

Interregional trust in Russia: a large-scale online experiment
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Trust is an important factor of economic performance. Abundant empirical evidence shows that higher trust and cooperation are directly related to economic growth and GDP per capita in developed countries (Knack & Keefer 1997), as well as efficient judicial systems, better quality governance, and lower transaction costs. Traditional measures of trust, such as survey questions like in The World Value Survey questionnaire (www.worldvaluesurvey.org) show that in 2017-2020, about 27% on average over the globe (77 countries, N=125.098) believe that most people can be trusted, and 73% believe one cannot be too cautious when dealing with people.

The share of trusting people in Russia, the largest country in the world, amounts to 22% (2018), showing that trust in Russia is rather low compared to other countries (see also Algan & Cahuc, 2013; Natkhov, 2018, see also Kalyuzhnova 2012 on mistrust). This indicator is important because for a country as large as Russia, people of the same nation may be separated by several thousand kilometers. Is the level of trust homogeneous at that distance, revealing common cultural values, beliefs and preferences? Will people from different regions have the same trusting preferences in within-region and more interestingly, cross-regional comparisons? And what are the drivers of cross-regional similarities and differences: beliefs, socioeconomic background, education and other specific characteristics of people from particular area of the country?

We address these questions using experimental method: the Trust (or Investment) game (Berg et al., 1995) played in real time using strategy method by over 2,000 participants from 12 cities in Russia, representing all regions of the country. These cities were: Arkhangelsk (Arkhangelsk region, European north), Ekaterinburg (Sverdlovsk region, Urals), Kazan (Republic of Tatarstan, Volga region), Khabarovsk (Khabarovsk Krai, Far East), Makhachkala (Republic of Dagestan, Caucasus), Moscow city, Novosibirsk (Novosibirsk region, Siberia), Perm (Perm Krai, Urals), Rostov-on-Don (Rostov region, European South), Saint Petersburg city, Vladivostok (Primorsky Krai, Far East), and Voronezh (Voronezh region, Central Russia).

In our version of the trust game, a sender and a responder are given a monetary endowment of 10 tokens by the experimenter, the exchange rate being 10 token = 1US\$. The sender makes a binary decision: either transfer the total endowment to the responder or keep it. Transferred endowment is tripled by the experimenter, and the responder decides what share of the 30 tokens will he or she send back to the sender, keeping the rest plus own 10 tokens endowment in his or her own possession. We use the strategy method (Selten 1967; Chmura et al., 2016): each player in the trust game has to make a transfer/return decision and has to state a belief for every possible city interaction before knowing the actual matching with regard to cities, while actually playing with only one player of the 12 possible cities (including one's own). This allowed us to obtain cross-regional comparisons of behavior and beliefs covering all

Russia, as well as solve the (unique to the country) problem of a rather large number of time zones.
Procedural description

The experiment was ran in July and October of 2020 over using the Russian online crowdsourcing platform Yandex.Toloka (<http://toloka.yandex.ru>), for recruiting participants and to manage the payments to them. The experiment itself was programmed in oTree (Chen et al., 2013) and connected to Yandex.Toloka service, so that registered Toloka participants can directly go to the oTree-app to participate in the experiment.

The study was pre-registered and was approved by the German Association for Experimental Economic Research (Certificate No. 4wAmRFb8).

2,078 subjects (Senders/Trustors: 1,059; Responders/Trustees: 1,019) took part in our experiment. In addition to decisions, we collected beliefs of each participant in each of the 12 cities about each of the 12 cities including the own subject pool, and a large set of non-incentivized questions on expectations

about average decisions in all cities, social characteristics, religious denomination, cultural background, knowledge about the Russian regions in the experiment, trust, risk and political preferences, and many others.

On aggregate, average trust (percentage of endowment transferred) and trustworthiness (percentage of received transfer returned) over all cities amount to 59% and 44% respectively. This is somewhat higher than the average of 50% and 37%, respectively, reported by Johnson and Mislin (2011) in meta-analyses of more than 21,000 participants. They are also much higher than the previously reported data from the World Value Survey. In addition to that, we find clear interregional differences in the fraction of participants who are trusting or are rewarding trust. For example, the trust level in Arkhangelsk amounts to only 50%, meaning that only 50% of the senders transfer their endowment to the responders, which is the lowest percentage in our city sample. The highest percentage is found in Makhachkala (67%) – and this difference is significant. The least trustworthy participants are those from Rostov-on-Don with an average return of 39%, while responders from Vladivostok return 49% of the tripled amount transferred by the senders on average. We also find that trust and trustworthiness within the 12 Russian cities are positively correlated ($R^2 = 0.07$) suggesting general and coherent differences in this important element of social capital, clustered for central cities of Russia, and dispersed for the peripheral regions.

Further, we observe a significant in-city bias (Goerg et al., 2016): trust and trustworthiness towards own city is systematically larger than towards aliens, still with interregional differences between the cities pronounced in both directions. For example, Makhachkala participants are rather trusting (67%) but are trusted by a much lower percentage of Russian participants (43%) while this relation is reversed for, e.g., Khabarovsk. 61% of senders from all 12 cities display trust, but only 51% of participants from Khabarovsk are trusting. Analyzing our data further will shed light on the reasons behind these differences.

Our data set will enable us to identify and better understand the channels through which trust and trustworthiness operate across Russian regions, connecting it to beliefs about partner's decisions, information about the other region, general (mis)trust, institutional indicators and many more channels.

Literature

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