

# EE481: Industrial Economics

## Antitrust Laws and Policy (Chapter 19)

Dr. Wanwiphang Manachotphong

Department of Economics, Thammasat University

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# Do you think we should privatize these industries? Why or why not?

- Electricity
- Water
- Petrol (PTT)
- National Security
- University
- Restaurant
- Department Store
- Smartphone

# Economy of Scale and Natural Monopoly

- Some economies have a very large economy of scale.
- Having more than 1 producer would result in a much higher cost.
- In this case, it is more cost-efficient to have 1 producer.
- That 1 producer is a “natural monopoly”
  - Electricity
  - Water
  - Railway
  - Sky train
  - Express way

## Main Points

Please read Chapter 19 (Carlton and Perloff) up to “Price-fixing and Output Agreements”, p.649.

- Firms try their best to maximize profits When firms do too well (earn high price-cost margin), consumers might be worse off.
  - The government should ensure market efficiency
  - Through competition policy, anti-trust law.
- Some markets can never be competitive
  - e.g. has a large economy of scale
  - The government regulates to ensure efficiency
- Efficiency = both productive and allocative efficiency.

# The Purpose of Regulation

- Regulate Natural Monopolies
  - Electricity
  - Water
  - Railways, etc.
- Public Interest
  - Media
  - Military and Defense, etc.

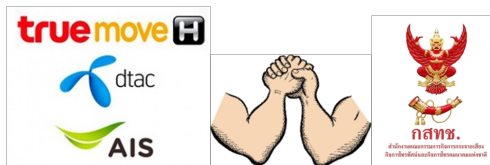
# Petrol Price Regulation

- Regulator = Energy Regulatory Commission (ERC)
- Retail Price = refinery price + excise tax + municipality tax + oil fund + Energy Conservation Promotion Fund + VAT + Margin + VAT

PRICE STRUCTURE OF PETROLEUM PRODUCT IN BANGKOK														
Date	Month	Year	Products	EX-REFIN.	Excise TAX	M. TAX	Oil FUND	ConFund	WS Price	VAT1	WS&VAT	MARGIN	VAT2	RetailPRICE
31	1	2013	ULG 95R ; UNL	24.6760	7.0000	0.7000	8.5000	0.2500	41.1260	2.8788	44.0048	2.5656	0.1796	46.75
31	1	2013	ULG 91R ; UNL	24.2524	7.0000	0.7000	7.2000	0.2500	39.4024	2.7582	42.1606	1.9527	0.1367	44.25
31	1	2013	GASOHOL95 E10	24.5168	6.3000	0.6300	2.8000	0.2500	34.4968	2.4148	36.9115	1.3257	0.0928	38.33
31	1	2013	GASOHOL91	24.3049	6.3000	0.6300	0.5000	0.2500	31.9849	2.2389	34.2238	1.5478	0.1083	35.88
31	1	2013	GASOHOL95 E20	24.2747	5.6000	0.5600	-1.8000	0.2500	28.8847	2.0219	30.9067	1.8442	0.1291	32.88
31	1	2013	GASOHOL95 E85	21.8829	1.0500	0.1050	-11.8000	0.2500	11.4879	0.8042	12.2921	9.0542	0.6338	21.98
31	1	2013	H-DIESEL(0.035%S)	24.9410	0.0050	0.0005	1.1000	0.2500	26.2965	1.8408	28.1373	1.5446	0.1081	29.79

# Mobile Network Price Regulation

- Regulator = National Broadcasting Telecommunications Commission (NBTC)
- NBTC is appointed to regulate telecommunication and broadcast operators.
  - Puts price cap to the fee.
  - Make mobile network operators let customers to migrate while keeping their phone numbers.
  - etc.



# Ultimate goals of government regulation

1. The regulated monopoly would have to be not-for-profit.
  - Charge at the minimum possible price.
  - Transfer all the surplus to the society.
  - Anyone whose “willingness to pay  $>$  cost” can gain access to the product/service
  - etc.

Do you think this happens in reality?

# Ultimate goals of government regulation

2. The regulated monopoly adopts actions that are of the public interest, for example:

- (for TV) provide high-quality TV programs.
- (for railway) provide high-quality railway transportation with lowest possible price.
- (for energy) increase access, ensure sufficient energy at an affordable price.
- etc.

Do you think this happens in reality?

## Anti-trust law is enforced because “Monopoly is bad”

- Having market power  $\neq$  exploit market power.
- Exploitation of market power reduces total welfare.

# Antitrust Law

- Antitrust laws are used to prevent firms with market power from exploiting its market power.
- Thailand's Competition Act 2542 (1999 BC)
  - Prohibit abuse of dominant position (having market power)
  - Prohibit mergers and acquisitions that could result in a higher market power and tendency to exploit it.
  - Prohibit agreements among competitors that could lessen competition
  - Prohibit... unfair practices against competitors which could result in lessening of competition.
- Antitrust laws in other countries have similar content.

# Antitrust Laws (Thailand)

สำนักงานคณะกรรมการกฤษฎีกา

สำนักงานพระราชบัญญัติ  
การแข่งขันทางการค้า  
พ.ศ. ๒๕๕๒

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ภูมิพลอดุลยเดช ป.ร.  
ให้ไว้ ณ วันที่ ๒๒ มีนาคม พ.ศ. ๒๕๕๒  
เป็นปีที่ ๕๔ ในรัชกาลปัจจุบัน

พระบาทสมเด็จพระปรมินทรมหาภูมิพลอดุลยเดช มีพระบรมราชโองการโปรด  
เกล้าฯ ให้ประกาศว่า

โดยที่เป็นการสมควรให้มีกฎหมายว่าด้วยการแข่งขันทางการค้า โดยปรับปรุง  
หลักเกณฑ์เกี่ยวกับการป้องกันการผูกขาดซึ่งบัญญัติไว้ในกฎหมายว่าด้วยการกำหนดราคาสินค้า  
และป้องกันการผูกขาด

# Antitrust Laws (Thailand)

มาตรา ๒๗ ห้ามมิให้ผู้ประกอบธุรกิจใดร่วมกับผู้ประกอบธุรกิจอื่นกระทำการใด ๆ อันเป็นการผูกขาด หรือลดการแข่งขัน หรือจำกัดการแข่งขันในตลาดสินค้าใดสินค้าหนึ่งหรือบริการใดบริการหนึ่งในลักษณะอย่างใดอย่างหนึ่งดังต่อไปนี้

(๑) กำหนดราคาขายสินค้าหรือบริการเป็นราคาเดียวกัน หรือตามที่ตกลงกัน หรือจำกัดปริมาณการขายสินค้าหรือบริการ

(๒) กำหนดราคาซื้อสินค้าหรือบริการเป็นราคาเดียวกัน หรือตามที่ตกลงกัน หรือจำกัดปริมาณการรับซื้อสินค้าหรือบริการ

(๓) ทำความตกลงร่วมกันเพื่อเข้าครอบครองตลาดหรือควบคุมตลาด

(๔) กำหนดข้อตกลงหรือเงื่อนไขในลักษณะสมรู้กัน เพื่อให้ฝ่ายหนึ่งได้รับการประมูลหรือประกวดราคาสินค้าหรือบริการ หรือเพื่อให้ฝ่ายหนึ่งเข้าแข่งขันราคาในการประมูลหรือประกวดราคาสินค้าหรือบริการ

(๕) กำหนดแบ่งท้องที่ที่ผู้ประกอบธุรกิจแต่ละรายจะจำหน่ายหรือลดการจำหน่ายสินค้าหรือบริการได้ในท้องที่นั้น หรือกำหนดลูกค้าที่ผู้ประกอบธุรกิจแต่ละรายจะจำหน่ายสินค้าหรือบริการให้ได้โดยผู้ประกอบธุรกิจอื่นจะไม่จำหน่ายสินค้าหรือบริการนั้นแข่งขัน

(๖) กำหนดแบ่งท้องที่ที่ผู้ประกอบธุรกิจแต่ละรายจะซื้อสินค้าหรือบริการได้ หรือกำหนดตัวผู้ซึ่งประกอบธุรกิจจะซื้อสินค้าหรือบริการได้

# Antitrust Laws (EU)

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## COMPETITION

European Commission > Competition

POLICY AREAS	ANTITRUST	CARTELS	MERGERS	LIBERALISATION	STATE AID
<p><b>CURRENT ISSUES</b></p> <ul style="list-style-type: none"> <li>State aid modernisation</li> <li>State aid and climate change</li> <li>Compliance</li> <li>Antitrust best practices</li> <li>Actions for damages</li> <li>Public services and competition</li> <li>Actions to overcome the crisis</li> <li>Car prices report</li> </ul> <p><b>SECTORS</b></p>	<p><b>Legislation &amp; referen</b></p> <ul style="list-style-type: none"> <li>» Legislation in force <a href="#">antitrust / cartels</a></li> <li>» <a href="#">Case law</a></li> <li>» <a href="#">Public consultation</a></li> <li>» <a href="#">Calls for tenders and proposals</a></li> <li>» <a href="#">Publications</a></li> <li>» <a href="#">Speeches</a></li> <li>» Treaty articles <a href="#">101</a>, <a href="#">102</a>, <a href="#">106</a>, <a href="#">107</a></li> </ul>	<p><b>Overview</b></p> <ul style="list-style-type: none"> <li>What's new?</li> <li>Official Journal</li> <li>Legislation</li> <li>Cases</li> <li>Statistics</li> <li>Studies and reports (Antitrust)</li> <li>Leniency</li> <li>Settlement</li> <li>Compliance (Antitrust)</li> </ul>	<p><b>Cases</b></p> <p>Latest updates:</p> <p><a href="#">antitrust / cartels / mergers / State aid</a></p> <p>Search:</p> <p><input checked="" type="radio"/> All <input type="radio"/> Antitrust / Cartels <input type="radio"/> Merger <input type="radio"/> State Aid</p> <p>by case number</p> <input type="text"/> <input type="button" value="Go"/> <p>by organisation name</p> <input type="text"/> <input type="button" value="Go"/> <p><a href="#">Advanced search</a></p>	<p><b>News</b></p> <p>News and ev</p> <ul style="list-style-type: none"> <li>» <a href="#">State aid: C</a> <a href="#">omments c</a> <a href="#">environment</a></li> <li>» <a href="#">Antitrust: C</a> <a href="#">supplement</a> <a href="#">to Visa, 31</a></li> <li>» <a href="#">Antitrust: C</a> <a href="#">of Objection</a> <a href="#">and others,</a></li> <li>» <a href="#">State aid: C</a> <a href="#">approves ai</a> <a href="#">Eurobank, P</a></li> </ul>	

# Antitrust Laws (EU)

## Article 101

(ex Article 81 TEC)

1. The following shall be prohibited as incompatible with the internal market: all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the internal market, and in particular those which:

- (a) directly or indirectly fix purchase or selling prices or any other trading conditions;
- (b) limit or control production, markets, technical development, or investment;
- (c) share markets or sources of supply;
- (d) apply dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;
- (e) make the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.

2. Any agreements or decisions prohibited pursuant to this Article shall be automatically void.

3. The provisions of paragraph 1 may, however, be declared inapplicable in the case of:

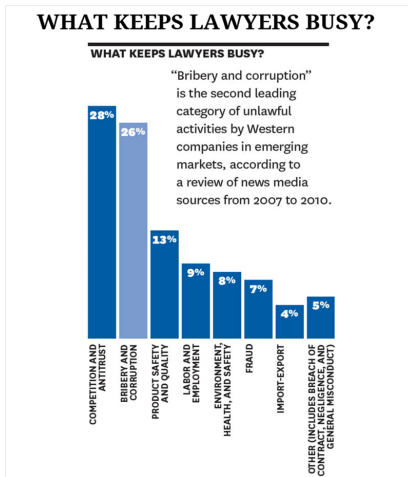
- any agreement or category of agreements between undertakings,
- any decision or category of decisions by associations of undertakings,
- any concerted practice or category of concerted practices,

which contributes to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit, and which does not:

- (a) impose on the undertakings concerned restrictions which are not indispensable to the attainment of these objectives;
- (b) afford such undertakings the possibility of eliminating competition in respect of a substantial part of the products in question.

# Competition and Antitrust is Hot!

at least in developed economies



# Prevent Abuse of dominant position

## Abuse of dominant position

- Set price too high (close to monopoly price)
- Refuse to sell
- Acquire the supplier

## Example :

- British Airways (BA) gave special commission to travel agents if they reach some target sale volume
- The European Court of Justice (ECJ) concluded that this was an abuse of dominant position
- why?

## Prevent Abuse of dominant position

In Thailand, the firm has to be in the “dominant position” or “has substantial market power” first before it can abuse

A firm would be in the dominant position if

- 1 Has the market share of at least 30% **AND**
- 2 Turnover exceed 500 millionTHB in the past year

or

- 1 The 3 largest firms have the combined market share of at least 75% **AND**
- 2 Each firm's turnover exceeded 500 millionTHB in the past year

## Prevent potential harmful mergers

Some mergers and acquisitions can give firms too much market power

- Major and EGV merger (2004)
- BigC acquired Carrefour (2010)
- True acquired Hutch (2011), etc.

UK mergers

- BSkyB bought 17.9% of ITV shares (2006) - the Competition Commission asked BSkyB to sell back those shares
- The Bass and Carlsberg-Tetley proposed to merge and become BCT - the Competition Commission did not allow

## Prevent Collusion, Cartel

When firms collude, they agree not to compete too harshly

- Prevent them to Act similar to joint-monopoly
  - Fix high price, limit quantity
  - Agree not to improve quality, etc.
- What does game theory suggest regarding the likelihood of a successful cartel?
- How can collusion be sustained, then?
  - resale price maintenance (RPI)
  - price match
  - most favourite customer clause (MFCC)
  - public price
  - (many of these strategies could both increase or decrease competition)

## Prevent Collusion, Cartel

Example : In 2007, the Big 4 Supermarkets in the UK was investigated by the UK's office of fair trading (OFT) for fixing the price of milk.

- The 4 supermarkets held  $> 60\%$  market share in the retail milk market
  - They sold their milk at the same price
  - Do you think they colluded?



## Not all Agreements are Illegal, though

- Only the agreements to maintain high price, limit quantity or hurt the competitors are illegal.
- Some agreements are set to facilitate trade and increase efficiency.
  - Bus fares.
  - Lumpsum music license fee.

# Prevent unfair practices against competitors

Unfair practices are such as

- Predatory pricing
- Tie-in
- Increase rival's costs
- Destroy reputation
- Exclusive dealing
  - The Honda case in Thailand (Honda had 80% market share. So, could be counted under abuse of dominant position as well)
- etc.

# Penalty: Economic Theory of Damages(1)

How much should the penalty be in order to prevent violation of the law?

## Penalty: Economic Theory of Damages(1)

- Theoretically a firm would not violate law if  $E(\text{gain}) \leq E(\text{punishment})$ .
- Thus, if a violation is detected probability = 1, a fine equal to the gain from exploiting market power could prevent the action.
  - ex: If the profit from exploiting market power (violating the law) is 7 million baht and the fine is 7 million baht, a firm would not find it profitable to violate the law.

$$E(\text{gain}) \leq E(\text{punishment})$$

$$7 \leq \text{prob}(\text{detect}) * \text{fine}$$

$$7 \leq 1 * \text{fine}$$

$$7(\text{million}) \leq \text{fine}.$$

## Penalty: Economic Theory of Damages(2)

- If a violation is detected at a 25% probability, a fine would have to be at least 4 times higher than the gain from violating the law.
  - ex: If the expected gain is 7 million

# Market Definition(1)

- What products should be in the same market?
- For example:
  - is Sprite in the same market as Pepsi and Coca Cola?
  - is pencil in the same market as pen?
  - is Honda Jazz in the same market as BMW Mini?
- Basically, they have to share the same customer base!

## Market Definition(2)

- Product dimension
  - Should be close substitute
  - SSNIP test (Small but Significant Non-transitory Increase in Price test) - given that producers are originally competitive, if we raise the price of all products in the same market at the same time, producers should gain profits from doing this.
  
- Price correlation test -
  
- Price difference test -

## Market Definition(3)

- Geographic dimension
  - If products in different geographical areas are in the same market, raising price at one place should also increase price at another place.

# Reference and Further Reading



Carlton, D.W. and J.M., Perloff.  
*Modern Industrial Organization*. 4th Edition.  
Pearson Addison Wesley Press, 2005.