School of Business, Economics and Law
GÖTEBORG UNIVERSITY

Mergers

Emphasis on horizontal mergers

Importance of mergers

Notable recent deals

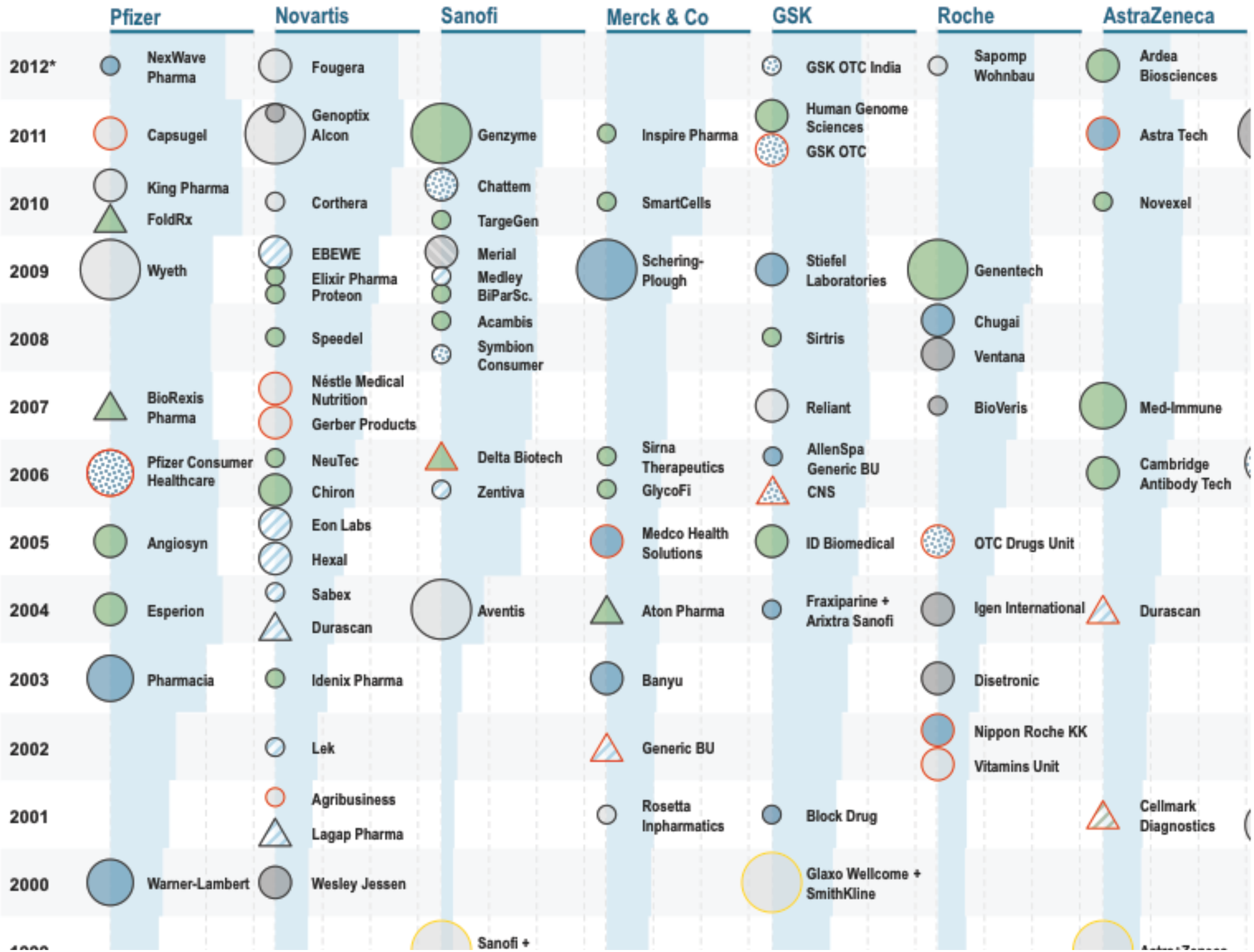
Top 10 M&A deals worldwide by value from 2011 to 2020 (correct as of 31 December 2015):

Rank	Year	Purchaser	Purchased	Transaction value (in billions USD)	Inflation adjusted (in billions 2016 USD)
1	2013	Verizon Communications [13] [N 1]	Verizon Wireless	130	134
2	2015	Dow Chemical[14] [N 2]	DuPont	130	131
3	2015	Anheuser-Busch InBev [N 3]	SAB Miller	117.4	119
4	2016	AT&T Inc.	Time Warner	108.7	109
5	2015	Heinz[15] [N 4]	Kraft	100	101
6	2015	Charter Communications[16] [N 5]	Time Warner Cable	78.7	80
7	2015	Actavis	Allergan, Inc	70.5	71
8	2015	Royal Dutch Shell[17]	BG Group	70	71
9	2015	Dell [N 6]	EMC Corporation	67	68
10	2016	Bayer	Monsanto	66	66

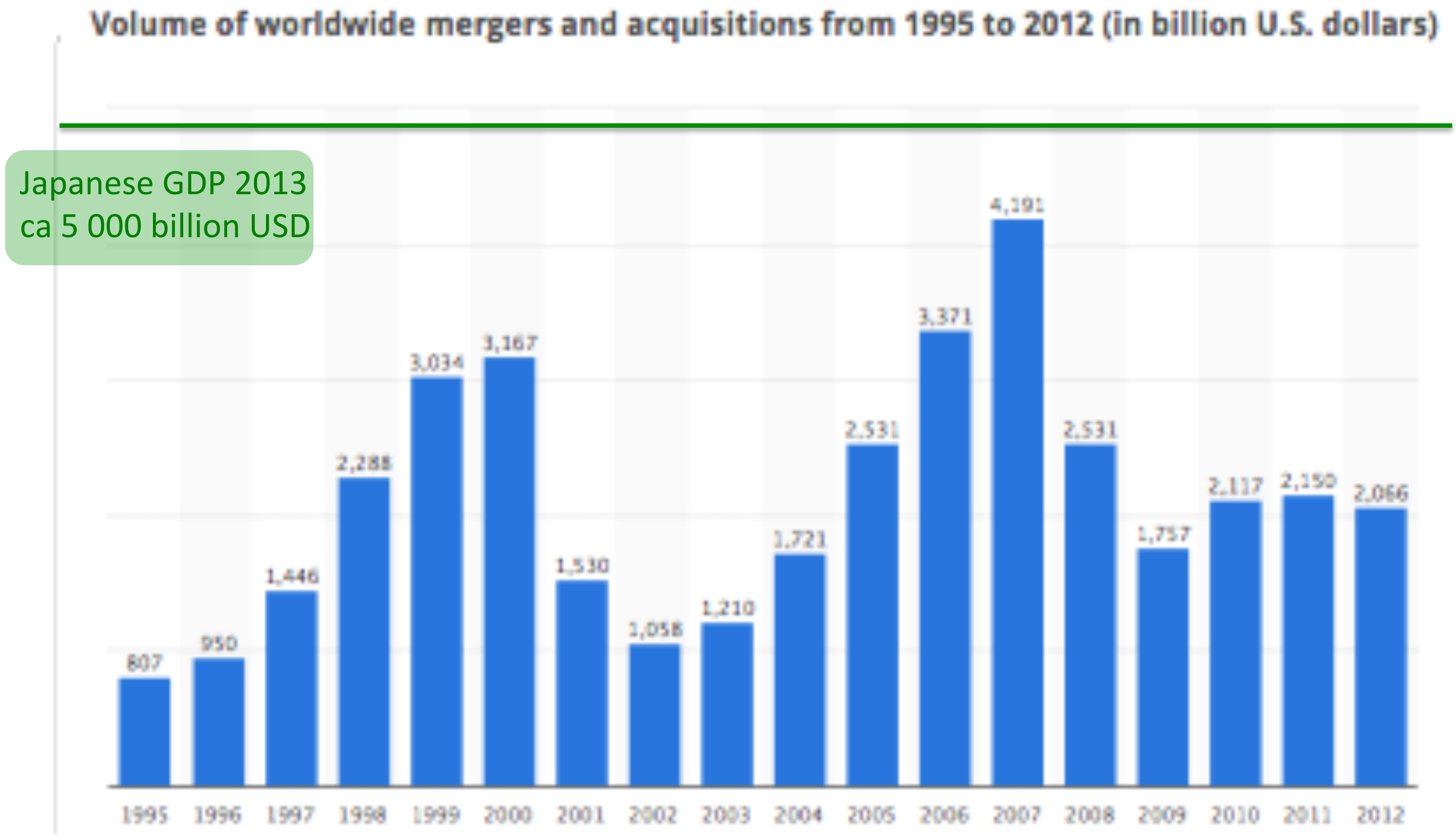
Source: Wikipedia

Industries are reshaped

- Big Pharma in troubles
  - Patents expire
  - Low R&D productivity
- M&A pattern 1998-2012 (top 20 companies)
  - 991 transactions between 1998 and 2012 (Source: CEPTON Strategies)


Pfizer
Novartis
Sanofi
Merck & Co
GSK
Roche
AstraZeneca
2012*
NexWave Pharma
Fougera
GSK OTC India
Sapomp Wohnbau
Ardea Biosciences
2011
Capsugel
Genoptix
Alcon
Genzyme
Inspire Pharma
Human Genome Sciences
GSK OTC
Astra Tech
2010
King Pharma
FoldRx
Corthera
Chattem
TargeGen
SmartCells
Novexel
2009
Wyeth
EBEWE
Elixir Pharma
Proteon
Merial
Medley
BiParSc.
Schering-Plough
Stiefel Laboratories
Genentech
2008
Speedel
Acambis
Symbion Consumer
Sirtris
Chugai
Ventana
2007
BioRexis Pharma
Néstle Medical Nutrition
Gerber Products
Reliant
BioVeris
Med-Immune
2006
Pfizer Consumer Healthcare
NeuTec
Chiron
Delta Biotech
Zentiva
Sirna Therapeutics
GlycoFi
AllenSpa
Generic BU
CNS
Cambridge Antibody Tech
2005
Angiosyn
Eon Labs
Hexal
Medco Health Solutions
ID Biomedical
OTC Drugs Unit
2004
Esperion
Sabex
Durascan
Aventis
Aton Pharma
Fraxiparine + Arixtra Sanofi
Igen International
Durascan
2003
Pharmacia
Idenix Pharma
Banyu
Disetronic
2002
Lek
Generic BU
Nippon Roche KK
Vitamins Unit
2001
Agribusiness
Lagap Pharma
Rosetta Inpharmatics
Block Drug
Cellmark Diagnostics
2000
Warner-Lambert
Wesley Jessen
Glaxo Wellcome + SmithKline
Sanofi +

Aggregate activity



http://www.statista.com/statistics/267369/volume-of-mergers-and-acquisitions-worldwide/

Conclusion

- Merger activity
  - Individual deals are substantial
  - Entire industries are reshaped
  - Aggregate volume is huge
- In sum
  - Mergers reshape/adapt economy

Motives for mergers

Motive 1: Efficiencies

- Horizontal coordination
  - Economies of scale and scope
  - Rationalization
- Vertical coordination
  - Avoid holdup of investments
- Take over of underutilized assets

Motive 1: Efficiencies

- An efficiency externality
  - Market for corporate control
  - Take over of underutilized assets
  - Threat of takeover important disciplining force on managements

Motive 2: Market power

- Horizontal effects
  - Definition: Between competitors
  - Problem: Unilateral or coordinated
- Vertical effects
  - Definition: Between buyer and seller
  - Problem: Foreclosure

Other motives for mergers

- Management driven
  - Management prestige (empire building)
  - Hubris
- Industrial policy
  - "National champions" – prestige
  - Employment

Basic Elements of Mergers Policy

Richard Whish & David Bailey: Competition Law, Seventh Edition,
Oxford University Press, 2012.

Goals

- Consumer welfare
  - Anticompetitive effects
  - Cost efficiency, but only if beneficial to consumers
- Disregard
  - Employment

Meaning of "merger"

- Definition of "concentration"
  - Previously independent businesses come under common control
- Examples
  - Acquisition of **minority shareholding** may be sufficient, if it gives "decisive influence"
  - Acquisition of **assets** (ex: plants, brands, patents)
  - Merger of parts of businesses into **joint venture**

Notification

- Mergers with Community dimension pre-notified to Commission
  - Combined worldwide turnover > €5000 mn
  - EU-wide turnover > €250 mn of each company
- Other big mergers pre-notified to Member State

Notification

- Extra-territorial
  - Does not matter if all companies are e.g. American
- One-stop-shop
  - Mergers with Community dimension cannot be tried by Member States
  - Still, many big mergers have to be notified to 10 – 20 different competition authorities

Notification

- Notification contains information on e.g.
  - Affected markets
  - Parties market shares
  - HHI

Decision rights

- EU
  - Commission decides
  - Firms can appeal to courts
- Sweden
  - KKV = “prosecutor”
  - Courts decide

Time limits

- Phase I
  - 25 working days
- Phase II (3 % of cases)
  - 90 working days

Competition test

- Now: “Significant impediment of competition”
  - Typically: creates or strengthens dominant position (= high level of market power)
  - Includes:
    - Single firm dominance = “similar to monopoly”
    - Joint dominance = “similar to cartel”
    - But also regular oligopoly
- Previously: Dominance
  - Unclear if regular oligopoly was included

Competition test

- Define markets
  - Product market/geographical markets
- Estimate effect on competition
  - Much emphasis on market shares and concentration
  - Diversion ratios
  - Strength of brand

Competition test

- Presumption: No problem if
  - Parties market share < 25%
  - Post-merger HHI < 1000
  - Post-merger HHI < 2000 & ΔHHI < 250
  - ΔHHI < 150
- Recall
  - HHI max = 10 000 (= 100^2)
  - 1000 = ten symmetric firms (= 10 x 10^2)

Entry and Buyer Power

- Entry
  - Likely = assessment of entry barriers
  - Timely = normally within 2 years
  - Sufficient = eliminate price increase
- Buyer power
  - Size of buyer
  - Ability to integrate
  - Sponsor upstream entry

Efficiencies

- Benefit consumers
  - Lower prices
    - Large reductions in marginal cost
    - Incentive to pass on
  - New or improved products
- Merger specific
  - Cannot be achieved without reduction in competition
- Verifiability
  - Firms must be able to ensure Commission

Failing firm defense

- No impediment to competition if
  - One firm would become bankrupt
  - Assets would exit the market
  - No less anti-competitive alternative to the merger

Remedies

- Usual solution solution if problems
- Types of remedies
  - Divestiture of overlapping businesses
  - Access to an essential facility
  - Licensing of technology

Evidence

- Burden of proof
  - Commission has burden to prove
    - Anti-competitive effects
    - No buyer power
    - No entry
  - Firms have burden to prove
    - Efficiencies
    - Failing firm defense

Evidence

- Different standards of proof
  - "On the balance of probabilities" or
  - "Beyond reasonable doubt"
- Merger policy
  - Convincing evidence (= balance of probabilities, if I understand it right)

Statistics

1990 - 2017

- Notifications: 6522
- OK
  - Phase I: 5803
  - Phase II: 62
- Interventions
  - Withdrawn: 177
  - OK with commitments: 121
  - Prohibitions: 26

Use of economics in merger policy

Theory of competitive harm

- Fundamental difficulty
  - Assessing notified mergers = predicting the future
  - Must build on economic theory
  - Competition authorities must present a theory of competitive harm in every case

Theory of competitive harm

- Theory of competitive harm
  - Unilateral effects
  - Coordinated effects
  - Vertical effects

Counterfactual

- Effect = Difference between
  - Future market outcome with merger
  - Future market outcome without merger = Counterfactual
- Possible counterfactuals
  - Most often: Status Quo
  - Sometimes: Failing firm
  - Possible: Alternative mergers (Volvo/Scania)

Economic evidence

- Competition authority must present evidence in support of its “theory of harm”
- Examples of sophisticated economics
  - Estimation of cross-price elasticities
  - Price correlations
  - Merger simulations

Economic Analysis of the Welfare Tradeoff

(some details)

Agenda

- Anti-competitive effects of horizontal merger (theory of harm)
  - Unilateral effects
  - Coordinated effects
- Efficiency gains
- Total effect on welfare / consumer surplus

Unilateral effects

- "Internalization"
  - Merging firms' initial incentive to increase prices
  - To study this incentive assume merger from duopoly to monopoly or that competitors keep their prices fixed
- Outsider response
  - Competitors' reaction to initial price change

Internalization

Internalization

- Increased price before merger
  - \+ Increased markup ($p_A - c_A$)
  - − Some customers leave the market
  - − Some customers buy product B instead
- Increased price after merger
  - \+ Increased markup ($p_A - c_A$)
  - − Some customers leave the market
  - 0 Some customers buy product B instead

➢ More beneficial to increase price

Outsiders’ Response

- Response
  - Insiders increase price and reduce output
  - Outsiders’ residual demand increase
  - Outsiders respond by
    - Increasing price
    - Increasing output
- Key issue
  - Will outsiders mainly increase price or output?

Outsiders’ Response

- Outsiders increase output much if
  - Outsiders’ conduct competitive
  - Outsiders’ costs low
  - Outsiders have no capacity constraints
  - Easy to switch between geographical markets
  - Entry costs low

Efficiencies

Efficiencies

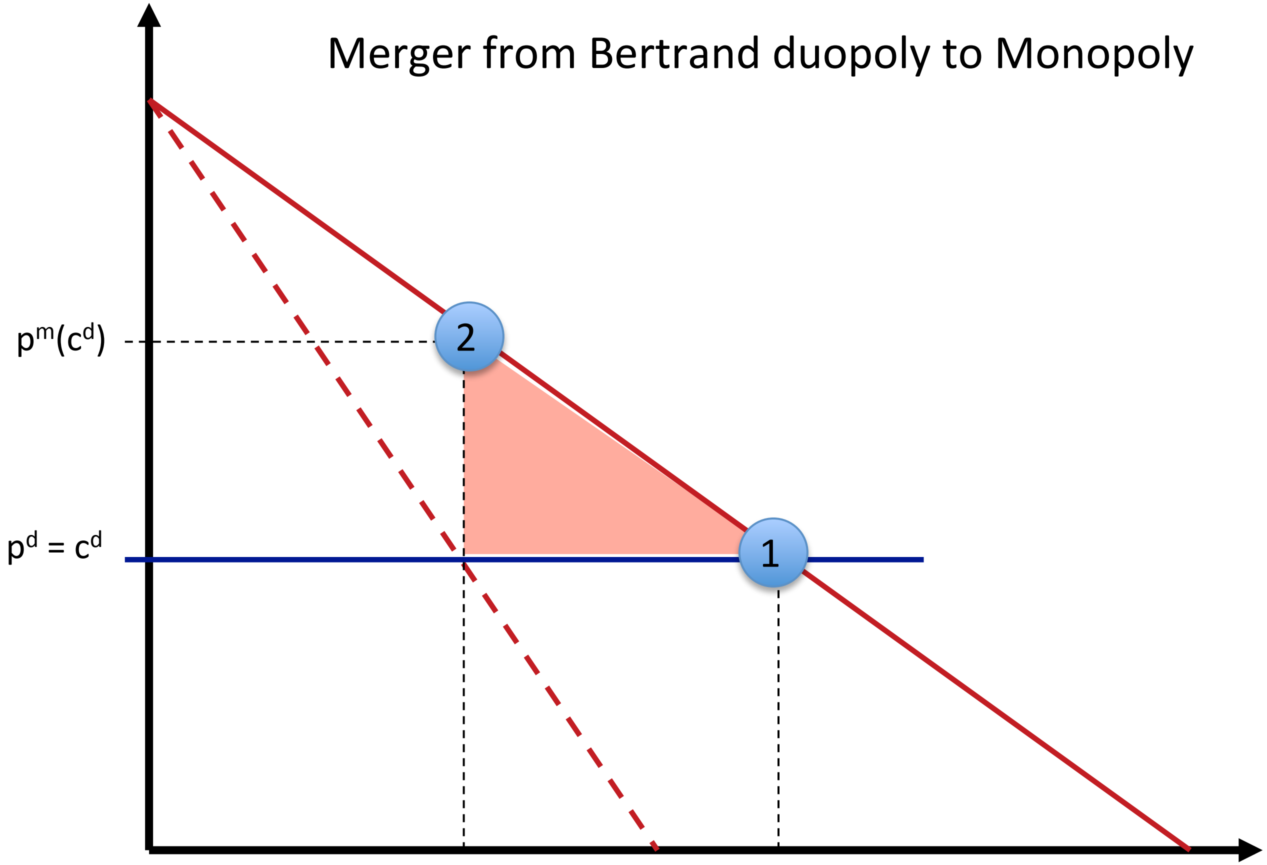
- Rationalization
  - Reallocate production to efficient plants
- Economies of scale
  - Avoid duplication of various activities
  - Coordination of new investments
  - Specialization - lengthen production runs
- Technological progress
  - Pooling existing know-how
  - Coordinate R&D
- Reducing slack
  - Replace inefficient management

Efficiencies

- But mergers may also cause inefficiencies
  - Less competition may lead to more slack
  - Larger organization may be more difficult to control
  - Problems melting cultures together

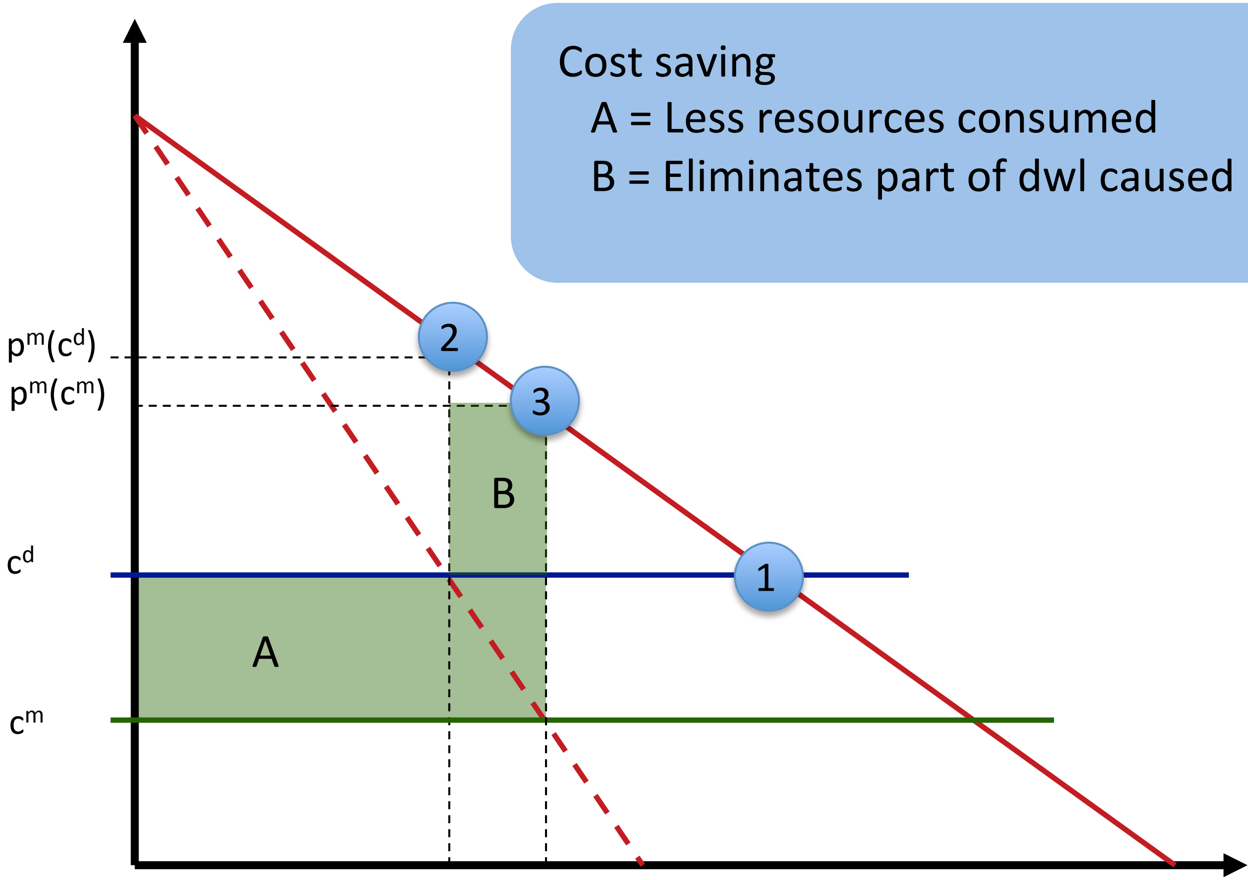
Total welfare and consumer welfare

Total welfare

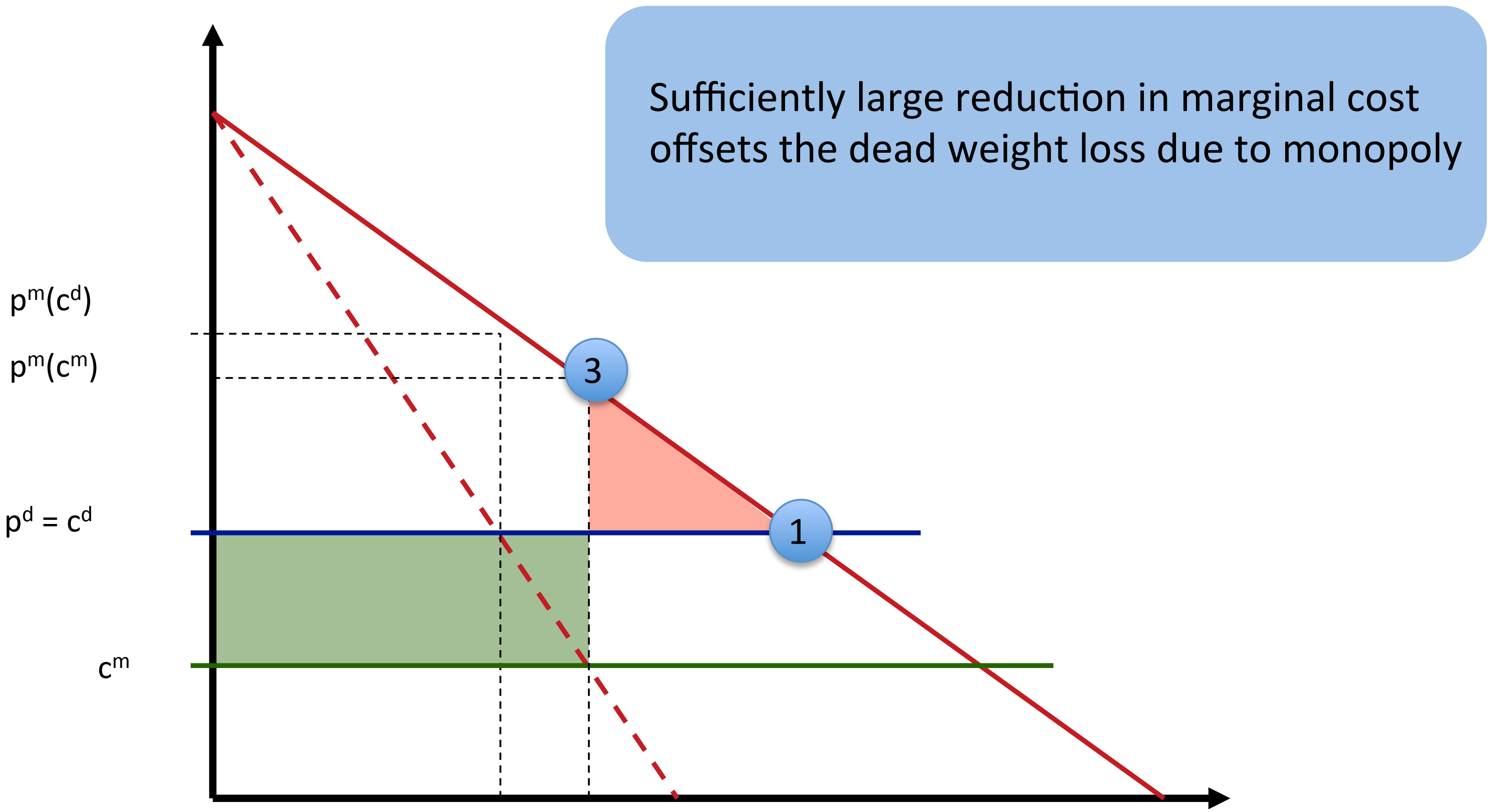


Total welfare

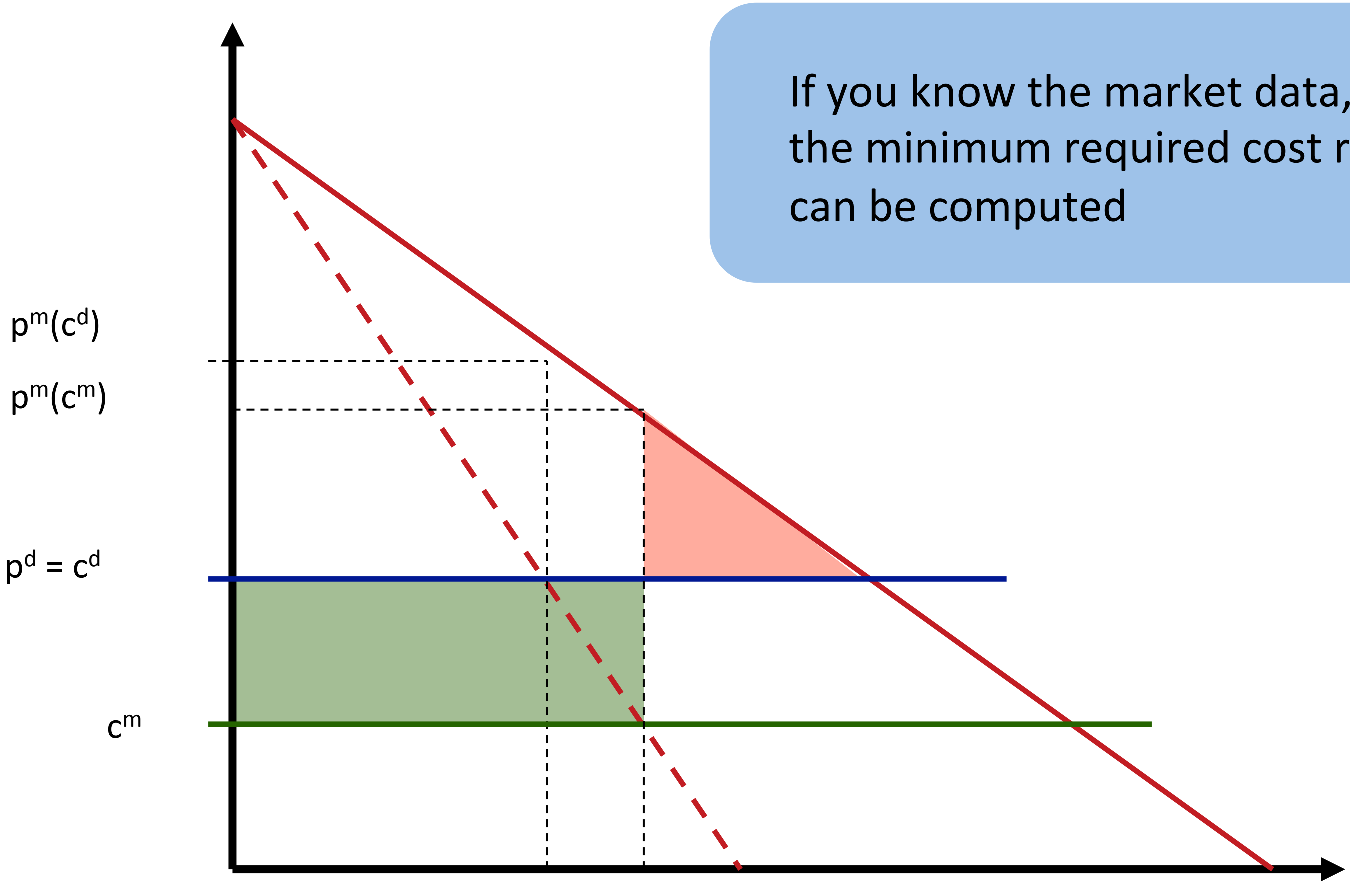
Cost saving
A = Less resources consumed
B = Eliminates part of dwl caused by merger



Total welfare

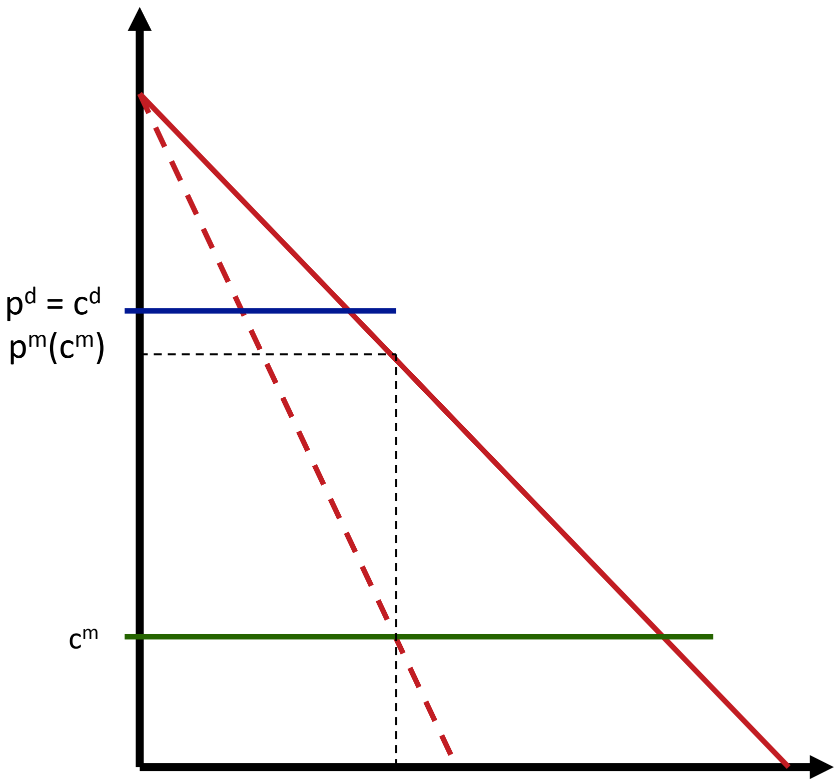


Total welfare



If you know the market data,
the minimum required cost reduction
can be computed

Consumer welfare



- Price may go down
- ΔMC must be large
- Marginal cost, not fixed
- Can be computed, if we know demand