

Competition Law
Competition Authority
&Enforcement
in Turkey

Serife Demet KORKUT Competition Expert

ISTANBUL
COMMERCE
UNIVERSITY
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Presentation Plan

- 1. Introduction of Turkish Competition Law, No. 4054
- 2. Competition Authority
 - 1.1. Organizational Structure
 - 1.2. Case Handling, Procedures
- 3. Articles of the Act and Sample Cases
 - 3.1 Article 4 and 5
 - 3.2 Article 6
 - 3.3 Article 7
- 4. Economic Analysis



The Grounds For The Turkish Competition Act

- Article 167 of the Turkish Constitution
 - «...The state shall prevents monopolization and cartels in the markets which could be formed de facto or as a result of aggrement.»
- Customs Union Decision between Turkey and the EU
 - 1. The obligation to enact a competition act in compliance with the competition rules of the EU
 - 2. The obligation to establish a well-functioning competition authority with financial and administrative autonomy



Competition Act and The Board

- Competition Act
 - Release and entry in the force: OJ 13.12.1994

«Protection of competititon in the goods and services markets in the territory of Republic of Turkey»



Regulation, supervision and prevention:



- 1. Anti-competitive aggreeements, decisions of practices
- 2. Abuse of dominant position

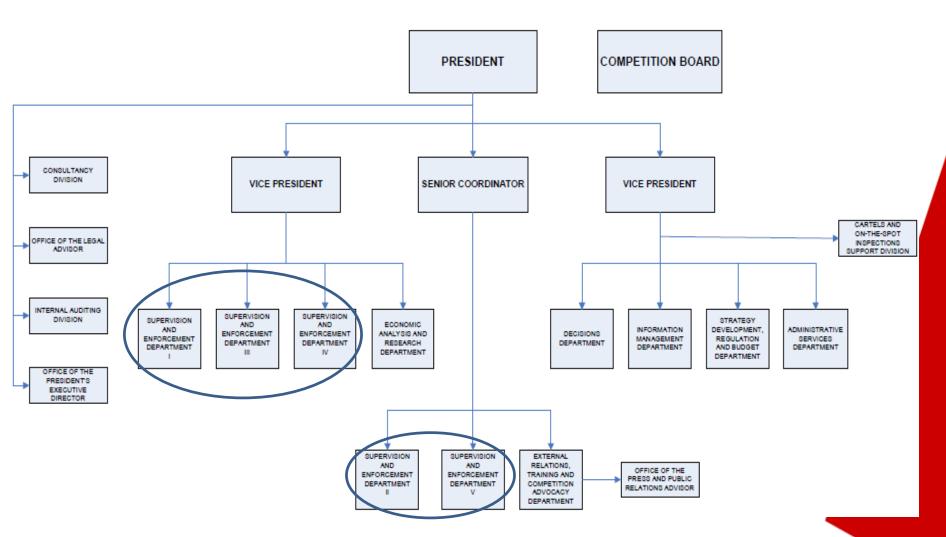


Competition Act and The Board

- Competition Board
 - Decision Body
 - Started its operations on November 5th, 1997
 - Donated with power and duties to enforce the Competition Act
- Competition Authority
 - Enforcement and Administrative Body
 - Acts on behalf of the Board in various duties.



TCA





How does the process work at TCA?

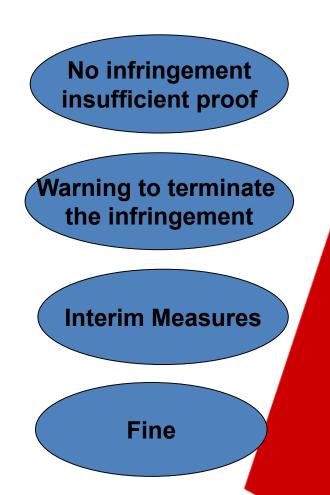
e-mail application press, TV, etc. complaint-notice

INVESTIGATION

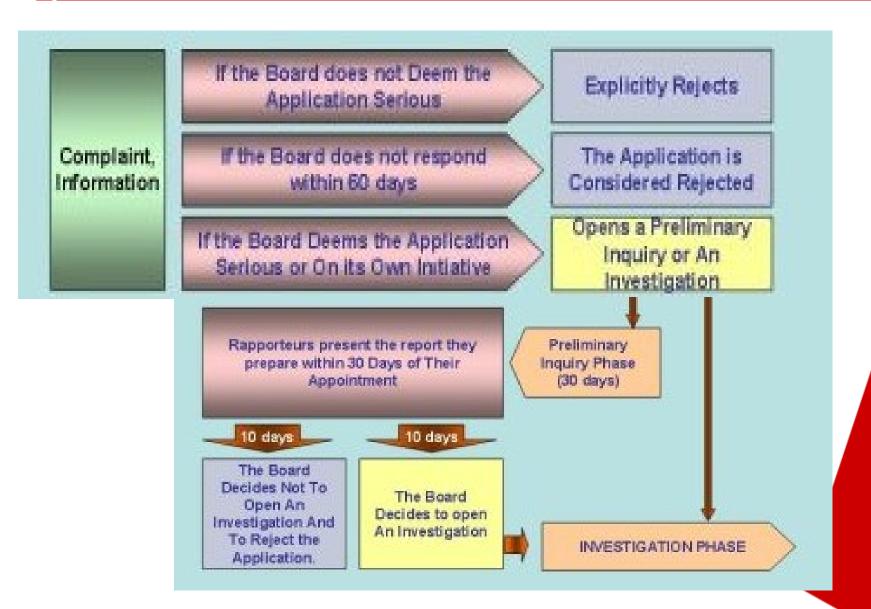
EXAMINATION

PRELIMINARY INQUIRY

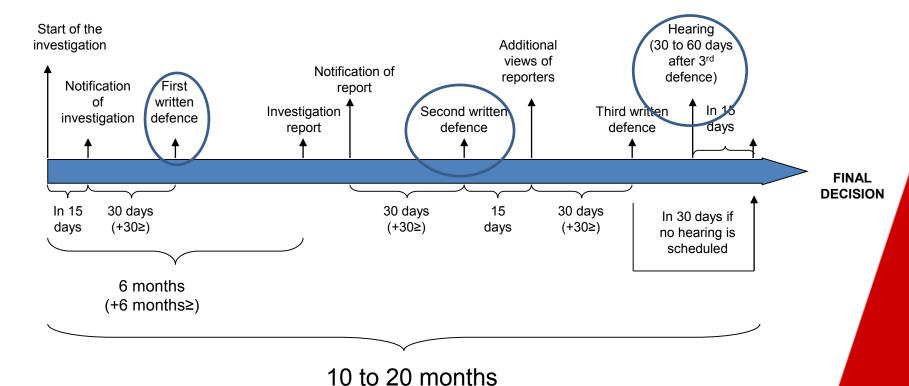
INVESTIGATION











- Final decision can be appealed at the local administrative court
 - Appeal does not stop the collection of the fine



TCA

- Powers during Investigations
 - Request for information
 - the relevant parties and government bodies
 - misleading, false information is fined
 - On-the-spot inspections
 - Via competition experts
 - Authorization certificate
 - Hindering or complicating inspections are fined
 - %0,5 of the turnover at first and + %0,05 daily
 - Substantive Fines
 - Corporate fine up to 10% of the turnover
 - Individual fine up to 5% of the fine imposed on the relevant undertaking
 - Aggravating and mitigating factors!!



Competition Law: An Integrated System

Cartels and other agreements that restricts competition should be declared illegal and punished

Abuse of market power (dominant position) should be declared illegal and punished.

Some agreements that contributes social welfare by limiting competition should be allowed under strict scrutiny.

Note that missing elements may cause circumvention and decrease effectiveness of the system.

Mergers that would create dominant firms or limit competition must be prevented.



THE COMPETITION ACT, again

The core articles of the Act are 4&5, 6 and 7

- Article 4: Cartels and anti-competitive aggreements
 - Ex. price fixing, market sharing, bid-rigging...
- Article 6: the abuse of dominant position
 - Ex. predatory pricing, margin squeeze, exclusive deal...
- Article 7: mergers and acquisitions are which could restrict competition
 - Merge of two firms with market shares %50 each: monopol



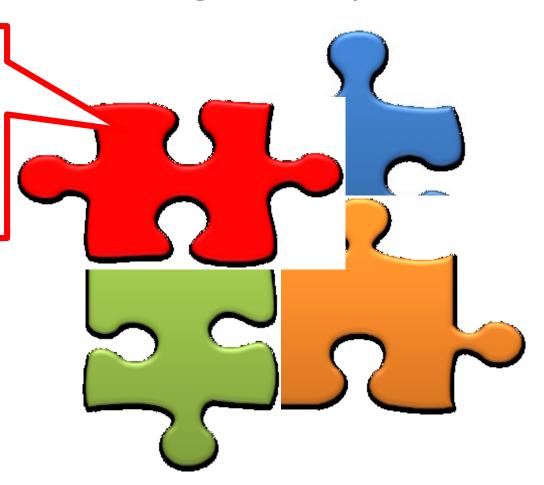
THE COMPETITION ACT, again

- The concept of Undertaking
 - Enterprise: Any natural or legal person who produces, markets or sell goods and services and who forms an economic whole, capable of acting independently in the market
 - Association of enterprises: Any association whether with or without a legal personality, which is formed by enterprices to carry out certain objectives
 - Economic Unity: In case of two firms belong to a holding company they are deemed to constitute one economic unity:
 - They can fix prices among themselves
 - They can merge without notification to Competition Authority
 - If some of them violated the act, the holding company may be punished according its gross revenue!!



An Integrated System

Cartels and other agreements that restricts competition should be declared illegal and punished





Article 4: Anti-competitive Aggrements

- Article says: agreements ... which have as their <u>object</u> OR <u>effect</u> OR <u>likely effect</u> of restriction of competition are deemed illegal.
- Examples: Price-fixing Aggreements, Market Sharing Aggreements, Bid-Rigging
- Intuition: Prevent artifically created monopolies, where otherwise competition prevails.
- Which specialities of the market pave the way for the infringement?
 - ✓ Small number of competitors, Homogenity of the product, not being in a complex structure of the product or service, absence of significant technological changes, little or no substitution of the product, existence of active organizations like chamber of commerce, professional associations...



Sample Case: SSO's procurement at medical consumables market

- 15.08.2005: The Board opened investigation. 16.03.2007: Decision
- At the end of the investigation, the Board reached the conclusion that an agreement contrary to the Act was concluded and imposed fines on 22 undertakings.
 - 6 undertakings → 5% of annual gross revenue
 - 12 undertakings → 4% of annual gross revenue
 - 4 undertakings → 2% of annual gross revenue

total 6,2 billion TL (4,4 billion \$)



The Beginning of the Story

- ➤ Ministry of Finance has began to provide medical consumables for official use with tender instead of prescriptive purchase since 2002.
- The prices have fallen with the adoption of tender system.
- > Incumbents were negatively affected.
- > They concluded an aggrement to prevent the bidding prices going down.



The Objective of the Cartel

From the statement of one of the executives:

"... The objective is to prevent the falling down of the prices for cardiological batteries and stent in Turkey.."

Stent price world average: 300\$

Stent price in Turkey: 1.715\$



The Objective of the Cartel

The objective of the aggrement between undertakings:

- 1- Determining supply conditions outside the market (boycott)
- 2- Fixing prices and sale conditions together with competitors
- 3- Partitioning markets
- 4- Complicating the activities of competing undertakings

In order to ensure fidelity, bonds of 250.000\$ were given to each other to be cashed in case of cheating.



1. Boycott (not supplying goods):

The undertakings involved declared by a written notification in January 2002, to hospitals and other medical institutions, that they would cease supplying medical products to the patients covered by SSO and State Pension Fund, unless tender system is abolished.



2. Fixing prices and sale conditions together with competitors:

Stent and heart battery prices were fixed by agreements among undertakings whereby it is assured not to sell below determined prices.

It is proven that the involved undertakings are inspected for compliance and those who fail to comply are threatened and coerced to stay in the boundaries set forward.



3. Partitioning of markets and clients:

The undertakings set up a schedule enabling them to share sales to the green card holders at a predetermined ratio; thus removing competition in the market.



4. Hindering conduct of competitors:

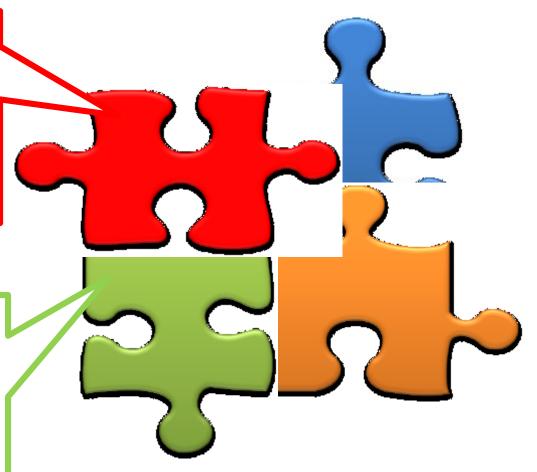
Cartel members attempted to prevent a rival undertaking from winning tenders; and they put pressure on dealers of that undertaking.



An Integrated System

Cartels and other agreements that restrict competition should be declared illegal and punished

Some agreements
that contributes
social welfare by
limiting
competition
should be allowed
under strict
scrutiny.





Article 5: Exemption

- An aggreement or practice between undertakings which restricts competition, but:
 - New developments, technical and economic improvement
 - Consumer benefit
 - No eliminate competition substantially
 - It could be exempted from Article 4.
- Example: R&D Aggrements
 - Sharing cost information etc, ease to collude but consumer benefit...



An Integrated System

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Article 6: Unilateral Conduct

- US: Sherman Act (1890)- Section 2, monopolization
 - "Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony"
- EU: TFEU Article 102, abuse of dominant position
 - "Any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States."



Article 6: Unilateral Conduct

- Turkey: Article 6 of the Act 4054:
- «Any abuse, by one or more undertakings, of their dominant position in a market for goods or services within the whole or a part of the country on their own or through agreements with others or through concerted practices, is illegal and prohibited.»



Article 6: Unilateral Conduct

Two Step Analysis

1. Determination of Dominance



2. Deterimination of Abuse of Dominance



Law: Dominance Economics: Market Power

- Article 3 refers to dominant position as
 - "The power of one or more undertakings in a <u>particular</u> <u>market</u> to determine economic parameters such as price, supply, the amount of production and distribution, by acting <u>independently</u> of their competitors and customers"
- D.P. Encompasses undertakings which have a certain degree of <u>market power</u>.



- Market Power Substantial Market Power Monopoly Power
 - Acting independently: When competitive constraints imposed by other firms are relatively ineffective on the firm(s) in question.
 - Pricing above competitive level: When the firm(s) can profitably increase the price above competitive level.
 - Power to exclude: When the firm(s) can exclude their rivals through the means it (they) got as a result of this power (Ability to exclude)
 - But we must be carefull!!!!



Carefull Assessment:

- High tech industries: Where the marginal cost is so low.
- Markets with differentiated products: In these markets, firms with relatively low market shares, may have a degree of market power because other products in the market are not very close substitutes.
- Sunk costs prevents rival to exit the market rapidly.



Dominance or market power exists only in relation to a particular market

- 1) Market definition is of crucial importance:
 - Relevant product market
 - Only Coca-Cola or +Pepsi or +Fanta or + Ayran...
 - More competitive products less market power (usually!!)
 - Relevant geographical market
 - Turkey or Istanbul or east regions
 - The larger region the less market power (usually!!)
- 2) In establishing dominance:
 - 2.1. Market position of the dominant undertaking and its competitors,
 - 2.2. Constraints imposed by credible threats of expansion and entry,
 - 2.3. Countervailing buying power.



1. Market Position

- An important Indicator: Market shares
 - The higher the market share, the more likely dominance
 - Based on sales, quantities sold, customer number etc.
 - Supported by various Indices:
 - Lerner Index: (P-MC)/P=1/e
 - However, not enough!!
 - In bidding and technology market it could change often.
 - Interpretation depends on the relevant market conditions and dynamics
 - Case based!! No generalization



2. Barriers to Entry and Expansion

Important: if they exist, competitors cannot enter or expand in the market to react to dominant firm's practice.

- Legal Barriers: Tariffs or quotas
- Specific Advantages owned by the dominant (?) firm
 - Economies of scale and scope,
 - Privileged access to essential inputs or natural resources or technologies or an established distribution sales network,
 - Network Effects,
 - Dominant undertakings own conduct: Significant investments that cannot be matched by competitors, long-term contracts,
 - Persistently high market shares.



3. Countervailing Buying Power

Since the concept of dominant position defined as the independence from, inter alia, its customers; an undertaking constrained by a powerful buyer may not be in a dominant position.

Customer size or commercial significance

 Powerful buyers may constrain the ability of the dominant (?) firm to raise prices!!!



Abuse

!!! Holding a dominant position is not an abuse in itself. !!!

- Abuses can be classified into two broad categories:
 - Exploitative (dominant undertaking takes advantage of its market power to exploit its customers),
 - Exclusionary (dominant undertaking prevents or hinders competition in the market),
 - 1) Discriminatory (secondary line injury)



Exclusionary Abuses

- Exclusive Purchasing (Single Branding)
- Tying and Bundling
- Refusal to Supply
- Predatory Pricing
- Margin Squeeze



Predatory Pricing

- An undertaking prices its products so <u>low</u> that competitors cannot live with price and are driven out from the market.
 - If P<AVC, predatory,
 - If AVC<P<ATC (grey area), predatory only if it is a part of a plan to eliminate a competitor
 - In Applications: AAC and LRAIC replaces the theoretical ones.



Predatory Pricing

- Controversial
 - Costs are not symetric. Whose costs should be taken into account? The dominant firm or competitors?
 Ex, THY's p=100. c= 120. Pegasus's cost=90.

Objective Justification?Ex, Promotions, stock clearance

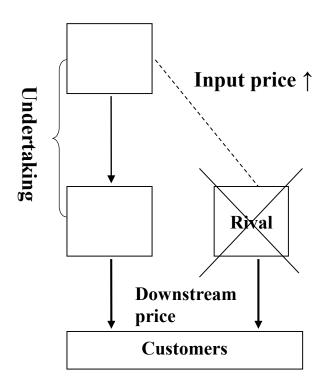
3. Is it a rational strategy?

After becoming monopol, increases the prices again, but new entries and competition again!!!

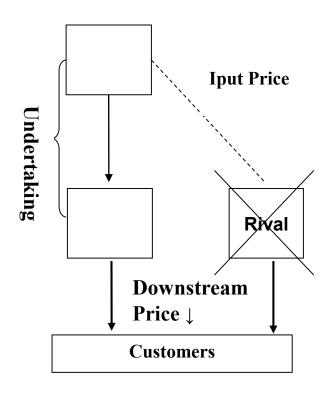
Ex. THY Decision (2012)



Price Squeeze



Vertical Price Squeeze



Predatory Price Squeeze



Margin (Price) Squeeze

- Occurs where
 - a vertically integrated undertaking which is
 - dominant in the upstream market for an input which is
 - essential for the downstream competition and where it sells
 - to its downstream competitors at a price which does not allow
 - the competitor to operate <u>profitably</u>.



Sample Case: TTNet Decision (2008)

- Investigation:
 - Whether TT and TTnet practices on the broadband internet market constitutes price squeeze or just a result of increasing competition

- Decision:
 - YES
 - TCB punished these this economic unity jointly



Sample Case: TTNet Decision (2008)

- Analysis: and Findings:
 - TT and TTNET are in a economic until despite different firms in business activities and accountings
 - TT: wholesale level for internet access, monopol
 - TTNet: retail level for internet access, powerful firm
 - TTNET's continual and strong promotions decrase the de facto price in retail level and the margin is negative btw. Wholesale prices of TT.
 - Rivals can not react to these promotions in profitable ways
 - The market can not developed because of rivals incapability to compete.
 - Abuse of dominant position via price squeeze.

Importance:

- First investigation where PS. is found as a violation
- A mass of files are investigated afterthat.



Exclusive Purchasing

 Arrangements by which customer is obliged to obtain all or most of its requirements for the relevant product from one supplier

Requirement contracts=single branding

- Results:
 - Market forclosure
 - Prevention of brand competition btw. Stores

— ...



- Importance:
 - Market structure
 - Market Definition
 - Dominance Analysis
 - Effect Analysis
 - Investigation:
 - Whether the exclusive purchasing agreements btw. Coca-Cola and stores/restaurants/bars... creates market forclousure for the rivals, Pepsi, Cola-Turca, Uludağ, also water brands, energy drink brands...



- Decision: YES!!
 - The Coca-Cola Company shall not provide advantages to customers towards not selling rival products.
 - Shall not offer fidelity or conditional rebates to customers if they sell only Coca-Cola products.
 - In case the stores/restaurants can place only one fridge for drinkings because of room-restraints, Coca-Cola shall put free place for %20 percent in these fridges for rival products.



- Analysis
 - Divide Market Shares to several sub-segments:
 - Product: Carbonated- Cola- Juice- Ennergy-Water-Ice Tea
 - Regional : Marmara, İç Anadolo, Guney
 - Locational: Superstores, conventional markets, Restaurants...
 - Market Shares of Coca-Cola and others
 - Carbonated drinks: 50-54 for CC, 20-24 Pepsi...
 - Drinks with Cola: 65-69 for CC...
 - Others: Small, compared Cola
 - Market Concentration:
 - HHI above 2000: concantrated market in general
 - HHI: above 4500 where CC is leader



- Analysis
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 - HHI: above 4500 where CC is leader
 - Market Definition:
 - Carbonated Drinks
 - » For house consumption
 - -Superstores and conventioal markets
 - » Locational consumption
 - Restaurants/cafes/bars...



- Analysis
 - Dominace of Coca-Cola?
 - High Market shares where HHI is high
 - Brand awereness
 - Portfoy power and entry to the Distribution canals
 - Potential competititon: Cola-Turca only
 - Independence From Customers
 - YES



Analysis

- Practices of Coca-Cola Company
 - Single branding aggreements with restaurants and conventional stores
 - » More than %30 of total aggreements
 - De facto exclusivity because of rebates
 - Fridge exclusivity
 - » 10 times higher than rivals
- Effects of Practices of Coca Cola Company
 - Foreclousure to other rivals where single-branding and rebates prevails
- Result:
 - Such practices could not be exempted from Compatition Act and should be prohibited.
 - Aggrements should rbe revised according to this decision



Exploitative Abuses

- Unfairly High Prices (Excessive Pricing)
 - It is difficult to decide what constitutes an excessive or unfair price:
 - Is monopol price excessive or innocent profit maximizing?
 - How to find the comparible price which is not excessive?
 - Comparable country or market conditions???
 - Very few cases
 - US: not a violation
 - Turkey: Belko (2000): coal distribution market in Ankaraeasy to compare prices to test excessive or not.



General Assessment

 Problematic: How to distinguish illegal behavior from legal one?

Competition on the Merits

VS.

Anti-competitive Foreclosure

• Therefore:

effect based approach



Turkey, an Overview

Files Resulted Acc. To Article 4 and 6					
Years		Art. 4	Art. 6	Both	Total
	2008	67	38	27	132
	2009	73	70	35	178
	2010	99	111	38	248
	2011	158	95	30	283
	2012	168	108	27	303



Turkey, an Overview

- Sometimes deduction method, in case of difficulty to determine the dominant position:
 - As if the undertaking were in a dominant position, would the behaviour be a violation?
 - As if it were a potential violation (pricing below cost), could we observe the adverse effect in the market
 - exit from the market,
 - prevention of expansion of the market,
 - hindering technological improvement, innovation etc.
- Time saving process but not applied commonly.

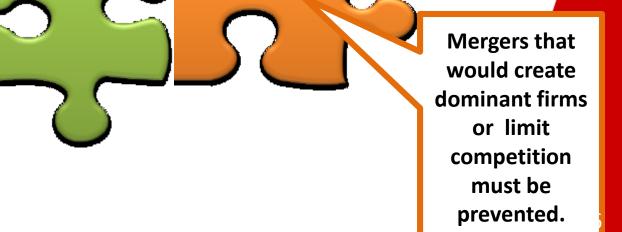


An Integrated System

Cartels and other agreements that restrict competition should be declared illegal and punished

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Some agreements that contribute social welfare by limiting competition should be allowed under strict scrutiny.





- Merger by one or more undertakings, or
- acquisition by any undertaking or person from another undertaking
 - of its assets or all or a part of its partnership shares, or
 - of means which confer thereon the power to hold a managerial right,

with a view to creating a dominant position or strengthening its / their dominant position, which would result in significant lessening of competition in a market for goods or services within the whole or a part of the country, is unlawful and prohibited.



- M&A Motives
 - Efficiencies
 - Production economies of scale and scope
 - Distribution Double Marginalization
 - Transaction Access to raw materials and financial resources
 - Dynamic efficiency R&D, innovation
 - Market entry or exit (failing firms)
 - Other motives (Managerial motives, national champions...)
 - OR Market power?
 - Unilateral effects,
 - Coordinated effects,
 - Exclusion/ market foreclosure (?)...



- Two crutial criteria
 - To be considered as a merger
 - permanent change in <u>control</u> after the transaction
 - Merge of undertakings and set up a new control mechanism for the newly formed one
 - Acquisition of control of the undertaking by the others.
 - Creating a full functioning joint venture
 - To be subject to authorization
 - Exceed tresholds
 - Market share and/or turnover of transaction parties in the relevant market/country/world



Only turnover threshold, no market share!!

Total turnovers of the transaction parties in Turkey exceed **100** million TL, and

turnovers of at least two of the transaction parties in Turkey each exceed **30** million TL,

OR

Global turnover of one of the transaction parties exceeds **500** million TL, and

The asset or activity subject to acquisition, at least one of the transaction parties in mergers have a turnover in Turkey exceeding **30** million TL.

Thresholds shall be reviewed within two years (lastly, 2012)



- Two stage investigation
 - 1. Preliminary examination:
 - 30 days
 - Decision: Approval, Prohibition, Remedies (Conditional Approval) or:
 - Final examination:
 - In case of competitive concerns are arising
 - General investigation procedure- 6+6 months with
 - Transactions are suspended and can not be put into practice until final decision
 - Decision: Approval, Prohibition, Remedies (Conditional Approval)
- In case of no action, transactions become legally valid 30 days after the notification.



Article 7: Merger Control Assessment

- 1. Market Definition
- 2. Potential parket power and anti-competitive effects

Analysis

- Structure of the market,
 - Oligopol, competitive, concentration levels (HHI)
- Status of the undertakings within the market
 - Symetric firms, market leaders, maverick firm...
- Supply & demand trends
 - Stable market, new economy..., buyer power
- Efficiencies
- Entry/potential competition
- failing firm

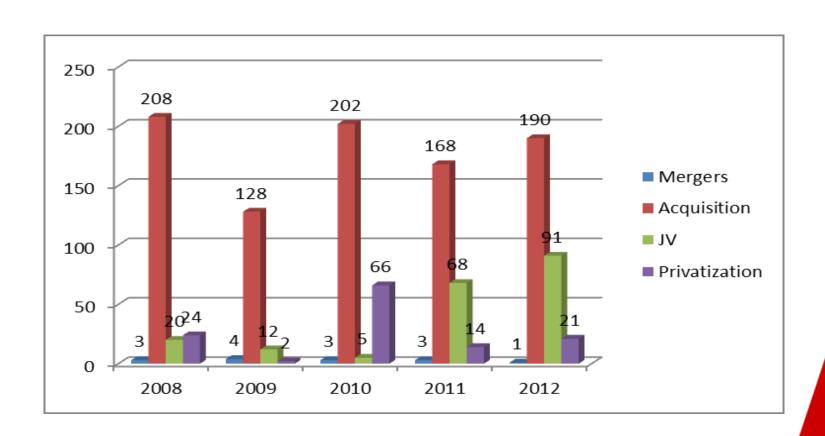


Conditional Approval and Remedies:

- •<u>Problem</u>:Competitive conditions in some of the markets are affected adversely but there are some efficiency gains.
- **Solution**: Remedies, from the Board or Transaction Parties
 - 1. Divestiture of some business activities, IPR, patents... from the business of merged or acquired, or that of the parties.
 - Ex: AFM-Mars.
 - Obligation not to discriminate customers, access to network



Results of Merger and Acquisition Files Resolved





Economic Analysis

Merger control:

- Define the relevant product and geographic market
- Measure market concentration level after merger
- Test anti-competitive effects (price increases...)
- To decide the effectiveness of the commitments.

Dominance:

- Define the market
- Grasp the market power of the candidate firm.

Cartels:

- Grasp the collusive outcomes (coordinated behaviour associated with prices and sales)
- Measure the harm, of consumers or rivals



Economic Analysis Has used mainly for relevant market definition!

 Relevant Market carries a different meaning from the meaning of the concept of market where a place to buy-sell goods.

"a relevant market is something worth monopolising"
Bishop ve Darcey (1995)

- Two sizes:
 - Relevant Product Market
 - Relevant Geographical Market
- Example:
 - What is Coca-Cola's market power?
 - If Coca-Cola and Pepsi merge, does it consist of a monopoly?
 - Is Sprite a rival/substitute for Coca-Cola or Pepsi?



Market Definition

- Demand Substitution: accepted as the replacement of the other product in the eyes of the consumer (Coca-Cola vs Pepsi). Main criteria!!!
- Supply Substitution: Manufacturer may decide to supply another product which can be produced in the short term and without causing additional costs (Paper manufacture)
- Potential Competition from both side.
 - Regulatory effects
 - Barriers to enty-exit



Economic Analysis

1) Grasp the Market Characteristics

2) Request and Gather the Relevant Data

- 3) Start Economic Analysis
 - 3.1) Descriptive Analysis
 - 3.2) Complicated Methods



Analyzing the Market

- How many competitiors? Looks like a fringe, maverick or leader?
- What kind of products:
 - Substitute or complements?
 - Differentiated or homogenous?
- How is the cost structure?
 - Sunk costs? Marginal Costs?
- What is the market operation type?
 - Bidding, auctions, frequent sales, one time in big amounts?
- Structure of the costumers?
 - Public vs. Private or both
 - Existence of asymetric information
 - Different groups: students, corporate etc.



Requesting and Gathering Data

- From whom?
 - Parties, customers, rivals, public authorities, relevant undertaking unions.
- Problems we face:
 - Confidential information: Sorry, we can not provide!!
 - Express our legal power in the request form clearly.
 - Not complete and different formats, how to combine, compare!!
 - Prepare own format to make them only fill the blanks.
 - Cross check from different sources.
 - Should we trust the reality of the data? !!
 - Again cross-check
 - Use internal reports as much as possible (for cost data)



General Rule: Start from the simple tools, than decide the complexity!!

1) Descriptive Analysis

- Less complex analysis to provide first insight about the market structure before the sophisticated analysis.
- What happened in the history?
 - Prices, quantities, entry, exit... Structural breaks (privatization, regulation, jump in the demand...)
- Tools:
 - Graphical analysis of prices and quantities of candidate products in different candidate geographic markets



2) Price Correlation Analysis

- A measure of the extent they move together
 - The more homogenous products of different firms, the high correlation
 - The more substitute the products, the high correlation
- Used for market definition:
 - What are the candidate products to be tested econometrically
- Used in merger assessments:
 - Close substitute and homogenous: more pressure on potential price increase of merging parties
- Used in cartel cases:
 - High correlation, a trace for collusive behaviour



	Biscuits					Cracker		Cake		Chocolate			
	PETİBÖR	FİNGER	K.KREMALI	GOFRET	SUSAMLI	PİKNİK (75 GR)	ÇUBUK (40 GR)	BADEM	MÎNÛET KAKAOLU (35 GR)	BEST KAKAOLU	ÇİKOLLE KREM	ÇİKOLLE BARDAK	ÇİKOLLE KASE
PETİBÖ	1	1	0,9866	0,9894	0,8892	0,9280	0,8618	0,9201	0,7229	0,9371	0,8074	0,8905	0,8641
FİNGER		1	0,9866	0,9894	0,8892	0,9280	0,8618	0,9201	0,7229	0,9371	0,8074	0,8905	0,8641
K.KREMALI			1	0,9808	0,9500	0,8823	0,9209	0,9504	0,6987	0,9030	0,7809	0,8513	0,8595
GOFRET				1	0,8829	0,9266	0,8394	0,9042	0,6529	0,9005	0,7927	0,8795	0,8372
SUSAMLI					1	0,7177	0,9735	0,9233	0,6120	0,7934	0,6838	0,7252	0,7983
PİKNİK (75 GR)						1	0,6927	0,8348	0,6788	0,8617	0,7817	0,8757	0,7702
ÇUBUK (40 GR)							1	0,9435	0,6884	0,8044	0,6392	0,6778	0,81 <mark>3</mark> 9
BADEM								1	0,7632	0,8324	0,6968	0,7478	0, <mark>8294</mark>
MİNÜET KAKAOLU (35 GR)									1	0,8536	0,7888	0,7455	0,8914
BEST KAKAOLU										1	0,8839	0,9250	0,9473
ÇİKOLLE KREM											1	0,9717	0,9221
ÇİKOLLE BARDAK												1	0,9052
ÇİKOLLE KASE													1



- Be carefull !!
 - Everything could be correlated, no means of causality.
 - External factors from demand and supply side should be neutralized
 - » Same input (oil), same cost, but different output, but same trend in prices.
- One step further: Co-integration analysis, stationary tests...
 - Stata, e-views programs make this for you.



3) Price-Concentration Analysis

- —To test the relationship btw price and the level of concentration
- -Higher concentration \rightarrow Higher market power \rightarrow Higher prices.
- Used for merger assessments
 - Esp. for homogenous products where <u>market is definite</u> (gasoline) and different geographic areas with similar market structure
- –Candidate Model:

 $p = \gamma + \beta^* concentration (HHI) + \Theta^* Demand Factors + \phi^* Cost Factors + \varepsilon$

- Cost factors: rent, labor costs...
- Demand factors: geographical position (center, rural urban...), population... As dummy variables



Be cautious!!

- External factors affect both Price and HHI simultaneously:
 - Low security \rightarrow high cost \rightarrow high price
 - Low security → high concentration (less firms to take the risk)

Reverse causality (Endogeneity) problem:

- » High price shock \rightarrow new entry \rightarrow less concentration
- A solution:
 - Use IV for HHI



Example for P-HHI Analysis: AFM&Mars (2012)

- A M&A in cinema sector between AFM and Mars
- High market shares in multi-house cinema services (between %35- % 71)
- Located in Malls
- High concentration in four big cities:
 - HHI according to ticket revenues: 3180-5733
 - Change in HHI after merger: 1250-2969
 - Since HHI>2500, change in HHI>200 is serious doubt.
- No entry barriers, new malls were constructing.
- Less power of distributors.



Example for P-HHI Analysis: AFM&Mars (2012)

Assessment:

- As a result of econometric analysis based on P-HHI analysis, remarkable price increases are predicted in some markets (%7-%37)
- Commitment is provided by the parties:
 - Transfer of 12 houses to other undertakings
 - Estimated decrease in the market shares by %6-%18
 - Predicted price increase by %0- %1.3
- Decision:
 - Approved with commitment
- The Appeal Court:
 - The commitment is not sufficient to prevent competitive concerns!!!



4) Advanced Quantitative Methods

- When the definition of the market is contoversial between the authority and parties,
- Before assessing market power of the undertakings in question,
- When the competitive and anti-competitive effects of merger is ambigious,
- Define the Market by
 - Hypothetical Monopoly Test
 - SSNIP (Small but Significant and Non-transitory Increase in Price)
 - To apply these tests, we need:
 - Demand Estimation and Elasticities
 - Select the appropriate demand model for the products.



SSNIP

Whether to decide a particular product constitutes a relevant market by itself, or more is needed.

- We test
 - 1. a hypothetical monopolist increases the price of this product (%5 or %10)
 - 2. based on demand elasticity, the price increase leads to a decrease in sales (quantity)
 - 3. The change in revenue affects profability.
 - 4. Result:
 - If still profitable, it is narrowest market.
 - If not, we add the closest substitute to product basket of this monopol and reapply first stage..



Example: Abuse of Dominance of UN Ro-Ro Company (2012)

- An in-depth investigation on exclusionary practices conducted by UN Ro-Ro, a maritime transportation company operating ro-ro lines between Turkey and ports in Europe (France and Italy).
- Determination of dominant position of the undertaking in question was closely linked with the definition of the relevant market.
- FERM Method (and anvanced medhot of SSNIP) is applied
 - Obtained demand eleasticities for every line for ro-ro transportation originated from Turkey.
 - Implemented merger simulation to define the market.







• Assume: Every line (A.B,C...) is operated by different monopols and they merge gradually. What would be the price increase to stay still at profit max. level.

C	Price Increases (%)										
Scenario	A	В	С	D	E	F	G				
A+B	0,48	3,71									
A+B+C	0,66	3,75	4,12								
A+B+C +D	1,05	4,29	4,76	3,92							
•••	1,72	4,84	5,28	4,40	4,33						
	2,87	6,01	6,56	5,47	5,38	5,37					
	7,92	10,75	11,37	9,69	9,76	10,04	9,1				



- The logic:
 - If the treshold is %5 increase of prices (corresponding SSNIP level)
 - All the ro-ro lines are in the same relevant market (the monopol owning all the lines can increase prices more than %5 to max. profits and can still profitable, for line A, for instance)
 - If the treshold is %10 increase of prices (corresponding SSNIP level)
 - All the ro-ro lines and possible landroutes are in the same relevant market (the monopol owning all the lines can still increase prices till %10 to remain profitable)
- Decision of the Board: Accepted first approach. And Decide on dominace and abuse of it bt UN Ro-Ro



Thank you...

sdkaya@rekabet.gov.tr