CONFERENCES

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A Review of the Study "Measurement and Analysis of Corruption Using Objective Data" by T. V. Natkhov and L. I. Polischuk

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Abstract

The purchase of "beautiful" car registration plates from state authorities is legal in many developed democracies. However, in Russia this practice is strictly prohibited. Anecdotal evidences suggest that Russians circumvent the law by bribery or blat. Given the ambiguous nature of informal payments to public officials, Natkhov and Polischuk propose a new objective measure of corruption based on the distribution of "beautiful" registration numbers. This article reviews their study and its discussion at the Sociology of Markets seminar at the Higher School of Economics. The authors hypothesize that in the absence of corruption, the "beautiful" registration numbers will be distributed normally regardless of automobile brands. In the presence of corruption, however, the "beautiful" registration numbers will be concentrated across luxury brands. They argue that a higher than usual concentration of "beautiful" registration numbers is an indicator of corruption. To test this hypothesis, they draw upon corruption economics theories and use an innovative dataset that includes car brands and registration numbers issued by the police in the city of Moscow from 2000–2007, as well as a 2014 quantitative survey with citizens (N = 1,552). The economists find that the "beautiful" registration numbers are concentrated across luxury car brands, but are normally distributed across ordinary brands. They conclude that the higher than usual concentration of "cherish" registration numbers among luxury brands is an indicator of higher police corruption. Nevertheless, sociologists suggest that the proposed index is rather an indicator of social status, personal connections or elite consumption preferences.

Keywords: corruption; measurement; police; car registration plates; luxury consumption; Russia.

Timur Natkhov and Leonid Polischuk presented their work "Measurement and Analysis of Corruption Using Objective Data" at the "Sociology of Markets" seminar of the Laboratory for Studies in Economic Sociology at the Higher School of Economics in Moscow on 2 December 2014. Their paper brief outlines and a summary of discussion are below.

Paper Outlines

Introduction

Corruption is most commonly defined as the "misuse or abuse of public office for private gain" [World Bank 1997; United Nations Development Programme 1999]. Corruption weakens the state, is often associated with violence and criminality [Johnston 2005], and endangers (inter)national security [Gerber, Mendelson 2008]. Corrupt practices hinder economic development. Corruption has an adverse effect on investment and growth [Keefer, Knack 1995; Mauro 1995], on inequality and poverty [Gupta, Davoodi, Alonso-Terme 1998], and on the allocation of public spending on education, health and public infrastructure [Tanzi, Davoodi 1997].

An awareness of the dramatic effects which corruption has on socioeconomic development has motivated theoretical and empirical investigations into how to measure it better. However, conceptualizing and quantifying corruption has proven to be a difficult task. First, it is hard to isolate corrupt behavior in the data [Duggan, Levitt 2000]. Second, corrupt transactions are illegal, hidden, publicly condemned and therefore are not directly observable. Participants, victims or witnesses of corrupt practices are typically unwilling to provide accurate information [Ivković 2005]. Third, corrupt acts vary in their manifestation, frequency, magnitude and the nature of the social relations between participants, rendering their measurement across countries or social groups a challenging task. Fourth, legal definitions of corruption greatly vary from country to country, some do not even have one [Ivković 2005].

These difficulties have prompted economists to measure subjective indicators such as perception, propensity, attitude, culture or tolerance of corruption. However, subjective measures suffer from considerable inefficiencies. Corruption perception indices often do not control for the frequency of interaction with public officials, may be politically biased or could reflect certain societal stereotypes rather than the actual situation [Oldenburg 1987]. Only a few scholars have attempted to estimate actual levels of corruption. Duggan and Levitt detected corruption in Sumo wrestling by investigating the distribution of matches [Duggan, Levitt 2000]. Moul and Nye found collusion in Soviet championship chess [Moul, Nye 2009]. Golden and Picci proposed an alternative objective measure of corruption consisting of the difference between a measure of the physical quantities of public infrastructure and the cumulative price government pays for public capital stocks [Golden, Picci 2005]. Rose-Ackerman proposed a measure based on over-priced infrastructure materials [Rose-Ackerman 1999]. Olken proposed a measure comparing administrative data on the amount of rice distributed with survey data on the amount actually received by households in Indonesia [Olken 2006]. In 2014, Dr. Timur Natkhov and Prof. Leonid Polischuk, professors at the Faculty of Economics at the Higher School of Economics in Moscow, proposed a new objective measure of corruption based on the distribution of "beautiful" numbers on registration plates among different car brands [Natkhov, Polischuk 2014].

Theory

In many developed democracies, it is completely legal to acquire "beautiful" car registration plates through additional payments. However, according to Russian law, the acquisition of registration plates for additional payments to public servants is strictly prohibited. In Russia, only the Traffic Police have the authority to issue registration plates. Russian drivers, just like their western counterparts, prefer certain combinations of numbers over others. Such preferred combinations include: repeated three-digit numbers, or three-digit numbers in the form of *X00*, or *00X*. The possession of such a registration plate is considered a status symbol and the probability of obtaining it through legal means is extremely low. These circumstances create considerable temptation and opportunities for corruption. Anecdotal evidence suggests that Russian drivers bypass the regulations by bribing public officials or using personal connections. Thus, public officials sell "beautiful" registration plates

only to those individuals who are wealthy enough to afford them. The authors hypothesize that in the absence of corruption; "beautiful" registration numbers will be distributed normally across all automobile brands. By contrast, in the presence of corrupt activities, we should observe a statistically significant higher than usual concentration of such registration numbers among luxury brands. The researchers claim that such a "higher-than-usual" concentration of "beautiful" number plates could be considered an indicator of corruption. That is, the greater the amount of "beautiful" registration numbers issued by a police unit, the more corrupt that unit is. Since the registration plates include information on the region in which the number was issued, the authors estimate corruption levels across all Russian regions.

Quantitative Survey

In order to obtain a clearer picture of the process of acquiring "beautiful" registration plates, the scholars conducted an online survey from 29 April to 27 June 2014 with 1,552 respondents. Ninety percent of respondents said that they own a car, 42 percent admitted that they possess special registration plates, and 71 percent said that they personally know others who had purchased "cherish" numbers. More than half of respondents claimed that people buy their "beautiful" numbers so as to appear more valuable in the eyes of others. About 20 percent of respondents bought the "beautiful" plate for aesthetic reasons. More than 60 percent of interviewees claimed to have acquired their "beautiful" registration plate directly from the Traffic Police. About 20 percent bought it in the private sector, the rest turned to middlemen. In most cases, people find middlemen through personal ties; they facilitate trade between clients and Traffic Police representatives. The market price for a single "beautiful" registration plate greatly varies, but in most regions is more than 100,000 RUR ($ 1,872.4 or € 1,503.9), considerably higher than the Muscovite average monthly salary in 2014.

Data, Method and Analysis

The authors retrieved data consisting of car brands and state issued registration numbers in the city of Moscow from 2000–2007. The sample comprises four million cars. Economists filtered the data for numbers following these patterns: *XXX, OOX, XOO, XOX*, as well as for numbers indicating the regional code. They found remarkable peaks of "beautiful" registration numbers in the distribution of luxury car brands. By contrast, elite numbers were normally distributed across ordinary car brands, suggesting an absence of corrupt activities. The authors found that the difference in distribution of "beautiful" registration numbers across the luxury and ordinary car brand samples is statistically significant and not due to a random error.

Conclusion

The authors conclude that the higher than usual concentration of "beautiful" registration numbers among luxury car brands may be associated with greater levels of police corruption. A further step with the analysis is to correlate the index of "beautiful" registration numbers with existing corruption perception indices at regional level, and with police performance indicators and traffic fatalities, so as to examine its effectiveness in measuring corruption.

Summary of Discussion

The paper provoked heated discussion. Dr. Elena Berdysheva argued that the proposed indicator is not necessarily related to corrupt activities since a "beautiful" registration plate could be obtained through legal means or by chance. She stressed that the indicator is rather related to the perception of social status. Mr. Alexey Spirin pointed out that a "beautiful" registration plate could also be a combination of letters or words. He underlined the need to investigate additional symbol combinations. Prof. Denis Strebkov found issues in the study and questioned the methodology of corruption measurement. Prof. Andrey Shevchuk pointed out

that the index could be used as a measure of consumer preferences toward special kinds of luxury goods and services. Prof. Olga Kuzina argued that the proposed indicator does not necessary measure corruption; she explained that it rather measures the attitudes of the Russian elite. She suggested that the Russian elite are probably using "beautiful" registration plates as a signaling mechanism to establish status in social hierarchies. She could not imagine how Western Europeans could measure corruption using such an indicator. Dr. Zoya Kotelnikova stressed that the proposed index is not just a measure of social status, but also a measure of the quantity and quality of connections with law enforcers that could be exploited in order to "get things done." Ms. Elena Konobeeva recommended that the authors describe in greater detail the network organization through which the corrupt scheme of selling "beautiful" registration plates is organized. Mr. Ivan Aymaliev argued that the proposed corruption measure involves no considerable form of theft, extortion, or betrayal of public trust as defined in the theoretical models of Gambetta and Varese [Gambetta 2000; Varese 2000]. The practice is rather a form of collusive corruption where both the buyer and seller of the corrupt service enjoy a net benefit. The practice could rather be classified as a network corruption, where as Scott argues, "people honor obligations to others they know, in ways that are considered illegal" [Scott 1972; Granovetter 2007: 162]. Aymaliev mentioned that the case study reveals an interesting paradox. Corrupt and/or illegal activities are supposed to remain secret. Nevertheless, certain Russian elites show off with unusual registration plates, despite the possibility that they may appear corrupt in the eyes of ordinary people. Thus, they create a new rule of order and culture, a kind of fashion of corruption and impunity, signaling to others that they are above the law. Such opportunistic behavior could have adverse consequences as it creates the perception that democracy can be bought.

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