

The Economics of European Integration

Logic and facts

Theoretical preliminaries

The BE-COMP diagram

The impact of European Liberalization

State Aid

Competition policy

Chapter 6

Market Size and Scale Effects

Logic and facts

- European leaders always viewed integration as compensating small size of European nations: market size good for economic performance.

Economic integration → firms access to a bigger market

→ firms become more efficient

→ lower costs and prices + better quality + enhanced competitiveness in external markets

Economic Logic Verbally

Liberalization

→ De-fragmentation

→ Pro-competitive effect

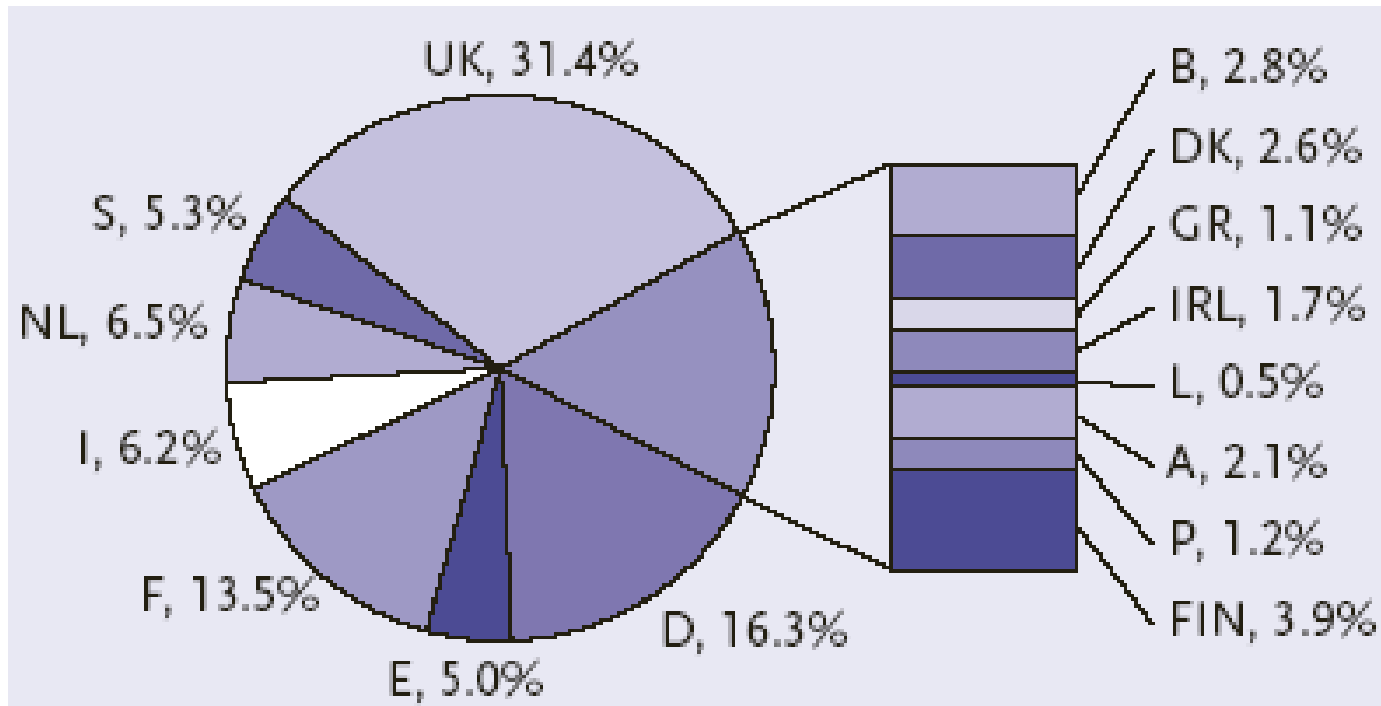
→ Industrial restructuring (M&A...)

- RESULT: fewer, bigger, more efficient firms facing more effective competition from each other .

Facts

- M&A activity is high in EU.
- Much M&A is mergers within member state:
 - about 55 % 'domestic'
 - remaining 45 % split between:
 - one is non-EU firm (24 %),
 - one firm was located in another EU nation (15 %)
 - counterparty's nationality was not identified (6 %).

Facts



- Distribution of M&A is quite varied:
 - Big-four: most operations, but (except UK) share M&As much lower than share of the EU GDP: I, F, D 36 per cent of the M&As, 59 per cent GDP
 - small members have disproportionate share of M&A.

Facts

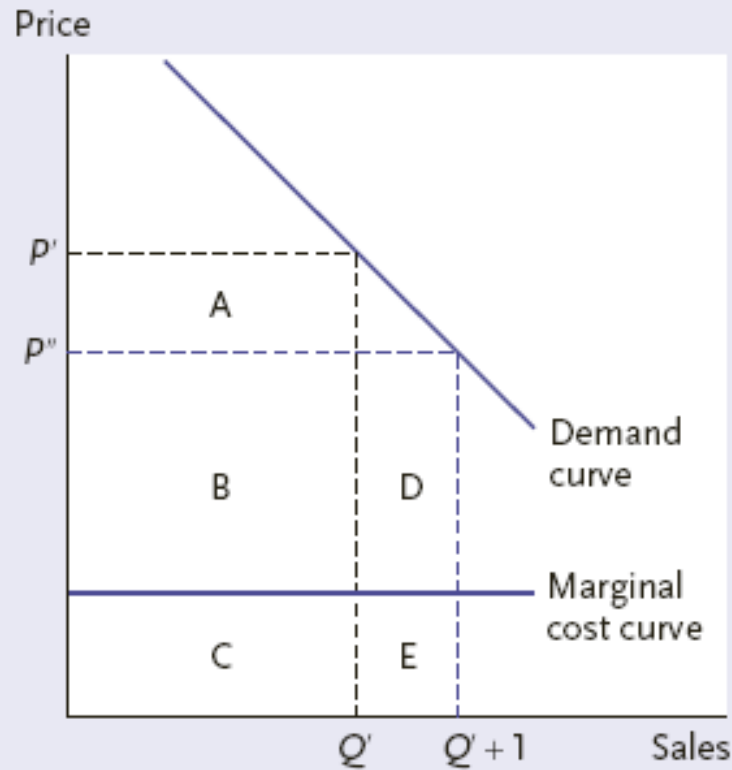
- Sectoral composition:
 - 2/3 in the service sector (esp. banking) during 1990s
 - Mostly in manufacturing during early years of Single Market Programme (1986-92), often in anticipation of scheduled liberalization)
- Differences in takeover rules:
 - some members have rather restrictive/rather liberal takeover practices → makes M&As +/- difficult
 - UK: very liberal M&A rules → larger share in m&As
 - restructuring effects of liberalization vary across member states.

Theoretical preliminaries

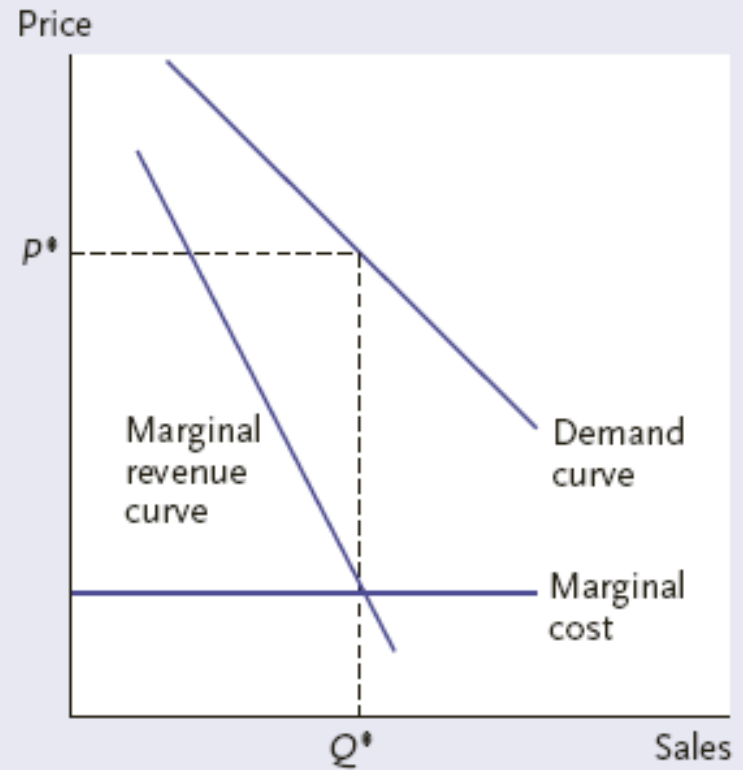
- Study the impact of European integration on firm size, efficiency, number of firms, prices, output → “BE-COMP” model
- Start with:
 - Monopoly: only one seller
 - Duopoly: two sellers → strategic interactions
 - Oligopoly: a few firms

Theoretical preliminaries

- Monopoly case



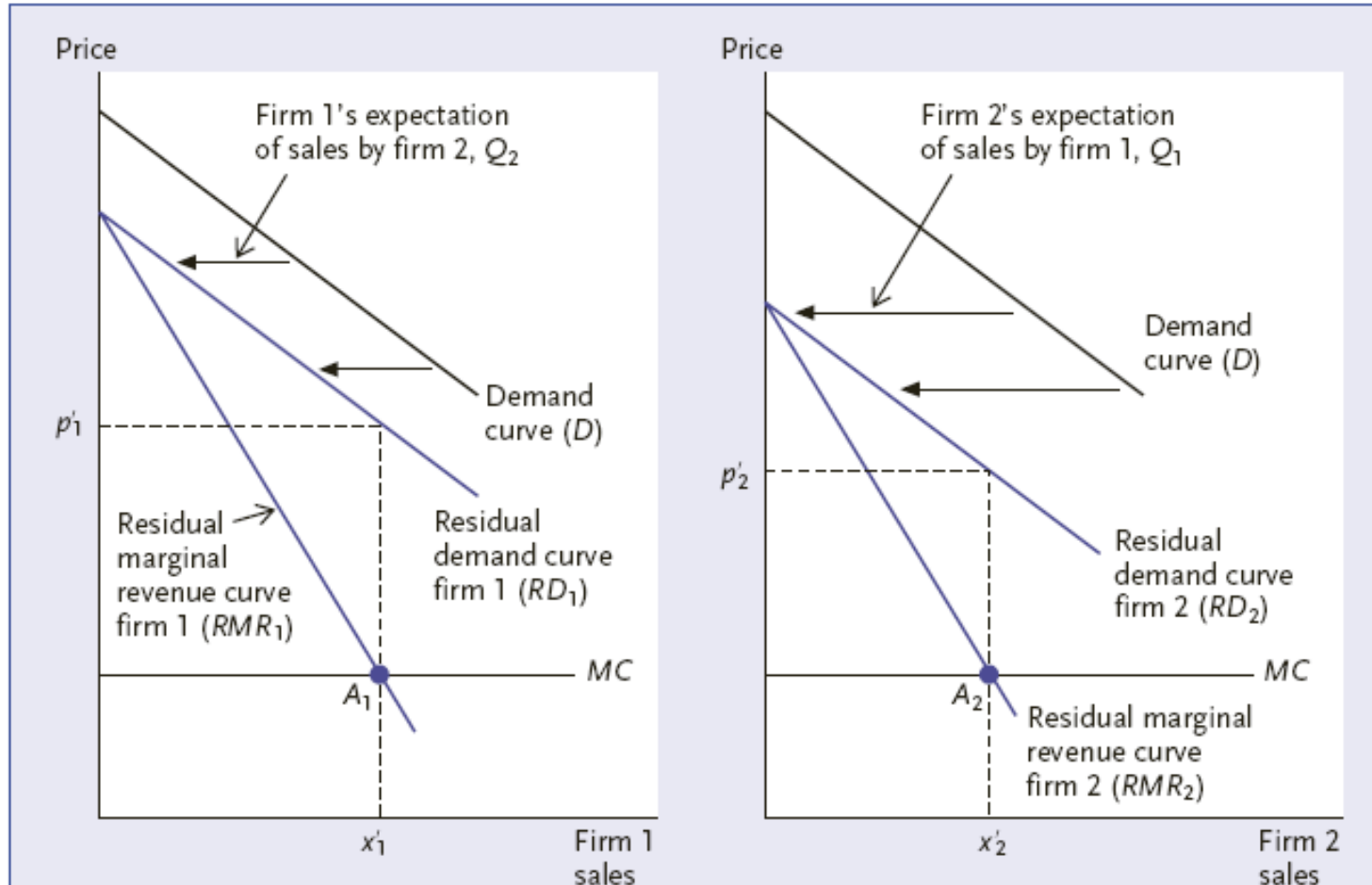
Marginal revenue: increase in revenue due to an additional sale



Optimal level of sales: when marginal cost = marginal revenue

Theoretical preliminaries

- Duopoly case, example of non-equilibrium

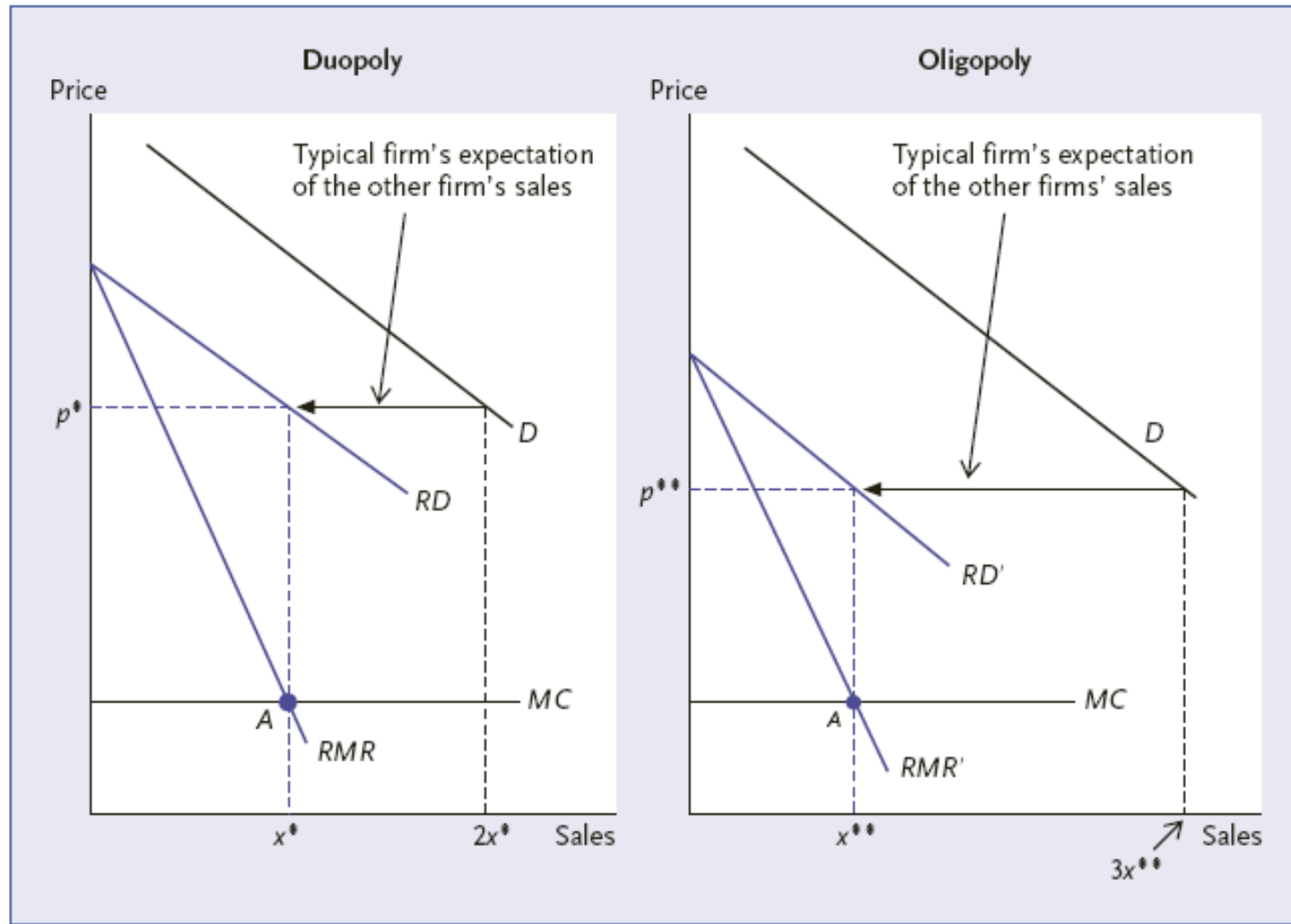


Residual demand = market demand – quantity sold by competitor

Firms behave like a monopoly facing the residual demand curve, given expected competitor output. In equilibrium, expected output = actual output

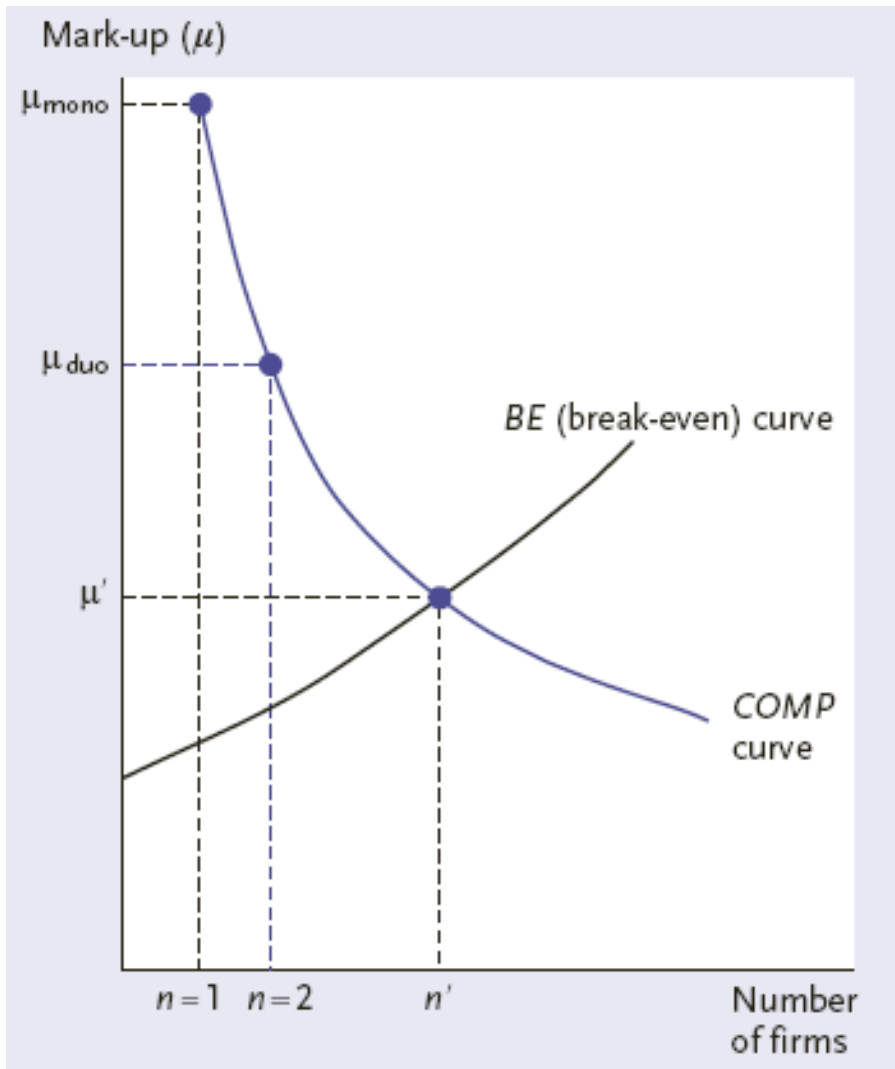
Theoretical preliminaries

- Duopoly and oligopoly case, equilibrium outcome



In equilibrium, given the demand curve, more firms \rightarrow lower price (and mark-up)

BE-COMP Diagram



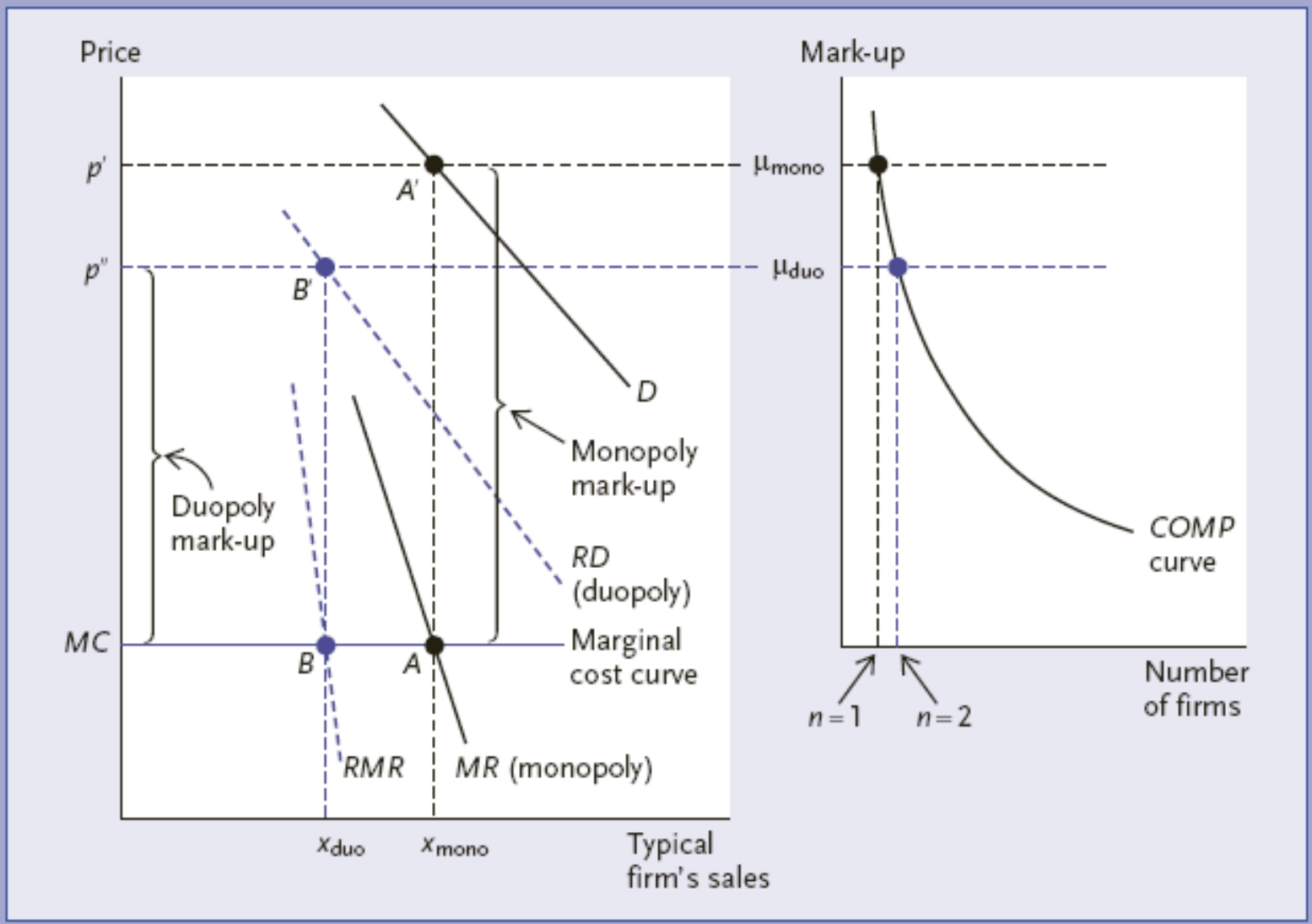
‘COMP’ curve: the competition side of the relationship between mark-up and number of firms

‘BE’ curve: the ‘increasing returns to scale’ side of the relationship between mark-up and number of firms

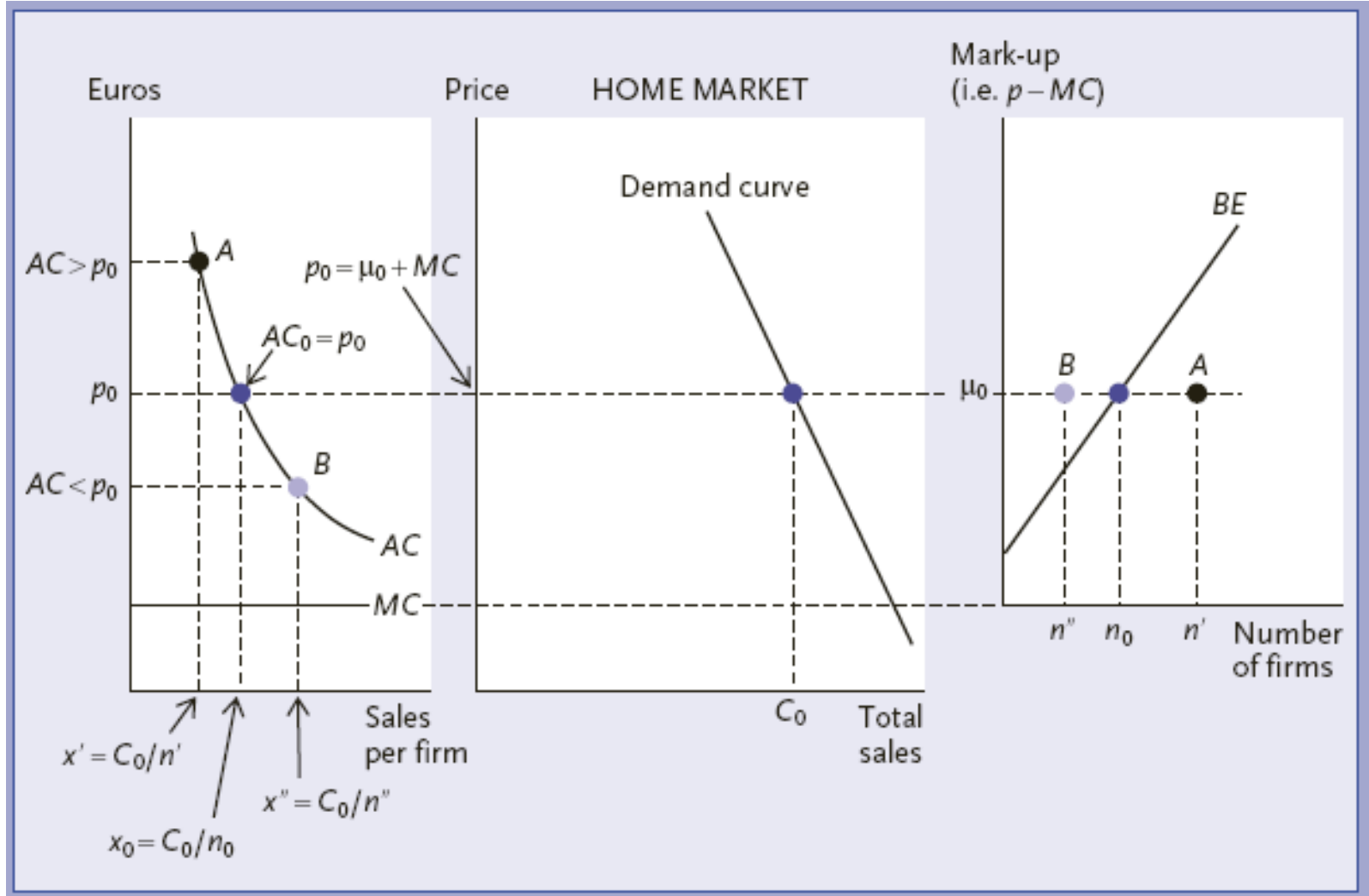
BE-COMP diagram

- COMP:
 - More competitors force each to charge a lower mark-up of price over marginal cost
- BE:
 - Increasing Returns to Scale: producing more allows a smaller average cost
 - Break-even: when price = average cost
 - More firms implies smaller firms, higher average cost, higher price to break even, higher mark-up over marginal cost

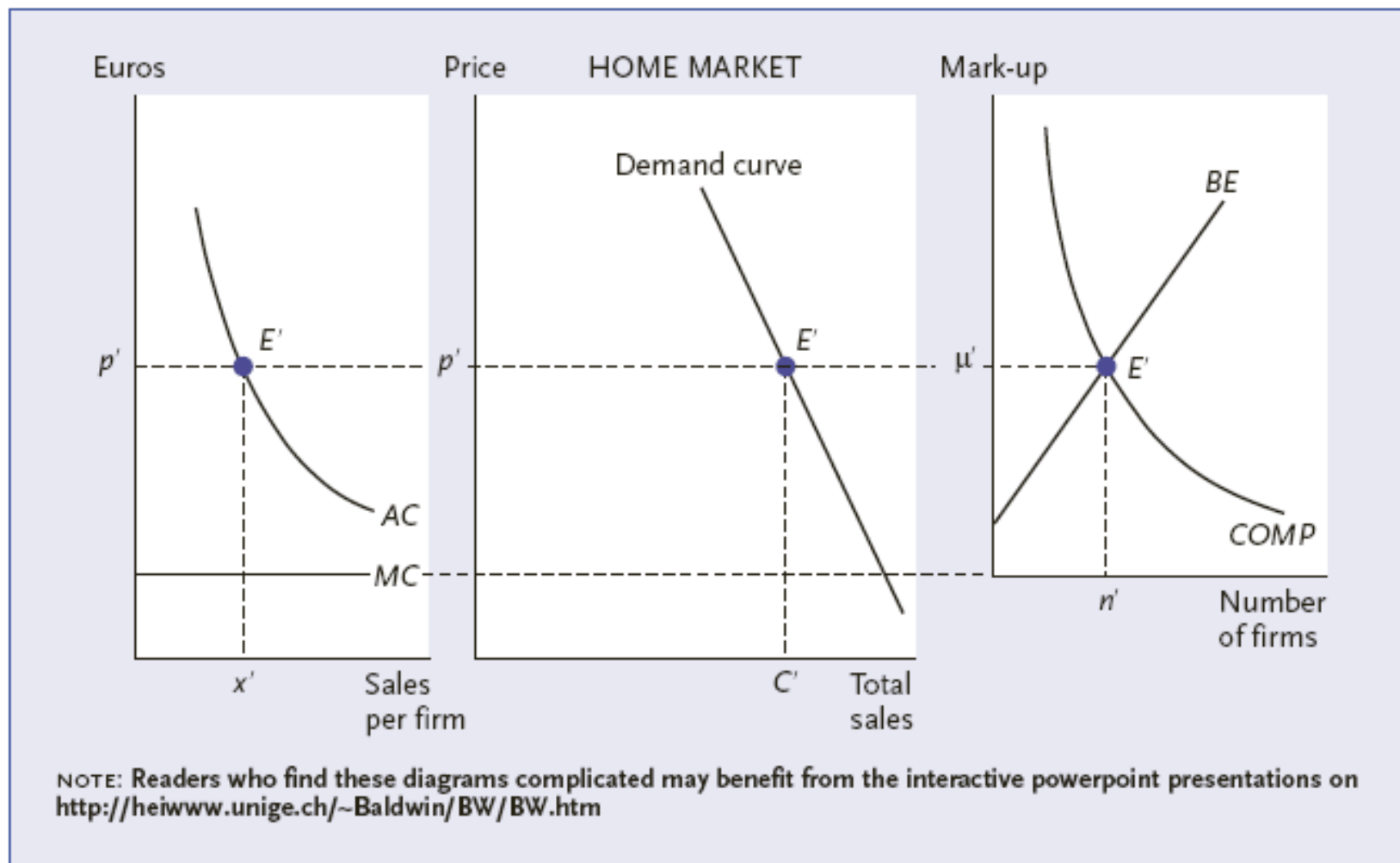
Details of COMP Curve



Details of BE Curve



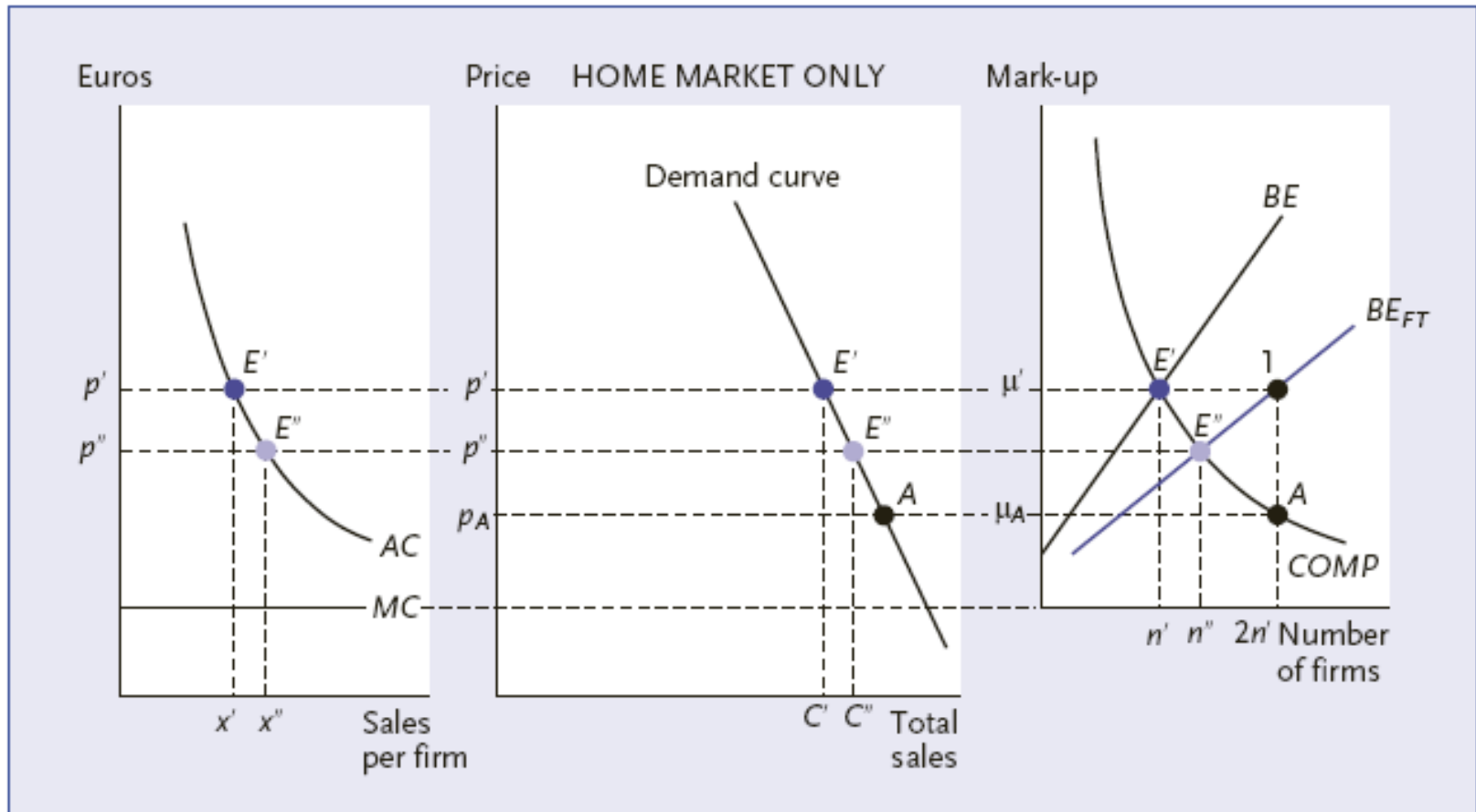
Equilibrium in BE-COMP Diagram



Impact of European Liberalization

- Assume 2 identical nations (BE-COMP)
- No trade to free trade liberalization:
 - Immediate impact: provide each firm with a second market, double the number of firms
 - BE shifts to the right (twice as many firms can break even)
 - Tougher competition implies lower mark-up (move down on COMP)
 - Over time: decrease in the number of firms, increase in their size and efficiency (lower average cost)

No-trade-to-Free-trade Integration



Impact of European Liberalization

- Integration leads to:
 - Defragmentation:
 - PRE typical firm has 100 per cent sales at home, 0 per cent abroad; POST: 50-50
 - Pro-competitive effect:
 - equilibrium moves from E' to A : fall in mark-ups and price, firms lose money (below BE)
 - Industrial Restructuring:
 - A to E'' : fewer firm ($2n'$ to n''), with larger market shares and output
 - more efficient firms, AC falls from p' to p''
 - mark-up rises, profitability is restored

Impact of European Liberalization

- Result:
 - bigger, fewer, more efficient firms facing more effective competition.
 - Welfare gain:
 - Increase in consumer surplus (due to fall in price)
 - No change in producer surplus (profit = 0 on BE)
- A short-term adjustment cost (industrial restructuring)
 - May be politically important : govts adopt industrial policies, anti-M&A policies to dampen negative effects
 - EU policy on state aids
- as the number of firms falls, there is a tendency for the remaining firms to collude in order to keep prices high
 - EU competition policy

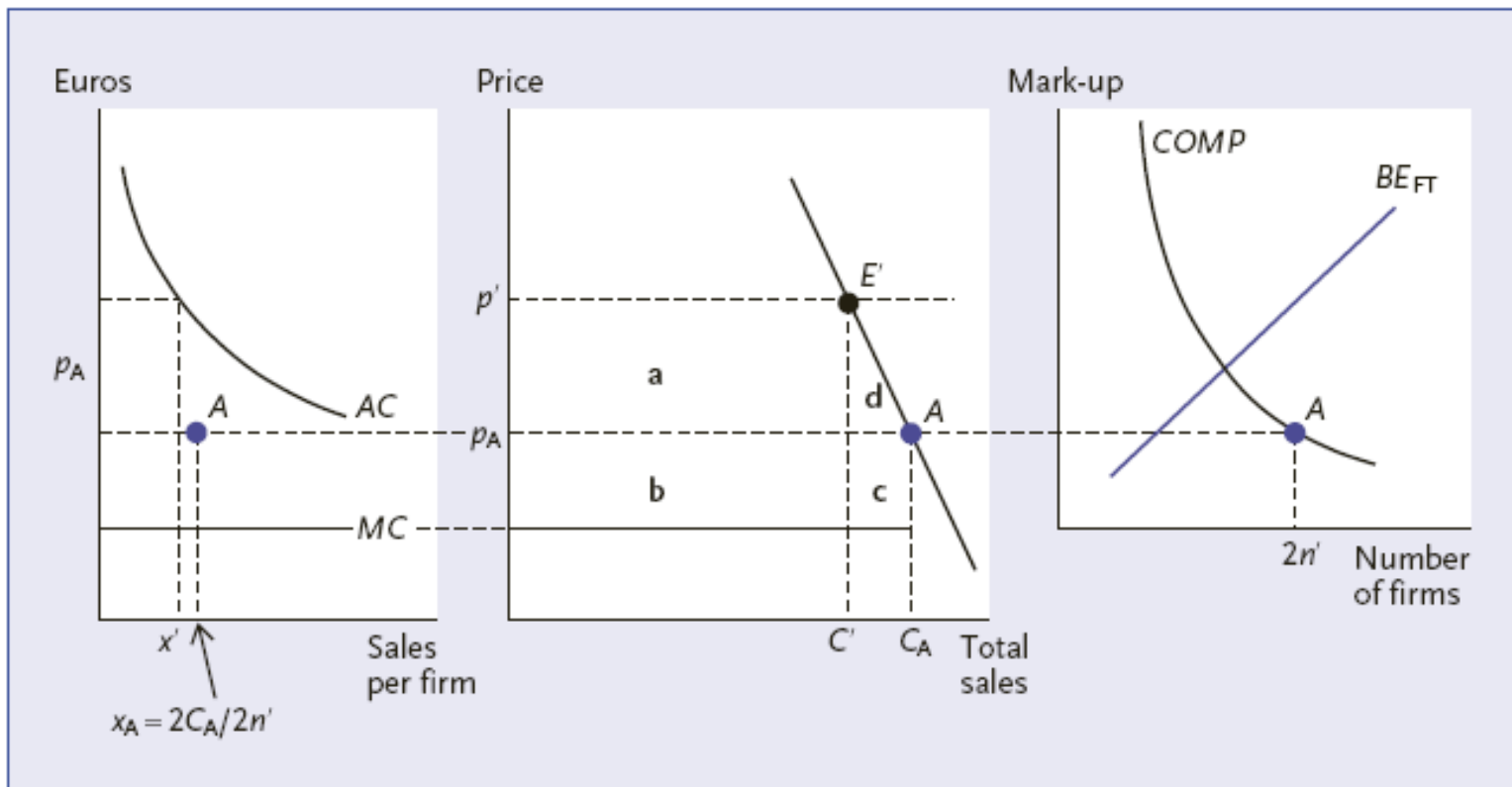
http://europa.eu.int/comm/internal_market/en/update/impact/index.htm

State Aid

- Subsidies to prevent restructuring
 - Prevent job losses or relocation
 - Support government-owned firms, direct grants or long-term loans to privately owned firms
- Specifically, each governments make annual payments to all firms exactly equal to their losses:
 - i.e. all $2n'$ firms break even,
 - No new firms: economy stays at point A.

State Aid

- Restructuring Prevention: Size of Subsidy
 - Pre-integration: fixed costs = operating profit = area $a+b$.
 - Post-integration: operating profit = $b+c <$ fixed costs
 - Breakeven subsidy = fixed costs – post-integration operating profit = $a-c$



State Aid

- Restructuring Prevention: Welfare Impact
 - Change producer surplus = 0 (firms break even).
 - Change consumer surplus = $a+d$.
 - Subsidy cost = $a-c$.
 - Total impact = $d+c$.
- Subsidies changes who pays for the inefficiently small firms from consumers to taxpayers
- Subsidies prevent integration from curing the main problem (too-many-too-small firms)
- Subsidies prevent firms from adapting

State Aid

- Only some Subsidize: Unfair Competition
 - EU member states differ over how much they can/want to subsidize
 - Restructuring affects firms in nations that do not subsidize or stop subsidizing before the others
- Assume 2 nations engage in no-trade-to-free-trade integration
 - After restructuring, half of firms have disappeared (symmetry suggests: 50% of home firms + 50% of foreign firms)
 - If foreign pays 'break even' subsidies to its firms.
 - All restructuring forced on home: $2n'$ moves to n'' , but all the exit is by home firms.
 - Home endures the cost of workers having to switch jobs or be unemployed for some time

State Aid

- EU policies on 'State Aids'
 - 1957 Treaty of Rome bans state aid that provides firms with an unfair advantage and thus distorts competition.
 - EU founders considered this so important that they empowered the Commission with enforcement (Competition Directorate General).
- Some aid is allowed
 - Social policy aid, natural disaster aid, economic development aid to underdeveloped areas

EU Competition Policy

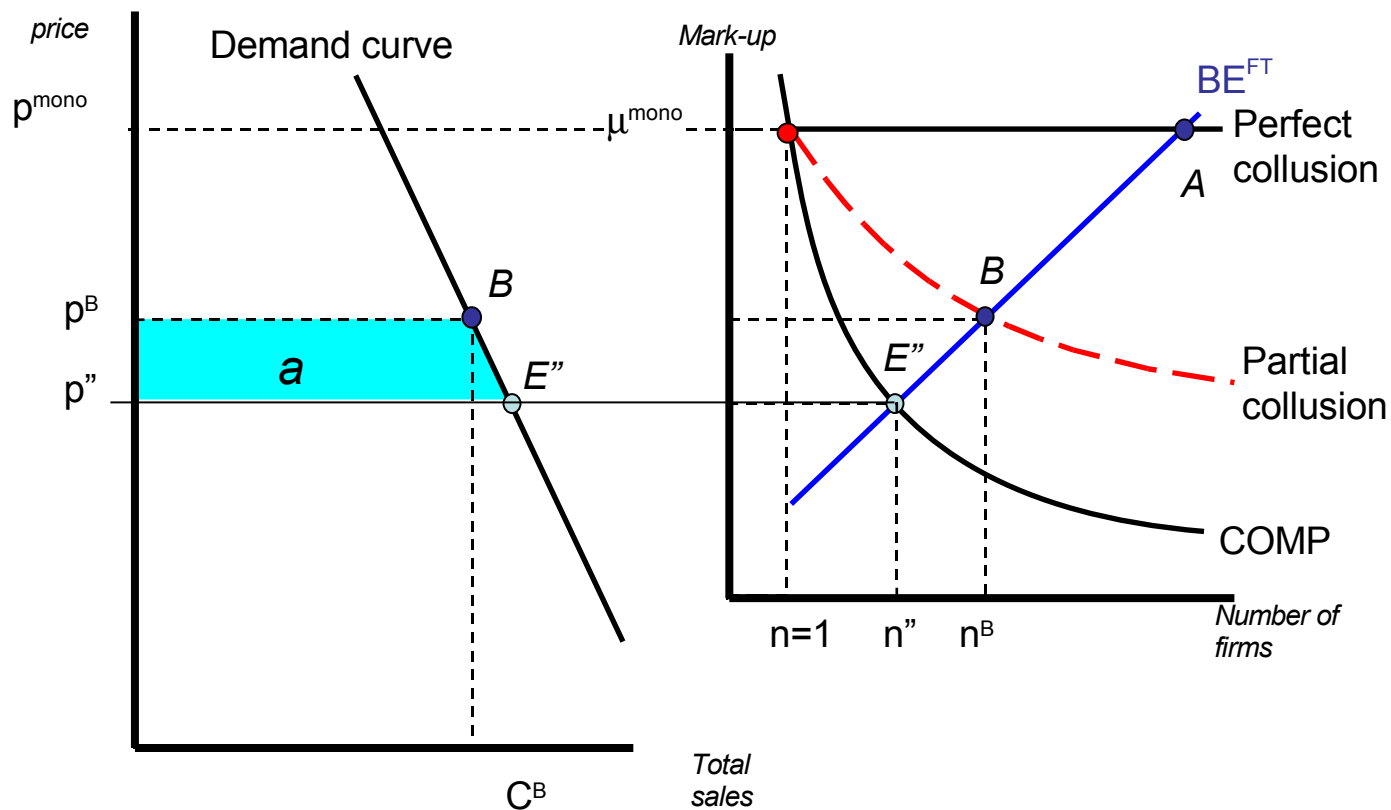
- Anti-Competitive Behaviour
 - Collusion is a real concern in Europe:
 - dangers of collusion rise as the number of firms falls.
- Collusion in the BE-COMP diagram:
 - COMP curve is for 'normal', non-collusive competition
 - firms do not coordinate prices or sales.

EU Competition Policy

- Other extreme is 'perfect collusion':
 - firms coordinate prices and sales perfectly
 - set monopoly price and sales
 - firms charge monopoly price and split the sales among themselves
 - But free rider problem: $\text{price} > \text{marginal cost}$
incentive for firms to sell more than its share
- Partial collusion:
 - Firms restrict sales
 - Mark-up is higher than 'normal', lower than monopoly

EU Competition Policy

- Economic Effects of collusion: more firms, higher price
- Welfare cost of partial collusion (versus no collusion): a



EU Competition Policy

- Economic Effects of collusion:
 - Collusion will not in the end raise firm's profits to above-normal levels (firms break even !)
 - industrial consolidation proceeds as usual, but more firms stay
 - Prices are higher
 - smaller firms, higher average cost.

EU Competition Policy

- To prevent anti-competitive behaviour, EU policy focuses on:

1/ Antitrust and cartels. The Commission tries:

- to eliminate behaviours that restrict competition (e.g. price-fixing arrangements and cartels): art. 81 of the EC treaty
- to eliminate abusive behaviour by firms that have a dominant position: art. 82 of the EC treaty.

2/ Merger control. The Commission seeks:

- to block mergers that would create firms that would dominate the market.