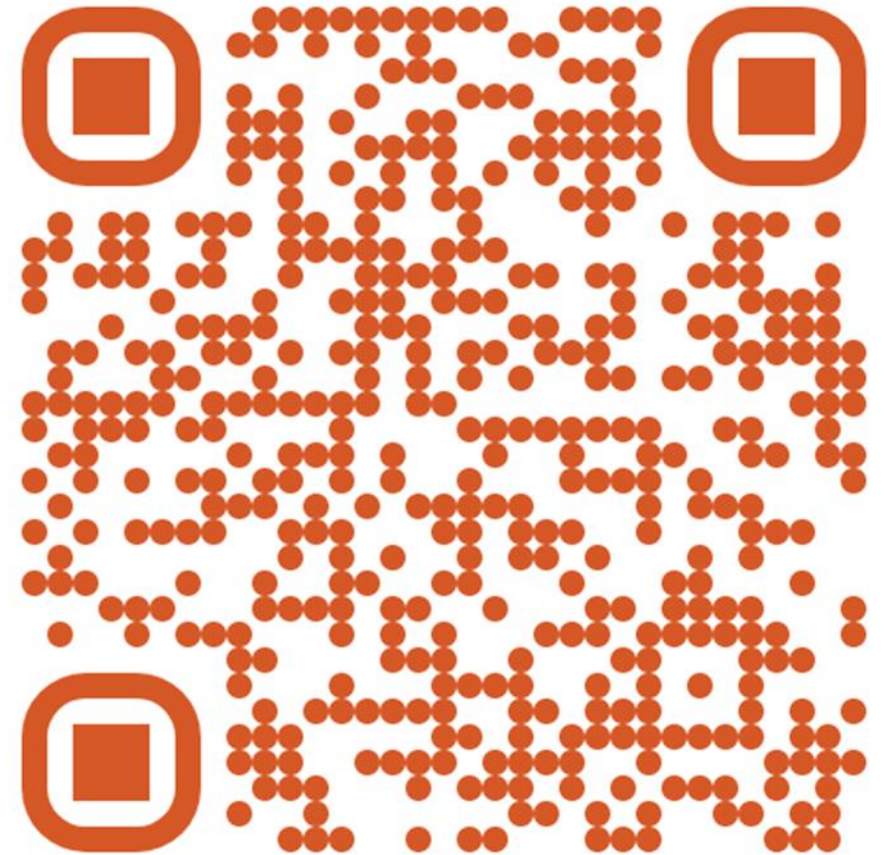
Global Business Environment and International Strategy MOD007191

Lecture 3

Product Lifecycle and Economics as a Driving Force

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Recap

Why International Trade?

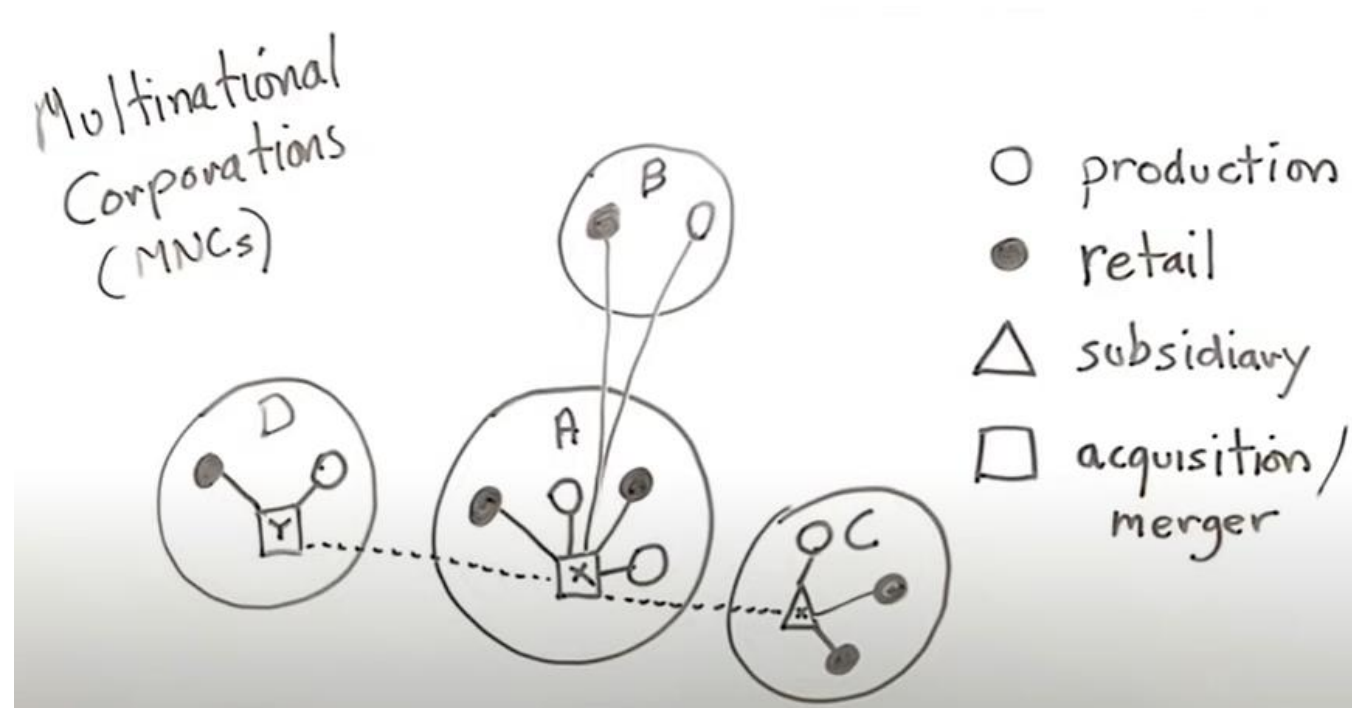
- Some theoretical explanations can be found in:
 - Mercantilism
 - Absolute Advantage Theory
 - Comparative Advantage Theory

So what is a MNC?

- “A firm that **engages in Foreign Direct Investment (FDI)** by directly controlling and managing **value adding activities in other countries**” (Peng 2022, p.4)
- A multinational firm is one that operates and is **managed from bases in a number of countries.**
- **Ownership of assets in a foreign country** is considered a defining feature

So How do they do this?

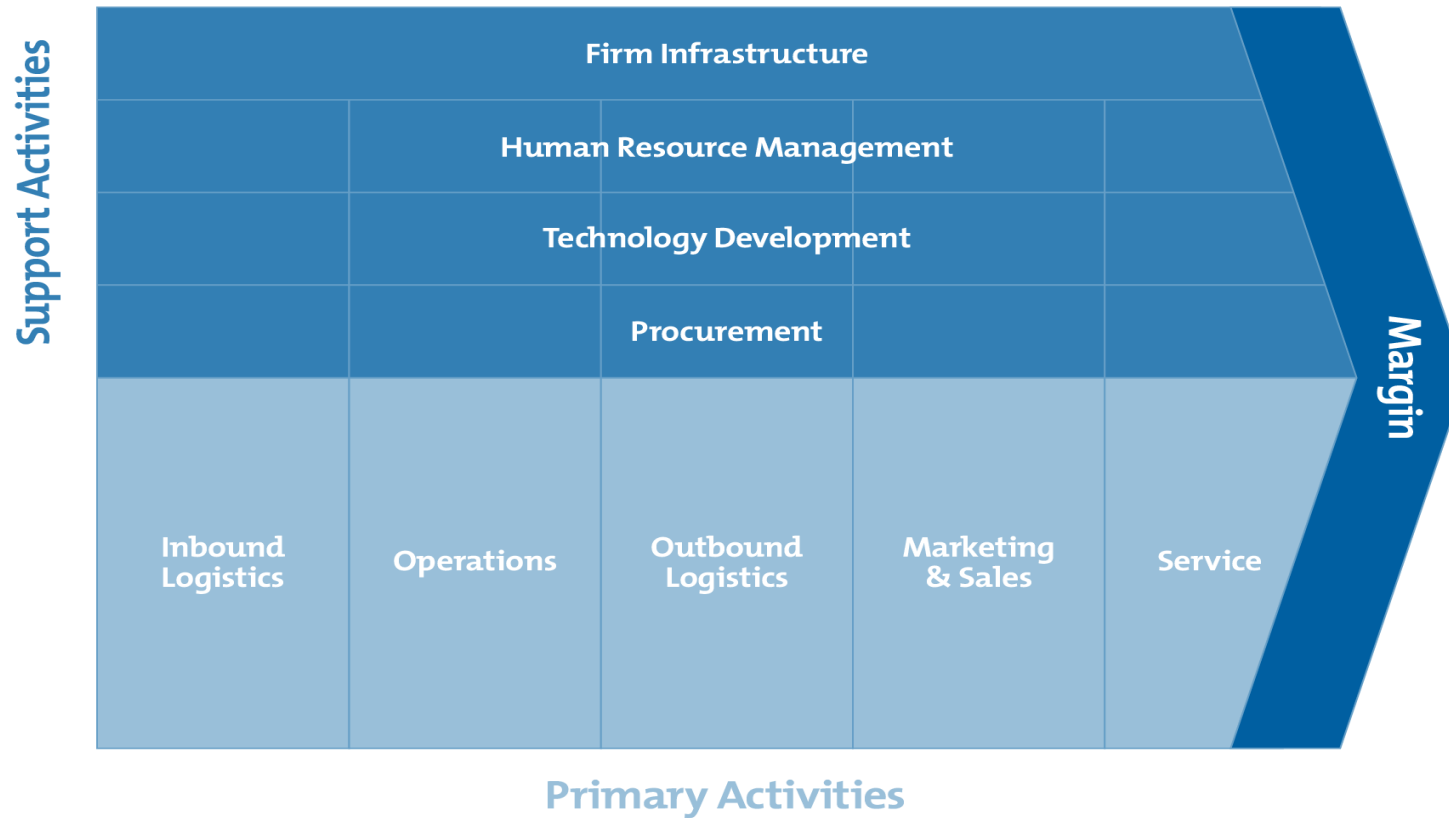
- Offshore Production
- Subsidiaries
- Mergers and Acquisition



Characteristics of a MNC

- Its headquarter in one country
- A branch or subsidiary in at least one foreign country
- There could be several branches, subsidiaries and retail outlets
- The global business operations are managed and controlled centrally, i.e., from the head office located in the home country
- Regional offices abroad manage business operations as per the established norms of the headquarter

Value Chain Model



Competitive advantage is derived from the way in which firms organize and perform these activities within the value chain.

Why Global Value Chain?

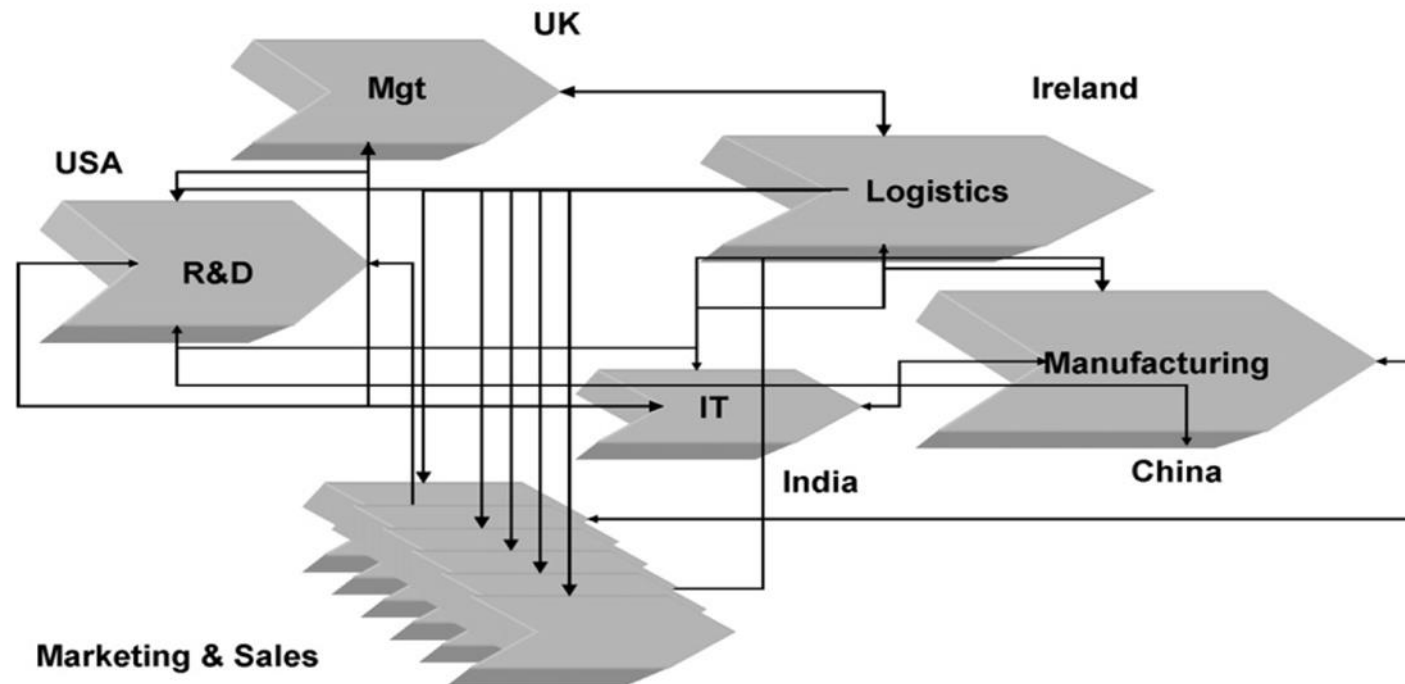
- Changes in the global economy
- There is a **shift** away from multinationals using wholly owned subsidiaries to a greater involvement of, **joint ventures and outsourcing using contract manufacturers**
- And **Vertical Specialization**

Vertical Specialization leads to The Global Factory

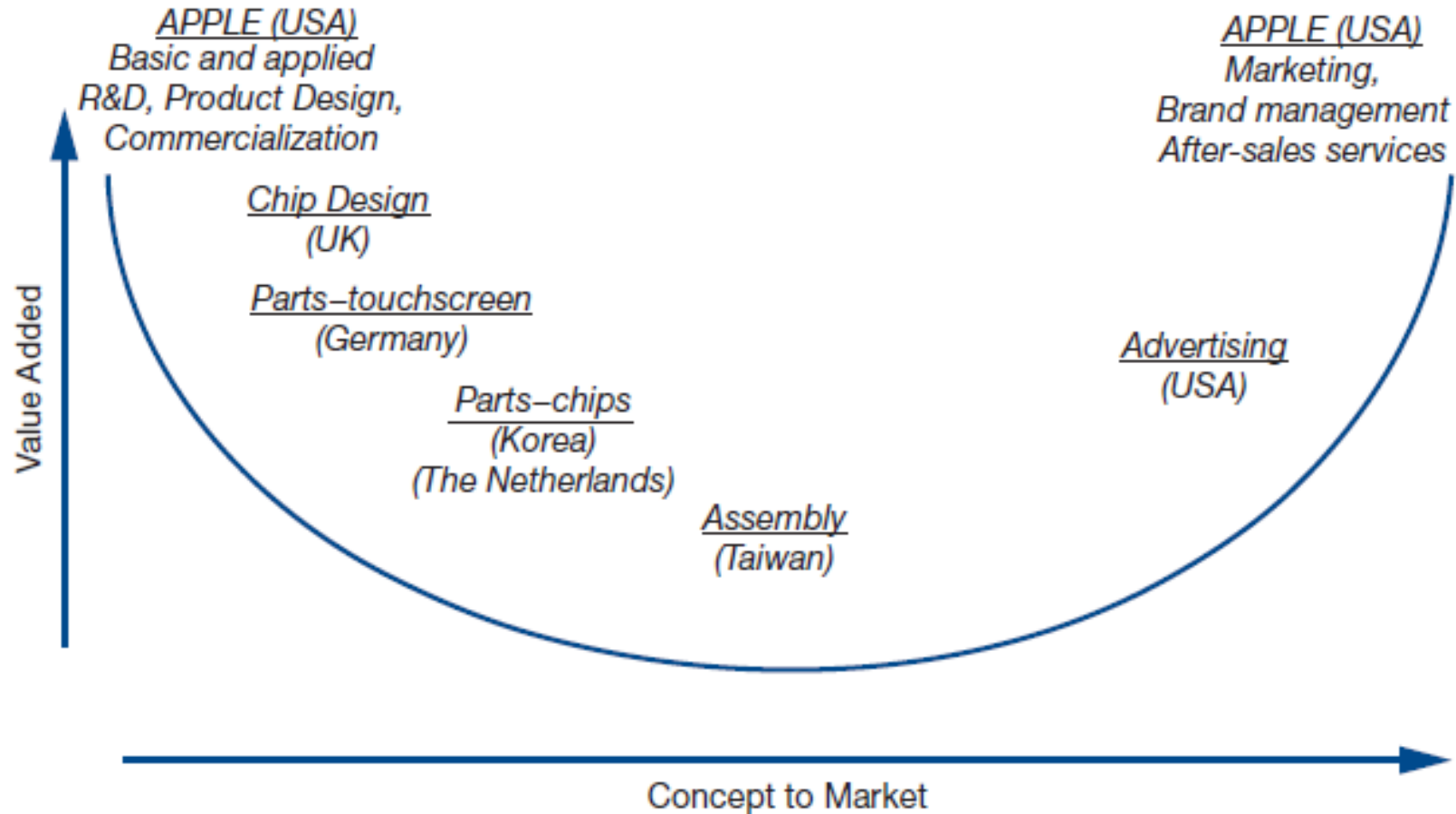
- A global factory relates to the **disaggregation of the production process across a number of different firms in different countries.**
- i.e. firms are locating different parts of an increasingly fragmented production process in different countries
- Based on a number of factors including not only access to raw materials and nearness to markets but also the attractiveness of taxation regimes, other regulatory controls, and, of course, the level of wages

Global Value Chain (GVC)

- Represents the build up of value along a supply chain made up of a number of international partners



Apple iPhone's GVC



What are Global Value Chains and why they matter?



https://www.youtube.com/watch?v=_sY8nbtDTTY

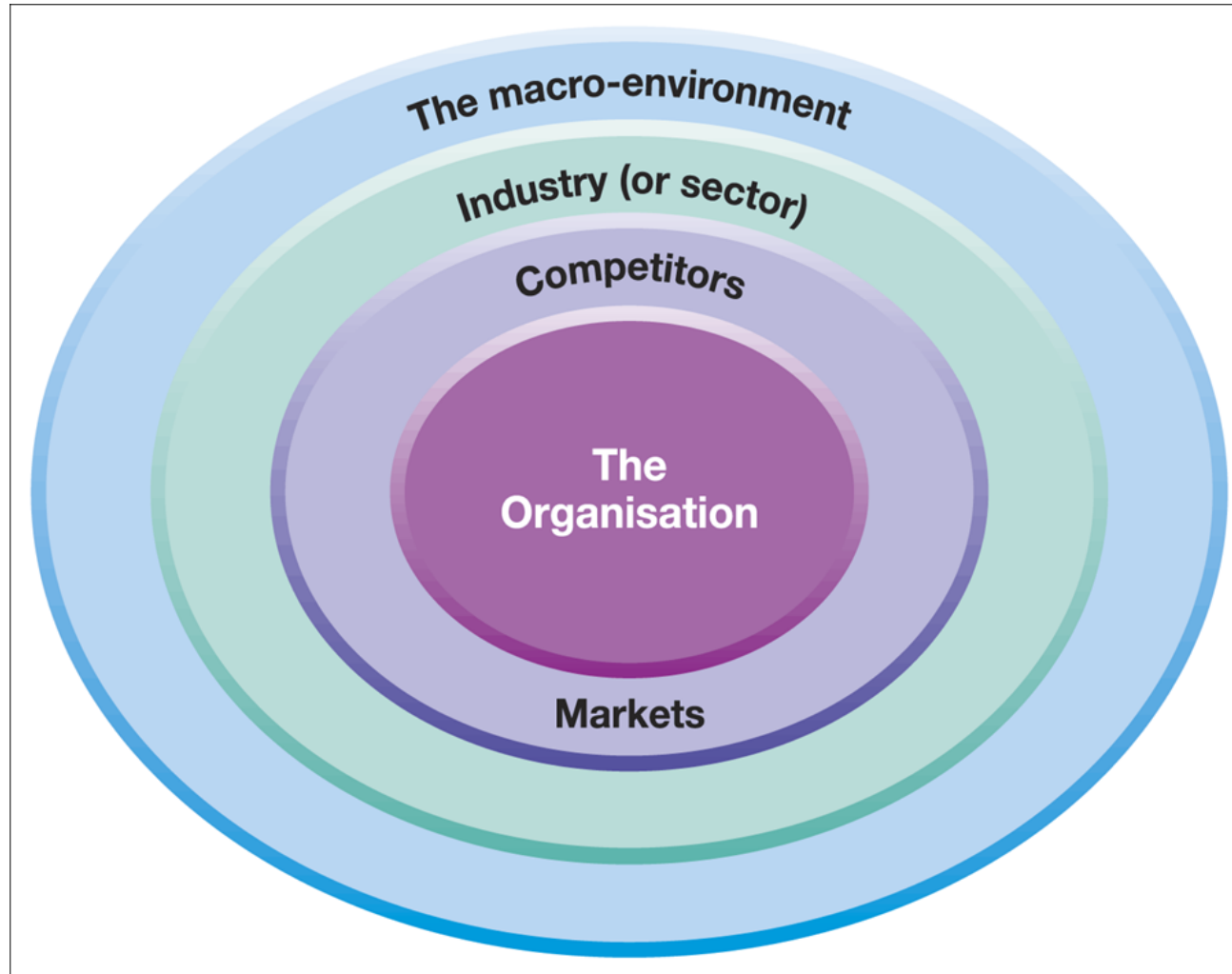
Essential Reading to Date

- 1. Hamilton and Webster, *The International Business Environment*, Fourth Edition
 - Chapter 1- Globalization

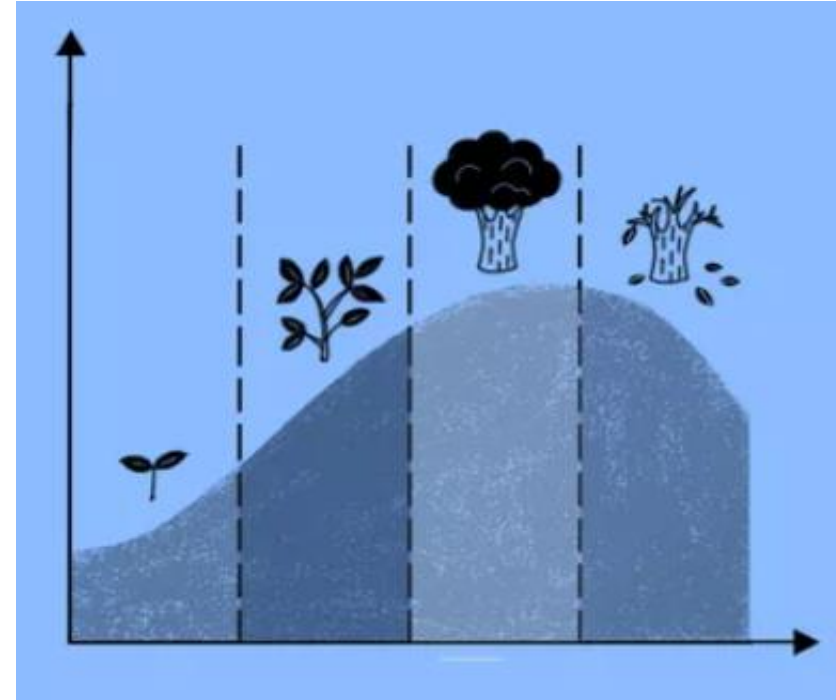
- 2. David Needle and Jane Burns, *Business in Context*, Seventh Edition
 - Chapter 1- The Concept of Business in Context
 - Chapter 2- Globalization

Layers of the Business Environment

Layers of the business environment



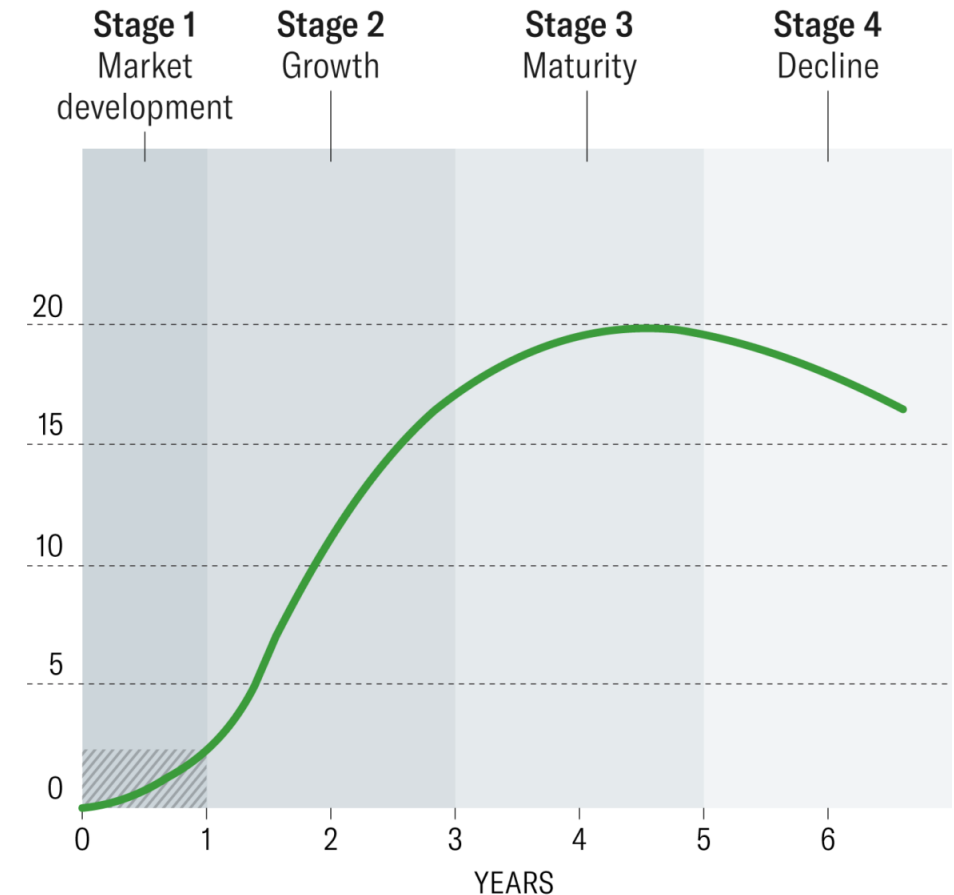
Product Lifecycle



Stages of the Product Lifecycle

- A product's life cycle is the **series of phases that a product will go through in its "lifetime" in relation to the profit and sales** that it will collect (Kotler & Armstrong, 2012)
- The life cycle of a product is broken into **four stages**:
 - Development/Introduction
 - Growth
 - Maturity
 - Decline.

Sales volume (dollar index)

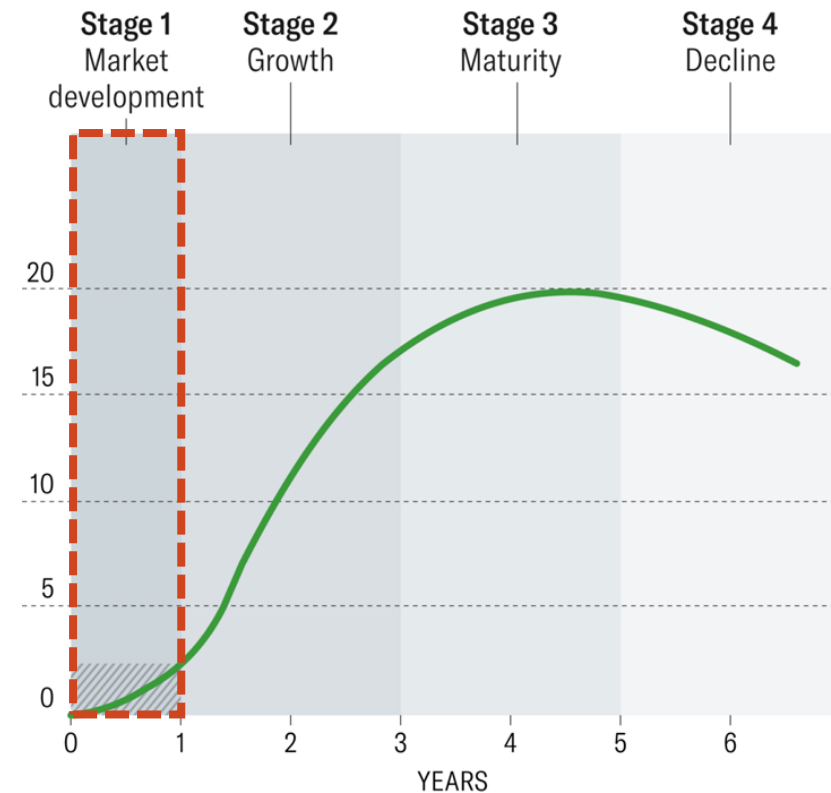


Levitt (1965) <https://hbr.org/1965/11/exploit-the-product-life-cycle>

Stage 1. Market development

- This is when a **new product** is first brought to market
- **Substantial investment in advertising** and a marketing campaign focused on making consumers aware
- There is often **little-to-no competition**
- **Sales are low** and creep along slowly.

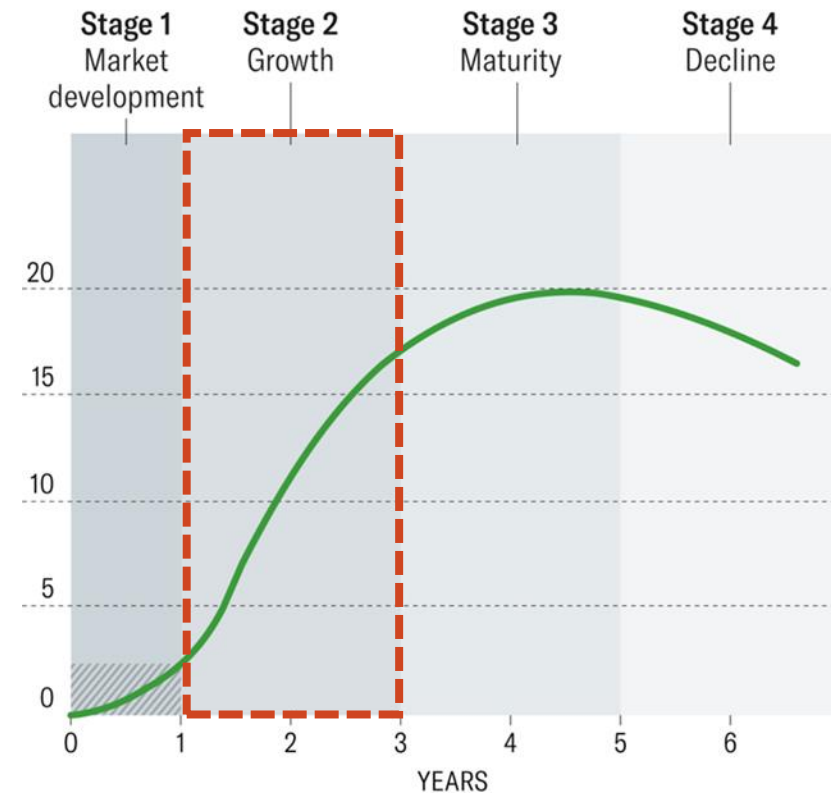
Sales volume (dollar index)



Stage 2. Market Growth

- **Product becomes** more **popular** and recognizable
- Demand accelerates leading to **increased sales and higher revenue**
- The **size of the total market expands** rapidly
- **Marketing** campaigns geared towards **differentiating product** from competitors

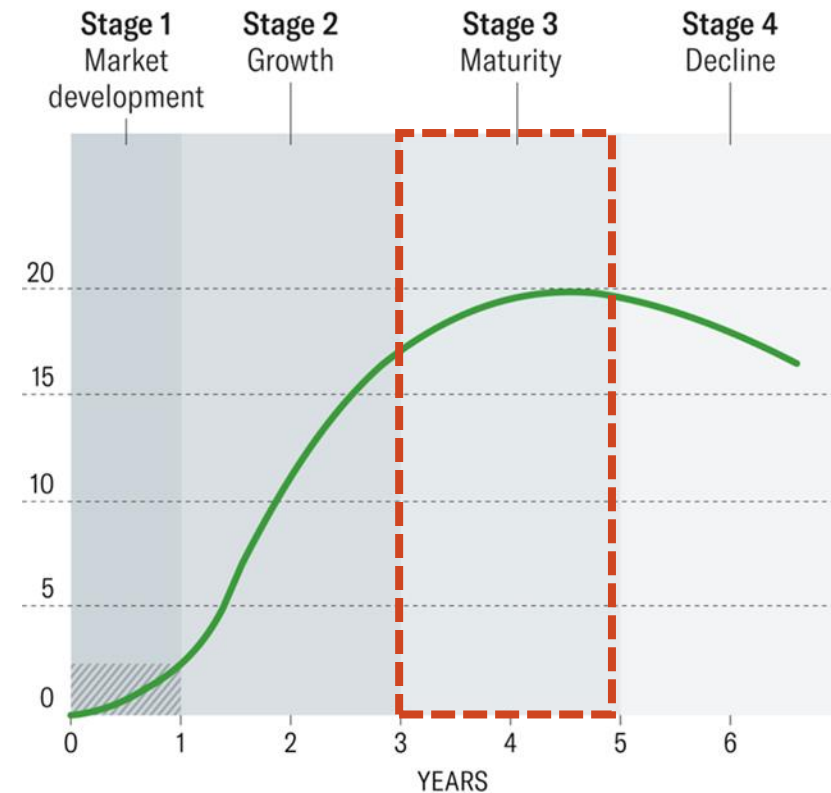
Sales volume (dollar index)



Stage 3. Market Maturity

- Sales **volume is "maxed out"**
- **Market saturated** with the product
- Costs of **marketing decline**
- **Competition is higher**
- **Profit margins** starting to shrink

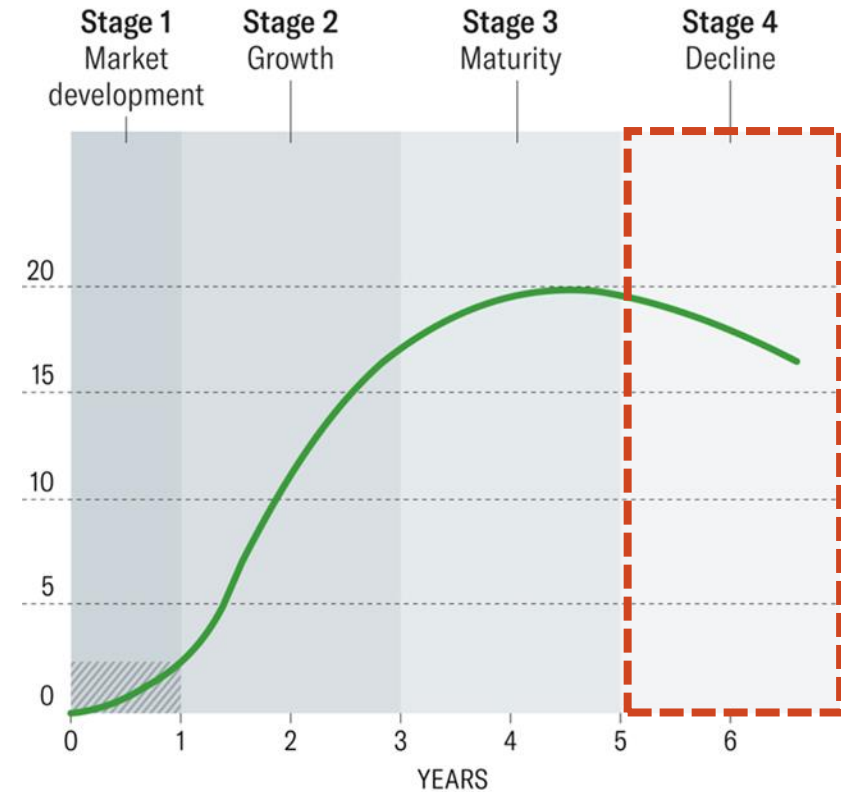
Sales volume (dollar index)



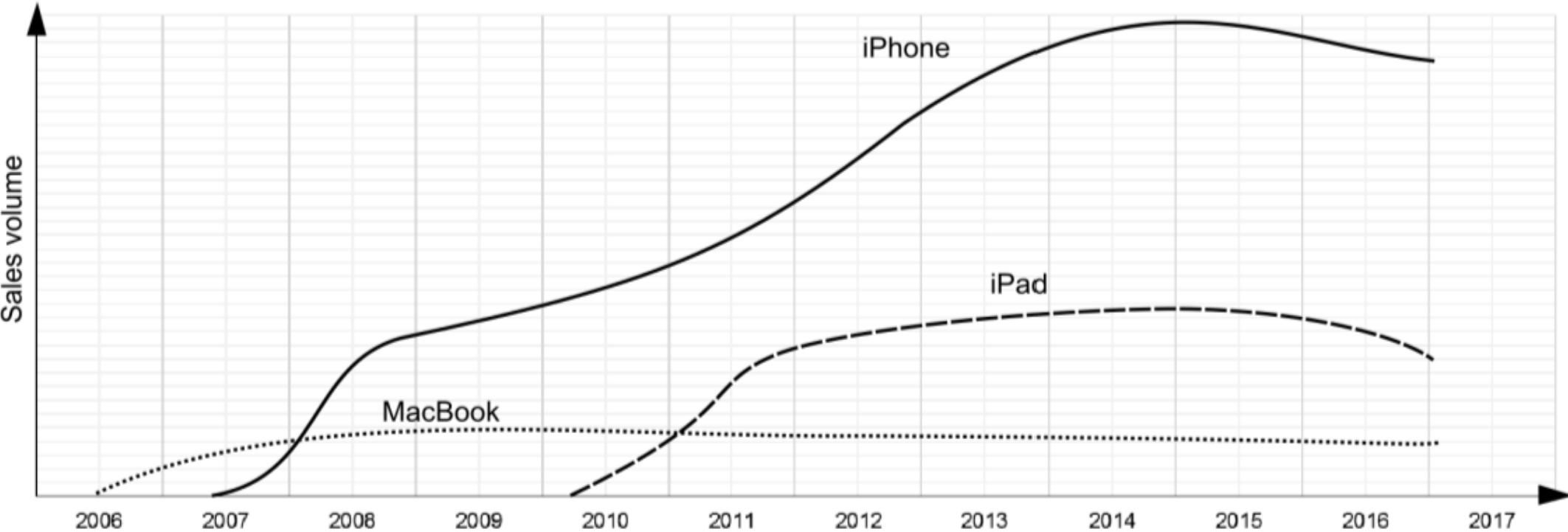
Stage 4. Market Decline

- The product begins to **lose consumer appeal**
- **Sales drift downward**
- The product may **lose market share**

Sales volume (dollar index)



Apple's Mobile Product Lifecycle



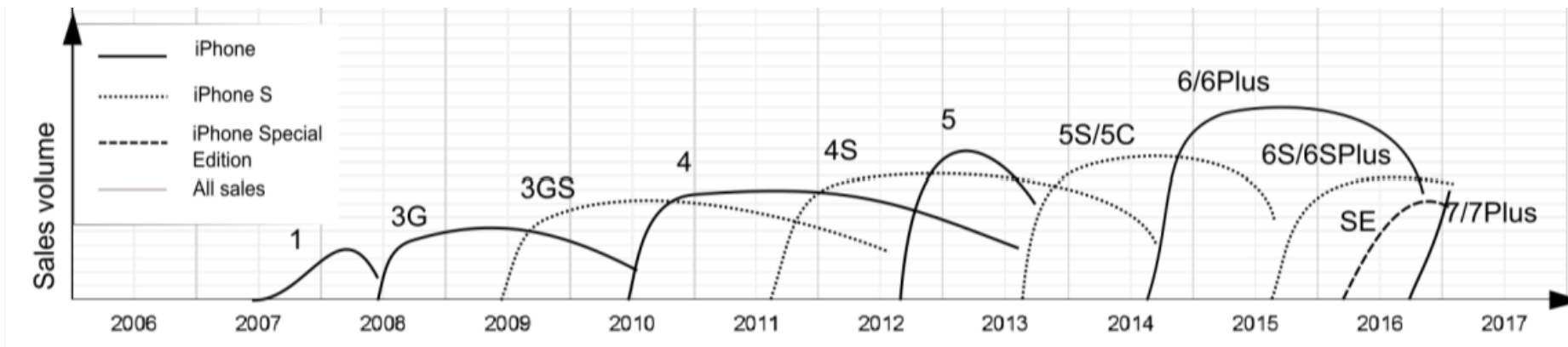


Figure 1. The life cycle of all the iPhone models

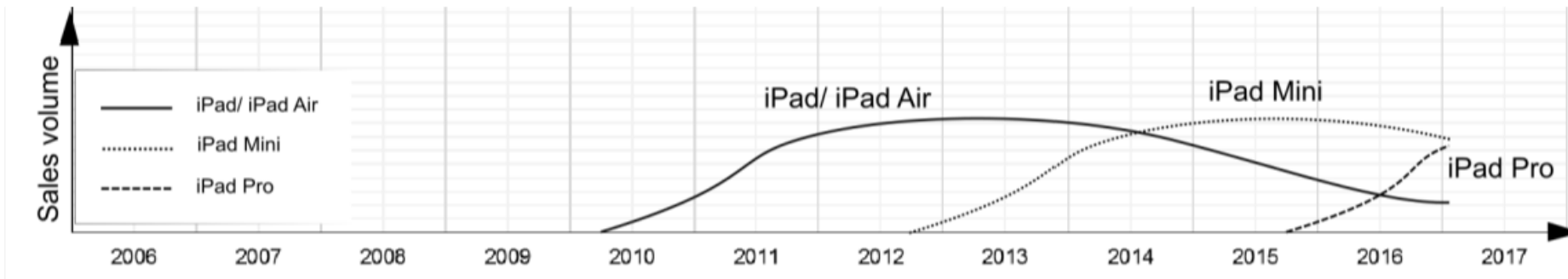


Figure 2. The life cycle of the iPad lines

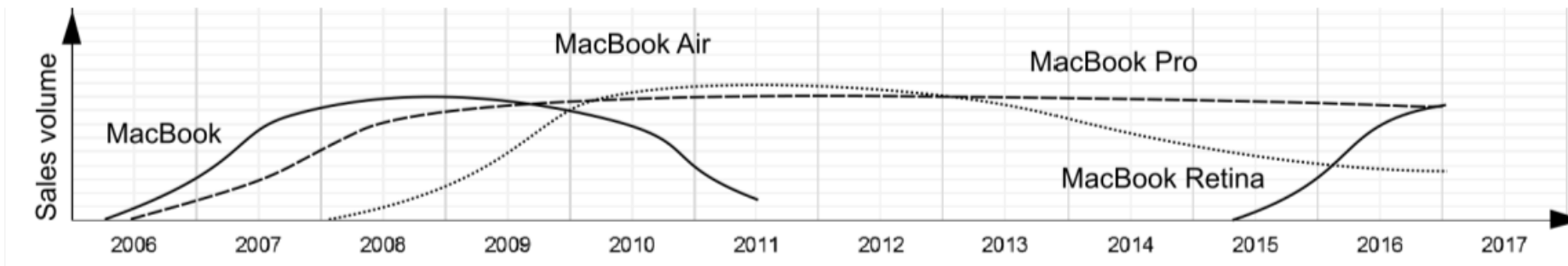


Figure 3. The life cycle of the MacBook lines

Group Activity- Plot Product Lifecycle

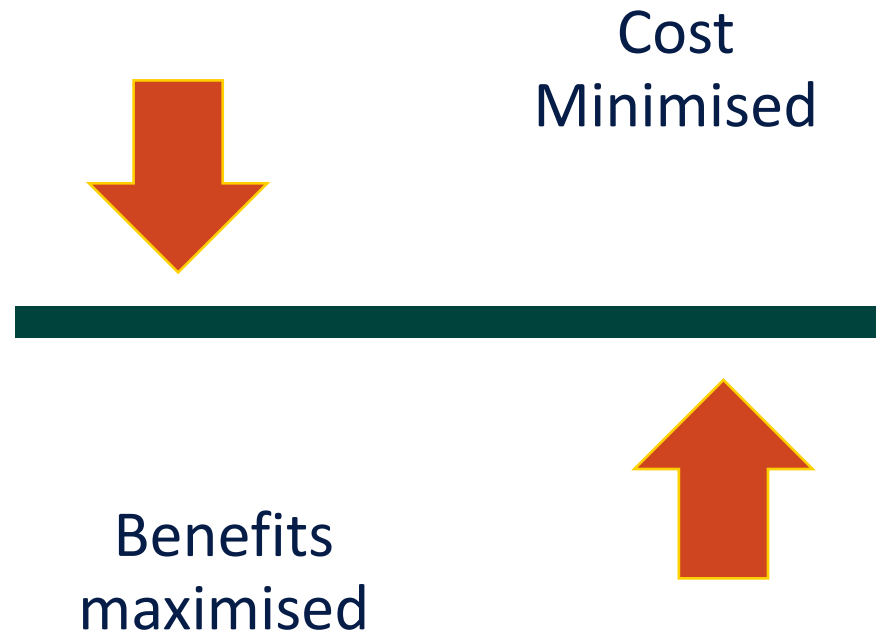
- Using Apple iPhone
- Draw a Line chart showing Sales volume from 2007 to 2022
- What are your observations in relation to:
 - Stages of the lifecycle, can you see it
 - Major release of new models

Market

Market

- A **place** or platform **for the buyers and sellers** (or producers) to engage into exchanging good/services and money
- **There is a demand** (buyers side) **and a supply** (Sellers' side)
- There are multiple members (both buyers and sellers) in a market
- Buyers (Also called Consumers) receive
 - Goods/Services
 - A value (also called utility) out of owning/acquiring the goods/service
- Producers receive
 - The price which covers their cost and offer a level of profit that is sufficient for them to sustain in the business

Efficient Market



- Goods/Services are in demand
- Goods/Services are most desirable
- Goods/Services are produced adequately
- Appropriate goods/services are produced

So everybody is happy 😊

Assumptions :

- There are many buyers and sellers in the market.
- Each buyer and seller has perfect information.
- No individual buyer and seller is big enough or has the power to be able to influence price
- There is freedom of entry and exit to and from the market.
- Goods produced are homogenous (same in all respect)
- Buyers and sellers act independently and only consider their own position in making decisions.
- Producers and consumers both take into account all costs and benefits when making decisions.

[Mankiw, N./Taylor, Mark. Economics]

When products are not homogeneous

- Then the customers may have a choice based on
 - Quality
 - Price
 - Satisfaction that they get out of using/owning the product (Utility)

Note : Sometime higher price forces a customer to compromise the utility requirement to a degree

Therefore... Based on customers' choices we have a **DEMAND** in the market

Demand

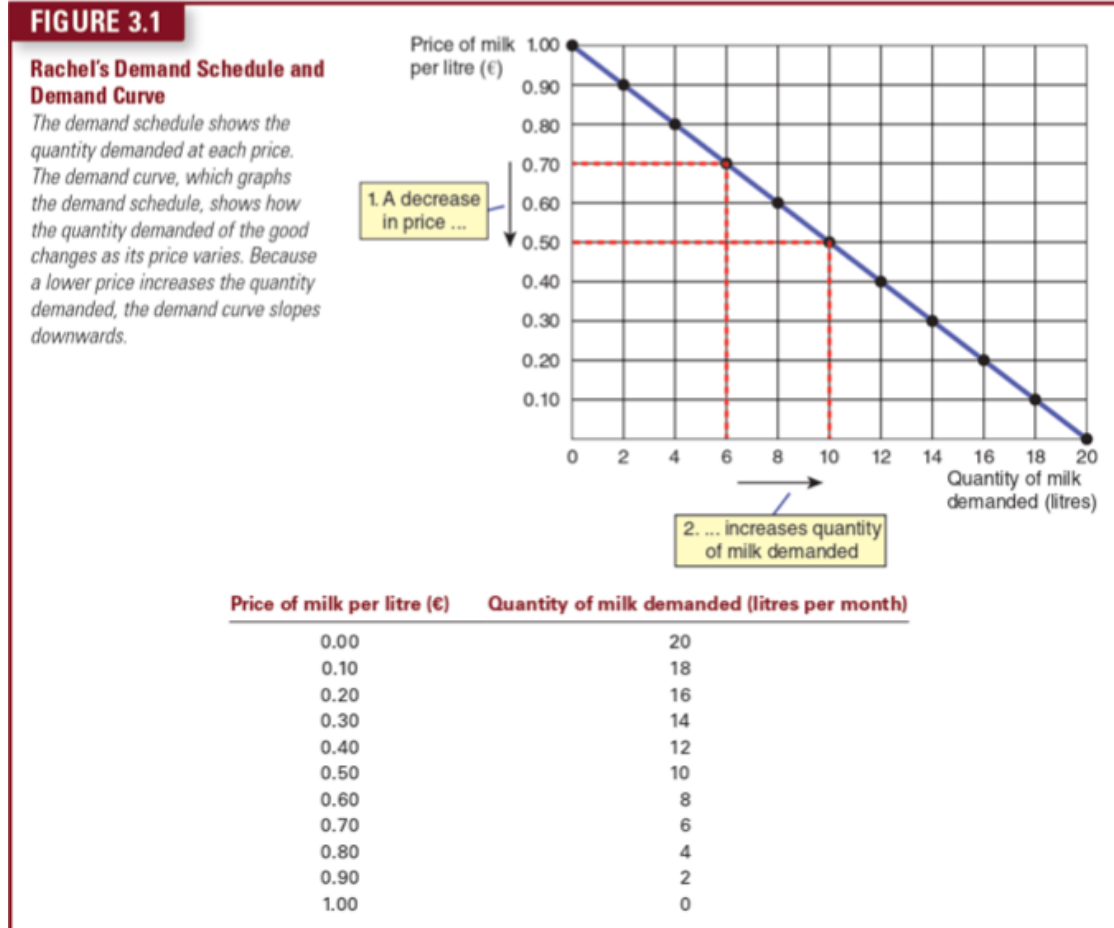
Demand \propto $1/\text{Price}$

Demand \uparrow Price \downarrow

Demand \downarrow Price \uparrow

Note : Except price, the products are same in all aspects

Individual Demand Curve

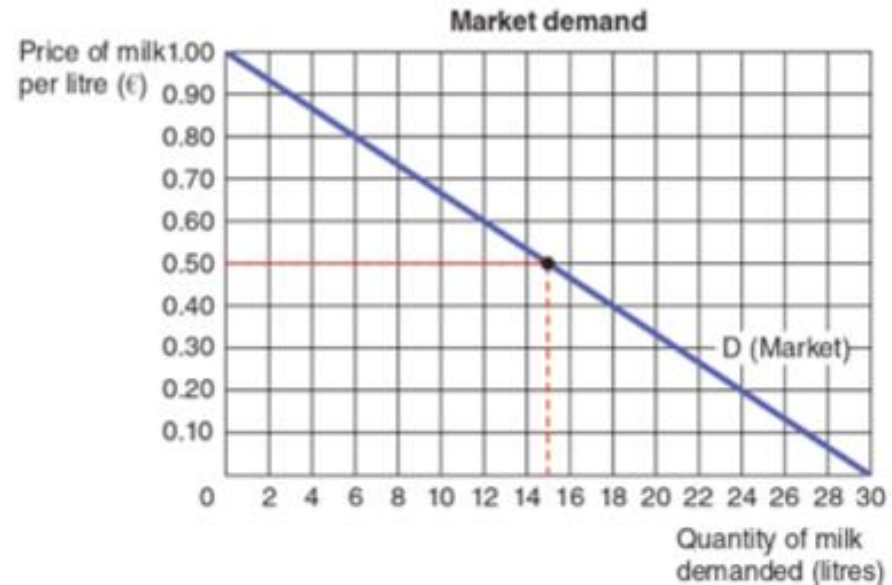
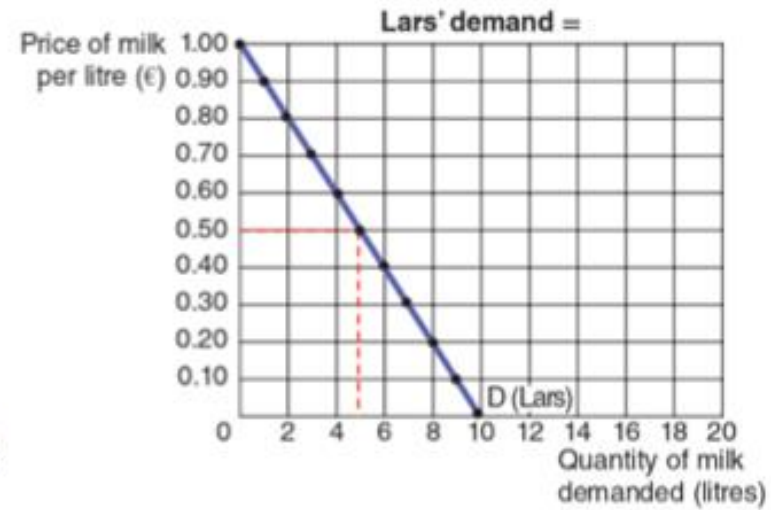
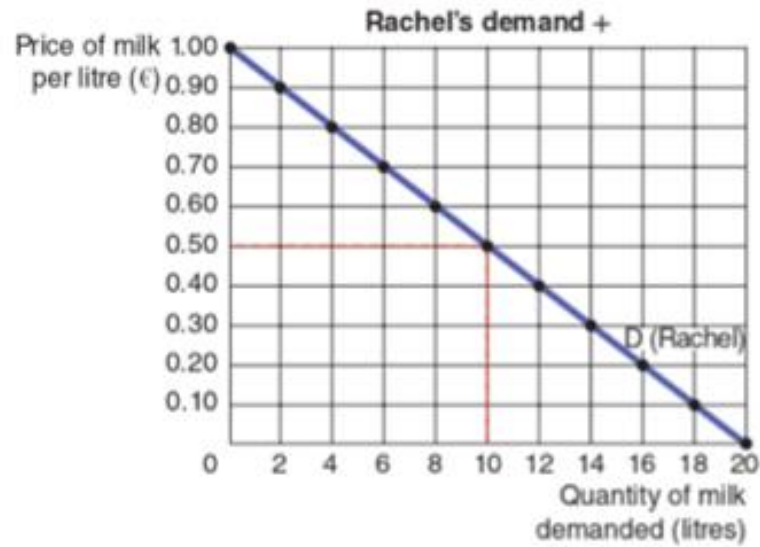


- High Price > Low Demand

- As the price comes down, demand increases

Mankiw, and Taylor (2017)

Market Demand Curve



Individual demands
Adds up to create
The total demand
in the
Market

What happens when price of a product goes down

- Demand increases but that could be because of two reasons
- **Income effect** : No change in product selection. Buyer has ability to buy more of the same products because of the price reduction, and chooses to do so
- **Substitution effect** : Change in product selection. Buyer substitutes more expensive products with this product with reduced price.

Note :

1. If the price goes up, the opposite effect will be observed.
2. In this case the buyer just moves along the demand curve, depending upon whether the price has gone down or up. This phenomenon is also called Movement Along the Demand Curve

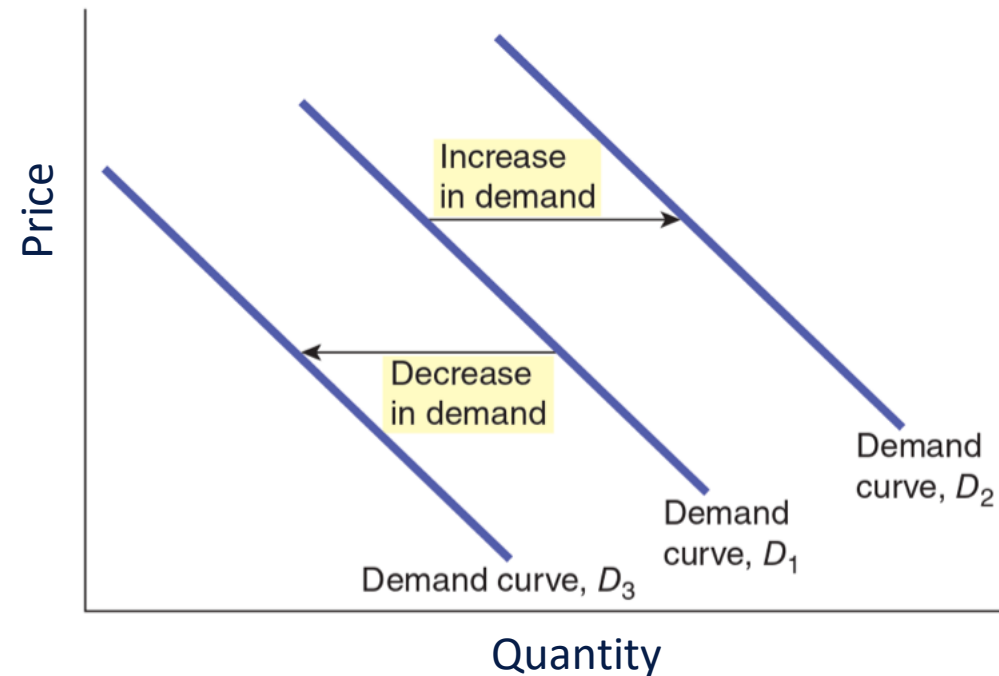
Key Discussion Point 1

KDP 1 – A product or services is priced according to its demand in the market



What happens when factors other than price changes

- Demand is impacted for the whole market. So it is the **Total Market Demand** that displays the effect.
- The total demand may increase or decrease
- The demand curve will shift to the right(increased demand) or to the left (decreased demand)



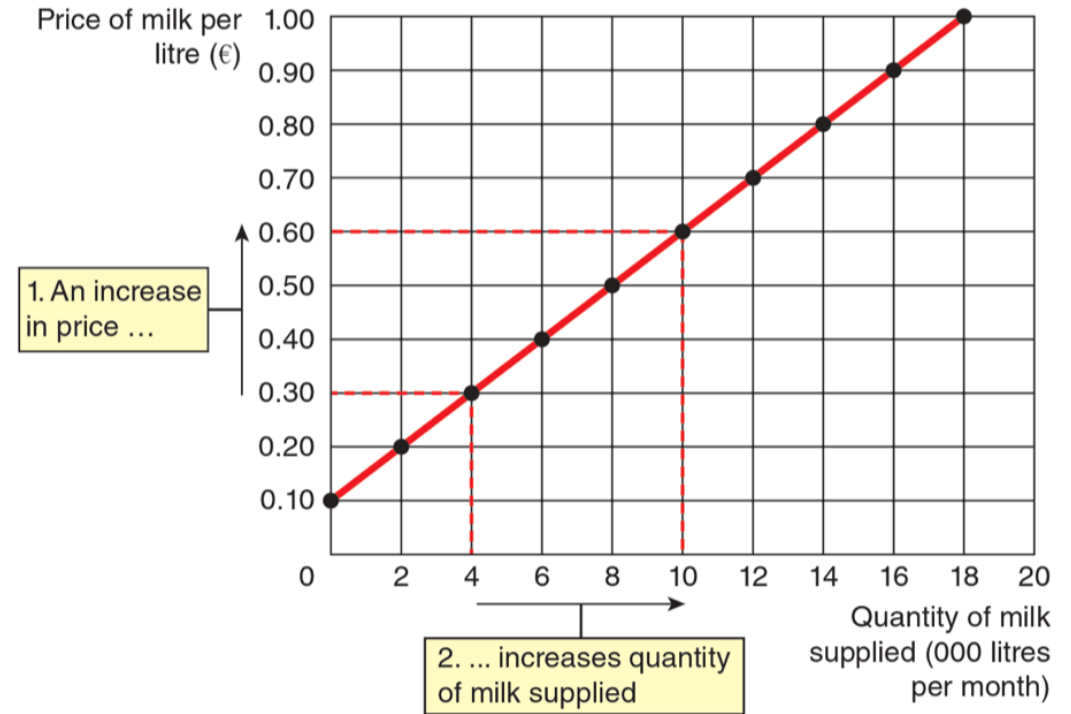
Mankiw, and Taylor (2017)

Types of Product

- Normal
 - Income falls, Demand falls ; Income rises Demand rises
- Inferior
 - Income falls, demand rises
- Substitute
 - Fall in price of one product (Say product A) increases its demand and reduces demand of another similar product (Say product B), which could be substituted with product A (Product A was costlier but more affordable after the fall in price)
 - Rise in price of product A will cause an opposite effect – a switching from Product A to Product B
- Complement
 - Fall in price of one product increases demand of another product
 - Fall in price of milk may increase demand of cereal as more people may opt for milk-cereal combination at breakfast
 - Fall in price of fuel based car may increase demand of fuel

The Supply Curve

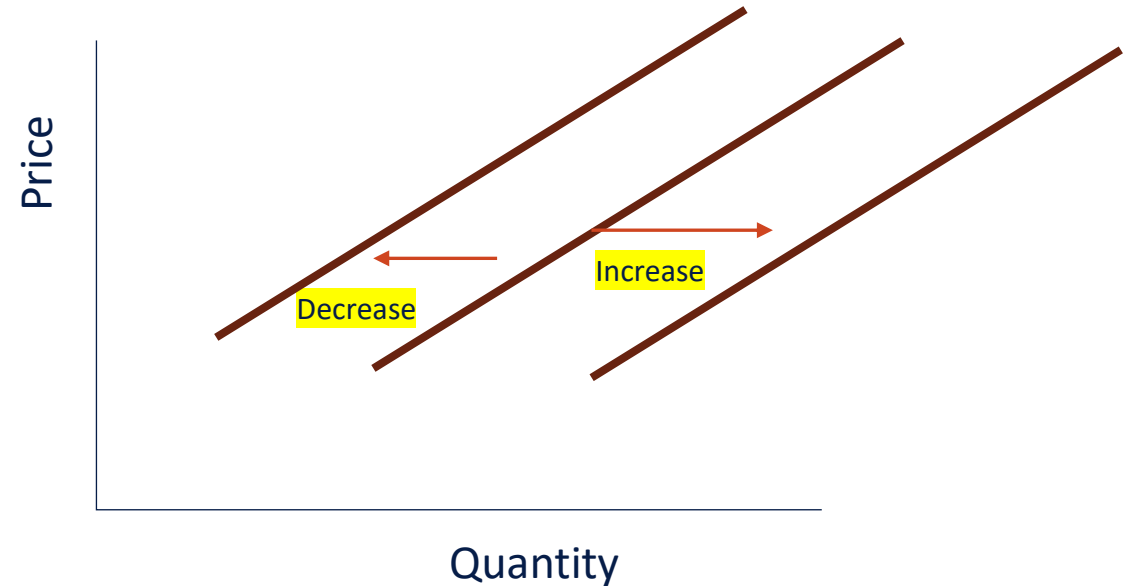
- The supply curve depends on the demand of the market
- Point to note -- The supply curve has not started from price at 0. No supplier would like to supply at free of cost
- Generally a higher price means greater demand and hence greater supply



Mankiw, and Taylor (2017)

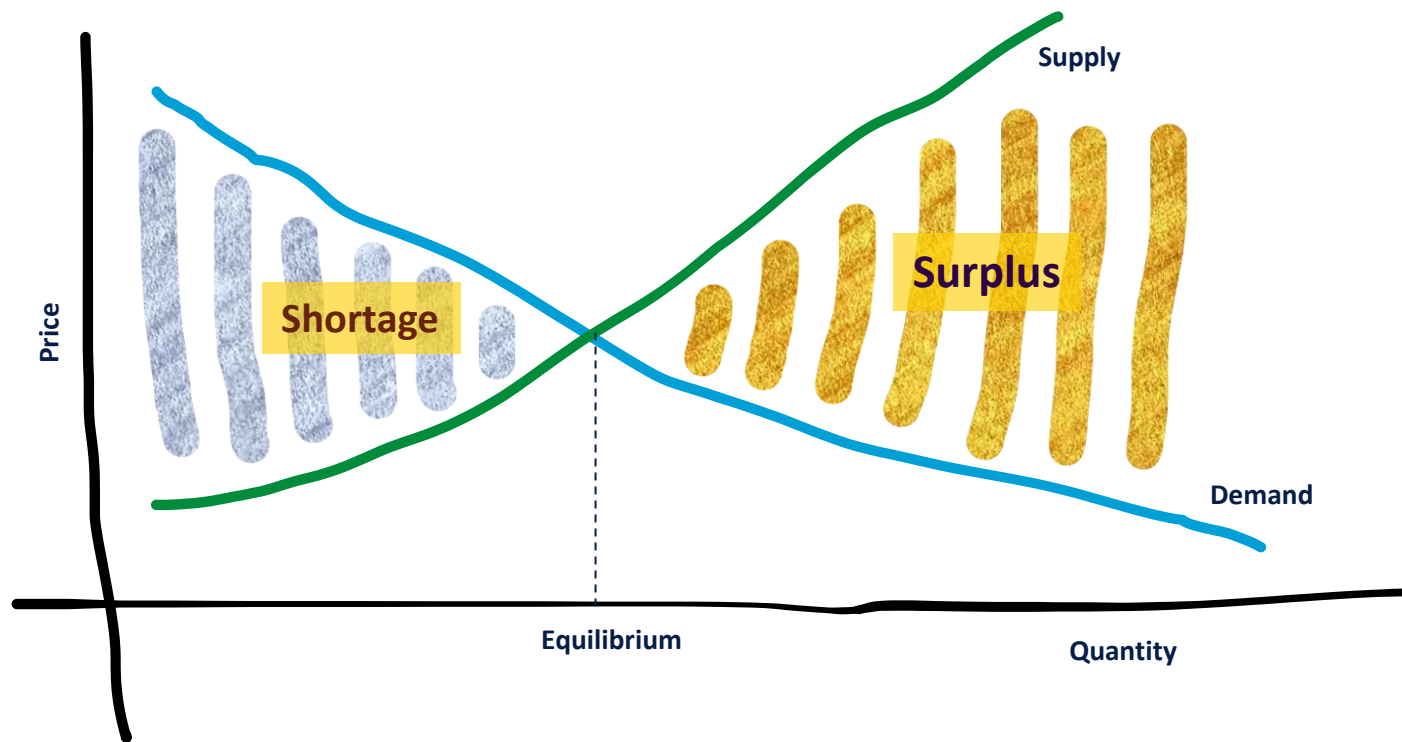
Shifts in Supply Curve

- Any change that increases the suppliers' willingness to supply more shifts the curve to the right
- Any change that decreases the suppliers' willingness to supply at the current level, shifts the curve to the left



Supply and Demand

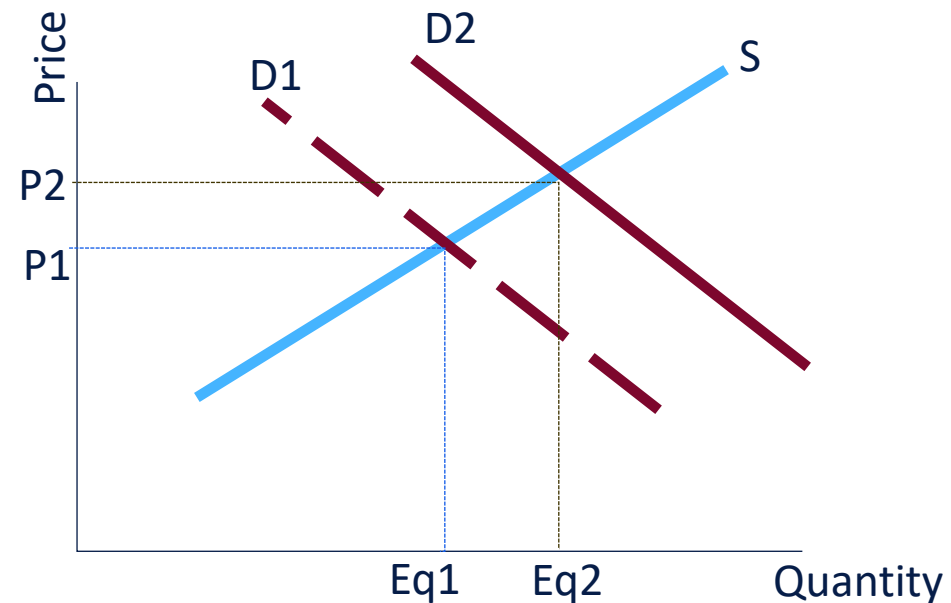
- Equilibrium (Supply = Demand)
 - This is the point where supply curve and demand curve intersect



Demand and Equilibrium

- Any event that increases the demand (D-curve shifts right) shifts the Eq. point further up the S- curve
- That means the price goes up from P_1 to P_2

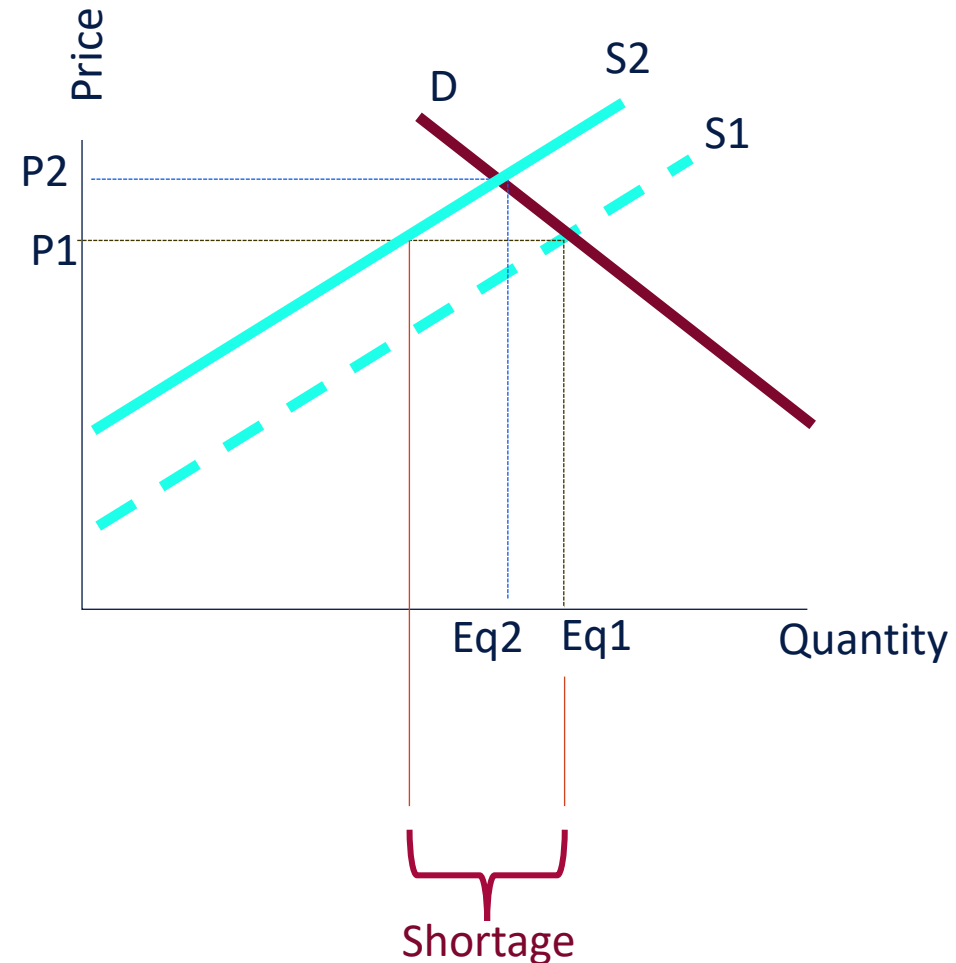
Physical implication : When demand is up \gg Suppliers are willing to supply more and since demand is higher it is possible to charge a higher price



Supply and Equilibrium

- Any event that decreases the supply(S curve shifts left) , shifts the Eq point further up the demand curve
- The price goes up from P_1 to

Physical implication :
When supply is down >> price goes up , demand goes higher and generally a shortage (@the old price) in the market is developed.



Demand , Supply and Equilibrium

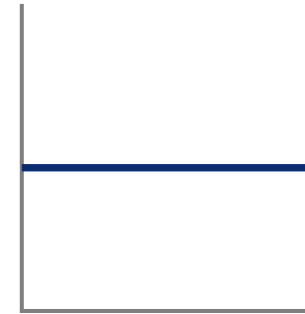
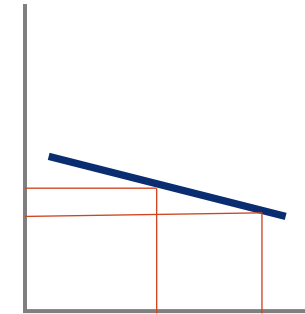
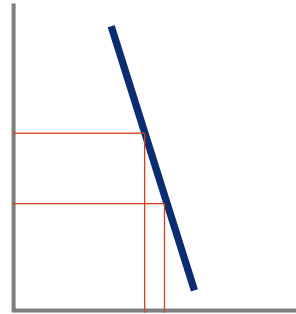
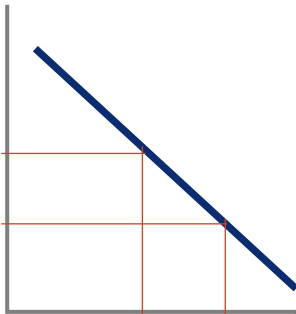
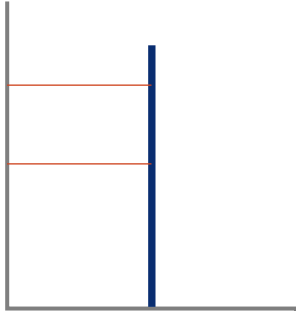
- What happens when both D and S shift ? There could be several scenarios
- Demand rises, Supply falls
 - Demand rises too much, Supply falls just a little
 - Demand rises just a little , Supply falls too much
- Demand rises, Supply rises
 - Demand rises too much, Supply rises just a little
 - Demand rises just a little , Supply rises too much
- Demand falls, Supply falls
 - Demand falls too much, Supply falls less (A rare scenario – not good for business)
 - Demand falls less, Supply falls too much
- Demand falls, Supply rises (Improbable scenario)

Price Elasticity of Demand

- Clearly Price and Demand are interrelated. Change in one can impact in other
- Price Elasticity of Demand is the relationship between change in price and change in demand
- It is defined as

$$\text{Price elasticity of demand} = \frac{\text{Percentage change in demanded quantity of a product}}{\text{Percentage change in price of a product}}$$

1 <= Price Elasticity => 1



$$\text{PED} = \frac{(\text{Change} / \text{Original price}) \times 100}{(\text{Change} / \text{Original price}) \times 100}$$

Key Discussion Point 2

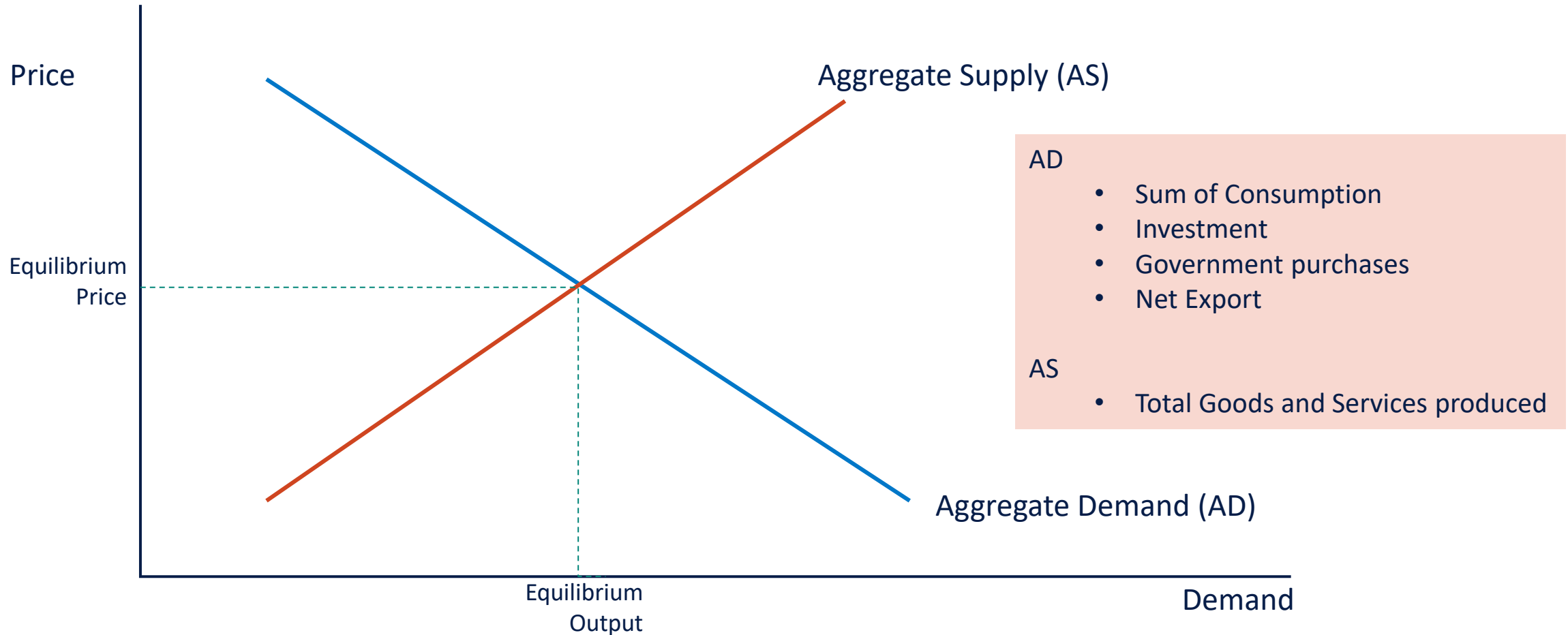
KDP 2 – Price of same product could be different in different market



Competition

- Perfect
 - All firms are equal. No buyer or seller can have the power to affect the price
- Imperfect
 - Monopoly : Sole seller of a product that has no substitute
 - Monopolistic competition : A mixture of some competition and some monopoly
 - Several firms
 - Differentiation of product is possible and it is dependent on the individual firm's ability, resources and competence
 - Oligopoly
 - Majority of the market are dominated by a few number of firms
 - Duopoly
 - An oligopoly with only two major competitors

Aggregate Demand and Aggregate Supply





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