Net Neutrality Policy in the United States and Insights for Turkish Policy

Introduction

My presentation aims to establish a connection with the recent discussions in the US about the net neutrality and the broadband telecommunications in Turkey. First I provide a brief historical background of telecommunications policy in the US. Then I propose to discuss about the relationship between investments and competition. Following this, I summarize the debates on Open Internet Order in the context of concentration of telecommunications and media companies. Finally I provide a broad sketch of the Turkish broadband operators in the context of their engagement with the paid television services.

Historical Background – From Regulated Monopoly to Balkanization and Re-Consolidation

The Bell System was a sibling of the New Deal and survived until the 1980s. The system included vertically integrated monopole telephone operator and equipment manufacturer. A court decision dated in 1980 came into force in 1984 and disintegrated Bell System in sectoral and regional terms. The regionally disintegrated introduction of the mobile telephone in 1982 came together with the divestiture and created a fragmented structure. Crandall calls this first moves of divestiture as Balkanization, with a pejorative sense. However, in the 1990s and 2000s a re-consolidation took place through mergers and acquisitions and a few telephone operators with respectable market share survived.[1]

The telecommunications policy targets the increase investments in network, while securing the competition. Pro-competition regulation rests on the ladder of investment argument, which defends that the enabling of competition would also increase investments as follows. The first rung of the ladder is to enable competition (static efficiency) through infrastructure sharing. Utilization of the network of incumbent by the entrant is to be guaranteed through modest rates determined by the regulatory authority. The proposed second rung of the ladder is infrastructure based competition. In this stage, it is expected that the entrant is to start deploying her own infrastructure.[2]

In the context of 1990s, under conditions of expanding market for telecommunications services and popularity of the sector in the international financial markets, entrants could finance their investments even with miniscule market shares. However, following the dot.com crisis in 2000, under conditions of

[1] For a detailed account of the American telecommunications history, see Gerald W. Brock, *The Second Information Revolution*, (London: Harvard University Press, 2003), especially 200-243.

[2] For an explanation of the ladder of investment argument, see Ingo Vogelsang, "The Endgame of Telecommunications Policy? A Survey," *Jahrbuch für Wirtschaftswissenschaften / Review of Economics* 64, no. 3 (2013): 210-211.

matured market for telecommunications services and depressed funds, ability to secure financing for network expansion became much more dependent to a respectable market share. Under conditions of scarce financing, the enforcement of the infrastructure sharing through modest rates have had a demotivating effect on new investments.[3] An inclination to concentrate the market power emerged as a response. The relatively concentrated market power under the conditions of hesitant financing still can produce respectable investment. (See Figure 1).

Net Neutrality – Main Issue under Integration of Media and Telecommunications

The Telecommunications Act of 1996 allowed the vertical integration of telecommunications operators and media corporates. The telecommunications operators like AT&T and Verizon tended to acquire or form alliances with the various audio-visual content providers. These audio-visual content producers cover a large field of communication, like newspapers, television stations, movie studios, digital platforms etc. These companies, which were fixed telephone operators erstwhile, are recently labelled as Internet Service Providers (ISPs), as the relative significance of the voice-call service declined, and broadband internet service peaked. In the segment of broadband internet service, these fixed operators are also in competition with the cable companies like Comcast, Time Warner Cable, Cablevision, and Charter. Over the Top Companies (OTCs) like Apple, Google, Amazon, and Facebook also tend to consolidate telecommunications and media branches.[4]

Net neutrality is defined as follows by Merriam-Webster dictionary: "the idea, principle, or requirement that Internet service providers should or must treat all Internet data as the same regardless of its kind, source, or destination." An alternative definition from the viewpoint of the end user can be made as

[3] Crandall emphasizes the demotivating effect of pro-competition regulation in the US. Robert W. Crandall, *Competition and Chaos: US Telecommunications since the 1996 Telecom Act*, (Washington, D.C.: Brookings Institution Press, 2005), 4-5. For a similar analysis in the context of the European Union, see Pier Luigi Parcu and Virginia Silvestri, "Electronic Communications Regulation in Europe: An Overview of Past and Future Problems," *Utilities Policy* 31 (December 2014): 247.

[4] The consolidation and vertical integration of the telecommunications and media corporations is studied in detail by Castells. Manuel Castells, *Communication Power*, (New York: Oxford University Press, 2009), especially 71-99. For a relatively up to date mapping of the ownership relationships of conglomerates, see Alina Selyukh, "Big Media Companies and Their Many Brands – In One Chart," npr.org, October 28, 2016. (http://www.npr.org/sections/alltechconsidered/2016/10/28/499495517/big-media-companies-and-their-many-brands-in-one-chart/ date of access: 20.10.2017).

follows: "At its most basic, the idea behind net neutrality is that the person who decides what content you can access online is you."[5]

The net neutrality matters in this complex context of consolidation, as the ISPs and cable companies tend to provide bundles for consumers. For example, as the fixed operator AT&T acquired the Time Warner in 2016 and became the new owner of the Home Box Office (HBO), the blocking of Netflix series or offering advantageous access to HBO series would boost their profits. Consequently, if an American citizen is the subscriber of the AT&T, she may be forced to daydream about riding a dragon instead of managing a mafia network in Latin America. The filtering of the content would not be solely on fiction, may also cover political ideas.

In 2010, with the support of Obama administration, Federal Commission of Communications (FCC), the sectoral regulatory authority accepted the Open Internet Order. The decision was strongly opposed by the ISPs, and sued by AT&T. The legal and juridical process ended in 2015 and the order came into force. As Crandall puts it, "The FCC's final rules require that ISPs not engage in: (i) ''blocking,'' (ii) ''throttling,'' (iii) ''paid prioritization,'' or (iv) ''unreasonable interference or disadvantaging'' of end users or content providers."[6] The restrictions for mobile broadband operators was not as heavy as the fixed.

From the viewpoint of the academic literature on telecommunications policy, the argument behind net neutrality is very similar to the ladder of investment approach. In this respect, the Open Internet Order can be handled as a new wave of pro-competition regulation. Like the enforcement of the infrastructure sharing agreements through modest prices paid by entrants to use the network of incumbents, the enforcement of the net neutrality encourages the entrants in the audio-visual contents. According to Islas, OTCs like Google, Facebook, Amazon, eBay supported network neutrality.[7] In this respect, the net neutrality would encourage new entrants and OTCs for services based competition. In this context the service is the providing of the audio-visual contents of all sorts. However, this principle may make unnecessary for these entrants and OTCs to build their own backbone infrastructures and de-motivate

[5] Octavio Islas, "The Open Internet's Day in Court: What You Need to Know," octavioislas.com, September 9, 2013. (https://octavioislas.com/2013/09/09/11328-fccs-open-internet-order-media-matters-for-america/ date of access: 20.10.2017).

[6] Robert W. Crandall, "The FCC's Net Neutrality Decision and Stock Prices," *Review of Industrial Organization* 50, no. 4 (June 2017): 558.

[7] However, Google may change position, if the Google Fiber grows too much and the ISP function over-weights. Islas, "Open Internet's Day in Court."

conventional fixed operators and cable companies to further invest, under the conditions of present financial hesitancy to finance telecommunications investments.

The series of broadband investments provided by the USTelecom, the association of broadband operators supports the expectation that the net neutrality policy de-motivated investments. (See Figure 1). The penetration level of the fixed broadband remained stagnant in the 2010s, because of the low level of investments. On the other hand, the penetration level of the mobile broadband demonstrated a major increase in the 2010s, from 61% in 2010 to 126% in 2016. (See Figure 2). The relatively lively growth of the mobile broadband subscribers can be explained by the wider room recognized for mobile broadband by the Open Internet Order.

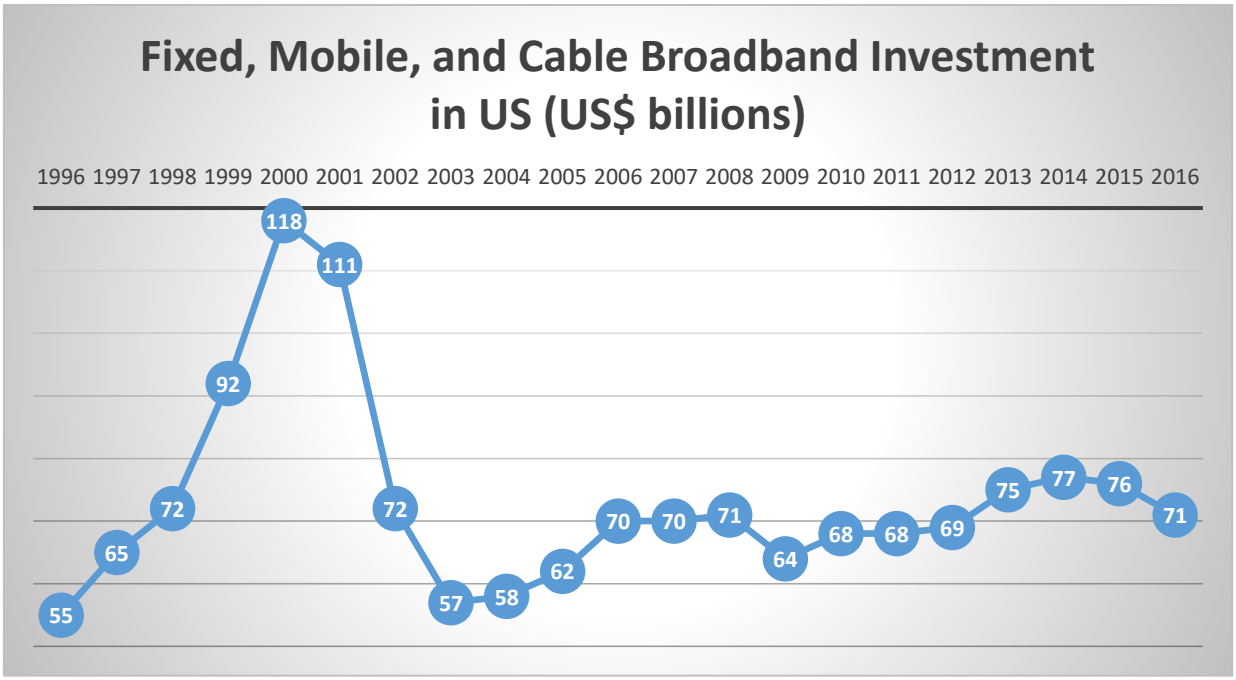

Figure 1 - Fixed, mobile, and cable broadband investment in the US (US$ billions). Sources: USTelecom, The Broadband Association. (*https://www.ustelecom.org/broadband-industry-stats/investment/historical-broadband-provider-capex/* Date of access: 20.10.2017). 2016 amount is estimation of the association. See Patrick Brogan, "Broadband Investment Heads in the Wrong Direction," ustelecom.org, 05.05.2017. (*https://www.ustelecom.org/blog/broadband-investment-heads-wrong-direction/* Date of access: 20.10.2017).

As the telecommunications and media companies consolidated under huge conglomerates in 2000s and 2010s, the debate about the telecommunications policy ceased to be dominantly about economics and technical regulatory issues. The political camps of the recently heated political life of the US are directly engaged in discussions on net neutrality. In broad lines, the Republicans support the media-telecommunications conglomerates, and the Democrats defend enforcing of the principle of the net neutrality. In 2017, The Trump administration, openly encouraged FCC to revise and lift the restrictions of

Open Internet Order. As a response, the liberal and leftist societal circles urged to defend net neutrality, and promoted this once technical term to a political slogan.[8]

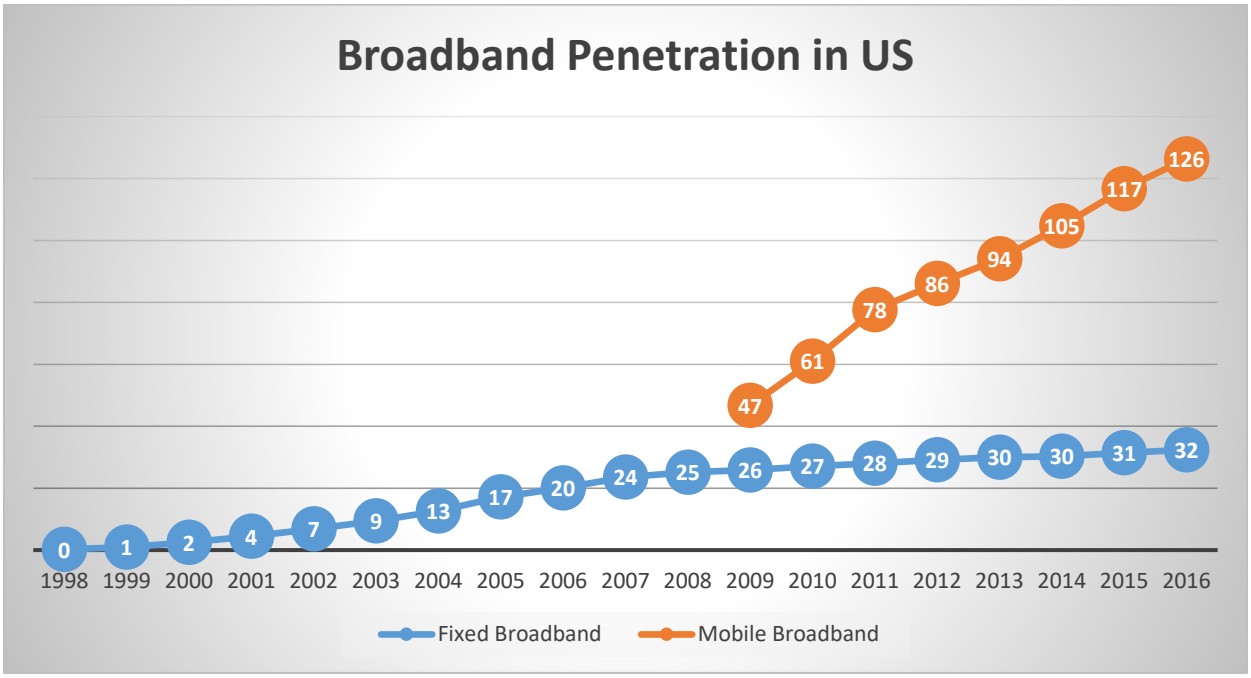

Figure 2 - Fixed and mobile broadband penetration in the US. Sources: Compiled by the author based on series of World Bank Development Indicators Database for fixed, OECD Broadband Portal for mobile.

The main question of the telecommunications policy in the earlier periods was how to maintain high level of infrastructure investment and competition together. In the recent period, the main question is how to maintain expansion of the base of broadband subscribers and freedom of expression together. According to the OECD Broadband Portal, the US rank sixteenth among OECD countries in terms of fixed broadband penetration, and fourth in mobile, by 2016. Therefore, the investment in the fixed broadband network should increase, as to catch-up high-income category. The potential expansion of the fixed broadband network also matters for the audio-visual content producers, as the data transmission capacity of the fixed networks is much wider than the mobile network. In addition, the cost of data transmission is much cheaper.

Insights for Turkey

The investments in Turkish fixed telephone network remained to be low in the second half of the 1990s and 2000s. Besides a decline in the penetration of the fixed telephone service, this fact also affected the

[8] Dominic Rushe, "Washington DC Braces for Net Neutrality Protests Later this Month," The Guardian, September 15, 2017. (https://www.theguardian.com/technology/2017/sep/15/washington-dc-net-neutrality-protests-restoring-internet-freedom/ date of access: 20.10.2017).

penetration level of the broadband internet service in a bad way. The penetration of the fixed broadband exceeded 10% in 2010, and reached 14% in 2016. On the other hand, following the introduction of the mobile data transmission services (3G in popular saying) in 2009, the mobile broadband penetration drastically increased to 10% in 2010, 50% in 2015, and 66% in 2016, as it follows the track of the mobile telephone penetration. (See Figure 3).

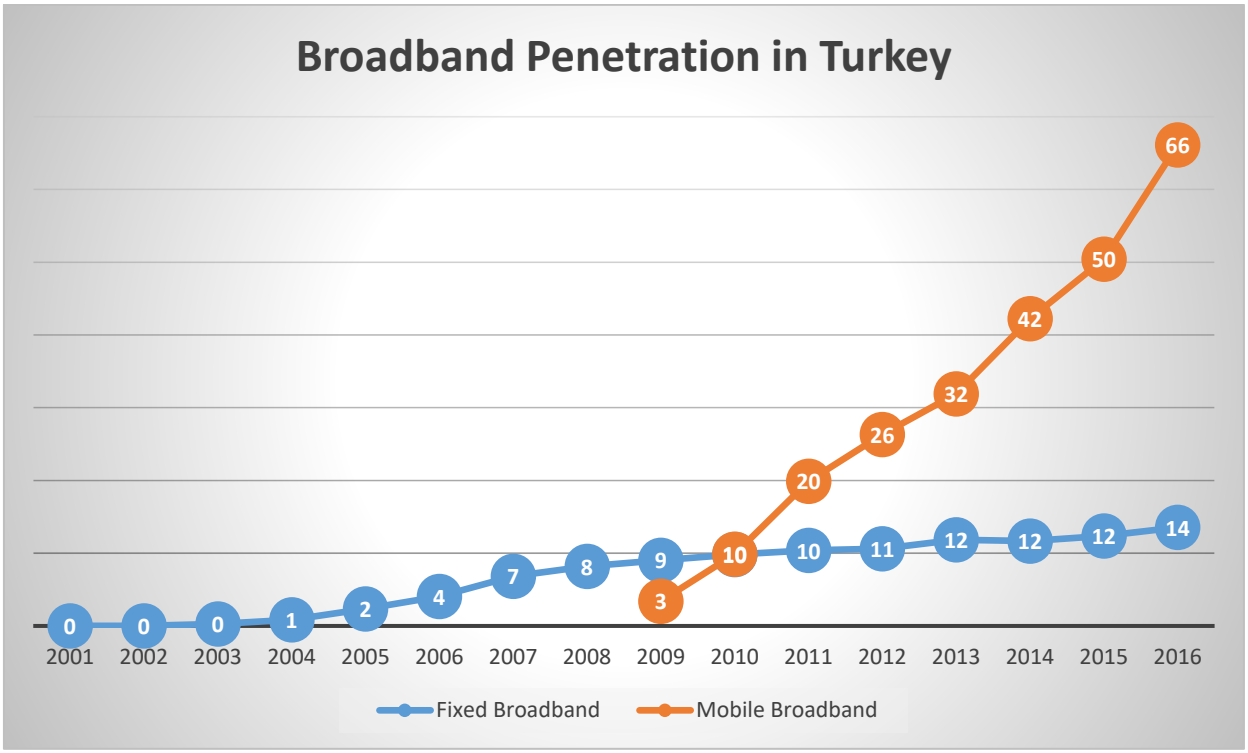

Figure 3 - Broadband penetration in Turkey. Sources: Compiled by the author based on series of World Bank Development Indicators and OECD Broadband Portal.

The television has a great base of users in Turkey. However, the proportion of the paid television subscribers remained to be small. The paid television subscription started with the paid access to the soccer matches in the 1990s. Still, the main body of the paid television subscribers make their decisions according to the outcome of the soccer broadcasting tenders. However, in the 2010s, a popular base for internet paid television started to emerge within the 10% of the population with a fixed broadband penetration. In this respect, the popular satellite television platforms like Digitürk and D-Smart started to offer online access to the audio-visual contents. Simultaneously, the ISPs started to offer bundles of broadband, telephone and paid television services. Especially the recent period demonstrated a great increase in the subscriber base of the paid television subsidiaries of leading broadband operators Turkcell

Superonline and Doğan TV Digital, namely TV+ and D-Smart.[9] In this point, it makes sense to design a chart that indicates the subscribers of broadband and paid television services by companies together. (See Figure 4).

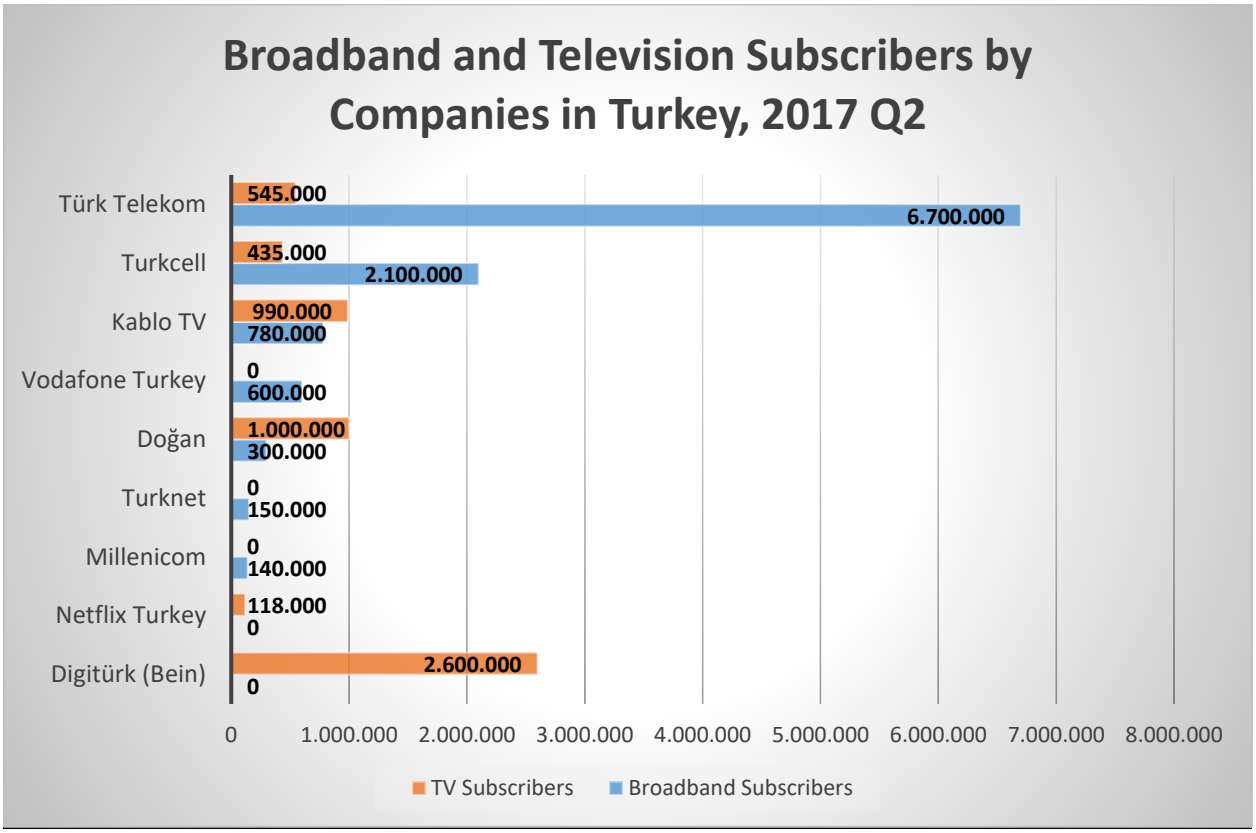

Figure 4 - Broadband and television subscribers by companies in Turkey, 2017, Quarter 2. Sources: Compiled by the author based on Bilgi ve İletişim Teknolojileri Kurumu (BTK), *Türkiye Haberleşme Sektörü Üç Aylık Pazar Verileri Raporu 2017 Yılı 2. Çeyrek Nisan - Mayıs - Haziran*, (Ankara: BTK, 2017). (except Netflix). The subscriber base of Netflix is estimation of the company for 2017. (https://www.statista.com/statistics/607812/netflix-subscribers-in-turkey/ date of access: 20.10.2017).

It is necessary to provide additional information on these companies, in order to adapt the regulatory and political debates on the net neutrality issue to the Turkish context. The list provided in the Figure 4 is headed by Türk Telekom. Türk Telekom holds the largest fixed telephone operator, fixed broadband operator, and the smallest mobile telephone operator. If company continues to offer advantageous bundles of services she can provide, it is expected that the paid television Tivibu subscriber base is to grow. The company has a chance to convert her superiority in telecommunications to a dominant role in media. In this point, the question who controls the company matters. The 55% of the company was privatized in

[9] For an account on expansion of the ISP's television subsidiaries, see "Why is the Size of Turkish Pay-TV Market Relatively Small?," turkishtvmarket.info, 16.10.2017. (http://www.turkishtvmarket.info/2017/10/16/why-is-the-size-of-turkish-pay-tv-market-is-relatively-small/ date of access: 25.10.2017).

2005. However the private partner is in a debt crisis, and caused speculations about withdrawal from Turkey. Such a withdrawal would possibly mean the take-over of the board by the government.

Turkcell, holds the larger mobile telephone operator, and the second larger fixed broadband operator, as well as pay television affiliate TV+. Until the February 2001 crisis, Çukurova Holding was controlling Turkcell besides Digitürk and a media empire. In this regard, Karamehmet was a nominee to be Turkish Murdoch and form a fortified vertical integration of finance, media, and telecommunications companies.[10] However the banking reforms which followed the crisis, detached the banks of the conglomerate and forced the group to monetize Digitürk and shares of Turkcell. As a consequence of a complex process of control crisis, Turkcell board was taken over by the Capital Markets Board in 2013. The new composition of the board is politically close to the government.

The third actor on the list is Kablo TV, which is a State Owned Enterprise (SOE) in technical terms, as it was detached from Türk Telekom before privatization and attached to Türksat. The SOE is in the privatization plans. But not a certain calendar announced yet. As a consequence of its prolonged status as an SOE to be privatized, the infrastructure investments of the company remained inadequate. Therefore, the cable broadband subscriber base in Turkey is relatively small. Still SOE's paid television subsidiary Teledünya has a respectable base of subscribers.

Vodafone took over the control of the second largest mobile telephone operator, namely Telsim in 2005. Actually, Telsim was a belonging of the Uzan family, who controlled a conglomerate of telecommunications and media. Uzans attempted to convert their influence on media to a political party in the period between 2002 and 2004. However the conglomerates assets seized by TMSF in 2004, as to cover their debts sourced from İmar Bankası. Vodafone recently started to implement Vodafone TV services in Turkey. In the near future, through bundled offers of telephone, data and television, Vodafone is able to expand in broadband and television services. The international coverage and experience of the company should be taken into account. As the investments of the company is fixed in the Europe, her expansion in the media segment is limited legally by EU competition rules.

Doğan group is a media conglomerate which succeeded to survive unlike Karamehmet and Uzan families.[11] However, their assets in telecommunications is limited with a small share in the broadband market. Doğan group has a complicated political relationship with the government. A possible alliance with the foreign

[10] For an analysis of the concentrated power of Karamehmet in the 2000s, see Raşit Kaya, *İktidar Yumağı: Medya-Sermaye-Devlet,* (İstanbul: İmge, 2009), 268-271. The information provided in this book is in need of updating.
[11] For a detailed account on Doğan group, see Kaya, *İktidar Yumağı,* 271-292.

telecommunications company, for example Vodafone, may create a power balance against the forming block of government influenced media-telecommunications conglomerates.

Netflix initiated to offer her services to the Turkish end users recently. The company managed to exceed a hundred thousand subscribers in a very short period, and expects to reach half million by 2020. Together with the Vodafone, and the Fox TV station, Netflix is to be an element of the foreign private anchor in the Turkish media-telecommunications sector.

Digitürk was recently taken over by the Qatari group Bein. The company has the largest base of paid television subscribers, thanks to her exclusive right to broadcast matches of highest tier soccer league. However, the company is losing ground against bundled offers of Tivibu and TV+. As a remnant of the partnership in the Karamehmet group, the company still offers some bundles with Turkcell Superonline. Digitürk is in effort to convert her satellite based consumers to paid internet television consumers without a firm ground of broadband network. It is expected that, the company is to form an alliance with one of the telecommunications companies. As the Qatari group is politically close to the government, this telecommunications group would be Türk Telekom or Turkcell.

Conclusion

The television has a popular base in Turkey. The popularity of the television and the potential of the visual content producers (especially Turkish soap-operas) may be a leverage for the medium-term growth of the paid television subscriber base. Such a growth may also support the investments and expansion of the telecommunications (broadband) operators, as the online content of the paid television depends to a reliable broadband connection. The bundled offers of the telecommunications firms, which may violate principle of net neutrality, creates an opportunity to convert the conventional television consumers to broadband subscribers. However, the dependence of the online content to the government controlled telecommunications companies may create a risk in terms of democracy and freedom of expression.

The standards and legal principles adopted in the US provides an external anchor for the regulatory authorities of the rest of the world. The Open Internet Order's future in the US will also determine the position of the net neutrality principle in other countries, including Turkey. Recent Turkish inclination to politically fortify the media may change form with the technological transfer of television to the online world. It is a possibility to carve a policy that balances the needs about expansion of the networks and concerns about freedom of expression. To achieve that, the actors of telecommunications policy and actors of media and communication, including scholars from various disciplines should develop a base of democratic participation.

The concentration of the ownership and control of the telecommunications companies, namely Türk Telekom and Turkcell poses a risk, in terms of political participation. However, this also poses an opportunity to coordinate and plan the infrastructure investments under the leadership of public. The worst possible combination is the political monism and channeling of revenues to the treasury. The best possible combination is to guarantee equal participation and expression while centrally planning and increasing investments.

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