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Only the fast privatization of Ukrtelecom will secure the further development of the telecommunication sector in Ukraine

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Only the fast privatization of Ukrtelecom will secure the further development of the telecommunication sector in Ukraine

Executive Summary

The government of Ukraine announced its intention to privatize the incumbent fixed-line telecommunication operator Ukrtelecom. Ukraine's government needs to achieve high revenues from privatization in order to fund the government budget and to increase the political acceptability of privatization. Privatization should provide consumers with more, better, new and less costly telecommunication services through market opening and the stimulation of competition. Such policies have proven to be highly successful and the telecommunication industry has turned into an important accelerator of economic growth. Realization of the telecommunication potential crucially depends on the availability of necessary infrastructure, which allows providers and users to tap new growth markets with innovative new products and services. In this context it is important that telecommunication infrastructure is generally accessible, with high quality service measures (i.e. the reliability, data volumes, and speed).

So far the development of Ukraine's telecommunication sector has been split. Mobile services are leading the market and are widely available, covering 120% of the population. Fixed-line telecommunication has stagnated at a coverage level of 27% of the population, while the provision of broadband internet has shown remarkable growth rates but has emerged only recently and covers just 3% of the population.

Ukrtelecom maintains its position in fixed line telecommunication. The company is a market leader in the provision of broadband internet with a market share of 38% and is a niche provider in mobile communication with less than a half percent of mobile subscribers.

As the markets change, Ukrtelecoms is under threat from several directions:

- It is losing market shares in the profitable segments of the market such as long-distance, international and fixed to mobile telecommunication. This trend will continue.
- Its main source of revenues is local fixed-line telephony, for which tariffs are set by the regulator below costs, so the firm is accumulating losses in that segment.
- Ukrtelecom faces very high labor costs and was not permitted to shed redundant labor.
- Ukrtelecom has participated strongly in the new growth segment of broadband internet provision and 3G (UMTS)services in mobile communication. But so far both segments remain very small and will require further sizeable capital investments before profits will be generated.
- Ukrtelecom has financed investments in the recent past externally through foreign debt and corporate bonds. During the present economic crisis access to external sources of funding is not very likely, while debt repayments will require significant financial resources.
- The company has reported losses for the year 2008 and the first quarter of 2009.

Hence, the government should privatize Ukrtelecom now, as only private investors will provide the enormous investments necessary for the further development of the telecommunication sector in Ukraine.

Prior to privatization the regulator should modify the present tariff regulation. Tariffs should reflect full and true costs, including capital expenditure costs.

Ukrtelecom urgently needs to adjust its labor costs to the overall performance of the company. Any privatization obligations aimed at keeping the same personnel while market shares are

shrinking will inhibit the firm's competitiveness. So, the government should refrain from obliging investors to keep present staff after privatization. Although this might not be popular, given the present critical situation of Ukrtelecom any clause preventing labor reduction will certainly decrease the interest in the firm.

Furthermore, we conclude that the accumulation of the different assets in Ukrtelecom seems to be worth less than the sum of its parts. Hence we recommend splitting the company according to its different assets and privatization of the mobile services separate from the fixed line operations including broadband and real estate.

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Disclaimer

This paper reflects the author's position and not necessarily reflects the point of view of institutions he represents.

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1. Introduction

The Ukrainian government made the first announcement about the intention to privatize Ukrtelecom in the year 2000. That time was the peak of privatization of state monopoly fixed-line telecommunication operators in Europe. The European Commission pushed the privatization of incumbent telecom operators with the objective to provide consumers with more, better, new and less costly telecommunication services through market opening and the stimulation of competition. Today, the liberalization of the telecom sector is considered as one of the biggest economic success stories in the European Union. The still-growing telecom industry is also an important growth accelerator for many other sectors. A performance-capable telecom infrastructure is a necessary precondition for such growth.

Despite the success story next door in the European Union, Ukrainian policy makers postponed the privatization of Ukrtelecom several times. Only now, the strong negative impact of the current financial and economic crisis on the government's revenues has returned the company to the top of the privatization list. But the objective of the government has shifted towards collecting a maximum amount of revenues from the privatization of what is perceived to be one of Ukraine's last and biggest remaining state assets. If privatization is implemented, then investors will not simply buy Ukrtelecom's assets, but also the right to operate in a particular way in the Ukrainian market. The details of privatization will implicitly define the market that investors are bidding for. This will largely determine the resulting market structures, and thus outcomes. In order to increase the revenues from privatization, governments often use the option to allow the newly privatized firm to continue operating as a monopoly. Besides higher revenues, such exclusivity arrangements are usually defended as necessary to attract investors, to secure the jobs and to stimulate investment in the privatized firm. Empirical evidence indicates that exclusivity periods are associated with significant increases in a firm's sale price, but are also correlated with significant decreases in the incumbent's investment in the telecom network (Wallstein, 2004). The exclusive focus on the short run maximization of privatization revenues by simply moving a public monopoly into the private sphere might forgo Ukraine the benefits of competition observed in EU. A lack of competition reduces the government's revenues in the long term, as competitors will not enter the market, will not invest, create new jobs or pay taxes. In short, Ukrainian decision makers should be aware of the existing trade-off between higher revenues in the short run and the long term development of the sector.

In the rest of the paper we will proceed as follows: First, we present the economic and empirical evidence about the nexus between telecom infrastructure and economic development. Then we describe the development of the Ukrainian telecom sector and its main segments. Subsequently, we examine the regulatory framework for communication in Ukraine. Next, we analyze the performance and financial situation of Ukrtelecom. In conclusion, we provide policy recommendations on how to combine the two goals of privatization - achieving high revenues while ensuring the future development of the telecommunication sector.

2. The link between telecommunication and economic growth

Information and communication technology (ICT) is a General Purpose Technology and is considered to be a growth accelerator with potential applications in many other sectors, as well as a strong driver of the innovativeness and international competitiveness of the economy. The telecommunication network is important to all households and industries, as the expansion or upgrade quality of infrastructure has the effect of raising the marginal productivity of (private) capital in other sectors.

The realization of the ICT-potential crucially depends on the availability of necessary infrastructure, like telecommunication and internet, which allows providers and users to tap

new growth markets with innovative new products and services (BMWi 2009). In this context it is important to note that besides the general accessibility of telecommunication infrastructure, the quality of service especially matters (i.e. the reliability, data volumes, and speed). Where telecommunication infrastructure is rudimentarily developed, communication between firms and managers is limited and transaction costs of ordering, information gathering, and searches for services are high. As telecom infrastructure improves, the costs of doing business decline and firms output will grow.

Moreover, the importance of this growth effect increases as the information intensity of the production process increases. Telecom infrastructure investments have important spillovers and create positive externalities (Röller and Wavermann 2001). In addition, telecommunication differs from other types of infrastructure in the sense that it exhibits network characteristics – many users on the Autobahn (highway) lead to congestions, many users of telecommunications services leads to more value for each user.

Several empirical studies have established the link between telecommunication and economic growth. Greenstein and Spiller (1996) show that in the USA investments in digital telecom infrastructure, especially broadband, accounted for a major share in growing demand even in the early 1990's. Jorgenson et al. (2008) find that between 1995-2000 more than 70% of the additional economic growth in the USA can be explained by investments in ICT, which is also accompanied by strong growth of labor productivity (0.43% per year). For the European Union, the European Commission estimates that between 2000 and 2004 at least 45% of realized productivity growth can be attributed to ICT use (European Commission 2006). Similarly, MICUS (2008) estimates for the European Union that in 2006, investments in broadband infrastructure generated additional income of EUR 82.4 bn or 0.71% of GDP. Röller and Wavermann (2001) investigate 21 OECD countries over a 20 year period and conclude that the positive impact of telecom infrastructure requires a critical mass and is the strongest when telecom infrastructure is near universal service.

In short, telecom infrastructure investments positively influence the long-term growth potential of an economy and generate long-term stimulus for growth in productivity and income, especially when telecom services are widely available.

3. The telecommunications market in Ukraine

The telecom market in Ukraine consists of three main segments: mobile telecommunication, fixed line telecommunication and broadband internet.

3.1. Market penetration in telecommunication

The telecom market in Ukraine grew in recent years along with the booming economy. Mobile communication has been the main driver of growth with mobile penetration rates increasing from 13% of population in 2003 to 122% by end of 2008. However, sector growth stopped in the first quarter of 2009 and the mobile penetration rate has declined slightly to 120%.

In contrast, the penetration rate of fixed line telecommunication increased from 23% (2003) to 27% (2008), a much less dramatic increase than in mobile communication.

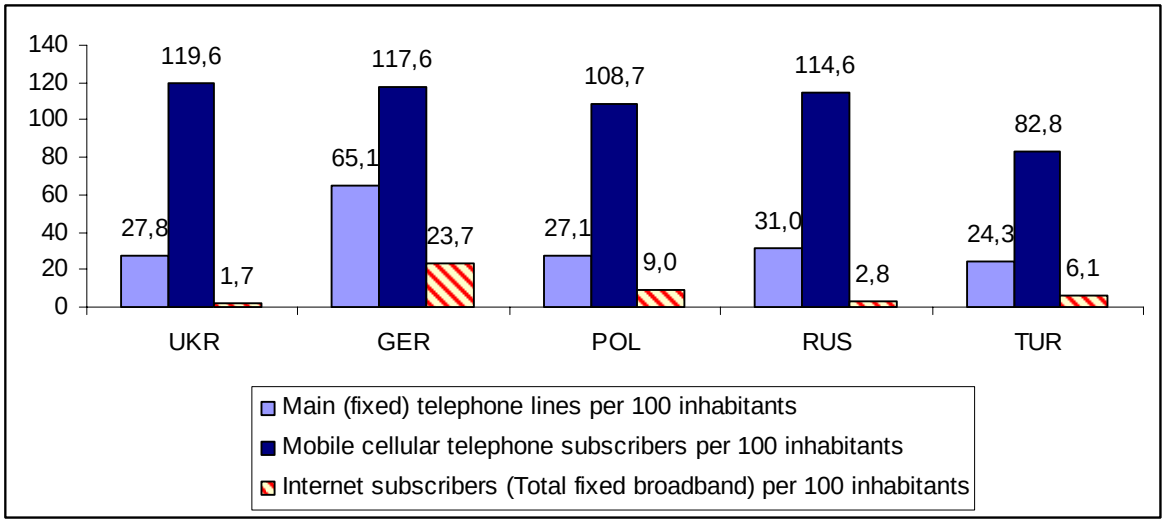
Broadband internet access in Ukraine is still at low levels: broadband subscription increased from 0.28% of the population in 2005 to 2.95% in 2008. During the first quarter of 2009, broadband subscription continued to increase (+11%; 1Q2009/4Q2008), covering now 3.3% of the population.

The comparison with other large European countries shows a split development of the Ukrainian telecom market. In 2007, Ukraine already had one of the highest penetration rates in mobile communication (Figure 1), while broadband internet penetration ranged at

the very bottom in Europe. The fixed-line penetration rate of 27.8% is average for large East European countries.

Figure 1

Telecom market penetration by segment and per 100 inhabitants, (2007)



Source: ITU 2008, own calculations

3.2. Revenues from telecommunication

Total revenues from telecommunication increased from UAH 6.8 bn (or 4% of GDP) in 2000 to UAH 42.9 bn in 2008. The different penetration rates are mirrored in the revenues of the respective market segments. Since 2004 mobile communication has been the largest market segment, with revenues exceeding the revenues from fixed-line telecommunication (Table 1). Since 2007, mobile communication has accounted for more then two thirds of total revenues, and mobile share was still growing in 2008.

Table 1

Revenues from telecommunication services, in UAH m

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Fixed-line communication	4 570	5 515	6 450	7 324	8 813	9 402	9 363	9 721	9 400
- Fixed-line local calls	1 746	1 949	2 265	2 687	2 780	2 778	3 179	3 858	3 900
- Fixed-line long-distance calls	2 824	3 566	4 185	4 637	6 033	6 624	6 184	5 864	5 500
Mobile communication	1 275	2 057	2 736	5 295	9 483	14 476	20 056	25 061	29 300
Broadband Internet	151	219	360	643	935	1 009	1 256	1 633	2 400
Other	865	963	1 174	1 401	1 893	2 524	2 828	1 396	1 800
Total	**6 861**	**8 754**	**10 720**	**14 663**	**21 124**	**27 411**	**33 503**	**37 811**	**42 900**

Source: Derzhkomstat

In 2008 fixed-line telecommunication was the second largest market segment, but with declining revenues and market shares. In particular, revenues from fixed-line long-distance calls declined significantly from 2005 revenues due to the substitution of mobile and IP-based communication.

The largest change in revenues was recorded in 2008 for the provision of broadband internet, at +50% (yoy) (table 2), although revenues were growing from very low levels. By end of 2008 broadband internet accounted for 5.6% of total telecom revenues or four times less the revenues from fixed line telecommunication.

Table 2

Change in revenues from telecommunication, by market segments

	2007		2008		Change
	UAH, bn	market share	UAH, bn	market share	yoy (%)
Mobile communication service	25.1	66.4	29.3	68.3	+16.7%
Fixed-line communication service	9.7	25.7	9.4	21.9	-3.1%
Broadband Internet	1.6	4.2	2.4	5.6	+50.0%
Other services	1.4	3.7	1.8	4.2	+28.5%
Total	37.8	100	42.9	100	+13.5%

Source: NCCR, annual report 2008, own calculations

In contrast to the revenue trends, the development of the telecommunication market is less dynamic if measured in percent of GDP (Table 3). The total revenues from telecommunication increased slightly from 4.03% of GDP in 2000 to 4.51% of GDP in 2008. However, a dramatic shift within the sector took place. The total share of fixed line telecommunication declined from 2.69% of GDP in 2000 to below 1% of GDP in 2008. The decline of revenues from fixed-line long distance communication was particularly strong. The decline in fixed-line communication was offset by strong growth in mobile communication from 0.75% of GDP in 2000 to 3.08% of GDP in 2008.

Table 3

Telecommunication market shares in % of GDP

	2000		2008	
	UAH bn	% GDP	UAH bn	% GDP
Fixed-line communication	4.57	2.69	9.4	0.99
- *Fixed-line local calls*	1.746	1.03	3.9	0.41
- *Fixed-line long-distance calls*	2.824	1.66	5.5	0.58
Mobile communication	1.275	0.75	29.3	3.08
Broadband Internet	0.151	0.09	2.4	0.25
Other	0.865	0.51	1.89	0.20
Total	6.861	4.03	42.9	4.51

3.3 The mobile communication market

Mobile telecommunication is the largest market segment in Ukraine. According to IKS-Consulting more then 55.48 m mobile subscribers were accounted for by March 31st, 2009 (table 4). This is 420,000 subscribers less then the number recorded by December 31st, 2008, but still 40,000 subscribers more then by October 31, 2008. Nonetheless, the overall market decline in mobile communication appears rather small in comparison to the competition-driven changes among the different operators. Between the 3rd quarter of 2008 and the first quarter of 2009 about 1.8 m subscribers switched their operator, while the number of total subscriptions remained almost constant.

Table 4

Subscription of mobile communication in Ukraine

	Operator	Number of clients by			Market share in %, 1Q09	Change 1Q09/3Q09	Change 1Q09/4Q09
		30.09.2008	31.12.2008	31.03.2009			
1	Kievstar	23 300 000	23 498 385	23 052 328	41.55	-1.06	-1.90
2	MTS	18 095 877	18 146 435	17 936 112	32.33	-0.88	-1.16
3	Astelit	10 850 000	11 251 000	11 480 000	20.69	5.81	2.04
4	URS	2 296 417	1 953 312	1 879 867	3.39	-18.14	-3.76
5	Telesystems Ukraine	236 499	266 496	288 979	0.52	22.19	8.44
6	Intertelecom	219 252	252 669	266 577	0.48	21.58	5.50
7	I T S	166 147	296 935	301 906	0.54	81.71	1.67
8	**Ukrtelecom**	**92 000**	**192 300**	**238 620**	**0.43**	**159.37**	**24.09**
	Total market	55 440 000	55 900 000	55 480 000	100.00	0.07	-0.75

Source: IKS-Consulting, own calculations

The market is dominated by three operators, which combined comprise more then 93% of all subscriptions. The market leader, Kyivstar, alone accounts for about 42% of the market subscription and has about 100 times more subscribers than Utel, the mobile communication branch of Ukrtelecom. **Despite a 160% growth in subscription Utel remains an ultra-lightweight in the market, a niche provider with less then a half percent market share.**

3.4 The fixed-line telecommunication market

Ukrtelecom is the incumbent operator in fixed-line telecommunication.

By end of 2007 Ukrtelecom was operating 10.321 m fixed telephone lines. 86% of telephone lines were owned by residential customers and 14 % by legal entities. Revenues from residential telephone services accounted for 49% of total revenues. More then 1.26 m applications for a fixed telephone line were on Ukrtelecom's waiting list.

The traditional key operation of fixed-line operators generating the largest revenues is the supply of telephone lines and grid-bound communication services. But in recent years this business model has come under significant pressure across Europe due to market liberalization, increased competition, fixed to mobile substitution, and substitution by IP-telephony. Such developments take place in all European markets (table 5).

Table 5

Revenues from fixed line telephone calls, in bn EUR

	2005	2006	2007	2008	Change 2008/2005
EU 15	**81.62**	**77.50**	**73.53**	**69.70**	**-14.60**
Germany	19.70	18.81	17.78	16.71	-15.18
France	11.29	10.77	10.31	9.83	-12.93
Spain	8.60	8.22	7.83	7.42	-13.72
UK	13.49	12.46	11.54	10.69	-20.76
Czech Republic	0.66	0.61	0.58	0.55	-16.67
Hungary	0.87	0.80	0.74	0.70	-19.54
Poland	2.46	2.33	2.28	2.23	-9.35
Slovakia	0.20	0.19	0.18	0.18	-10.00
Ukraine	**1.47**	**1.48**	**1.40**	**1.22**	**-17.01**

*Source: EITO, WIK, Derzhkomstat, own calculations, * WIK estimations*

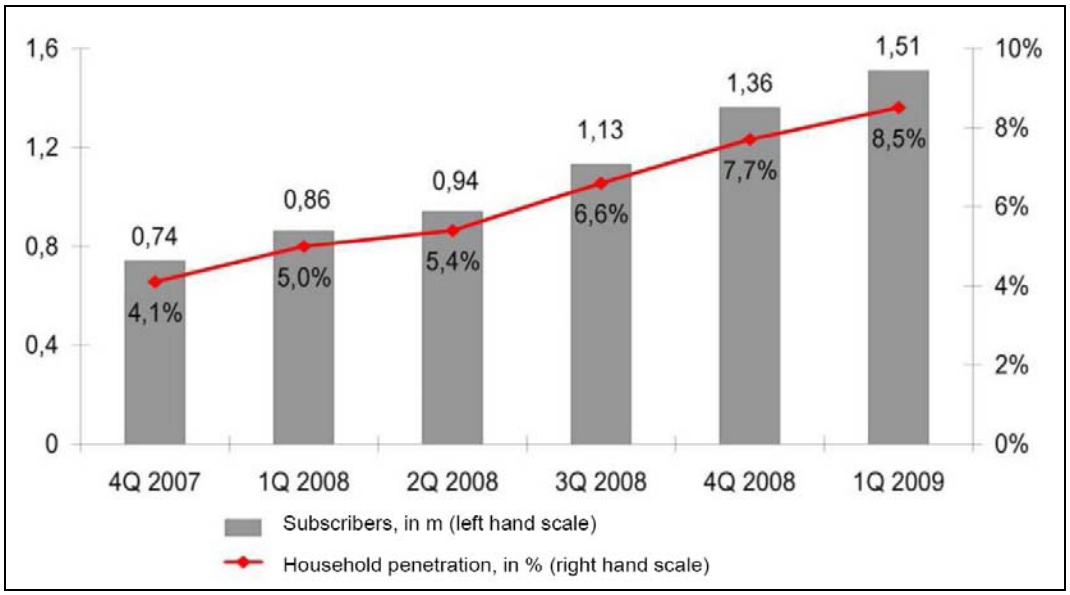
Over the period 2005 to 2008, fixed-line revenues in Ukraine declined by 17% (table 1), which is above the EU average and much higher than the decline of -9.35% in Poland, a market with a similarly low level of market penetration in fixed line (Figure 1 above).

3.5 The broadband internet market

The comparison with other large European countries indicated that in 2007 the broadband subscription rates in Ukraine were very low (Figure 1). However, since 2007 the market has continued to show growth (Figure 2). At the end of the first quarter of 2009, the total number of broadband subscribers was estimated at the level of 1.75 million, of which 1.51 m were subscriptions by private households.

Figure 2

Number of private households with broadband subscription in Ukraine



Source: IKS-Consulting.

The 1st quarter 2009 revenues of the Ukrainian broadband market were estimated by IKS-Consulting at the level of USD 71 m, compared to 3rd quarter 2008 revenues of USD of 84 m. However, the decline in revenues needs to be assessed against the background of the 40% Hryvnia-devaluation at the end of 2008.

The broadband market in Ukraine is much more fragmented then the mobile communications market (Table 6). **Ukrtelecom is the market leader in broadband internet provision with market share of ca. 38%**. The two biggest companies, Ukrtelecom and Volia, account for 58.46% of the market subscriptions. The largest nine providers comprise about 75% of the market.

The recent growth rates strongly vary across the different providers. While the subscription base of the market leader Ukrtelecom grew by 55% from the 3rd quarter 2008 to the first quarter of 2009, the growth rate of the second largest provider, Voila, was with 2.3% the lowest among the major providers. This differences and the fragmentation of the broadband market are due to the different technologies used for the “last mile access” (see table 7).

Table 6

Major broadband providers in Ukraine

	Operator	Subscribers, in thousand			Market share, in %	Growth	Growth
		3Q2008	4Q2008	1Q2009	1Q2009	1Q09/4Q08	1Q09/3Q08
1	**Ukrtelecom**	**430.0**	**550.0**	**668.0**	**38.17**	**21.5**	**55.3**
2	Volia	347.0	350.0	355.0	20.29	1.4	2.3
3	Optima-Farlep	96.0	105.0	105.0	6.00	0.0	9.4
4	Golden Telekom	36.0	42.0	58.0	3.31	38.1	61.1
5	TENET (Odessa)	30.0	32.0	35.5	2.03	10.9	18.3
6	IPNet (Kyiv)	13.4	20.3	25.0	1.43	23.2	86.6
7	FREENET	16.5	20.0	24.5	1.40	22.5	48.5
8	Fregat (Dnipropetrovsk)	19.7	20.5	21.5	1.23	4.9	9.1
9	Datagrup	13.6	16.0	18.3	1.05	14.4	34.6
	Subtotal 1-9	1.002.2	1.155.8	1.310.8	74.90	13.4	30.8
	Total market	**1.350.0**	**-**	**1.750.0**	**100.00**	**-**	**29.6**

Source: IKS-Consulting, own calculations

Table 7

Broadband Internet, Last Mile Access Solutions

Fixed- line	
Ukrtelecom	ADSL
Volia	DOCSIS
Farlep/Optima	ADSL
Golden Telekom	ADSL
Datagroup	ADSL
Mobile	
MTS	CDMA 450
POEPLENET	3G (CDMA-800)
Utel (Ukrtelecom)	3G (UMTS)
VimpelCom*	3G (UMTS)
Kyivstar*	3G (UMTS)
Wireless	
Ukrtelecom	Wi-Fi
Several providers	Wi-Max/ Wi-Fi
* via roaming agreement with Utel	

Source: ING Ukraine

Ukrtelecom uses all types of broadband internet last mile access solutions. The company is especially strong in providing fixed-line broadband internet, but has also a license for 3G (UMTS) and is also active in WiFi. Ukrtelecom is so far the only company present across the region. Its competitor Volia operates from a different technological platform, distributing broadband access through its cable-TV network in Kyiv. This strategy has been successful in the past, but remains limited to the capital and Volia may by now have reached some limits of growth. Nonetheless, Kyiv is by far the largest internet market in Ukraine, providing

support for Volia. In May 2009 almost 60% of the estimated 11.8 million Ukrainian internet audience[1] was located in the City and Region of Kyiv (bigmir.net:2009) (see table 8).

Table 8

Internet Audience in Ukraine by region

		Audience	Market share
	Region	N	in %
1	Kyiv*	7 058 105	59.74
2	Odessa	734 203	6.21
3	Dnipropetrovsk	601 376	5.09
4	Donetsk	574 251	4.86
5	Charkiw	573 063	4.85
6	Lviv	364 873	3.09
7	Crimea**	319 999	2.71
8	Zaporizhe	268 125	2.27
	Others	1 320 964	11.18
	Total	11 814 959	100.00

*Source: bigmir.net; * incl. City of Kyiv, ** incl. City of Sevastopol*

Odessa is ranked second with around 6% of Ukraine's internet users. This indicates big differences in availability of internet infrastructure across cities and regions of Ukraine

3.6 Market outlook

Given the current penetration rates in Ukraine (Figure 1) and the developments in recent times it can be expected, that:

- The growth in mobile telecommunication subscriptions is likely to slow down. According to ITU in 2007, Ukraine was ranked 18th in the world with regard to mobile coverage of the population. However, most countries with higher penetration rates are small countries like the United Arab Emirates, Macao, Qatar or Hongkong, with the exception of Italy (153%) and Thailand (123%). We expect bigger potential for future revenue growth in mobile communication, despite slowing subscription growth, with the development of add-on services.
- As the large number of applicants on Ukrtelecom's waiting list indicates, we expect that there is still significant potential for growth in subscription rates in fixed-line communication. According to ITU, Ukraine ranks 64th in the world in fixed-line penetration. There is also large potential for revenue growth through the development of add-on services.
- Broadband internet provision has the biggest growth potential in Ukraine. The market segment is still very underdeveloped. According to ITU, Ukraine was ranked 86th place in the world in 2007 with regard to broadband penetration.

4. Regulation of telecommunication markets in Ukraine

The National Commission for Communications Regulation (NCCR) was created in 2004. The commission issues licenses and regulates communication markets. In fixed-line telecommunication, NCCR sets the prices charged by Ukrtelecom for the provision of fixed-line infrastructure and local calls. In all other market segments, i.e. fixed-line long-distance

[1] Internet audience is defined as single users with more than one hit in the present month and users with hits in present and previous month.

telecommunication, mobile telecommunication and broadband provision, the NCCR has refrained so far from any price regulation. The commission follows a hands-off regulatory approach while watching the development of new markets carefully. Only in the case of market failure or abuse of market power does it reserve the right to intervene. This hands-off approach has particularly contributed to the impressive market performance and quick network coverage of the whole country in the mobile telecommunication sector.

4.1 Regulation of fixed-line telecommunication

NCCR sets the prices for fixed-line telecommunication. In particular, it regulates prices for the installation of fixed-line telephones, the prices for monthly telephone subscription and for local calls[2]. Prices are differentiated on the one hand between rural and urban telecommunication, and on the other between residential and business customers (Table 9). The installation charges for rural residents of UAH 144 are 25% of the fees charged to rural business (UAH 576) or 80% of the fees charged to urban residents in small towns (UAH 180). Cities are differentiated by administrative criteria (regional centers) and by the population size of the city.

Table 9

Price regulation of the NCCR of fixed-line telecommunication (Order N 1491 From April 28, 2009)

	Residential in UAH including VAT	**Business** in UAH including VAT
I. Installation charges		
- *rural*	144	576
- *regional centers and cities up to 1 m inhabitants*	180	720
- *cities with more then 1 m and less then 2 m inhabitants*	198	792
- *cities with more then 2 m inhabitants*	216	864
II. Monthly subscription fees		
- including all local calls		
- *rural*	12.02	18.88
- *non-rural*	27.02	40.57
- including a specified amount of minutes		
- *rural (residential 200 min, business 200 min)*	10.51	16.53
- *non-rural (residential 200 min, business 200 min)*	19.73	28.40
III. Charges for local connections	in Kopecks/min	in Kopecks/min
- exceeding the specified monthly limit up to 840 min		
- *rural*	3.1	3.1
- *non-rural*	5.4	5.4
- from the 841 min		
- *rural*	2.2	2.2
- *non-rural*	3.8	3.8

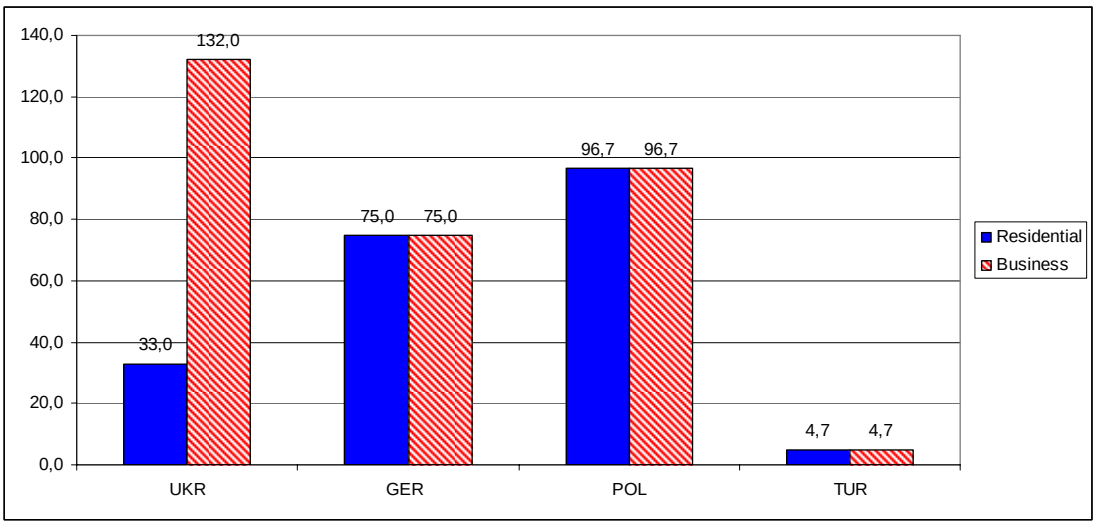
Source: NCCR

The monthly subscription fees for rural residents, including all local calls, are UAH 10.51 or about 64% of the monthly charges for rural business (UAH 16.53) and about 56% the monthly fees of urban residents in small towns (UAH 19.73). Appendix A shows the four packages for subscription of non-rural citizens, based on the specific number of minutes included, which were recently introduced by Ukrtelecom.

[2] Since June 2008 NCCR has stopped regulating the tariffs for fixed-line long-distance telecommunication.

Figure 3

Telephone connection charge in USD (2006)

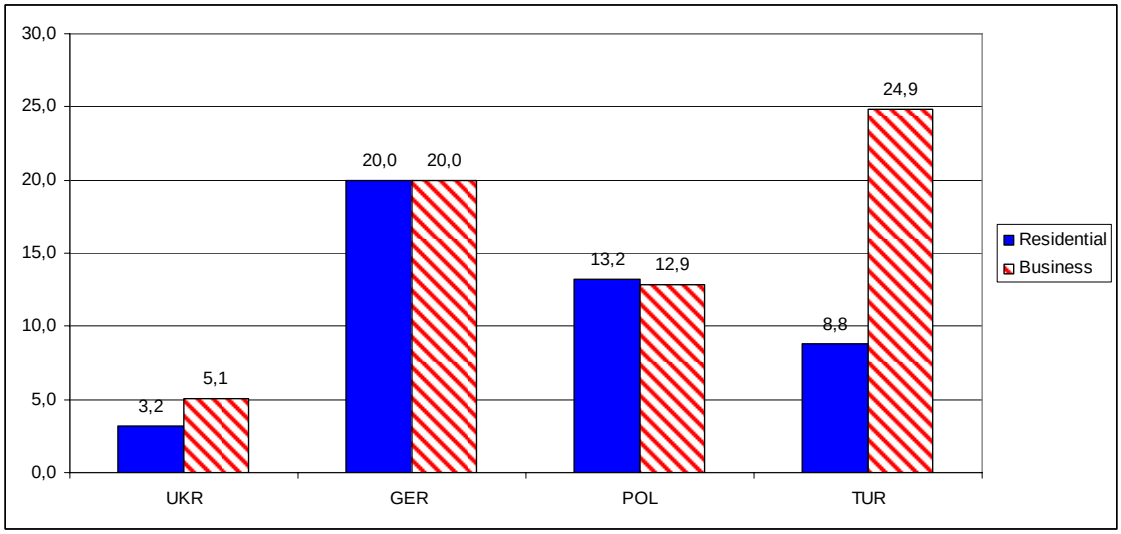


Source: ITU database 2008

The connection charges for local calls exceeding the specified amount of 200 and 175 minutes, respectively, do not discriminate between residential and business customers. However, the charges maintain a difference of 58% between rural and urban customers. In light of an international comparison, the price discrimination among the different customer groups in Ukraine appears to be strange. In Figure 3 installation charges for certain representative countries are shown based on data of the International Telecommunication Union (ITU) for the year 2006. The countries used for comparison do not discriminate between residential and business customers. Furthermore, the connection charge for business in Ukraine is more than 40% higher than in Germany and 25% higher than in Poland. In contrast, the monthly subscription fees in Ukraine are very low (Figure 4).

Figure 4

Monthly subscription fees in USD (2006)



Source: ITU database 2008

The discrimination between consumer groups sets incentives for business clients to apply as residential clients in order to avoid the higher connection and monthly subscription charges. This is indicated by the comparably high number of residential lines, which is much lower in Poland, Russia and Turkey (Table 10).

Table 10

% of residential lines

	2005	2006
Poland	76.7	74.4
Russia	77.9	65.4
Turkey	76.0	75.4
Ukraine	84.8	87.0

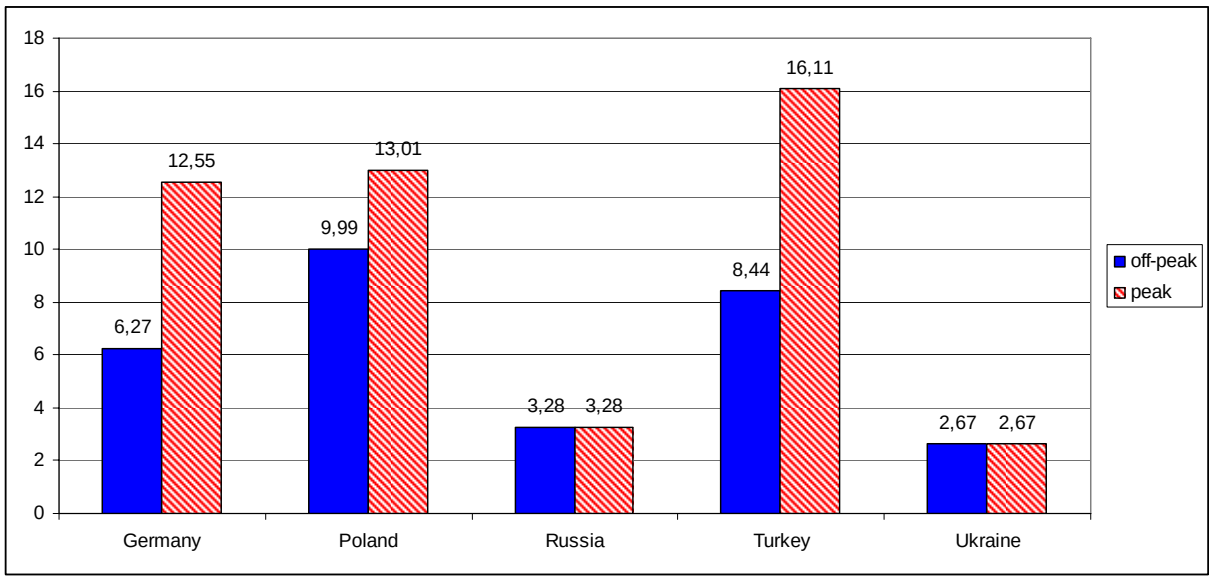
Source: ITU database 2008

At the same time the number of local call tariffs in Ukraine are very low in an international comparison and do not vary between peak and off-peak times (Figure 5).

In general, NCCR sets tariffs by taking into accounts cost structures reported by Ukrtelecom. However, this mechanism is not very effective, as according to Ukrtelecom, the tariffs set for rural telecommunication cover only about 40% of the operating expenses, while the tariffs for local urban communication apparently cover operating costs.

Figure 5

Price of a 3 minute local call, peak and off-peak rate in US-Cent, 2007



Source: ITU database 2008

The problem is further aggravated as capital expenditures are not considered at all for tariff setting, resulting in tariffs that are lower than capital costs. But monopolists and firms operating in a competitive environment face the same cost of capital. Neither will invest unless the expected revenues make the investment worthwhile.

Hence, the low tariffs are detrimental to investments in fixed-line infrastructure. The present tariff scheme appears especially obsolete when considering the 120% mobile communication coverage of the population.

The negative impact of the tariff setting practice is reflected by the significant differences between rural and urban fixed-line networks. Only 1.6 m or 15% of the total number of fixed-line subscribers were located in rural Ukraine, where around 30% of population lives. In 2007 Ukrtelecom revenues from rural local communication dropped below 10% of total revenues from local telephony (Table 11).

Table 11

Fixed-line telephone network in Ukraine

	2005	2006	2007	Change 2007/2005
I. Network capacity				
Total number of fixed telephone lines, thousands	10 546.00	10 805.00	10 931.00	1.04
- rural	1 554.00	1 613.00	1 641.00	1.06
- urban	8 991.00	9 192.00	9 289.00	1.03
II. Quality of service				
Local calls terminated with conversation, in%				
- rural	50.01	51.89	53.79	1.08
- urban	52.84	55.17	57.96	1.10
III. Revenues from local telephony				
total, in UAH m	1 937.00	2 240.00	2 727.00	1.41
- rural	188.00	218.00	240.00	1.28
- urban	1 749.00	2 022.00	2 487.00	1.42

Source: Ukrtelecom, annual report 2007

Although the quality levels in Ukraine are already very low, rural telephony is served at even lower quality levels. Such poor quality levels spoil the use of dial-up internet connections and prevent users from tapping markets in Ukraine and abroad with innovative new products and services.

In short, the present regulation of fixed-line telecommunication seems to be inefficient with regard to the discrimination between business and residential customers. Tariffs below operating and capital costs prevent the development of fixed-line telephony and the communication sector across all of Ukraine. The regulator is aware of the situation and tried recently to introduce a universal service fund for funding rural telecommunication. The idea was that all telecom operators, including mobile telecommunication, should contribute a certain amount of their revenues to the universal service fund. However, the attempt failed in the Verkhovna Rada.

5. Ukrtelecom: revenues, investments, and costs

Ukrtelecom was incorporated in 1993 following the decision of the Ministry of Communications to merge several telecom departments and to split telecommunication services from postal services. In 1998 all regional operators comprising Ukrtelecom were converted into affiliates. Ukrtelecom was transformed into a Joint Stock Company in 2000. In 2002 the company bought back 49% of Utel, a long-distance operator, increasing its stake to 100%. In 2003 Ukrtelecom sold its GSM-mobile telecommunications subsidiary company UMC to MTS. UMC was the market leader at that time. After Ukrtelecom had completely exited the mobile communication market in 2005 Ukrtelecom was granted the 3G (UMTS) license. In November 2007 it started with the roll out of 3G-infrastructure in order to re-enter the mobile communications market.

As of July 2009, Ukrtelecom is still the incumbent monopoly operator in fixed-line telecommunication, the market leader in broadband internet provision with a market share

of approximately 38%, and a niche provider in the mobile communications market with less than a half percent market share.

The state holds 92.8% of Ukrtelecom shares, while the remaining shares were given to employees in 2000 or were auctioned off in 2007 and are nowadays mostly traded on the stock exchange.

In 2007, Ukrtelecom realized almost 80% of its revenues from classical fixed-line telecommunication services (local, long distance, fixed to mobile, international). However, only the shares of local communication (urban and rural telephony) increased from 2005 to 2007 (Table 12).

Table 12

Ukrtelecom, revenues from telecommunication services

	2005		2006		2007		Change
	UAH m	share in %	UAH m	share in %	UAH m	share in %	2007/2005
Urban telephony	1 749	22.54	2 022	25.66	2 487	31.05	42.20
Rural telephony	188	2.42	218	2.77	240	3.00	27.66
Long-distance telephony	1 511	19.47	1 302	16.52	1 109	13.85	-26.60
Fixed to mobile	1 979	25.50	2 011	25.52	1 731	21.61	-12.53
International telephony	726	9.36	689	8.74	697	8.70	-3.99
Access to long-distance networks	246	3.17	274	3.48	383	4.78	55.69
New technologies (BB, 3G etc.)	250	3.22	296	3.76	423	5.28	69.20
Export transactions	712	9.18	736	9.34	710	8.87	-0.28
Other services	399	5.14	331	4.20	229	2.86	-42.61
Total revenues	**7 760**		**7 879**		**8 009**		**3.21**

Source: Ukrtelecom, annual report 2007

The revenues from long-distance, fixed to mobile and international telephony declined. In other words, growth took place only in the regulated monopoly segments. As discussed above, tariffs set for local telecommunication do not cover full costs (see section 4.1).

Big growth rates were recorded for the two still very small segments: access to long-distance networks and new technologies. This development takes place against the background of the large and growing share of wage costs in operating expenses (Table 13).

Table 13

Ukrtelecom, operating expenses

	2003	2004	2005	2006	2007	2008	1Q2009
Material expenses	15.20%	10.60%	9.20%	9.40%	9.00%	9.40%	11.60%
Payroll costs, incl, social charges	40.80%	34.00%	36.90%	40.10%	40.90%	43.00%	46.70%
Depreciation and amortization	19.70%	16.30%	16.80%	17.40%	18.30%	17.90%	19.60%
Other operating expenses	24.30%	39.10%	37.10%	33.20%	31.90%	29.70%	22.20%
Total, in UAH m	**3 102.6**	**5 014.5**	**5 802.3**	**5 897.4**	**6 285.1**	**7 173.6**	**1 780.9**

Source: Ukrtelecom, annual report 2007

Table 14

Ukrtelecom, capital investments

	2005		2006		2007		Change
	UAH m	share in %	UAH m	share in %	UAH m	share in %	2007/2005
Local networks, long-distance & host-transit switching exchanges	1 091.4	47.32	832.5	41.77	632.9	30.56	-42.01
Transport network	372.2	16.14	362.6	18.19	222.6	10.75	-40.19
Civil engineering	28.6	1.24	65.6	3.29	85.0	4.10	197.20
Service network and target promotion of services	136.8	5.93	138.6	6.95	108.7	5.25	-20.54
New Technologies	235.6	10.21	333.7	16.74	739.5	35.70	213.88
Technical re-equipping, reconstruction and capital repairs	152.4	6.61	118.5	5.95	117.3	5.66	-23.03
Others	289.5	12.55	141.4	7.10	165.1	7.97	-42.97
Total capital investments	**2 306.5**		**1 992.9**		**2 071.3**		**-10.20**

Source: Ukrtelecom, annual report 2007

Ukrtelecom has to carry a heavy "social burden" of low fees for fixed-line local communication and overstaffing. At the end of 2007, Ukrtelecom had more then 104,000 employees, which translates to 99 fixed lines per employee. For comparison, the average ratio for incumbent operators in emerging markets in Eastern Europe is at the level of around 200 lines per employee (ING:2008). For the year 2003, 248 and 312 lines per employee are reported for Poland and Turkey, respectively (OECD: telecommunication database 2005). The respective ratios for the biggest five European incumbent operators are reported in Table 15.

Table 15

Main lines per employee, biggest five European incumbent operators

	2000	2001	2002	2003	2004	2005
Deutsche Telekom	341.6	336.2	356.2	416.9	482.8	497.4
France Telecom	262.1	279.6	302.1	335.1	375.1	470.6
Telecom Italia	408.3	475.1	523.6	574.3	611.2	574.7
Telefónica (Spain)	493.2	505.4	460.1	542.4	542.4	623.5
British Telecom	346.6	362.6	383.7	420.7	529.3	554.4

Source: Baake/ Wey 2008

Ukrtelecom's low ratio of fixed lines per employees indicates a sizeable potential for productivity growth by shedding of redundant labor. The government should allow the company to restructure and allow for indirect measures of staff reductions like early retirement or accept applications from Ukrtelecom staff for open positions in the public sector. Ukrtelecom could provide incentives for employees to switch to other companies or pay compensations to people losing their jobs.

The non-favorable decline of revenues in main market segments and increasing wages costs forced a re-adjustment of Ukrtelecom's strategy, which now rightly focuses on new growth segments in new technologies. In 2007 Ukrtelecom started to invest in the new 3G (UMTS)technology.

Hence, investments in new technologies were significantly increased and reached in 2007 almost the same amount as the combined investments of UAH 750 m in the classical fixed

line operations (local networks, long distance and host transit switching devices) and maintenance of the existing stock (technical re-equipping, reconstruction and capital repairs).

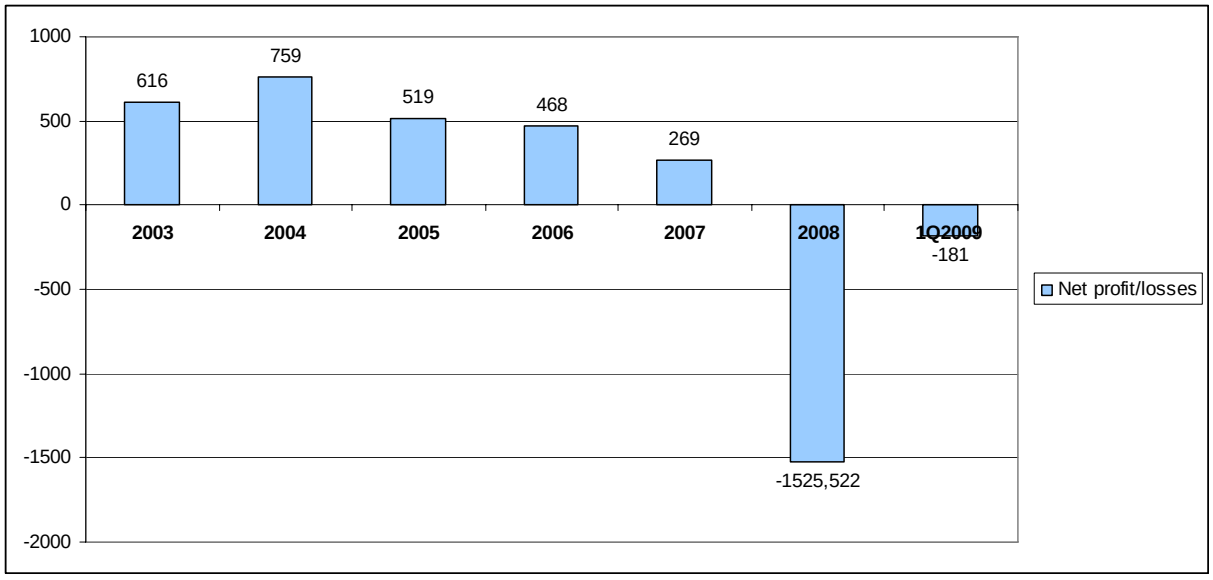
But capital investments in new technologies of UAH 739.5 m so far exceed revenues from new technologies of UAH 423 m (Table 12). This will continue to be so for some time, as a full fledged roll-out of 3G and broadband will require huge investments.

In order to finance the mentioned investments in new technologies, Ukrtelecom issued UAH 750 m of domestic corporate bonds and obtained foreign credits in US-Dollar and Euro. In June 2009 its outstanding foreign debt was about USD 460 m.

With the devaluation of the Hryvnia, by the end of 2008 the external financing of investments through foreign debt had turned into a heavy burden for the company. The financial situation of Ukrtelecom worsened considerably and the firm ended the financial year 2008 with a record loss of UAH 1.525 bn (figure 6). During the current financial and economic crisis it will be probably very difficult for Ukrtelecom to issue new domestic bonds.

Figure 6

Ukrtelecom: net income, in UAH m



Source: Ukrtelecom

Ukrtelecom is clearly one of Ukraine's last and biggest remaining state assets. But given the current market conditions and developments it is rather unlikely that investors will be prepared to pay a high privatization price.

It appears that policy makers are aware of this lack of enthusiasm. In the past, several attempts were made to increase the attractiveness of Ukrtelecom for investors by adding some "raisins" (additional assets) to it. For example, Ukrtelecom was exclusively granted a 3G (UMTS)license, despite the fact that it had no mobile telecommunication infrastructure. Other attempts were made to stop the erosion of revenues. For example, the regulator recently tried to curb competition in the market segment of VoIP-telephony. But all these attempts do not change substantially the difficult situation of Ukrtelecom. Even worse, they delay the development of the telecommunication sector and hence the economic development of Ukraine.

6. Summary and policy recommendations

The total revenues of telecommunication in Ukraine increased from 4.03% of GDP in 2000 to 4.51% of GDP in 2008. The telecom market has shown patchwork development. While the market for mobile communication has developed dynamically, the importance of fixed-line telecommunication has declined and continues to do so. To a certain extent this development is the result of fixed-to-mobile substitution. Only recently have new market segments, like broadband internet provision, emerged. So far, these segments remain very small.

The decline in fixed-line telecommunication was amplified by regulatory intervention in local fixed-line telecommunication and the unclear situation with respect to the privatization of the incumbent operator Ukrtelecom. Ukrtelecom did not benefit from the recent strong economic growth in Ukraine and has borne the brunt of recent market changes.

Ukrtelecom faces today several challenges:

- It is losing revenues in the unregulated and thus profitable segments of the market like long-distance, international and fixed-to-mobile telecommunication and will continue to do so.
- Its main source of revenues is local fixed-line telephony, for which tariffs are set by the regulator below costs, so that the firm is accumulating losses in that segment.
- Ukrtelecom faces very high labor costs and was not permitted to shed redundant labor.
- Ukrtelecom has participated strongly in the recently-emerged new growth segments of broadband internet provision and 3G (UMTS)services in mobile communication. But so far both segments remain very small and will require further sizeable capital investments before generating profits.
- Ukrtelecom has financed investments in the recent past externally through foreign debt and corporate bonds. During the present economic crisis access to external sources of funding is not very likely, while debt repayments will require significant financial resources.
- The company has reported losses for the year 2008 and the first quarter of 2009.

Hence, the government should privatize Ukrtelecom now, as only private investors will provide the necessary investment funds and will be able to turn around loss making operations. So, only the fast privatization of Ukrtelecom secures the further development of the telecommunication sector in Ukraine, as huge investments are required across all market segments.

6.1 Split Ukrtelecom and sell it in parts

At present, Ukrtelecom is a loss-making firm with a unique combination of assets and licenses. **We conclude** that the accumulation of the different assets in Ukrtelecom is worth less than the sum of its parts. **We recommend to split Ukrtelecom into three parts:** The **fixed-line and broadband operations** should be combined in one unit and sold together as they rely upon Ukrtelecom extensive backbone and international switches and connections, whereas the **UMTS-mobile operator** and the **real estate holdings** should be sold separately.

The development of different market segments like 3G (UMTS)or the upgrade of the existing fixed-line or the development of the broadband segments will require different investors. For example, the potential buyers for the 3G (UMTS)operation of Ukrtelecom could be mobile operators. Mobile operators have different experience in hardware, software and skills then fixed-line operators. Mobile operators like for example Kyivstar, Vodafone or Vimpelcom, are able to make better judgments about market potentials, investment costs and market risks.

In order to secure the best possible impact of telecommunication on economic activity and GDP growth should the government stipulate in the privatization tender of the fixed line / broadband and the 3G (UMTS)operations of Ukrtelecom that potential investors should submit **concrete voluntary investment obligations**. Only bidders with substantial investment obligations should qualify to participate in the public auction of the particular operation**.**

During discussions with officials about the privatization of Ukrtelecom, it was commonly argued that a big asset of the firm is the ownership of real estate. But a successful property developer is unlikely to be an expert in telecommunication or vice versa. Hence where possible, the government should consider the option to combine real estate not necessary for Ukrtelecoms operations in a separate company and privatize it separately. Furthermore, the sale of Ukrtelecom's real estate does not impact on the economic potential of other industries and sectors. Hence, no investment obligations are necessary and the real estate should be sold for the highest possible price.

6.2 Regulatory framework

With respect to fixed-line operations, tariff reform will be the most crucial element. Without cost-covering tariffs no investments will be made. Any expectation on the side of the government that an investor will continue to cross-subsidize and invest in loss-making segments will be proven naïve.

Modern telecom infrastructure is characterized by the coexistence of different network technologies, which can communicate with each other via special gateways. However, not all telecommunication services can be realized in each network.

The upgrade of existing and the set-up of new networks are of crucial importance. Hence, the technological development of the telecom sector in general and the development of new market segments in particular depend largely on existing incentives to stimulate investments.

Investments are made based on the difference between expected revenues and costs. In telecommunication investment decisions are made in a highly dynamic setting and with high uncertainties about future technological developments and the development of downstream markets.

The present regulation of local fixed-line telecommunication leads to the accumulation of losses in this market segment. In combination with shrinking revenues from long-distance/ international fixed-line operations, Ukrtelecom faces little incentives to invest in fixed-line networks.

Hence, the regulator needs to **abolish** the **present tariff regulation**. Tariffs should reflect full and true costs, including capital expenditure costs. At the same time, competition should be fostered by allowing firms to invest in their own networks and compete with Ukrtelecom.

6.3 Allow for improvements in labor productivity

Ukrtelecom urgently needs to adjust its labor costs to the overall performance of the company. Any privatization obligations aimed at keeping the same personnel will inhibit the firm's competitiveness. So, the government should refrain from obliging investors to keep present staff after privatization. Even as this might not be popular, any clause preventing labor reduction will certainly decrease the interest in the firm and the prices offered.

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Appendix A

Ukrtelecom for the first time introduced four differentiated packages for non-rural citizens since May 18, 2009.

Ukrtelecom packages for citizens

Monthly subscription fees including a specified amount of minutes and fees for minutes above the package	
200 min package, UAH incl. VAT	**19.73**
201-840 min, kopechs/min	5.4
from the 841 min, kopechs/min	3.78
400 min package, UAH incl. VAT	**28.37**
401-840 min, kopechs/min	4.32
from the 841 min, kopechs/min	3.02
500 min package*, UAH incl. VAT*	**31.73**
501-840 min, kopechs/min	3.96
from the 841 min, kopechs/min	2.77
600 min package, UAH incl. VAT	**34.13**
601-840 min, kopechs/min	3.6
from the 841 min, kopechs/min	2.52

Source: Ukrtelecom

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