Education Corruption, Reform, and Growth: Case of Post-Soviet Russia

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This paper investigates a possible impact of education corruption on economic growth in Russia. It argues that high levels of education corruption may harm total factor productivity in the long run, primarily through lowering the level of human capital and slowing down the pace of its accumulation. Ethical standards learned in the process of training in universities can also affect the standards of practice in different professions. The growing level of productivity is not likely to reduce education corruption in the short run, but can eventually lead to implementation of higher ethical standards in the education sector.

Key words: corruption, education, growth, reform, Russia, transition

JEL Codes: E24, K42, P21, P37
Introduction

The impact of education corruption on economic growth remains in the realm of speculations and some theorizing. There is a lot of research done on human capital, education, economic development, and growth. There is also a substantial bloc of literature on corruption and economic development and growth. This bloc of scholarly literature, however, is represented mostly by theoretical works. Few empirical works are produced so far, primarily due to the lack of data. Reliability and validity of the existing scarce data on governance and corruption also remains an issue. We target education corruption, human capital, and growth in Russia and offer examples from other New Independent States (NIS). More specifically, we look at corruption in education and at its possible implications for economic growth in Russia. We consider specific aspects of education corruption and its probable impact on growth. These aspects include interactions between education corruption and total factor productivity and interactions between corruption and structure of the national economy. Education corruption may be harmful for productivity while higher productivity may reduce education corruption. Education corruption may to a certain extent define or influence the structure of the national economy. Corruption in the education sector may be reduced through the changes in the economic structure. All of these are rather mere speculations or hypotheses to be researched than definitive statements. The areas to be touched upon are the education sector, labor market, level of concentration of property rights, and distribution of property rights on the means of production.

Corruption and economic growth

Corruption is a growing problem in Russia and receives more attention now than ever before. According to some estimates, transition economies are believed to be among the leaders
in terms of corruption. The surveys conducted by Transparency International and by the World Bank picture Russia as a very corrupt country. According to the Corruption perceptions index (CPI), developed and calculated annually by Transparency International, Russia was 79th out of 91 countries surveyed in 2001. In 2008, Russia was in 147th place with the score of 2.1, out of 180 countries, sharing the neighborhood with such countries, as Kenya and Syria (Transparency International, 2008). CPI score relates to perceptions of the degree of corruption as seen by business people and country analysts, and ranges between 10 (highly clean) and 0 (highly corrupt). The lower the numerical value of the country’s score, the higher is the level of corruption in the country.

All-Russian Center for Research of Public Opinion (VCIOM) conducted a study of corruption perceptions among Russians at the end of 2008. 30 percent of the respondents marked the level of corruption as very high, while another 44 percent as high. 19 percent considered it as average and only 1 percent as low. The most corrupt in people’s minds are traffic police (33 percent), local authorities (28 percent), police (26 percent), healthcare (16 percent), and education (15 percent). 52 percent of the respondents had experiences of giving money or gifts to medical professionals while 36 percent made informal payments to educators (Leonidov, 2009). According to the data, presented by the Attorney General, major corruptioners in Russia are college faculty, school teachers, policemen, and doctors, but not state bureaucrats. The number of corrupt civil servants does not correlate directly with their total number or the level of region’s economic development. The number of reported cases of corruption in Russia continues to grow. There were 12.5 thousand cases of bribery reported in 2008. It is a 7.7 percent increase as compared to 2007. The number of recorded abuses of public office in 2008 has reached 43.5 thousand, i.e. an 11.4 percent increase since 2007. The number of bribes in business, however,
has declined 23.8 percent, down to 1712 cases. Police investigators turned to courts 27.4 percent less cases of corruption in 2008, than they did in 2007. For investigators of the prosecutor’s department this decline is equal to 4.5 percent (Newsru.com, May 5, 2009). Despite all the claims of the authorities about the uncompromising fight against corruption, the real numbers show opposite trends.

Over 80 percent of all of those sentenced for bribery received less than $1000 in illicit payments. There are only 189 court sentences handed in 2008 to bureaucrats of all levels, including federal, regional, and municipal level bureaucrats. The categories are prosecuted for bribe receiving. The majority of those prosecuted for bribe giving consists of drivers. They routinely pay bribes to the traffic police officers. However, when the police officers are on watch by their own controllers, they may arrest a driver for the offer of a bribe and send him/her to court. Such a statistics is very surprising since one would expect businessmen constitute the bulk of those who pay bribes and, under the effective anti-corruption campaign, prosecuted for bribe giving. Apparently, it is not the case. Chair of the non-governmental organization against corruption, Kirill Kabanov, says that the government only catches those corruptioners who are easy to catch. He also believes that more than half of all the court cases against corruptioners are a result of mere provocation. Street level civil servants are a major target for anti-corruption campaigns, not even street level bureaucrats (Kornya, Holmogorova, and Nikol’skij, 2009).

Rose-Ackerman (1978) considers corruption as an “allocative mechanism” for scarce resources. The state monopolizes certain allocative functions, be it permissions and licenses, or access to public services. State officials’ profiteering is based on abuse of their discretionary powers and monopolistic positions. Referring to Klitgaard (1988, p. 23) Gong states that corruption: “than occurs when an agent betrays the principal’s interests in pursuit of his/her own
or when the client corrupts the agent “if he or she (client) perceives that the likely net benefits from doing so outweigh the likely net costs” (Gong, 2002, p. 88) According to the “grease-the-wheels” concept of corruption, it helps overcome bureaucratic obstacles that remain from the previous regime. This may be especially true for Russia during the transition period of 1990s.

There are some methodologies that allow approaching the issue of corruption and measuring it (see, for instance, Bellver and Kaufmann, 2005; Besançon, 2003; Kaufmann and Kraay, 2003; Osipian, 2007a), including legalistic (Kaufmann and Vicente, 2005; Osipian, 2009e; Zimring and Johnson, 2005) and economic ones (Kaufmann et.al., 2000; Rose-Ackerman, 1978, 1999).

Lancaster and Montinola (1997) suggest that studies of corruption should assess rival explanations.

Svensson (2005) notes that it might be true higher wages for bureaucrats reduce corruption, but there is not enough evidence to support it (pp. 32-33). According to the data analysis, presented by Shleifer and Treisman (2003, pp. 27-28), administrative corruption is very high in poor countries of the former Soviet Union, such as Uzbekistan, Armenia, and Azerbaijan, lower in the Russian Federation, Bulgaria, and Lithuania, and even lower in relatively wealthy Hungary and Slovenia. Individuals’ perceptions about corruption put Russia lower than Argentina, Brazil, Romania, or Lithuania. Svensson (2005) notes that “All of the countries with the highest levels of corruption are developing or transition countries. Strikingly, many are governed, or have recently been governed, by socialist governments.” (p. 24) Referring to the works of Lipset (1960), Demsetz (1967), and Glaeser, La Porta, Lopez-de-Silanes and Schleifer (2004), the author points out that higher per capita income and higher level of human capital reduce corruption.
The Ministry of Justice is composing a list of most “corruptible” public offices, first of all those with high discretionary authorities over big funds and projects. These offices will be taken under special control. The Minister of Justice, Aleksandr Konovalov, emphasises transparency and accountability. He also suggests new organizational technologies and electronic decision-making (Savel’eva, 2008). Russian Prime Minister, Vladimir Putin, signed the order About the methodology of conducting an expert examination of the projects of laws and other legal documents with the goal of identifying sections and regulations that have a potential to facilitate corruption (Putin, 2009). Despite governmental efforts, 58 percent of Russians think that it is impossible to annihilate corruption. The major causes of corruption are greediness and low moral standards (44 percent of the respondents) and ineffective government and legislation (34 percent of the respondents). Only 18 percent of Russians see themselves as the cause of corruption due to their low legal culture and legal nihilism (Newsru.com, April 28, 2009).

The Minister of The Interior, Rashid Nurgaliev, uses some very vague estimates, based on surveys and other small scale sociological studies, to report the annual damage from corruption on a scale of 40 billion rubles, or around $1.5 billion. This sum is not that large for a country with the annual GDP of around $2 trillion, as measured in the nominal USD. Over 56 percent of businessmen reported paying bribes to state bureaucrats. According to the representative survey, conducted by the New Russia Barometer in 2007, 86 percent of Russians believe that the police itself are all corrupt from top to down, even though only 5 percent of the respondents acknowledged facing corruption in police (Samofalova, 2008).

The National Anticorruption Committee estimates the total corruption market at $300 billion. 40 to 60 percent of this total consists of kickbacks paid by businesses to public bureaucrats in exchange for governmental contracts and concessions (Newsru.com, March 17,
The numbers are impressive, but the sources and credibility of such estimates are not clear. Russian President Dmitry Medvedev took on corruption seriously: bureaucrats who hide their incomes should be fired immediately (Newsru.com, March 10, 2009). However, Russians are not very interested in their public officials’ incomes, 52 percent of the respondents (Newsru.com, April 14, 2009). People are not interested in the income declarations of particular bureaucrats, but 50 percent approve the idea of their publication. 26 percent think that bureaucrats will be able to get around the reporting of their income while 15 percent consider such measures as a political populism on the side of the government (Nikol’skij, 2009).

Russians are not very eager to report cases of corruption: 15 percent of the respondents did not know who to report, 29 percent would not do this, 22 percent would report to the police, 7 percent – to the local authorities, 7 percent – to nongovernmental organizations, 10 percent would turn to the media, and 11 percent would tell it to the president personally. In an unlikely hypothetical case of the disappearance of corruption, 49 percent of Russians expect to solve their problems easier, while 12 percent expect more difficulties. 29 percent will not expect any changes while 10 percent could not imagine a life without corruption (Mironova, 2009).

Quantitatively, corruption is a black box. No one knows what share of all the corrupt activities are covered in the official statistics. An increase in the number of prosecuted corruptioners may indicate a success in the anti-corruption campaign or an increase of the total number of corruptioners involved in illicit activities. The same is true with the decrease in these numbers. The level of sentenced corruptioners is not a good indicator for any measure of corruption or anti-corruption. Police itself found 25 percent less corrupt officers among its people in 2008, compared to 2007. The Attorney General does not believe that this decline indicates higher
standards of integrity in the police. Rather, it is a result of the less active work of the Internal Security Department (*Newsru.com*, May 5, 2009).

One of the arguments used to support the idea of sharp and significant output decline in the countries of the former Soviet Bloc is that the high level of corruption in transition economies has a negative impact on production and productivity. We will turn to statistical data to test such a statement. The level of business-related corruption in the Commonwealth of Independent States and Central and Eastern Europe in 2002 is presented in Table 1. The percent of managers who consider corruption the major obstacle for the business and entrepreneurial activities is considered an indicator of the negative impact of corruption on production. The data is obtained during the survey conducted in the NIS and CEE in 2003.

Table 1

<table>
<thead>
<tr>
<th>Country</th>
<th>Indicator</th>
<th>Country</th>
<th>Indicator</th>
<th>Country</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>13.5</td>
<td>Azerbaijan</td>
<td>19.5</td>
<td>Belarus</td>
<td>17.9</td>
</tr>
<tr>
<td>Azerbaijan</td>
<td>19.5</td>
<td>Kazakhstan</td>
<td>14.2</td>
<td>Belarus</td>
<td>17.9</td>
</tr>
<tr>
<td>Belarus</td>
<td>17.9</td>
<td>Kyrgyz Republic</td>
<td>31.4</td>
<td>Bulgaria</td>
<td>25.4</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>25.4</td>
<td>Latvia</td>
<td>11.7</td>
<td>Croatia</td>
<td>22.5</td>
</tr>
<tr>
<td>Croatia</td>
<td>22.5</td>
<td>Lithuania</td>
<td>15.6</td>
<td>Czech Republic</td>
<td>12.5</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>12.5</td>
<td>Moldova</td>
<td>40.2</td>
<td>Estonia</td>
<td>5.4</td>
</tr>
<tr>
<td>Estonia</td>
<td>5.4</td>
<td>Poland</td>
<td>27.6</td>
<td>Georgia</td>
<td>35.1</td>
</tr>
<tr>
<td>Georgia</td>
<td>35.1</td>
<td>Romania</td>
<td>34.9</td>
<td>Russia</td>
<td>13.7</td>
</tr>
<tr>
<td>Russia</td>
<td>13.7</td>
<td>Moldova</td>
<td>40.2</td>
<td>Uzbekistan</td>
<td>27.6</td>
</tr>
<tr>
<td>Moldova</td>
<td>40.2</td>
<td>Ukraine</td>
<td>27.8</td>
<td>Georgia</td>
<td>35.1</td>
</tr>
<tr>
<td>Ukraine</td>
<td>27.8</td>
<td>Georgia</td>
<td>35.1</td>
<td>Russia</td>
<td>13.7</td>
</tr>
</tbody>
</table>


* Data for Kyrgyz Republic, Moldova, Poland, Tajikistan, and Uzbekistan are for 2003.

According to the data presented in Table 1, the level of corruption in business and the relationship between business and state in Russia is at the lower end of the scale for the region overall. Moldova is a leader in corruption, while in Estonia, Slovenia, and Hungary the level of
corruption is relatively low as compared to the region’s average. Needless to say, data on corruption are always to a large extent subjective, partial, and biased. Nevertheless, they should be taken into consideration when there is a lack of better sources of information.

The issue of slowing down economic growth due to an increase in corruption is still open. While a positive correlation between the high level of corruption and output decline has been proven theoretically, strong systematic empirical evidence has yet to be shown. Correlation of the GDP per capita growth and estimates of corruption made by the businessmen in the NIS and CEE countries of the former socialist bloc in 2002 is presented as a diagram in Figure 1.

![Figure 1. Correlation of the GDP per capita growth and estimates of corruption made by the businessmen in the NIS and CEE countries of the former Socialist Bloc, 2002.](image-url)

The diagram shows that there is no clear evidence of a positive correlation between the level of corruption and output decline or GDP growth slowdown. In Moldova GDP per capita
growth of 8 percent in 2002 was possible with the level of corruption marked at 40.2. In Slovenia during the same year GDP per capita growth was only 3 percent, with the level of corruption at 6.1. In Russia, GDP per capita growth of around 5 percent in 2002 coexisted with the level of corruption of 13.7, while in Ukraine the same level of GDP per capita growth related to the level of corruption of 27.5 on the offered scale.

**Education corruption in Russia**

Definition of education corruption includes the abuse of authority for material gain (Anechiarico & Jacobs, 1995a, 1995b). Sayed and Bruce (1998) and Waite and Allen (2003) present a broad social approach to define corruption. Petrov and Temple (2004) apply a narrow definition of corruption that regards corruption as such only if it implies illegality. Corruption in higher education may be defined as a system of informal relations established to regulate unsanctioned access to material and nonmaterial assets through abuse of the office of public or corporate trust (Osipian, 2007a, p. 315). Contrary to the common belief, transparency in the area of education corruption in Russia is of a high level and cases of corruption are reported in the media (Osipian, 2007e, 2008f).

Russian secondary and higher education suffers of corruption, as do national educational sectors of other former Soviet republics (Osipian, 2007d, 2008c, 2009i; Round and Rodgers, 2009). The Department of Economic Security of the Ministry of the Interior conducted the annual operation “Education 2008” with the following results: almost 200 university faculty and administrators are charged with embezzlement and bribery. There are 217 criminal investigations launched out of 3.5 thousand crimes registered. Of those 3.5 thousand crimes almost 600 are bribery and almost 900 are embezzlement for a total of $3 million (Nazarets, 2008). Faculty
members are prosecuted and sentenced for bribery, but often they receive terms on parole. They are considered as no threat to the society, since their crimes are non-violent. A faculty member in Perm State Agricultural Academy was sentenced to three years and six month on parole for bribery. He set a price of $100 for the examination and managed to collect $2500 in bribes from 25 students in July of 2008. The court also banned the faculty from teaching for three years (Ivanova, 2009). Two faculty members were arrested for bribery in Oil and Gas University in Tyumen, a large city in Siberia that stands on oil. In first case it was an extortion of only $40 in exchange for a positive examination grade. In the second case it was a sum of $1000 collected from several students (Leonidov, 2009).

In the Russian system of higher education, the corrupt relations in the education sector are quite complex, because the government comes into play as the major financier and regulator of secondary and higher education. The system is highly centralized with both public and private colleges being regulated by the government. This means that a case of embezzlement or misuse of college property by the college administrator constitutes an act of corruption by way of abusing public trust. The public through the government entrusts the college administration with proper management and financial operations. In case of a corrupt faculty, the abuse of public trust occurs not only in terms of assigning a higher grade with no academic merit, but in terms of misusing governmental financing, since half of college students are funded with Russian taxpayers’ money. At this stage, there is no need for the leading role of the government in higher education. There are enough places in universities to accommodate all those who want to receive higher education and to meet the demand of business for qualified workforce. It is assumed that private colleges can provide higher education services more effectively and efficiently. This assumption is based on the generally accepted premise that private enterprises in the market
system operate more effectively and efficiently than do public ones. There is no need to collect and redistribute values through the tax system, governmental budget, and access regulations.

Nevertheless, the government continues to own and regulate public universities and regulate private colleges.

Table 2

Everyday corruption market characteristics in the Russian education sector, 2001 and 2005

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Secondary education</th>
<th>Higher education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2001</td>
<td>2005</td>
</tr>
<tr>
<td>Supply of and demand for corrupt services:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corruption risk (risk to be subjected to corruption)</td>
<td>13.2</td>
<td>41.0</td>
</tr>
<tr>
<td>Corruption demand (readiness to bribe)</td>
<td>76.2</td>
<td>60.8</td>
</tr>
<tr>
<td>Dynamics of everyday corruption markets’ annual volumes:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market size, million USD</td>
<td>70.1</td>
<td>92.4</td>
</tr>
<tr>
<td>Total market share</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Dynamics of the average bribe amount (in rubles) by sector:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>1238.0</td>
<td>2312.0</td>
</tr>
<tr>
<td>Rank*</td>
<td>7.0</td>
<td>8.0</td>
</tr>
<tr>
<td>Change, percent</td>
<td>-</td>
<td>1.6</td>
</tr>
<tr>
<td>Corruption intensity within corruption markets:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>2.2</td>
<td>0.9</td>
</tr>
<tr>
<td>Rank**</td>
<td>1.0</td>
<td>5.0</td>
</tr>
<tr>
<td>Change, percent</td>
<td>-</td>
<td>2.2</td>
</tr>
<tr>
<td>Demand on public services in corrupt markets (percent):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value</td>
<td>6.1</td>
<td>2.9</td>
</tr>
<tr>
<td>Rank***</td>
<td>9.0</td>
<td>12.0</td>
</tr>
<tr>
<td>Change, percent</td>
<td>-</td>
<td>-52.5</td>
</tr>
</tbody>
</table>

School: corruption needed in order to enter the school and to finish successfully, education process
Higher education institution: corruption needed in order to enter college, transfer to another college, pass course examinations, midterms, term papers, theses, etc.
* The rank 1 is assigned to the sector based on the largest average bribe
** The rank 1 is assigned to the market with the most intensified corruption activities
*** The rank 1 is assigned to the segment of the public services market with the highest demand
Table 2 presents data on everyday corruption market characteristics in the Russian education sector in 2001 and 2005. According to the data, the demand on bribes from the side of educators is growing, as does average size of a bribe. According to the survey, conducted by the Center for Public Opinion Research in 2004, diminished accessibility to free education and medical help is pointed out by 23 percent of Russians as the greatest problem, 55 percent consider bureaucracy and corruption among the present political and economic elite as the major contributing factor that prevents Russia from getting out of socio-economic crisis and achieving economic prosperity (Kofanova & Petukhov, 2006, p. 24).

The increasing gap between pay rates in private and public sectors of the economy urges public employees to seek other sources of income (Gorodnichenko and Sabirianova, 2006). Along with the health services industry, higher education in Russia has become one of the industries, most affected by corruption. Surprisingly, 54 percent of Russians believe that harsher punishment for bribery may stop faculty members from accepting or extorting bribes (Agranovich, 2008). A rapid development of higher education, its partial privatization and increasing flow of financial resources have created a base for corruption. University faculty accept bribes and numerous other illicit benefits and utilizing their privileged position and control over the access to higher education.

The higher education sector cannot stay outside the mainstream of development and has to operate in changing socio-economic conditions. Accordingly, corruption becomes part of the education sector, as it is of other sectors of the economy and the government. The hypothetical evolution of corrupt hierarchies in universities points to changing internal structures shaped by external influences of the market and the government (Osipian, 2007b, 2008b). The ruling regime may be interested in corrupt universities as objects of blackmail, coercion, and control.
The nexus of political graft and education corruption that may be observed in the former Soviet republics includes collusion, compliance, and control (Osipian, 2008a). Underpaid educators are more susceptible to corruption. The regime uses educators’ need for illicit benefits to create the “feed from the service” scheme and to control the agenda in universities (Osipian, 2007d, 2009a). The regime might be interested in maintaining corruption in education and preserving its functions of financier and regulator of access.

Corruption in education is more detrimental than typical bureaucratic corruption. Corruption in higher education is detrimental to the society for at least three major reasons. First, it has a negative impact on the economy and society due to lowering the system’s efficiency, as does bureaucratic corruption. Second, as distinct from ordinary bureaucratic corruption, corruption in higher education reduces total social welfare of the society because of its negative effect on the quality of educational programs and qualifications of college graduates. Finally, corruption in education eats away social cohesion, because students learn not only their subject matter, but also pervasive ways and practices of corruption. Corruption in higher education negatively affects access, quality, and equity. Contrary to expectations, development of a substantial private sector in higher education in Russia leads to an increase in corruption. Private universities are as corrupt as their public counterparts, which proves that not only public officials are susceptible to corruption.

There are around two million licensed places for freshmen in around 1500 colleges and universities in Russia, of which there are 80 percent in public colleges and 20 percent in private ones. In addition, there are numerous public community colleges and vocational schools. The projections point out that the number of places in universities in Russia, licensed and accredited by the government is already higher than the number of candidates willing to pursue college
degrees, including distance learning, correspondence programs, re-training, etc. Almost half of all the students in public colleges and universities are funded by the government. The admissions to governmentally funded places are corrupt. Course grades can also be bought from faculty members. Presence of such problems in the nation’s educational system follows from the numerous media reports (Osipian, 2008a, 2008f). Doctoral education is also not free of corruption, and doctoral dissertations and degrees are available for sale (Osipian, 2009f, 2010).

Corruption in admissions to governmentally funded places in public universities and bribery in academic process may be most explicit, but certainly not the only forms of corruption in academia. Forms of corruption, typical for just about any industry, are characteristic of education industry as well. Embezzlement of public funds is committed up the hierarchical ladder, from student dormitory administrators to heads of colleges and universities (Novaya gazeta, May 14, 2009). Facts of embezzlement, fraud, gross waste, misallocation of resources, and other corrupt activities are found in colleges and universities throughout the country.

Bribery, embezzlement, and fraud are not the only dominating forms of corruption in higher education. Logrolling in academia is a typical form of latent corruption. Logrolling, as a form of corruption, may be widespread in Russian universities. A faculty member in the school of journalism can guarantee the admission of a protégé from the school of foreign languages, and faculty member in the school of journalism can admit his/her protégé in exchange. This exchange of favors can be split in time. Placement in a university may be swapped for a job placement. Such an illicit practice in education can be defined as a corrupt education swap. Corrupt education swap is a form of education corruption that may be more prevalent than monetary transactions, and more preferred too, for the safety reasons. Corrupt education swap belongs to the section of latent corruption. It is oftentimes difficult to identify such corrupt swaps
in universities and even if identified, they are still difficult to prove and argue their illegality. In economic sense, however, corrupt education and placement swaps are not less harmful to the economy and society than education corruption where bribes are paid in cash.

**Impact of education corruption on economic growth**

There is no direct evidence for Russia that corruption in higher education has a significant negative impact on the national economy or the rate of growth. According to Klitgaard (1986), elitism and lack of meritocracy in access to higher education and leadership positions in some developing countries lead to a decrease in GNP. New empirical studies are needed to reflect the modern day realities. Only theory and some comparisons on general developmental trends may point to disadvantages that a national economy experiences due to a high level corruption in its educational sector. The discussion presented above offers a prediction of possible negative impact in the long run, when those with relatively low level of human capital will occupy places of more capable individuals. But this may be compensated with the years of working experience.

Corruption is often perceived as a form of rent-seeking behavior. Rent in this case is extracted from the monopolistic position, be it a bureaucratic office or a university professorship. The rent-seeking behavior in the Russian society is perceived as a norm. Public officials, bureaucrats, and public servants attempt to transform their access to material and non-material assets into personal benefits. Educators act in a similar manner. Rectors of public universities rent out public property, including academic and non-academic facilities and land, to businesses in which they often have a share. University faculty sell academic degrees by abusing their monopolized function of evaluation of academic progress and conferring the degrees. Unlike in
anny other societies, the rent-seeking behavior in Russia extends far beyond state bureaucracy, public healthcare and education sectors. Public sector is not the only area of rent extraction by the bureaucrats and civil servants. The entire national economy suffers of heavy dependency on rent extraction from the rich natural resources. With a significant and continuing increase in prices on oil, gas and other resources, Russians consider rent-seeking not only as a form of bureaucratic behavior, by the way the economy works.

The process of massification of higher education is driven by two fundamentals: development of production and social development (Dye, 1966; Lindeen and Willis, 1975; Volkwein and Malik, 1997). The national economy presents demand on the skilled labor, i.e. human capital, produced in universities (Marshall and Tucker, 1992). Russian government represents interests of producers and so its function is to supply skilled labor to businesses by maintaining the system of public education. The economy requires the productive resource “human capital” at the minimum cost. Hence, the task of the government is to maximize the effectiveness and efficiency of public higher education. It may be done on the basis of market reforms, dismantling of the vertical axis of subordination, and balancing university autonomy with its accountability to the government.

Discussions of the nature and function of Russian education point to such priorities as upbringing (Nikandrov, 2007) and development of civic values and patriotism (Gavriliuk and Malenkov, 2004). Value orientations of contemporary youth include friends, health, interesting work, and money (Semenov, 2007). According to the results of the survey of students conducted in four universities in St. Petersburg in 2005, “when it comes to prestige, the leading professions are economist (37 percent) and lawyer (36 percent), with the lowest rankings going to schoolteacher and blue-collar worker (1 percent each). At the same time, when it comes to the
social significance of occupations, the ratings are different, with medical specialist (45 percent) and schoolteacher (36 percent) at the top.” (Semenov, 2008) This points out to a certain differential between the personal and societal orientations on social capital and human capital.

Our suggestion is to introduce more market relations and lessen governmental control in the higher education sector. This new balance can only be achieved through further restructuring, privatization, plurality of forms of property and economic activities. Unfortunately, all of these changes can be made primarily by the government. The government, however, may not be interested in such changes (Osipian, 2008a, 2008e). The leading role of the government in the education reform should be supplemented by the popular support. If explained clearly and without bias to the population, the reform is likely to be supported by the majority of the population. One may suggest more participatory strategies, more public control, more political activism, broader initiatives on transparency and accountability, civil society, participatory decision making in regard of taxes, etc. Taxes should be reduced if higher education becomes for a fee. Such a change in the pattern of redistribution may be appealing to the public.

Little can be done to reduce education corruption in the short run. The measures that target corruption on the functional level, such as transparency and code of conduct, are not enough. Structural changes, organizational changes, and institutional changes are needed to resist corruption in education. These are, however, unlikely to be implemented from the top. Structural and institutional changes can only evolve naturally, based on technological changes and demands of societal production. Organizational changes may be made voluntarily, but only in the short run. In the long run, if proven irrelevant, they will disappear or transform to a mere formality.

Organizational and structural changes are possible as secondary measures to reduce corruption. Each of the faculty members has a monopolistic power over a certain course.
Graduation requires a set of passes and grades on the sequence of courses, taken over five years. Thus, the bureaucratic system that exists in Russian universities can be defined as a sequential model. Certain rules apply for maximization of illicit profits in such systems and certain patterns of behavior among dishonest faculty members may be observed. According to Rose-Ackerman (1978), “The sequential model is identical to the fragmented except that applicants must have the portions of their petition approved in a particular order. No bureaucrat in the sequence, however, ever reviews the choices made by officials who have already acted. These two models, then, best describe procedures in which each functionary behaves like an independent, specialized expert.” (p. 169) The real structure of corrupt relations in academia is much more complex and often involves rigid hierarchical structures (Osipian, 2009d). Rose-Ackerman (1978) addresses the hierarchy as one of the forms of bureaucratic structure, but in Osipian (2009h), hierarchical structures are presented as ones of corruption. Vertical hierarchies, thus, are not one step further, but a different, parallel line of investigation.

Agranovich (2008) reports that in 2008 49 percent of Russians believed that in order to enter a college one has to pay a bribe. According to the data from VCIOM, in 2006 61 percent of Russians believed in the necessity to bribe for the access to higher education. Provost of the New School of Economics, Grigory Kantorovich, says that a certain role in such a decline played the introduction of the standardized test as the major tool for the college admissions process. This test presumably eliminated the direct connection between the professor and the candidate in the admissions process. Kantorovich’s ideas about the elimination of corruption in the admissions process in the New School of Economics stay within the limits of simple technical and procedural innovations. He suggests that two thirds of all the graft is collected not in admissions, but during the studies and graduation (Agranovich, 2008). Entry examinations are taken by well-
prepared students from other universities. Such impersonations are illegal, but there are ways of avoiding prosecution for such misconduct. The standardized test reduced significantly impersonations on entry examinations, but the system of academic Olympiads developed and widened significantly as an alternative to the test now becomes rotten with impersonators. Osipian (2007c, 2009b) reports that the standardized test experiences numerous problems and is unlikely to solve the problem of corruption in higher education even at the entrance stage. Following the universities, secondary schools also become riddled with petty corruption. For instance, in Tomilino, a town near Moscow, a school principal was caught red-handed for bribery. A 65 year old principal extorted $350 from the parent of a prospective student in exchange for enrollment to school (Vesti, February 11, 2009). In appears that the entrance to secondary education also becomes corrupt despite a well-developed universal and compulsory system of secondary education.

Test based admissions are admissions to universities on competitive basis, based on the results of independently administered computer graded examinations or standardized tests. These are anticipated to become a major tool in fighting corruption in admissions. The introduction of standardized tests, even if proven successful in reducing corruption in access to higher education, does not represent fundamental changes. The test-based admissions and vouchers as replacement for the university-based entry examinations and direct governmental funding means preservation of the same system when the government retains the distribution function. Under such a system, corruption is unlikely to decline, even in the long run. In order to remove the government as an intermediary and the distributor, direct governmental funding should be replaced almost entirely with the consumer payments. Income-based inequality should be compensated for with educational loans. Educational loans should come as a combination of governmental and private
bank credits. The reform of education financing alone will not result in the change of the system. The reform should include privatization or at least a long term lease of universities. Privatization of public universities should include privatization of land. This will allow universities to raise funds for investment in university facilities, equipment, libraries, faculty salaries, scholarships for most promising students with low income, and research. While the issue of property rights delineation is fundamental, the tests are crucially important for successful reforms (Osipian, 2008d, p. 101). Decentralized educational systems with a large private sector, such as the one in the US, are also not free of corruption (Osipian, 2009c, 2009g), but they may better fit modern Russia.

Property distribution through vouchers, and auction based sale of public enterprises focused on creation of open joint-stock companies did not bring expected results; property distribution is characterized by high inequalities, not to mention social injustice and the accompanying tensions. The idea of making individuals stock-holders has yet to come to life. Privatization did not work socially, but the development of the stock market may help. The stock market may involve additional resources, currently held by the population, into production. Economic reforms were initiated by the government, but the bureaucrats seek to strengthen their positions and gain more control and more property rights. Accordingly, the two fundamentals that still need further development are democracy and private property.

Education corruption and growth may be linked through human capital, and placing value on human capital under different conditions. Transition from the Soviet to post-Soviet reality touches on the higher education sector. During the Soviet times, the major stake for individuals was gaining higher education. Jobs were available for everyone, and higher education was not a “must” for those seeking placement. There was no unemployment in the country and in fact
people were not allowed to be unemployed. There was criminal persecution of idle people predetermined in the laws. There were some disincentives embedded in the system of education and employment that worked as regulators or stabilizers: low salaries for educated people kept many away from universities and lowered the demand on higher education. State monopoly on all the sectors of the economy led to the fact that wages were set by the government. As a result of low wages for educated professionals, many engineers worked as skilled workers and earned twice as much plus had better benefits, including faster housing and cars. There was no labor market in the country in its classical understanding.

In the post-transition economy, massive renovation of production capacities requires investment in principal capital and human capital that would be able to invent and use new technologies, operate the machines, and manage complex technological processes. It is misleading to assume that since the Soviet times, there was plenty of human capital starting 1970s. But this assumption is still being made as a result of high unemployment, especially among technical cadres, during the 1990s. As a consequence, the major focus now is on the future investment in principal capital. However, human capital can soon become a limited resource, with qualified specialists being in short supply. Market economies are socially complex systems. Socially complex societies are naturally low productive. In order to realize their potential advantage over the more simple planned economies, complex societies need a sufficient quantity of human capital not only of technical, but of social expertise as well. This will include economists, lawyers, managers, accountants, and such.

In micro-perspective, the major stake in contemporary Russia is not higher education, but the job. More and more often, education becomes a necessary formality, such as a diploma to occupy a certain job place, and can be bought. Corruption in higher education allows for
circumventing formal requirements for gaining a degree. This situation may change only in one case: if a growing competition between producers will make the need for higher effectiveness stronger, and employers will start seeking human capital. In the current situation, the existing level of nepotism, cronyism, preferential treatment, and sometimes outright bribery dictate, in part, employment decisions. Such practices result in an undeveloped labor market. In many instances, high level human capital is undervalued and its bearers, i.e. highly skilled and motivated professionals, are underpriced or artificially made low-competitive. Meritocracy and talent suffer, while low professionalism gains way.

Massive education offers plenty of high quality, affordable, and accessible education. But in addition to honest ways, one can obtain diplomas in exchange for bribes. With broader introduction of for tuition programs, when payments for education are made legally, corruption in admissions will inevitably decline. Corruption, however, is not limited to admissions to governmentally funded places, but continues in the academic process through the program of study. One of the real solutions to academic corruption will be further development of the labor market, when knowledge obtained in universities, whether paid for by the government or by tuition, will be valued higher than personal connections, bribes, and other illicit benefits. A weak undeveloped labor market pools back the nation’s otherwise dynamically developing economy.

The process of economic transformation from planned to market economy is characterized by the transition from full employment to unemployment. In the Soviet times, planned economy employed the entire available workforce. The predominantly extensive nature of economic growth explained full employment at that period. In the market economies, full employment is rather a continuing goal to be achieved than a reality. Accordingly, market reforms and a decline in production led to economic restructuring and unemployment.
The illicit ways to receive jobs include nepotism, cronyism, personal connections, and bribes. They are similar to the illicit forms of gaining access to publicly funded higher education. There are two consequences of such realities: a significant portion of human capital is of unclear value; the high quality human capital is often undervalued and not utilized in societal production at full capacity. Distribution of property rights on production capacities, including plants and mines is skewed and concentrated in the hands of few. This is a result of corrupt privatization of public enterprises of 1990s. This is especially important since Ukrainian economy remains industry oriented, rather than predominantly service oriented, and rightly so. We argued earlier that this is a better structure for the national economy. Low competition between the producers means no need for the best and brightest. Unequal distribution of property rights on production capacities eventually results in undervalued human capital.

Even competition between the employers does not place the real value and the accent on human capital. Employers need a diploma holder who can do the job for the lowest possible wage. The diploma is needed as a part of the risk aversion strategy, typical for the job market, or in order to satisfy some formal requirements. The result is that employees cannot do the job properly. They are ineffective. Employers no longer rely on diplomas; in addition to degree certificates, they prefer working experience as a guaranty of qualifications. Preferential treatment in higher education and employment may correlate positively. Those with means to buy places in prestigious public universities are likely to obtain better job placements by the same way of bribing and using kinship and personal connection. At this stage, these are no longer speculations but rather hypotheses that will have to be tested in the future research.

The property rights on the principal capital are in the hands of few. These few are rich enough to profit on the size of the enterprise rather than on its effective organization and high
level of productivity. They do not run for the highest effectiveness and efficiency possible. They accumulate large profits thanks to their size, not to the effectiveness of their work. They can afford lavish lifestyle now. Initial monopolistic structure of the economy inherited from the Soviet times, emphasis on machine building and heavy industry, and poorly designed and implemented de-nationalization and privatization resulted in the high degree of monopolization, oligopolies, and low competition. A weak need for being competitive, as well as the strong tradition of non-economic solutions for economic problems, including through mafia, collusions, and illicit business-government relations, lead to low effectiveness and efficiency.

**Conclusion**

As can be seen from the discussion, high levels of education corruption may harm total factor productivity in the long run, primarily through lowering the level of human capital and slowing down the pace of its accumulation. Ethical standards learned in the process of training in universities can also affect the standards of practice in different professions. The growing level of productivity is not likely to reduce education corruption in the short run, but can eventually lead to implementation of higher ethical standards in the education sector. This may happen through the chain of incentives emerging at every stage of the process of creation and utilization of human capital. To simplify, the growing complexity of technological processes will demand higher amount of human capital, including human capital per capita. This will change the characteristics of the labor force in demand. The labor market will send the signal to the education sector and to the future employees. As a result, both producers of educational services and those investing in their human capital will demand high quality education rather than bribe their way to educational certificates.
It is unlikely that education corruption defines or influences the structure of the Russian economy. Such explicit manifestations of corruption in the higher education sector as diploma mills are presented in the form of distant branches of colleges and universities. Their total revenue is insignificant as are their enrollments and they do not occupy a significant niche in the sector. Changes in the structure of the national economy can reduce corruption in higher education due to the demand on qualified workforce and competitiveness of firms. An increase in competition due to the decreasing concentration of property rights and more even distribution of property rights on principal capital will eventually accentuate human capital over governmentally supported educational certificates. Decentralization and restructuring of the Russian higher education sector diminishes the role of the government. University autonomy may be needed to replace weakening governmental control. Meritocracy and high social prestige of academic profession and university degrees slowly weakens. This indicates the process of erosion of values, common for the transition society overall. Forgeries will eventually be annihilated by their overwhelming number. If the situation will develop in an unregulated, unorganized way, the university degree will become absurdist. Reputation of each degree and degree holder will be based on his/her academic merits and reputation of the granting university. Competitive labor market will place accents on values of academic degrees and human capital.

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