



Market Analysis Procedures and Significant Market Power Designations in Turkish Telecommunications Markets

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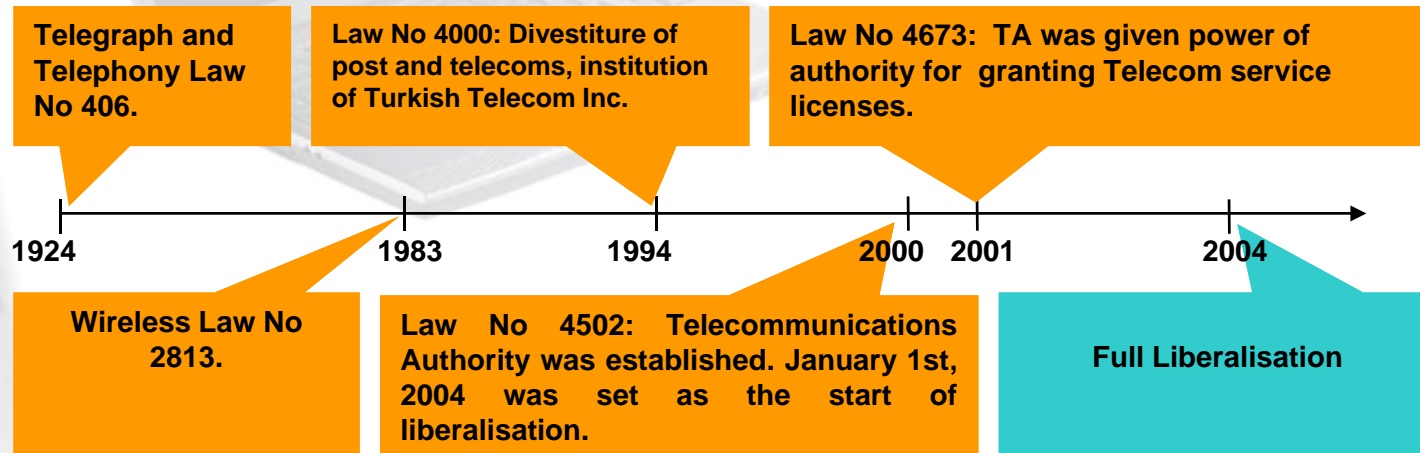
Turkish Telecommunications Authority

Workshop on EU Regulatory Framework in the Electronic Com. Market, 4-5 October 2007,
Belgrade

Agenda

- A Brief History of Liberalisation in Turkey
- Turkish Telecommunications Market At a Glance
- Market Analysis and SMP
- Case Studies (Market 15&16)

A Brief History of Liberalisation in Turkey



A Brief History of Liberalisation in Turkey

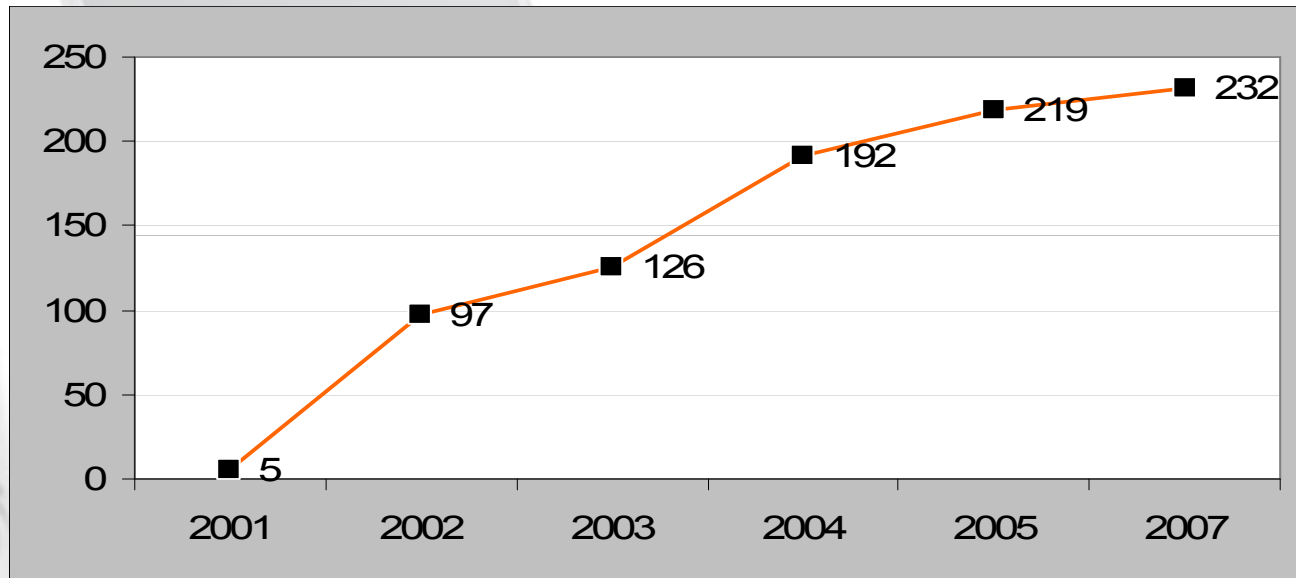
- Telecommunications Authority
 - Established in August 2000
 - Sector specific regulator
 - Having financial and administrative independence
 - Source of funding is the fees from operators
 - Licensing transferred to TA in May 2001
 - app.456 employees

A Brief History of Liberalisation in Turkey

	Licensing	Tariffs and Inter-connection	Numbering	Spectrum Planning & Allocation	Universal Service	Policy Setting
TRA	✓	✓	✓	✓	x	x
MoT	x	x	x	x	✓	✓

*Seperation of Duties Between
Telecommunications Authority and Ministry*

Turkish Telecommunications Market At a Glance



Progress in the number of operators

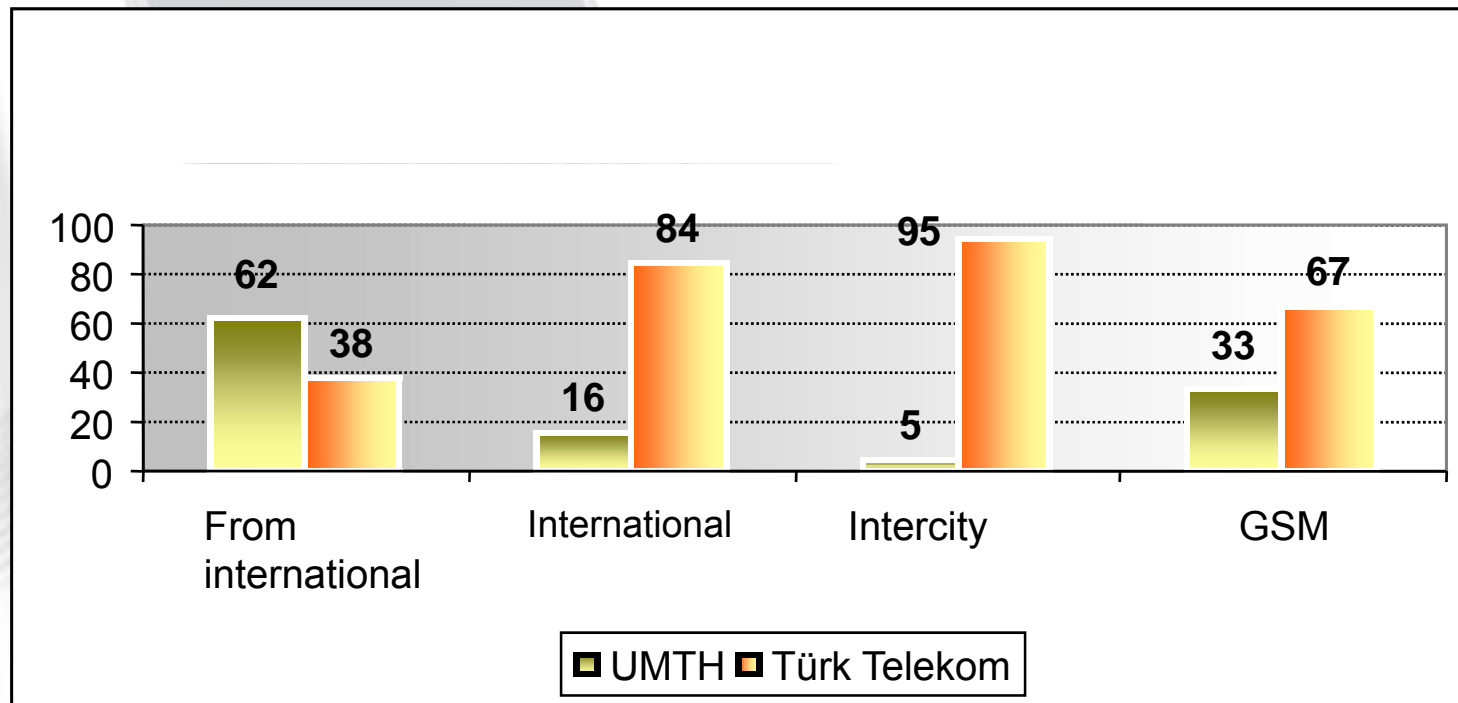
Turkish Telecommunications Market At a Glance

Services Hizmetler	Number of Operators İşletmeci Sayısı
Satellite and Cable Services / Uydu ve Kablo Hizmetleri (TÜRKSAT)	1
Mobile/Mobil	3
Fixed/ Sabit	1
Satellite Telecommunication Services/Uydu Telekomünikasyon	19
Satellite Platform Services / Uydu Platform Hizmeti	2
GMPCS Mobile Telephone Services/ GMPCS Mobil Telefon Hizmeti	4
Data Transmission over Terrestrial Lines/ Karasal Hatlar Üzerinden Veri İletimi	20
Ortak Kullanım Telsiz Hizmeti/ PMR-PAMR Services	49
Long Distance Telephony Services / Uzak Mesafe Telefon Hizmeti	34
Infrastructure Services / Altyapı İşletmeciliği	12
Cable Platform Services / Kablo Platform Hizmeti	5
Internet Services / İnternet Servis Sağlayıcılığı Hizmeti	72

Progress in the number of operators

Turkish Telecommunications Market At a Glance

Traffic Shares 2006



Turkish Telecommunications Market At a Glance

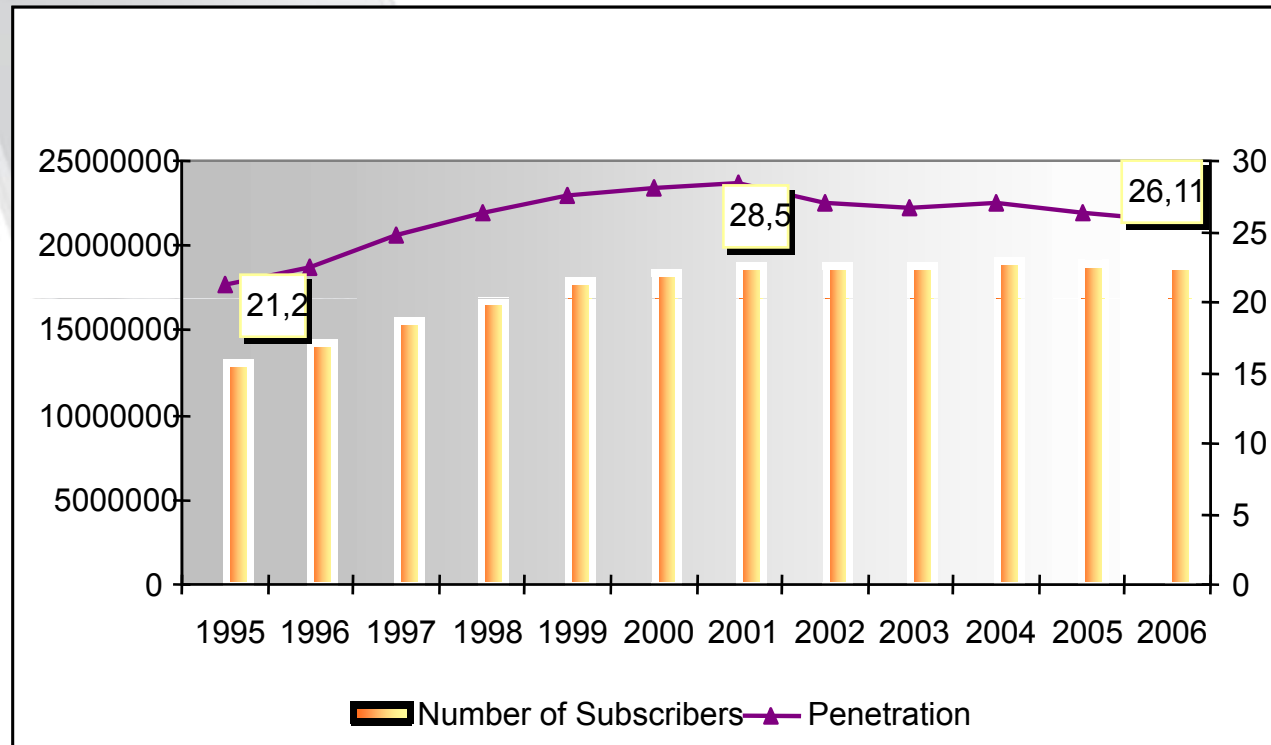
Billion Euro	2004	2005	2006
Mobil Telefon Mobile Phone	4,61	5,18	5,22
Sabit Ses Telefon Fixed Voice	4,31	4,46	4,07
Sabit Veri Fixed Data	0,51	0,51	0,71
Kablo TV Cable TV	0,07	0,06	0,05
TOPLAM	9,5	10,21	10,05

Telecommunications Service Revenue

Turkish Telecommunications Market At a Glance (PSTN)

Year	Number of Subscribers
1995	13,23
1996	14,29
1997	15,58
1998	16,81
1999	17,91
2000	18,40
2001	18,90
2002	18,89
2003	18,92
2004	19,04
2005	18,98
2006	18,83
2007 (July)	18,54

Turkish Telecommunications Market At a Glance

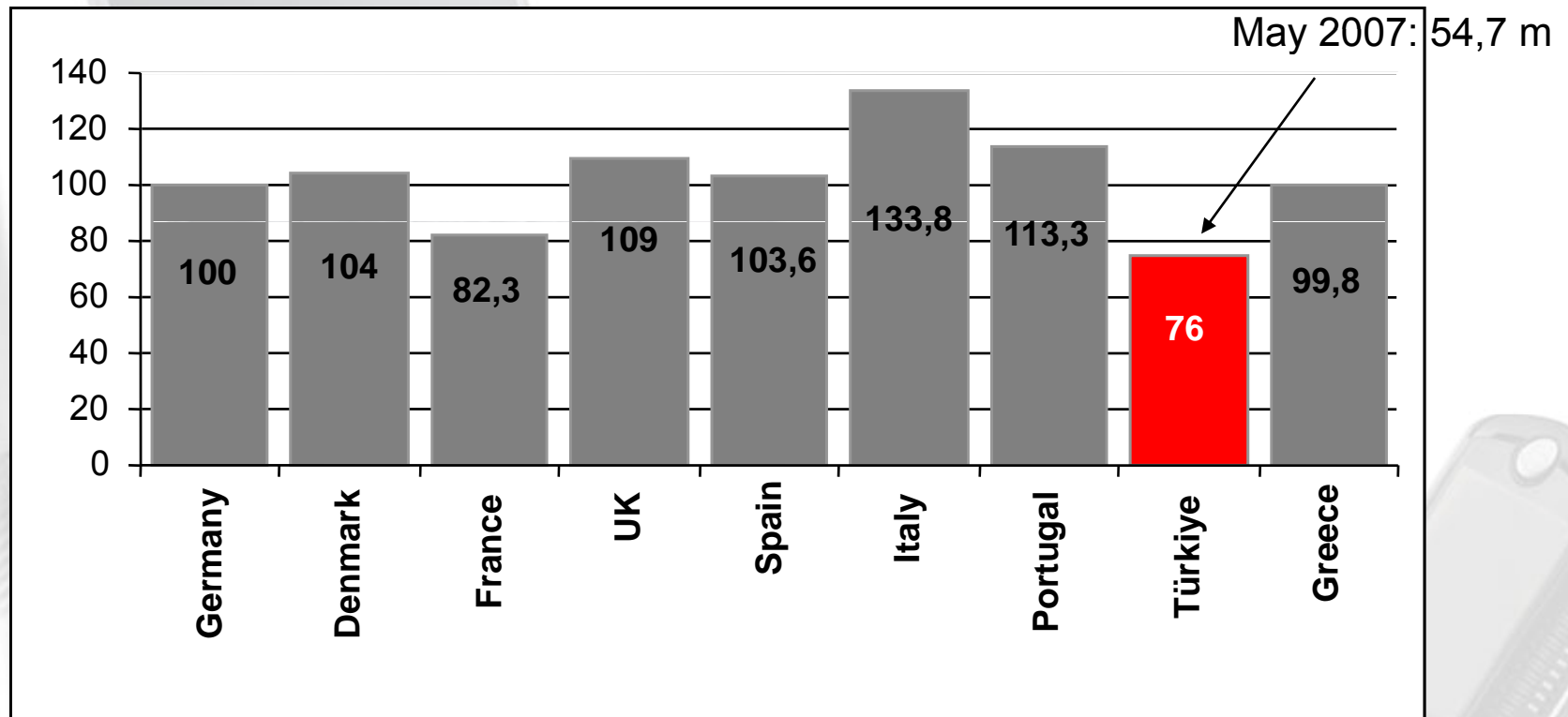


Number of Subscriber - PSTN

Turkish Telecommunications Market At a Glance (GSM)

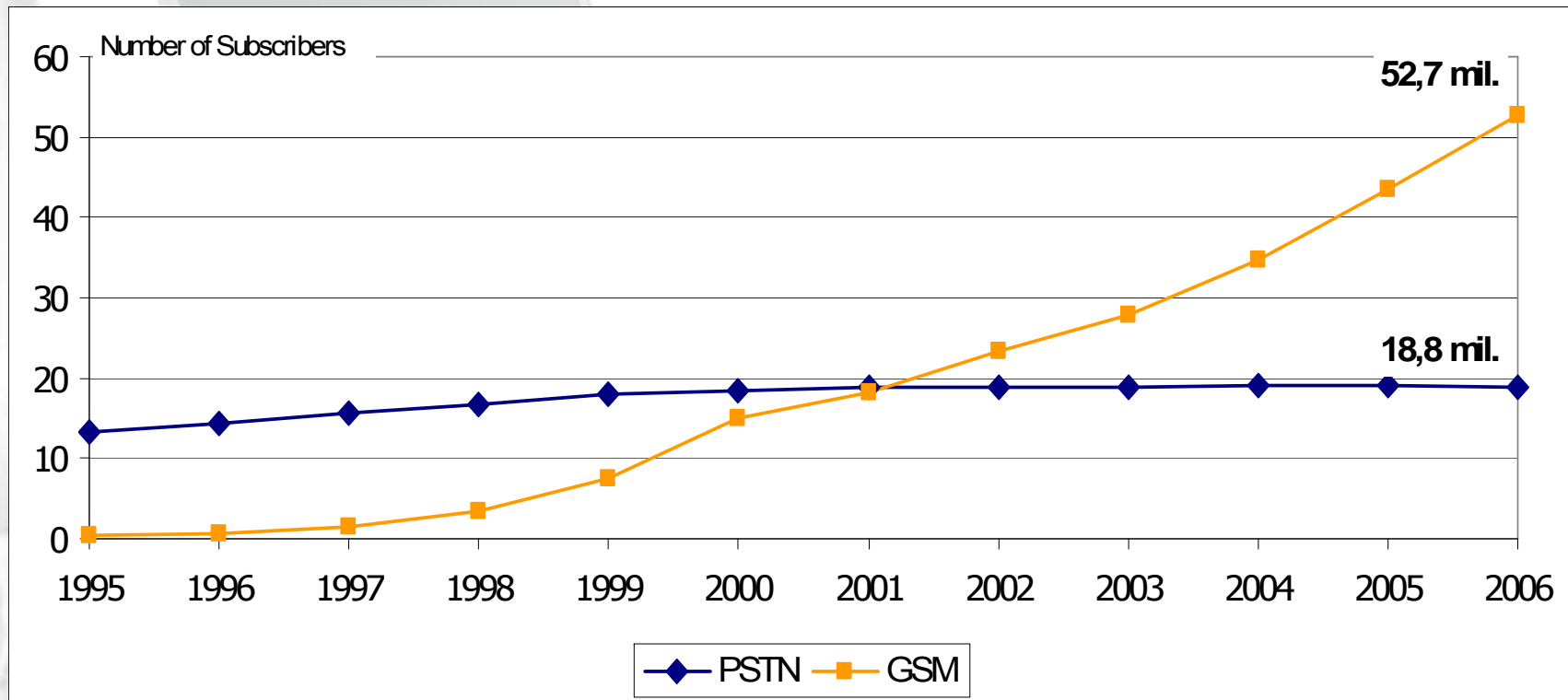
Year	Number of Subscribers
1995	0,3
1996	0,7
1997	1,5
1998	3,4
1999	7,6
2000	15
2001	18,2
2002	23,3
2003	27,9
2004	34,7
2005	43,6
2006	52,7

Turkish Telecommunications Market At a Glance



Number of Subscribers - GSM

Turkish Telecommunications Market At a Glance



GSM and PSTN Subscribers

Market Analysis and SMP

- Legal Basis:
 - Law No:406 and Wireless Law No.2813
(*Provisions for Dominant Position*)
 - Ordinance on Principles and Procedures
of the Operators with SMP
 - Purpose
 - Scope (Authorization Contract, Concession
Agreement, T.Licence, General Authorization)

Market Analysis and SMP

- Significant Market Power:

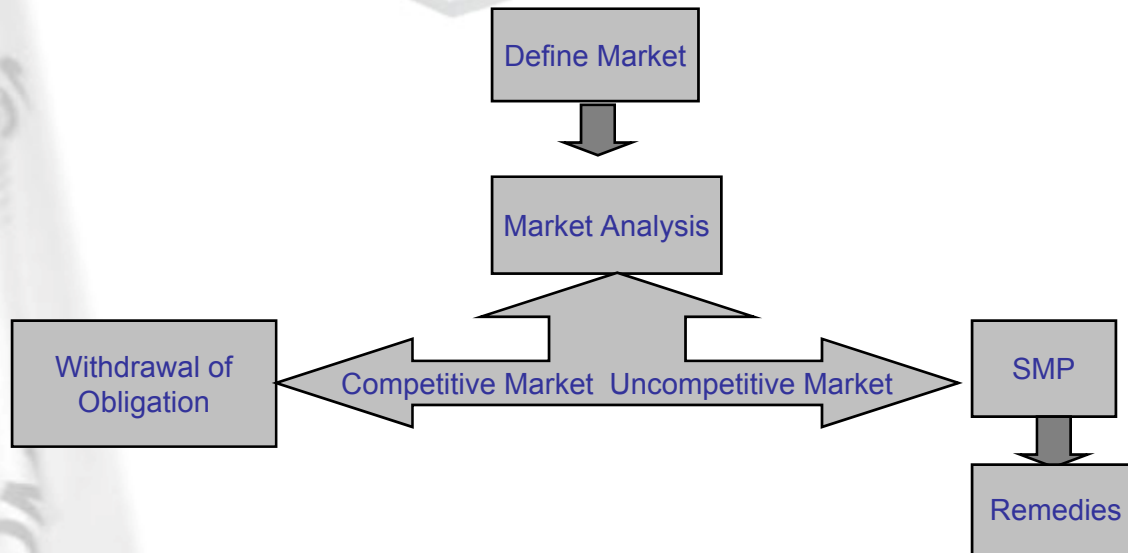
Within the relevant telecommunication market, operator, whether individually or jointly with other operators, enjoys a position which is equivalent to dominant position of economic strength affording it the power to behave to an appreciable extent, independently of competitors, users, and consumers.

Market Analysis and SMP

- Principles:
 - Technological Neutrality
 - Transparency
 - Non discrimination
 - Effective Competitive Environment

Market Analysis and SMP

- Market Analysis Process (shall be performed at the latest within 3 years)
 - Definition of Relevant Market
 - Analyses of Competitive Level
 - Definition of Operators with SMP



Market Analysis and SMP

- Inputs:
 - Information from Operator(s), Public Surveys, Studies, Benchmarking
 - Preperation of Questionnaires (published on web page)
 - Opinions of Relevant Parties (Competition Authority)/*not fewer than 15 days*

Market Analysis and SMP

- Definition of Relevant Market
 - Examination of Demand and Supply Substitutability(in terms of functionality, price, cost of transition, existing data about user's behavior, structural and legal barriers..etc..)
 - Geographical Coverage, Authorization Area (for the determination of geographic market)

Market Analysis and SMP

- Analysis of Competitive Level
 - Primary Criteria: Market Share (income, traffic volume, number of subscribers etc.)
 - Other (entry barriers, scale and scope economies, vertical integration etc.)
 - Maturity of the market, low elasticity of demand, similar cost structures, homogenous products, retaliatory mechanisms etc. (*for Joint Dominance*)
 - Closely related markets

Market Analysis and SMP

- Obligations:
 - Transparency
 - Publication of Reference Access and Interconnection Offers
 - Non discrimination
 - Accounting Separation
 - Tariff Regulation
 - Cost Accounting

Published on the Web site

Market Analysis and SMP

- Differentiation of Obligations (*either by selecting dif. obligations and/or dif. app details*)
- Alteration and Abrogation of Obligations
- Publication (*Public Consultation Reports, Decisions*)
- Administrative Fines and Measures (*Ordinance on Monetary Penalties...*)

Market Analysis and SMP

- Task Force (4 experts responsible for market analysis) / *For Data gathering: Research Dept.*
-

- Defining the 18 relevant market (In line with EU Directives)
- 16 completed in 9 consultation documents (published)
- Determining SMP according to the market analysis
- Setting obligations to SMP operators

Status of Market Analysis

Relevant Markets	Status
Access to the public telephone network at a fixed location	✓
Publicly available local, national and international telephone services provided at a fixed location	✓
Terminating and Trunk Segments of Leased Lines and min. set of leased lines(comprising the specified types of leased lines up to and including 2Mb/sec)	✓
Call origination and transit services in the fixed public telephone network	✓
Call termination on public telephone network at a fixed location	✓
Wholesale unbundled access (including shared access) to local loops and subloops for the purpose of providing broadband and voice services.	✓
Wholesale broadband access including bit-stream access	✓

Status of Market Analysis

Relevant Markets	Status
Access and call origination on public mobile telephone networks	✓
Voice call termination on individual mobile networks	✓
<i>The wholesale national market for international roaming on public mobile networks.</i>	X
<i>Broadcasting transmission services, to deliver broadcast content to end users.</i>	X

M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Definition
 - Systematic definition of market structure to be used in later stages (market analysis)
 - To be handled in terms of
 - Relevant Product/Services Market
 - Relevant Geographic Market
- Market Analysis

M15: Access and Call Origination on Public Mobile Telephone Networks

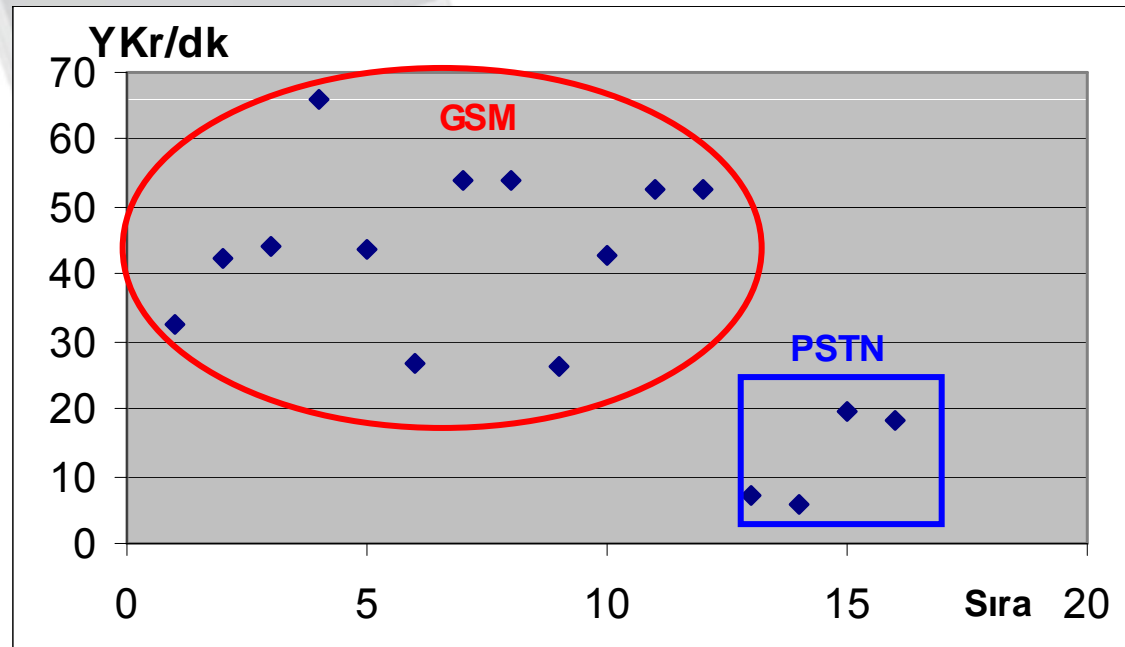
- Market Definition
 - Relevant Product/Services Market
 - Considerations at Retail Level
 - Mobile and fixed services
 - Mobile communications services
 - Pre-paid and post-paid subscriptions
 - Mobile data services and 3G
 - Considerations at Wholesale Level
 - Call origination and MVNO access
 - Wholesale services provided from different networks
 - Internal use of wholesale services by an operator

M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Definition
 - Relevant Product/Services Market
 - Considerations at Retail Level
 - Mobile and fixed services:
Demand-side substitution:
 - » Mobility: Convenience of being independent from a fixed location
 - » Fixed networks: Greater bandwidth with respect to GSM
 - » Price levels: Would an increase in the prices of mobile services lead customers to migrate to fixed services? (SSNIP Test)

M15: Access and Call Origination on Public Mobile Telephone Networks

- Price levels



PSTN calls were considerably less expensive than GSM calls

M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Definition

- Relevant Product/Services Market

- Considerations at Retail Level

- Mobile and fixed services:

- Demand-side substitution:

- » Mobility: Convenience of being independent from a fixed location

- » Fixed networks: Greater bandwidth with respect to GSM

- » Price levels: Would an increase in the prices of mobile services lead customers to migrate to fixed services? (SSNIP Test)

- Supply side substitution:

- » Ability for current or potential operators to enter the market? Licencing, spectrum constraints, economical constraints.

M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Definition
 - Relevant Product/Services Market
 - Considerations at Retail Level
 - Mobile and fixed services => **Considered in sept. markets**
 - Mobile communications services
 - » Subscription: No fixed fee application in pre-paid, almost none in post-paid either
 - » SMS and value added services (conference call, melody, voice message etc.): not always substitute for voice but provided as a bundle

M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Definition

- Relevant Product/Services Market

- Considerations at Retail Level

- Mobile and fixed services => Considered in separate markets
 - Mobile communications services => **Considered in a single market**
 - Pre-paid and post-paid subscriptions
 - » Demand-side: easy to switch between subscription types
 - » Supply-side: easy to provide one operator to supply another type of service
 - Mobile data services and 3G

- Considerations at Wholesale Level

- Call origination and MVNO access
 - Wholesale services provided from different networks
 - Internal use of wholesale services by an operator

M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Definition

- Relevant Product/Services Market

- Considerations at Retail Level

- Mobile and fixed services => Considered in separate markets
 - Mobile communications services => Considered in a single market
 - Pre-paid and post-paid subscriptions ==> **Considered in a single market**
 - Mobile data services and 3G
 - » Data services are still emerging
 - » 3G is not provided yet

- Considerations at Wholesale Level

- Call origination and MVNO access
 - Wholesale services provided from different networks
 - Internal use of wholesale services by an operator

M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Definition
 - Relevant Product/Services Market
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 - Mobile and fixed services => Considered in separate markets
 - Mobile communications services => Considered in a single market
 - Pre-paid and post-paid subscriptions => Considered in a single market
 - Mobile data services and 3G ==> **Considered in sept. markets**
 - Considerations at Wholesale Level
 - Call origination and MVNO access
 - » National roaming, access to frequency spectrum, resale of minutes purchased can constitute substitutes in terms of effects to retail level

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- Market Definition
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 - Mobile and fixed services => Considered in separate markets
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 - Mobile data services and 3G => Considered in separate markets
 - Considerations at Wholesale Level
 - Call origination and MVNO access=> **Considered in a single market**
 - Wholesale services provided from different networks
 - » Mobile Access differs from call termination: new entrants may choose access to one of the networks
 - Internal use of wholesale services by an operator

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- Market Definition
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 - Mobile and fixed services => Considered in separate markets
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 - Pre-paid and post-paid subscriptions => Considered in a single market
 - Mobile data services and 3G => Considered in separate markets
 - Considerations at Wholesale Level
 - Call origination and MVNO access=> Considered in a single market
 - Wholesale services provided from different networks => **Considered in a single market**
 - Internal use of wholesale services by an operator
 - » There is no wholesale offering other than operators' internal use at the moment

M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Definition
 - Relevant Product/Services Market
 - Considerations at Retail Level
 - Mobile and fixed services => Considered in separate markets
 - Mobile communications services => Considered in a single market
 - Pre-paid and post-paid subscriptions => Considered in a single market
 - Mobile data services and 3G => Considered in separate markets
 - Considerations at Wholesale Level
 - Call origination and MVNO access => Considered in a single market
 - Wholesale services provided from different networks => Considered in a single market
 - Internal use of wholesale services by an operator => **Included in the market**

M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Definition
 - Relevant Geographic Market
 - Scope of the Authorization is nationwide
 - Service Provision of operators is nationwide
 - Prices are not differentiated according to geographical location

=> Relevant Geographic Market is nationwide.

M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Analysis
 - Market shares
 - Overall size of undertaking
 - Control of infrastructure not easily duplicated
 - Technological advantages or superiority
 - Easy or privileged access to capital markets/financial resources
 - Product/service diversification
 - Economies of scale,
 - Economies of scope
 - Vertical integration
 - A highly developed distribution and sales network
 - Absence of potential competition
 - Absence of or low countervailing buyer power
 - Barriers to expansion

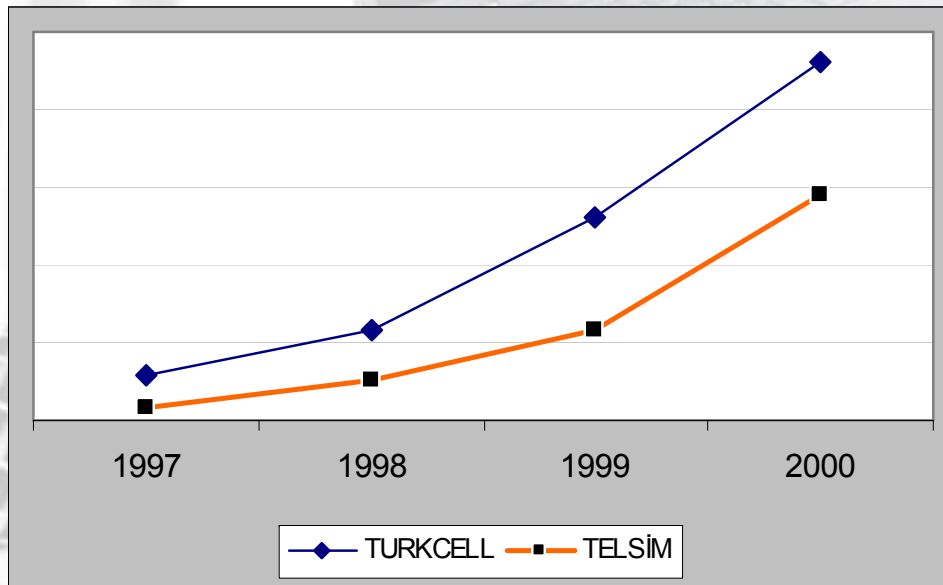
M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Analysis
 - Market shares
 - ARPU levels
 - Absence of potential competition
 - Absence of or low countervailing buyer power

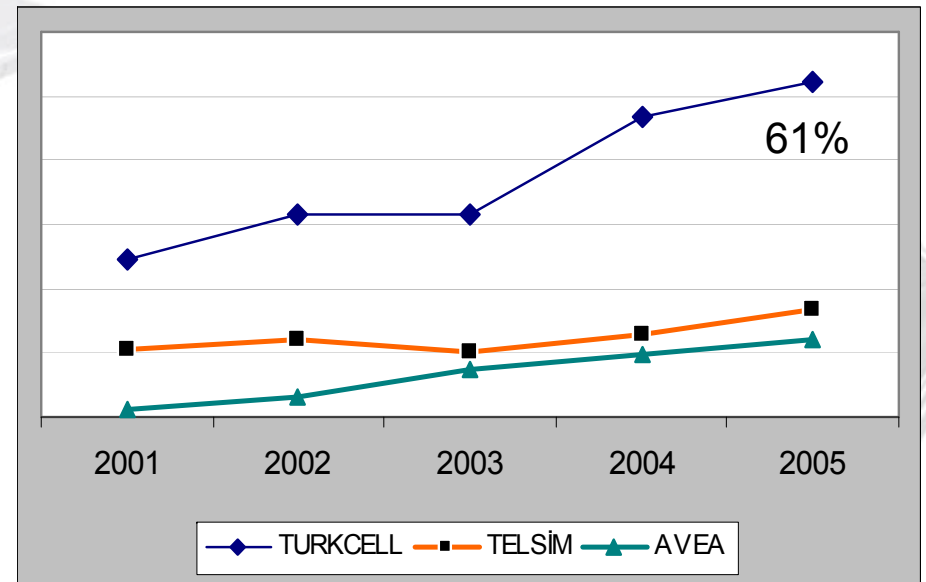


M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Analysis
 - Market shares (number of subscribers)



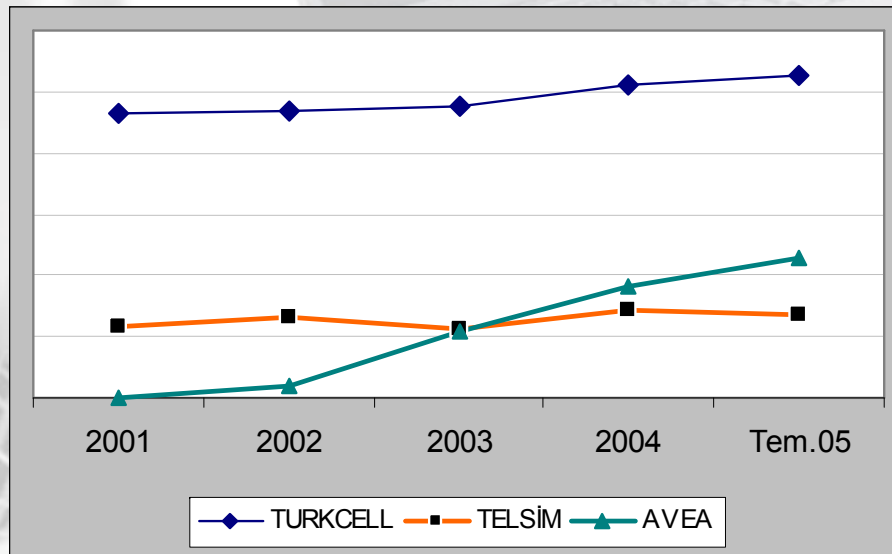
*Breakdown of Number of GSM Subscribers
1997-2000*



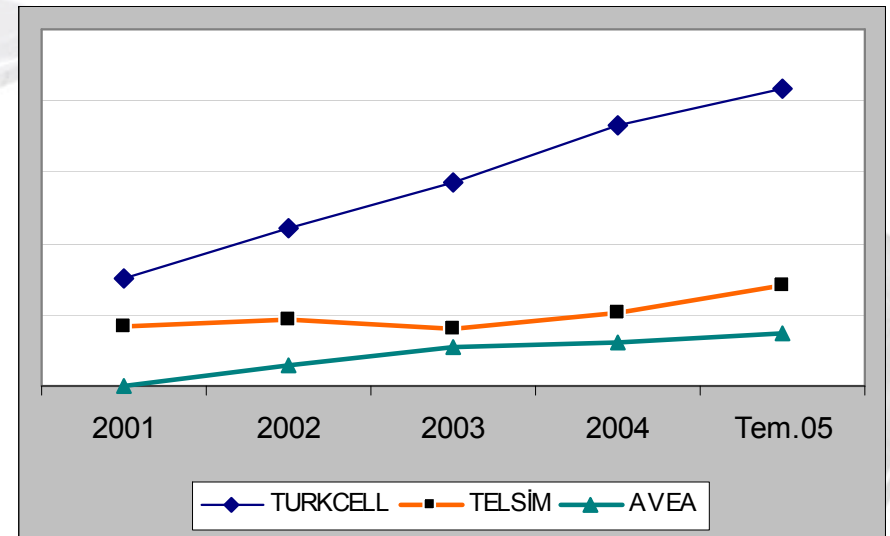
*Breakdown of Number of GSM Subscribers
2001-2005*

M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Analysis
 - Market shares (number of subscribers)



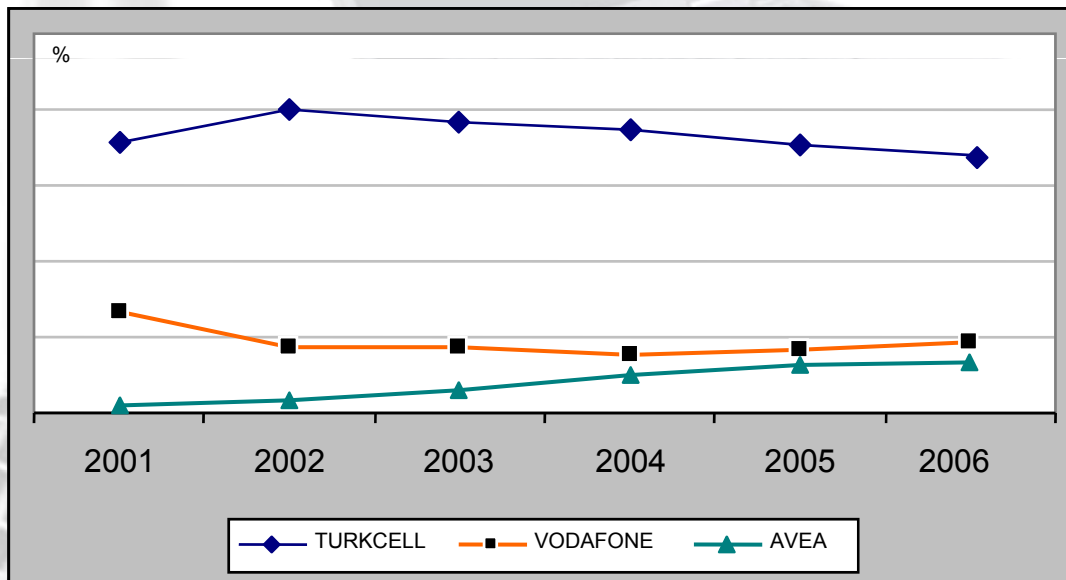
*Number of Post-paid GSM Subscribers
2001-2005*



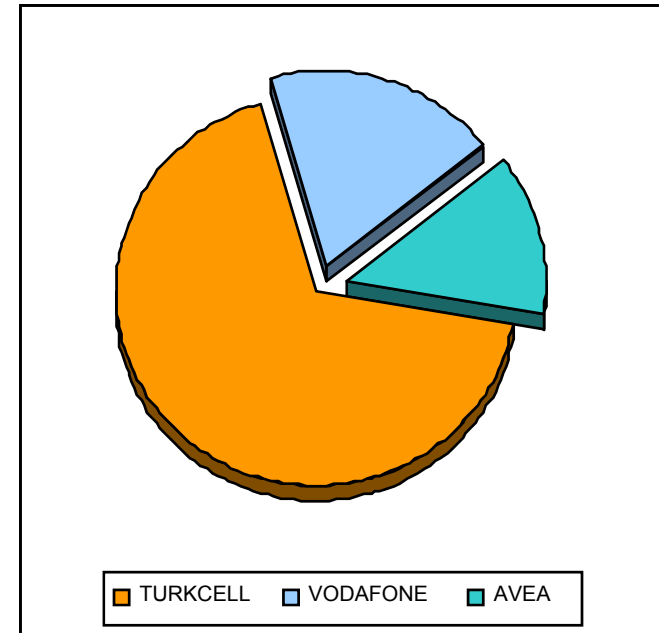
*Number of Pre-paid GSM Subscribers
2001-2005*

M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Analysis
 - Market shares (net sales)



*Progress in Net Sales
2001-2006*



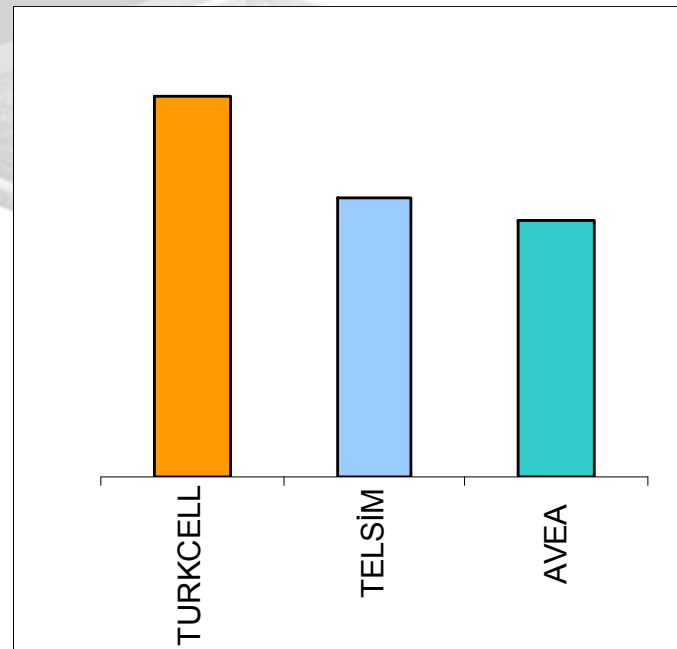
*Breakdown of Net Sales
2006*

M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Analysis
 - Market shares
 - Turkcell has a market share of well-beyond 50% in terms of number of subscribers and net sales
 - Previous progress in market shares indicate that this situation would not change substantially in the short and medium term

M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Analysis
 - ARPU Levels



TA, December 2005

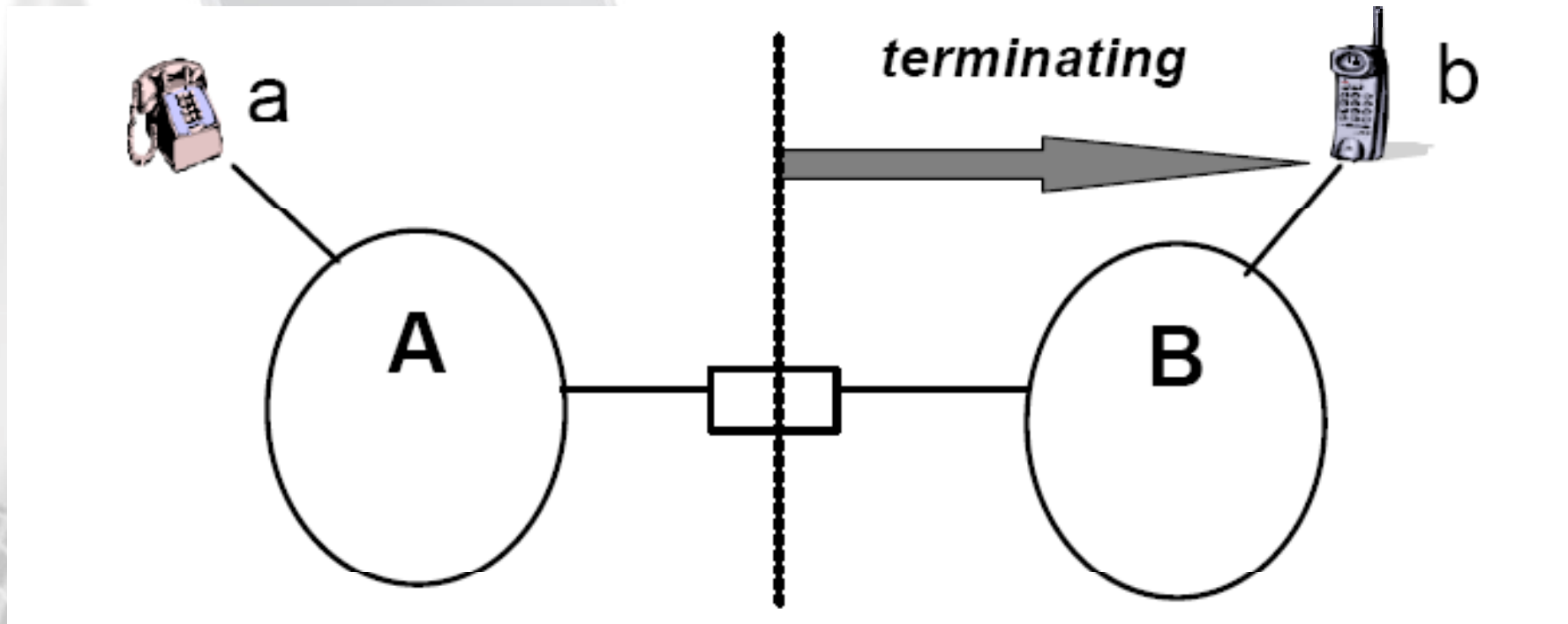
M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Analysis
 - Absence of potential competition
 - Spectrum and economical restrictions makes market entry difficult
 - Absence of or low countervailing buyer power
 - Wholesale customers would have little –if any- countervailing buyer power against current operators in the absence of regulation

M15: Access and Call Origination on Public Mobile Telephone Networks

- Market Analysis
 - Forward-looking assesment:
 - 3G authorizations and number portability may have effects on market structure
 - However uncertainty of timing and consequences of these issues indicate there would not be significant changes in the short term regarding market dynamics.
 - Conclusion:
 - **Turkcell** should be designated as SMP in Market comprising Access and Call Origination on Public Mobile Telephone Networks
 - Decision published in Official Gazette on December 25th, 2006

M16: Mobile Call Termination Market



End user *a* (connected to network *A*) calls end user *b* (connected to mobile network *B*) on his mobile telephone. In order to terminate this call, provider *A* needs mobile provider *B*. Provider *B* therefore provides provider *A* with **the terminating access service**. *A* pays provider *B* the mobile terminating access tariff for this as determined by provider *B*.

M16: Mobile Call Termination Market

- Characteristics of the market
 - Powerful operators
 - Ignorance of the customers
 - Users do not know much about mobile call termination rates
 - High mobile call termination rates

M16: Mobile Call Termination Market

- Calling party pays
- Lack of demand side substitution at the retail and wholesale levels
- Lack of supply side substitution at the wholesale level
- Inability of operators to price discriminate between individual mobile terminals

M16: Mobile Call Termination Market

- No material substitute in both supply and demand side
- Price Inelasticity

In conclusion: *If it is not available an operator can't terminate calls on other operators' networks*

-
- Relevant Service Market: Voice call termination on the networks of each operator
 - Relevant Geographical Market: Nationwide

M16: Mobile Call Termination Market

- Recent Implementation
 - Analyzed mobile call termination market in May 2005.
 - Consultation process completed in June 2005.
 - Assessment of related parties' opinions in July 2005.
 - TA determined all mobile operators as SMP in mobile call termination market on 28 December 2005.
 - Decision was published in Official Gazette and revealed on our web sites.

M16: Mobile Call Termination Market

€cent/m 1€= 1,8751YTL 1.3.2007		Mobile Mobil	Fixed/ Sabit	
			In Zone Alan İçi	Out Zone Alan Dışı
AB-25		11,4	0,86	1,25
Türkiye	Turkcell	2006 7,46 2007 7,25	2006 1,07 2007 1,01	2006 1,97 2007 1,6
	Vodafone	2006 8,1 2007 7,73		
	Avea	2006 9,3 2007 8,9		

Studies on our Agenda

- Draft Electronic Communications Law
- Determination of Principles and Procedures related to handling of Anticompetitive Practices (and complaints)
- Market Analysis for mobile telephony services (2nd Round)



Thank you very much for your attention.

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