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Foreword

This report is the sixth “Infrastructure Monitoring for Ukraine” issued by the Institute of Economic Research and Policy Consulting (IER) in Kiev. It presents information on the restructuring of six infrastructure sectors of the Ukrainian economy in a standardized manner, which allows for cross-industry comparison.\(^1\) 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.

Each issue of IMU has a similar structure. A short executive summary outlines major developments within selected sectors of the infrastructure. A general analysis of the Ukrainian infrastructure policies is presented in the second section. 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. Appendixes summarize the evaluations in a tabular form and provide methodological explanations and detailed comments for each indicator.

An extensive discussion of the methodology employed was presented in the first issue of IMU.\(^2\) Several marginal changes were introduced in the second issue when more complete information became available to assure time-consistency and cross-industry comparability of the indicators.

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\(^{1}\) For earlier issues, see Infrastructure Monitoring for Ukraine (IMU No. 1, June 2001, IMU No. 2, December 2001, IMU No. 3, June 2002); they can be downloaded from the Institute’s website at [http://www.ier.kiev.ua/English/IMU_eng.html].

1. Summary

The indicator for **Telecommunications** increased marginally from 2.29 to 2.35 mainly due to improvements concerning inter-payments and interconnections, the new law “On Telecommunications”; and positive developments in competitive industries. However, several problems have not yet been solved. The law “On Telecommunications” although securing independence for the NCRC, does not provide for a potentially beneficial dual subordination. Ukrtelecom’s privatisation was again postponed and could now be considered undesirable prior to the presidential elections. Finally, the state intends to impose tougher controls on the internet market.

For the **Railways** sector the indicator decreased from 1.79 to 1.73. Progress is rather mixed. On the one hand, the profitability of operation of five out of six railways has improved and Ukrzaliznytsa (UZ) was successful in attracting the necessary funds for its projects both from its own financial resources and from external loans. Despite these positive developments some anti-reform movements were observed. UZ tariffs became a popular instrument of economic policy. Several UZ orders raising transportation tariffs discriminate against freight transportation in privately owned cars, which constrains competition in the railways sector. The commercialisation and privatisation processes have slowed down. The Cabinet of Ministers of Ukraine (CMU) has included seven railway ancillary enterprises managed by UZ, which UZ previously planned to privatise, in its list of state-owned enterprises that are not subject to privatisation.

The **Roads** sector indicator marginally decreased from 2.32 to 2.30, which is due mainly to the opposing dynamics of some of the infrastructure development indices. The reconstruction of the Kyiv-Odesa state toll road stimulated changes in the Ukrainian budget and legislation (laws on concession activity, road usage and financing). International loans of EUR 400m for the toll road construction have been agreed on under state guarantees.

In the bus transportation sector, stricter rules for licensing, introduced via a new law, might be misused to distort competition, as they put state-owned transport providers in a privileged position (due to their larger technical base). There were also several positive developments. The Ministry of Transport promulgated a “Rural Bus” program to improve the road quality and bus service in rural regions. The share of individual bus operators and the total volume of passenger transportation have increased significantly.

The indicator for the **Power** sector slightly decreased from 2.60 to 2.56. The main development between June 2003 and May 2004 was the creation of the Energy Company of Ukraine (ECU), uniting all state ownership in distribution and generation (except for nuclear stations) under one umbrella. This move is a reversal of the previously promoted course toward privatisation and vertical unbundling in the sector. The impact of the ECU creation is still unclear, as the company has only just come into being. The debt problem remains unresolved. Minor improvements in eliminating discretion were made by introducing payments to generation companies from the wholesale market proportional to the electricity supplied.
The **Gas** sector development indicator grew marginally from 2.04 to 2.07. Overall, this industry remains resistant to structural reforms. The only positive improvement was in the area of increasing payments discipline, however, the causes of non-payments especially by the heat producing public utilities remain in place, which may mean that the improvement in the payment discipline is a temporary phenomenon. The experiment with Gas-teplo managing about 50 public utilities was partially positive in respect to improving payments for gas on behalf of these enterprises, but the sustainability of this improvement is questionable. The gas consortium talks were marked by little progress. A compromise decision was reached to start construction of the new transit capacities, which are to be managed jointly by the consortium participants.

The indicator for the **Water and wastewater** was moderately increased from 1.57 to 1.62. The National program of reforms and development of the housing and utilities sector for the period from 2004 till 2010 has been adopted. Local administrations and councils are becoming more active in solving the problems of the sector. The administration of Odessa has leased the local water enterprise to a private company. The rate of payment collections from households has improved, averaging 92% for May 2003 to May 2004.

**Graph 1**  
IER infrastructure indicators for Ukraine

Source: Own estimations  
Note: The indicators in this graph are presented without rounding, unlike in the table summarizing the indicators. This allows small changes to be seen.
2. Ukrainian Infrastructure Policies
June 2003-July 2004

During the past year, several changes occurred in the statuses of the six infrastructure sectors of the Ukrainian economy, but progress was not very pronounced and extremely uneven across the different sectors. Out of the six sectors, only two experienced marginal increases, three indicators remained unchanged, and one (railways) decreased.

The situation concerning internet-provision in the Telecommunications sector was characterized by increased governmental control. The legal framework for this market also changed. A new law “On Telecommunications” was adopted, which established an independent National Communications Regulation Commission (NCRC) with broad regulatory authority. This brings more order to the market, but could lead to discrimination of IP-telephony by the NCRC, since this sector was not mentioned in the law. Much uncertainty still remains with the Ukrtelecom privatisation.

In the Railways sector, policies and development were mixed. Regulations were adopted to allow UZ to become a custom carrier, by simplifying the procedures for transit transportation, which should attract foreign shipping companies to explore the transit possibilities of Ukraine. The negative side of the current regulatory practices is that UZ’s tariff structure has become a popular instrument of economic policy. The commercialisation and privatisation processes have slowed. UZ is also suspected of having violated the competition legislation, by selectively raising transportation tariffs for freight transportation in privately owned cars.

Concerning the Roads sector, most attention was paid to the construction of the Kyiv-Odessa toll road, and connected legislative improvements. But despite the positive developments, such as the new practice of road construction financing via international loans and the international cooperation during the construction phase, the practices of the central authorities have not changed: almost no information was made public concerning the terms and planned use of the international loans received in excess of the project’s needs.

In the bus transportation sector, the new 'Rural Bus' programme is intended to solve the long-standing problem of poor bus service to villages. But the policy deficiencies are striking: the programme is mainly used to support inefficient state bus enterprises. Besides, a new licensing scheme is likely to impede competition in the industry more than the current one.

In the Power sector, the policies were marked by a reversal of the strategy of structural reforms. The government has embarked on the path of merging all its state owned assets in the power sector into a single holding – Energy Company of Ukraine. On the positive side, this could lead to the separation of the political and economic functions within management. The problems of debts and non-payments in the sector still loom large - no solutions are in sight.

No major breakthrough has occurred in the institutional development of the Gas sector. The payment discipline of the industrial enterprises and of
the power generation plants has seen some improvements, as has - to some extent - that of the heat producing public utilities.

Concerning Water and Wastewater: The Verkhovna Rada of Ukraine has adopted a national program of reforms and development for the housing and utilities sector for the period from 2004 till 2010, although it does not specify an agenda for further development. Local administrations are becoming more active in solving the problems of the sector, especially by increasing tariffs. Nevertheless, tariffs in almost all regions are still too low to cover the operating costs. Debts continued to accumulate, mainly because of subsidies and privileges granted to consumers. Privatisation activities are on hold for an unknown period of time.

2.1 Telecommunications

2.1.1 Reforms, June 2003 – July 2004

Advances in the telecommunication sector reforms were mainly expected in two areas – a new law “On Telecommunications” and privatisation of Ukrtelecom. The President first vetoed the law “On Telecommunications”. However, after the provisions making the National Communications Regulation Commission (NCRC) accountable to Parliament were removed, he signed the law. The key advantage of the new law is that it creates the NCRC and gives it broad regulatory authority. The commission will be responsible for licensing, tariff regulation, inter-payments regulations, and control of the connections to networks of monopolists (Ukrtelecom). Decisions of the NCRC are mandatory and can only be challenged in court. Even though the right to distribute frequency ranges (owned by state) is assigned to the NCRC, the “Central Executive Authority”, namely the State Committee on Communication and Informatization (SCCI), will assign frequency ranges to specific technologies and develop a radio frequency allocation map. Further, the fact that the NCRC will be accountable to the President only could undermine its independence more than would be the case were it accountable to the Parliament as well. Finally, IP-telephony is not mentioned in the law. This lack of specific rules implies that the NCRC, influenced by large operators, could discriminate against IP-telephony providers.

The law needs several complementary legal acts before it will take full effect at the beginning of 2005. The primary tasks are the legislative setting and creation of the NCRC and the new legislation concerning the SCCI. Supplementary rules should be elaborated for rendering various telecommunication services, interconnections, inter-payments and billing system usage, general network usage, and distribution of telephone numbers.

\[3\] The law "On radio frequency resource of Ukraine" amended on June 24, 2004 mandates the SCCI with the decisive role in the frequency management, though the NCRC has the right to grant permits for frequency use.
Adoption of the law coincided with another important change: a legislative ban on charging for incoming calls. The former amendment remained in force until the new law “On Telecommunications” was passed. The SCCI solved the problem of inter-payments with the temporary procedure of settlements to compensate mobile operators for anticipated losses⁴. Now, according to the new law, incoming call fees are legal again. Despite this fact, as of May 2004, fixed lines operators have compensated mobile operators for half the cost of the related outgoing call from the fixed line telephone; hence, all incoming calls remain free. Thus populist demand led to better cooperation between operators concerning interconnections and inter-payment settlements. Yet, this issue is still in the manual mode – the tariff for an outgoing fixed line call to a mobile phone is set by the SCCI. This, in turn, introduces uncertainty into the market.

Besides free incoming calls, the mobile communications market experienced several other developments. The Russian MTC group fully acquired UMC from Ukrtelecom, Deutsche Telecom, TDC, and KPN⁵. Storm Ltd. controlled by the Alfa Group consolidated 43.5% of Kyivstar; Norwegian Telenor owns the remaining 56.5%. The total number of mobile subscribers increased by 89.1% from 4.144 m. in May 2003 to 7.836 m. in May 2004. This growth is mainly due to a still low penetration; also, increasing incomes allow consumers to gain access to mobile phones. The introduction of free incoming calls and the promotion of prepaid services by MTC’s Jeans have created an aggressive rivalry between UMC (MTC) and Kyivstar. The latter outperformed its competitor in May 2003. However, between then and May 2004, UMC subscribers increased by about 127% to a total of 4.36 m., whereas Kyivstar grew by only 59% to 3.42 m.

In sum, the two leading companies acquired more than 97% of the market leaving all others far behind. No “third large operator” has yet appeared on the market. One candidate, Ukrainian Radio Systems (Wellcom) failed to become a nation-wide operator in 2004, though the process of network expansion has started. DCC, a Donetsk-based D-AMPS operator, created a joint company DCC-GSM with the Turkish Turkcell company, claiming to provide GSM mobile communication services. According to the agreement, Turkcell is the majority owner (51%) and promises to invest as much as USD 400 m.

Despite DCC-GSM’s declared intention to become a nation-wide operator, implementation is postponed and the purpose of the joint company could well be participation in Ukrtelecom’s privatisation. The state intends to sell its 42.9% share in this company during the second half of 2004. Yet, the final (political) decision will most probably be made by the government (president). In the mean time, some controversial events have occurred.

Firstly, a series of scandals (originating around the time of the shareholders’ meeting and the dividend payment) resulted in the

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⁵ Some uncertainty about this transaction appeared after the Prosecutor General’s office claimed that Ukrtelekom’s sale of UMC to the Russian MTC was illegal. The issue was put to court where Kyiv’s civil jury rejected the Prosecutor General’s claim in mid-August.
appointment of a new president, Mr. Dzekon, replacing Mr. Sichkarenko. Secondly, the composition of the Supervisory Board was also changed, reducing the influence of the incumbent telecommunications officials. Other developments – the reorganization of Utel into a Uktelecom’s subsidiary, and the German Controlware company’s intention to buy the 43% stake in the Internet provider InfoCom – made the vertical structure in the company even more pronounced. By May 2004 only the Russian Sistema, Sviazinvest, and the Alfa Group explicitly declared an interest in this privatisation.

Developments in the internet sector were characterized by the government’s intention to impose tougher controls on the market. Firstly, the government transferred the administrative functions of the .ua domain to the Ukrainian Network Informational Center (UANIC), a company that has Security Service of Ukraine among its co-founders. Originally, management of the national domain was delegated to the private company Hostmaster by the Internet Corporation for Assigned Names and Numbers (ICANN). Secondly, based on the newly drafted law “On Telecommunications Monitoring” the state intends to establish a system of telecommunication (Internet) screening. The law could provide better tools to the security services in their daily tasks, although the assigned authority seems to be excessive. However, charging Internet providers with the cost for installing the equipment could harm smaller operators and hamper market advance.

Graph 2  Incomes in the telecommunications sector, UAH m.

Source: Business Week, own calculations

2.1.2 Prospects

A major advance in the sector was made in legislation. The fundamental law “On Telecommunications” will solve the majority of regulatory problems. Firstly, it establishes an independent regulator. Secondly, it defines the basis for licensing, services provision, tariff regulation, inter-payment and interconnection regulation. Establishment of clear rules based
on the new law would benefit the whole industry, particularly competitive businesses, which already develop rapidly, especially in the mobile sector (see Graph 2).

Another key task – the privatisation of Ukrtelecom – is far from being finalized. Moreover, the opacity of management decisions and the ongoing consolidation of the vertically integrated structure do not speak in favour of future deals becoming more transparent, especially during a presidential election year. For these reasons, it would be better to postpone the privatisation until after the presidential elections in order to avoid the possibility of a preferential sale. In addition, the full integration of Utel, though increasing the total price of the company, would lead to further market power abuses by Ukrtelecom.

2.2 Railways

2.2.1 Reforms, June 2003 – July 2004

The railways sector has shown some positive developments during the past year. Ukrzaliznytsia (UZ) undertook several expensive investment projects to develop its networks and to improve service quality. Two high-speed train lines have been launched during this period - Kyiv-Dnipropetrovsk (August 2003), and Kyiv-Khmelnitsky (May 2004). UZ was successful in attraction of necessary funds for its projects both from its own financial resources and from external loans. In particular, EBRD has granted a loan of USD 120 m for the purchase of passenger carriages and railway track equipment, and a project for the reconstruction of the Beskyd railway tunnel. According to the bank's information, UZ is expected to invite bids for all contracts. Thus, EBRD has invited many global companies to participate in tendering for equipment to rebuild Ukraine’s railways. The State Railway Administration (UZ) is currently considering several other investment projects such as constructing a passenger coach yard outside of Kyiv, constructing an auto-railway bridge in Kyiv, building a new railway station in Kyiv, and launching another high-speed train line.

The profitability of operation of five out of six railways has improved substantially. All railways are listed among the first half of the Top 100 list of the most profitable Ukrainian enterprises. The South-Western Railway successfully fulfilled its obligation to redeem bonds amounting to UAH 14 m (3.4% of the placed amount worth UAH 500 m) according to the emission conditions, which is definitely a very positive event in the sector's development.

Graph 3 Profit of railways, in UAH millions.

6 In August, the President of Ukraine L. Kuchma also recommended the Government to postpone the privatization or Ukrtelecom “with regard to the last speculations on the privatization process in Ukraine”.
Since profitability of operations has become an increasingly higher priority, the State Railway Transport Administration (UZ) continues to seek new sources of profit. In this respect UZ and the State Customs Administration have signed an agreement to enhance Ukraine’s potential in transit transportation. The agreement simplifies the procedures for transit transportation of excisable goods cancelling the previously existing obligation of the goods’ owners to pay a financial guarantee fee to customs in order to ensure delivery of the goods. Now Ukrzaliznytsia (UZ) has become a customs carrier and, consequently, can transport goods without paying that guarantee fee. It is expected that this simplification will attract carriers to explore the transit possibilities of Ukraine, which would allow UZ to earn some additional USD 500 m every year.

Despite these positive developments in the railways sector, some events opposing the reform movement were also observed. Decisions of UZ as a non-independent institution continued to be subject to political interference. UZ tariffs became a popular instrument of economic policy, which is a disturbing tendency in the monopolistic railways sector. In principle, UZ’s tariff setting operations are rather non-transparent. There were several increases of transportation tariffs for exporting scrap metal while at the same time the tariffs for internal transportation were kept at the same level according to a Memorandum of Agreement signed between UZ, the metal producers and CMU. Recently several public agricultural organizations asked CMU for a similar agreement concerning tariffs for agricultural products transportation.

The commercialisation and privatisation processes have slowed down. CMU has added seven railway ancillary enterprises managed by UZ, which UZ

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7 Letter of the Ministry of Transport No ЦЗМ-18/689
8 About 70% of the value of the transported goods
previously planned to privatise, to the list of state-owned enterprises that are not subject to privatisation\(^9\).

The Anti-Monopoly Committee (AMC) suspects UZ of a violation of the competition legislation. According to AMC’s information, several orders of UZ raising transportation tariffs discriminate against freight transportation in privately owned cars\(^10\), which constrains competition in the railways sector. Although AMC has recommended that UZ cancel these orders, due to a lack of legally defined terms and conditions for access to the railway network there is no means to enforce these recommendations.

The Verkhovna Rada has adopted a Law on State Special Transport Services\(^11\) that replaced the earlier failed Draft Law on Railway Troops\(^12\).

The Law on State Special Transport Services defines the main principles of functioning of the Services, which aims to support the Ukrainian transport system under peace, war and emergency conditions. The rationale for this is not clear: the services management is definitely not one of the core activities of the Ministry of Transport.

### 2.2.2 Prospects

The good financial performance of UZ is a necessary precondition for development of the railways sector. However, without structural changes to back this up sustainable growth of the sector in the future is not likely. Despite recent achievements, UZ still faces large problems that are mainly caused by the fact that UZ’s operations are politically rather than commercially directed. Repeated controversies about the level of cross-subsidisation in the industry, the number of non-core activities within UZ, and discriminatory access to the network demonstrate the need for more transparency and reforms, starting with removing UZ from the Ministry of Transportation, followed by corporatisation.

### 2.3 Roads

#### 2.3.1 Reforms, June 2003 – July 2004

During last year, the attention of the road construction industry was mainly directed to the events surrounding the Kyiv-Odessa toll road construction. The implementation of this large project required some changes both to Ukrainian project management practices (like international subcontracting) and to the corresponding laws.

\(^9\) Law: On Changes to the Law on the list of state property objects that are not subject to privatisation, No 1498-IV, February 17, 2004

\(^10\) By these orders tariffs for freight transportation in privately owned cars were increased by 40% on average.

\(^11\) No 1449-IV, February 5, 2004

\(^12\) No 3494, May 15, 2003
There were two important changes in the Ukrainian legislation. The first one is the Law on Enhancing of Concession Activities\textsuperscript{13} according to which an investor will have a preferential right to buy an object after the end of the concession contract term if a decision to privatise it is made. It also simplifies bureaucratic procedures, and abandons the requirement to use domestic technology and equipment. In case the reconstructed road is to be let as a concession, and credits will be repaid directly from concession revenues, these legislative changes will make the object more attractive for potential investors.

Second, to complement the Law on Reconstruction and Operation of the Kyiv-Odessa Toll Road, passed earlier\textsuperscript{14}, a new Law\textsuperscript{15}, which regulates the procedures for financing the road construction and providing the necessary state guarantees for credit, has been passed. In addition, the paid length of the road has been increased from the Zhashkiv-Chervonoznamenka section (235 km) to the whole length of the Kyiv-Odessa road\textsuperscript{16} (454 km).

These changes solve the problem of collateral for the loans and facilitate the contracts with potential investors to provide financing of around EUR 420 m. However, the financial situation of the project remains non-transparent, with differing information about potential investors and credit sums. Initially, a preliminary concession agreement was signed in October 2003 between the State Service of Motor Roads of Ukraine (Ukravtodor) and the Italian firm Torno Internazionale Spa, which also stated the financial conditions (EUR 100m – from Italian government, EUR 320m – from commercial banks). However, up to July 2004, only funds provided by domestic bank credits and by Ukrzaliznytsa (approx. UAH 950m) were used, falling short of the total cost of the construction performed (UAH 1,35 bn by July 2004). At the beginning of July 2004, Deutsche Bank provided a credit of USD 480 m (UAH 2,544 bn) to Ukravtodor in order to finance construction of the Kyiv-Odessa toll road. The change of lender was explained by special conditions on the loans from Italy, which required the use of funds exclusively for Italian imports. In total, the funds provided by Deutsche Bank more than cover the estimated cost of road construction (UAH 2,16 bn). Taking into account the initial financing provided by Ukrzaliznytsa, the excess funds amount to UAH 1,334 bn (62% of the initial cost estimates). Officials made no comments on the investment targets for these extra funds.

Nevertheless, the opening of the road was initially postponed from August to the fall of 2004, and later to the spring of 2005. Official explanations include several reasons, such as bad weather conditions during the spring of 2004 and protracted works on improving road infrastructure, which also led to unforeseen expenses amounting to 15% of the project budget.

State financing of road maintenance by the State Service of Motor Roads of Ukraine has increased over the past year, especially at the national level. This considerable increase came exclusively from special funds (excise taxes). By contrast, local road expenditures (planned allocations for local

\textsuperscript{13} No 1414-15, February 3, 2004
\textsuperscript{14} No 815-15, May 22, 2003
\textsuperscript{15} No 1751-15, June 6, 2004
\textsuperscript{16} This will be valid as of January 1, 2005
roads maintenance and reconstruction) decreased since 2002 (Table 1). The main problem here is that loans for infrastructure development can potentially only be made to several larger cities, such as Kyiv or Kharkiv. For all other cities, local funds remain the only source of financing. The policy to develop only state-level infrastructure and roads that are parts of international transport corridors, and the widening gap between state and local road maintenance budgets, will lead to a further deterioration of the quality of local roads.

Another important feature of road industry financing is its continual underfunding by 3-5% (see Table 1), both on the local and state levels.

**Table 1.** Planned and actual expenditures for road construction and maintenance in Ukraine, 2000-2004, UAH m

<table>
<thead>
<tr>
<th></th>
<th>Planned</th>
<th>Actual</th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2000</td>
<td>2001</td>
<td>2002</td>
<td>2003</td>
<td>2004</td>
<td>NA</td>
</tr>
<tr>
<td>Central</td>
<td>489.8</td>
<td>489.8</td>
<td>991.0</td>
<td>1,825</td>
<td>2,530</td>
<td></td>
</tr>
<tr>
<td></td>
<td>578.2</td>
<td>377.8</td>
<td>969.3</td>
<td>1,822</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>344.4†</td>
<td>304.1†</td>
<td>721.4†</td>
<td>NA</td>
<td>875.2†</td>
<td></td>
</tr>
<tr>
<td></td>
<td>370.0</td>
<td>580.0</td>
<td>625.1</td>
<td>605.8</td>
<td>585.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>918.3</td>
<td>789.4</td>
<td>605.2</td>
<td>580.1</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>770.6†</td>
<td>723.1†</td>
<td>523.6†</td>
<td>NA</td>
<td>201.4†</td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>859.8</td>
<td>1,069.8</td>
<td>1,616.1</td>
<td>2,430.8</td>
<td>3,115.2</td>
<td></td>
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<tr>
<td></td>
<td>1,496.5</td>
<td>1,167.2</td>
<td>1,574.5</td>
<td>2,402.1</td>
<td>1,076.6†</td>
<td></td>
</tr>
<tr>
<td></td>
<td>57.75%</td>
<td>55.04%</td>
<td>57.92%</td>
<td>57.39%</td>
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<td></td>
<td>5.58%</td>
<td>11.50%</td>
<td>7.35%</td>
<td>9.50%</td>
<td>3.85%</td>
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<td></td>
<td>48.02%</td>
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<td>49.54%</td>
<td>42.33%</td>
<td>43.43%</td>
<td>47.44%</td>
<td>20.45%</td>
<td></td>
</tr>
</tbody>
</table>

† - Funds allocation for 10 months of the year
†† - Funds allocation for 5 months of the year

Source: Treasury reports

As for the automobile transportation sector, the situation is ambiguous. A positive aspect is that the Ministry of Transport (MTU) introduced a program for adapting Ukrainian transport laws to EU standards, the main objective being the development of a transport infrastructure in the directions of international transport corridors running through Ukraine. Competition in the transportation service sector has grown: private entrepreneurs have an 85% share of the market for transportation of passengers by bus (and own 30% of the medium and large sized buses). The passenger transportation volume (up to 10%) also grew substantially. On the other hand a Presidential Decree introducing mandatory certification of passenger transportation services was issued. In contrast to the existing licensing scheme, through which 54.1 thousand licenses were already issued to date (41.5 thousand (77%) granted to private entrepreneurs), the new licensing scheme will be based mainly on fulfilling certain technical requirements. While the official intention is to improve passenger safety, this could also lead to suppressing competition in the industry or just to raising revenues for the MTU. In particular, it remains to be seen whether the licensing scheme will be equally applied to private and state transportation providers. In fact, despite the frequent declarations by the MTU that private entrepreneur-operated transportation provides very

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17 Here and below statistics of the Ministry of Transport of Ukraine are used
18 No 570/2004, May 20, 2004
low levels of passenger safety, private entrepreneurs typically operate with more adequate equipment (e.g. fewer than 40% of the buses owned by private companies have been used for more than 10 years, compared to almost 60% in the state sector).

2.3.2 Prospects

In February 2003 the MTU published the program “Rural Bus”, which proposes to set up regular bus transportation to all villages (that have access to a hard cover road) before the end of 2007. This program has been supported by the government, and aims at solving such chronic problems of rural regions as unreliable passenger transportation, worn out buses and bad road quality. As of April 2004, the plans for 2003 and the first quarter of 2004 (to make connections to 2,966 villages) had been fully implemented. Not withstanding the overall positive impact on the development of rural regions, this program has a negative side: local transport companies were at times administratively assigned with mixed packages of profitable and unprofitable routes. Besides, out of a total of 65,335 buses 30,278 (42%) have been in service for more than 10 years, and no support was provided by local state administrations to solve this acute problem: Only 224 buses were bought exclusively at the expense of transportation providers under the ‘Rural Bus’ program in 2003. The MTU estimates the required investment for renovating the large buses stock to be UAH 1.5 bn, UAH 300 m for rural buses alone. These numbers point out one more problem: the program is intended to minimally cover only current requirements. It leaves the future’s increasing transportation needs - caused by the recovering and intensifying business activities in rural regions - outside the scope of this program, thus creating more of the same problems in the very near future.

The management practices in the transportation sector at the enterprise level also need serious changes. For example, 80% of all corporatised transport providers are currently unprofitable and in need of restructuring. This fact suggests that instead of extensively financing inefficient state transport providers through the “Rural Bus” program, the problem of passenger transportation in rural regions can be solved by stimulating competition in the industry and easing entry requirements for private transport companies, who in fact already dominate this market in most suburban regions. This alternative is completely missing from the present program, thereby significantly lowering its efficiency.

It is also unclear how the goal of rural road improvement (the Ukravtodor part of the program) will be achieved, taking into account its current under-financing. The absence of a well-developed network of hard cover roads could undermine fulfilling the entire program, depriving the majority of small villages of regular bus service.

Another important measure of performance for this industry will be the progress in the reconstruction of the Kyiv-Odessa road. This project

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19 This is due to the high percentage of privileged passengers, refunded by the state at the level of only 40% in 2003
manifests a new approach to road building and financing, and has already brought some new and important practices to the Ukrainian road construction sector, such as international contracting out for construction and technical supervision, and has stimulated some useful infrastructure development changes in the Ukrainian legislation. Success of the project (especially in timing, budget and loan repayment discipline) will bring valuable experience and can possibly facilitate further international investment in the rehabilitation of Ukrainian infrastructure.

Still, there remain several points of concern. First of all, the sector's financing rules have not yet been tied to road usage. Also no legislative efforts to ensure sufficient financing of the roads sector have been made so far (with the exception of the toll road construction). Yet one more disturbing issue is the expressed intention of the Minister of Transportation to subordinate Ukravitodor to the MTU, which would lead to undesirable aggregation and further monopolization by the Ministry.

2.4 Power

2.4.1 Reforms, June 2003 – July 2004

The period under consideration was marked by some reversals in the government strategy of structural reforms in the power sector. Instead of the previously followed path of privatisation in the sector and vertical separation of the natural monopoly segments from potentially competitive markets the government has embarked on the path of merging all its state assets in the power sector, except for the transport company Ukrenergo, into a single holding – Energy Company of Ukraine (ECU). The decision to merge all state assets into one holding was first voiced in Presidential Decree No. 752/200420. This new company replicates NAK “Naftogaz” in its general structure, however, it will not be controlling the whole power market, but only the state stakes in the companies, which range from 25% to 100% (with the exemption of Energoatom which although 100% state-owned remains a separate company). The company will control both the generating and distribution companies as well as a number of ancillary businesses and research organisations.

The creation of the Energy Company of Ukraine, while definitely a reversal of certain of the previously promoted policies in the sector, can have a mixed effect on the performance of the sector. In the medium-term it is positive that management of the generating companies assets has been removed from the Ministry of Fuel and Energy of Ukraine, meaning that the political and economic functions are now separated and the role of profits might receive more attention and visibility. This assertion rests on the assumption that the inefficient links will not be cross-subsidized within the company. Payments within the company may also increase, but only if the direct contracts between the power plants and distribution companies will be concluded.

20 The statute of the company and the transferring of assets happened after the adoption of the Cabinet of Ministers’ Resolution No 794 of June 22, 2004.
On the other hand, the first promising signs of competition between thermal power plants, which started to submit price bids for power production, might be in danger by uniting all plants into one company, thus making it easier for them to coordinate their strategies. Also, it makes little economic sense to unite the thermal power plants into a single state monopoly as long as there are no scale effects in the production. Creation of another powerful structure in the electricity sector may further weaken the position of the NERC.

By creating ECU the Ukrainian government signified that privatisation and unbundling in the power sector is not a near term perspective. Although with quality management the ECU could solve many problems in the medium-term, which the state property management in the sector now faces, it will however not solve the current contradictions in the sector, nor is it likely that the potential performance in the sector will be reached, which private initiative and competition for and on the markets could.

The problem of debts and non-payments in the sector was not solved in the period under consideration. Debt continued to grow throughout the sector. Graph 4 shows the uneven payment rates by the distribution companies to the wholesale market for all forms of payment. Energorynok was also accumulating debts towards the power generation companies. The debts of all types of power producers grew; however, NAK Energoatom enjoyed relatively stable payment rates, receiving preferential treatment at the expense of other types of power producers.

**Graph 4.** Payment rates for electricity bought by distribution companies from the wholesale market (with all forms of payment) for May 2003 to May 2004, %

![Graph 4](image)

Source: Energobusiness

Two developments, although insignificant, in the tariff policy should be noted. First, the wholesale tariff at which power distributing companies buy electricity was increased in order to finance part of the construction costs of new nuclear and hydro power plants. Second, the wholesale market adopted a decision to pay energy generators proportionately to the electricity they have supplied to the market. The second decision might be
justified, provided the proportionate distribution of the payments will not favour some producers, even within one type, vis-à-vis others. Still this remains only a palliative measure to deal with non-payments in the sector. Also, it remains unclear at what pace the power generation units should be compensated for the debts that Energoynok has towards them. The decision to finance the nuclear facilities construction out of an increased wholesale tariff clearly distorts the inter-fuel competition in power generation. A more transparent and just way would be to finance construction by increasing only the tariff for which the respective nuclear and hydro power plants sell power to the pool. Otherwise, nuclear and hydro power plants are not forced to recover their full investment costs out of power sales, which gives them an unfair advantage vis-à-vis their competitors.

The period under consideration was also marked by new developments in the markets for primary energy resources. NAK Naftogaz has undertaken drastic measures to increase payments for natural gas used by the thermal power and co-generation power plants. In IMU No. 5 it had been noted that the payment discipline for gas in this sub-sector was particularly low. Throughout the past year the payment discipline for gas used by co-generation plants dropped to about 41% in January and rose to 73% in March.21

The government has also tried to improve the situation on the steam coal market, creating a wholesale market for steam coal, which should function akin to the electricity wholesale market. The creation of such an undertaking in the steam coal sector was meant to improve payments for coal by the power generation plants as well as to stimulate transparency in price setting. However, the approach was marred by exactly the same problems which the electricity wholesale market faces, i.e. non-payments and payment deferrals seriously undermine its success. Also, the price setting in the wholesale market is not market-based, that is, the most efficient producers are not earning any higher profits when participating in the wholesale market.

2.4.2 Prospects

The government should strive to minimize the possible negative consequences of creating the Energy Company of Ukraine. The main areas of concern are competition among the power generating companies, transparency of the financial flows within the company, and the possibilities for cross-subsidization of companies within the holding. Separate financial reporting for each company entering into the holding should become a requirement, in order to provide the transparency necessary to determine which enterprises are loss-making as well as to prevent cross-subsidization within the company. It would also be beneficial for the sector development to outline the participation of all private interests in the power sector, and to clearly indicate whether privatisation in the sector is to continue in the future. Should privatisation be foreseen, management of the Energy Company of Ukraine should be transferred from the Cabinet of Ministers to the State Property Fund.

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21  For more detailed information see the Gas section
The tariff policy should play a key role in solving the problems of financial sustainability of the sector. Tariffs should be raised to cost-covering levels for all consumers, and cross-subsidisation must be abolished. At the same time, tariffs should be set in accordance with efficiency criteria, i.e. each consumer group should be charged for the costs of supply plus a reasonable rate of return, without that tariffs would be cross-subsidized across consumer groups. Provided the government still strives to see bilateral contracts to eventually supersede the current working pool model, all of the above-mentioned market distortions need to be eliminated before introducing bilateral contracts. The NERC might replace the profit cap regulation by a price cap regulation that will initially provide the same rate of return but will simultaneously provide stronger incentives for cost minimisation.

Enacting the laws “On the NERC” and “On the wholesale electricity market” by parliament would improve the regulatory situation. Rules for ensuring the NERC’s financial independence should also be included. A commonly used practice could be employed to achieve this, i.e. to finance the NERC out of a special fund in addition to direct state financing. This fund would be created by transferring a fixed percentage of the revenues of the market operators into it. Financing the NERC from two sources would increase its independence from political influence and avoid incentives for the NERC to unduly increase tariffs for market participants.

2.5 Gas

2.5.1 Reforms, June 2003 – July 2004

No significant breakthroughs occurred in the institutional setting of the gas market in Ukraine during the period under consideration. One of the main topics on the government agenda concerning the gas market was the creation of the international gas transit consortium with participation of Russia and possibly other partners. The sides were not able to agree on the organizational form of the consortium, which would manage the existing Ukrainian gas transit system. The sides agreed to start cooperation with the construction of new gas transit capacities in Ukraine, namely, the Bohorodchany-Uzhgorod pipeline. It is planned that the pre-investment stage will have been completed in August 2004.

NAK Naftogaz showed more persistence throughout the period to increase the payments for gas. Public utilities companies that produce heat were among the most significant non-payers for consumed gas. In August 2003, according to the Cabinet of Ministers Resolution N487 a subsidiary of NAK Naftogaz, called Gas-teplo, was created as an experiment. This subsidiary was to manage those heat producing public utility companies, which showed the lowest payment rates for gas in the industry. During 2003-2004 the management of 52 public utility enterprises in 9 oblasts was transferred to Gas-teplo. The experiment can be characterized as positive, since the enterprises under Gas-teplo management increased their payment rates for gas by 30% on average throughout the heating season of 2003-2004. NAK Naftogaz is also planning to invest in the energy saving
activities of the enterprises under Gas-teplo management, which should decrease the level of gas and electricity consumption.

Also, cutting supply, or the threat to do so, were used to force major debtors (public utilities and co-generation plants) to pay for the consumed fuel in full and start paying off their debt. These efforts led to an increase of overall payments for gas in the 2003-2004 heating season to 93% (72% for the corresponding 2002-2003 period). Table 2 presents the levels of consumption and the payment ratios for various consumer groups. As of May 1, the overall payment ratio for gas was at the level of 91% mostly paid in cash. Although the payments situation still remains unsatisfactory as the debts continue to accumulate, some progress was achieved in revenue collection during the period under consideration. Increases in payments were achieved with all consumer groups, with industrial enterprises and power generation plants showing the most drastic improvements in payment discipline. Heat producing public utilities also increased their payments, but even with lower than industrial tariffs, they are paying only 71% of their bills.

Table 2. Gas consumption and payment ratios for various consumer groups during the 2003-2004 heating season.

<table>
<thead>
<tr>
<th>Consumers</th>
<th>Gas consumption</th>
<th>Payment ratios, %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bcm</td>
<td>% of total consumption</td>
</tr>
<tr>
<td>Households</td>
<td>13.8</td>
<td>38%</td>
</tr>
<tr>
<td>Organizations financed by the state</td>
<td>0.831</td>
<td>2%</td>
</tr>
<tr>
<td>Heat producing public utilities</td>
<td>7.3</td>
<td>20%</td>
</tr>
<tr>
<td>Power generation plants</td>
<td>2.9</td>
<td>8%</td>
</tr>
<tr>
<td>Industry</td>
<td>11.3</td>
<td>31%</td>
</tr>
<tr>
<td>Total</td>
<td>36.131</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: *Gas Ukrainy, own calculations*

NAK Naftogas started a debate over increasing the gas tariff for industrial customers to UAH 345 per tcm (excl. VAT). However, these efforts have so far not borne fruit. NERC, which is regulating gas prices in Ukraine, keeping the monopolistic position of NAK Naftogas on the market in mind, has increased the tariffs for industrial customers from UAH 284.55 per tcm (excl. VAT) to UAH 310 per tcm (excl. VAT). Cross-subsidization of the gas consumption of households and public utilities by industry persists.\(^{22}\)

2.5.2 Prospects

The tariffs for final customers should allow the market participants to recover their costs and provide incentives to the natural monopoly for cost

\(^{22}\) The tariffs for individual households set by NERC are at the level of UAH 175 and UAH 195 per tcm, depending on whether or not a gas meter is installed.
minimisation. Payment rates also remain a problem in the sector especially where public utilities and households are concerned. In order to ensure 100% payment for supplied natural gas Naftogaz should cut the supply to all non-payers and the government should ensure support for these measures. Although these measures might be painful and politically unpopular, it will remain impossible to attract investment to the industry so long as the tariffs do not fully cover costs. The experiment with the management of public utilities by Gas-teplo, although partially positive, cannot solve the problem of non-payments in the absence of cost-covering tariffs for public utility services. This situation is further aggravated by the less than full payments by households for supplied heat. Therefore, the experiment with Gas-teplo may help to increase the payment rates for gas, to the extent that this can be achieved with better management, however, it won’t be able to eradicate the cause of low payments to the public utilities and consequently to Naftogaz. Thus, allowing for contract enforcement mechanisms would be a more direct solution to the problem of payment discipline; this would also encourage the local authorities to adjust tariffs for public utilities to cost covering levels and agree to the usage of targeted subsidies, unless they want to lose communal property to creditors.

2.6 Water and wastewater

2.6.1 Reforms, June 2003 – July 2004

There were no significant reforms in the water and wastewater sector. Some developments were positive but they were made regardless of regulatory changes, which were recently introduced, rather than because of them. The state has started to pay more attention to the sector. The Verkhovna Rada (VR) of Ukraine has adopted a national program of reforms and development of the housing and utilities sector for the period from 2004 till 2010. This program provides a general framework for development of all utilities services, in particular, for the water and wastewater sector. In general, it correctly identifies the main technical problems and suggests the relevant general direction for economic and institutional reforms. In particular, it promotes cost-covering tariffs and some regulatory improvements. While these goals are most worthwhile, the program does not develop a concrete agenda to satisfy the necessary pre-condition for attracting private capital. The Verkhovna Rada also failed to adopt an important amendment to the Law on Prices that would oblige local administrations to compensate for the losses of utility enterprises if their tariffs are set below costs. Thus in general, the regulatory changes remain controversial.

The State Committee on Housing and the Utilities Sector is getting more involved in regulating the sector. Currently it takes part in developing a methodology of sector monitoring, and a new legal base for tariff setting. The Committee was one of the first committees that had set up a civil

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23 No 4235, registered on July 10, 2003
24 No 3513, registered on May 16, 2003
Local administrations and councils are becoming more active in solving the problems of the sector. The administration of Odessa has leased the local water enterprise (Odesvodokanal) to a private company, Infox Ltd. Through this pioneering decision the local executive introduced private management, which is usually considered more efficient, into a public company. However, the procedure of choosing the private operator was non-transparent (i.e. no competitive tenders were issued), and the logic behind the choice, which the Odessa administration made, is unclear. According to official announcements, the only criteria that convinced the executives were the investment obligations of the company amounting to about UAH 500 m for the first 7 out of the 49-years lease. More local administrations managed to increase tariffs for water and wastewater services in spite of the opposition of the public. Nevertheless, tariffs in almost all regions were still too low to cover the costs of operation even with the substantial cross-subsidisation that was used. At the same time, the state and local governments are not obliged to compensate for the losses that forced enterprises to either not pay their input suppliers (mostly energy suppliers) or to reduce services, or both. In several regions of Ukraine the water supply to households was repeatedly interrupted because energy suppliers stopped providing the water supplier with power as long as they failed to pay their bills.

Payment collection has improved, between January and April 2004 the household payment ratio has reached 92.5% on average, thus the total household debts for water and wastewater amounted to UAH 1.25 bn by June 1, 2004. State and local coffers continue to accumulate debts to the enterprises for granted subsidies and privileges to consumers. From May 2003 till April 2004 the total debt increased by 21% reaching UAH 71 m.

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25 Tariffs for water and wastewater services were slightly increased in the Lviv, Kirovograd, Kharkov, Kherson, Odessa, and Ternopil regions.

26 The Ternopil water enterprise stopped supplying water to consumers at the beginning of 2004 since the regional power provider had cut the power supply to this vodokanal for non-payment of debts.
Graph 5  Dynamics of household debts for water and wastewater services

The planned sale of 25.46% of the shares of OJSC Kyivvodokanal was postponed for an unknown period of time. Currently it is not clear which institution will be responsible for the sale, the regional office of the State Property Fund or the ownership department of the Kyiv City State Administration. This complicates the procedure and slows down the commercialisation and privatisation processes in the water and wastewater sector.

2.6.2 Prospects

Having adopted the new national strategy for development of the utilities sector, the next task of the state will have to be to develop a harmonious system of concrete measures to implement the strategy. A necessary legal basis and branch-specific development plans need to be written in compliance with the program to insure its implementation.

Success of the program will depend on the professionalism and persistence of the responsible executive bodies – the Committee on Housing and the Communal Sector at the state level, and the local governments at the regional ones. Local government initiatives will have a strong influence on the progress in the sector. In principle, such steps as tariff increases to cost-covering levels and the transfer of all social responsibilities from the enterprises to the state should be understood as inevitable measures. The sooner these measures are implemented the faster the sector’s recovery will occur.
### Appendix 1
**Infrastructure Indicator evaluation**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Telecom</th>
<th>Railways</th>
<th>Roads</th>
<th>Power</th>
<th>Gas</th>
<th>Water and Wastewater</th>
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Appendix 2

General description of the infrastructure indicators

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

1. 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 business. 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 business. 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 **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 of 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 regulation.** 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 pricing regulation method.** 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 3
Explanations for the infrastructure indicator evaluations given in Appendix 1 (June 2003 – July 2004)

TELECOMMUNICATIONS
1.0 Commercialization and privatisation
1.1 Ownership
1.1.1 The state-owned monopoly Ukrtelecom still controls about 80% of the fixed-line telephone market and owns the largest primary network. The company was primarily responsible for the 92% increase in telephone lines. The indicator remains unchanged at 1.7.

1.1.2 The sale of UMC and additional competition signifies positive developments in the mobile segment. On the other hand, the absence of clear IP-telephony regulations and the vertical integration of Utel and Infocom with Ukrtelecom led us to reduce the index from 3.0 to 2.7.

1.1.3 The ownership structure in the ancillary businesses did not change. The indicator remains unchanged 2.0.

1.2 Operation
1.2.1 With changes in the management and the Supervisory Board of Ukrtelecom, SCCI implicitly lost control over the company. However, the independent regulator has not yet been set up. Adoption of the new law “On Telecommunications” is a very positive development since it will allow bringing virtually all lacking regulations into the market’s institutional framework. Hence, the index was increased from 1.7 to 2.0.

1.2.2 Investment decisions at Ukrtelecom in the pre-privatisation period were politically influenced and efficiency considerations were forfeited in favour of value-boosting activities. The indicator remains the same, at 1.7.

1.2.3 The private sector continues to increase its participation in many competitive segments. Private companies now develop billing systems and the mobile communication networks. The indicator increases to 2.0.

1.3 Organizational structure
1.3.1 On the one hand, UMC was separated from Ukrtelecom by being sold to the Russian MTS. On the other hand, by buying out Infocom and transforming Utel into an affiliate, Ukrtelecom concentrated the management of different services – local lines, long-distance calls and Internet. This has not allowed us to increase the indicator.
1.3.2 The organizational structure of the auxiliary businesses remained unchanged.

1.3.3 Apart from market-induced consolidation in the mobile sector, there were no other similar developments. For this reason the indicator remains unchanged.

2.0 Tariff reform

2.1 Structure of tariffs

2.1.1 Abolishing charges for incoming calls has advanced the negotiations on interconnections and inter-payments. In the future the new law “On Telecommunications” will allow introducing transparent rules in tariff setting and regulation. But, since the new law will not take effect until 2005, the indicator increases only marginally to 2.2.

2.1.2 The successful functioning of the temporary procedure for mutual settlements between the networks of general use and mobile operators is a positive development. The index was increased from 2.7 to 2.9.

2.1.3 The regulation on interconnections and inter-payments allowed avoiding deviations from equilibrium pricing. Lack of other positive developments resulted in a marginal increase in the index to 3.1.

2.2 Payments

2.2.1 There were no major developments in intra-industry payments.

2.2.2 The new management team succeeded in reducing Ukrtelecom’s receivables during the first half of 2004. The index was slightly increased to 3.4.

2.2.3 State indebtedness is planned to be decreased, albeit at the expense of dividend payments. Thus, the index remains unchanged.

2.3 State funding

2.3.1 The number of privileged phone user categories and the subsidy level remained unchanged.

2.3.2 The system of privileges was not changed. As before, price compensation is dominant.

3.0 Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 Important improvements in management selection were noticed in competitive sectors. Especially the ownership consolidation in the mobile market secured shareholders key roles in company operations. This slight improvement increased the index to 2.5.

3.1.2 The establishment of the NCRC could solve the majority of the sector’s regulatory problems. However, the absence of dual subordination might limit the NCRC’s potential independence. Although the new law will only take effect in 2005, this legislative breakthrough alone allows increasing the index to 2.5.

3.1.3 Temporary regulations on interconnections and inter-payments introduced better transparency to the market. On the other hand,
the new law does not regulate IP-telephony. This leads us to only slightly increase the index to 2.1.

3.2 Access regulation. Continuing problems with access to the market, including licensing, will likely be solved after the new law “On Telecommunications” takes effect in 2005. In the mean time, the legislative vacuum still hampers resolution of the most important questions. The index remains unchanged.

RAILWAYS

1.0 Commercialisation and privatisation

1.1 Ownership

1.1.1 The basic rail network is 100% state owned. Sales/transfers of local railways take place occasionally.

1.1.2 Passenger and freight transportation are 100% state owned. The corporatisation of freight transportation enterprises is complete. Forwarding enterprises are mostly private. Some freight railway cars are privately owned, some were transferred to Ukrtransleasing.

1.1.3 All construction, maintenance and service enterprises are corporatised. Privatisation of seven auxiliary railway enterprises was banned by law. The index was decreased from 2.0 to 1.7.

1.2 Operation

1.2.1 The railways are regulated by the State Railways Administration, which is integrated into the Ministry of Transport. The Minister of Transport is the Head of Ukrzaliznytsia.

1.2.2 The State Railways Administration strives for operational efficiency and profitability of the industry. UZ announced tenders for many of its project. The index was increased from 2.0 to 2.3.

1.2.3 Rail line construction and rolling stock maintenance is provided by state enterprises and joint stock ventures, which belong to the state.

1.3 Organisational structure

1.3.1 The railway infrastructure, passenger and freight transportation services are integrated in Ukrzaliznytsia, but keep separate accounts. Cross-subsidization is transparent, separate accounts for freight and passenger transportation are available.

1.3.2 Ukrzaliznytsia has been charged with the management of more ancillary businesses. The index was not downgraded, as this process could have positive consequences if these enterprises improve their financial performance and management practices prior to privatisation.

1.3.3 The railways are split into 6 regional companies. The South-Western Railway was allowed to issue bonds.
2.0 Tariff reform

2.1 Structure of tariffs

2.1.1 Some tariffs, mostly for export freight transportation, were increased for political reasons. The index was decreased from 1.7 to 1.3.

2.1.2 Cross subsidisation of passenger transportation with freight transportation persists, but can now be tracked through the financial statements. The Ukrainian Railways show profits.

2.1.3 The tariffs do not precisely reflect the infrastructure and rolling stock operating costs; however overall, all costs are covered.

2.2 Payments

2.2.1 Intra-industry payments are stable.

2.2.2 Monetary payments for freight transportation are about 97%.

2.2.3 State subsidies are provided at levels defined in the central state budget and go mainly to financing of vocational training and other non-production related expenses.

2.3 State funding

2.3.1 The government still relies on (privileged) passenger transportation funding at the expense of Ukrzaliznytsia.

2.3.2 Subsidies are paid to the railways (service provider).

3.0 Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 The President appoints the management, although the government body operating the railways is formally independent. Management decisions are increasingly insulated from political interference.

3.1.2 The railways regulator is part of the government and is integrated with the rail line operator.

3.1.3 Tariffs are fixed by legislation. A transport tariff policy is being developed to increase the transparency and efficiency of tariff setting.

3.2 Access is regulated with government permission. In principle, freight transportation using privately owned cars is possible but recent tariff increases for transportation in privately owned cars restricts access to the network. The index was decreased from 1.3 to 1.0.

ROADS

1.0 Commercialisation and privatisation

1.1 Ownership
1.1.1 Roads are 100% in state and communal ownership.

1.1.2 Individuals (private entrepreneurs) have an 85% share of the market for transportation of passengers by bus. Individuals own 30% of all medium and large buses. Corporate entities and open joint-stock societies have a 15% share of the market. The indicator was increased from 2.7 to 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).

1.2 Operation

1.2.1 Regulation and management of the road network are separated from each other. The regulatory body (Ukrainian Road Service) is the principal managing body of the State Joint Stock Company “Motor Roads of Ukraine”.

1.2.2 A) A law “On Enhancing of Concession activities” (No 1414-IV, February 3, 2004) has been passed, according to which an investor has the right to buy an object after the end of the concession contract term if its privatisation is decided on. The law also simplifies bureaucratic procedures, and abandons the requirement to use domestic technology and equipment.

B) Agreements about international loans for the Kyiv-Odessa toll road were signed. The indicator was increased from 2.0 to 2.3.

1.2.3 Road construction and maintenance is provided mostly by state owned corporations and by some private firms, although contracts are still awarded in non-transparent ways. However, for the reconstruction of the Kyiv-Odessa highway a number of foreign sub-contractors were employed (Russia, Turkey, Macedonia) in addition to Ukrainian firms. Also, local administrations now frequently use competitive biddings for rebuilding intra-city roads. The indicator was increased from 2.0 to 2.3.

1.3 Organisational structure

1.3.1 Roads management is separated from freight and passenger transportation services.

1.3.2 Road construction and maintenance are separated from transportation; some services are contracted out.

1.3.3 Roads are financed and operated at both the central and regional levels. Municipal authorities can make investment decisions on local road construction using the vehicle tax funds they collect.

2.0 Tariff reform

2.1 Structure of tariffs

2.1.1 The government sets tariffs for passenger transportation.

2.1.2 Officially road funding derives from an excise tax on fuel and certain other taxes. These taxes are only partially directed towards road maintenance.
2.1.3 There were several unsuccessful attempts by transport providers to raise tariffs of intra-city passenger transportation in response to rising fuel costs. The indicator decreases from 2.7 to 2.3.

2.2 Payments
2.2.1 Payment arrears between enterprises decrease.
2.2.2 Payments are monetary. Compensation for privileged passenger transportation remains an unresolved issue.
2.2.3 The state still finances the sector at an inadequate level.

2.3 State funding
2.3.1 The number of privileged passengers remains high. Compensation levels are inadequate.
2.3.2 Subsidization of privileged passengers is frequently put onto the shoulders of service providers.

3.0 Regulatory and institutional development
3.1 Effective regulatory institutions
3.1.1 Only the management of the road operation services is appointed by the government.
3.1.2 Road Service of Ukraine, the regulatory body in the sector, is organisationally separated from the government.
3.1.3 The Transport Ministry has approved a program to adapt the Ukrainian transportation laws to EU standards in 2004. The indicator was changed from 2.3 to 2.7.

3.2 An additional mandatory certification system for passenger transportation services was introduced by Presidential Decree (No 570/2004, May 20). The indicator was decreased from 3.0 to 2.7.

POWER
1.0 Commercialisation and privatisation
1.1 Ownership
1.1.1 The controlling stakes in 13 (out of 27) regional distribution companies (oblenergos) were sold. All of the stakes in the distribution companies still belonging to the state were united in the Energy Company of Ukraine holding.
1.1.2 The nuclear, hydro and fossil fuel generating plants were separated into different companies. The nuclear and hydro generating plants remain 100% state property, while three fossil fuel generating companies were partially privatised, however the state remained the major owner. All of the state stakes in power plants, with the exception of the nuclear stations, where united in the Energy Company of Ukraine holding.
1.1.3 Social infrastructure, construction and maintenance are still treated as part of the natural monopoly.

1.2 Operation

1.2.1 The regional distribution companies are corporatised, some of them are in private hands, all are regulated by the NERC. The grid is operated as a part of Ukrenergo.

1.2.2 Decision-making is still politically influenced. This is likely to diminish due to pressures from private investors (guaranteed profitability).

1.2.3 Construction and maintenance are managed by the oblenegeros. Private sector participation gradually increases.

1.3 Organisational structure

1.3.1 Generation, transmission and distribution are separated into independent companies. State stakes in the power sector, with the exception of nuclear stations, were united in Energy Company of Ukraine. The impact of this decision will be assessed in the following period. The indicator was downgraded from 3.7 to 3.

1.3.2 There is a minimal degree of separation. The private sector is marginally involved.

1.3.3 Decentralisation is not a high priority in this industry.

2.0 Tariff reform

2.1 Structure of tariffs

2.1.1 Political interference in tariff setting for certain types of consumers persists, through pressure is being exerted by the independent regulator and by decrees of the Cabinet of Ministers.

2.1.2 Cross subsidisation of households and preferential tariffs for coalmines are still in effect, and cost reflection is not unambiguous.

2.1.3 Real competition at the wholesale power market was observed. Power generating companies compete by bidding. At the same time the absence of modern meters allowing instantaneous consumption measurements prevents the customers’ consumption to be billed according to the load curve.

2.2 Payments

2.2.1 The situation is stable, but some settlements are still made in non-cash form.

2.2.2 The average level of cash payments by the oblenegeros to the wholesale electricity market varied significantly during the period under consideration. It reached its high in June 2003, but was as low as 87.8% and 84.3% in November 2003 and January 2004 respectively.

2.3 State funding

2.3.1 The poorest people are subsidised, the number of privileged categories remains substantial.
2.3.2 Subsidies are paid to the oblenergos.

3.0 Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 The management is appointed by the state

3.1.2 The NERC is governed by decrees issued by the President and the Cabinet of Ministers, there is no law defining its rights and obligations.

3.1.3 More transparency has been introduced to the distribution of moneys for the power supplied to the wholesale market. The decision has been taken to pay the generating companies proportionately to the amount of electricity they have supplied to the market. This should take away the discretionary power to shift non-payments to specific power generators, however, this decision does not affect any previously accumulated debts and their coverage.

3.2 Access regulation Access is regulated by the NERC, but without a strong legislative base.

GAS

1.0 Commercialisation and privatisation

1.1 Ownership

1.1.1 The trunk pipeline and the distribution net are 100% state property, however, NAK Naftogaz is corporatised.

1.1.2 The share of state ownership in gas extraction is very high, private companies are marginally involved in gas imports.

1.1.3 Private involvement in the wholesale segment of the industry decreased after Itera left the market. The construction, maintenance and service efforts are carried out mainly by NAK Naftogaz but unrelated businesses were split off. A private company is carrying out some contracts for trunk pipeline modernisation.

1.2 Operation

1.2.1 NAK Naftogaz is subject to supervision by the government and the President; it can however operate as a market company.

1.2.2 The commercial objectives remain poorly defined, although commercialisation has increased and debt accumulation for consumed Russian gas was stopped, as was illegal siphoning.

1.2.3 Employing private companies to repair and maintain the pipelines has started. The private sector is involved in gas deliveries to enterprises.

1.3 Organisational structure

1.3.1 NAK Naftogaz was split into extraction, transportation and sales.

1.3.2 There is a minimal degree of separation.
1.3.3 Decentralisation is not foreseen for this industry.

2.3 **Tariff reform**

2.2 **Structure of tariffs**

2.1.1 There still is government interference in tariff setting for some types of consumers.

2.1.2 Industrial enterprises have choices; NERC determines the price of transportation. Households and utilities are invoiced at below-cost prices. As a result under-investment in the network persists.

2.1.3 NERC sets ceiling prices on natural gas for final consumers according to a Cabinet of Ministers’ decree.

2.2 **Payments**

2.2.1 Arrears accumulation persists.

2.2.2 The situation with the payment discipline in the sector improved slightly, however, some of the causes for non-payments persist, especially in the case of public utilities, which suffer from non-cost-reflective tariffs and the low payment discipline of the final customers. Therefore, the indicator was increased from 2.7 to 3.3.

2.2.3 The state remains among the major debtors; Naftogaz bears the costs of supplying gas to households.

2.3 **State funding**

2.3.1 The poorest households are subsidised; delayed debt repayments by enterprises continue.

2.3.2 Subsidies are paid to the public sector.

3.0 **Regulatory and institutional development**

3.1 **Effective regulatory institutions**

3.1.1 The government appoints the management, although NAK Naftogaz is formally independent.

3.1.2 NAK Naftogaz is subject to government control.

3.1.3 Gas auctions were abolished, distribution costs and the price of the natural gas received in lieu of a Russian gas transit fee are non-transparent.

3.2 **Access regulation** Access is regulated by the NERC, but without a strong legislative base.

**WATER AND WASTEWATER**

1.0 **Commercialisation and privatisation**

1.1 **Ownership**

1.1.1 The natural monopolies (water distribution and drainage systems) are mostly in communal ownership. Out of 306 companies 284 are communal enterprises, 15 are joint stock companies, 4 are state
enterprises, and 3 are ‘privatised’ by limited liability companies. Kyivvodokanal is corporatised.

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.

1.1.3 Construction and maintenance are integrated with the natural monopolies and are also mostly in communal ownership.

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. A private company manages Odessvodokanal. The indicator was increased from 2.0 to 2.3.

1.2.2 The political influence on decision-making is very strong, local governments pursue goals of social support.

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.

1.3 Organisational structure

1.3.1 No separation.

1.3.2 No separation.

1.3.3 Companies operate only under the supervision of the local authorities. Local governments became less dependent on central executive powers in their decision-making concerning tariffs and investments. The indicator was increased from 2.7 to 3.0.

2.0 Tariff reform

2.1 Structure of tariffs

2.1.1 Municipal officials approve the tariffs. In several regions tariffs for water and wastewater were increased despite political pressures to reduce them. The indicator was increased from 1.0 to 1.3.

2.1.2 Tariffs for residential consumers are at below-cost levels. Tariffs for industrial consumers are higher than residential ones. Even with this cross-subsidisation, tariffs do not cover costs in almost all regions. A new approach for tariff setting was recommended by the Committee for Public Utilities. However, it is being introduced very slowly.

2.1.3 Potentially competitive businesses are integrated parts of the natural monopolies, pricing of the services is not separated.

2.2 Payments

2.2.1 Payment arrears are significant. Major creditors of the industry are the power distribution companies. The total payables of the industry are estimated to be almost UAH 1.2 bn.

2.2.2 Collection rates from households grew to an average of 92%. Total household debt for services is UAH 1.25 bn (on 1 of June 2003). The household indebtedness accumulation slowed down and is
currently at an average rate of UAH 4.7 m per month. Ten oblasts showed above 100% payments. The index was increased from 3.0 to 3.3.

2.2.3 Local governments fulfil their obligations concerning financing of privileged consumers at the level of about 55%, which is 8% higher than for the same period of the previous year, but is UAH 120 m lower in absolute terms.

2.3 State funding

2.3.1 The poorest households are subsidised. The amount of subsidisation varies substantially between regions.

2.3.2 Subsidies are paid to the water supply and sewage companies.

3.0 Regulatory and institutional development

3.1 Effective regulatory institutions

3.1.1 Regional governments appoint the management of the water supply and wastewater monopolies.

3.1.2 There is no independent regulator. The State Committee for Public Utilities is slated to be the regulator for the industry, although there is no clear definition of the committee’s regulatory responsibilities and procedures.

3.1.3 Although clear tariff regulation guidelines are available they are not obligatory for local administrations. Tariffs are set arbitrarily.

3.2 Access regulation There are no rules for access.