

OECD REVIEWS OF REGULATORY REFORM

REGULATORY REFORM IN TURKEY

**REGULATORY REFORM IN THE
TELECOMMUNICATIONS INDUSTRY**



ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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FOREWORD

Regulatory reform has emerged as an important policy area in OECD and non-OECD countries. For regulatory reforms to be beneficial, the regulatory regimes need to be transparent, coherent, and comprehensive, spanning from establishing the appropriate institutional framework to liberalising network industries, advocating and enforcing competition policy and law and opening external and internal markets to trade and investment.

This report on *Regulatory Reform in the Telecommunications Industry* analyses the institutional set-up and use of policy instruments in Turkey. It also includes the country-specific policy recommendations developed by the OECD during the review process.

The report was prepared for *The OECD Review of Regulatory Reform in Turkey* published in November 2002. The Review is one of a series of country reports carried out under the OECD's Regulatory Reform Programme, in response to the 1997 mandate by OECD Ministers.

Since then, the OECD has assessed regulatory policies in 16 member countries as part of its Regulatory Reform programme. The Programme aims at assisting governments to improve regulatory quality — that is, to reform regulations to foster competition, innovation, economic growth and important social objectives. It assesses country's progresses relative to the principles endorsed by member countries in the 1997 *OECD Report on Regulatory Reform*.

The country reviews follow a multi-disciplinary approach and focus on the government's capacity to manage regulatory reform, on competition policy and enforcement, on market openness, specific sectors such as electricity and telecommunications, and on the domestic macroeconomic context.

This report was principally prepared by Takashi Yamada of the Directorate on Science, Technology, and Industry in the OECD. It benefited from extensive comments provided by colleagues throughout the OECD Secretariat, as well as close consultations with a wide range of government officials, parliamentarians, business and trade union representatives, consumer groups, and academic experts in Turkey. The report was peer-reviewed by the 30 member countries of the OECD. It is published under the authority of the OECD Secretary-General.

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Executive Summary

Background Report on Regulatory Reform in the Telecommunications Industry

The telecommunications sector in OECD countries has seen significant regulatory reform in recent years. Twenty-seven OECD countries had, in 2001, unrestricted market access to all forms of telecommunications, including voice telephony, infrastructure investment and investment by foreign enterprises, compared to only a handful just a few years ago. The success of the liberalisation process depends on the presence of a transparent and effective regulatory regime that enables the development of full competition, while effectively protecting other public interests. There is a need to promote entry in markets where formerly regulated monopolists remain dominant and to consider elimination of traditionally separate regulatory frameworks applicable to telecommunications infrastructure and services and to broadcasting infrastructures and services.

Turkey has for the last few years accelerated the process of liberalising its telecommunication markets, influenced by developments in other countries, particularly those in the European Union. Intervention of the International Monetary Fund has had an impact on the most recent acceleration of regulatory reform and the plan to privatise the state-owned monopoly Turk Telekom. As a result of recent regulatory reforms, the first sector specific independent regulator in the country was created as the Telecommunications Authority. The Authority started to operate in August 2000, and the deadline to open up fully the monopoly markets, *i.e.* fixed-line telephony services and infrastructure, was set for the beginning of 2004 (or earlier if and when more than 50% shares of Turk Telekom are privatised). At the same time, a number of new regulations were introduced such as licensing, interconnection, and a dispute resolution mechanism. In short, the institutional and legal frameworks necessary for a liberalised telecommunications market have been put in place at the level of law.

The phase has shifted to concretising and implementing the legal framework. Aware of the need to establish necessary regulations in virtually in every area of telecommunications, the newly created regulator has been putting in place rapidly the essential regulatory measures for fair and effective competition. Nonetheless, there still are a number of issues to be tackled. The licensing regime is incomplete because the level of the licence fees have not yet been determined for all types of telecommunication services and infrastructures, and reference prices need to be adopted for the interconnection regime. Regulation on number portability and carrier pre-selection needs to be prepared. Also price rebalancing needs to continue and universal service regulation needs to be prepared. Mechanisms to handle consumer complaints must be established.

On the other hand, the Turkish GSM mobile market has had competition to some extent, with a duopoly since 1994 and with four operators providing service since 2001. Heavy tax imposition on mobile operators and mobile users is harming this market segment and reducing benefits of competition to consumers.

Turkey needs to take advantage of its delay in opening the telecommunication market to full competition by implementing best practice regulation. This would allow it to leap frog and reach levels of infrastructure development and service provision equivalent to those provided in many OECD countries.

1. THE TELECOMMUNICATIONS SECTOR IN TURKEY

1.1. *The national context for telecommunications policies*

The Turkish economy, as noted in Chapter 1 of this report, had low real GDP growth in the 1990's. This and the severe earthquakes in 1999 were particularly detrimental to the Turkish economy, and had a negative impact on the telecommunications sector.

Despite the difficult economic conditions, and because of the high priority given to telecommunications, the sector has increased its weight in GDP significantly from 1.03% in 1985 to 3.82% in 1999 as measured by public telecommunication revenue.¹ During the same period, the number of telephone mainlines increased by more than eight times from 2.2 million to 18.1 million.² This corresponds to an increase from 4.5 to 27.4 per 100 inhabitants, but despite this growth Turkey still ranked far below the OECD average of 52.8 in 1999 having the third lowest telecommunication penetration rates in the OECD. (These figures became 18.9 million mainlines and 28.3 per 100 inhabitants at the end of 2001.)

Employment in the Turkish telecommunications sector, which was about 90 085 in 1990, had declined to 73 177 in 1997, following a peak of 93 897 in 1993. However, by the end of 1999, the total employment of the sector had increased to 76 769. This increase came mainly from the mobile sector. In terms of a percentage of total national employment, the telecommunications sector declined during the 1990s from 0.49% in 1990 to 0.36% in 1999, the second lowest ratio among OECD countries. Public telecommunication revenue per employee in Turkey has increased by a large amount from USD 22.9 thousand in 1990 to USD 92.0 thousand in 1999, but is still one of the lowest relative to the other OECD countries (the OECD average was USD 271.7 in 1999). This increase reflects the rapid growth in new subscribers during the period.

The incumbent, Turk Telekom had net revenues of TRL 1 527 trillion (or USD 3 651 million) in 1999, placing it in the 29th position among the major public telecommunications operators in the OECD area as measured by revenues. Its net revenue by 2001 had increased to TRL 4 660 trillion (or USD 3 659 million).

1.2. General features of the regulatory regime, telecommunications market and market participants

1.2.1. Development and liberalisation of telecommunications in Turkey

The main steps in the development and liberalisation of the telecommunications sector in Turkey are shown in Box 1.

Box 1. Important events in the liberalisation of the telecommunications sector in Turkey

1994 (June): The state-run monopoly Posts, Telegraphs and Telephone (PTT) was divided into the General Directorate of Posts to provide postal and telegraph services and Turk Telekom created as a state company to provide telecommunications services with some regulatory power (*e.g.* to propose issuing licences to private sector firms). Other regulatory functions were kept with the Ministry of Transport.

1994 (June): A new law was enacted to allow 49% privatisation of Turk Telekom.

1994: Two GSM 900 mobile operators (Turkcell and Telsim) and cable TV operators started operation under revenue sharing agreements with Turk Telekom.

1995: Regulation to liberalise value added telecommunication services was put in place.

1997: Turkey made commitments under the GATS agreement on basic telecommunication services to liberalise the Turkish basic telecommunication services market by 2006.

1998 (April): Revenue sharing agreements of the two mobile operators were transformed to 25-year licences issued by the Ministry of Transport.

1999 (April):	The government's new economic programme included the decision to enact new regulations that allowed Turk Telekom to act as a commercial entity with a fixed-line monopoly until the end of 2004, and the establishment of a telecommunications regulatory body.
2000 (January):	Parliament passed Law 4502 to reform the telecommunications sector after six years of preparation and delays, which established an independent regulator of five board members. The law also provided to end the monopoly of Turk Telekom by the end of 2003.
2000 (June):	The government offered on tender a 20% block sale of Turk Telekom to strategic investors, but received no applications.
2000 (April to August):	Two GSM 1800 licences were tendered, and Is Bankasi-Telecom Italia consortium (Aria) was the only successful applicant. Turk Telekom was awarded a GSM 1800 licence separately at the same price as Aria's licence.
2001:	The two GSM licensees started operation (Aria in March and Aycell-Turk Telekom in December).
2001 (May)	Parliament passed Law 4673 and provided how Turk Telekom should be privatised. It also transferred the mandate to issue all kinds of authorisations from the Ministry of Transport to the Telecommunications Authority. It also provided to end the monopoly rights of Turk Telekom even prior to the end of 2003 if and when more than 50% of its shares are privatised.
End of 2003:	Final deadline to end the monopoly of Turk Telekom in fixed line telephony services and infrastructure. ³

As was the case in many OECD countries in the past, Turkey's telecommunications networks and services were developed and offered directly by the national government through "Posts, Telegraph and Telephone (PTT)",⁴ which was a state monopoly created based on the argument that the sector was a natural monopoly. This regime continued until 1995 and the "Telegraph and Telephone Law 406" of 21 February 1924 had long provided legal basis to it.

Major regulatory and structural changes at the global level, among others those of the European countries, towards the liberalisation of telecommunications markets affected Turkey as well. In Turkey, a major structural change toward liberalisation started with enactment of Law 4000 in June 1994 to divest telecommunications services from the direct involvement of the government by establishing Turkish Telecommunications Inc. (Turk Telekom) as a state economic enterprise.⁵ With this law, it was made possible to privatise 49% of the company (details of the privatisation process of Turk Telekom is provided in the next subsection).⁶ At the same time the mobile telecommunications market was opened to limited competition when the two mobile operators of GSM 900 started business under revenue-sharing agreements with Turk Telekom (these agreements are described below). These were Turkcell and Telsim. Also, Internet service providers started to appear under service contracts with Turk Telekom. Further steps towards liberalisation were taken by amending some parts of Law 4000⁷ to liberalise part of the market of value added telecommunications services. The change this time introduced a licence system of such services including mobile telephone services. The authority to issue the licences was entrusted to the Ministry of Transport but it could do so only upon the proposal of Turk Telekom. Under this system, the two GSM 900 operators were granted a licence with a 25-year term in 1998.

The next big change came in January 2000 with the enactment of an amending law called Law 4502⁸, which separated policy-making and regulatory functions of the government by establishing an independent telecommunications regulatory body, the Telecommunications Authority, as the first sector specific regulator in Turkey. As a result, regulatory functions of the Ministry of Transport were transferred to the Authority in principle⁹, and the General Directorate of Radiocommunication, a government body in charge of radio frequency management under the Wireless Law (Law 2813, 7 April 1983), was abolished and all of its functions were transferred to the Telecommunications Authority.

In addition, the new amendment released Turk Telekom further from the state control by changing its status as state enterprise and according it with independence in business operations.¹⁰ This change of Turk Telekom's status was made together with a decision to end its monopoly in fixed voice telephony four years later, *i.e.* on 31 December 2003, and to let the company prepare for competition thereafter. This amendment law of January 2000 also meant liberalisation of telecommunications services outside the scope of Turk Telekom's monopoly under a licence system by the Ministry of Transport.

A further development came in May 2001 with another amending law (Law 4673)¹¹, largely as a result of pressure from the International Monetary Fund (IMF), who had included accelerated and complete privatisation of Turk Telekom in its pre-conditions for releasing its suspended financial aid, having faced two unsuccessful attempts to sell Turk Telekom's shares to international strategic partners. One of the major changes was transferring more responsibility from the Ministry to the national regulatory authority, the Telecommunications Authority. For example, the authority to determine terms and conditions of licences, and to issue or revoke them were transferred to the regulator. Another change related to the privatisation of Turk Telekom. This new law 4673 allowed 100% privatisation of the company except for a so-called "golden share" reserved for the government to address security and public interest concerns.

The aim of the golden share is to provide the State with rights of approval in the decision making of the Board in order to protect national interest concerning the economy and security. It also includes a voting right and an approval right on important decision making of Turk Telekom, such as amending the articles of association, establishment of new companies, being a party to international agreements, and transfer of certain shares, from the perspective of securing national interest. The Undersecretariat of Treasury, which is a member of the Board of Directors of Turk Telekom wields the golden share.

Furthermore, the law provided a possibility of opening up completely the monopoly market earlier than 1 January 2004 if, and when, the government reduces its share in Turk Telekom below 50%. Another important provision was the introduction of foreign ownership restrictions on Turk Telekom, which was set at 45% thus allowing majority foreign ownership.

1.2.2. Privatisation of Turk Telekom

Privatisation of Turk Telekom has been a major focus not only of the liberalisation of the Turkish telecommunications market but also of the overall economic reform of the country. It has been a condition imposed by the IMF for release of its remaining finance, and has attracted political and international attention as one of the indicators to evaluate the progress of the economic reform in Turkey.

Based on Law 4000 of June 1994 that allowed up to 49% of Turk Telekom to be privatised, a new law (Law 4107) was enacted to provide further frameworks for the privatisation of the company in May 1995. The main reason for Law 4107 was to provide a break-down of how the 49% was to be privatised: 10% to the General Directorate of Posts for free, 34% to strategic and institutional investors, and 5% to Turk Telekom's employees and small investors. However, some of the articles that granted the Privatisation Administration the authority to undertake the privatisation of Turk Telekom were invalidated

by the Constitutional Court, which necessitated the enactment of another law (Law 4161 of August 1996). As a result the mandate of the Privatisation Administration was limited to making a proposal regarding the sale strategy, and the authority for the approval of the sales strategy was granted to the Council of Ministers.

Following Law 4161, the government proceeded with two phased privatisation strategy: the first phase was called “Sector Reform and Company Valuation” and the second “Actual Execution of the Sale”. The first phase consisted of a detailed analyses of the telecommunications sector and the value of Turk Telekom, including developing a sales strategy. A Value Assessment Committee was established for this purpose, and the Committee submitted its proposal to the Council of Ministers for its approval in February 1998. According to this plan, 20% of the shares were to be privatised via block sale to a strategic partner, followed by a public offering of 19%.

The process then shifted to the second phase to sell the shares under the responsibility of the Tender Committee. The first tender for the 20% block was offered on 13 June 2000. The attached conditions specified that the block would be sold to a strategic core investor consortium that had to have one or more international basic telecommunications operators representing the majority within the consortium. Some management rights were attached to this block. This strategy aimed to benefit from expertise and experiences of a global telecommunications operator. Although interest was expressed by domestic institutions for this block, there was no bid from international telecommunications operators by the closing date of 15 September 2000, and the Tender Committee had to open a second tender on 14 December 2000. This time 33.5% of the shares with increased management rights were offered, but again despite interest from Turkish conglomerates international interest was not sufficient to attract bids.

There were both domestic and international factors behind these unsuccessful attempts to privatise Turk Telekom. Despite having a potentially large telecommunication market with a large population, there were concerns over the improvement of Turkey’s economic conditions in general. There were also concerns on the competitiveness of Turk Telekom in its core business, fixed telephony, arising from a high cost structure and other internal factors. The Turkish telecommunications market was also seeing growth in the mobile market where the number of mobile subscribers was catching up with that of the fixed PSTN. Design of a limited management control attached to the tendered shares was not attractive enough to possible strategic foreign investors. Particularly the government’s right to veto major board decisions did not satisfy investors. The government moved to providing a successful bidder with the right to nominate the chief executive and veto board decisions in the second tender, but this was not successful either. Difficulties in attracting foreign strategic partners was also due to the high debt levels many of these companies had incurred during 2000/2001 resulting in a number of global companies reviewing and retreating from international expansion and investment.

Faced with these difficulties and from further pressure by the IMF, Turkey moved to enact new legislation, Law 4673 dated 23 May 2001, which aimed to raise the attractiveness of Turk Telekom and the Turkish telecommunications sector (the main changes of this law were provided above). This law revised the sale strategy of Turk Telekom’s shares, according to which 5% of the shares were to be sold to small domestic investors and employees of Turk Telekom and the Postal Administration through a domestic public offering instead of free offer of 10% to them after a successful sale to a strategic consortium. For the remainder of the shares, the sales strategy will be determined by the Council of Ministers by April 2002 together with clarification on the scope of the golden share. In addition the new law 4673 changed the composition of the Tender Committee to have two members from the Ministry of Transport, two from the Privatisation Administration, and one from the Undersecretariat of Treasury (the former composition was each of five members from the Undersecretariat of Treasury, Privatisation Administration, Turk Telekom, Capital Markets Board, and Ministry of Transport).

1.2.3. *Application for acceding to the European Union*

Turkey has applied for EU membership for a number of years already. Although no date has been set for the final accession, sustained intention by Turkey for accession has been one of the main drivers for a structural change in telecommunications. Turkey has been working to align its law with those of the European Union for a number of years already preceding the most recent financial crisis and the IMF intervention. When Turkey enacted laws in telecommunications, and in other areas, it has tried to ensure that a new law is in line with EU regulations. Amending Laws 4502 and 4673 that established the independent telecommunications regulator and provided a framework for the privatisation of Turk Telekom and the introduction of competition could be understood in this context as well as pressure from IMF.

Telecommunications regulations have also been made incorporating relevant EU decisions and directives. For example, the Tariff Ordinance provides the principles of efficient cost-based, fairness, non-discrimination, transparency, and no cross-subsidisation, as provided by the EU Tariff Directive. Likewise, the Telecommunications Authority is preparing regulations on licensing regime, interconnection, national roaming, numbering, and number portability harmonised with the EU *acquis*.

For Turkey, its short and medium term priorities in respect of the Accession Partnership in telecommunications field are as follows:

Short term:

- Align with the EU *acquis* in areas of licensing and universal service; further refine liberalisation needs;
- Strengthen the capacity building of the independent regulator, *i.e.* reinforce its ability to implement regulations:

Medium Term:

- Complete the transposition of Community legislation;
- Develop a comprehensive policy for the entire communications sector.

In addition, the Competition Authority and other relevant institutions have put emphasis on the telecommunications sector to harmonise it with the EU competition practices and recommendations.

1.2.4. *Impact of IMF intervention to Turkish telecommunications sector*

While the regulatory and structural changes in the European Union have constantly had a big impact on the changes in Turkey, the recent economic crisis and subsequent involvement of the IMF and World Bank had a more direct impact in the recent structural reform. In telecommunications, such direct impact could be observed in the accelerated process of market liberalisation and privatisation of Turk Telekom through Law 4502 of January 2000 and Law 4673 of May 2001. These laws that brought in, the most notably, 100% privatisation of Turk Telekom and the deadline (end of 2003 or earlier) to fully open up the fixed line market might not have been possible without having been made conditions to release the IMF support loans. In addition, the IMF request to nominate persons from private sector to the executive board of Turk Telekom resulted in debates at the highest level of the Turkish government during the middle 2001, reflecting different orientations of different political parties. As a result, one person with experiences in the private telecommunications sector became the deputy chairman of the executive board.

1.2.5. Telecommunications market and participants

There is at present one fixed-line telephone operator (Turk Telekom) and four mobile phone operators in the Turkish telecommunications market. However, Turk Telekom in the fixed telephony and Turkcell and Telsim in mobile sector represent a large part of the Turkish telecommunications market at present. Table 1 shows major telecommunications operators and the number of residential and business customers.

Table 1. Major telecommunications operators in Turkey

	Operator	Number of subscribers (as of)
Fixed Line Market	Turk Telekom	18.9 million (as of end 2001)
Mobile Phone Market	Turkcell	11.8 million (30 September 2001)
	Telsim	Over 6 million (30 June 2001)
	Aria (Is-Tim: joint venture by Isbank and Telecom Italia Mobile)	0.5 million (October 2001)
	Aycell (owned by Turk Telekom)	50 000 (December 2001)
Cable Television Market	Six operators with revenue sharing agreements with Turk Telekom	908 000 (total: end of 2001)

Source: Turk Telekom, Turkcell, Telsim, Aria, Aycell.

Turk Telekom's revenue grew by 60% (from TRL 1 527 trillion to TRL 2 447 trillion) between 1999 and 2000 in nominal terms (in terms of US dollar, the figures correspond to USD 3.6 billion and USD 3.9 billion respectively). The increase was driven primarily by expansion in its fixed telephony business. Turk Telekom's fixed line retail call traffic, which stood at 125.5 billion minutes for local and long distance calls and 732 million minutes for international calls in 2000 decreased by 8.1% and 7.6% respectively during 2001.

In contrast to the monopoly in fixed telephone services and infrastructure, competition has already been introduced in GSM mobile services since 1994, a duopoly of Turkcell and Telsim at first then another two operators (Aria and Aycell) since 2001.¹²

The largest GSM operator, Turkcell, was founded by a consortium of a major Turkish conglomerate Cukurova Group and Finland's Sonera. Cukurova currently has 42.3% and Sonera 37.1% (the rest are publicly traded). The second largest Telsim is owned by a Turkish group. A third GSM licence was tendered in 2000 and a joint venture of a Turkish bank Isbank (having a 51% share) and Telecom Italia Mobile (TIM: having the rest) called Is-Tim (Aria is a brand name) bid successfully with USD 2.25 billion. This unexpectedly high bid was criticised by many in the industry on the grounds that Is-Tim's offer was aimed at preventing a fourth GSM operator from entering the market; the tender for the fourth licence had been planned after the third with a condition that the minimum bid had to be the same as the amount paid by the third operator. In fact, no bid was made for the fourth GSM licence (GSM-1800). The last entrant was Aycell (a subsidiary of Turk Telekom), which was granted the fourth licence at the same price with Is-Tim. This is a unique and positive aspect of the Turkish GSM mobile market because unlike other OECD countries, a subsidiary of the incumbent company in fixed telephony entered the market after other operators particularly the first two established good customer bases.

There are some concerns over Aria's large financial burden largely linked to its huge payment to obtain the licence and the continuing devaluation of Turkish lira. The situation seems different for Aycell because it has Turk Telekom as its parent company. In any case, the mobile sector seems to hold bright prospects characterised by a rapid growth in the number of subscribers in recent years. Some might point out that income level is relatively low and mobile telephone tariff is still expensive for ordinary citizens.

But the cost of taking up mobile phone in Turkey is kept unnecessarily high partly because of heavy taxes (see below). However, considering the large market size of the country and the current level of penetration, there still is a large scope for the development of the mobile market.

Also, late entrants usually can enjoy the advantage of the latest technologies whereas earlier entrants need to incur costs of upgrading. On the other hand the two new entrants (Aria and Aycell) have to rely on roaming arrangements with the incumbent operators (Turkcell and Telsim), but reaching agreement has been difficult as seen later.

The number of cellular mobile subscribers reached around 19.2 million by the end of 2001, corresponding to a penetration rate of 28.7%. Of the four mobile operators in the Turkish market, Turkcell is the largest with 11.8 million subscribers in September 2001. As shown below, Turkcell has had around 70 to 75% market share in terms of the number of subscribers in the duopoly market, but as two new entrants, one of which is a Turk Telekom's subsidiary, started operation in late 2001, this dominant position of Turkcell is likely to be weakened.

No decisions have yet been taken regarding UMTS licences in terms of timing of the introduction, number of the licences, method to award them, and other related issues, but the Telecommunications Authority plans to make such decisions after conducting a market analysis.

In contrast, new forms of mobile service providers such as airtime resellers, indirect access providers, and mobile virtual network operators (MVNOs) have already caught the interest of the Telecommunications Authority.

The Telecommunications Authority is also considering a possible introduction of asymmetric regulation by designating certain operators as having significant market power (SMP) and making them subject to additional obligations to control the exercise of their market power. This step would be in line with the EU Open Network Provision (ONP) Directive.

Cable television services started as a pilot project of Turk Telekom in Ankara in 1989, then in 1991 the operation in nine major cities¹³ were tendered to private companies. By 1998 cable television services had been expanded to 20 cities and such operations had been transformed into revenue sharing agreements for 10 years between the cable TV companies and Turk Telekom. Revenue sharing rates differ in each agreement, but some examples show that around 30% of revenue is for the operating company and around 70% is for Turk Telekom, although each operator has the responsibility to make necessary investment and maintenance without possible acquisition of the ownership of the network.

Currently there are 6 companies who have revenue sharing agreements, all of whom have a monopoly in cable television infrastructure in their respective area of operation. Their infrastructure as a whole is capable of supplying services to approximately 2.2 million subscribers. But the actual number of subscribers is still around 900 000 in total. Digitalisation of cable TV broadcasting is progressing with installation of digital head-end equipment in major cities and interactive services such as pay TV, home shopping, and home-banking have started through agreements between Turk Telekom and some companies. The Telecommunications Authority is issuing licences to satellite platform operators to allow these types of services. Also Internet services over cable networks have started with Turk Telekom as the ISP and there are around 8 000 subscribers.

2. REGULATORY STRUCTURES AND THEIR REFORM

2.1. *Regulatory institutions and processes*

2.1.1. *Communications Supreme Board*

The Communications Supreme Board is the superior board consisting of the Minister of Internal Affairs, the Minister of Transport, the Secretary General of National Security Council, the Undersecretary of the National Intelligence Organisation and the President of the General Staff Electronic Communication. The Prime Minister or a State Minister authorised by the Prime Minister is the chairperson and calls the meeting. The Communications Supreme Board meets a few times a year in case of a need.

The Board's responsibilities are to make suggestions to the Ministry of Transport regarding wireless communication and to follow up the activities in this respect. The Secretariat of this Board is designated to the General Directorate of Communications in the Ministry of Transport.

2.2.2. *Ministry of Transport*

The Ministry has the following main responsibilities in telecommunications sector as defined by law (Law 3348):

- To determine the essence and principles for establishing and developing telecommunications services in accordance with technical, economic and social requirements, national security goals, and benefits of public, complementing each other.
- To determine the demands and requirements for communications services and co-ordinate them.
- To regulate, investigate, and co-ordinate implementation of the communications services provided by public entities, municipalities, and national or foreign persons, except those that fall within the Telecommunications Authority's responsibilities.
- To participate in the activities of international organisations and associations related to communications in which Turkey is a member, and to follow and ensure implementation of their decisions; and
- To monitor developments of manufacturing of communications equipment.

In short, the Ministry is responsible for policy and its former regulatory functions have been transferred to the Telecommunications Authority.

There are around thirty staff members who work for the telecommunications sector in the Ministry. This seems to be relatively large considering that a large part of policy work – even drafting law – is now carried out by the Telecommunications Authority as it is the Authority that makes proposals as a matter of practice in many cases.

2.2.3. Telecommunications Authority

The Telecommunication Authority was created by the law of January 2000 as the first sector specific independent regulatory body in Turkey, and commenced its operation in August 2000. Its decision making body, called the Telecommunication Board, comprises five board members; one president and four members, all of whom are appointed by the Council of Ministers for a period of five years with a possibility of re-appointment. The members' status is legally protected from political interference, but they can be dismissed by the Council of Ministers on the grounds of inability to work due to an abuse of their duty, or conviction of certain crimes.

The selection procedure of the Board members is somewhat unique relative to other OECD countries¹⁴. The president, the member representing wireless services, and the member representing telecommunications services, are elected from among two candidates to be nominated to each post by the Ministry of Transport. The member representing the telecommunications sector is appointed from among candidates to be nominated by operators and manufacturers with 10% or more market share in their respective telecommunications market. Each operator can nominate one candidate regardless of its market share. The other member representing consumers is elected from among two candidates to be nominated by the Ministry of Industry and Commerce and the Turkish Association of Chambers and Exchanges. Decision making of the Board is done through majority votes among members.

Nomination of two or more candidates for each member of the Board makes the process of appointment transparent. Also, problems associated with representation of certain interests in each member could be avoided by using majority voting to make decisions. On the other hand, nomination of candidates for the member representing consumers by industry representatives could be questioned.

The Authority's main responsibility is the regulation of the telecommunications sector as defined in law, which includes issuing licences, supervising activities of entities in telecommunications sector and taking necessary technical and administrative measures against violations of the rules. Specific areas of responsibility include:

- To implement a frequency plan and to supervise compliance with it by telecommunications and broadcasting operators.
- To implement and to issue concession agreements, licences, and general authorisations.
- To establish regulation on tariff, contracts between service providers and users, interconnection, and other issues within its mandate, and to monitor their implementation and compliance.
- To impose administrative fine of up to 3% of the annual turnover of an operator found to be in breach of certain regulation and licence conditions.
- To determine and implement performance standards of telecommunications system and equipment.
- To investigate any relevant matters including anti-competitive behaviour, either upon its own initiative (*ex officio*) or upon complaints, and to require necessary information and documents.
- To take necessary measures to protect consumer interests.

- To provide opinions to all decisions of Competition Authority in telecommunications, before they are made, including those on mergers and acquisitions.
- To determine guidelines and procedures regarding interconnection including determination of responsible operators for providing interconnection, to monitor the compliance, and to determine specific conditions and tariffs of interconnection agreements in case parties involved failed to reach them within three months.
- To determine methods to decide tariffs including those of leased lines, and price caps.

In carrying out these responsibilities, the Authority has to take into account the main objective stated in law, that is, “to take the necessary promoting measures to ensure that the services and activities of producers and traders of telecommunication apparatus and equipment are realised in Turkey in a completely competitive environment”.¹⁵

The Authority has partly broader and partly narrower responsibilities than its counterparts in other OECD countries. It has the authority to prepare telecommunications regulations such as on tariffs, interconnection, and quality of service. It also has the authority to supervise compliance of market participants with regulations and licence conditions, and to impose administrative fines in certain cases. The latter power is, in view of experiences in other OECD countries, important.

Furthermore, the Authority is authorised by law to:

*Take necessary measures in order to undertake national security, public order or public services as necessary, to have the possession of facilities in return of compensation when necessary.*¹⁶

This mandate was transferred to the Authority from the Ministry of Transport by the law of May 2001. A regulator having such broad and strong power is unique among OECD countries because this is a public policy or possibly a highly political matter and exercise of such discretionary power need democratic control rather than left to an independent regulator. In this sense, this mandate of the Authority is too broad and should be reconsidered. At least conditions and criteria to apply this provision should be clarified at the governmental level. In addition this contrasts sharply with the involvement of the Communications Supreme Board when it comes to matters of radiocommunication as seen above.

Licensing authority was transferred to the regulator from the Ministry in May 2001. This authority includes determining terms and conditions of issuing, supervising the compliance with, and revoking all types of telecommunications licences with some exceptions. One such exception is that minimum values of the licence fees are determined by the Council of Ministers upon the regulator’s proposal [see below for further discussion on this matter]. Another exception is that in case of concession agreements, the regulator prepares plans, but they have to be approved by the Council of Ministers upon proposal of the Ministry of Transport.

The law states that the Authority is “an independent budget entity having public legal personality and administrative and financial autonomy” and is “independent while performing its duties”.¹⁷ The properties of the Authority such as the funds and documentation are regarded as State properties and its revenues are exempted from all kinds of taxes, duties and levies.

The Authority is financed by 1) fees to be received in accordance with Article 27 (namely fees for licence and renewal of licence for wireless usage, fees for amateur telegraphy certificate and operator certificate of competence, and fees for technical inspection, auditing, control and related services), 2) 0.05% of the fees and other agreed fees to be received as a contribution from operators, 3) Test fees in

granting a licence, 4) revenues from sales of publications, 5) revenues from consultancy services, seminar and training activities, 6) aids from the general budget when required, 7) attorney's fees to be granted, 8) administrative fines imposed by the Authority, and 9) other contributions and revenues. According to 2002 Budget Law, surplus revenues of regulatory authorities, including the Telecommunications Authority, are transferred to the General Budget at ratios determined by the Prime Minister. For the Telecommunications Authority this ratio has been set at 50%.

Its financial accountability is ensured by inspection of a commission comprising members from offices of Prime Ministry Inspector, Prime Ministry Supreme Auditing Council, and Finance Inspector; who are selected by the Prime Ministry (Law 4743 dated 30 January 2002).

It is noteworthy that the Authority is empowered to investigate either at its own initiative (*ex officio*) or upon complaints matters related to telecommunication, which cover anti-competitive behaviour, plans and applications. Moreover, it is mandated to request provision of information and documents in this respect. The law also requires that before the Authority can issue regulations or take any other general administrative action, it shall ensure that interested parties have an opportunity to submit representations which are publicly disclosed for interested parties' comments.¹⁸ It is also stipulated in the law that the Authority shall take necessary measures to protect consumer interests.

The Telecommunications Authority has the following main functional departments:

- Tariffs Department.
- Licence and Agreements Department.
- International Relations and EU Co-ordination Department.
- Sectoral Competition and Consumer Rights Department.
- Spectrum Management Department.
- Spectrum Monitoring and Control Department.
- Technical Regulations and Standards Department.
- Sectoral Research and Strategies Department.

The Authority has been staffed mainly by former staff of the Ministry of Transport (the majority are frequency management experts from the former Directorate General of Radiocommunications) and from Turk Telekom. The Authority now operates with just under 400 staff, whereas it is mandated to have up to 550 by law. Spectrum management and monitoring and technical departments have the largest number of staff members. There are difficulties in obtaining staff with regulatory expertise. In view of the introduction of full competition in the fixed line market in less than two years it is important that the Authority ensure that adequate resources are available.

Recruitment of staff has been one of the major managerial issues for the Authority. This issue is not foreign to most regulators in the OECD, but the Turkish regulator has its particular restriction in this regard in that it can employ its staff only from the civil service and there are also restrictions imposed in terms of salary levels. These restrictions limit the Authority's independence and flexibility. For example, if the Authority wants to recruit someone who has years of experience in telecommunications to a middle level post from private sector, he or she first has to pass the civil service examination and moreover has to

start his or her career from the lowest level in the Authority. Taking into account that the private sector will increase its own demand for experienced staff with better salaries and benefits, the regulator is likely to have difficulties in attracting capable staff. As the regulator will not be able to match the private sector in the salary level, Turkey should at least provide the Authority with flexibility in recruitment so that the country can benefit from human resources and expertise outside the public sector. One way to overcome such rigidities for the moment could be resorting to outside consultants for high quality expertise in certain specific issues. But in the long run, it is essential to develop internal experts. It should be noted that the Competition Authority and the Energy Board have more flexibility in this regard. These institutions are authorised to design their own human resource and recruitment plans and are free to recruit their staff.

2.2.4. *Relationships between the Ministry and the Telecommunications Authority*

Turkey has been aware of the necessity for close co-operation between the two organisations, and outlined their relationships in the law. Following are some examples:

- Plans regarding authorisation of telecommunications services and infrastructure undertaken by concluding concession agreements must be prepared by the Authority. Then the Ministry proposes it for the approval of the Council of Ministers, and the Authority implements them.
- The Authority prepares necessary plans regarding radiocommunication and telecommunications (e.g. a frequency plan), and presents them to the Ministry. Also the Ministry can request the Authority to present necessary information to the Communications Supreme Board.
- The Ministry nominates two candidates for each of the Chairman, a member representing radiocommunication services, and a member representing telecommunication services of the Board.
- Salaries of Board Members of the Telecommunications Board are determined by the Council of Ministers upon the proposal of the Minister of Transport.

2.2.5. *Accountability*

The Telecommunications Authority is accountable in general to the Parliament (Turkish Grand National Assembly) directly rather than to the Ministry of Transport or the Council of Ministers. However, a new Law 4743 dated 30 January 2002 formalised the Authority's practice, and it is now required legally to submit its annual report to the Council of Ministers by the end of each May, covering its activities, performance, plans, and finance of the year. At the same time, this new law requires that the Telecommunications Authority provide information about its activities to the Planning and Budgeting Commission of the Turkish Grand National Assembly annually.

2.2.6. *Review of TA's decisions*

Turkey has an administrative court system and parties contesting the Authority's decisions could turn to it not only for review of procedural aspects of the decisions but also for review of substance. More specifically, there are two levels within the administrative court; the administrative court of the first instance, and the supreme administrative court called the Council of State. A decision of the Authority has a possibility to be challenged up to the latter level. Appealing to the administrative court does not

automatically stop implementation of the original decision and instead the question of suspension or implementation while the matter is in court is decided for each case.¹⁹ This arrangement helps reduce tactical appeals aimed at delaying the implementation of the decision. However, one or two years, or sometimes more, is often necessary to complete the judicial process and costs can be prohibitive to enterprises. Since the telecommunications sector is dynamic and rapid response in regulatory environment to the changing conditions is important, speeding up the generally lengthy process of judiciary is necessary.

2.2.7. *Decision making process*

Telecommunication regulators in many OECD countries use public consultation as an integral part of their decision making process. Such consultation helps to improve transparency and to improve decision-making by reflecting a wide range of views.

In this respect, both the Telecommunications Authority and the Ministry of Transport use a so-called “green paper” approach (public consultation through publicising a draft policy or decision inviting comments and suggestions from interested parties) extensively although there is no such requirement in the relevant legislation.

As an example, Five-year Development Plans, basic plans and policies in all sectors in Turkey, and their annual programmes are first prepared by representatives from all government ministries, other relevant public bodies, universities, and NGOs. Then when necessary draft laws are prepared by responsible ministries. They are submitted to all ministries, relevant public authorities and NGOs for comments to finalise the drafts to reflect the comments received. The final versions are submitted to the Prime Ministry to be proposed to the parliament (Turkish Grand National Assembly).

To focus on the Telecommunications Authority, it has been working to establish an advisory organisation provisionally called the Telecommunications Policy Council for the purpose of helping the Authority develop strategies and make decisions which reflect a wide range of views. Its concrete composition including its status and its involvement in the formal decision-making is still under discussion. Its membership is likely to have the regulator itself, Turk Telekom and other telecommunications companies, cable companies, lawyers, etc. Having such an advisory organisation bringing together interested parties could improve the quality of the Authority’s decisions as well as their effective and smooth implementation through better informed preparation by those who have to act based on the decisions of the regulator. This also enhances transparency of the internal process. However, of concern at this stage is that it is not envisaged at this stage for the planned advisory body to have a representation of consumers on its membership. Although there is no consumer organisations specialising in telecommunications sector in Turkey, there are general consumer organisations and they should be involved in view of the fact that consumers are the most affected by the Authority’s decisions in many cases.

In fact, a difficult challenge is how to better reflect consumer interests effectively in the public consultation procedures. The general public, consumer groups, and small and medium enterprises are usually provided the same opportunity to comment on a range of issues through public consultation. However, partly because of their lack of expertise in specific areas, and partly because in many cases these groups may not be well organised, these groups generally perceive that their views are not given sufficient weight in the consultation process, although they are often the most widely affected by the decisions. The Telecommunications Authority would need to help them actively in this respect. For example, they should consider inviting consumer groups to meet with them and drawing their attention to consultations of particular interest to consumers so that the consumer groups are encouraged to respond to the consultations with better knowledge.

2.2.8. *Co-operation with the Competition Authority*

The transition of the telecommunications market from monopoly to competition has been accompanied by increased involvement of competition authorities in this sector throughout the OECD. In Turkey, the Competition Authority, as the agency responsible for enforcing the Turkish competition law, is mandated to take action against anti-competitive practices in all sectors of the economy. Also, merger of two or more enterprises and acquisition of another enterprise exceeding TRY 25 trillion and/or 25% market share need approval of the Competition Authority.²⁰ The actual operation of the Competition Authority started in 1997

The Competition Authority has around 80 staff and as many as 20 of them are specialised in the ICT (Information and Communications Technology) sector including telecommunications, which is unusually high relative to other OECD countries. Considering as well that this is still a new organisation it could reasonably be expected that both the Competition Authority and the Telecommunications Authority complement each other in a manner to help develop telecommunications sector in Turkey bringing benefits to public in general.

The Competition Authority has in fact been active and visible in telecommunications sector. For example, it has initiated an investigation of alleged unfair practices by Turk Telekom on its ADSL business which ISPs has been complaining about (see a later section). Also the GSM 1800 concession agreements were examined by the Competition Authority as mergers and acquisitions. The privatisation of Turk Telekom has been examined from the perspective of competition rules.

With respect to the relationships of the Competition Authority with the Telecommunications Authority, Law 4502 provides framework for their co-operation. The most notable requirement is that when carrying out investigations and scrutiny in the telecommunications sector, the Competition Authority must initially take into consideration the opinions of the Telecommunications Authority. It also has to consider the Telecommunication Authority's opinion before taking any decision in relation to telecommunications sector including decisions about mergers and acquisitions. On the other hand, the telecommunication regulator may request the Competition Authority for its opinions in order to ensure that the standard reference tariffs or the agreements for interconnection of networks and roaming do not impede free competition.²¹

Such statutory provisions clarifying the co-ordination of work helps to reduce uncertainties to telecommunications entities and to prevent problems associated with possible overlaps of actions by the two organisations. It also helps reduce problems associated with exchanging certain confidential information held by one to the other office as experienced in some OECD countries. For example the competition authority is sometimes obliged by law to keep confidential the information that it obtains in the course of its investigation. Also because of overlapping jurisdictions there is a possibility that an act specifically allowed or even mandated by the regulator could inadvertently be in conflict with competition laws, confusing enterprises. Thus, it is important to ensure that decisions are co-ordinated to avoid the possibility of inconsistency and over-burdening relevant parties. In this sense, it is commendable that the two organisations in Turkey have prepared a protocol between their organisations to address further specifics and interpretation of relevant law as well as to improve working relationships. One of the main aims of the protocol to be signed shortly is to prevent 'forum shopping' and it will have provisions regarding exchange of important information between the two organisations.

2.2.9. *Handling of consumer complaints*

When consumers have complaints that are not resolved between the direct parties, they can resort to consumer rights councils of the districts and provinces and they could ultimately go to court. However, these procedures are generally too costly in time and/or in money, and consumer groups have argued that their complaints regarding telecommunications services have not been handled in a satisfactory manner. They can submit their complaints directly to the Telecommunications Authority, in which case the Authority deals with them based on the seriousness and nature of each case. Such complaints, *e.g.* on billing, have been dealt with primarily by being directed to the telecommunications operators who are the object of the complaint and who have the primary responsibility to deal with them. If the disputes are not resolved by the operators concerned, and if it is deemed very serious, the matter is submitted to the Telecommunications Board, which renders decisions on the issue. There is a possibility that the Board may decide to open a formal procedure with setting up an investigation committee as provided by relevant ordinances.

Although a possibility of a formal procedure is open in very serious cases, there is no regulation to provide for a formal mechanism of handling consumer complaints in general (neither of industry complaints). These have been dealt with on an ad-hoc basis. While there might be flexibility in dealing with each complaint on an ad-hoc basis, having standard rules in this respect is usually more useful and helps expedite matters. Furthermore it can work to reduce the number of complaints brought to the regulator as such a formal and transparent mechanism, with publicised precedents, could be used as a reference point by the parties involved.

Another possibility is that telecommunication operators could be required to develop and make public an appropriate code of practice for their dealings with users. However, it would be more appropriate if a requirement was made on the industry as a whole to develop a single code of practice for the resolution of user complaints and disputes. But at the same time it is necessary that the regulator establish procedures for examination, investigation, and resolution of consumer and user complaints and disputes, following public consultation. It is important that the regulation provides time frames any specific procedures to be set out.

Finally, it is important for the regulator to supplement this mechanism by requiring operators to provide a published report on the number and type of complaints received, and summary data on the time taken for resolution, the number of cases resolved satisfactorily and the number not resolved.

In this regard, the Telecommunications Authority has been working to establish a “consumer complaints centre” to improve consumer protections by clarifying and defining procedures for enforcement of consumer rights and for handling of consumer complaints. This project is expected to be finalised in July 2002. Furthermore, the Authority is currently preparing regulations to oblige operators to submit their standard consumer contracts for approval of the Authority. It is also working on new regulations to ensure protection of personal data consistent with EU Directive 97/66 on this matter.

2.3. *Regulations and related policy instruments in the telecommunications sector*

2.3.1. *Regulation of entry and service provision*

In order to provide a telecommunication service in Turkey, a company requires either an authorisation agreement, a concession agreement, a telecommunication licence, or general authorisation issued by the Telecommunications Authority.²² These are distinguished in law as follows:

- Authorisation Agreement: a contract between Turk Telekom and the Telecommunications Authority the term of which shall be determined by the Authority and which sets out all the relevant authorities, rights and obligations for the provision of all kinds of telecommunication services.
- Concession Agreement: a contract between the Telecommunications Authority and an operator for the provision of telecommunication services and/or establishing and operating telecommunication infrastructures.
- Telecommunication Licence: permission given by the Telecommunications Authority for the provision of telecommunication services and/or establishing and operating telecommunication infrastructures.
- General Authorisation: permission given by the Telecommunications Authority which authorises the operators to provide telecommunication services and/or to establish and operate telecommunication infrastructures other than above (ISP is an example of this category).

A concession agreement is differentiated from a licence in that the former is used when 1) authorisation involves the allocation of scarce resources such as frequency, satellite position and numbering; 2) when granting particular or special rights and obligations to each operator is necessary; or 3) when the service in question has to be offered by a limited number of operators for some reasons. Also a concession presupposes a nation-wide network.

Although the authority to license has been transferred to the independent regulator, the Ministry is still involved in concession agreements because they involve the allocation of scarce resources. The plans of authorisation for services and infrastructures requiring concession agreements must be prepared by the regulator, then proposed by the Ministry for approval by the Council of Ministers. Then the regulator implements the approved plans. GSM operators are an example having such agreements. In addition, minimum values of the licence fees need to be determined by the Council of Ministers upon the regulator's proposal.

“Telecommunication Licence” has two sub-categories. The first type is for the services and/or infrastructures that require limitation in the numbers of operators for local markets. The other type is for those that do not require such limitation and if the services and/or infrastructures in question are within the scope of Additional Article 18 of Law 406 (this article lists cable television, fixed wireless access, community repeater, etc.). The Telecommunications Authority determines which of the above forms a specific authorisation should take. The law stipulates that if someone wishes to provide a telecommunication service he or she is entitled to request the Authority's determination of the conditions of licence/authorisation if necessary and that if the determination is necessary the Authority shall set out the terms under supplementary regulations within four months.

Before Law 4673 of May 2001 came into force, the system of the Concession Agreement allowed a possibility of different conditions and fees among operators providing similar or the same services. Moreover, the agreements concluded were not made public and it was not possible to know the contents. However, the current legislation does not allow different provisions among operators except that fees could be differentiated reflecting different concession terms and conditions. Also, the Concession Agreements have been made publicly available upon request recently.

Under the current system of Telecommunication Licence, the Telecommunications Authority and the Council of Ministers have a discretionary power to determine the number of operators in certain markets (*e.g.* locally based services such as FWA) through the first type of the Telecommunication Licence. General Authorisation, despite its name, is an individual licence rather than a general regulatory act to allow market entry by fulfilling certain conditions and by registration. Furthermore, it is not clear why this “General Authorisation” needs to be distinguished from the second type of the Telecommunication Licence. Best practice regulation among OECD countries is to use a licence when scarce resources, *i.e.* spectrum needs to be allocated, and to use general authorisation for other market entrants. There is therefore scope for simplifying and streamlining Turkey’s licence regime by transforming Concession Agreements into a general Telecommunications Licence with standardised and transparent licence conditions rather than specific, and perhaps, different conditions for each concession holder. This does not conflict with the use of licences to allocate scarce resources such as radio frequency and satellite positions and make these licences subject to government’s approval. In addition, neither the Telecommunications Authority nor the government should have the power to determine if the number of operators in a particular market needs to be limited and to decide the number of market entrants through the Telecommunication Licence, as this matter could well be left to the market forces.

In the medium term, Turkey should consider even integrating different types of licences into a single framework for general authorisation (or sometimes referred to as “class licence”). For example, Denmark has such a regime, where all telecommunications operators, except for those providing public mobile communications, can enter the market freely without the need even to register with the regulatory authority as long as they satisfy the general conditions stipulated in an Executive Order, which follows the essential conditions set down in the EU Licensing Directive.²³ EU policy is to move member countries toward using a general authorisation framework.

An urgent task for the regulator is completing and fully implementing the current licensing system. The most urgent requirement, as the regulator itself is well aware, is to determine fully the minimum values of licence fees where this has not yet been done, which the regulator proposes and the Council of Ministers approves, so that telecommunications licences could be issued fully as soon as possible.

Internet service providers (ISPs) are required to obtain an individual General Authorisation under the current regime. This requirement is unnecessary since ISPs should have no specific or individual obligations not to mention that there need be no limitations on the number of ISPs nor do they require allocation of scarce resources. Turkey should consider allowing them to operate through a system of registration. It should be noted that in most OECD countries ISPs do not need any licences or authorisation to operate.

The six CATV companies currently in operation in Turkey have operated on behalf of Turk Telekom under revenue sharing agreements with the company because under the monopoly privilege of Turk Telekom, they were allowed to build their own networks only when Turk Telekom determines that it cannot build the network in question by itself (Article 2 (c) of Law 406). These companies have invested to build up the cable TV networks, but the ownership of these networks has been kept by Turk Telekom. On the other hand, these companies are granted exclusive rights in each operating area.

However, the current legislation has enabled the Telecommunications Authority to issue Telecommunication Licences to cable TV companies for establishing and operating their own networks. It means that after 2004 at the latest when the monopoly right of Turk Telekom ends, CATV services and networks will also be brought under full competition. They will also be allowed to offer voice telephony services and Internet access services using their networks. But the CATV operators will be required to obtain a separate licence for the Internet access services. Whether or not additional licences are necessary to offer voice telephony services is still under consideration by the Telecommunications Authority.

2.3.2. *Foreign ownership*

Foreign ownership is restricted to 45% of Turk Telekom, while up to 100% of the company could be privatised according to the legislation of May 2001. Foreigners are not allowed to have more than 49% shares of telecommunications operators that require Concession Agreements directly or indirectly. Such restrictions in the law resulted from a Constitutional Court ruling that telecommunications and energy sectors were strategic assets for Turkey and that foreigners were not allowed to have a majority share in these companies. On the other hand, there is no foreign ownership restriction in obtaining a Telecommunication Licence or a General Authorisation.

Considering that the Turkish telecommunications sector needs large foreign investment and that foreign ownership restrictions limit the scope for development of the market, these restrictions should be abolished. Turkey's commitment to acceding to the European Union will also require abolition of these restrictions. Foreign ownership restrictions are not necessary for reasons of security given the range of instruments available to governments to ensure that the public interest is taken into account during periods of national emergency. National security would be better served by ensuring that a multitude of networks with national coverage are available rather than a single network with limited national coverage.

2.3.3. *Rights of way*

Pursuant to Law 406 (Article 12 as amended by Article 7 of Law 4502), telecommunication operators have a right in principle to use public roads, highways, and other public areas for laying out their cables without any fee as long as it does not permanently hinder the primary objective of the roads, etc. On the other hand, relevant authorities reserve the right to supervise the excavation work and intervene if necessary. One exception where the operators need to obtain necessary permissions from the General Directorate of Highways is when they want to lay cables in newly constructed access-controlled (or toll) highways. Otherwise, the operators will need to follow the procedures that are currently under development by the Telecommunications Authority.

Mobile operators need to obtain additional authorisation from local governments, the Ministry of Environment, and/or the Ministry of Interior in order to build up their networks with base stations under environmental, zoning, and other laws and regulations. This results in a long and costly process, and should be simplified through a 'one-stop shop' procedure developed by the Authority. This would ensure that rights of way issues do not become an obstacle to new market entry.

Regulation of interconnection

Even when Turk Telekom's monopoly will be legally over by the end of 2003 at the latest, many new entrants will be dependent on Turk Telekom's networks to provide services to end users. Such a situation is foreseen to continue for some time, especially for the local network. Also, mobile operators need roaming arrangements to allow communications among users of different network operators. Turkey has been aware of the importance of establishing an interconnection regime, and has developed a regime in line with the EU Interconnect Directive (Directive 97/33/EC).

Turk Telekom (designated by law) and operators to be designated by the Authority (called "interconnection providers") are obliged to provide interconnection under Turkish law²⁴ based on the principles of equality, non-discrimination, transparency, cost-orientation, reasonable profit and under the same conditions and quality as the interconnection providers or their shareholders, affiliates or partnerships provide for their own services. If an interconnection agreement cannot be reached within three months from the initial request, the requesting party can request the intervention of the Authority. If the parties still fail to reach an agreement with the Authority's arbitration within six weeks (extendable to ten weeks), then

the Authority sets the terms, conditions and tariffs of the interconnection in question. Mobile telecommunication is included in this interconnection regime. The law provides that the operators may, as appropriate, incorporate in their agreements standard reference interconnection tariffs which shall be published by the Authority. The interconnection framework is currently under preparation as the Interconnection Ordinance, in which detailed implementation procedure of the dispute resolution mechanism will be included as well. Furthermore, companies should be allowed to set up “closed user groups” as defined by EU regulation.

The law also provides that “[a]ll interconnection agreements executed and maintained at the Authority shall be publicly available provided that the Authority shall take various precautions to protect commercial secrets of the parties”.²⁵

So far there is no reference interconnection offer by Turk Telekom nor standard interconnection tariffs published by the regulator. Currently Turk Telekom has interconnection agreements only with GSM operators and fees are shared with the following principles:

1. GSM operators’ income from Turk Telekom consists of two items.
 - Traffic from Turk Telekom network to the GSM operators’ network (even in this case, Turk Telekom retains its share of US 6 cents per minute).
 - International calls ending in the GSM network.
2. Turk Telekom’s income from GSM operators consists of three items.
 - Traffic from the GSM operators’ networks to Turk Telekom’s network (USD 1.4 cents within region and USD 2.5 cents outside the region per minute).
 - International calls from GSM networks are treated as calls from the PSTN.
 - 90% of the revenues collected by GSM operators for special service numbers.

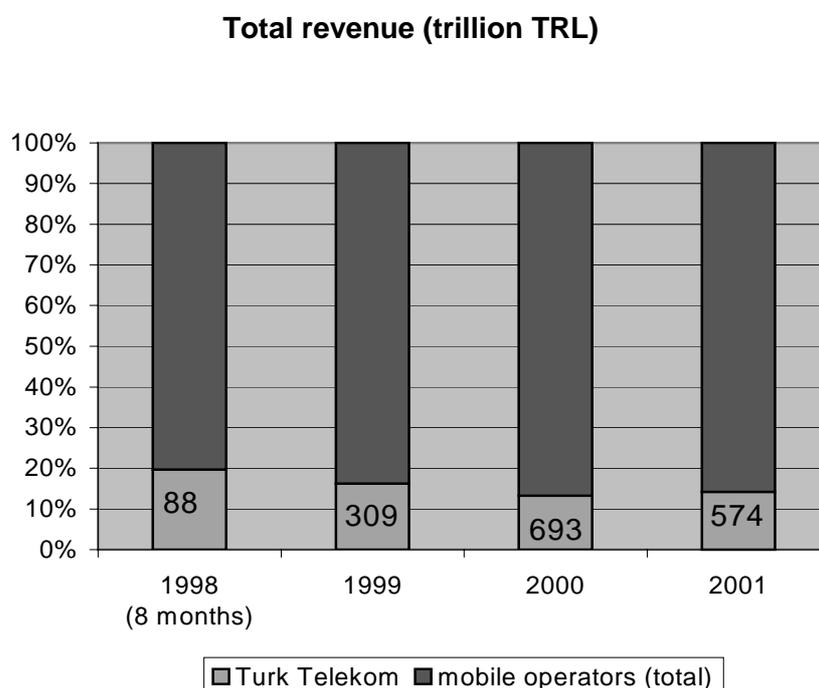
The following figure shows the shares of revenue between Turk Telekom and mobile operators according to such interconnection agreements.

A general consensus has emerged in the OECD on the use of the Long Run Incremental Cost (LRIC) accounting methodology as best practice. LRIC is viewed as the best way to bring interconnection rates to a level of which would occur in a fully competitive market. Thus, many OECD countries have developed or are developing LRIC model for interconnection rates. The Telecommunications Authority is now developing standard interconnection tariffs with this method covering mobile networks as well, and it should try to shift the interconnection regime to one based on LRIC as soon as possible, as it is planning to do so.²⁶

In relation to interconnection between mobile operators, national roaming has been an issue of dispute that necessitated the regulator’s intervention. Is-Tim (Aria) and Aycell, the two recent entrants to the Turkish GSM market, have not yet been able to conclude roaming agreements with Turkcell and Telsim. This has been a major reason for a limited expansion of the coverage of the new entrants’ networks. The major obstacle in reaching an agreement is the level of roaming charges. Having been unable to resolve the disputes among themselves, the regulator was requested to intervene, and following the procedure provided in the law, the regulator ended up determining the terms, conditions and tariffs for roaming in November 2001. However, the decision of the regulator has been subject to a judicial procedure

by both sides by being brought before the International Chamber of Commerce for arbitration. Meanwhile the Telecommunications Authority published the Ordinance on Principles and Procedures for Making National Roaming Agreements on 8 March 2002 and gave the parties 30 days for reaching an agreement on roaming. If an agreement cannot be reached between the parties, the Authority makes a decision in accordance with the Ordinance. This case underlines the importance of establishing standard interconnection tariffs based on LRIC as a regulation as the objective method of accounting. It also brings into the forefront the need to ensure that the regulator's decision remain in force even if court proceedings are undertaken.

Figure 1. **Interconnection between Turk Telekom and mobile operators: distribution of revenue shares**



Source: Turk Telekom.

2.3.4. Local loop unbundling²⁷

There are no legal provisions specifically regulating local loop unbundling (LLU) in the present monopoly regime. The Telecommunications Authority plans to introduce regulations on LLU in line with the EU regime in the new licensing regulation that is under preparation. This will be based on the generally applicable competition rules under the Law 4054, whose Article 6 Abuse of Dominant Position requires granting access to goods and services having the nature of essential facilities. Undertakings owning a network are placed under an obligation to grant access to undertakings for their network having the nature of natural monopoly. As a result, transition to LLU regime after the end of Turk Telekom's monopoly does not seem to be a major problem as long as the regulator determines the specific conditions and procedures in time. However, the price of access to unbundled loops is important and, linked with this, the necessity to ensure that retail prices for subscriber loops are rebalanced before the end of the monopoly period.

In fact there is no legal obstacle introducing LLU as long as it does not hinder Turk Telekom's monopoly, *i.e.* voice telephony and networks. Because one of the important aspects of LLU is to allow the network upgrading for broadband services such as ADSL²⁸, and it can coexist with the voice telephony, the Telecommunications Authority should allow for line sharing and bitstream access now in view of the fact that the Internet service provision market is open to competition.

2.3.5. *Internet service*

Internet service providers (ISPs) applied in January 2001 to the Competition Authority and in March 2001 to the Telecommunications Authority for an investigation of Turk Telekom's alleged anti-competitive behaviour in the area of the Internet services. The issues include prices of Internet services at the end-user level and the equivalent prices offered by TTNNet, Turk Telekom's own ISP. Access price for ADSL, which TTNNet just started in November as the first service provider in Turkey, has been claimed as excessive and discriminatory by the ISPs. Also, TTNNet currently monopolises Internet access services over cable TV networks, and this has been another issue being investigated by the Competition Authority and the Telecommunications Authority. While the outcome of the investigation seems to take time, the regulator should ensure that new entrants are given the same conditions by Turk Telekom as TTNNet enjoys based on non-discrimination and transparency provisions so that they are not disadvantaged relative to the incumbent. It is important to ensure that there is accounting separation between Turk Telekom and TTNNet should be ensured as well.

2.3.6. *Pricing policy*

Price regulation in telecommunications services in Turkey is currently a responsibility of the Telecommunications Authority based on Law 4502. The law clearly states the principle of pricing policy that operators are free to determine tariffs that they charge the customers. On the other hand, the Authority is empowered to determine and set the methods of calculation and caps of tariffs in certain cases. These cases include when cross-subsidisation is necessary to cover the cost of universal service obligation, tariff rebalancing and tariffs of dominant operators as defined by the Authority. The law also states that in carrying out the regulation of tariffs, the Authority should ensure cost orientation of tariffs and try to avoid cross subsidisation between different services. In addition, the law requires that when a price cap is used the Authority should ensure that compensatory costs and a reasonable profit are recovered.²⁹

Under the Tariff Ordinance, an operator is subject to price regulation when it has a dominant position or significant market power in the relevant service or geographical markets. The determination of dominance or significant market power is made by the Telecommunications Authority each year and publicised.

The Tariff Ordinance further defines two possible methods for tariff approval, namely cost-based and price cap methods. Then the Telecommunications Authority decided to use the price cap method for all the services supplied by the dominant operators from 2002. It also plans to regulate certain services, rather than dominant operators, for services such as leased lines on the basis of a cost-based method in 2003. Detailed application procedures for the price cap method has been provided in the Price Cap Communiqué which came into force on 11 January 2002.

For the moment, Turk Telekom is the only operator designated as having dominance and being subject to the Price Cap Communiqué. The method used by the regulator to approve Turk Telekom's tariffs has been through a Consumer Price Index – Productivity Factor (CPI – X) formula in 2001. Each service was being considered as a separate basket. The value of 'X' (productivity factor) has been set at 4.8 points annually for the year 2001 temporarily. With the Price Cap Communiqué, two baskets (Basket A for call services and Basket B for the digital leased lines) have been defined and the productivity factor has been set at 7.55 points annually, and procedure for the approval of the tariffs has been provided.

It is important that price regulation encourages full tariff rebalancing in order to promote competition on the basis of efficient price structures. In this respect, the Telecommunications Authority (and the Ministry before transferring their responsibilities to the Authority) have taken into account the need for rebalancing in their examination of Turk Telekom's tariffs. As a result, price rebalancing has progressed particularly during the past several years. For example, the price disparity between local and the more distant (over 100km) call categories was 20 times in January 1994. This narrowed to 7.5 times by April 1999, when two inter-city long distance call categories (up to 100 km and over 100 km) were merged into one category. By July 2000, the disparity between the local and the Inter-city calls had been reduced to a ratio of four.

There appears to be a consensus among OECD countries that the most effective way to achieve cost-based prices is through effective competition and not through price regulation. However, in tariff rebalancing of residential and local services, the regulator has to handle the particularly sensitive issue of how quickly or slowly to manage the transition from prices which are generally under cost to cost based prices. The need to take into account social and economic considerations often means that a "one-off" price increase may not be possible. Excessive tariff control can also reduce tariff flexibility and since many new entrants use the incumbents price levels as a benchmark to set prices, such price controls may in fact reduce the impact of competition in pushing down prices. Therefore, a constant review of market competition and price developments will be important, as will be efforts to streamline price control, when the Turk Telekom ends and competition starts.

Turk Telekom have indicated that they are considering the possibility of merging all call zone categories into a single national call area. This is being considered in the context of their competition with mobile operators who have a single national call tariff, and that fixed and mobile penetration rates are about equivalent in Turkey. If this is proposed by Turk Telekom, the regulator should examine carefully the cost structure of the company and the implication of a single price zone for future fixed line competition.

In the cellular mobile market, which effectively had been a duopoly up to 2001 and still with limited competition as two additional operators entered the market only in March and December 2001, price regulation has been installed in the framework of Concession Agreements. In the Agreements, the standard prices are capped based on the formula $CPI - (CPI * 3\%)$. Thus, their maximum tariffs are subject to approval of the Telecommunications Authority every six months.

2.3.7. *Quality of service*

The Telecommunications Authority is responsible for regulating service quality. According to Law 4502 (Article 2(e)), conditions with respect to quality of service must be included in Authorisation Agreements and in Concession Agreements under reasonable and non-discriminatory terms and conditions. The regulator can include them in Telecommunication Licences and General Authorisations if necessary. Accordingly the Authorisation Agreement of Turk Telekom and the Concession Agreements of the GSM operators have provisions on quality of service such as coverage, call blockage ratio and call failure ration

in network. The Telecommunications Authority is further working to establish quality of service criteria for telecommunications services including quality of service indicators, performance targets to the service indicators, dispute resolution procedures, information requirements, measures for users with special needs, and enforcement mechanism.

One of the common complaints among GSM operators concerns delivery of leased lines by Turk Telekom. The complaints include high prices, delayed delivery, quality of the physical leased lines, and arbitrarily changed conditions. As an example of the latter, one operator had a 60% volume discount on their leased lines, but in 2000 Turk Telekom decided arbitrarily to change the price to a 25% discount only if a 7 year contractual commitment was agreed to and at least 500 lines were leased. Turk Telekom justified the change as being necessary to ensure non-discriminatory treatment among operators and as a marketing strategy. Such a problem shows the necessity of having Service Level Agreements (SLA) in place in Turkey that cover prices, delivery times, fault maintenance, and restoration. Aware of such necessity the Telecommunications Board has taken a decision that the SLAs especially for leased lines should come into force in 2002. The regulator should also consider requiring Turk Telekom to include such a SLA in their Reference Interconnection Offer. In this regard, experiences of some EU Member States where the telecommunications regulators require incumbents to offer SLAs will be of a particular use.

It is also important that in furthering their work in this area the regulator set down key areas for performance measurement by all operators covering service provision, fault management, complaints, and billing. Additional information to be required from Turk Telekom should cover directory enquiry services, public payphones, and quality of service for other operators. These should be published. Such indicators are important for consumer choice and to ensure better performance.

2.4. Resource issues

2.4.1. Spectrum allocation

The development of competition, and in particular in mobile communications, has increased the demand for frequency spectrum in many OECD countries, and Turkey is no exception. Increasing demand for spectrum access provides greater pressure for an objective and transparent regulatory allocation of spectrum and for greater efficiency in the use of spectrum.

Responsibility for frequency planning in Turkey is with the Telecommunications Authority except for the military bands. It is also responsible for making regulations to establish rules and policy necessary to control the issuing of licences to radio operators, on which the regulator is currently working. The only decision that has to be taken by the government (the Council of Ministers) is the minimum fee for the licences, but this is based on the regulator's proposal. Most issues and decisions governing spectrum allocation are in the direct responsibilities of the regulator.

In respect to frequency planning, the regulator has been working to align the National Frequency Allocation Table with the EU frequency Directives and European Common Allocation Table as a priority matter.

The assignment of spectrum for the first mobile telecommunications services was to Turkcell and Telsim, which began offering GSM mobile telephony service in the 900 MHz band in 1994³⁰ using revenue sharing agreements with Turk Telekom (transformed to Concession Agreements in 2000). There was no competition for spectrum assignment in this case. The third GSM licence (GSM1800) was then allocated on the basis of a competitive tender in April 2000 by the Ministry of Transport, and Is Bankasi-Telecom Italia consortium (Aria) was the only successful applicant with a USD 2.25 billion bid, high

enough to prevent any application for the fourth GSM licence whose minimum bid had to be the successful bid of the third licence. Then Turk Telekom (Aycell) was granted the GSM1800 licence with the same condition as Aria in August 2000. Aria actually started business in March 2001, and Aycell in December 2001.

UMTS (IMT-2000) licensing has been taking place in a number of OECD countries recently, and a number of countries have decided to use auctions as a method for spectrum allocation. The financial success of the auctions in some countries (*e.g.* the United Kingdom Treasury earned around USD 35 billion for five licences and Germany around USD 46 billion for six licences using auctions to sell the licences) has also led countries to reconsider methods of licence allocation. On the other hand, the heavy financial burden to obtain UMTS licences has resulted in some mobile operators deciding not to participate in licence tenders where prices were viewed as excessive (*e.g.* in France there were only two applicants for the four UMTS licences offered). In this climate some countries have chosen a comparative selection process (so-called “beauty contest”) over auctions, *e.g.* Ireland, or some form of a combination of the two methods, *e.g.* Italy. As a general rule, however, auctions remain the most efficient and transparent way to allocate licences as long as care is taken to structure the auction process properly.

Under the current licence regime in Turkey, the UMTS licences will be Concession Agreements because they involve allocation of scarce resources. The Telecommunications Authority plans to announce detailed plans for introducing UMTS in Turkey in 2002. In this context, the Authority has recently taken a decision on establishing a “UMTS National Coordination Board” with the presidency of the Authority and participation of representatives from public organisations, operators and firms. The number of operators, and method of allocation, *i.e.* beauty contest or auction, etc. have not been decided yet. The economic conditions at the time of inviting applications could be a major factor in the decision.

Another point to be mentioned regarding the mobile sector is that the regulator sees the Mobile Virtual Network Operator (MVNO)³¹ as an important means for increasing competition in the Turkish mobile telecommunications market. Although it is good to increase competition and to prepare for the new types of services, full competition in the mobile market has just started in 2001 and national roaming agreements among them are not yet moving forward smoothly. Therefore focusing on MVNOs and introducing them might be a little too early at this stage and resources might well be put into other urgent regulatory areas rather than promoting MVNOs.

A more important and urgent problem with the mobile sector is the issue of heavy taxation. While competition in the mobile sector has brought benefits to consumers in terms of services and decreasing prices, prices could be lower if it were not for the heavy taxation on mobile operators and users. In Turkey, GSM operators and users are subject to the following additional taxes (in addition to general corporate and income taxes):

1. End users

- VAT; 18% of consumption.
- Communications Tax; 1% of consumption.
- Special Communications Tax (Earthquake Tax); 25% of total telecommunications services (invoice). This special tax was introduced in 1999 as a contribution to help recovery from the damage caused by the disastrous earthquake of August 1999. This high percentage tax had been understood to be temporary for one year when introduced, but it has been extended.

- Contribution to elementary education fund; 3-4% of 1/12 of fixed monthly fee.
- Local tax (to municipalities); 2% of consumption.

2. GSM operator

- Licence fee; 15% of total gross revenue as a contribution to Treasury apart from spectrum fee;

For an end user on average as much as 55 to 60% of the invoice is tax. Also the Licence fee imposed on the GSM operators does not seem to have a good reason. Behind the rationale for such heavy taxation seems to lie a general perception that mobile telephone is still a luxury in Turkey. However, its benefits in emergency situations and the still relatively low penetration rate of fixed line telephony would reinforce the importance of low cost mobile telephones as a basic need in Turkey. The government could even think about policies to help those with low income obtain access to basic mobile phone services. Penalising the mobile sector and users is counter to the main goals of telecommunication policy in Turkey and should be lifted as soon as possible.

2.4.2. *Numbering issues*

Turkish numbering resources were managed by Turk Telekom, and the current National Numbering Plan used is the one developed by Turk Telekom in 1993. However, management and administration of numbering resources became the responsibility of the Telecommunications Authority by Law 4502 of January 2000. The regulator has started conducting studies to put in place procedures to ensure that the allocation of numbers is carried out in an objective, transparent, non-discriminatory, and timely manner in line with EU regulation.

Call-by-call carrier selection and carrier pre-selection (CPS) services are not available in Turkey, but the regulator is planning to conduct necessary studies in order to prepare the regulation and introduce them as soon as the monopoly of Turk Telekom is over. It is important if competition is to take off quickly that carrier selection and pre-selection are in place when the market opens for competition.

Number portability is another important safeguard for efficient competition. But there is no regulation on this in the monopolised fixed telephony nor in the liberalised mobile market. Research by the Commutation Authority have found that mobile subscribers are reluctant to change to a different operator because number portability is unavailable. It is necessary that the regulator implement number portability in the mobile sector as soon as possible, and prepare the necessary regulations to implement number portability in the fixed telephony market.

2.5. *Universal Service Obligations (USO)*

Turk Telekom, as the only voice telephony provider, has the responsibility of providing universal services, but there had been no explicit legal provision for universal service. The concept of universal service was introduced in the Turkish law as “minimum service” as defined in the Law 4502 of January 2000. Article 1 states that:

Minimum Service: shall mean the minimum set of universal services types of special quality whose subject and scope is defined by the Ministry upon receipt of affirmative opinion of the Authority and the operators, which is accessible to everyone independent of their geographical location and at a reasonably affordable price, including public pay-phone, emergency telecommunication services and telephone directory services.

This is consistent with the relevant Directives of the European Commission, namely the Revised Voice Telephony Directive (98/10/EC) and the Interconnection Directive (97/33/EC). There is currently no further regulation on this matter, so the Ministry of Transport is looking into necessary regulation to complement the law.

In doing so, it will be inevitable that the Ministry of Transport has to determine whether a funding mechanism to ensure minimum service, *i.e.* compensation for deficits borne by operators where there are net costs incurred in providing service. The Telecommunications Authority provides a consulting role in this respect and has already submitted a preliminary report to the Ministry. Experience of other OECD countries show that there are generally two possible ways to finance universal service. The first option is establishing a fund to which all operators contribute and from which the designated USO operator (or operators) is reimbursed. The other one is that a supplementary charge is added to the charge for interconnection to the public telecommunications network.³² This second method is generally less transparent and efficient should be avoided. It is also possible to impose the burden of providing universal service on the incumbent taking into account that there are benefits as well as cost in providing universal service. Under this method, if the gap between costs and benefits is large so as to impose a burden on the incumbent then a funding mechanism would be used.

Experience has also shown that the first option tends to be preferable since it avoids distortions in interconnection, tends to be more transparent and allows designating another operator, instead of the incumbent, to provide universal service in specific areas. Principles of transparency, non-discrimination, efficiency, and proportionality should apply in the management of the compensation mechanism, and accounting separation should be ensured to prevent the possibility of cross-subsidisation with other competitive services offered by the USO operator. The second option, if implemented, should clearly separate interconnection payments from any access deficit charges. This option could create structural inflexibility in prices and in the way interconnection is charged.

2.6. *International aspects*

In the WTO agreement on basic telecommunications concluded in February 1997, Turkey committed itself to liberalising the basic telecommunication services market by the year 2006. As the market will be fully liberalised by the end of 2003 at the latest, this commitment will be realised two years or more earlier than the scheduled deadline in this respect, which is commendable. In addition, Turkey committed in the same agreement to allowing up to 49% foreign ownership for services which require a concession agreement. This commitment has been complied with as seen earlier except that foreign participation in Turk Telekom is allowed only up to 45%.

2.7. *Consumer protection*

Consumer interests are best enhanced through effective competition, which will deliver lower prices, improved choice and better quality. However, there is a continuing role for the government to ensure that consumer interests are protected. While the government and the Telecommunications Authority have been working to ensure that consumers benefit from increased competition, including by inexpensive switching of service providers and improved performance of operators, some aspects of consumer

protection have yet to be implemented in Turkey as noted in earlier sections. These include a formal, clear, accessible and inexpensive mechanism to handle consumer complaints, and actively help inform consumers directly of issues which concern them.

In view of this, the government and the Telecommunications Authority should strengthen their focus towards enhancement of consumer interests as a general policy as they implement policies and regulations to promote effective competition among operators. Also, establishing and publishing quality of service indicators in telecommunications services will enhance consumer choice. Furthermore, the regulator should establish concrete procedures with standard time frames for handling consumer complaints. The procedure should be speedy, simple, and inexpensive for ordinary consumers. It should also ensure that telecommunications operators implement and make public an appropriate code of practice for consumers. It is preferable that an industry wide code is available to ensure consistency in the market. Finally, operators should be required to provide a published report on their handling of complaints. In this respect it is welcome that the Telecommunications Authority has been working on the project to establish the “consumer complaints centre”, which will be completed in July 2002. Also, an “Ordinance Regarding the Principles and Procedures for the Termination of GSM Telephone Subscription Contracts” is under preparation, aiming to set out principles and procedures for any unilateral application by subscribers for terminating GSM contracts. Another welcome move is studies being carried out by the Authority to establish new regulations on consumer protection consistent with the EU regime.

2.8. *Streamlining regulation and application of competition principles*

The Turkish competition law, namely the Law on the Protection of Competition 4054 of December 1994 applies to telecommunications sector with no exemptions. As in other OECD countries, these acts prohibit anti-competitive agreements and abuse of dominant power in all industries. As noted earlier, some overlap of jurisdiction between the agencies to administer the competition law and the telecommunications law is inevitable and a framework of co-operation is essential and the right of an aggrieved party to pursue a case in either the Competition Authority or the Telecommunications Authority should be respected. In this sense, it is a welcome move that both agencies have been working in a co-operative manner and trying to establish protocol of co-operation to address practical needs.

2.8.1. *Regulatory streamlining*

While sector-specific regulations are necessary to steer and facilitate the transition of the market from monopoly to full competition, it is also necessary to consider when it is appropriate to streamline regulations and to withdraw sector specific regulations as the market becomes fully competitive. It is important to review regulations on a regular basis and determine whether they should be maintained, modified or streamlined and are proportionate to their stated aim and take into account the degree of competition in the market in question. Determination of when and to what extent the sector-specific regulations could be withdrawn needs thorough examination and evaluation of a number of factors related to the actual situation and functioning of the market.

In this respect, the Telecommunications Authority should consider conducting and publishing a regular review of the Turkish telecommunications market. The review could focus on monitoring the market to allow the regulator to discharge its own responsibilities. However, the review should focus as well on the impact of market changes on users and the benefits that they are deriving from competition. It would also facilitate an evaluation of the market and of the impact of regulation if data on the market shares of individual companies and quality of service of market players, particularly for fixed voice communications, were published.

The use of industry self-regulation, rather than direct imposition of regulations by the government is becoming more common in OECD countries, for example, in management of numbering. Self-regulation is generally viewed as having advantages in providing more flexibility to rapid changes and in ensuring better compliance by the industry. The regulator should consider how it could provide an incentive to encourage industry self-regulation where it is practical. The success of such regulation will clearly depend on having an open dialogue between the incumbent and new entrants.

2.8.2. *Transparency*

The existing telecommunication legislative provisions in Turkey are spread over a number of statutes inevitably as a result of consecutive amendments and enactment over seventy-five years. Consequently, it is not easy to access and understand the overall legislative framework. The practice in the past of amending existing legislation has also led to difficulties in having access to a comprehensive legislative framework. It would help ensure further consistency and greater transparency of laws and regulations if the Ministry of Transport and the Telecommunications Authority consolidate these into a single document available to the public.

The Telecommunications Authority, although not legally required, uses a process of public consultation (a “Green Paper” approach) extensively, which is commendable. However, it does not seem to publish sufficiently its findings and the reasons for the final decisions. Improvement in this respect would enhance transparency greatly. Also there seems to be a scope for improving its utilisation of the web site from a perspective of ensuring greater transparency by providing more information on regulations issued, documents and consultations.

2.9. *Convergence in communications markets*

Convergence between the telecommunications and broadcasting sectors is advancing rapidly at the technological, service, and market level in OECD countries, posing a number of regulatory challenges for many member countries. In Turkey, regulation of infrastructures including broadcasting, namely television and radio transmitters and equipment associated with terrestrial services, and CATV networks fall under the Telecommunications Authority’s jurisdiction. A number of OECD countries have started studies on the difficult issues of convergence and on the implications that it will have for the legal and regulatory frameworks covering telecommunications and broadcasting. But there have been no clear and simple answers found. In Turkey, the Telecommunications Authority has been aware of the importance of this issue, and has been working to establish a protocol with the Radio and Television Supreme Council, a regulatory body in charge of programming or content services in broadcasting, aiming to eliminate duplications, complexities and other issues within the current regulatory framework. However, Turkey should step further to review the legislative and regulatory frameworks themselves.

3. **MARKET PERFORMANCE**

3.1. *Introduction*

The rationale for regulatory reform is the increase in the efficiency in the provision of services and the beneficial effects it is expected to deliver to users and consumers. This section assesses the performance of the Turkish telecommunications industry in the delivery of those benefits to users and consumers, using indicators related to network penetration, investment, price, and quality.

The main elements of market performance examined below are:

- Network development and modernisation.
- Services based on leading edge technology and infrastructure.
- Lower prices.
- Improved quality of service.
- Increased customer choice.
- Benefit to users.

Full liberalisation of the Turkish telecommunication market will take place by the beginning of 2004 or earlier if and when more than 50% of Turk Telekom shares are privatised, and as experience of other countries have shown, the market is expected to show dynamic growth in terms of new market entry, investment and development of services. Nevertheless, less than smooth market opening could slow potential growth and benefits to users. In this regard, necessary regulatory measures as discussed in the previous section need to be implemented in a timely manner.

Turkey is determined to develop its telecommunications sector in a fully competitive environment and has been putting in place or is preparing necessary regulation to eventually develop competitive telecommunications markets. It is important that the full benefits of competition are realised and passed on to users. The efficient working of the market will allow this to happen, but in the shorter term as the telecommunications market is transformed from a monopoly to a competitive market, effective regulation will play a key role. In this context, as well, having good benchmarking data is important for effective regulation and the Telecommunications Authority needs to improve on its ability to obtain and publish such data.

3.2. Market development

The telecommunication service sector, as measured by telecommunication service revenues, in Turkey has increased by more than sixfold from TRL 480 trillion in 1997 to TRL 2 957 trillion by 1999 in nominal terms (Table 2). The telecommunication sector increased its share in GDP significantly from 1.37% to 3.82% during the 1990-99 period. With emphasis on network expansion and digitalisation during the 1990s, public telecommunication investment ranged around 1-2% of national gross fixed capital formation (GFCF), reaching 3.4% in 1999. Over the period 1997-99 telecommunication investment averaged 2.2% of GFCF.

The number of telephone mainlines expanded significantly during the 1990s, from 6.9 million lines in 1990 to 18.1 million by 1999. As a result the penetration rate increased from 12 access lines per 100 inhabitants in 1990 to 27 per 100 inhabitants by 1999, although still well below the OECD average of 46. In terms of access channels (*i.e.* including ISDN lines) per 100 inhabitants Turkey with 27 channels in 1999 was below the OECD average of 52. Telecommunication employment, which stood at 72.6 thousand in 1985, had increased steadily to 93.9 thousand in 1993, then declined to attain 76.8 thousand in 1999.

Table 2. Main telecommunication indicators of Turkey

	1995	1996	1997	1998	1999	2000	2001
Telecommunication services revenue (TRL trillion)	84	208	480	1 669	2 957	-	-
Total employment	74 837	75 408	73 177	72 845	76 769	-	-
Operating revenue per access line (TRL million)	5.9	14.5	30.5	98.4	163.7	-	-
Operating revenue per employee (TRL million)	1 117	2 755	6 557	-	38 515	-	-

Note: Total employment for 1999 includes mobile and fixed services.

Source: OECD, Telecommunications Database 2001.

The incumbent, Turk Telekom, was ranked 29th in 1999 among the major public telecommunication operators in the OECD area as measured by revenues. More than 90% of its operating revenues come from its fixed voice telephony services. The number of its staff has been relatively stable over the past five years, but operating revenues per employee show a significant increase as the penetration rate expanded (Table 3). Although high inflation rates need to be taken into account, it seems that pressures of the planned privatisation and the failed tenders as well as of coming full liberalisation have let the company utilise its human resources more efficiently.

Table 3. Turk Telekom's employment and revenue per employee

	1997	1998	1999	2000	2001 (projection)
Employment	73 177	72 845	72 463	72 412	74 309
Operating revenue per employee (TRL million)	6 545.4	14 237.6	21 074.9	33 790.0	50 680.9

Source: Annual Report 2000-2001 of Turk Telekom.

3.2.1. Network development and modernisation

Turkey has had the lowest telecommunication penetration rates in the OECD. Increased investments led to a growth in telecommunication access at a compound annual growth rate of 18.4% during 1987-92 and 13.2% during the 1992-97 period. The rate still stood at 8.1% during 1995-99 period. However, this growth was insufficient to close the gap between the Turkish penetration rates and the OECD average although the gap narrowed. In terms of access lines per 100 inhabitants, Turkey ranked 27th in the OECD in 1999 with a penetration rate of 27 lines per 100 population compared to an OECD average of 46 (see Figure 2). The penetration rate became over 28 by the end of 2001.

Figure 2. Access lines per 100 inhabitants

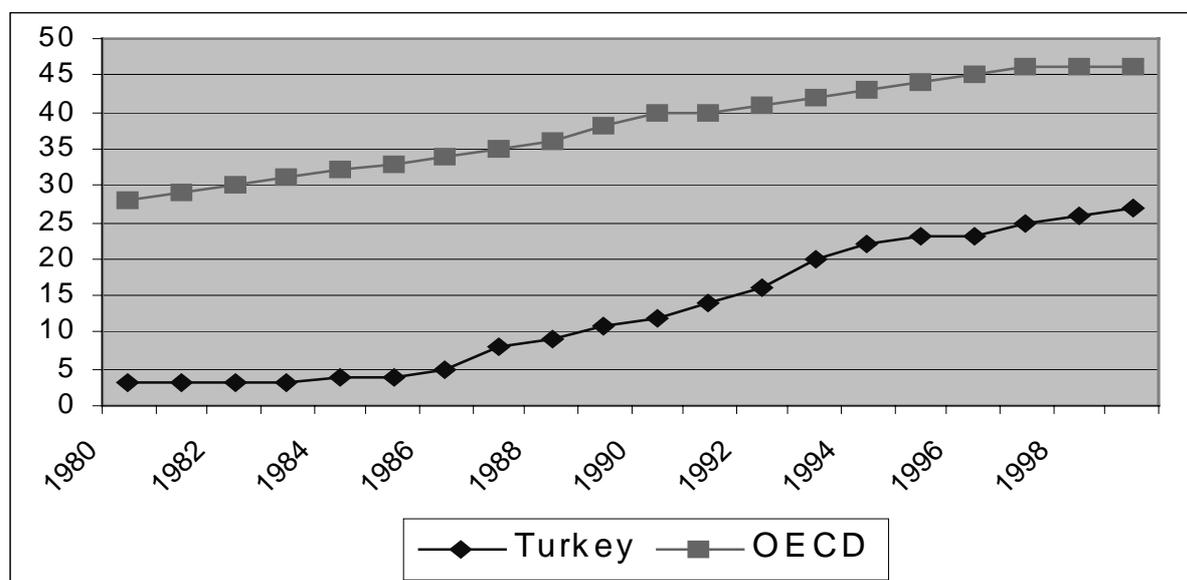


Table 4 indicates that in Turkey, public telecommunications investment as a percentage of revenue weakened considerably in the late 1990s and only began to pick up as the threat of competition and privatisation of Turk Telekom began to become a reality.

Table 4. Public Telecommunication Investment as a percentage of revenue

	1986-88	1989-91	1992-94	1995	1996	1997	1998	1999
Turkey	65.2	28.9	31.5	24.4	17.0	17.3	11.8	19.5
OECD avg.	25.8	27.5	25.0	24.0	25.4	24.4	25.1	26.6

Source: OECD, Communications Outlook 2001.

3.2.2. Digitalisation

In tandem with network expansion, Turkey rapidly digitalised its network and the rate of digitalisation of the fixed network was higher than the OECD average in the early 1990s. However it fell below the OECD average in the latter half of 1990s as the number of countries that completed 100% digitalisation increased (Table 5). The rate increased to 87.3 in 2000 and then to 88.5 in 2001. Turkey has introduced ISDN, but there is not significant take-ups.

Commercial ADSL services just started in the latter half of 2001. Turkey had 884 574 CATV subscribers in 2000, a 73% increase since 1997, and the figure has reached 908 662 in 2001. The CATV penetration rate as measured by the proportion of households with access to cable was still around 16% at the end of 2000. Internet access services via cable modem just started as well.

On the other hand, Turkey has had higher digitalisation rates of the mobile network reflecting relatively late introduction of the services compared with those that had developed analogue mobile networks (Table 6).

Table 5. Rate of digitalisation (fixed network)

	1993	1995	1997	1998	1999
Turkey	74	77	82	83	84
OECD average	59	75	88	92	94
Number of OECD countries with 100% digitalisation	0	4	10	14	19

Source: OECD, *Communications Outlook 2001*.

Table 6. Rate of digitalisation (Mobile network)

	1997	1998	1999
Turkey	92	96	99
OECD average	78	87	93
Number of OECD countries with 100% digitalisation	2	5	6

Source: OECD, *Communications Outlook 2001*.

3.2.3. Cellular mobile services

In contrast to the fixed telecommunications market, the mobile network market of Turkey started effectively with two GSM operators (Turkcell and Telsim) in 1994. The duopoly continued until early 2001, when a new GSM operators (Aria) started to offer services, then the fourth GSM operator (Aycell) started operation in December 2001. Cellular mobile penetration has increased from 2.5 per 100 inhabitants in 1997 (OECD average 15.6) to 11.8 by 1999 (OECD average 32.4) narrowing the gap with the OECD average. Prepaid subscriptions have played an important part in mobile growth. For example, prepaid subscribers accounted for 44% of Turkcell's total cellular mobile subscribers at the end of 2000.

Table 7. Cellular mobile subscribers

(unit: one thousand)

	1994	1995	1996	1997	1998	1999	2000	2001
Turkcell				1 100	2 300	5 466	10 100	11 800 (Sept.)
Telsim				510	1 206	2 330	3 300	Over 6 000 (June)
Aria								500 (Oct.)
Aycell								50 (Dec.)
TOTAL	175	437	806	1 610	3 506	7 796	13 400	19.200 (end)
Market penetration (%)	0.3	0.7	1.3	2.5	5.4	11.8		28.7 (end)

Source: *Company annual reports*, OECD.

By the end of 2001 the number of mobile subscribers has reached 19.2 million or 28.7 subscribers per 100 inhabitants, which is higher than the penetration rate for the fixed network. Turkcell has the larger market share with 75.4% of subscribers in 2000 (only Turkcell and Telsim were operational in 2000).

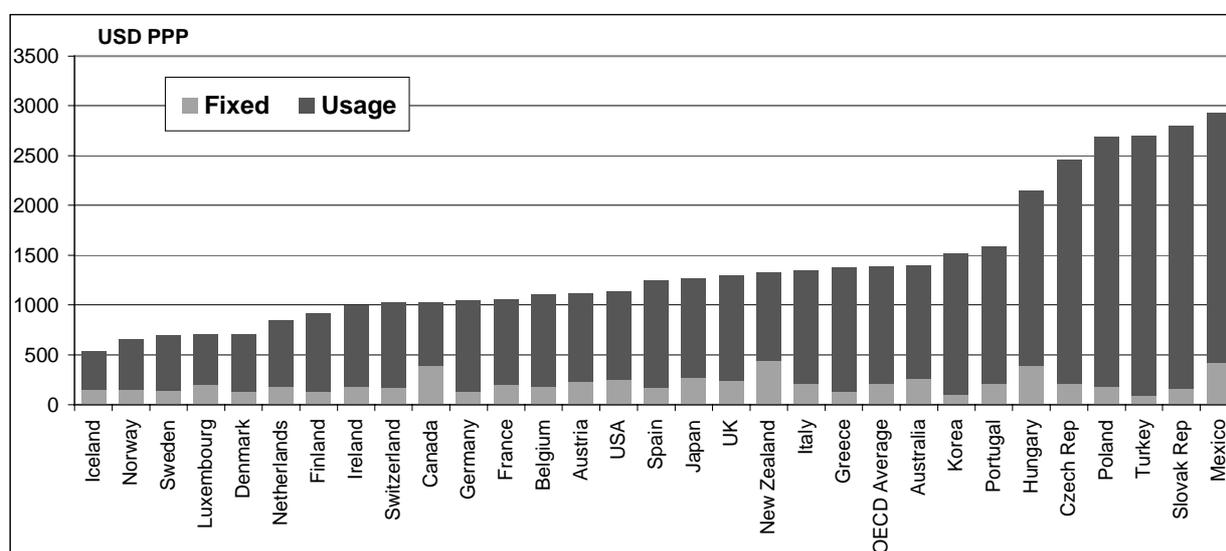
3.2.4. Development of competition

Completion of full liberalisation in Turkish telecommunications sector has to wait until privatisation of majority shares of Turk Telekom or 2004 at the latest, when the monopoly of Turk Telekom in fixed voice telephony and fixed infrastructure will open for competition. Alternative fixed communication infrastructures have not been developed yet CATV companies operate using Turk Telekom's infrastructure. In the GSM mobile sector where competition has been introduced (duopoly until 2001 and four operators since then), some benefits have accrued to Turkish consumers and users. These have been mainly from price decreases and an expansion in the range of services becoming available. For example, when Aria entered the market, the existing operators created new options that allowed 60% reduction on the monthly fixed fee and 50% on the call charges on their own network. New entrants' total share of subscribers against the incumbent Turkcell and Telsim seems to be still around 3% at the end of 2001 as they just started business in that year. Resolution of roaming disputes and introduction of number portability would enhance competition significantly in this market segment.

3.2.5. Price performance and rebalancing

Price levels in other countries provide an important benchmark to assess relative performance of telecommunication markets. For these purposes the OECD compares prices of a basket of telecommunication services for residential and business customers in each of the thirty OECD countries.³³ Turkey is ranked 28th both for the business basket and for the residential basket among OECD countries as measured in terms of purchasing power parities (see Figures 3 and 4).

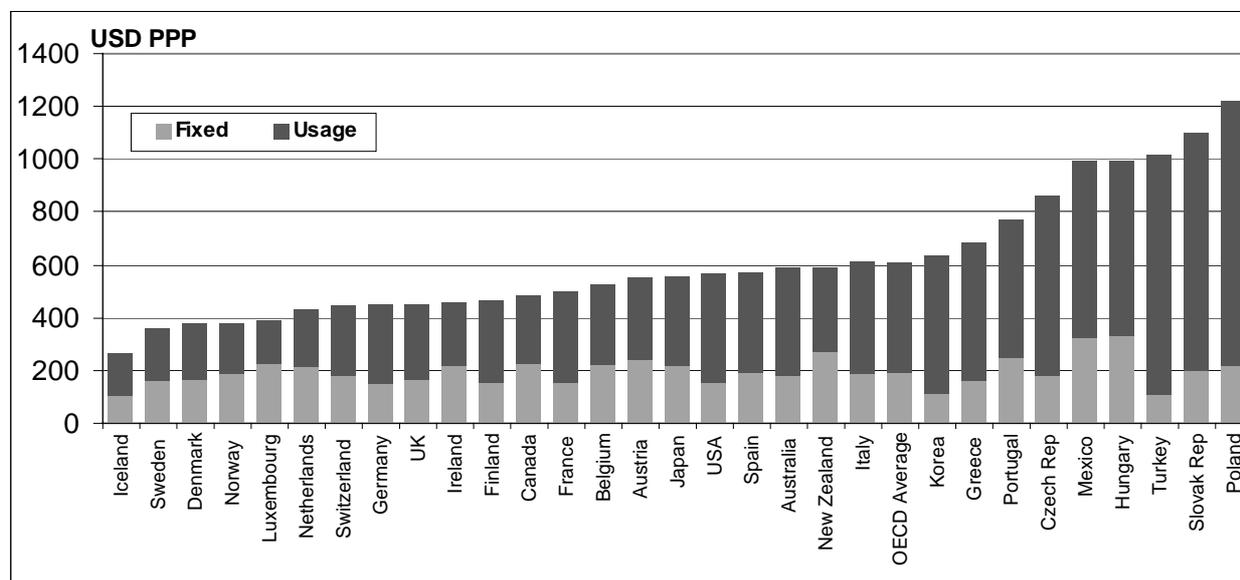
Figure 3. **OECD Composite Business basket, Nov 2001, VAT excluded**
(in USD/PPP)



Note: VAT is excluded; Calls to mobile networks and international calls are included.

Source: OECD.

Figure 4. **OECD Composite Residential basket, Nov 2001, VAT included**
(in USD/PPP)



Note: VAT is included; Calls to mobile networks and international calls are included.
Source: OECD.

One characteristic of the prices in Turkey is that fixed part of the price is the lowest among OECD countries both in business and residential.³⁴ However usage charges are high resulting in Turkey being one of the most expensive countries. Turkey has moved to rebalance its fixed telephony tariffs and there is further room to adjust the tariffs to reflect costs.

Table 8. **Local telephony charges (Turkish lira)**

	1996	1997	1998	1999	2000	Dec. 2001
Connection charges	10 000 000	19 000 000	12 500 000	12 350 000	13 350 000	7 000 000
Monthly subscription fee	250 000	625 000	1 000 000	1 500 000	2 480 000	4 810 000
Charge of 3 minutes local call	4 500	11 250	15 545	30 000	74 400	144 300

Note: Turkey does not distinguish business and residential tariffs.
Source: Turk Telekom.

3.2.6. International telecommunication prices

Turkey had one of the highest international collection charges in the OECD as measured in US dollars in the early 1990s. They have been reduced over the latter half of the 1990s, sometimes even reaching below OECD average. Pressure for price reductions came mainly from indirect competition, *e.g.* call-back services. Despite this improvement, however, the charges still remained as one of the highest in 2000.³⁵ The OECD basket of international telephone charges³⁶ as of November 2001 shows that Turkey has international charges of around three times of the OECD average both for business and residential calls making it one of the highest price countries in the OECD for these services (Table 9). Accounting rates with the United States have declined but are still high compared with other heavier traffic routes (Table 10).

Table 9. OECD basket of international telephone charges, November 2001

	Business Excluding tax		Residential Including tax	
	USD	USD PPP	USD	USD PPP
Australia	0.75	1.00	1.03	1.37
Austria	0.77	0.83	1.06	1.15
Belgium	0.49	0.56	0.57	0.66
Canada	0.66	0.83	0.90	1.14
Czech Republic	0.78	1.90	1.02	2.48
Denmark	0.50	0.46	0.80	0.73
Finland	0.78	0.74	1.00	0.95
France	0.34	0.37	0.66	0.73
Germany	0.42	0.45	0.62	0.67
Greece	0.77	1.12	1.17	1.69
Hungary	0.92	2.10	1.48	3.36
Iceland	0.58	0.55	0.92	0.88
Ireland	0.51	0.55	0.70	0.76
Italy	0.90	1.16	1.32	1.69
Japan	2.78	2.01	2.80	2.03
Korea	2.16	3.86	2.57	4.59
Luxembourg	0.37	0.41	0.49	0.55
Mexico	3.28	4.05	3.98	4.91
Netherlands	0.30	0.35	0.46	0.53
New Zealand	0.75	1.12	1.00	1.49
Norway	0.31	0.26	0.47	0.40
Poland	1.58	2.99	2.48	4.69
Portugal	0.71	1.08	0.96	1.46
Slovak Republic	0.69	2.15	1.07	3.35
Spain	0.78	1.01	1.12	1.46
Sweden	0.34	0.34	0.53	0.54
Switzerland	0.30	0.25	0.37	0.31
Turkey	1.51	3.98	1.89	4.98
UK	1.18	1.16	1.61	1.58
USA	0.52	0.52	1.48	1.48
OECD Average	0.89	1.27	1.22	1.75

Source: OECD and Teligen.

Table 10. Accounting rates with the United States (USD)

	1997	1998	1999	2000	2001
France	0.26	0.21	0.20	0.19	0.19
Greece	0.86	0.55	0.30	0.25	0.26
Ireland	0.33	0.19	0.19	0.18	0.18
Italy	0.33	0.22	0.22	0.20	0.20
Portugal	0.60	0.43	0.30	0.20	0.20
Spain	0.48	0.26	0.27	0.25	0.26
Turkey	0.82	0.76	0.66	0.41	0.38
United Kingdom (BT)	0.20	0.21	0.21	0.21	0.21

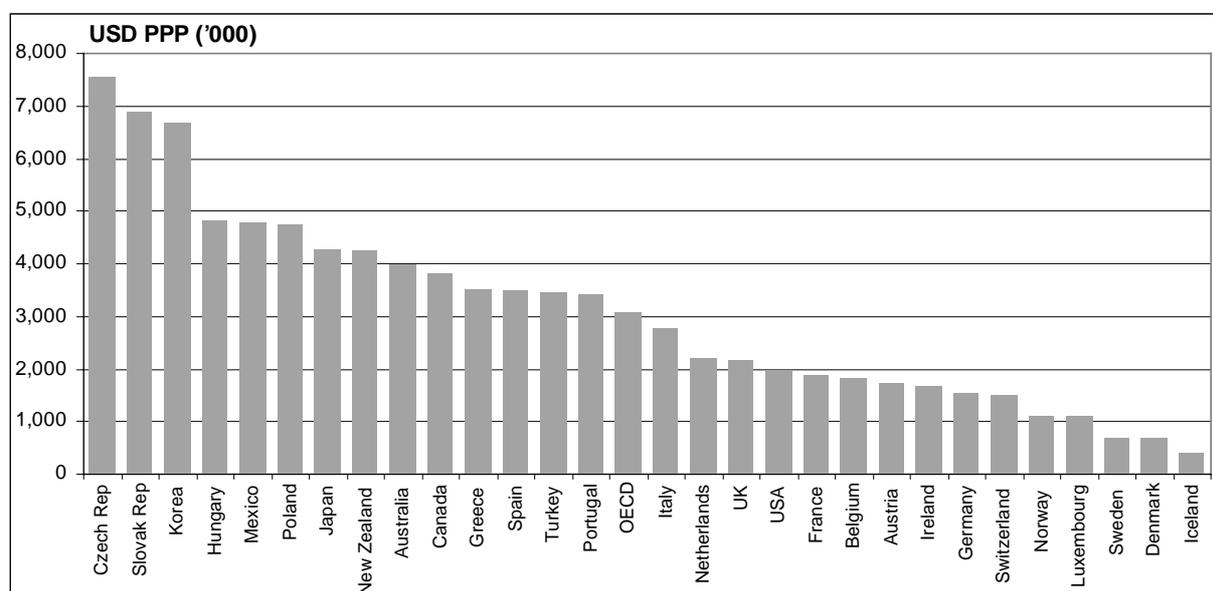
Source: International Bureau, Federal Communications Commission, US.

3.2.7. Leased lines

The availability of leased lines and their price levels are important for the development of competition since new entrants initially will rely on these circuits to develop service. Leased circuits have also become important for the development of Internet services. Relative to other OECD countries' prices Turkey's tariffs of national leased lines of 2Mbit performs better than in telephone charges as they are only slightly higher than the OECD average (Figure 5).

Figure 5. National OECD Leased lines basket, November 2001, 2 Mbits

VAT excluded



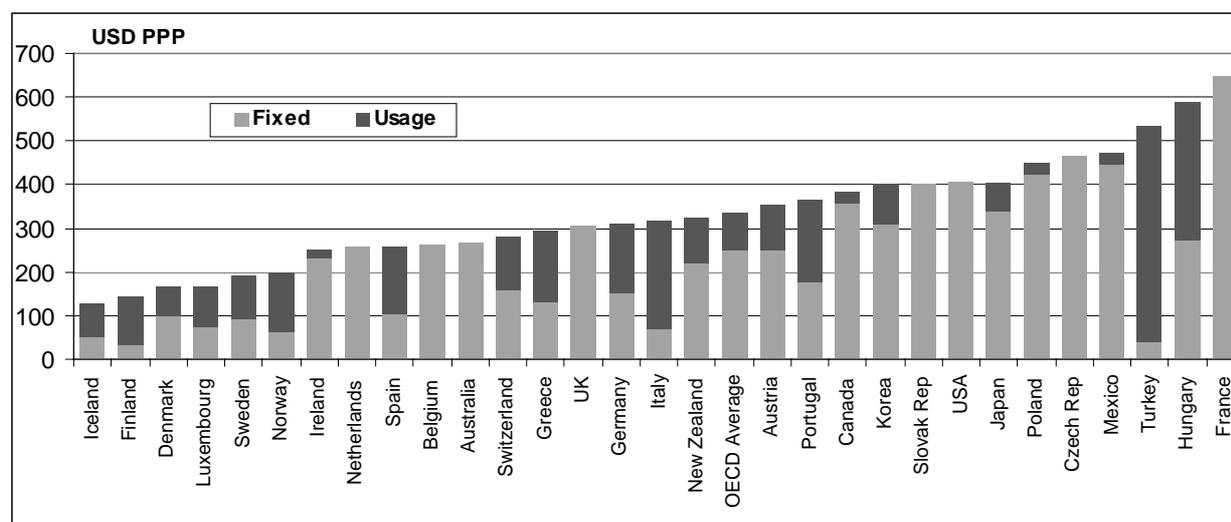
Note: VAT is excluded.

Source: OECD.

3.2.8. Cellular mobile prices

Despite the development of competition in the consumer mobile service market, *i.e.* duopoly until 2001 and four operators thereafter, Turkey's price level in cellular mobile has been one of the highest among OECD countries. Turkey's price level ranked the 21st in August 2000 and moved up to the 17th in August 2001, but went down to the 28th in November 2001 (Figure 6). Equivalent charges of the business basket were one of the highest (the second highest at USD/PPP 1 956) and about double the OECD average of USD/PPP 1 000 as of November 2001.

Figure 6. **OECD basket of consumer mobile charge, November 2001**
(VAT included) in USD PPP



Note: The basket includes 50 minutes per month and excludes international calls. VAT is included.
Source: OECD and Teligen.

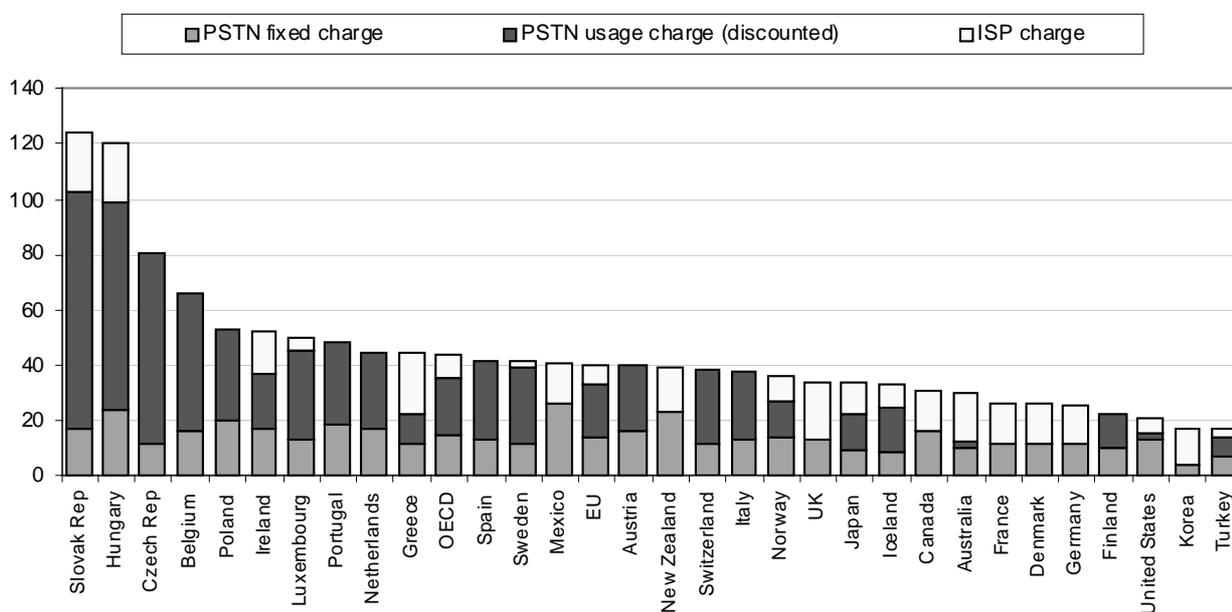
3.2.9. Internet developments and performance

The total number of Internet subscribers in Turkey is estimated to be around 2.4 million at the end of 2001 (a significant growth from around 0.3 million at the end of 1999), of which 194 000 or 8% are Turk Telekom's customers. The total number corresponds to around 5.5 per 100 population. The number of Internet hosts per 1 000 inhabitants has shown rapid growth, and reached 3.3 in October 2000. The increase between July 1999 and January 2000 of 175.2% is one of the highest growth rates, whereas the OECD average was 51.3%. However, Turkey still belongs to a group of the lowest penetration rates of Internet hosts.

Access price of the Internet as measured by the OECD basket for 20 hours shows that Turkey has the lowest charges among the OECD countries for peak times (Figure 7). Turkey's performance is the best among OECD countries for off-peak times as well. This good performance is noticeable in the 40-hour baskets as well. However, despite having one of the lowest prices to access the Internet among OECD countries, the number of subscribers is still small. This seems to come from the low penetration of the fixed line telephony, relatively low incomes, and the small number of Internet hosts offering Turkish language content. However Turkey seems to have a good potential for a rapid and large growth in the Internet users.

Figure 7. **OECD Internet Access Basket for 20 hours at peak times using discounted PSTN rates, August 2001**

USD/PPP, including VAT



Note: PSTN fixed charges include monthly rental fee. The basket includes 20 one-hour calls. In some countries, ISP and PSTN usage charges are bundled and included under either the ISP or the PSTN charge.

Source: OECD.

3.2.10. *Quality of service*

Turkey has had a high rate of fault incidents of telephone lines during the 1990s. The number of faults per 100 lines per annum was still 56 in 1998 despite progress over 1990s. On the other hand, the percentage of faults repaired within 24 hours in Turkey has been relatively high at 90 to 95% during the 1990s.

The number of payphones has continuously increased, except between 1998 and 1999, and stood at 78 thousand in 1999 compared to 58 thousand in 1995. This corresponds to 1.0 payphones per 1 000 people in 1995 to 1.2 in 1999. The main reason for this relatively small increase in the number of payphones is because existing ones have been replaced by cardphones and not only that new ones have been added. In fact, the percentage of payphones that accept telephone and credit cards was 37% in 1995 but surpassed 60% by 1997. On the other hand, the number of payphones has turned to decrease since 1999 and it stood at 71 thousand at the end of 2001. This period corresponds to increased penetration of GSM mobile services and it could be one of the main reasons for the decrease.

Availability of itemised billing is limited to around 89% of users in Turkey while a number of OECD countries have 100% availability in 2001. Moreover itemised billing is offered with additional cost in Turkey.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1. *General assessment of current strengths and weaknesses*

The regulatory regime in Turkey displays a number of strengths (see below). These strengths are based above all on the emphasis that the government, and the regulator, have been placing on the importance of market forces and the readiness to adopt market-oriented regulation. Turkey's introduction of full liberalisation of the telecommunications market has to wait until 1 January 2004 or when more than 50% of Turk Telekom shares are privatised. As such it will be the last OECD country to complete full liberalisation of telecommunication markets. The delay is unfortunate and Turkey should perhaps look at the Irish experience where Ireland had a derogation from the EU's 1998 market opening, but decided to open their markets 18 months before the end of derogation date, resulting in successful development of the sector. The Turkish government, however, may bring full liberalisation forward if it manages to find a strategic foreign investor for Turk Telekom and reduce the government's share in the company below 50%.

Parallel to the decision to fully open up the market by 2004 or when more than 50% of Turk Telekom shares are privatised, and the full privatisation of Turk Telekom, Turkey has over the last few years made major changes to its basic institutional arrangements and regulatory regime to prepare for full liberalisation and prepare the groundwork to create competitive markets. Creation of the first sector-specific independent regulator and transfer of regulatory functions to it from the government ministry are among the major changes. The Competition Authority was also established to enforce economy wide competition rules. Major changes to the regulatory regime include introduction of a licensing regime, an interconnection regime, concepts of price cap regulation, and universal service obligations.

As the opening of the market to full liberalisation approaches, the regulator in particular is required to complete the task of putting in place the necessary safeguards diverting its scarce human resources to the immediate problem areas where emphasis is needed to build a sound regulatory framework. Inevitably this is likely to lead to dissatisfaction from all parties in the market, placing even further pressure on the regulator. Having started to operate only in August 2000, the Telecommunications Authority has been aware of the need to implement detailed regulations in virtually every aspect of the telecommunications sector. The fee schedule for the licence framework needs to be implemented, and the standard reference tariffs for the interconnection regime needs to be finalised by the regulator. Number portability and formal procedures to handle consumer complaints are other examples. The fact that the regulator is aware of the different regulatory needs is itself a strength and is indicative of a regulator working in the right direction despite limited human resources.

Box 2. **Strengths**

- Determination to develop an open and competitive telecommunications market.
- Basic institutional and legal frameworks for a liberalised market have been established.
- Awareness of a need to lay down further regulations for the creation of a competitive market.
- Extensive use of public consultation in the decision-making process.
- Good co-operation between the independent regulator and the Competition Authority.
- Competition in the GSM mobile sector.

Another strength of the Turkish regulatory regime is found in the extensive use of public consultation in decision-making processes both of the Ministry of Transport and the Telecommunications Authority despite there being no such legal requirement. This is likely to help improve the transparency of the decision-making process and the quality of the decisions, ensure smooth implementation, and strengthen the independence of the regulator. The planned establishment of the “Telecommunications Policy Council” is a welcome move to further improve the quality of the regulator’s decision-making if it does not exclude consumer representation and other stakeholders. The government should further strengthen the practice of public consultation by clarifying the criteria publicly regarding what matters are to be consulted and what are not with standard length of the consultation period, and requiring final decisions to be accompanied by a clear rationale outlining why particular decisions were taken.

As in other OECD countries, liberalisation of the telecommunications market has been increasing the involvement of the Competition Authority in the sector, and necessitates close co-operation and co-ordination between the Competition Authority and the telecommunications regulator. This is likely to become more important in the future when the sector opens to competition. For example, the designation of an operator with significant market power and the imposition of asymmetric regulation as used in interconnection regulations needs examination from the perspective of competition rules and compatibility with definitions used by the Competition Authority. In this respect Turkish law provides a good framework to allow good working relationships between the two institutions. The protocol of co-operation, which is currently under development between the two organisations, is important in this respect.

Despite some problems such as in national roaming arrangements, competition in the GSM mobile sector has improved with two new entries in 2001 in the previously duopoly market. Competition in this market has already brought benefits to consumers in terms of relatively low prices compared with other areas and a wider choice of service. Also despite the heavy taxation on mobile users the penetration rate has already surpassed that in the fixed-telephony market. Although actual competition is still limited because two new GSM operators entered the market only in March and December 2001, and the fifth entry is not foreseen in the immediate future, competition is expected to be strengthened through further regulatory measures such as in roaming and in number portability, bringing further benefits to consumers in terms of prices and choice of services.

Although the strengths of the Turkish regulatory framework provide the potential for the creation of a competitive and efficient market which will bring benefits to Turkish consumers and the economy at large, there are some regulatory issues that need to be addressed (Box 3).

Box 3. Weaknesses

- Necessary regulations are not fully in place.
- Inflexibility in staff recruitment procedures allowed to the Telecommunications Authority.
- No competition in fixed telephone infrastructure and services.
- Turk Telekom not privatised yet.
- Foreign ownership restrictions.
- Heavy taxation on the mobile sector.

The Telecommunications Authority started to function only in August 2000 and it has faced a large number of tasks since then, these include establishing a number of regulations under the new regulatory regime set up notably by the Law 4502 of January 2000 and Law 4673 of May 2001. Although it has made achievements to date, the regulator still has a long way to go to complete the necessary regulations for a fully liberalised telecommunications market. Determination of the minimum values for licence fees, which is necessary to implement the licensing regime, establishment of standard interconnection tariffs including those for roaming of GSM operators, establishing regulations for number portability and carrier pre-selection, and establishing a universal service regime are only some of such necessities. With its limited human resources being diverted to many different areas, the regulator should make good use of external expertise and in particular best practice regulation already in use with the EU.

In this regard, the constraints placed on the regulator in its staff recruitment as noted in this chapter have limited its capacity to take necessary measures promptly. Lack of adequate resources may also compromise the regulator's independence. The regulator needs to be allowed to recruit freely and should not be limited to recruiting only from the civil service. In addition it should be given some leeway in diverging from civil service pay scales. This will strengthen it and ensure high quality regulations.

The monopoly structure of the Turkish fixed line telephony services and infrastructure has limited the growth and expansion of the markets and hence the benefits of new technologies and services to users. This is evident from the low penetration rate of fixed line telephone access (28.3%) and low take up of Internet services despite the availability of one of the lowest prices among OECD countries. The Turkish government should try and accelerate market opening if possible before 2004. At minimum they should allow for licensing and network construction before 2004 so that new entrants will be in a position to offer services immediately once full liberalisation takes place. Licensing after January 2004 could effectively maintain the fixed line monopoly for up to a year while new entrants invest in network infrastructure. For this reason as well full local loop unbundling and resale should be allowed.

Full privatisation is viewed as an important part of the liberalisation process in Turkey. The government has been looking for international strategic investors very actively. However, these attempts have been unsuccessful because of unfavourable internal and external economic and market conditions. The new plan of the privatisation to be announced by the Council of Ministers is expected to move the privatisation forward. Also for completing the privatisation in the future, the government's direct involvement in the Turk Telekom's managerial decisions through the golden share should be eliminated. This will help increase the attractiveness of the company to foreign strategic investors.

The foreign ownership restrictions up to 49% of telecommunications operators that operate under Concession Agreements and up to 45% of Turk Telekom are completely unnecessary and should be abolished. Such conditions will slow down investment and access to new technologies as well as increase the cost of capital to domestic firms. Foreign investors and operators should not be discriminated just as Turkish investors and operators can enter most other OECD markets without such barriers. Moreover, the Turkish telecommunications market needs to attract much more foreign investment in order, for example, to have the fifth GSM operator and to have competition in the fixed telephony market when it is opened.

Finally, imposing a tax on the value of GSM mobile users' invoice in the range of 55 – 60% is penalising and will have negative consequences on the sector as well as at an economy wide level. Considering the low penetration rate of fixed voice telephony and the utility of mobile phones in emergency situations, there seems to be no reason for penalising their use. The government should reduce the total tax rates on mobile users to a reasonable level. This revenue loss would in any case be partially compensated through increased total revenues from increased mobile subscription as a result of the lower costs to use mobile phones. Also, the Licence fee levied on GSM operators as a "contribution" to the Treasury separately from spectrum fees should be eliminated in that there is no justifiable reasons for this taxation.

4.2. *Potential benefits and costs of further regulatory reform*

As indicated in previous sections, the Turkish telecommunications industry and consumers have in the past benefited from declining prices and an increasing variety of services. However, as described in the previous section, there is still room for improvement in the regulatory framework of Turkey in order to achieve fair and effective competition in a market, which is in transition, and exploit its potential fully. The government should, however, introduce new streamlined licensing system and procedures in line with proposals of the European Commission.

Improvement in the regulatory landscape and enhanced competition would bring further benefits to consumers through price reduction, better quality and more choice. From this perspective, it is suggested that Turkey consider the following recommendations.

4.3. *Policy recommendations*

The following policy recommendations are based on the “Policy Recommendations For Regulatory Reform” set out in the OECD “Report on Regulatory Reform” (OECD, June 1997).

1. Ensure that regulations and regulatory processes are transparent, non-discriminatory, and applied effectively

- *The licensing regime should be streamlined using a general authorisation framework, rather than individual licensing.*

Although Turkey just started a licensing regime recently, there is much scope for streamlining it. In particular the bilateral Concession Agreements (and the Authorisation Agreements with Turk Telekom) should be integrated into the Telecommunications Licence although special treatment in respect of allocation of scarce resources may be necessary. In terms of the Telecommunication Licence, the Telecommunications Authority and the government should not have the discretionary power to decide the number of market entrants as this matter could best be left to the market forces. The current General Authorisation is in fact individual licensing and should be transformed into general regulatory act so that new entrants only need to fulfil the general conditions and to register with the regulator. At the same time the required information to obtain the licences, *e.g.* business and financial plans, should be reduced as much as possible. In the medium term, the regime should shift further towards a framework for market entry based fully on general authorisation rather than individual licensing with allocation of scarce resources as the only exception. This will help to further reduce barriers to entry and to free scarce human resources in the Telecommunications Authority.

- *Emphasis should be given to implement an interconnection framework for fixed and mobile services based on a long run incremental cost methodology. This needs to be linked with a cost allocation model applied to the incumbent.*

While the Telecommunications Authority is working to establish an interconnection framework that is compatible with relevant EU Directives by the end of 2002, a best practice interconnection framework needs to be put in place for the mobile sector and should be prepared in advance of market liberalisation for the fixed market. In addition, the requirements of price rebalancing, universal service costing, and interconnection requires knowledge on the incumbent’s costs. This is particularly urgent in the mobile network sector in view of the experience on roaming arrangements that were not settled by the GSM operators and the subsequent decision of the regulator has resulted in judicial procedures, which are still going on.

- *Service Level Agreements should be established and enforced.*

In view of common complaints among GSM operators of Turkey, and experiences of other OECD countries, over the quality of service offered by the incumbent to new entrants, including high prices, delayed delivery, quality of the physical lines, and arbitrarily changed conditions of delivering leased lines, Turkey should have Service Level Agreements (SLA) in place covering prices, delivery times, fault maintenance, and restoration. Aware of such necessity the Telecommunications Board has taken a decision that the SLAs especially for leased lines should come into force in 2002. The regulator should also consider requiring Turk Telekom to include such a SLA in their Reference Interconnection Offer.

- *Regulation for line sharing and bitstream access should be put in place as part of a wider framework for full unbundling.*

Although full unbundling will eventually be necessary once the voice market opens to competition, at this stage a framework should be implemented for line sharing and bitstream access to enable Internet Service Providers to compete on equal terms with the incumbent in the provision of Internet access and broadband access. This does not conflict with Turk Telekom's monopoly in fixed voice telephony and infrastructure. It should be noted as well that the Internet service provision market is already open to competition.

- *The Telecommunications Authority should establish concrete procedures with a standard time frame for handling consumer complaints. The procedure should be speedy, simple, and inexpensive for ordinary consumers. It should also ensure that telecommunications operators implement and make public an appropriate code of practice for consumers. Operators should be required to provide to have transparent procedures for the handling of complaints and published an annual report on their handling of complaints.*

Although there is a possibility for formal procedures with the Telecommunications Board for consumers in very limited cases, most consumer complaints are currently dealt with on an ad-hoc basis. This leaves consumers with uncertainties in respect to the time and costs involved. Development of concrete procedures to deal with complaints reduces uncertainties and improves transparency. The study by the Telecommunications Authority aiming to establish a "consumer complaints centre" to be completed in July 2002 is an important step in this respect. In addition the telecommunications industry, in particular, should be required to develop adequate and simple procedures to resolve disputes and respond to complaints.

2. Reform regulations to stimulate competition and eliminate them except where clear evidence demonstrates that they are the best way to serve the broad public interest.

- *Revenue sharing agreements of CATV operators with Turk Telekom should be transformed to licences which are non-exclusive with respect to the operating area. Transfer of CATV networks to the operators from Turk Telekom with just compensation should be undertaken rapidly.*

In many OECD countries CATV operators provide the closest alternative networks to the incumbent's local loops; however, in Turkey CATV infrastructures are also owned by Turk Telekom and the six CATV operators only provide services on Turk Telekom networks under revenue sharing agreements. Although a licensing regime has been introduced, the CATV companies have not yet been made subject to this regime. Allowing CATV companies to own and operate their own networks will help stimulate Internet access in particular broadband, and will form the basis for future competition once the infrastructure and voice markets open to competition.

- *Price rebalancing should be completed as soon as possible. The costs of providing universal service, when net costs are found and deemed as an unfair burden on the USO operator, should be reimbursed by a universal service fund to be created through contributions of market participants.*

Price rebalancing has progressed, but is far from complete yet. It is important that such rebalancing is completed before the market opens to competition as the guidelines of the Telecommunications Authority provides for and the Authority should ensure it. In the context of universal service, a methodology agreed to by the industry should be used to determine the cost of providing universal service. If the regulator determines that the costs of universal service are high, taking into account any benefits that may accrue to the incumbent from providing universal service, then a funding system should be implemented to allow for appropriate compensation. If this is required, it is more appropriate to set up a universal service fund to which market players contribute than to use access deficit charges.

- *Foreign ownership restrictions should be eliminated.*

Foreign ownership restrictions are often not conducive to an open, efficient and dynamic market. Foreign capital is important for the achievement of universal service and the rapid development of the telecommunication sector and new services. Foreign capital is often linked with new technologies and best practice management and an open capital market will help lower the cost of capital. The latter is important in a market which is very capital intensive. Governments have other tools, which impose a much lower economic cost, which can be used if they have concerns regarding network security and the national interest.

- *Internet Service Providers should not be required to obtain a General Authorisation (individual licence).*

Requiring ISPs to obtain an individual permission in a form of a General Authorisation is unnecessary since they should have no specific or individual obligations not to mention that there need be no limitations on the number of ISPs nor do they require allocation of scarce resources. Turkey should consider allowing them to operate through a system of registration. It should be noted that in most OECD countries ISPs do not need any licences or authorisation to operate.

3. Review, and strengthen where necessary, the scope, effectiveness and enforcement of competition policy.

- *Explicit and concrete provisions governing forbearance and withdrawal from sector specific regulation should be considered. From this perspective, the Telecommunications Authority should review the telecommunications market regularly to evaluate the state of competition in the market to determine when and how sectoral regulations can be withdrawn leaving incumbent power to be disciplined by the market and general competition law. The results of the review should be published regularly as well.*

Even though the urgent necessity is the introduction of various regulations in the market, the requirement to streamline regulations and forbear from regulation, when and where appropriate, will continue to be an important task for the Telecommunications Authority as does the need for continuous consultation with the Competition Authority. The market reviews of the regulator are an important initial step in this process. These should be strengthened and the regulator should be required to undertake regular reviews of regulation to ascertain where streamlining can take place.

NOTES

1. OECD, *Communications Outlook* 2001.
2. *Ibid.*
3. Article 2 c) of “Law Amending Certain Articles of the Telegram and Telephone Law, Law on Organisation and Responsibilities of the Ministry of Transport and Wireless Law, Law on Savings and Aid Fund of the Posts and Telegraphs and Telephone Administration and Organisational Charts attached to the Decree with the Force of Law on the General Cadrees and Procedures”. In accordance with this law, monopoly rights of Turk Telekom will also expire if and when state ownership in the company falls below 50%.
4. PTT was at the same time a state monopoly of postal services.
5. “Law on Amendment of an article of the Telegraph and Telephone Law and the law about the incorporation of some supplementary and provisional articles to this law”, Law 4000 of 18 June 1994.
6. As a result the PTT was transformed into the General Directorate of Posts in charge of providing postal and telegraph services.
7. These were Laws 4107 and 4161.
8. “Law Amending Certain Articles of the Telegram and Telephone Law, Law on Organisations and Responsibilities of the Ministry of Transport and Wireless Law, Law on Savings and Aid Fund of the Posts Telegraphs and Telephone Administration and Organisational Charts attached to the Decree with the Force of Law on the General Cadrees and Procedures”, Law 4502, dated 29 January 2000.
9. However, the Ministry retained the responsibilities to issue licences and to sign concession agreements including determination of their specific contents as well as terms and conditions of the general authorisation under Law 4502.
10. Specific rights and obligations of Turk Telekom were to be defined by an Authorisation Agreement between the company and the Ministry of Transport.
11. “Law on Amending the Telephone and Telegram Law, Law on Savings and Assistance Fund of Postage, Telephone and Telegram Administration and Organisation and Duties of the Ministry of Transport”, Law 4673, dated 12 May 2001.
12. As described later, the government intended to have five GSM operators from 2001.
13. Ankara, Adana, Antalya, Bursa, Gaziantep, Istanbul, Izmir, Kayseri, and Konya.
14. However, this is the standard procedure for appointing such boards in Turkey, which is used as well for Competition, Banking Regulatory, and Energy Boards.
15. Article 16 i) of Law 4502.
16. Article 2 f) of Law 4502.
17. Article 5 as amended by Law 4502.
18. Article 16 m) of Law 4502.
19. In contrast, decisions of the Competition Authority are suspended if a party brings the case to the administrative court.

20. “Communiqué on Mergers and Acquisitions Calling for the Authorisation of the Competition Board” numbered 1997/1, which was established based on Article 7 of Law 4054.
21. Article 6 of the Law 4502.
22. Article 3 a) of Law 4502 and Temporary Article of the Law 4673.
23. OECD “Regulatory Reform in the Telecommunications Industry: Denmark” (DSTI/ICCP/TISP(99)3/Rev1) at 18.
24. Article 10 of Telegram and Telephone Law dated 4.2.1924 and numbered 406 as amended by Law 4502.
25. Article 6 of Law 4502.
26. The concept of LRIC is already incorporated in the Tariff Ordinance, in which it is stated that LRIC will be taken into account in the cost based approval of tariffs by the Telecommunications Authority.
27. Local Loop Unbundling (LLU) refers to a mandatory opening-up of the local loop (the last part of physical telecommunication circuit leading to the subscriber’s premises) to enable new entrants to access customers directly over the incumbent’s networks.
28. ADSL (Asymmetric Digital Subscriber Line) is one of the digital coding technologies that utilise an existing telephone line of copper for high-speed data communications. ADSL has been commercialised the most extensively among various DSL technologies and the word “Asymmetric” comes from the fact that downstream data flow (downloading) of up to 8Mbps is faster than that of upstream (uploading) of up to 1Mbps.
29. Article 10 of Law 4502.
30. Analogue wireless telephony called NMT-450 had been offered by Turk Telekom since 1986. It was attached to a car at first.
31. MVNO refers to an operator who does not own mobile telephone networks but provides services using excess capacity leased from licensed operators who own the networks. They can enter the market more easily without the need to obtain a Concession Agreements involving expensive prices for frequency nor heavy investments associated with building up physical networks.
32. It should be noted however that the European Commission, as part of its proposed regulatory package published in July 2000, proposes to remove the second option (a supplementary charge to interconnection) in its proposed new Directive on Universal Service. That new Directive will replace the Voice Telephony and Interconnection Directives.
33. The basket includes a number of calls distributed at different times of the day, different days of the week, and over different distances. The statistics are prepared in USD using both purchasing power parity (PPP) and current exchange rates. In general, it is considered that the PPP figures provide a more reliable comparison.
34. Turkey does not distinguish business and residential tariffs.
35. OECD, *Communications Outlook 1999*” and *Communications Outlook 2001*.
36. OECD countries are divided into three regions (Europe, North America, Asia-Pacific) and international call destinations are assumed to be distributed equally to each area.