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Liberalisation of Telecommunications in Russia

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Summary: This paper analyses the process of and problems with development of telecommunications in Russia and focuses on the issue of liberalisation, i.e., opening the market to the forces of competition as a means of improving telecommunications infrastructure and the provision of services. We give an overview of trends in the Russian telecommunications sector and investigate the main bottlenecks for its expansion. Moreover the structure of the Russian telecommunications industry as well as the current competitive situation are described and analysed. Finally, we examine the Russian Government's policies in the area of telecommunications reform, with particular focus on the implementation and progress of liberalisation. This includes an analysis of cross-subsidisation, monopoly retention, state intervention through pro-competitive policies and regulations as well as providing universal services.

Zusammenfassung: Dieses Arbeitspapier analysiert die Prozesse und Probleme der Telekommunikationsentwicklung in Russland, und fokussiert vor allem die Liberalisierung, d.h. die Öffnung des Marktes für den Wettbewerb mit dem Ziel der Verbesserung der Telekommunikationsinfrastruktur und der Bereitstellung der Dienstleistungen. Im Papier wird ein Überblick über die Trends im russischen Telekommunikationssektor gegeben und die wichtigsten Engpässe ihrer Expansion untersucht. Außerdem wird die Struktur der russischen Telekommunikationsindustrie beschrieben und analysiert. Anschließend wird die Politik der Regierung bei der Telekommunikationsreform untersucht, dabei werden besonders die Implementierung und der Fortschritt bei der Liberalisierung fokussiert. Hierbei wird in erster Linie auf die Cross-Subventionierung, Einbehaltung der Monopole, staatliche Interventionen durch die pro-wettbewerbliche Politik und Regulierung und Bereitstellung der universalen Dienstleistungen eingegangen.

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1. Overview and Trends

The Russian telecommunications market demonstrated strong growth from 2000 to 2002, and the overall volume of sales in the sector exceeded \$8.5 billion in 2002. This accounts for 2.5% of GDP and is considerably higher compared to \$5.2 billion in 2000. The independent providers of new services, such as mobile telecommunications and Internet services, accounted for more than half this amount (YUDAIEVA, 2003).

Nevertheless, the development of this sector is still relatively weak and has many problems. In the NRI-Network Readiness Indicator of 2003, Russia ranked 69, leaving large room for Information and Communication Technology (ICT) development on the part of the Russian government. The same proved true in the ITU Digital Access Index where Russia received a rank of 0.50¹.

The country's vast territories and partly poor quality of telecommunications equipment, especially in the rural areas, and an inefficient legislative base, make the process of development in the telecommunications sector complex and challenging. Table 1 presents the state of Russian telecommunications equipment. While there were improvements in the late 1990s, significant weaknesses remain, especially in digitalisation and quality of the infrastructure, most notably in rural areas. Thus the Russian telecommunications sector shows a significantly low quality of telecommunications services for the users. The level of telephone faults per 100 main lines was equal to 38 in 1998. This is relatively high in comparison to other countries, for example Poland with 26 and Finland with 8 (ITU, 2002).

Table 1: State of Russian Telecommunications Network

	1980	1985	1990	1995	1996	1997	1998	1999	2000	2001
Share of automatic channels										
Fully automatic systems	43,1	64,6	76,4	80,5	84,8	88,7	91,3	93,6	94,8	95,5
Partly automatic systems	29,7	19,6	13,9	10,7	8,9	6,1	4,5	3,0	2,4	2,0
Share of Digitalisation of fully automatic systems										
Urban	-	0,4	4,6	17,0	21,9	27,0	35,5	39,0	41,5	46,0
Rural	-	0,03	1,4	7,6	9,5	12,0	13,7	15,3	17,4	19,0
Long-distance channels										
Share of analogue channels	-	-	0,8	9,1	35,3	47,6	56,9	69,1	76,9	87,3
Share of optic channels	-	-	0,04	4,5	13,6	31,2	42,6	63,2	50,5	71,5

Source: GOSKOMSTAT, 2003

The needs of Russia with respect to telecommunications investment are huge, with rather different estimates abounding. The amount of investment estimated by the Ministry of Communications is \$33 billion (about 10% of GDP) over the next 10 years (NAZAROVA, 2002). SVYAZINVEST evaluated the figure at \$15 billion to bring Russia

¹ Sweden and Denmark received the highest ranks in the Digital Access Index with 0,85 and 0,83 respectively, while Burkina Faso (0,08) and Niger (0,04) received the lowest rankings (ITU, 2003).

to the level of industrialized countries (SVYAZINVEST, 2003). Table 2 depicts annual Russian expenses on telecommunication investment in relation to the GDP. Compared to selected transition countries, China and some developed countries, these levels are quite low. The structure of Russian trade in telecommunications equipment within Russia indicates that the import of telecommunications equipment makes up over 95% of all trade volume (ITU, 2002).

Table 2: Annual telecommunications investment (in % to GDP)

	1998	1999	2000
China	1,88	1,96	2,49
Czech Republic	2,09	1,60	2,37
Germany	0,41	0,47	0,32
Poland	0,74	0,93	0,87
Russia	0,39	0,40	0,24
United States	0,28	0,28	0,29

Source: ITU, 2002

The number of telephone lines per employee of telecommunications enterprises indicates a low efficiency of Russia's telecommunications firms. According to Russian figures from 2000, one employee had access to merely 75 telephone lines, while their counterparts in the USA had 172 and in Poland 159 telephones lines per employee (WORLD BANK, 2002). That shows the very low efficiency of Russian telecommunications enterprises.

As illustrated in Table 3, the number of fixed telephones in Russia has been increasing, and the penetration rate reached 24% in 2001 (GOSKOMSTAT, 2002). This is close to the level of other CEE countries such as Poland (29%) and Lithuania (27%), although it is still really low compared to the level of industrial countries which often reach penetration levels of 70% to 90% (IBM, 2003). The main Russian population centres are quite well served, but large areas of this vast country have extremely poor access or no access at all. The waiting list for basic services included approximately 6.5 million names in 2000, and the average waiting time for installation was about 5 years (WORLD BANK, 2002).

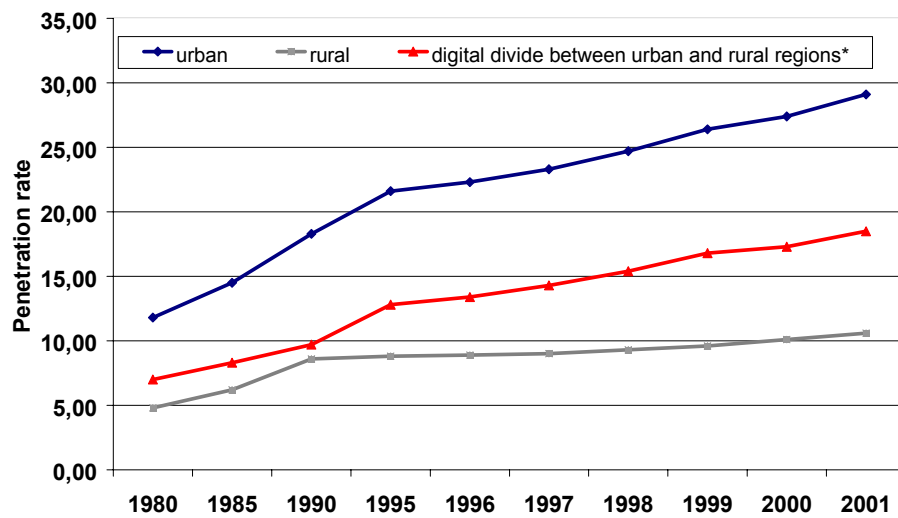
Table 3: Fixed and mobile phone industry

	1980	1985	1990	1995	1996	1997	1998	1999	2000	2001
Density of fixed telecommunications users (100 people) with close proximity to pay phone connections										
total	9,7	12,2	15,8	18,1	18,7	19,5	20,6	21,8	22,8	24,1
urban	11,8	14,5	18,3	21,6	22,3	23,3	24,7	26,4	27,4	29,1
rural	4,8	6,2	8,6	8,8	8,9	9,0	9,3	9,6	10,1	10,6
digital divide between urban and rural regions	7,0	8,3	9,7	12,8	13,4	14,3	15,4	16,8	17,3	18,5
Mobile phone users										
Thousands	-	-	-	93,2	233,5	495,5	761,7	1415,9	3331,2	7750,5
Density of Mobile Phone (100 person)				0,06302	0,15820	0,33685	0,51922	0,96781	2,28791	5,35256

Source: GOSKOMSTAT, 2003

A clear increase in problems related to this digital divide can be seen in the Russian telecommunications sector. The term 'digital divide' describes the fact that the world can be divided into people who do and people who do not have access to - and the capability to use - modern information technology, such as the telephone, television, or the Internet. The digital divide exists between those in cities and those in rural areas. Figure 1 demonstrates the digital divide in fixed telecommunications - people in the Russian rural areas have less developed fixed telecommunications - which is growing each year. In Table 1 the digital divide in telecommunications infrastructure can be seen.

Figure 1: Digital divide in the fixed telecommunications



*digital divide between urban and rural regions = density of fixed telecommunications users (100 person) in urban areas in the year i – density of fixed telecommunication users (100 person) in rural areas in the year i .

Source: GOSKOMSTAT, 2003 and own calculations

Prices in fixed telecommunications compared to other countries reflect the cross-subsidies. Rates for local calls and residential monthly telephone subscription in comparison to the other countries are relatively cheap. In contrast, international calls are very expensive. This can be seen in Table 4.

Table 4: International comparison of selected indicators

	1998	1999	2000	2001
Telephone average cost of local call (US\$ per three minutes)				
Czech Republic	0,07	0,15	0,13	0,11
Germany	0,11	0,11	0,1	0,09
Poland	0,06	0,07	0,08	..
Russia	..	0,01
United States	0,09
Telephone average cost of call to U.S.(US\$ per three minutes)				
China	6,70		6,70	
Czech Republic	3,28	2,00	0,97	
Germany	1,43	0,80	0,34	
Poland	3,65		2,92	
Russia	6,12		6,12	
United States	...		-	
Residential monthly telephone subscription (US\$)				
China	2,66	2,66	3,02	..
Czech Republic	3,1	3,91	4,53	..
Germany	12,16	11,63	10,04	..
Poland	3,86	4,61	7,01	..
Russia	2,06	2,03
United States	19,76	19,93	20,78	..

Source: World Bank, WDI, 2002

Mobile telephony is growing rapidly, especially in the metropolitan centres, and the number of subscribers has doubled every year. According to Anton Pogriebinski, AC&M, in January 2003 Russia had 36.15 mil. subscribers. The average penetration level taken for Russia as a whole makes up 25 %. In Moscow, this coefficient is sufficiently larger. This indicates the typical phenomenon in some Eastern European countries that the penetration rate of mobile phones is higher than the penetration rate of fixed-line telecommunications. The reason for this lies in the poor quality and long waiting periods for obtaining a fixed telephone line (BRALIEV, KORISCHENKO, 2002) as well as the social status that comes along with owning a mobile telephone in the Eastern Europe. The difference in penetration rates between urban and rural areas opens up a wide potential for market growth over the next several years. Mobile service providers are moving quite rapidly to increase coverage, but there are still large, sparsely populated areas where coverage is uneconomical (NAZAROVA, 2002).

Internet user penetration rates were estimated at 4.3% in January 2002. This is double the level of the previous year. In 2002 alone, the growth rate reached 39 %. The government is establishing public centres for Internet access under the auspices of the program, Electronic Russia 2002-2010. The Russian web hosting market has also seen rapid growth rates in recent years. Poor market data exists for this field, and the number of web hosting users and web hosting revenues vary strongly. Estimations by the World Bank and ITU in 2001 have stated that there are over 354.3 thousand web hosts in Russia. Russian sources have estimated over 55.5 thousand users of web hosting services with average monthly revenues of around \$20 per user .

Broadband is in its infancy in Russia. According to the investment firm, Brunswick UBS Warburg, around 15,000 customers subscribe to ADSL, cable TV and asymmetric satellite services, with most of these subscribers being corporations. The investment

company Vesta Eurasia estimates the Russian market for high-speed, broadband Internet access in 2001 to be in the area of \$30 million and the number of subscribers at around 25,000. Broadband is far from being a mass market in Russia.

This was a short overview of the Russian telecommunications market. We will now proceed with a discussion on the structure of this market.

2. Structure of the Russian Telecommunications Market

The major telecommunications holding company, Svyazinvest, was founded in 1994 to consolidate government-owned shares in the regional operators of Russia. In 2002, the fixed-line industry was reorganized, with 70 regional operators being consolidated into 7 pan-regional companies. Rostelecom, the nation-wide backbone operator and the subsidiary of Svyazinvest, remained a separate entity. Svyazinvest and its subsidiaries make up the network of Incumbent Local Exchange Carriers.

Competitive Local Exchange Carriers are challenging the incumbent providers. This group consists of the alternative operators such as Sistema Telecom, Golden Telecom, Global One and Combellga as well as the operators of national corporations such as Transtelecom (Ministry of Railways), Gazsvyaz (Gazprom) and UES Telecom (the electric utility, UES). The latter are not primarily in telecommunications, but are rapidly building their telecommunications infrastructure and are expected to emerge as major competitors within this sector.

The three mobile telephony operators – Vimpelcom, MTS and Megafon – have successfully concentrated the market in their hands, now controlling about 80 percent of the market. The rapid growth of the market over the last couple of years has been the result of significant price cutting strategies as well as the emergence of the third major player, Megafon, in the market. The Megafon group had about 1.13 million registered subscribers by February 2002, posting the fastest growth in the sector.

There are three standards of mobile telephony in Russia: GSM, ADMPS/TDMA and NMT – 450. The former is 2G, while the latter two are analogue-based technologies. The GSM standard dominates the market (82%), while ADMPS/TDMA and NMT-450 operators respectively had 11.6% and 6% of the market share (NAZAROVA, 2002). NMT operators are looking for ways to convert their networks to the digital standard. Moscow Cellular Communication (MCC) and Delta Telecom have completed pilot projects in Moscow and St. Petersburg based on CDMA-450 technology supplied by Lucent Technology and Qualcomm. The operators suppose that changing from NMT-450 to CDMA-450 standards will allow a smooth transition to 3G networks technology. ADMPS/TDMA networks subscribers are currently operational in 58 Russian regions. Despite the decision of the Russian Ministry of Communication in 2000 to retain GSM as the only cellular standard in Russia, the number of clients by AMPS operators doubled. New technologies such as Wireless Application Protocol (WAP) and General Packet Radio Service (GPRS) are now being implemented by Russian cellular operators as well, but insufficient content services and low consumer purchasing power are the main barriers to dissemination of these services.

The Internet access market remains fragmented with about 300 Internet Service Providers (ISP) active and many more companies holding licenses to provide Internet

access services. Intense competition within this market has dramatically driven the prices down. Golden Telecom, Sistema Telecom and Equant control over 40% of the Internet access market. Rostelecom sells wholesale capacity to ISPs and enjoys 20% of the market. Rostelecom and Svyazinvest's regional telecom operators established RTComm.ru, which plans to take over Rostelecom's wholesale ISP business and will also offer retail Internet access under a single name. RTComm.ru is potentially a major competitive threat for the current operators. Over the next few years, more mergers and acquisitions are expected.

The Russian web hosting market is also growing rapidly, and estimations for this market vary greatly. This segment is very attractive for new entrants, with half of the current market leaders having entered the market over the last 18 months. Some changes through mergers and acquisitions could also be possible here in the future.

The small broadband market is competitive. Most parties represented in this market are closed to the CLECs. Asymmetric Digital Subscriber Line (ADSL) enjoys its greatest popularity in Moscow, largely as a result of aggressive marketing by Tochka.Ru. In St. Petersburg this technology is provided by Web Plus, which has over 700 registered users. The second most popular technology on the Russian market, Broadband Wireless Access (BWA), is more expensive, and the number of users is not very impressive.

3. Liberalisation und Telecommunications Reform in Russia

An analysis of the telecommunications market in Russia indicates a lot of weaknesses. Many of these relate to strong market concentration, especially in fixed-line telecommunications, and could be eliminated through market liberalisation. The experiences of other countries including those in transition present the results of liberalisation in the telecommunications (WELFENS, 1996, 1999). It is well-known that the introduction of forces of competition on the market brings about lower prices, more or better quantities, and modern price strategies (for example bundling) or appropriate qualities of service in attracting customers. Competition serves public interest by inducing suppliers to become more efficient and to use new innovation and technologies (McCARTHY, 2001).

Despite this, the market can seldom be perfectly competitive. Because of this, government intervention is necessary to implement competition policy. There are two different types of governmental intervention. The first type is behavioural, whereby a public authority attempts to modify the behaviour of a particular firm or group of firms through regulation of their behaviour (e.g., price regulation). A second form of intervention is structural. Such intervention affects the market structure of the industry (e.g., merger or acquisition regulation). Cooperation between competition policy and telecommunications policy as well as between competition authority and telecommunications regulator is important for the creation of competition policy in the telecommunications sector due to the possible asymmetry in the market structure.

The Russian government is represented in the Russian telecommunications market by the Ministry of Anti-monopoly Policy and Support of Enterprises as well as by the Ministry of Telecommunications. Russia does not have an independent telecommunications regulator, which has been argued to be the optimal solution for telecommunications regulation. The Ministry of Anti-monopoly Policy and Support of

Enterprises secure prices through state regulation of the telecommunications sector, especially in the case of a natural monopoly. The Ministry of Telecommunications takes over all other aspects of regulation in the telecommunications sector.

The 2003 ranking of Russia in the Networked Readiness Index Rank for competition in the telecommunications sector is 58, indicating a low degree of liberalisation in the Russian market. The policy of the Russian government in the telecommunications sector can be found in the Law on Communications from July 2003. The Law on Competition and the Limiting of Monopolistic Activity in the Goods Market as well as amendments thereto make up Russian competition policy. The main important points of the Law on Communication and Law on Competition for the liberalisation of the telecommunications market and possible interference in this process will now be discussed below.

As discussed in the second section of this paper, seven new interregional companies, reorganized in 2002, emerged in the fixed-line industry of the Russian market. The number of telephone lines available to these companies is comparable to that of companies in other countries, but their market capitalization is small by international standards, encouraging foreign investors to stay away. One of the biggest problems here is the cross-subsidisation of local calls and telephone subscription from long distance call revenues. The Russian government would like to retain some level of cross-subsidisation. This is the reason it insists on retaining the monopoly of Rostelecom for long distance communication services. This is one of most important issues for liberalization of the market. The experience of other countries demonstrates that direct subsidies can bring about more desired results by providing services to small towns and increasing penetration rates. The opening of the market for long distance and international services can bring about a sharp fall of prices as seen, for example, through the liberalisation of the Chinese telecommunications market.

The new Law on Communication guarantees non-discriminatory interconnection access to all operators under state-regulated access pricing. Some experts argue that regulation is a costly and burdensome process, resulting in highly inefficient outcomes. But it is well-known that a perfect competition market is not possible in every stage of the telecommunications market due to low contestability in these stages of telecommunications industries. The regulation policy at these stages should aim to achieve an output similar to the output under competitive conditions. It is feasible that the main problem with state regulation of the telecommunications market involves the chosen form of the government's regulatory regime. In the case of Russia, it is the rate of return regulation. The negative results from this regime, especially its low incentives for increasing efficiency and eliminating overinvestment problems, are well-known in the telecommunications market of other countries.

The current market structure of mobile operators and ISPs in Russia seems to be quite competitive. The government should try to prevent anti-competitive behaviour not only in the above-mentioned market segments but also in the telecommunications market as a whole. This prevention includes agreements between firms and single firm behaviour. In addition, the competition policy should take into account the effects of market structure either by breaking up monopolies into competing units or via rules that prevent mergers and acquisitions. The level of critical market share in Russia is 35%. The focus of Russian law is similar to that seen in the EU and relates solely to market share and not to the ability to set prices above the competition level as is typical in the USA. Competition policy in Russia primarily addresses the activities of firms, but regulation by the state can also damage competition by restricting entry or price rivalry.

On the Russian telecommunications market a telecommunication licence authorizes an entity to provide telecommunications services or operate telecommunication facilities. In

the new Law on Communication, the competitive licensing process has to exist only in the case of the availability of scarce resources, such as spectrum and numbers. A major objective of the licensing process in many markets is to ensure the viability and benefit of new competitive entry. On the other hand, licensing requirements can also provide a means to limit market access. This is one of the most important issues on the way of liberalising the Russian telecommunications market, where the grant of a telecommunications licence is a unilateral act of the Ministry of Telecommunications. The practice of good licensing contends that the licence conditions should be clear, proportionate and enforceable.

The new Law on Communication also specifies that universal services be provided at an affordable price within Russia, and this is to be subsidised from a reserve fund consisting of special non-tax contributions (2% of the revenue) of all telecommunication operators. The notion of universal services ensure that every citizen should have access to a pay phone within an hour's distance, and communities with a minimum population of 500 are entitled to public Internet connection centres. The right to provide universal services should be sold by auction, with the government obligating the incumbent company to provide universal services in the area in question and reimbursing the maximal possible expenses if no carrier wishes to take part in said auction.

There are many discussions addressing this issue with some researchers arguing that new technologies such as mobile telecommunications may be more suitable for bringing telephone service to small and remote locations than fixed telecommunications. Thus technologically-speaking, the government's universal services plan may not be the most efficient. This argument is only in part valid, as new technologies may help provide telecommunications services and should certainly be used. If the fixed network continues to be underdeveloped, however, there could be the risk that some modern telecommunications services (e.g., broadband technologies) remain widely inaccessible. On the other hand, the system of contracts being awarded to incumbent firms in the event of a lack of participation in contracting auctions could prove more efficient. The incumbent firm would thus have no incentive to decrease the cost.

Increasing the degree of competition in the telecommunications sector could bring about a result which the Russian telecommunications sector has as of yet still missed. Firstly, it is essential to increase quality and penetration rates while decreasing prices. Secondly, it is important to attract investment to the sector by increasing the incentives to be efficient through the introduction of competition. Moreover, liberalisation of the market can achieve better results with respect to the digital divide between urban and rural areas. Some of the steps toward liberalisation were already outlined by the Russian government, but there are still a lot of constraints with a state monopoly on long-distance calls and services as well as the cross-subsidisation of local calls through long distance call revenues being a prime example.

References

Law on Communication (2003) Russian Federation, Federal Law

Law on Competition and Limiting of monopoly activities on the goods market (1992)
Russian Federation, Federal Law

BRALIEV, A., KORISCHENKO, K. (2002): Global Competitiveness Report 2001-2002,
<http://www.cid.harvard.edu/cr/profiles/Russian%20Federation.pdf> (11.12.03)

GOSKOMSTAT (2002): Rossiyskiy Statisticheskiy Eshegodnik, 2002

GRAACK, C., GRINBERG, R., WELFENS, P.J.J., YARROW, G. (Eds., 1999): Towards
Competition in Network Industries – Telecommunication, Energy and
Transportation in Europe and Russia, Heidelberg and New York: Springer

IBM (2003): 3rd Report on Monitoring of EU Candidate Countries, Brussels-Luxemburg

ITU (2002): World Telecommunication Indicators Database, 6th edition

McCARTHY, T. (2001): Telecommunication Regulation Handbook, Information for
Development, World Bank Group

NAZAROVA, I. (2002): Trends in the Russian Telecommunication Market,
<http://www.tiaonline.org/policy/regional/nis/041902NISTrend.pdf> 11.12.03)

SVYAZINVEST (2003): Praim – Tass, <http://www.svyazinvest.ru/press/?id=2280>
Privatisierung und Internationalisierung, Heidelberg und New York: Springer

WELFENS, P.J.J., GRAACK, C. (1996): Telekommunikationswirtschaft: Deregulierung,
Privatisierung und Internationalisierung, Heidelberg: Springer

WORLD BANK (2002): World Development Indicators, 6th edition

YUDAIEVA (2003): Telecommunications Reform, Transition Newsletter, vol. 14, p. 23-24

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