Infrastructure Monitoring for Ukraine (IMU)

No. 12/2010

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List of abbreviations

AMCU - Antimonopoly Committee of Ukraine

bcm - billion cubic meters

bn – billion

CDMA - Code Division Multiple Access

CMU – Cabinet of Ministers of Ukraine

EBRD – European Bank of Reconstruction and Development

ECMT - European Conference of Ministers of Transport

ECU - Energy Company of Ukraine

EU – European Union

GSM - Global System for Mobile Communications

IMU – Infrastructure Monitoring of Ukraine

MTCU – Ministry of Transport and Communications of Ukraine

m - million

NCRC - National Commission for Regulation of Communications

NCRT - National Commission for Regulation of Transport

NERC – National Electricity Regulatory Commission

PFTS – First Securities Trading System

PPP - Public-Private Partnership

RUE - RosUkrEnergo

SPFU – State Property Fund of Ukraine

tcm - thousand cubic meters

TM - trademark

UAH – Ukrainian hryvnia

UCTE - Union for the Co-ordination of Transmission of Electricity

UEFA - Union of European Football Associations

UGE – UkrGasEnergo

USD - United States dollars

UZ - Ukrzaliznytsia

yoy - year-on-year change

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Foreword

This is the twelfth "Infrastructure Monitoring for Ukraine" report issued by the Institute for Economic Research and Policy Consulting in Kyiv. It presents information on the restructuring of six key infrastructure sectors of the Ukrainian economy in a standardized manner, which allows for cross-industry comparisons.[1] When developing the evaluation methodology the Institute for Economic Research and Policy Consulting followed the EBRD's approach. Monitored indicators are qualitative and fall into three broad categories: (1) commercialisation, (2) tariff reform, and (3) regulatory and institutional development. Twenty-one indicators allow for economic and policy-making analysis at different aggregation levels. The indicators are constructed in a way that represents the status of the reforms in each sector at a given moment in time. An extensive discussion of the methodology employed was presented in the first issue of IMU.[2]

Section 1 contains an executive summary that outlines major developments within selected sectors of the infrastructure during the period from September 2009 till August 2010. A general analysis of the Ukrainian infrastructure policies is presented in Section 2. The detailed study of reforms in each of the six sectors includes not only an ex-post analysis, but also an outline of major challenges to future development. A description of the reform progress in each infrastructure sector supplements the numerical evaluation and provides a broader view of the situation. Appendices summarize the evaluations in tabular form and provide methodological explanations and detailed comments for each indicator.

[1] For earlier issues, see Infrastructure Monitoring for Ukraine, which can be downloaded from the Institute's website at [http://www.ier.kiev.ua/English/IMU_eng.html].

[2] IMU No. 1, June 2001, see also IER Working Paper No 9 [http://www.ier.kiev.ua/English/WP/2001/WP2001_eng.html].

1 Summary

The indicator for **Telecommunications** has been improved from 2.48 to 2.62 as a result the NCCR's regulatory efforts. In contrast, the CMU has influenced negatively the sector mainly due to interventions into activities of the Ukrtelecom.

The indicator in the **Railways** has slightly decreased from 1.76 to 1.75. The decrease is caused by interference of the government into to financial decisions of the Ukrzaliznytsia. The adopted programme of reforms in the sector is disappointing and will not promise positive changes in the sector in the nearest future.

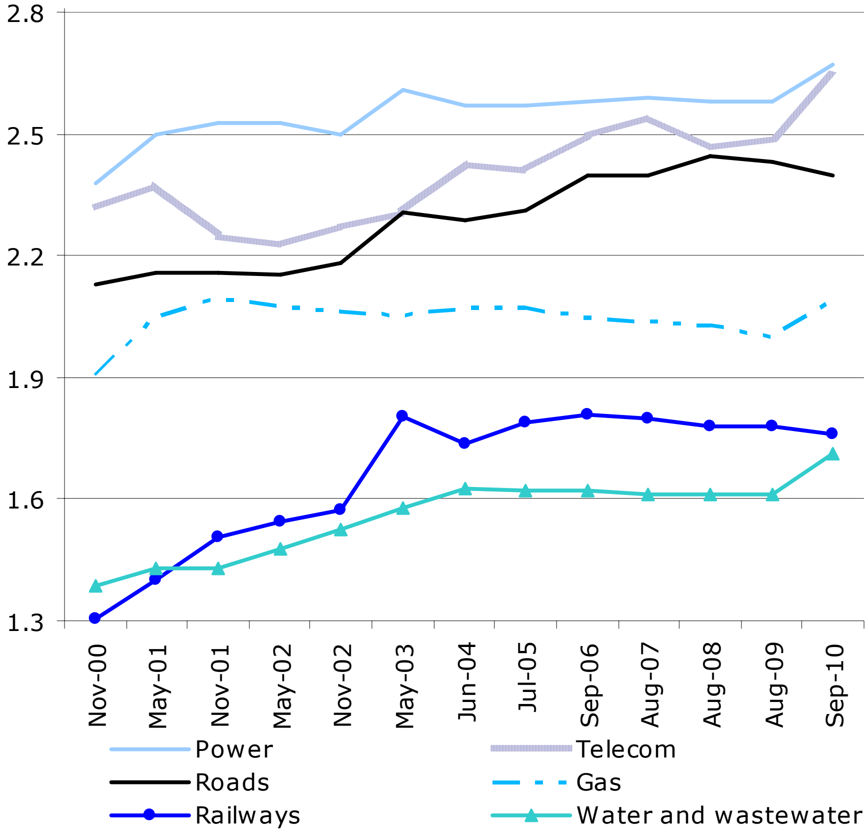
The indicator for **Roads** has been decreased from 2.42 to 2.39 due to stagnated reforms and very weak financial state and budget discipline in the sector.

The overall indicator for the **Power** sector has been increased from 2.57 to 2.66 as a result of improvements in tariff setting and access regulation. Besides, in 2010 the authorities of the sector's regulator were supported by a Law, which increased its independence.

The indicator for **Gas** has been increased form 1.99 to 2.08 demonstrating improvement of the sector's regulation and organization as a result of adoption of a new main sectors' law. The cost coverage of the tariffs in the sector has been improved.

The aggregate indicator for the **Water and wastewater** has been increased from 1.60 to 1.70 as a result of regulatory breakthrough of creation of a national regulator for the public utilities.

Figure 1
IER infrastructure indicators for Ukraine



Source: IER own estimations

2 Ukrainian Infrastructure Policies between September 2009 and August 2010

After continuous fall during the last four years the overall infrastructure development graded up this year.

Between September 2009 and August 2010 structural improvements were observed in four out of six sectors – telecommunications, power, gas and water and wasterwater sectors. Most of regulatory achievements were attributed to new laws and other legislative acts, which were massively adopted this year. The main legislative achievements of the period were adoption of the market oriented Law On functioning of the gas market, creation of a National regulator for public utilities, and fixing the activities of the existing regulator in gas and electricity sectors by a law.

During the year the tariffs for most infrastructure services for all types of consumers were increased improving the cost coverage of the tariffs and financial performance of the services providers.

Transport infrastructure - railways and roads - performed badly this year. The main reason of the fall in their indicators is bad financial performance of the monopolists – Ukrzaliznytsia and Ukravtodor. Both have excessive loan burdens, high payments to the state budget and lack of funds for proper maintenance and investments. The government continued to interfere into performance of the monopolists, blocking them from using economic instruments to improve their efficiency. Basically, the activities of the monopolists are not market but fiscal oriented. Unfortunately, the latter approach exhausts transport infrastructure of the country, which will lead to much higher costs of its rehabilitation in future, high losses from loosing competitiveness in transit and overall economic growth losses.

Summing up, it seems that in Ukraine reforms in infrastructure sectors are only possible when it is no room for not reforming the sectors. Shocks – external (gas price) or domestic (fiscal deficit) helps government to dare for reforms as well.

2.1 Telecommunications

During the reported year the NCCR improved market regulations in the sector. The government interfered into Ukrtelecom's operations but has not privatized it.

A sector's regulator – National Commission of Communication Regulation – has worked on several regulatory improvements. In the end of 2009 the NCCR adopted new licensing conditions for the fixed-line services suppliers.[3] New conditions apply principle of technology neutrality advocated by International Telecommunications Union.[4] The principle means that different technologies that offer similar services are regulated in similar manner. Such regulation balances costs and benefits of both providers and consumers as companies in equal market conditions compete and customers can benefit from wider choice and lower prices.

In February 2010 the NCCR drafted additional conditions to licensing rules[5] that fix using telephone channels strictly according to a type of connection set in a license[6]. The new rules will prevent situations when traffic is not routed in line with license requirements, and companies minimise their costs at the expense of cheaper licenses, other operators' infrastructure, etc, which will ensure fair competition.

In July 2010 the NCCR adopted new licensing conditions for fixed-line services supply through wireless technology.[7] However, the CMU has not followed these decisions and has not updated its regulation of licenses fees[8], set in 2004.

Also, the NCCR has introduced regulations On quality of service in telecommunications,[9] which set quality parameters[10] and requires their public presentation from telecom operators. The first presentation will take place in January 2011. It is expected that quality of services would increase.

In March 2010 the NCCR adopted an order On pre-trial dispute settlement between telecom operators.[11] It should ensure fair regulation of interconnection between all companies, including monopolies.

All above mentioned regulatory improvements allowed us to significantly increase the indicator "Transparency of regulations" from 2.3 to 3.0.

In August 2009 an order On access to cable tunnels for telecommunications became effective.[12] It has set a unified procedure for granting access to underground telephone cables of Ukraine[13] for telecom operators of any ownership. However, at the moment, the NCCR cannot regulate the tariffs for

[3] Resolution of the NCRC, No.1789, December 10, 2009.
[4] ICT Regulation Toolkit// http://www.ictregulationtoolkit.org/en/Section.1833.html.
[5] Resolution of the NCRC, No.90, February 25, 2010.
[6] E.g., the licensee of local telephony can offer only local channels for use.
[7] Resolution of the NCRC, No.348, July 29, 2010.
[8] Decree of the CMU, No. 773, June 16, 2004 (it establishes privileged fee for IP-telephony, i.e. 6% of usual fee).
[9] Resolution of the NCRC, No.174, April 15, 2010.
[10] Resolution of the NCRC, No.363, August 5, 2010.
[11] Resolution of the NCRC, No.217, May 13, 2010.
[12] Resolution of the NCRC, No.1607, July 23, 2009.
[13] 95% of tunnels are operated by Ukrtelecom as a state incumbent.

access to tunnels since its powers - fixed by the Law "On telecommunications" - have not been expanded yet[14] and structure of tariffs has not been finally established[15]. Therefore, no indicator has been changed yet.

On October 5, 2009 an Order On mutual settlements between telecommunications operators for interconnection services became effective[16]. In February 2010, the NCCR adopted a decision that sets interconnection fees between all mobile and fixed telecom operators that dominate their market segments. In June the Antimonopoly Committee of Ukraine (AMCU) determined eight major telecom operators as monopolists within their networks and in July the NCCR set[17] fees for interconnection between them. The fees constituted 0.18-0.25 UAH/min for access to fixed-line networks, and 0.35-0.40 UAH/min for access to mobile networks. As a result, it is expected that dominant companies will not be able to abuse their monopolistic power anymore and mutual access will be fairly regulated by cost-covering fees. Although the allowed tariff corridor can be subject to possible disputes between operators, the indicators "Potentially competitive business pricing" and "Access regulation" have been raised to 3.3 and 2.7 correspondingly.

In March 2010, the Antimonopoly Committee of Ukraine approved the merger of Ukrainian assets of Telenor ASA and Altimo Holdings & Investment Ltd, i.e. large telecom operators URS and Golden Telecom (TM Beeline) and Kyivstar. This was possible since existing legislation does not provide limitations on obtaining some or even all licenses and radio frequencies by one participant[18]. However, the united company would account for 43.5% of Ukrainian mobile market by number of subscribers (as of December 31, 2009) and 54% of radio frequencies earmarked for GSM-900 and 50% - for GSM-1800. This means the operator would concentrate significant market power. In April the AMC started revision of its decision[19], although its position was weak due to the deficiencies in the current regulatory framework, which allows too broad interpretation of legislation that defines concentration on the markets. Eventually, on October 19 the case was closed and merger – allowed[20]. Meanwhile, new company VimpelCom Ltd has been listed on the NYSE since April[21]. However, due to concentration of the markets the indicator "Potentially competitive businesses" has been decreased from 3.3 to 3.0.

During the monitored period financial performance of the Ukrtelecom worsened. In 2009 the state obliged Ukrtelecom to increase its payments to the budget in spite of its falling profits (Figure 2). At the same time, the state continued to underpay Ukrtelecom for universal services supply and households worsened their payments discipline[22]. Growing arrears allowed us to decrease the indicators

[14] Draft Law On the amendments, No. 5333, April 8, 2010 adopted in the first reading on July 6, 2010.

[15] Resolution of the NCRC, No.298, July 1, 2010.

[16] Resolution of the NCRC, No.1586, July 9, 2009.

[17] Resolution of the NCRC, No.52, February 4, 2010.

[18] Decision of the AMCU, March 9, 2010.

[19] Decision of the AMCU, April 22, 2010.

[20] Decision of the AMCU, October 19, 2010

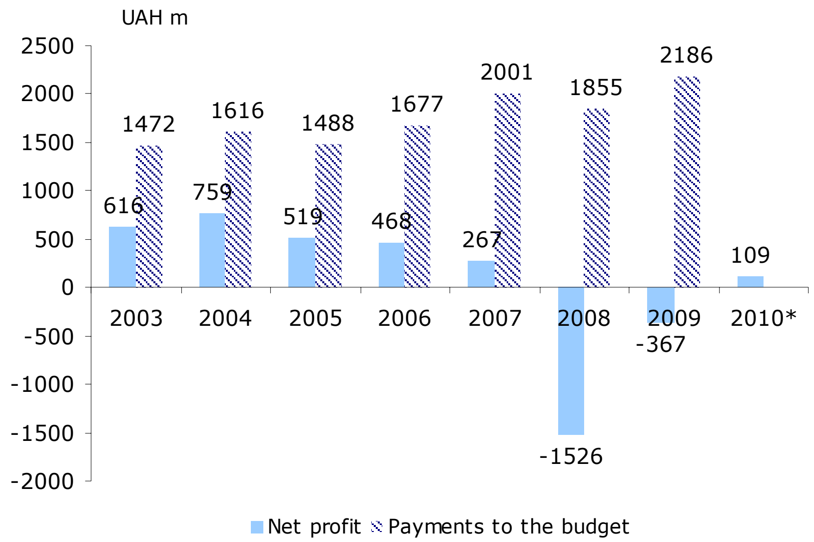
[21] http://www.nyse.com/about/listed/vip.html.

[22] For 2009 budget arrears have increased by UAH 60 m, and households arrears – by UAH 19.4 m// http://www.ukrtelecom.ua/about/finance/results_finance/2009.

"Final consumer collection rate" and "State indebtedness" to 3.3 and 2.3 correspondingly.

In 2010 the situation slightly improved. A new minister charged the company's management with quarterly reports to the Ministry on financial results[23]. Afterwards, the company repaid USD 55.6 m of USD 500 m debt to Credit Suisse First, Deutsche bank, and Standard bank[24]. In July it showed UAH 48 m of profit for the first half of 2010 thanks to increased revenues from broadband Internet services, dismissed personnel and postponed tax payments. However, such result may appear to be short-term and signalize not higher efficiency, but preparations for announced privatization[25]. Nevertheless, the indicator "Operation. Natural monopoly" has been slightly increased from 2.0 to 2.3.

Figure 2
Some financial indicators of Ukrtelecom



Source: Ukrtelecom
Note: * - planned

To crown all sector developments during the monitored period, it can be said that the NCCR as a regulator has persistently strived for improvements in the sector's level playing field. In contrast, the CMU has influenced negatively the sector due to lack of definition strategic vision of Ukrtelecom's future. The overall indicator for the sector has been increased from 2.48 to 2.62.

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23 http://www.mintrans.gov.ua/uk/news/17163.html
24 Two tranches were made in February and in May 2010.
25 At first, it was planned for August 2010 (Order of the SPFU, No. 630, May 13, 2010.), but later it was rescheduled for September 2010 (Order of the SPFU, No. 1109, July 30, 2010) and for October 2010 (Order of the SPFU, No. 1536, October 21, 2010), when a competition that is to take place in December 2010 was announced.

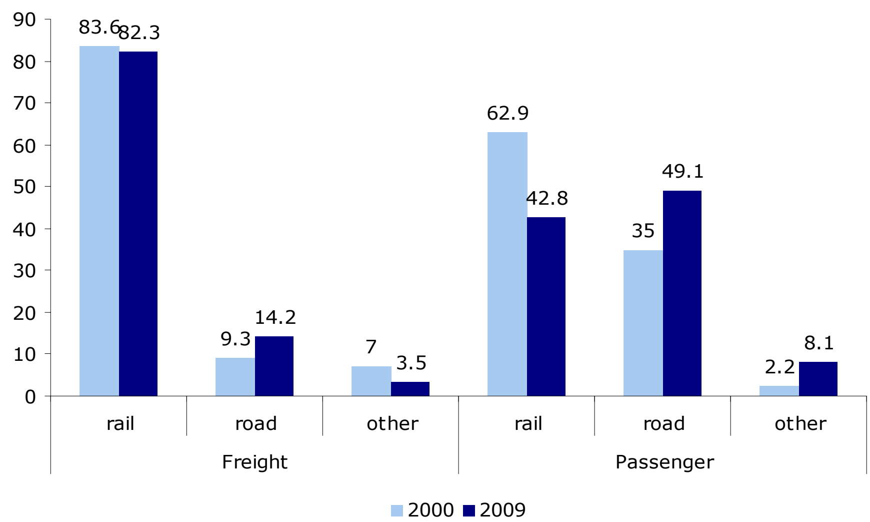
2.2 Railways

During the monitored period the government adopted a Programme of reforms in the railways sector, though structural changes remain far from their implementation.

In December 2009, after a 3-year drafting period, the CMU adopted a Programme of reforms in railways sector[26]. The programme is inconsistent with the Concept of the reforms adopted in 2006[27], which fully complies with modern approach to network industries reforms. The proposed program stipulates completely different steps (see Appendix 1), which will not lead to the declared goals. Thus, as the document showed reluctance of Ukrainian government to change situation in the sector, no indicator has been changed.

Facing decreasing flows[28] and falling shares on both domestic and international markets (see Figures 3 and 4), the UZ did not raise but introduced mandatory indexation[29] of freight tariffs this year. Therefore we have increased the indicator "potential business pricing" from 2.0 to 2.3. Also, in July 2010 the tariffs for metallurgy and chemical industry were increased[30] after being frozen for almost 2 years[31]. Cancellation of preferential tariffs for selected industries is positively assessed and thus the indicator "Political vs. regulated operators" is increased from 1.3 to 1.7.

Figure 3
Structure of transport turnover, %

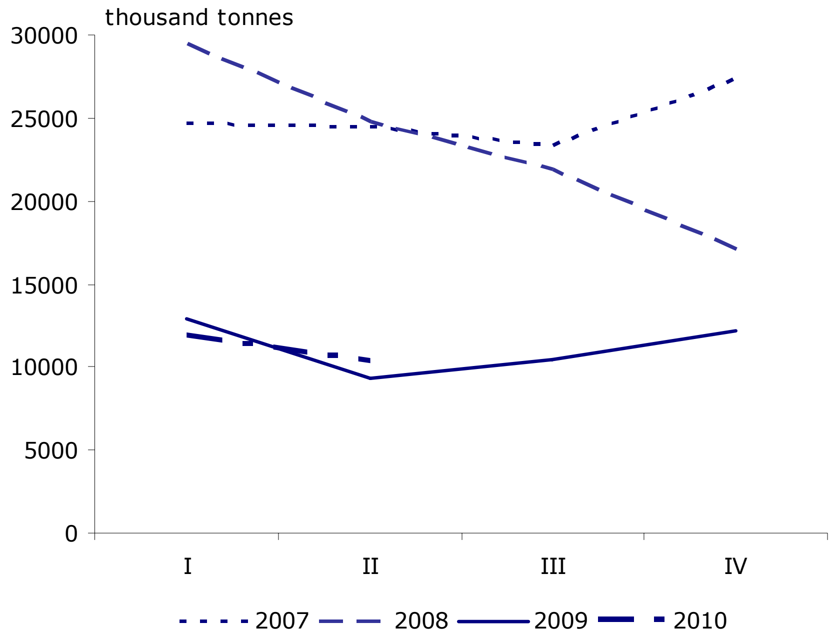


26 Decree of the CMU, No. 1390, December 16, 2009
27 Order of the CMU, No. 651-p, December 27, 2006.
28 According to the State Statistics Committee, in 2009 freight transport flows of UZ decreased by 21.5% yoy and passenger - by 4.4% yoy.
29 In December 2009 the CMU introduced mandatory indexation of freight rail tariffs at the end of each financial year, Decree of the CMU, No. 1392, December 16, 2009
30 Decree of the CMU, No. 397, June 2, 2010.
31 Decree of the CMU, No. 925, October 14, 2008.

Source: State Statistics Committee

During the last years freights transported through Ukraine reduced due to general economic slowdown and availability of cheaper routes (see Figure 4). In order to attract freight flow railways authorities have introduced significant, i.e. 15-50%, discounts for transit freight transportation for different types of goods (grain, metals, coal, fertilizers, etc.) in different directions (to Western Europe, to Tajikistan, from Russia, from Belarus, etc).[32] However, all those steps were short-term measures and do not significantly help to increase Ukraine's competitiveness on the regional market of freight transportation. What can increase competitiveness of Ukrainian railways is investment in new rolling stock and tracks in order to have been able to compete with high logistics standards of neighboring countries. However, in 2009 almost no investments were made (see Figure 5).

Figure 4
Freight transit by rail, by quarters

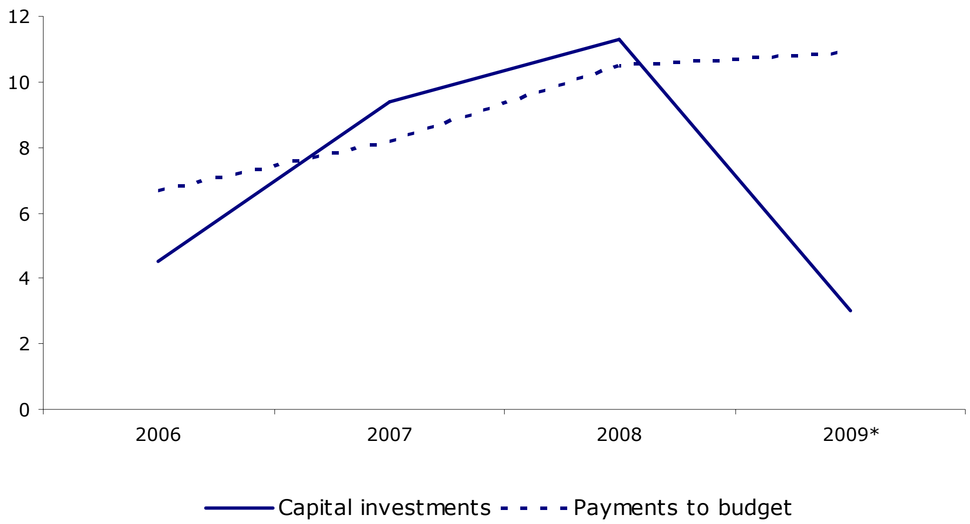


Source: State Statistics Committee

[32] Changes and amendments to the Tariff policy for 2009// http://uz.gov.ua/index.php?m=info.normdocs.tarpolmain.tarpolUZ2007.izmUZ2007&f=Doc.View&p=tpuzzminy.0&lng=uk; Changes and amendments to the Tariff policy for 2010// http://uz.gov.ua/index.php?m=info.normdocs.tarpolmain.tarif_uz_2010.zminy_dop_2010&f=Doc.View&p=zminy_dop_2010_.0&lng=uk

At the same time, UZ exceeded plan of its payments to the budget (see Figure 5), provided preferences for metal and chemical producers, credited a state-owned company "Coal of Ukraine"[33] and transported 24 categories of privileged passengers without full compensation from the budget[34]. As a result, financial performance of the UZ has worsened and we have reduced the indicators "Final consumer collection rates" and "State indebtedness" have been decreased to 2.3 and 1.3 correspondingly.

Figure 5
UZ's capital investments vs. payments to the budget, UAH bn



* Capital investments are very approximate estimations since information for 2009 is not publicly available. Their volume for January-March was UAH 0.3 bn

Source: mass media

Plus, in November 2009 the UZ failed to pay back the second USD 110 m out of USD 550 m debt on syndicated loan to Barclays Bank PLC and paid only interest (USD 8 m).[35] Consequently, it had to appeal for restructuring of the debt, which was agreed on in May 2010. Maturity of the loan has been extended by 5 years, and this agreement allowed the UZ to improve its current financial situation. Also, UZ started public offering of bonds at the total amount of UAH 1 bn with 24% coupon rate but by August 10, 2010 it raised approximately UAH 0.79 bn. However this sum is not enough to even cover current debt.

Being permanently in the shortage of funds, the UZ, however, has very ambitious investment plans. In March 2010 an Investment committee was created within

[33] As of December 31, 2009 Coal of Ukraine has UAH 0.6 bn of arrears for rail transportation.
[34] In 2009 the UZ supplied services to privileged consumers at amount of UAH 0.51 bn, only 32.4% of which were compensated from the budget. Therefore, it appealed for improving the situation. In December 2009 the CMU adopted Order of automatic calculation of compensations for privileged consumers of railways transport. However, it hardly helped as for the first half of 2010 compensations to UZ have accounted only for 18.2% (of UAH 0.27 bn).
[35] In total in 2009 the UZ paid UAH 2 bn out of UAH 4 bn of credit payments.

the UZ, which will be in charge of costs and benefits analysis of investment projects and elaboration of short-, medium- and long-term investment plans.[36] Later Ukrzaliznytsia presented capital investments plan for 2010-2014 of the total amount of UAH 78 bn, UAH 32 bn is going to be finance at the costs of credits and leasing, UAH 38 bn – depreciation, UAH 7 bn – state budget. Summing up commercial approach to decision-making become more important for the UZ, however the government still retains control over its planning and investment decisions. That's why we have not changed the indicator "Natural monopoly planning and investment decisions".

Taking into account government's unwillingness to reform the sector and its manipulations with UZ's finance, the indicator for railways has been again decreased from 1.76 to 1.75.

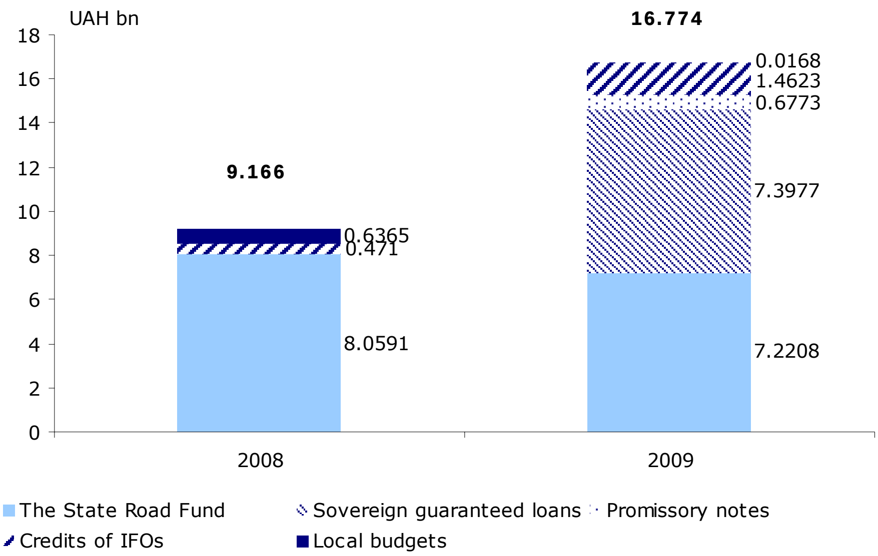
[36] Press-service of UZ// http://www.uz.gov.ua/?lng=uk

2.3 Roads

The monitored period is marked by emergency efforts of the government to raise funds for roads construction and maintenance and ignoring the fact the sector desperately needs reforms. At the same time, in road transportation market the authorities tried to introduce positive changes in the sphere of tariff setting.

Catastrophic financial situation of the State Road Service (Ukravtodor) remains the most troublesome issue in the sector. Until 2009 the State Road Fund had remained the main source of financing of Ukravtodor (see Figure 6). However, in 2009 only half of the receipts of Ukravtodor came from the collection of taxes and duties that form the State Road Fund. The rest was financed at the expense of creditors, which provide money mainly under government guarantees (see Figure 6).

Figure 6
Receipts of Ukravtodor

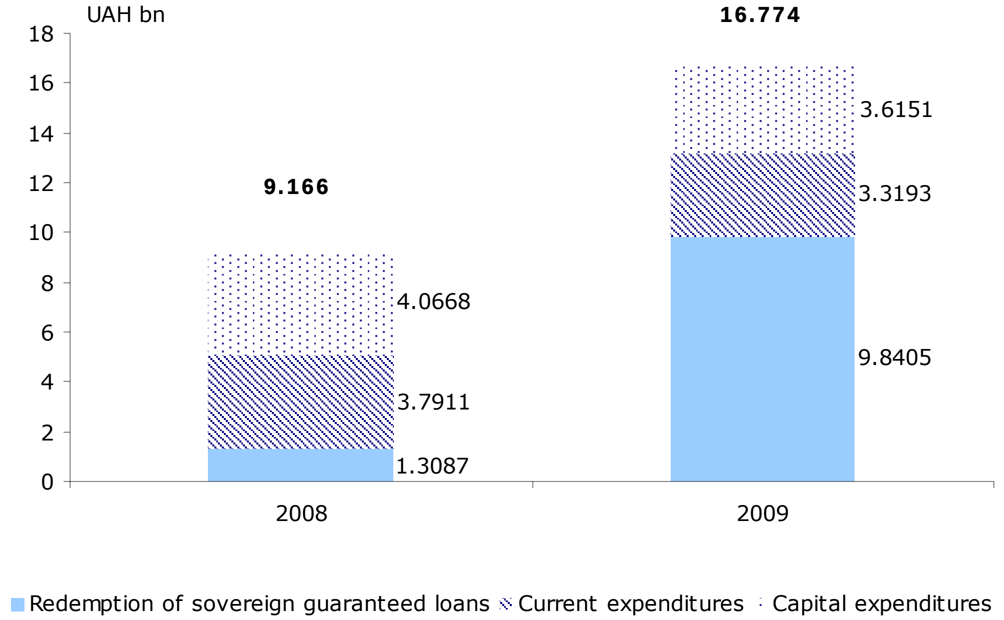


Source: Ukravtodor

In attempt to ensure preparation for the UEFA EURO 2012 as well as to cope with consequences of flood in Western Ukraine, the government allowed Ukravtodor to pay its suppliers and contractors with promissory notes[37], avalized by the Ministry of Finance at the NBU discount rate + 2.5%. By April 2010 their amount has achieved UAH 1.9 bn. Apart from this, to compensate deficiency of the State Road Fund revenues the Cabinet set enormous amount of government guarantees allowed for Ukravtodor to cover its credits[38]: in 2009 – UAH 37 bn[39], in 2010 – UAH 45 bn. Thus, we have decreased the indicator "Intra-industry payment ratio" and "Subsidies level" to 2.3 and 1.0 correspondingly.

[37] Decree of the CMU, No. 841, July 29, 2009 and Decree of the CMU, No. 1247, November 11, 2009.
[38] Together with the National Agency for Preparation for the 2012 European Football Championship.
[39] Though, financial crisis corrected these ambitious plans of credits attraction: in 2009 Ukravtodor attracted UAH 3.8 bn of sovereign guaranteed loans from the state-owned bank JSC "Oshchadbank" (excl. refinanced credit by Credit Swiss).

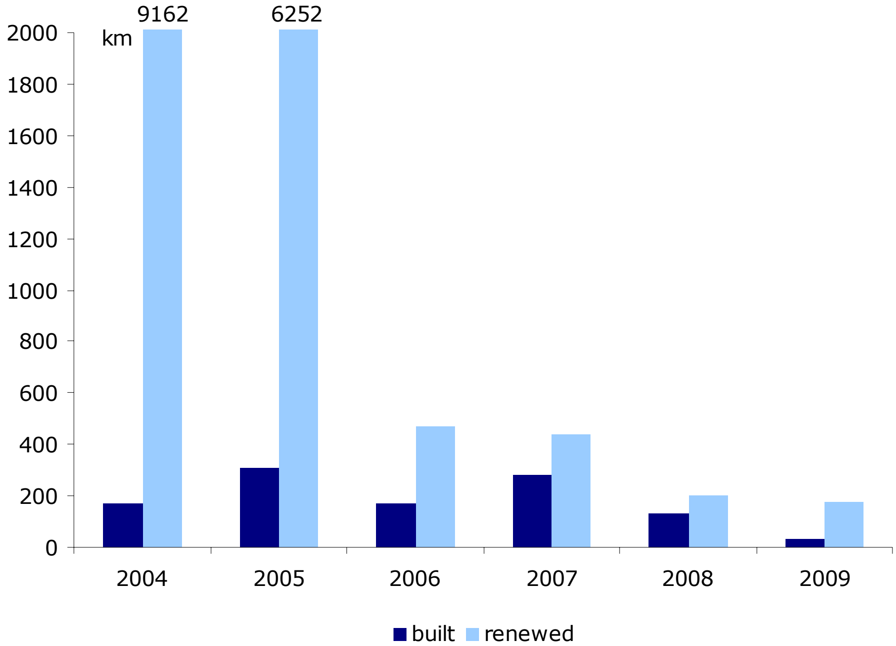
Figure 7
Expenditures of Ukravtodor



Source: Ukravtodor

In 2009 Ukravtodor attracted significant amount of money (see Figure 6), which were spent mainly for refinancing the debt of Ukravtodor (see Figure 7) In 2009 the road incumbent was obliged to pay its debts at the amount of UAH 9.8 bn, including UAH 6.3 bn from the state budget. Thus, in 2009 for the first time amount spent on road works was less than amount directed at redemption of loans. As a result, performed roads works substantially shrunk in 2009 (see Figure 8) and by January 1, 2010, wear and tear of Ukrainian roads have achieved 60%. In 2010 credits repayment in the roads sector is to be UAH 6.6 bn, incl. UAH 6.2 bn of payments of sovereign guaranteed credits. Thus, during monitored period main efforts of Ukravtodor have been directed towards fundraising to plug hole in its finances, but not to increase operational efficiency, which eventually led to decrease of the indicator “Natural monopoly planning and investment decisions” from 2.3 to 2.0.

Figure 8
Construction and renovation of roads in Ukraine



Source: Ukravtodor

In the sphere of transportation, authorities undertook some actions aimed at improvements in operation and governance of road transport sector. In November 2009, the MTCU established methodology[40] of calculation of passenger tariffs that foresees full cost-coverage and profitability and allows changes in tariffs in accordance with changes in inputs' costs. This methodology is mandatory for state-regulated services, such as public urban and intercity road transportation, and is recommended for all other ones. As a result, the indicator "Potentially competitive businesses pricing" was increased from 3.0 to 3.3. Also, from January 1, 2010 decree of the CMU foreseeing regulation of freight transportation tariffs has been voided[41]. This means the government will not set minimum tariffs on the competitive market any more, which increases the indicator "Political vs. regulated operators" from 2.0 to 2.3.

At the same time, the government neglects right of road transportation companies to get compensations for transportation of privileged passengers. The Ministry of Finance plans amounts of compensations of privileged consumers' transportation to local authorities without any procedure of budget planning for compensations.[42] Besides, initially planned amounts are not sufficient to cover transport companies' costs of transportation of privileged passengers, whose

[40] Resolution of the MTCU, No.1175, from November 17, 2009.
[41] Decree of the CMU, No. 226, February 25, 2009
[42] "State guarantees for privileged consumers' transportation are not executed"// http://www.ac-rada.gov.ua/control/main/uk/publish/article/1485377;jsessionid=0BDDEFFB2D530571AFEC615FE7D3F160

travels number is always greater than built into the budget.[43] In addition to this, these intra-budget transfers had not been fully executed. In 2009 it was foreseen to transfer to local budgets UAH 1.6 bn to compensate privileged consumers' transportation, but local authorities, and therefore transport companies, got only 75%[44]. So far the situation has just deteriorated[45]. As a result, the indicator "State indebtedness" has been decreased to 1.7.

However, the MTCU strives for changes in road transportation. In June it adopted Measures aimed at improvement of regulation of road transportation.[46] They should help solve problems of safety, illegal activities, and poor quality of services. Following this document, the Ministry toughened qualification requirements for transport companies, in particular to qualification and health of drivers, to technical equipment of vehicle.[47] However, no indicator has been changed since those regulations are to be implemented.

In general, the overall indicator for roads has decreased from 2.42 to 2.39 due to stagnated reforms and weak budget discipline.

43 According to open sources, for 2010 planned finance for compensation of privileged consumers' transportation by urban transport in Chernihiv has constituted 45% of necessary amount, in Zaporizhzhya – 64%.

44 According to the State Treasury of Ukraine// http://www.treasury.gov.ua/main/uk/publish/article/124049

45 According to open sources, so far only 13% has been compensated to urban transport companies in Chernihiv, and 23% - in Zaporizhzhya.

46 Press-service of the MTCU// http://www.mtu.gov.ua/uk/news/2010-06-15/17924.html

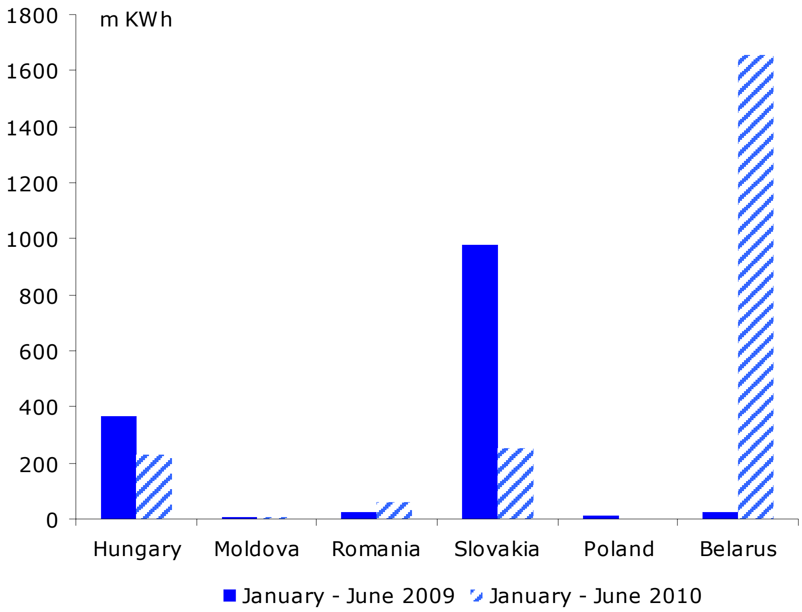
47 Resolution of the MTCU, No.427, from July 2, 2010.

2.4 Power

During the reviewed period several improvements were made in electricity export regulations and tariffs level. No major changes in ownership and market structure were observed.

After amendments to the Law On power energy became effective in spring 2009,[48] the first auction for access to transmission capacities for electricity export was conducted on December, 16, 2009. Then 275 MWh of transmission capacity to Western direction were sold at UAH 141 m. The next auctions however have failed because of too high starting price, which was caused by the deficit of coal in the end of 2009. Another reason of the failure was discriminatory requirements of Ukrenergo to auctions participants that have limited the number of potential buyers. As a result of the auctions failure the destination of electricity export has changed (Figure 9). In 2010 most electricity was sold to Belarus under a governments agreement. Despite the above defections the auction mechanism and its first practical implementation are considered as an improvement in access rules to transmission capacities and we have increased the indicator "Access regulation" from 2.3 to 2.7.

Figure 9
Electricity exports in 2009 – 2010, by destination country



Source: NERC

During the reviewed period the regulator of the sector – National Electricity Regulatory Commission (NERC) continued to increase electricity tariffs for

[48] For the details of new regulation of export electricity see Chukhai, Naumenko, Sysenko (2009), Infrastructure monitoring of Ukraine No 11, Kyiv [available at http://www.ier.com.ua/en/publications/regular_products/infrastructure_monitoring/archive_2009/?]

industrial consumers towards cost-covering level. The tariffs have been increased by 3.2% in the second half of 2009 and by 13% between January and August of 2010. Moreover, the moratorium on increase of the tariffs for steel and chemical producer was cancelled.[49]. At the same time electricity tariffs for population remain at the previous level. Based on the above we have increased the indicator "Political versus regulated operators" from 2.7 to 3.0.

Table 1
Ukraine's electricity production structure, bn kWh

	2008	2009	9months of 2010
Nuclear Power Plants	89841.4	60346.7	64428.3
Thermal Power Plants & Heat stations	82346.9	49772	55437.9
Hydro Power Plants	11345.6	8765.5	10578.9
Others	8149.9	5054.1	5492.7

Source: The Ministry of fuel and energy

In July 2010 the Parliament has adopted a Law On principles of natural gas market operation,[50] which has fixed authorities of a sector's regulator – National Electricity Regulatory Commission. This increases independence of the regulator and thus we have increased the indicator "Independence of regulation" from 3.0 to 3.3

The overall indicator for the power sector has increased from 2.57 to 2.66 mostly as a result of improvements in tariff setting and access regulation.

[49] The Cabinet of Ministers Order #397 as of June 2, 2010
[50] Law of Ukraine On principles of market of natural gas operation, No 2467-VI, 08.07.2010

2.5 Gas

In the gas sector important improvements in legislation and market organization were observed during the reviewed period. First, the main law in the gas sector that complies with the EU recommendations of the sector organization has been adopted. Second, partial vertical unbundling or the state gas monopoly Naftogaz of Ukraine has been made.

On July 8, 2010 the Parliament adopted a Law On principles of natural gas market operation,[51] which envisage establishing competitive gas market in Ukraine. The document complies with EU regulations on organization of natural gas markets[52] and foresees the following:

(1) consumers are free to choose suppliers of natural gas;

(2) operators get free access to the network infrastructure, including transit and local pipelines and underground gas storage (UGS).

(3) vertical unbundling (separation of transportation, distribution and supply of natural gas) of the state owned NJSC Naftogaz of Ukraine.

According to the Law, the government keeps full control over the gas extraction through state owned companies affiliated to the Naftogaz. These companies will be obliged to sell extracted gas to a state agency at a regulated price. The agency will sell extracted in Ukraine gas to population. This would allow the government to soften price shocks for households in the nearest future, but may further constraint development of gas exploration in Ukraine.

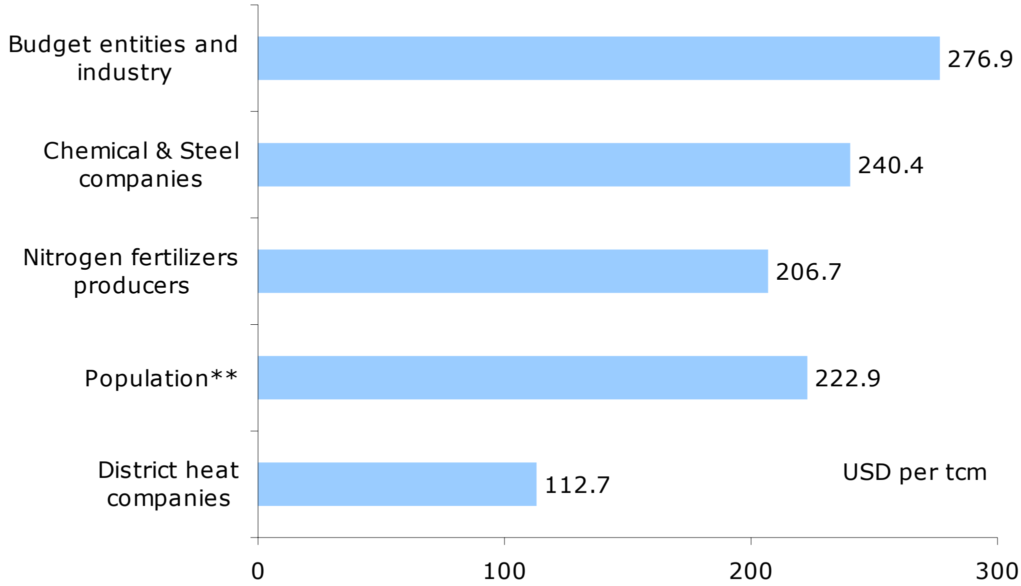
Finally, activities of the market regulator - the National Electricity Regulatory Commission (NERC) - are supported by the Law,[53] which make the regulator independent and more confident. This is an important step towards transparency and economic justification of the regulation of the on the market.

All the above allowed us to increase the indicator "Independence of regulation" from 2.3 to 3.0. Other indicators will be increased when the changes fixed by the Law are implemented.

This year regional distribution companies (*oblgases*) have been separated from state gas market monopolist NJSC Naftogaz of Ukraine. On July 5, 2010 the Cabinet of Ministers cancelled its previous decision[54] about transferring assets of regional gas distribution companies to the NJSC Naftogaz of Ukraine. The vertical unbundling allowed us to increase the indicator "Organizational structure. Separation of natural monopoly and potentially competitive businesses" from 1.7 to 2.0.

[51] Law of Ukraine On principles of market of natural gas operation, No 2467-VI, 08.07.2010
[52] Including a Directive 2003/55/EC
[53] Until now it acted according to the President's decree
[54] The CMU order No 775, 10.06.2009 (cancelled by the CMU order No 547, 05.07.2010)

Figure 10
Gas prices in Ukraine for different consumers (as of August 1, 2010)*

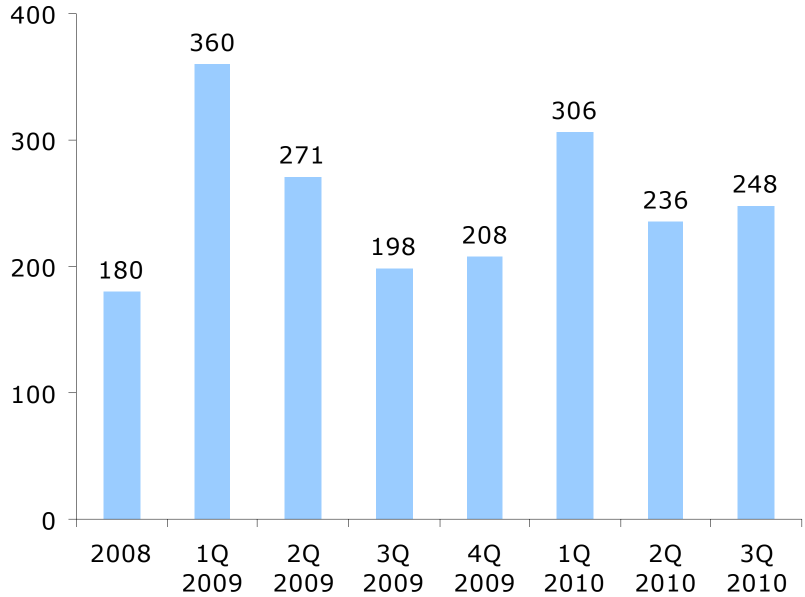


Source: NERC
Notes: * Prices excluding VAT, extra charge, and transportation & supply costs
** Average price

Since August 1, 2010 the tariffs for natural gas for population and district heating companies are raised by 50%. Such step was one of the conditions for the IMF approval of new stand-by agreement. As a result, basic[55] gas price for households and district heating companies have increased to UAH 725 and 1309 per tcm respectively. Tariffs for industrial consumers and budget entities were also increased by 9.8% since August 1, 2010. The NERC has also increased tariffs for transportation and supply of natural gas by regional distribution networks (oblgases) to UAH 142.3 for transportation and UAH 41.3 per tcm for supply. Meanwhile, the management of the distribution companies claimed the cost-covering tariffs (incl. necessary investments) are higher and constitute UAH 140-145 per tcm for transportation and UAH 55 per tcm for supply. The tariffs raises improve the cost coverage of the tariffs and consequently make financial performance of the enterprises on the gas market healthier. Thus we have increased the indicator "political vs regulated operators", "Natural monopoly pricing" and "Potentially competitive business pricing" to 2.0, 2.0 and 2.3 correspondingly.

[55] For households that consumed no more than 2.5 tcm of gas monthly and have a gas meter

Figure 11
Contracted prices for imported natural gas, USD per tcm



Source: NJSC Naftogaz of Ukraine

Starting from April 2010 Ukraine get a discount for Russian gas of USD 100 per tcm. In return, the stay of Russian Black Sea Fleet in Sevastopol naval base is prolonged until 2042 for the same USD 100 m per year. The discount mechanism does not change basic provisions of the 2009 gas contract. After the discount expires, Ukraine will get a jump in gas prices, while hampered modernization of energy system in the country might make Ukraine's economy even more sensitive to gas price changes than it is now.

Summarizing, the overall indicator for the gas sector has increased form 1.99 to 2.08 demonstrating improvement of the sector's regulation and organization.

2.6 Water and wastewater

Last year there were several important changes in organization and regulation of the sector of water supply and wastewater treatment.

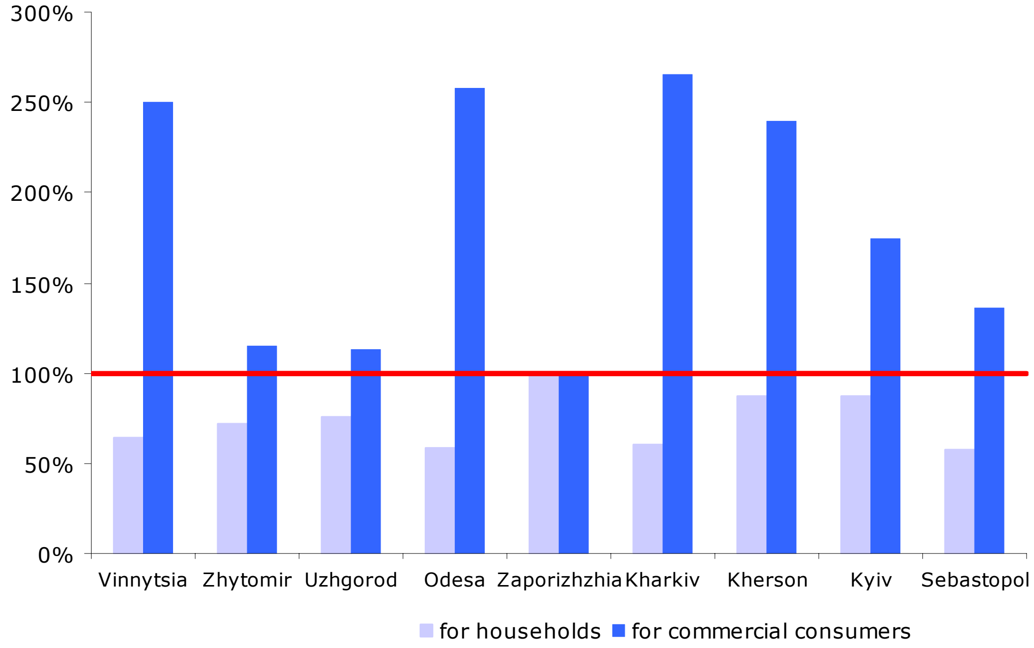
Recent important development in the utilities sector is creation of an independent regulator for public utilities[56] – National regulatory commission for public utility markets of Ukraine. The creation of the Commission is fixed by the Law of Ukraine.[57] The commission is aimed to balance the interests of all stakeholders on the market. It is going to do this by setting tariffs for the heating, water supply and wastewater treatment services, licensing and control compliance of licenses conditions. The Commission will fully operate from January 2011. Until then the tariffs for heating, water supply and sewerage services will be set by the National Electricity Regulatory Commission or left at an existing level. Thus the tariff setting function is taken from the local authorities and transferred to the national level, which, in principle, diminishes political interference into tariff setting. It is also expected that cost coverage of utilities tariffs will improve, which in turn will improve financial state of the enterprises of the industry.

At the same time, the law on the Commission lacks several important moments. At the moment, it is highly probable that the commission will not have enough capacity to perform appropriate tariff setting. Second, there is no mechanism of assessment of tariffs envisaged. Third, no incentive regulation is foreseen. Thus, there is a good chance that the instrument of independent regulation will be highly underutilized. Nevertheless, we have increased the indicator 3.1.2 "independence of regulation" from 1.3 to 2.3.

[56] District heating, water supply and wastewater treatment services

[57] Law of Ukraine On National Regulatory Commission for utilities market of Ukraine, No 2479-IV, 09.07.2010

Figure 12
Cross subsidization in water tariffs: cost coverage of tariffs for households and commercial consumers in selected regions, data as of 1 October 2010



Source: Ministry for housing and public utulities

Together with raise of gas prices for population and in anticipation of rises of related public utilities tariffs the CMU reduced the threshold of the share of a household income spent on public utilities to be eligible for a subsidy. Now if monthly spending of a household on utilities exceeds 15% (instead of previous 20%) of total household's income a household can apply for a subsidy. While additional requirements for this remain unchanged more households will be able to get state's subsidies. Such step is justifiable – the state should support most vulnerable households – however more subsidies should not be put as additional burden on the enterprises. The issue of timely and full compensation of more social liabilities of the state to the suppliers of public utilities becomes more important.

Summing up, as a result of regulatory breakthrough the overall indicator in the water and wastewater sector has increased from 1.60 to 1.70.

Appendices

Appendix 1 Comparative description of planned reforms in railways

	Concept of Reforms, 2006	**Programme of Reforms, 2009**
Goal	To meet growing demand for freight and passenger transportation; To increase quality of rail services; To reduce transportation costs as input.	To meet growing demand for freight and passenger transportation; To increase quality of rail services.
1st stage	*2007-2008*: Creation of legislative grounds for sector reforms; Corporatization of UZ and creation of State Joint-Stock Company "Ukrainian railways", 100% of shares of which will be hold by the state; Separation of the government's regulatory function and operational function of the company; Transfer of social sphere into competence of the governmental body	*2010-2011*: Separation of the government's regulatory function and operational function of the company; Creation of State Concern from all enterprises of railways sector incl. social sphere and ancillary businesses; Ensuring of state support for rail transport
2nd stage	*2008-2010*: Separation of natural monopoly from potentially competitive (freight and passenger transportation) and ancillary businesses (repair and construction); Reduction in cross-subsidization; Introduction of competition on the freight transportation market – elaboration of mechanism for third parties access to infrastructure	*2012-2013*: Introduction of automatic control system; Creation of head and regional offices of transportation control; Optimization of organization structure of ancillary businesses
3rd stage	*2011-2015*: Elimination of cross-subsidization through tariff liberalization for transportation; Privatization of ancillary businesses; Creation of enterprises on long-distance and local passenger transportation.	*2014-2015*: Creation of vertically integrated structure in railways; Access of private participants to railways market
Results	Competitive markets for rail transportation; Increase in efficiency of rail sector; Transparency in operations and finances Investments in sector and modernization of assets; Higher standards Higher transit	Competitive markets for rail transportation; Increase in efficiency of rail sector; Investments in sector and modernization of assets; State aid for purchase of rolling stock and compensation for privileged consumers' transportation; Increase in safety Higher transit

Source: Order of the CMU, No. 651-p, December 27, 2006; Decree of the CMU, No. 1390, December 16, 2009

Appendix 2. Infrastructure Indicator evaluation

Telecommunications*

	Indicator	00-N	01-M	01-N	02-M	02-N	03-M	04-J	05-J	06-J	07-A	08-A	09-S	10-S
	EBRD indicator	2.3		2.3		2.3	2.3	2.3	2.3	2.7	2.7	2.7	2.7	2.7
	IERPC indicator	2.31	2.36	2.24	2.22	2.26	2.29	2.41	2.40	2.50	2.53	2.46	2.48	2.62
1	**Commercialization and privatization**	2.0	2.0	1.9	1.9	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3
1.1	**Ownership**	2.0	2.0	2.0	2.0	2.1	2.2	2.1	2.1	2.2	2.3	2.3	2.3	2.5
1.1.1	Natural monopoly	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.3
1.1.2	Potentially competitive businesses	2.7	2.7	2.3	2.3	2.7	3.0	2.7	2.7	3.0	3.3	3.3	3.3	3.0
1.1.3	Ancillary businesses	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3
1.2	**Operation**	1.8	1.9	1.7	1.7	1.7	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.2
1.2.1	Natural monopoly	1.7	2.0	1.7	1.7	1.7	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.3
1.2.2	Natural monopoly planning and investment	2.0	2.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
1.2.3	Private sector participation in service	1.7	1.7	1.7	1.7	1.7	2.0	2.3	2.3	2.3	2.3	2.3	2.3	2.7
1.3	**Organizational structure**	2.2	2.2	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.1
1.3.1	Separation of natural monopoly and potentially competitive businesses	2.3	2.3	2.0	2.0	2.0	2.3	2.3	2.0	2.0	2.0	2.0	2.0	2.0
1.3.2	Separation of ancillary businesses	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1.3.3	Decentralization	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
2.0	**Tariff reform**	2.6	2.6	2.6	2.6	2.7	2.7	2.9	2.9	2.9	2.8	2.9	2.9	2.9
2.1	**Structure of tariffs**	2.3	2.4	2.4	2.4	2.6	2.6	2.9	2.9	3.0	2.9	3.0	3.2	3.3
2.1.1	Political vs. regulated operators	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.3	2.3	2.3	2.7	3.0	3.0
2.1.2	Natural monopoly pricing	2.3	2.3	2.3	2.3	2.7	2.7	3.0	3.0	3.3	3.3	3.3	3.7	3.7
2.1.3	Potentially competitive businesses pricing	2.7	3.0	3.0	3.0	3.0	3.0	3.3	3.3	3.3	3.0	3.0	3.0	3.3
2.2	**Payments**	3.0	3.1	3.1	3.1	3.2	3.2	3.3	3.3	3.3	3.2	3.2	3.2	3.0
2.2.1	Intraindustry payments ratios	3.0	3.0	3.0	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
2.2.2	Final consumers collection rates	3.0	3.3	3.3	3.3	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7	3.3
2.2.3	State indebtedness	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.7	2.7	2.7	2.3
2.3	**State funding**	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
2.3.1	Subsidies level	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
2.3.2	Subsidies procedure	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3.0	**Regulatory and institutional development**	2.4	2.4	2.2	2.1	2.1	2.1	2.3	2.3	2.5	2.6	2.4	2.4	2.7
3.1	**Effective regulatory institution**	2.4	2.6	2.3	2.2	2.2	2.2	2.6	2.6	2.7	2.6	2.4	2.4	2.7
3.1.1	Management selection for competitive businesses	2.7	2.7	2.3	2.3	2.3	2.3	2.7	2.7	2.7	2.3	2.3	2.3	2.3
3.1.2	Independence of regulator, insulation from political influence	2.3	2.7	2.3	2.3	2.3	2.3	2.7	2.7	2.7	2.7	2.3	2.7	2.7
3.1.3	Transparency of regulation	2.3	2.3	2.3	2.0	2.0	2.0	2.3	2.3	2.7	2.7	2.7	2.3	3.0
3.2	**Access regulation**	2.3	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.7	2.3	2.3	2.7

Railways

	Indicator	00-N	01-M	01-N	02-M	02-N	03-M	04-J	05-J	06-J	07-A	08-A	09-S	10-S
	EBRD indicator	2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
	IERPC indicator	1.29	1.39	1.49	1.54	1.56	1.79	1.73	1.78	1.80	1.79	1.77	1.76	1.75
1	**Commercialization and privatization**	1.3	1.4	1.5	1.5	1.6	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7
1.1	**Ownership**	1.2	1.3	1.3	1.3	1.5	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6
1.1.1	Natural monopoly	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.1.2	Potentially competitive businesses	1.3	1.3	1.3	1.3	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1.1.3	Ancillary businesses	1.3	1.7	1.7	1.7	1.7	2.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7
1.2	**Operation**	1.2	1.4	1.6	1.7	1.7	1.8	1.9	1.9	1.9	1.9	1.8	1.7	1.7
1.2.1	Natural monopoly	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
1.2.2	Natural monopoly planning and investment	1.0	1.3	1.3	1.7	1.7	2.0	2.3	2.3	2.3	2.3	2.0	1.7	1.7
1.2.3	Private sector participation in service	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
1.3	**Organizational structure**	1.4	1.6	1.6	1.6	1.7	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.7
1.3.1	Separation of natural monopoly and potentially competitive businesses	1.0	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
1.3.2	Separation of ancillary businesses	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
1.3.3	Decentralization	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.7	1.7	1.7
2.0	**Tariff reform**	1.4	1.5	1.7	1.8	1.8	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1
2.1	**Structure of tariffs**	1.0	1.0	1.0	1.0	1.0	1.8	1.7	1.7	1.9	2.0	2.0	2.1	2.3
2.1.1	Political vs. regulated operators	1.0	1.0	1.0	1.0	1.0	1.7	1.3	1.3	1.7	1.7	1.3	1.3	1.7
2.1.2	Natural monopoly pricing	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	2.3	2.3	2.7	3.0	3.0
2.1.3	Potentially competitive businesses pricing	1.0	1.0	1.0	1.0	1.0	1.7	1.7	1.7	1.7	2.0	2.0	2.0	2.3
2.2	**Payments**	1.7	1.9	2.3	2.6	2.6	2.6	2.6	2.6	2.6	2.4	2.4	2.2	2.0
2.2.1	Intraindustry payments ratios	1.3	1.7	2.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.3	2.3
2.2.2	Final consumers collection rates	2.0	2.3	2.7	3.0	3.0	3.0	3.0	3.0	3.0	2.7	2.7	2.7	2.3
2.2.3	State indebtedness	1.7	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.7	1.7	1.7	1.3
2.3	**State funding**	1.7	1.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
2.3.1	Subsidies level	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
2.3.2	Subsidies procedure	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3.0	**Regulatory and institutional development**	1.2	1.2	1.3	1.3	1.3	1.6	1.4	1.6	1.6	1.6	1.6	1.6	1.6
3.1	**Effective regulatory institution**	1.3	1.4	1.5	1.5	1.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
3.1.1	Management selection for competitive businesses	1.3	1.3	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
3.1.2	Independence of regulator, insulation from political influence	1.0	1.0	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
3.1.3	Transparency of regulation	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3.2	**Access regulation**	1.0	1.0	1.0	1.0	1.0	1.3	1.0	1.3	1.3	1.3	1.3	1.3	1.3

Roads

	Indicator	00-N	01-M	01-N	02-M	02-N	03-M	04-J	05-J	06-J	07-A	08-A	09-S	10-S
	EBRD indicator	2.0		2.0		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0
	IERPC indicator	2.12	2.15	2.15	2.14	2.17	2.30	2.28	2.30	2.39	2.39	2.44	2.42	2.39
1	**Commercialization and privatization**	1.9	2.0	2.0	2.0	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.3	2.3
1.1	**Ownership**	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
1.1.1	Natural monopoly	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.1.2	Potentially competitive businesses	2.7	2.7	2.7	2.7	2.7	2.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0
1.1.3	Ancillary businesses	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
1.2	**Operation**	1.6	1.8	1.8	1.9	1.9	2.0	2.2	2.2	2.2	2.2	2.2	2.3	2.2
1.2.1	Natural monopoly	1.3	1.7	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1.2.2	Natural monopoly planning and investment	1.7	1.7	1.7	1.7	1.7	2.0	2.3	2.3	2.3	2.3	2.3	2.3	2.0
1.2.3	Private sector participation in service	1.7	2.0	2.0	2.0	2.0	2.0	2.3	2.3	2.3	2.3	2.3	2.7	2.7
1.3	**Organizational structure**	2.2	2.2	2.2	2.2	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
1.3.1	Separation of natural monopoly and potentially competitive businesses	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
1.3.2	Separation of ancillary businesses	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1.3.3	Decentralization	1.3	1.3	1.3	1.3	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2.0	**Tariff reform**	2.1	2.1	2.1	2.0	2.0	2.2	2.1	2.2	2.3	2.3	2.3	2.2	2.1
2.1	**Structure of tariffs**	2.0	2.0	2.0	2.0	2.0	2.1	1.9	2.1	2.2	2.2	2.4	2.3	2.5
2.1.1	Political vs. regulated operators	1.7	1.7	1.7	1.7	1.7	1.7	1.7	2.0	2.0	2.0	2.3	2.0	2.3
2.1.2	Natural monopoly pricing	1.7	1.7	1.7	1.7	1.7	2.0	1.7	1.7	2.0	2.0	2.0	2.0	2.0
2.1.3	Potentially competitive businesses pricing	2.7	2.7	2.7	2.7	2.7	2.7	2.3	2.7	2.7	2.7	3.0	3.0	3.3
2.2	**Payments**	2.4	2.2	2.2	2.1	2.2	2.5	2.5	2.5	2.7	2.7	2.7	2.5	2.2
2.2.1	Intraindustry payments ratios	2.7	2.7	2.7	2.7	2.7	3.0	3.0	3.0	3.0	3.0	3.0	2.7	2.3
2.2.2	Final consumers collection rates	2.7	2.7	2.7	2.3	2.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
2.2.3	State indebtedness	1.7	1.3	1.3	1.3	1.7	1.7	1.7	1.7	2.3	2.3	2.3	2.0	1.7
2.3	**State funding**	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.7	1.7	1.5
2.3.1	Subsidies level	2.0	2.0	2.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.3	1.3	1.0
2.3.2	Subsidies procedure	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3.0	**Regulatory and institutional development**	2.3	2.4	2.4	2.4	2.4	2.6	2.5	2.5	2.7	2.7	2.8	2.8	2.8
3.1	**Effective regulatory institution**	1.9	2.0	2.0	2.1	2.1	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3
3.1.1	Management selection for competitive businesses	2.0	2.0	2.0	2.0	2.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
3.1.2	Independence of regulator, insulation from political influence	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3.1.3	Transparency of regulation	1.7	2.0	2.0	2.3	2.3	2.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7
3.2	**Access regulation**	2.7	2.7	2.7	2.7	2.7	3.0	2.7	2.7	3.0	3.0	3.3	3.3	3.3

* Several indicators have been revised

Appendix 2. Infrastructure indicator evaluation (continuation)

Power

	Indicator	00-N	01-M	01-N	02-M	02-N	03-M	04-J	05-J	06-J	07-A	08-A	09-S	10-S
	EBRD indicator	3.0		3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.0
	IERPC indicator	2.37	2.49	2.51	2.51	2.49	2.60	2.56	2.56	2.57	2.58	2.57	2.57	2.66
1.0	**Commercialization and privatization**	2.4	2.5	2.5	2.5	2.5	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6
1.1	**Ownership**	2.2	2.3	2.4	2.4	2.4	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
1.1.1	Natural monopoly	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
1.1.2	Potentially competitive businesses	2.3	2.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
1.1.3	Ancillary businesses	1.3	1.3	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
1.2	**Operation**	2.5	2.6	2.6	2.6	2.6	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
1.2.1	Natural monopoly	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
1.2.2	Natural monopoly planning and investment decisions	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
1.2.3	Private sector participation in service	1.7	1.7	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
1.3	**Organizational structure**	2.5	2.5	2.5	2.5	2.5	2.7	2.4	2.4	2.4	2.4	2.4	2.4	2.4
1.3.1	Separation of natural monopoly and potentially competitive businesses	3.7	3.7	3.7	3.7	3.7	3.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0
1.3.2	Separation of ancillary businesses	1.3	1.3	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
1.3.3	Decentralization													
2.0	**Tariff reform**	2.2	2.5	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.8	2.7	2.7	2.8
2.1	**Structure of tariffs**	2.7	2.7	2.7	2.7	2.7	2.9	2.9	2.9	3.0	3.1	3.0	3.0	3.1
2.1.1	Political vs. regulated operators	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.7	3.0
2.1.2	Natural monopoly pricing	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	3.0	3.3	3.0	3.0	3.0
2.1.3	Potentially competitive businesses pricing	2.3	2.3	2.3	2.3	2.3	3.0	3.0	3.0	3.0	3.0	3.0	3.3	3.3
2.2	**Payments**	1.9	2.8	2.9	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
2.2.1	Intraindustry payments ratios	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
2.2.2	Final consumers collection rates	2.0	3.0	3.3	3.3	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
2.2.3	State indebtedness	1.7	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
2.3	**State funding**	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
2.3.1	Subsidies level	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
2.3.2	Subsidies procedure	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3.0	**Regulatory and institutional development**	2.5	2.5	2.5	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.7
3.1	**Effective regulatory institution**	2.7	2.7	2.7	2.7	2.4	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.7
3.1.1	Management selection for competitive businesses	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3.1.2	Independence of regulator, insulation from political influence	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.3
3.1.3	Transparency of regulation	3.0	3.0	3.0	3.0	2.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
3.2	**Access regulation**	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.7

Gas

	Indicator	00-N	01-M	01-N	02-M	02-N	03-M	04-J	05-J	06-J	07-A	08-A	09-S	10-S
	EBRD indicator													
	IERPC indicator	1.89	2.04	2.09	2.06	2.05	2.04	2.06	2.06	2.04	2.03	2.02	1.99	2.08
1.0	**Commercialization and privatization**	1.6	1.7	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.7
1.1	**Ownership**	1.8	1.8	1.9	1.9	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
1.1.1	Natural monopoly	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
1.1.2	Potentially competitive businesses	2.7	2.7	2.7	2.7	2.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
1.1.3	Ancillary businesses	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
1.2	**Operation**	1.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9
1.2.1	Natural monopoly	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3	2.3
1.2.2	Natural monopoly planning and investment decisions	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
1.2.3	Private sector participation in service	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
1.3	**Organizational structure**	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.5	1.7
1.3.1	Separation of natural monopoly and potentially competitive businesses	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.7	2.0
1.3.2	Separation of ancillary businesses	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
1.3.3	Decentralization													
2.0	**Tariff reform**	2.0	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.3	2.3	2.3	2.2	2.3
2.1	**Structure of tariffs**	2.2	2.2	2.2	2.2	2.1	2.1	2.1	2.1	2.1	2.0	1.9	1.8	2.1
2.1.1	Political vs. regulated operators	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.7	2.0
2.1.2	Natural monopoly pricing	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.0	1.7	1.7	2.0
2.1.3	Potentially competitive businesses pricing	2.3	2.3	2.3	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.3
2.2	**Payments**	1.9	2.7	3.0	2.8	3.0	3.0	3.2	3.2	3.0	3.0	3.0	2.9	2.9
2.2.1	Intraindustry payments ratios	2.0	3.0	3.3	3.3	3.3	3.3	3.3	3.3	3.0	3.0	3.0	2.7	2.7
2.2.2	Final consumers collection rates	2.0	2.7	3.3	2.7	3.3	2.7	3.3	3.3	3.0	3.0	3.0	3.0	3.0
2.2.3	State indebtedness	1.7	2.3	2.3	2.3	2.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
2.3	**State funding**	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
2.3.1	Subsidies level	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
2.3.2	Subsidies procedure	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
3.0	**Regulatory and institutional development**	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.3
3.1	**Effective regulatory institution**	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.2
3.1.1	Management selection for competitive businesses	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3.1.2	Independence of regulator, insulation from political influence	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	3.0
3.1.3	Transparency of regulation	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
3.2	**Access regulation**	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

Water and Wastewater

	Indicator	00-N	01-M	01-N	02-M	02-N	03-M	04-J	05-J	06-J	07-A	08-A	09-S	10-S
	EBRD indicator	1.7		1.7		1.7	1.7	1.7	1.7	1.7	2.0	2.0	2.0	2.0
	IERPC indicator	1.38	1.42	1.42	1.47	1.51	1.57	1.61	1.61	1.61	1.60	1.60	1.60	1.70
1.0	**Commercialization and privatization**	1.3	1.3	1.3	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6
1.1	**Ownership**	1.1	1.1	1.1	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
1.1.1	Natural monopoly	1.0	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
1.1.2	Potentially competitive businesses	1.0	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
1.1.3	Ancillary businesses	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
1.2	**Operation**	1.3	1.3	1.3	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
1.2.1	Natural monopoly	1.7	1.7	1.7	2.0	2.0	2.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3
1.2.2	Natural monopoly planning and investment decisions	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
1.2.3	Private sector participation in service	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
1.3	**Organizational structure**	1.6	1.6	1.6	1.7	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
1.3.1	Separation of natural monopoly and potentially competitive businesses	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
1.3.2	Separation of ancillary businesses	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
1.3.3	Decentralization	2.7	2.7	2.7	2.7	2.7	2.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0
2.0	**Tariff reform**	1.7	1.8	1.8	1.8	1.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1
2.1	**Structure of tariffs**	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.8
2.1.1	Political vs. regulated operators	1.0	1.0	1.0	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3	2.3
2.1.2	Natural monopoly pricing	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
2.1.3	Potentially competitive businesses pricing	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
2.2	**Payments**	1.9	2.3	2.3	2.3	2.3	2.7	2.8	2.8	2.8	2.7	2.7	2.7	2.7
2.2.1	Intraindustry payments ratios	2.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
2.2.2	Final consumers collection rates	2.0	2.3	2.3	2.3	2.3	3.0	3.3	3.3	3.3	3.0	3.0	3.0	3.0
2.2.3	State indebtedness	1.7	2.3	2.3	2.3	2.3	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
2.3	**State funding**	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
2.3.1	Subsidies level	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
2.3.2	Subsidies procedure	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
3.0	**Regulatory and institutional development**	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.4
3.1	**Effective regulatory institution**	1.2	1.2	1.2	1.2	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.8
3.1.1	Management selection for competitive businesses	1.3	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
3.1.2	Independence of regulator, insulation from political influence	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.3
3.1.3	Transparency of regulation	1.0	1.0	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
3.2	**Access regulation**	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Appendix 3. General description of the infrastructure indicators

This appendix presents a brief description of the criteria for scoring each indicator.

1.0 Commercialisation and privatisation

1.1 Ownership

1.1.1 **Natural monopoly.** A natural monopoly is a network operator. A score of one means that the whole network is state owned; the score increases with an increasing share of corporatised, privatised and newly constructed private fixed networks in the total length of networks. The maximum score is reached with private ownership of all networks.

1.1.2 **Potentially competitive businesses.** A potentially competitive business is an operator using networks to provide its services; it is a market related to a natural monopoly. A score of one implies that the businesses are part of the state owned natural monopoly. The score increases with separation, corporatisation and privatisation of existing operators, or with increased market penetration by newly established private agents. The maximum is reached when all the businesses are in private ownership.

1.1.3 **Ancillary businesses.** Ancillary businesses are concerned with network construction, its maintenance, inputs supplies, and social infrastructure. A score of one means that these businesses are state owned. The score increases with the degree of separation, corporatisation and privatisation, or the increase in new private establishments.

1.2 Operation

1.2.1 **Natural monopoly.** A score of one is given when the natural monopoly is operated as a government department. The score increases with reorganisation into an independent state agency or a company, and the establishment of an independent regulator. The maximum score is assigned if a private company manages the natural monopoly, and only an independent regulator, established by law, can intervene.

1.2.2 **Natural monopoly planning and investment decisions.** A score of one implies political interference in making business and investment decisions. The score increases as commercial objectives such as profitability and operational efficiency grow in importance. The highest score applies if network extensions and new investment projects are realised solely based on profitability considerations and reflect marginal social costs.

1.2.3 **Private sector participation in service contracts.** A score of one means that the private sector does not participate in construction, maintenance or rehabilitation, etc. The score increases with increasing participation in these activities by the private sector.

1.3 Organisational structure

1.3.1 **Separation of natural monopoly and potentially competitive businesses.** A score of one means no separation between the infrastructure and the service providers' managements, as well as separation between the managements of different service providers. The score increases with unbundling of the industry. The highest score applies when different services are provided by separate private companies.

1.3.2 **Separation of ancillary businesses.** A score of one means no separation of ancillary businesses from the natural monopoly or potentially competitive businesses. The score increases with increasing degrees of separation. The maximum score is assigned when ancillary services for the natural monopoly and for potentially competitive businesses are supplied by the market.

1.3.3 **Decentralisation.** A score of one implies no or minimal decentralisation and increases with increasing decentralisation. Decentralization is both regional and functional and implies autonomy of decision making at the regional level concerning tariffs and investments. The highest score is assigned when the industry is divided into competing regional operators.

2.0 Tariff reform

2.1 Structure of tariffs

2.1.1 **Political vs. regulated operators.** A score of one implies strong political interference in tariff setting. The score increases with declining political interference and its transfer from the central government to the corresponding government agency and finally to the regulatory body. The maximum score is reached for full cost reflective tariff setting by an infrastructure operator regulated by an independent regulator.

2.1.2 **Natural monopoly pricing.** A score of one corresponds to pricing below cost accompanied by a substantial amount of cross-subsidisation. The score increases as the tariff approaches the long-run marginal cost reflecting cost covering levels, with cross-subsidisation declining.

2.1.3 **Potentially competitive businesses pricing.** A score of one means a lack of cost reflective pricing. The score increases with markets becoming increasingly competitive and prices approaching market equilibrium levels.

2.2 Payments

2.2.1 **Intra-industry payment ratios.** A score of one implies that arrears are constantly accumulating and transactions between companies within an industry are basically non-monetary. The score increases as monetary settlements are carried out and arrears are approaching zero.

2.2.2 **Final consumer collection rates.** A score of one means low revenue collection from final consumers (households, companies, budgetary organizations) and constantly accumulating arrears. The score increases as progress with revenue collection is made and services are fully paid for. Apart from a non-linear pattern of evaluation grades with respect to payment percentage improvements in each sector, there is non-homogeneity of the patterns across sectors. The six sectors were divided into two groups in accordance with the potential efforts needed to reach higher payment levels. Telecommunications and roads represent the first group, where high levels of payments are relatively easy to achieve. The railroad, power, gas, and water supply sectors were put into the second group, where comparatively small improvements can be defined as considerable successes.

2.2.3 **State indebtedness.** A score of one corresponds to growing arrears for state compensations to privileged consumers. The score improves as this indebtedness is reduced zero.

2.3 State funding

2.3.1 **Subsidies level.** A score of one means that some groups of consumers are heavily subsidised by the state in an explicit or implicit form. Both the depth of the subsidisation and the distribution of subsidies are important. The government may pursue a constant practice of debt forgiving and restructuring. Abstention from implicit and explicit subsidies leads to improved scores.

2.3.2 **Subsidies procedure.** A score of one is assigned when the subsidies are directed to service suppliers and are provided in non-transparent ways. The score improves as the process becomes more transparent and income compensations replace price compensations.

3 Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 **Management selection for competitive businesses.** A score of one means that state officials appoint the management. The score increases when the management is elected by the shareholders and reaches its maximum when the shareholders are private companies or individuals.

3.1.2 **Independence of regulator, insulation from political influence.** A score of one is assigned when a government department provides the service. The score increases as a state commission is introduced and an independent regulator is established. The highest score applies when an independent regulator acts according to law.

3.1.3 **Transparency of regulations.** A score of one implies an absence of legislation defining clear rules of the game for businesses, and obligations of government bodies. The score increases with the development of legislation and its enforcement, including when the decision-making becomes public. The maximum score is reached when an independent regulator alone regulates the performance of the natural monopolies in an industry in accordance with law, and all decisions are disclosed.

3.2 Access regulation. A score of one means that the access right is arbitrarily determined by the state or the state-owned operator. The score increases as access is regulated by an independent regulator, later negotiated, finally determined by market mechanisms.

Appendix 4. Explanations for the infrastructure indicator evaluations given in Appendix 2 (September 2009 - August 2010)

TELECOMMUNICATIONS

1.0 Commercialisation and privatisation

1.1 Ownership

1.1.1 The state-owned telecommunications incumbent Ukrtelecom still controls the fixed-line telephone market and owns the largest primary network. However, according to estimations, 50% of communications cables (incl. optical fibres) belong to private companies. The indicator has been substantially increased from 1.7 to 2.3.

1.1.2 Expected privatization of Ukrtelecom was again postponed. Besides, in 2010 new company VimpelCom Ltd. concentrated a great part of existing telecom operators' assets, incl. fixed-line and mobile. The indicator has been decreased from 3.3 to 3.0 as serious threat of monopolisation exists.

1.1.3 Network construction is no longer prerogative of the state incumbent Ukrtelecom. Private players (Vega, Datagroup, Golden Telecom (TM Beeline), etc.) are striving for access to communications tunnels, though they rapidly expand optical fibres, in particular in large cities. The indicator has been increased from 2.0 to 2.3.

1.2 Operation

1.2.1 Fixed-line network is under control of state-owned JSC "Ukrtelecom". Established market regulator – the NCCR – is responsible for licensing, tariff-setting for universal communications services, managing of frequencies, rules making and their enforcement. The MTCU articulates interests of the state as a main shareholder of Ukratelecom. The indicator has been slightly increased from 2.0 to 2.3.

1.2.2 The financial plan of Ukrtelecom for 2010 has been adopted with a yearly delay. At the same time, crisis pushes Ukrtelecom to make investment and operational decisions on the basis of their efficiency. However, the government preserves its control over this operator. The indicator remains at 1.7.

1.2.3 The private sector continues to increase its participation in many competitive segments and service contracts. For 2009 only 13.3% from UAH 8.3 bn of capital investments in the sector has been executed by the SOEs. The indicator has been increased from 2.3 to 2.7.

1.3 Organizational structure

1.3.1 There are no significant changes. The indicator remains at 2.0.

1.3.2 The organizational structure of the ancillary businesses remained unchanged, and so did the indicator – 2.0.

1.3.3 The indicator remains unchanged at 2.3.

2.0 Tariff reform

2.1 Structure of tariffs

2.1.1 Since in the past the NCRC and Ukrtelecom increased tariffs for main telecommunication services several times current tariffs are to cover costs to a greater extent. The indicator remained unchanged at 3.0.

2.1.2 Ukrtelecom has not changed its pricing policy for the monitored period. That's why the indicator has remained at 3.7.

2.1.3 The regulator set fees for interconnection between monopolies that cover costs and do not allow market equilibrium deviations. The indicator has been increased from 3.0 to 3.3.

2.2 Payments

2.2.1 There were no major developments in intra-industry payments. The indicator has remained 3.3.

2.2.2 In 2009 households' arrears increased by UAH 19.4 m. The indicator has been decreased from 3.7 to 3.3.

2.2.3 For 2009 the state has not compensated supply of universal services by Ukrtelecom, therefore the state's indebtedness indicator has deteriorated from 2.7 to 2.3.

2.3 State funding

2.3.1 The level of state subsidization is planned to decrease through the increase in tariffs. The indicator remains at 2.7.

2.3.2 The subsidies procedure has not experienced significant changes during monitored period, and the indicator remains unchanged – 2.0.

3.0 Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 The management selection procedure for competitive businesses has not changed. So, the indicator remains the same - 2.3.

3.1.2 The NCRC provides its service normally. The indicator has not been changed - 2.7.

3.1.3 The NCRC actively strives for its power to regulate telecommunications market. It adopted a range of new regulations that more clearly define the rules for telecom operators, in particular introduction of technology neutrality, parameters of QoS, pre-trial regulation. So, the indicator has been substantially increased from 2.3 to 3.0.

3.2 Access regulation. Issue of access to telephone tunnels, controlled by the state-owned telecommunication incumbent, has not been fully solved yet. However, all operators can access others' networks according to the procedure set by the NCCR. The indicator has been increased from 2.3 to 2.7.

RAILWAYS

1.0 Commercialisation and privatisation

1.1 Ownership

1.1.1 The basic rail network is 100% state owned. Sales/transfers of branch lines take place occasionally. The indicator has not been changed – 1.0.

1.1.2 Passenger and freight transportation are 100% state-owned. Forwarding enterprises are mostly private. Freight railway cars are partially in private ownership. The indicator has not been changed - 2.0.

1.1.3 The construction, maintenance and service enterprises are corporatized, but remained state-owned. The indicator has not been changed – 1.7.

1.2 Operation

1.2.1 The railways are regulated by the State Railways Administration, which is integrated into the MTCU. The indicator has not been changed – 1.7.

1.2.2 During monitored period the State Railways Administration "Ukrzaliznytsia" has been forced to bear significant fiscal burden. As a result, all investment projects failed though UZ strived for improvements in decision-making. The indicator has not been changed - 1.7.

1.2.3 Rail line construction and rolling stock maintenance is provided by state enterprises and joint stock ventures. The indicator remained the same - 1.7.

1.3 Organisational structure

1.3.1 The railway infrastructure, passenger and freight transportation services are integrated within UZ. The indicator has not been changed – 1.7.

1.3.2 UZ is charged with the management of many ancillary businesses. The indicator remained the same - 1.7.

1.3.3 The railways are split into 6 regional companies and some ancillary enterprises. They set tariffs for a range of services, except for transportation (e.g. prices for use of bed linen, tariffs for carriage feed). The indicator has remained the same - 1.7.

2.0 Tariff reform

2.1 Structure of tariffs

2.1.1 Freight rail tariffs are at the cost-covering level, and passenger rail tariffs are constantly growing. However, the tariff-setting procedure remains non-transparent. Nevertheless, the CMU abolished privileges for metal and chemical producers and the indicator has been increased from 1.3 to 1.7.

2.1.2 The tariffs are steadily moving to the infrastructure and rolling stock operating costs; however overall, the costs are covered. UZ has introduced mandatory indexation of freight tariffs. The indicator has not been changed - 3.0.

2.1.3 Tariffs for both freight and passenger transportation are having been adjusted to the cost-covering level by the decisions of the MTCU. The CMU has also legitimated automatic freight tariffs adjustment to inflation rates. The indicator has been increased from 2.0 to 2.3.

2.2 Payments

2.2.1 Intra-industry payments are stable. The indicator has not been changed – 2.3.

2.2.2 Monetary payments are almost 100%, except for payments for commuter rail services. However, in 2009 UZ transported coal for the state-owned company without having been paid for it. The indicator has been decreased from 2.7 to 2.3.

2.2.3 State subsidies are provided in greater extent by local authorities and less – by the central state budget. For 2009 and 6 months of 2010 costs of privileged consumers' transportation have been less covered. Therefore, the indicator has been decreased from 1.7 to 1.3

2.3 State funding

2.3.1 The government still relies on (privileged) passenger transportation funding at the expense of UZ. The indicator has not been changed – 1.7.

2.3.2 Subsidies are paid to the railways (service provider). The indicator has not been changed – 2.0.

3.0 Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 The Cabinet of Ministers appoints the top management, although the government body operating the railways is formally independent. The indicator has not been changed – 1.7.

3.1.2 There is no independent regulatory body in the sphere of railways. The body, responsible for railways regulation, is part of the MTCU. The indicator has not been changed – 1.7.

3.1.3 Tariffs for both freight and passenger transportations are fixed by legislation. A transport tariff policy is being developed to increase cost-covering level. The indicator has not been changed – 2.0.

3.2 Access pricing regulation method. Access is regulated by government permission. The index remained at 1.3.

<u>ROADS</u>

1.0 Commercialisation and privatisation

1.1 Ownership

1.1.1 Roads of the public use are 100% in state and communal ownership. The indicator has not been changed – 1.0.

1.1.2 Freight transportation is mostly provided by private companies. The share of private sector in passenger transportation is constantly increasing. The indicator has not been changed – 3.0.

1.1.3 The social infrastructure, services, and automobile maintenance enterprises are mostly private. Publicly owned companies provide most of the road maintenance and construction (at least as main contractors). At the same time, there are plans to set transparent tender procedure both for state-owned and private construction companies. The indicator has not been changed – 2.3.

1.2 Operation

1.2.1 Regulation and management of the road network are separated from each other. The regulatory body (State Road Service) is the principal managing body of the State Joint Stock Company "Avtomobilny dorogy Ukrainy". The indicator has not been changed – 2.0.

1.2.2 Profitability and operational efficiency are not objectives of Ukravtodor. It strives to achieve short-term goal, i.e. to raise new funds (mainly under government guarantees scheme) to cover its current credit liabilities. Due to neglect of strategic planning and lack of efficiency of the state incumbent, the indicator has been decreased from 2.3 to 2.0.

1.2.3 So far road maintenance has been provided mostly by local subsidiaries of the State JSC "Avtomobilny dorogy Ukrainy" and from time to time by private contractors. Situation has not changed after new law on concessions for roads construction and operation came into force in 2009. The indicator has not been changed - 2.7.

1.3 Organisational structure

1.3.1 Roads management is separated from freight and passenger transportation services. The indicator has not been changed – 3.3.

1.3.2 Road construction and maintenance are separated from transportation; some services are contracted out. The indicator has not been changed – 2.0.

1.3.3 Roads are financed and operated at both central and regional levels. Municipal authorities can make investment decisions on local road construction using the vehicle tax funds they collect. But in practice they usually get less from Road fund than they collect. In 2008-2009 Ukravtodor initiated reforms that imply transfer of local roads operation and maintenance to local authorities and enterprises. However, the indicator has not been changed since reforms had not taken place yet – 2.0.

2.0 Tariff reform

2.1 Structure of tariffs

2.1.1 Local authorities approve tariffs for local passenger transportation, except for interregional passenger travels. However, private companies had chance to negotiate with local authorities an optimal price. Since 2010 the government has ceased its regulation of minimum tariffs on the freight transportation market, introduced a year earlier. The indicator has been increased from 2.0 to 2.3.

2.1.2 Officially road funding derives from an excise tax and import duty on mineral oils and vehicles. And they are directed towards road construction and maintenance. The indicator has not been changed – 2.0.

2.1.3 The MTCU introduced methodology of passenger tariffs calculation that foresees principle of full cost-coverage and profitability. The indicator has been increased from 3.0 to 3.3.

2.2 Payments

2.2.1 Due to financial crisis and drying budget transfers in 2009-2010 financial stability of Ukravtodor has deteriorated compared to the previous period, having caused not only rising credit payments, but also growing arrears to private counteragents, including issues of promissory notes. The indicator has been again decreased from 2.7 to 2.3.

2.2.2 Payments are mostly monetary but the enterprises that conduct roads maintenance and construction also receive capital transfers from the budget. Compensation for privileged passenger transportation remains significant issue. The indicator has not been changed – 2.7.

2.2.3 Taking into consideration the poor state of economy, planned budget transfers to Ukravtodor for already done road works are not expected to be fully conducted. Also, in 2009 state compensations for transportation of privileged consumers are only 75% executed. The indicator has been decreased from 2.0 to 1.7.

2.3 State funding

2.3.1 The number of privileged passengers remains high, and compensation levels from the budget are far form adequate. Eventually, in 2010 transport companies carrying passengers, in particular urban ones often went on strike. Moreover, the government pursues a constant practice of softening budget constraints for Ukravtodor. It again allowed attracting huge volumes of sovereign guaranteed loans for roads construction despite their previous inadequate use. The indicator has been decreased from 1.3 to 1.0.

2.3.2 Subsidization of privileged passengers is frequently put onto the shoulders of service providers. Introduction of target subsidies scheme is still a pending issue. The indicator is the same – 2.0.

3.0 Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 The management of the State Road Service is appointed by the government. The indicator has not been changed – 2.3.

3.1.2 The State Road Service of Ukraine, the regulatory body in the sector and department of the MTCU, also includes the State JSC "Avtomobilni dorogy Ukrainy", infrastructure operator. The indicator has not been changed – 2.0.

3.1.3 The MTCU does not support the idea of independent transport regulator creation. That's why this process is slowed. The indicator has not been changed – 2.7.

3.2 **Access pricing regulation method.** Access is regulated by licensing. New more transparent procedures of tender for servicing passenger routes were introduced. But the MTCU failed to structure freight transportation market and to cope with illegal carriers. The indicator has not been changed - 3.3.

POWER

1.0 Commercialisation and privatisation

1.1 Ownership

1.1.1 The privatization energy-generating companies: Donbasenergo, Zahidenergo, Dniproenergo and Centerenergo and energy distributive companies has been legally restored. The indicator has not been changed - 3.3.

1.1.2 The nuclear and hydro generating plants remain 100% state property. The state remained the major owner of the three fossil fuel generating companies. The indicator has not been changed - 2.7.

1.1.3 Social infrastructure, construction and maintenance are still treated as part of the natural monopoly. The indicator has not been changed - 1.7.

1.2 Operation

1.2.1 The regional distribution companies are corporatized, some of them are in private hands, all of them are regulated by the NERC. The grid is operated as a part of Ukrenergo. The indicator has not been changed - 3.3.

1.2.2 Decision-making is still politically determined. The indicator has not been changed – 2.7.

1.2.3 Construction and maintenance are managed by the oblenergos. There are no rules of access of operators with unregulated tariffs. The indicator has not been changed - 2.3.

1.3 Organisational structure

1.3.1 Generation, transmission and distribution are separated to independent companies. State stakes in the power sector, with the exception of nuclear stations united in the Energy Company of Ukraine. The indicator has not been changed – 3.0.

1.3.2 There is a minimal degree of separation. The private sector is marginally involved. The indicator has not been changed - 1.7.

1.3.3 Decentralisation is not a high priority in this industry.

2.0 Tariff reform

2.1 Structure of tariffs

2.1.1 The NERC has eliminated privileged tariffs for selected industries and indexed tariffs for industries. Tariffs for households remained at the previous level. The indicator has been increased from 2.7 to 3.0.

2.1.2 Cross-subsidisation of households by industrial consumers without changes. The indicator remains at 3.0.

2.1.3 Wholesale electricity market is preparing for transformation to operate on bilateral contractual basis. The prices for electricity export volumes are subject to competition between suppliers. The indicator has not been changed - 3.3.

2.2 Payments

2.2.1 The indicator has not been changed – 3.0.

2.2.2 The average level of cash payments by the oblenergos to the wholesale electricity market is stable. The indicator has not been changed - 3.7.

2.2.3 The law On state budget foresees 100% payment for consumed power but the actual payments are below this level - 2.3.

2.3 State funding

2.3.1 The poorest people are subsidised, the number of privileged categories remains substantial. The indicator has not been changed - 2.3.

2.3.2 Subsidies are paid to the oblenergos. The indicator has not been changed - 2.0.

3.0 Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 The management is appointed by the state. The indicator has not been changed - 2.0.

3.1.2 The activities of the NERC are finally supported by a Law. The indicator has been increased from 3.0 to 3.3.

3.1.3 More transparency has been introduced into the distribution of money for power supplied to the wholesale market. The indicator has not been changed - 2.7.

3.2 Access pricing regulation method. Access is regulated by the NERC, but without a strong legislative base. The NERC has introduced the auctions for the access to the export capacities. The indicator has been increased from 2.3 to 2.7.

<u>GAS</u>

1.0 Commercialisation and privatisation

1.1 Ownership

1.1.1 The trunk pipeline and the distribution system are 100% owned by the state. NJSC "Naftogaz of Ukraine" is corporatized, minor shares of some regional gas distribution companies are privately owned. The indicator has not been changed - 1.3.

1.1.2 The gas imports scheme has been changed to direct purchases of Naftogaz from Gazprom, the intermediary has been eliminated. The indicator has not been changed - 1.7.

1.1.3 The construction, maintenance and service efforts are carried out mainly by Naftogaz. The indicator has not been changed - 1.7.

1.2 Operation

1.2.1 NJSC "Naftogaz of Ukraine" is supervised by the government and the President; it can however operate as a market company. The indicators has not been changed - 2.3.

1.2.2 The indicator remained unchanged – 2.0.

1.2.3 Some private companies are involved to repair and maintenance of the pipelines. The indicator has not been changed - 1.3.

1.3 Organisational structure

1.3.1 The networks of the local gas distribution companies (oblgases) have been organizationally separated from the Naftogaz. The indicator has been increased from 1.7 to 2.0.

1.3.2 There is a minimal degree of separation. The indicator has not been changed - 1.3.

1.3.3 Decentralisation is not foreseen for this industry.

2.0 Tariff reform

2.1 Structure of tariffs

2.1.1 In 2009 the CMU has eliminated privileged tariffs for metallurgy and chemical industry. The indicator has been increased from 1.7 to 2.0.

2.1.2 Gas tariffs for all consumers have been increased. The gas tariffs for transportation and supply have also been increased. The indicator has been increased from 1.7 to 2.0.

2.1.3 The gas tariffs for transportation and supply have also been increased. The indicator has been increased from 2.0 to 2.3.

2.2 Payments

2.2.1 Debts of district heating companies increases and has reached UAH 3.46 bn by June 15, 2009. Government is planning to cover accumulated losses at the expense of quasi-fiscal funding through providing the credits to heating companies from the state bank Oschadbank. The indicator has been decreased from 3.0 to 2.7.

2.2.2 There was no progress with revenue collection made by other groups of consumers. The indicator has not been changed.

2.2.3 The state remains among the debtors of Naftogaz. Naftogaz bears the costs of supplying gas to households. The indicator has not been changed – 3.0.

2.3 State funding

2.3.1 The poorest households are subsidised. The indicator has not been changed – 2.0.

2.3.2 There was no change in subsidy procedures. The indicator has not been changed - 1.7.

3.0 Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 The government appoints the management of the NJSC "Naftogaz Ukrayiny" although it is formally independent. The indicator has not been changed – 2.0.

3.1.2 The status of the regulator of the sector – the NERC – has been supported by a Law. The independence of the NERC has increased. The indicator has been increased to 3.0.

3.1.3 The decisions of the NERC in the gas sector are not transparent and in many cases politically determined. The indicator has not been changed - 1.7.

3.2 **Access pricing regulation method.** Access is regulated by the NERC, but without a strong legislative base. The indicator has not been changed - 2.3.

WATER AND WASTEWATER

1.0 Commercialization and privatization

1.1 Ownership

1.1.1 The natural monopolies (water distribution and drainage systems) are mostly in communal ownership. There was no change in privatisation of networks. Thus the indicator has not been changed - 1.3.

1.1.2 Most potentially competitive businesses (water supply and wastewater treatment) are still integrated with the natural monopolies and are mostly in communal ownership. The indicator has not been changed and remained at level 1.3.

1.1.3 Construction and maintenance are integrated with the natural monopolies and are also mostly in communal ownership. The index remains at the same level - 1.3

1.2 Operation

1.2.1 Water and wastewater services are provided by local monopolists administered by local governments, which are also the owners of the companies in most cases. There is no independent regulator in the sector still in spite on the legislative initiatives. So, the indicator has not been changed - 2.3

1.2.2 The political influence on decision-making is very strong, local governments pursue goals of social support. The indicator has not been changed - 1.3.

1.2.3 Private sector participation in service contracts is low; where it exists it is mostly due to the participation of international financial institutions. The indicator has not been changed - 1.7.

1.3 Organisational structure

1.3.1 Infrastructure and the service providers' management are still not separated. The indicator has not been changed - 1.3.

1.3.2 There is no separation of ancillary businesses from the natural monopoly and for potentially competitive businesses. The indicator has not been changed - 1.0.

1.3.3 Companies operate under the supervision of the local authorities. Local governments became less dependent on the central executive powers due to a legal change concerning tariffs and investments. The indicator has not been changed - 3.0.

2.0 Tariff reform

2.1 Structure of tariffs

2.1.1 Tariffs in majority of settlements were increased by municipal officials. The indicator has been increased from 1.3 to 2.3.

2.1.2 Cost coverage of the tariffs are still far from 100%. Cross subsidization is significant. The indicator has not been changed - 1.7.

2.1.3 Potentially competitive businesses are integrated parts of the natural monopolies, pricing of the services is not separated. The indicator has not been changed - 1.3.

2.2 Payments

2.2.1 The main debtor of the sector is power distribution companies; water and wastewater enterprises owe them UAH 1.4 bn, which constitutes 52% in total payables as of 01.11.2010. The indicator has not been changed – 2.3.

2.2.2 In 2010 payment level by households was lower than in public utilities in general and constituted 95%. As of 01.12.2010 total households' debt for water supply and wastewater treatment summed up to 48% of total receivables. The indicator has not been changed – 3.0.

2.2.3 The indicator has not been changed - 2.7.

2.3 State funding

2.3.1 The poorest households are subsidised. In 2010 procedure of applying to subsidies was simplified. The indicator has not been changed - 1.7.

2.3.2 Subsidies are paid to the water supply and sewage companies. The indicator has not been changed - 2.0.

3.0 Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 Local officials continue to appoint the management of the water supply and wastewater monopolies. The indicator has not been changed and remained at level 1.7.

3.1.2 A national independent regulator in the sector has been created. The indicator has been increased from 1.3 to 2.3.

3.1.3 Although clear tariff regulation guidelines are available they are not obligatory for local administrations: tariffs continue to be set arbitrarily. The indicator has not been changed - 1.3.

3.2 Access pricing regulation method. There are no rules for access. The indicator has not been changed and remained at level 1.0.