

Project Proposal
Efficiency of judges in deciding on antitrust case's

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Abstract

Many antitrust cases in Russia continue to be a challenge for the assessment of competition policy. The question is that the impact of several antitrust decisions is rather questionable because of poor legal and economic proceeding. In fact, one of the key factors of the antitrust enforcement quality is the way of decision making by the judges in antitrust cases.

This paper investigates the factors, affecting final antitrust cases results. Using a unique dataset of the appeals of infringement decisions from 2008-2015 this paper empirically examines the determinants influencing the final court decision of antitrust investigations against Russian companies.

The study revealed that the Russian judicial system, traditionally referring to institutionally transitional countries, has a number of features. It is important to take into account not only the generally accepted beliefs about the lack of economic knowledge or independence of judges in relation to state bodies, but the fact that the results observed can also be explained by the peculiarities of transitional justice, including continuous improvement of competition law. Also, we need to emphasize the special importance of judges' specialization in the practice of dealing with antitrust law violation cases from the point of their specifics, which requires a comprehensive economic expert assessment, while thinking about improvement of the quality of the institutional environment for the legal regulation of antitrust policy.

Key words: competition policy, judges, antitrust law, commercial courts, transition, independence of judiciary

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...there is indeed a problem with the application of antitrust law to the new economy, but that it is not a doctrinal problem; antitrust doctrine is supple enough, and its commitment to economic rationality strong enough, to take in stride the competitive issues presented by the new economy. The real problem lies on the institutional side: the enforcement agencies and the courts do not have adequate technical resources, and do not move fast enough, to cope effectively with a very complex business sector that changes very rapidly.

(Posner, 2000)

I. Introduction

Competition policy is one of the major issues of the world economy, which has become the most significant ones in terms of modern trends of liberalization and globalization. Efficient antitrust regulation is one of the most significant factors of the national economic system, ensuring development through the creation of a strong competitive environment. Current Russian antitrust legislation has been under some changes, including the adoption of four “antitrust packages”, specifying methodology of antitrust investigation. That has strongly affected the national economy and competition.

Interpretation and application of antitrust legislation by the judicial system determines the way of further legal acts application, creating a stable framework of national economic policy. The judicial system has a significant impact on competition policy as a result of interaction between the judicial system and competition policy enforcement.

Decision-making of judges became important research questions in legal studies. They systematically show that decision of judges in a particular case depends on many factors outside the scope of legal rules, including career considerations, political orientation, sex or individual characteristics of the parties in litigation. All these results explain the nature of enforcement in particular area of law.

This issue is of special importance for transition economies just experienced transplantations (Berkowitz D., Pistor K., & Richard J.F., 2003) of the laws that support market economy. There is relatively widespread belief that the absence of independent justice makes rule of law in transition economy impossible.

Among different explanations of the antitrust enforcement development in Russia, there is a standard reference to several problems, such as lack of experience of competition law enforcement by competition agencies, the judges’ lack of specific knowledge in economic analysis that may cause a misuse of antitrust legislation.

The goal of this paper is to reveal the determinants of the quality of decisions of Russian judges in commercial courts on the claims to annul administrative infringement decisions (on the example of decisions on antitrust violation). Russian experience provides valuable evidence for different reasons. First, Russia recently survived radical changes in legal rules, including rules on the litigations between administrative authorities and companies and citizens; affected by their decisions. Second, number of claims against administrative authorities is steadily growing (Trochev, 2012). Third, in Russia, as well as in Europe,

competition authority investigates alleged violations of antitrust law and at the same time makes decisions on violation. Commercial courts, which are specialized on the resolving of disputes between legal persons and between legal persons and executive authorities, only consider the appeals on the decisions of the latter. Determinants of the decisions on that type of claims allow assessing the magnitude of bias towards authorities in Russia (if it exists). Last but not least, easy access for judiciary in Russia allows collecting large dataset on the decision of judges.

This research contributes to the existing methodology pertaining to the measurement of the national competition policy implementation, offering insight into the mechanism of antitrust and antitrust law implementation in the post-socialist countries with developing institutional environment while analyzing the determinants of judges' decision-making process. The analysis conducted in this paper is actually an important extension of the lack of data on Russia examining the unique hand-collected dataset on commercial claims in Russian commercial courts.

The paper is organized in the following way. Next section is devoted to the review of literature that supports empirical hypotheses tested below. Section 3 explains empirical methodology. Section 4 contains descriptive analysis of the data. Section 5 explains results of empirical hypotheses testing. Section 6 concludes.

2. Literature Review

The implementation of the antitrust policy is the result of the interaction of several agents - the executive authority, who makes a decision on violation and implements the competition policy; the response of the accused party - the business entity and the system of commercial courts, which makes the final decision and actually implements the antitrust policy on practice. That is why understanding the process of decision-making by judges is of particular importance in the context of exploring the factors that determine the outcome of the trial, and what will become the core of further empirical research.

The extant literature has proposed several mechanisms to the question of the antitrust enforcement process in the contest of the quality of judicial decisions. The main lesson that can be extracted from the article (Avdasheva S., Tsytsulina D., Golovanova S., Sidorova E., 2015) is that that Russian antitrust regulation contains a number of issues related to the efficiency of the decision-making, including the determination of economic harm as a key characteristic, emphasizing the necessity of the precise court case consideration in accordance with the specifics of economic industries.

There is a large volume of published studies describing different approaches based on case-level evidence. Numerous attempts have been made to give a plausible reason for the assessment of the use of economic analysis in court decisions. It is investigated whether a

number of economic components are more likely to influence the court decision. This depends on the particular court system. In advanced systems courts are mostly specialized in using economic analysis for appropriate cases. The tendency of including economics in antitrust analysis was unexpected (Kaplow, 1987). According to (Posner R. , 2000) there is an increasing demand for economic evidence. This factor is necessary for outlining the effects of competition on business practice. (Geradin D., Petit N., 2010) expand the field of research by providing the measurement of decision-making by qualitative and quantitative analysis. The research is organized in a way to allow the reader to find that the standard of review to General Court Commission has been applied and it includes several issues of complex economic appraisals. According to empirical assessment there are mostly merger control decisions despite the abuse of dominant cases hold by GS. The qualitative analysis provides evidence on the fact of following an “effect-based approach” in abuse of dominant cases under consideration of the GC. However, the antitrust regulator has used conservative treatment without considering economic effects for abuse of dominant cases.

The second approach we exploit from the literature is the assessment of the quality enforcement in order to make the analysis of the decisions appeals’ incentives. In some of the literature it is investigated that there is a considerable influence of decision-making on its outcomes. Several key issues of this approach are addressed in the paper by (Baye, M.R., Wright, J.D., 2011) investigating the effects of economic complexity or generalist judges’ economic training on judicial decision-making. The research is based on the collected data on antitrust litigation both in federal and administrative courts from 1996-2006, where authors examine the influence of economic complexity on antitrust decisions. The researchers assume the decision to be “complex” in case it includes one or more indicators such as econometrics, expert report, economic analysis etc. Two measures of the initial court’s decisions and a reversal are used by the authors when considering the appellate court. The research provides significant findings as the fact that 10% of them are more frequently appealed in complex cases, and the decisions containing basic economic analysis are less likely to be appealed.

Other researches analyze the impact of several individual characteristics on the appeals’ incentives and the rate of successful appellate proceedings. We use the insights of (Hüschelrath, K., Smuda, F. , 2014) research to assist in this task. The data convicted by European Commission from 467 firms participated in 88 cartels during the period 2000 – 2012 was used.

First, the authors determine that company’s financial conditions influence the probability to appeal. This caused by the fact, that financial troubles are more likely to file an appeal¹. Also the researchers estimate the impact of a firm’s size and get rather controversial results. The relation is the following: larger companies have less incentives of appealing a cartel decision made by the European Commission. (Carree, M., Günster, A., & Schinkel, M. P., 2010) have provided ample evidence that there are several determinants of appealing EC decisions and firm levels using a similar dataset, such as the level of fine, the decision length and the

¹ Companies that have financial difficulties are more likely to obtain a fine reduction (Geradin, D., & Henry, D., 2005)

number of parties to which the decision is addressed. According to (Harding, C., & Gibbs, A., 2005), estimating their research on the data from European appellate courts from 1995 to 2004, there are two groups of arguments for appeal, including insufficient evidence to establish the alleged activities and existing defects in handling the case.

Analysis of the successful appellants' cases (Hüschelrath, K., Smuda, F. , 2014) find factors leading to the largest fine reductions are 'substantive reasons' and 'errors in the calculation of the basic amount of the fine'. The authors conclude that the probability of success increases with the size of fine imposed. The effect of encouraging an appeal by the repeat offenders is caused by the expectations of larger fine reduction in case of success. This view is best illustrated by (Carree, M., Günster, A., & Schinkel, M. P., 2010). The authors make an empirical analysis of all Commission decisions under Articles 81, 82, and 86 of the European Community Treaty between 1957 and 2004. This approach provides evidence that the important factors for the likelihood of filing an appeal are the number of accepted complaints, the number of judges and the lengths of the final court decision. In our research, we use a similar approach and combine both qualitative and quantitative analysis of antitrust enforcement.

Despite the significant variety of research questions analyzed, we remain aware of no evidence for the key factors influencing the quality of the Russian antitrust enforcement in the context of final court decisions. However, it is especially important to the antitrust enforcement that the authority uses the key element of economic analysis while analyzing any specific industry. The analysis conducted in this paper is an important extension of the prior literature.

3. Empirical approach

In this section, we consider an empirically strategy for further research. The following analysis is aimed at testing the basic hypothesis about the impact of the judicial system on the application of antitrust policy and identifying the factors that determine the outcome of the trial.

The key assumption for our analysis is the fact of random distribution of cases among judges. In Russian commercial courts, claims for cancellation of antitrust bodies' decisions are generally considered by a specialized group of judges (however, as discussed earlier, the opportunities for specialization of judges are limited by the size of regional units). The distribution of cases among judges of this group is carried out in an absolutely random manner. The president of the court can redistribute a particular case by means of a special procedure, but this happens very rarely. This leads us to the assumption that there is no correlation between the parameters of a particular trial and the individual characteristics of the judge considering the case.

For discrete dependent variables, we estimate the Probit model of the following type (1-5):

$$Y^* = X'\beta + \varepsilon + r_j + m_k + t_d \quad (1)$$

$$Y = \begin{cases} 1, & \text{если } Y^* > 0 \\ 0, & \text{если } Y^* \leq 0 \end{cases} \quad (2)$$

$$P(Y = 1|X) = P(Y^* > 0|X) = F(X'\beta) \quad (3)$$

$$X'\beta = \beta_0 + \sum_{i=1}^{i=4} \beta_i \cdot x_i \quad (4)$$

$$P(Y = 1|X) = \int_{-\infty}^{X'\beta} \varphi(t)dt = \Phi(X'\beta) \quad (5)$$

The basic model assumes that the standard error has zero expectation and the standard normal distribution with unit variance (6):

$$\varepsilon \sim N(0,1) \quad (6)$$

where (1) Y^* - latent variable, (2) Y - dependent variable, F - cumulative normal distribution function, $P(Y = 1|X)$ denotes the probability of an event described by a dependent binary variable (3) and X' - a vector of explanatory variables that determine the court decision, including the parameters of the decision, the disputed sanctions, the characteristics of the judge and other parties to the proceedings (4), r_j - fixed effects of the regional characteristics for 82 regional commercial courts of Russia, m_k - fixed effects of industries of accused companies, t_d - fixed effects of time period characteristics (1).

Controlling the stability of the model is based on comparing the results of estimating the Probit model estimated by the maximum likelihood with the estimate of a linear model obtained by the ordinary least squares method in accordance with various types of model specifications that are due to the solution of the potential multicollinearity problem controlled by different types of correlation of variables.

In the framework of this study, models for assessing the quality of court decisions of commercial courts of first instance are considered, where controlled binary variables Y determine the probability of making a legal error in the decisions of the courts of first instance.

The threat of identification and effectiveness of the empirical strategy of this research is that the judge's performance may depend on the unobservable parameters determining the limitation of expert, professional or temporary resources that may be correlated with the first-instance court's decisions of conviction. For example, the duration of the case consideration, which affects both the decision of the court of first instance and the likelihood of making legal mistakes and making a decision by the judge, may be due to the high workload of the judge himself (the number of cases per judge in a certain period) and the insufficient degree of specialization of the regional unit of commercial court, or as a consequence of other

unobserved processes of the regional units. Ignoring the potential endogeneity problem can lead to a misleading meaningful interpretation and a decrease in the practical importance of the model being evaluated to make recommendations based on it. In order to solve this problem, we transform the basic Probit model (I) - (6) into a Probit model with the instrumented variable of the duration of the case consideration in the commercial court of first instance.

In general, the transformed model is:

$$y_{1i}^* = y_{2i}\beta + x_{1i}\gamma + u_i \quad (7)$$

$$y_{2i} = x_{1i}\Pi_1 + x_{2i}\Pi_2 + v_i \quad (8)$$

where $i = 1, \dots, N$, y_{2i} – vector of endogenous variables of dimension $1 \times p$, x_{1i} – vector of exogenous variables of dimension $1 \times k_1$, x_{2i} – vector of additional tools and the equation for the vector (8) written in the short form. Assumptions are that $(u_i, v_i) \sim N(0, \Sigma)$, where σ_{11} normalized to unity for correct model identification, β and γ – vectors of structural parameters and Π_1, Π_2 – matrices of parameters written in short form. This model has a recursive character: y_{2i} is a variable in the equation for the latent variable y_{1i}^* , but y_{1i}^* is not a variable in the equation for y_{2i} . We do not observe y_{1i}^* , however, we observe:

$$y_{1i} = \begin{cases} 1, & \text{если } y_{1i}^* > 0 \\ 0, & \text{если } y_{1i}^* \leq 0 \end{cases} \quad (9)$$

The order condition for the structural parameters – $k_2 \geq p$. Another assumption is that Σ is not a block diagonal matrix (u_i, v_i) , in other case y_{2i} will be endogenous (Newey, 1987).

With reference to the objectives of this study, the basic model is as follows.

At the first step, an econometric estimation of the factors determining the dependent variable of duration of the case consideration in the commercial court of first instance by the OLS method is realized:

$$\begin{aligned} & \text{first stage:} \\ & y_d = X'\mu + K'\alpha + v + r_j + m_k + t_d \quad (10) \end{aligned}$$

where y_d – duration of the case consideration by the commercial court of the first instance, $K'\alpha$ – individual and professional characteristics of the judge, determining judge's performance, $X'\mu$ – a set of parameters in accordance with the theoretical assumptions of the model.

At the second step, the probability of annulment by a first-instance court is estimated on the basis of the Probit model:

second stage:

$$y_1 = X'\beta + \widehat{y}_d\eta + u + r_j + m_k + t_d \quad (11)$$

where y_1 – dependent variable.

In accordance with this transformation, the results of the evaluated model become more logically justified due to the solution of the endogeneity problem, since now the actual duration of the case consideration is determined by the professional and individual characteristics of the judge, which subsequently also determines the outcome of the trial.

4. Description of data and empirical hypotheses

Further empirical analysis is based on a unique database consisting of the decisions of the commercial courts of the Russian Federation of the first instance (regional commercial courts) on the claims to annul the infringement decisions of the Federal Antitrust Service made under articles 10 and 11 of the law 'On protection of competition'. These articles cover abuses of dominance (art. 10) and agreements and concerted practice (art. 11), which are targets of antitrust enforcement. The sample obtained in this paper is hand-collected and carefully compiled.

Data management and analysis was performed using the Supreme Commercial Court of the Russian Federation's (Card file commercial cases) bank of cases. The empirical part of the research is concerned with structural analysis of antitrust cases from 2008 to 2015.

The key parameter for our empirical analysis is the restriction of sample of cases to cases of the *proper antitrust* type, namely antitrust cases, for which much more time and professional resources are needed in order to provide efficient process of investigation and analysis. Since cases that are *non proper antitrust*, require significantly less resources and increase KPI indicators, government officials have incentives to consider more such investigations together with existing *proper antitrust* cases in order to compensate for the negative impact of the latter on performance indicators. In turn, a large number of cases considered in itself limits the resources of qualitative economic analysis in each specific case (Avdasheva, S., Golovanova, S., & Korneeva, D. , 2016). As a result, *proper antitrust* investigations involve more resources required to conduct a qualitative analysis of certain accused practice of antitrust behavior, which makes such cases as an extremely effective variable of the complexity of the case and generates a better sample of data for the purposes of current analysis.

As a result, the database consisted of 1133 cases of the Russian antitrust is coded and described according to several characteristics. Those cases of antitrust violations refer to different types of markets. The characteristics take into account the features that probably reflect the dynamics of antitrust efficiency and the development of antitrust law implementation with respect to Russian companies over the period. Further analysis is based on the cross-section data.

All the characteristics of the database can be divided into 7 groups:

General information about the antitrust case. This section includes the unique identification number of the case, link on the electronic card on the web-site of the Supreme Commercial Court and the period of the case consideration.

Antitrust violation description. The information about the type of antitrust law violation according to the Federal Law N135-FZ: article 10: (1) abuse of dominance, article 10: (2) concerted practice (tacit collusion), article 11.

Characteristics of the decision appealed contains parameters, illustrating the formal points of antitrust authority's decision: behavioral remedies, monetary penalties and its size.

Characteristics of the market. This group includes a code of industry of the accused company, a code of the regional subdivision of the commercial court, the description of the market development from the economics point (investment potential). This part also identifies if the company belongs to the natural monopoly, and if the federal or local market is affected as a result of antitrust law violation.

Opportunity costs of the arbitrage court and antitrust authority describe the level of productivity and workload of the government structures implementing the antitrust policy. This information is based on the data from official web-sites of the government authorities.

Characteristics of the court decision reflects the final decision as a result of the judicial process in the court of the first instance (satisfy/ do not satisfy the claim), as well as further actions of the parties (appeal, reverse by the court of the higher instance).

The most significant part is *Standards of evidence*, which includes the important data for further analysis. It contains a large volume of information available from the texts of the court decisions: existence of experts' opinion, as well as personal characteristics of the judge and parameters of parties' experience of participation in antitrust court proceedings.

We are aware of some limitations of our analysis. First, random assignment is a key critical assumption in our analysis. In Russian commercial courts specialized group of the court consider claims to annul infringement decisions of administrative authorities. Allocation of cases across judges within this group is absolutely random. Head of the court can re-allocate the particular case by special procedure, but this occurs very rarely. That leads to the fact that we can follow the assumption that there is no correlation between characteristics of the particular case and individual characteristics of the particular judge.

Additionally, we could be subject to the bias, stemming from the specifics of the sample. Our dataset covers apparently all the decisions made by commercial courts in the Russian Federation on the claims to annul infringement decisions made by FAS. Compared with all the court decisions and the decisions of competition authorities, there is a systemic bias in the sample of cases collected from commercial court decisions. First, this bias favors infringement decisions. Second, the sample is skewed in favor of cases where a party whose infringement is found considers the decision imperfect, and an appeal is potentially successful. In this respect, the average case in our sample may represent a lower quality than the average FAS decision because it increases the chances that the infringer will appeal the decision. However, we can expect that the second type of bias will not be extremely high in

magnitude. Because of the extremely low cost of appeal, the trial cost indemnification rule and the relatively high rate of successful appeals of the decisions of antitrust authorities, it is reasonable that most decisions are appealed. Because most decisions are appealed, the coverage of our dataset exceeds one-third of all the infringement decisions and half of the infringement decisions concerning agreements (horizontal and vertical) and concerted practice.

The underlying evidence posits that characteristics of settled cases differ from litigated cases, affecting the extent of the divergence of disputing parties' expectations about court verdict and finally influences parties' incentives to appeal the case (Priest, Klein, 1984). Most of the cases in the law system are resolved before the judicial process, however, analyzing the results of judicial decisions, as it was mentioned, provides the significant contribution to the prior studies, illustrating the mechanism of the court proceedings regarding antitrust cases. In fact, the defendant company makes an appeal when the expected benefit from this judicial process exceeds the party's costs, what can be described by the given formula (I2-I4).

$$\text{Appealation} = \begin{cases} \text{yes, if } E[B] > E[C] \\ \text{no, if } E[B] \leq E[C] \end{cases}, \text{ where} \quad (I2)$$

$$E[B] = p \cdot V, \text{ where} \quad (I3)$$

$$V = F + M \quad (I4)$$

$E[B]$ – expected benefit from winning the case,

$E[C]$ – expected costs from making the appeal,

p – probability of winning the case,

V – value of the win for the defendant,

F – the amount of fine, which is not paid,

M – money equivalent for encumbrance in the form of prescription

Using the infringement decisions of Russian competition authority as basic unit of observation, we attribute to the observations a number of quantitative characteristics. The first reflects whether the commercial court of the first instance annulled the FAS decision or not. The final result of the case consideration in the court is the dependent variable in our research. To explain it we consider the following groups of factor variables.

I. Basic hypotheses

Hypothesis 1 (H1). Career incentives of judges and their professional characteristics influence the decision-making process. The higher the qualification of the judge, the less the probability of a legal error.

Getting education after market reforms in Russia, especially in economics, is expected to make judges more erudite about alternative explanation of economic evidence and more receptive to efficiency improvement arguments when deciding on validity of a particular business practice. Thus “new generation” judges may be more skeptical about infringement decisions of FAS.

Positive relation between judges' qualification characteristics and loyalty to decisions of public authorities is expected if the last is considered as a support factor in career seeking. This is caused mainly by motivation factors of gaining the career success as a result of biasness towards government authorities, what is caused mainly by the specifics of the Russian economy as a case of transition post-soviet country (Lambert-Mogiliansky, A., Sonin, K., Zhuravskaya, E., 2007).

The more experienced the judge is in deciding antitrust cases the easier he/she detects mistakes and omissions in the analysis made by FAS.

The younger is the judge the more he/she is expected to be aimed in career growth the more biased towards administrative authority he/she may be (thus decreasing the probability of annulment of FAS decision). First three years of judge are a period of preparation to the validation process, what is considered to cause bias towards government authorities. If the system of professional career or any informal considerations support the bias in favor of public authorities, judges with first three years' responsibilities (without tenure position) should be biased in favor of public authorities, in comparison with tenured judges.

Hypothesis 2 (H2). The complexity of approach to the analysis required of the antitrust case influences the outcome of the proceedings (cancellation of the decision of the antitrust authority). In other words, the more complicated the case, the higher the probability of a legal error.

The higher is the complexity of the case the higher is the probability of the infringement decision to be annulled due to stronger doubts about the quality of evidence provided by FAS. This hypothesis relies on similar results obtained by (Baye, M.R., & Wright, J.D., 2011) for antitrust litigations in US.

Hypothesis 3 (H3). The sanctions imposed on the accused party are incentives of the parties of the antitrust case. In other words, the more difficult it is for the accused party to prove its position in court, as well as the heavier the punishment, the greater the likelihood of a legal error.

The higher are the contested sanctions the higher is the probability of the infringement decision to be annulled due to higher efforts of the violator. This hypothesis relies on the following reasoning: the higher are monetary penalties or tougher sanctions in other dimensions (for instance, specific conduct remedies are imposed), the higher are incentives for accused companies to spend on evidence in their favor in order to be acquitted, the higher is probability for the claim to be satisfied.

Hypothesis 4 (H4). There is a "training effect" of the parties of the proceedings, which determines the incentives for participation and the quality of the proceedings. This means that the higher the parties' experience to participation in the consideration of antitrust cases in commercial courts, the lower the probability of committing a legal error.

The experience of the regional office of the UFAS determines the existence of the learning effect: the higher the frequency of participation of the branch in the trials, the higher the legal

and economic quality of the conclusions to be drawn, which reduces the likelihood of their cancellation in the court of first instance. Similarly, the company's experience of participation in the consideration of antitrust cases in the course of proceedings encourages the accused party to provide standards of evidence of higher quality, reducing the likelihood of its accusation.

Control variables.

i. Characteristics of the time period

- the year of initiating of the antitrust investigation
- *or* binary variable that distinguish the periods before and after 2011 when Russian system of penalties for violation of the antitrust law was changed. This variable is important as the “third package” of changes in the Russian antitrust law was provided by setting the upper limit of penalties for several types of violations (the types of violations which were under this changes are a part of the “not proper antitrust” subsample). This variable is important because it lead to the change of the FAS’s incentives for some types of infringements.

Assumption 5 (A5): as after 2011 the expected penalty for violations of the antitrust law which did not entail negative impact on competition became lower incentives of companies, CA and judges could change. Since companies have lower incentives to appeal infringement decisions under lower cap of monetary sanctions, they spend less on evidence in their favor, and probability for infringement decision to remain to be in the legal force increases.

Appendix 1 reports a description of all the variables and summary statistics.

In order to check the existence of interrelation between the decisions of appellate and cassation courts the correlation of variables is used, providing evidence that they do not show any kind of bias, the decision-making process of the courts of the higher instance do not illustrates any bias of lower courts (Table 1). In fact, the probability that the decision of the court of the highest level will be the same as the decision of the court of the first instance is 0.5, what does not reflect statistically significant interrelation

Table 1

Correlation of the decisions by the commercial courts of the first instance and the courts of the higher level

	2008	2009	2010	2011	2012
	final annull				
annull_inst	0.4	0.5	0.46	0.51	0.52

2. Characteristics of the region

We assume that *de facto* independence of judges negatively correlates with the quality of institutes, and judges in the regions with poorer institutions (higher investment risk index) should be more biased in favor of FAS.

3. Industry

Each of the industries differs by the degree of monopolization, level of government regulation, the number of participants in the market, the level of its competitiveness and the frequency of antitrust cases against companies in a particular industry. All this, similarly with the period of the case and the region of the commercial court of first instance, which started the trial, requires taking into account in the model in order to control the companies' difference.

Our dependent variables are the following:

- *the accordance of the decision of the court of first instance with the actual implementation of a decision*, calculated as "the decision of the antitrust authority was canceled by the court of first instance • the decision of the antitrust authority was revised by the final court"(in case there is a discrepancy of decision taken by the court of first instance and decisions implemented in practice, there is a potential legal error made by the judge of commercial court of first instance);
- *the fact of appeal of the decision of the commercial court of first instance for the consideration of case materials in the courts of higher instances* (as a rule, the accused party appeals the decision of the court of first instance in the case if there is a fact of a potential legal error in order to review the materials of the proceeding);
- *number of instances in which the antitrust case was examined* (it is assumed that, firstly, the greater number of instances of consideration the antitrust case, the more efforts the accused party spent to defend its position, and, secondly, the more likely the commission of a legal error in the previous instances in the connection with a set of different factors (poor economic or legal proceedings, high level of court workload etc.).

5. Results of empirical hypotheses testing

In the models' specification evaluated by a two-step method to solve the potential endogeneity problem, the Wald test does not reject the hypothesis of exogenous models. The exogeneity hypothesis was rejected at 10% of the statistical significance level in 30% of the model specifications for the variable $truer1$ (coincidence of the decision taken by the commercial court of first instance with the decision that came into force after reviewing the case), but assumption of endogeneity is not justified in 94% of the aggregate number of model specifications for all three variables. The standard errors of the models estimated by the two-

step method are more than twice the standard errors of the full regression (Probit / OLS for the number of instances), which characterizes the loss of accuracy of the estimates obtained by the two-step method, however, the stability of the direction of the effects is preserved.

The results obtained partly confirm the basic hypothesis about the influence of the judiciary on the application of antitrust policy and the influence of a number of factors describing the incentives of the parties to the proceedings for the results of the trial. The results of the empirical evaluation (marginal effects) are presented in Table 2. The encoding of the columns of the table is organized as follows:

- **BM/OLS (Basic Model/Ordinary Least Squares)**
- **BM/ML (Basic Model/ Maximum Likelihood)**
- **zS/IV (z-step instrumental variables)** – second step of two-step estimation model;
- **DUR/INST (duration/ instruments)** – first step of two-step estimation model (dependent variable is $\log(\text{duration})$);
- **zSLS (z-step least squares)** – for the dependent variable of number of instances of a case consideration.

It is important to note that various specifications of models, as well as the control of the existing effects of models on their evaluation by a linear method, make it possible to conclude that the influence of certain groups of factors on the quality of antitrust norms demonstrates a statistically significant stability. Despite the result obtained that the hypothesis of the exogeneity of the variable duration of the case consideration is not rejected, all the evaluated models are statistically significant at the 1% level. The statistical insignificance of the indicator of the duration of the proceedings in the commercial courts of first instance does not allow to interpret the influence of the parameters-instruments in the model, and also limits the possibility of interpreting the reduced form of the equation obtained by the two-step method.

Next, consider an interpretation in accordance with the hypotheses stated and determine the factors of the importance of the judicial system in the process of applying the rules of antitrust policy.

Table 2

Results of estimation: marginal effects¹

	1				2				3		
	Coincidence of the decision taken by the commercial court of first instance with the decision that came into force after reviewing the case				The decision of a first-instance commercial court is appealed				Number of instances, where an antitrust case was considered		
	BM/ OLS	BM/ ML	Endogeneity		BM/ OLS	BM/ ML	Endogeneity		BM/ OLS	Endogeneity	
			2 step 2S/IV	1 step DUR/ INST			2 step 2S/IV	1 step DUR/ INST		2 step 2SLS	1 step DUR/ INST
Units of effects' measurement	%	%	%	%	%	%	%	%	q	q	%
Hypothesis 1 (H1). Career incentives of judges and their professional characteristics influence the decision-making process. The higher the qualification of the judge, the less the probability of a legal error.											
<i>Work experience:</i>											
Total work experience of a judge (log, years)	// ²	//		-4.0**	//	//		-4.8**	//		-5.1***
Total work experience of a judge in considering antitrust cases (log, number of cases considered in the past)	5.2**	5.7**		-5.0**	//	//		-1.9**	//		-4.8*
Specialized experience of a judge in consideration <i>proper antitrust</i> cases (log, number of cases)	8.6***	9.2***		-8.1**	//	//		//	//		//
First three years of work by judge (the division of the data into two groups: those judges who have not yet received a permanent position of a judge and a judge with more than three years of experience)	//	//		//	//	//		6.7**	//		7.1***
<i>Qualification</i>											
Qualification class (1 - 5)											

¹ levels of confidence: * - 10%, ** - 5%, *** - 1%.² Statistically insignificant result

	1				2				3		
	Coincidence of the decision taken by the commercial court of first instance with the decision that came into force after reviewing the case				The decision of a first-instance commercial court is appealed				Number of instances, where an antitrust case was considered		
	BM/ OLS	BM/ ML	Endogeneity		BM/ OLS	BM/ ML	Endogeneity		BM/ OLS	Endogeneity	
			2 step 2S/IV	1 step DUR/ INST			2 step 2S/IV	1 step DUR/ INST		2 step 2SLS	1 step DUR/ INST
<i>Units of effects' measurement</i>	%	%	%	%	%	%	%	%	q	q	%
2	-7.7	-7.5		10.7	//	//		7.0	//		8.4
3	//			//	//	//		7.2	//		7.5
4	//	-14.2*		//	//	//		14.3	//		//
5	//	//		//	//	//		//	//		//
PhD in law	//	//		//	10.9**	7.8**		//	0.32**		
Awards	//	//		//	5.8*	//		//	//		//
<i>Education of a judge</i>											
Education in Economics	-25.9**	-26.0**		-20.8*	//	//		-10.1**	//		-20.9***
Belonging of the judge to the "new generation" of citizens who got higher education after 1992	//	//		//	//	//		//	//		//

Hypothesis 2 (H2). The complexity of approach to the analysis required of the antitrust case influences the outcome of the proceedings (cancellation of the decision of the antitrust authority). In other words, the more complicated the case, the higher the probability of a legal error.

Art 11 FL «On protection of competition» (concerted practice)	12.4***	10.5***	10.8***	8.8**	-19.9***	-48.9***	-48.8***	8.8**	-2.1***	-2.1***	7.7*
Expert analysis	//	//	//	//	//	//	//	//	//	//	//
Standards of evidence in accordance with the national methodology (Law 220)	//	//	//	//	6.5**	9.5***	10.3***	//	0.33***	0.35***	//
Standards of evidence contain references to theoretical models	-16.9**	-12.1**	-13.9**	//	//	//	//	//	//	//	//

	1				2				3		
	Coincidence of the decision taken by the commercial court of first instance with the decision that came into force after reviewing the case				The decision of a first-instance commercial court is appealed				Number of instances, where an antitrust case was considered		
	BM/ OLS	BM/ ML	Endogeneity		BM/ OLS	BM/ ML	Endogeneity		BM/ OLS	Endogeneity	
			2 step 2S/IV	1 step DUR/ INST			2 step 2S/IV	1 step DUR/ INST		2 step 2SLS	1 step DUR/ INST
<i>Units of effects' measurement</i>	%	%	%	%	%	%	%	%	q	q	%
Standards of evidence contain references to econometrical models	28.0 ^{***}	0 ¹	0	0	//	0	0	0	//	//	36.8 ^{***}
Duration of the case consideration by the court of the first instance (log)	//	//	-3.2 ^{**}		//	//	//		//	//	
Hypothesis 3 (H3). The sanctions imposed on the accused party are incentives of the parties of the antitrust case. In other words, the more difficult it is for the accused party to prove its position in court, as well as the heavier the punishment, the greater the likelihood of a legal error.											
The presence of a fine in the punishment measures	//	//	//	-9.6 ^{**}	-10.1 ^{***}	-8.9 ^{***}	-7.2 [*]	-9.2 ^{**}	-0.30 ^{**}	//	-8.4 ^{**}
Fine size (log)	//	//	//	-1.4 ^{**}	-1.0 ^{**}	-1.0 [*]	-1.0 [*]	-1.5 ^{***}	//	//	-1.5 ^{***}
Presence of behavioral remedies stated by the antitrust authority	-6.7 [*]	-6.6 [*]	-5.2 [*]	-7.3 [*]	4.9 [*]	4.1 [*]	//	//	//	//	//
Hypothesis 4 (H4). There is a "training effect" of the parties of the proceedings, which determines the incentives for participation and the quality of the proceedings. This means that the higher the parties' experience to participation in the consideration of antitrust cases in commercial courts, the lower the probability of committing a legal error.											
Third parties' presence	//	//	//	//	5.7 ^{**}	7.2 ^{***}	7.6 ^{**}	//	0.26 ^{***}	0.24 ^{***}	//
The company if one of the top-400 largest in Russia	-9.2 ^{**}	-9.0 ^{***}	-8.9 ^{**}	-7.9 [*]	6.4 [*]	8.3 ^{**}	7.2 [*]	-6.8 ^{**}	//	//	-7.4 ^{**}

¹ the variable is automatically omitted while modelling in the statistical software

	1				2				3		
	Coincidence of the decision taken by the commercial court of first instance with the decision that came into force after reviewing the case				The decision of a first-instance commercial court is appealed				Number of instances, where an antitrust case was considered		
	BM/ OLS	BM/ ML	Endogeneity		BM/ OLS	BM/ ML	Endogeneity		BM/ OLS	Endogeneity	
			2 step 2S/IV	1 step DUR/ INST			2 step 2S/IV	1 step DUR/ INST		2 step 2SLS	1 step DUR/ INST
<i>Units of effects' measurement</i>	%	%	%	%	%	%	%	%	q	q	%
The company's experience in participating in legal proceedings against FAS (log, number of cases)	4.8**	3.3**	3.2**	//	-4.9**	-5.4**	-5.0**	//	-0.19**	-0.21***	//
The FAS'es experience in participating in legal antitrust proceedings (log, number of cases)	10.5**	9.1**	9.1**	//	4.5**	2.8**	3.0**	8.0**	//	//	//
The FAS'es experience in participating in legal <i>proper antitrust</i> proceedings (log, number of cases)	7.6**	5.1**	5.0*	9.3*	4.8*	2.0*	1.8**	12.6**	//	//	12.1***

In accordance with the results of the evaluation, the effectiveness and role of the judiciary in the process of implementing the antitrust policy depends on several factors. Some effects were expected, but they were not confirmed on Russian data. The rejection of the hypothesis is also an important result for the purposes of the current study. The main results of the evaluations are described below.

The rejected hypothesis about the existence of a potential endogenous problem for the Russian practice of antitrust enforcement is important for understanding the specifics of antitrust policy implementation. First, it means that for the Russian practice, the variable of the duration of the case consideration cannot be considered as a parameter of the judge's performance. This is due to the fact that the system of key performance indicators of judges, along with the legal norms for reviewing the proceedings, creates a system of motivation for judges, in which the adoption of court decisions must be carried out quickly. In fact, the promptness of the consideration of cases by a judge is also one of the factors of his career success and is accepted as one of the indicators of the selection of a judge for a position⁷. Secondly, it allows to assume that the duration of the case consideration does not actually affect the quality of the application of antitrust norms, since it was originally prescribed by legislatively certain conditions for the functioning of the system of commercial courts.

Hypothesis 1 (H1). Career incentives of judges and their professional characteristics influence the decision-making process. The higher the qualification of the judge, the less the probability of a legal error – **partly confirmed**.

(1) *Judge's work experience.* The judge's experience as a whole, expressed in the total number of years of experience of a judge, does not have a statistically significant effect on the quality of the judicial decision. However, empirical analysis shows that the judge's specialized experience in considering methodologically complex cases, such as *proper antitrust*, has a stronger impact on the quality of the decision than the experience of dealing with antitrust cases as a whole, which, however, is also important. The increase in the general experience of considering antitrust cases by a judge by 1%⁸ leads to an increase in the probability of a legally correct decision (or a reduction in the probability of making a legal error) by 5-6%, that is, the probability of a coincidence of a decision made by a judge of a commercial court of first instance and a decision actually implemented after all antitrust proceedings by courts of higher instances. Likewise, an increase in the judge's specialized expertise in *proper antitrust* cases by 1% leads to an increase in the probability of making a legally correct decision by 9%.

This result confirms that the experience of the judge in dealing with violations of the antitrust legislation, especially cases requiring a more complex approach in terms of methodology and the availability of economic competencies, allows judges to detect errors

⁷ p.8 art.5 Federal Law of the Russian Federation from 26.06.1992 N 3132-1 "On the status of judges in the Russian Federation"

⁸ in empirical part $\log(\text{experience})$ was used

more effectively. The result obtained also reflects that there is an effect of judges' learning mainly in regard to the consideration of technically complex cases.

The first three years of work by judge do not show a statistically significant effect on the quality of decisions, which rejects the assumption of the bias of decisions of judges until they obtain a permanent position of the judge in favor of public authorities.

(2) *Qualification of the judge.* The qualification class of the judge has a statistically significant influence on the probability of committing a legal error. In comparison with first-class judges (the highest class), judges make decisions that are subsequently annulled in higher courts with a probability of 8% higher if they are second-class judges and with a statistically significant probability of 14% higher if this is a fourth-grade judge than a first-class judge. Taking into account the fact that judges of a higher qualification class commit legal errors statistically less often, it can be concluded that the qualification class indicator does indeed represent a proxy variable of professional level of the judge, not being only a parameter of incentives for achieving career success.

The opposite result to the expected one, however, is the effect of the judge's having a Ph.D. in Law degree and the availability of departmental awards. In accordance with Russian law, judges having a Ph.D. degree in Law, as well as departmental awards, have access to certain professional benefits - they are exempt from the qualification exam⁹ for the position of judge, receive monthly surcharges to the basic salary¹⁰-5% of the official salary for the Ph.D. in Law degree. In other words, the existence of an academic degree and departmental awards are the legally stated parameters for career promotion. At the same time, the empirical analysis illustrates the ineffectiveness of decision-making by judges with these characteristics in relation to antitrust cases requiring economic competencies and a methodologically complex approach. First, when examining an antitrust case in a commercial court of the first instance, the probability of the decision appeal is 8 to 10% higher for a judge with academic degree than for those who does not have it. Also, the number of instances in which the case is being considered is statistically significant and higher by an average number of 0.3. Secondly, in the same way, appeal of a decision made by a judge with departmental awards is 6% more probable than for a judge who does not have departmental awards.

This result allows to assume a fundamentally significant effect for the analysis of the Russian judicial system, confirmed empirically: existing and legally fixed factors of motivation to achieve career success lead to a bias in the decisions of the judges of commercial courts of first instance in favor of state authorities and, accordingly, the higher probability of potential legal errors that are expected for the specifics of the institutional environment of the transitional stage of post-Soviet countries, including Russia (Lambert-Mogiliansky, A., Sonin, K., Zhuravskaya, E., 2007), and that, however, should be

9 p.5 art.5 Federal Law of the Russian Federation from 26.06.1992 N 3132-1 "On the status of judges in the Russian Federation"

¹⁰ p.1 art.19 Federal Law of the Russian Federation from 26.06.1992 N 3132-1 "On the status of judges in the Russian Federation"

monitored and eliminated in order to improve the quality of the institutional environment for antitrust policy implication.

(3) *Education of a judge.* The assumption of influence of higher education on the model of judge's professional conduct during the period is not confirmed. However, the opposite of the expected effect was the fact of the availability of economic education of the judge. When considering a case in a court of first instance, the judge's economic education leads to a decrease by 26% in the probability that the decision coincides with the decision that actually implemented. It is important to understand that this result cannot be interpreted unambiguously: by accepting the quality parameter the fact that the decisions of courts of different instances are coordinated, we understand the limitations of this parameter—we cannot control the judicial process of considering the antitrust case when it is considered in higher instances. The result is more illustrates the inconsistency of decision-making at different levels of cases, namely the fact that there is a discrepancy between the interpretation of the case materials of those judges who have an economic education and those who do not.

However, the subjective competence of the judge as an expert in resolving economic and legal disputes is formed not only in the presence of basic economic education, but, first of all, in the conditions of many years of experience in solving problems related to the analysis of cases concerning antitrust disputes. It is the experience of making decisions with respect to the type of antitrust cases that leads to the improvement of the professional competence of the judge and his specialized practice with regard to economic issues.

Judges with extensive experience in making decisions with respect to antitrust cases, especially cases such as proper antitrust, are more productive and demonstrate higher results in professional effectiveness. They quickly identify errors in standards of evidence provided by the parties and better understand the issues related to the economic analysis of the practice of the potentially anticompetitive behavior of the accused party.

Hypothesis 2 (H2). The complexity of approach to the analysis required of the antitrust case influences the outcome of the proceedings (cancellation of the decision of the antitrust authority). In other words, the more complicated the case, the higher the probability of a legal error – **partly confirmed.**

Consideration of the antitrust case under Article 11 (concerted practice) increases the probability that the decision taken by the commercial court of the first instance equals to the decision that actually took effect after consideration in courts of higher instances by 10.5-12%. At the same time, the probability of appeal of a first-instance court's decision regarding accusations of concerted practice is 50% lower than the analogous parameter for abuse of a dominance. We assume that this effect is the result of the fact that in such cases the probability of making a mistake of the I type in antitrust enforcement (punishment of the innocent) is high enough, and it is regarded by judges as more serious than the error of the II type (the acquittal of the guilty one). Both the appellation of the court decision and

the analysis of the standards of evidence are much more clearly legally structured from the point of view of the methodology for providing evidence standards with respect to accusation of abuse of dominance, and in the case of a potential legal error, the accused party is more likely to appeal the decision in courts of higher instances. The presence of expert judgment in the courtroom is not statistically significant for proper antitrust cases, which is explained by the fairly frequent practice of experts' participation at the stage of preparation of standards of evidence, and not only at the stage of defense of the accused party directly during the court process.

Hypothesis 3 (H3). The sanctions imposed on the accused party are incentives of the parties of the antitrust case. In other words, the more difficult it is for the accused party to prove its position in court, as well as the heavier the punishment, the greater the likelihood of a legal error – **partly confirmed.**

Decisions that contain fines as a measure of punishment are appealed less by 9-10%. This implies two possible effects. First, monetary sanctions motivate the prosecution to intensively spend professional efforts to protect their interests in court. Secondly, on the part of the judiciary, the cost of making a mistake of the I type grows significantly, which also creates additional incentives for judges to adopt a more legally integrated solution, creating a certain incentive for making decisions in favor of companies in order to minimize the probability of a legal error. Also, it is important to take into account that the sanction of the antitrust body is a direct reflection of the prosecution's incentives to participate in the antitrust proceedings in order to minimize the potential damage to the company's activities.

Sanctions in the form of behavioral remedies may be more significant for the business practice of the accused party, since in fact the requirements imposed by the antitrust authority on the behavioral model of the market participant are direct interference of the state regulatory body in the functioning of the market environment, limiting the company's activities and creating additional incentives for the company to participate in the antitrust proceedings, increasing the probability of appeal by 4-5% and increasing the probability of the fact that the decision of the court of first instance accepted will be reversed in the court of higher instance by 7%. Similarly, with the presence of a fine, behavioral remedies create additional incentives for the accused party to participate in the proceedings, and also increase the probability of making a mistake of the I type. However, a serious difference between behavioral remedies as a measure from the fines is their prolonged impact, most likely negative, on the state of the company on the market, which requires a much more complex and structural economic approach to appellation of imposed sanctions and analyzing practices, falling under the accusation of violating the antitrust law.

In fact, the assumption that the more serious the sanctions imposed, the higher the incentives for the accused party to spend more efforts to participate in the court proceeding, is confirmed. The same is with

the fact that judges assess the increased probability of appealing such types of cases, which in turn, negatively affects the evaluation of their productivity and the system of professional incentives, increasing career motivation to minimize mistakes of the I type.

Hypothesis 4 (H4). There is a "training effect" of the parties of the proceedings, which determines the incentives for participation and the quality of the proceedings. This means that the higher the parties' experience to participation in the consideration of antitrust cases in commercial courts, the lower the probability of committing a legal error – **partly confirmed.**

The "learning effect" of the parties in antitrust proceedings is confirmed empirically and, more importantly, it helps to reduce the discussion of the judicial settlement of disputes in antitrust proceedings. Each additional 1% of the company's experience, expressed in the number of antitrust proceedings examined in commercial courts, leads to an increase in the degree of "routine" of the case, increasing the consistency of the decision taken by the courts of all instances, reducing uncertainty, which is empirically expressed in increasing the speed of consideration of the case, reducing the probability of appeal the decision by 5% and reducing the probability of a legal error by 3-5%.

Similarly, the quality of judicial regulation of antitrust policy is positively influenced by the experience of the antitrust authority in considering economically complex cases such as *proper antitrust* in the system of commercial courts, reducing the probability of making legally incorrect judgments by 5-8%. The experience of the executive body in considering antitrust cases in court is also important, helping to reduce the probability of a legal error by 9-11%. This confirms the assumption of the existence of a "learning effect", since the frequency of participation of the FAS regional office in litigations against antitrust cases leads to an increase in the quality of standards of evidence provided by the regulatory body, reducing the probability of a decision being reversed in the future. At the same time, an increase in the probability of appeal the decision of the commercial court by 2-5% while increasing the experience of the antitrust body by 1% reflects the existence of additional incentives for the executive body to defend the accusative position based on legally and economically more correct and comprehensive standards of evidence, implementation of the entire antitrust policy as a whole, stimulating the regional divisions of the executive body to increase the quality of the standards of evidence provided and to minimize mistakes of the I and II type for the entire system of applying antitrust legislation and improving the institutional environment.

Thus, the judicial system is also a certain platform for the development of the quality of the institutional environment of antitrust enforcement, "teaching" the parties of the proceedings in providing standards of evidence on the basis of an integrated economic and legal approach, helping to minimize mistakes of types I and II in the terms of continuously developing regulatory norms.

6. Concluding remarks

The results obtained during the current study can be divided into three main groups in accordance with the theoretical assumptions.

The first group is the results that correspond, or at least do not contradict, the results of earlier studies conducted on the examples of other countries. Similarly with the previously revealed foreign researches, the decisions of judges whose specialization measured as the experience of dealing with cases of violations of the antitrust law, significantly differs from the decisions made by judges without that specialization. Unlike previous studies aimed at measuring the role of the judiciary in antitrust processes, we divided the general legal experience of the judge on his position and the specialized expertise in the consideration of antitrust cases, separately outlining a sub-group of experience in dealing with cases such as *proper antitrust*, requiring methodologically complex approaches of the economic analysis. As a result, we empirically proved that the quality of the decision made is influenced by specialized experience, rather than the general judge's experience of work. At the same time, it is important that the consideration of more complex *proper antitrust* cases has a more significant impact on reducing the probability of a legal error and, consequently, the effectiveness of the institution of judicial settlement of antitrust disputes. This determines the special importance of specialized courts, in contrast to the system of non-specialized courts for the purpose of increasing the effectiveness of antitrust policy. An empirically proven result on Russian data id that the parties' experience in the antitrust processes' participation increases the efficiency of the judicial system in the context of antitrust enforcement. As well as the company's experience, the experience of the regional subdivision of the antitrust authority reduces the probability of a legal error, encouraging the parties of the antitrust process to provide better standards of evidence. The alleged result is that the higher the potential effect of imposed sanctions, the higher the incentives of the accused party to increase the resources spent on providing standards of evidence.

The second group is the results which are contrary to widespread beliefs about the functioning of the Russian judicial system in the context of models of judicial conduct. The hypothesis of a systematic bias of judges in favor of the public policy body has not been fully confirmed. It was assumed that judges are less independent if they work for the first three years prior to passing the qualification certification to a permanent position of the judge, and it was also assumed that judges often make decisions in favor of public authorities and, therefore, demonstrate higher probability of a legal error in the countries with a transitional period of institutional regulatory environment. However, in respect of Russian judges in commercial courts, there is no empirical evidence of a clearly expressed prejudiced and politically dependent behavior of judges. However, the conclusion about the significant influence of the established legal system of the professional motivation of the judge is confirmed. First, the scientific degree and departmental awards do not determine the more effective decision-making by the judge, but, on the contrary, reveals potential legal errors, that was previously assumed as increasing the judge's ability to comprehensively and effectively analyze standards of evidence, being in fact more a

stimulus for achieving career success. However, it is worth noting that the judge's qualification class can be used as an effective variable of judicial performance. Also significant is the result that, in fact, for Russian courts regarding the consideration of antitrust cases, the length of the proceedings cannot be considered as a parameter of the court's productivity, which is a fairly frequent occurrence for other countries, but for Russia it is conditioned by the system of motivation of judges aimed at the rapid decision-making.

The third group is testing hypotheses that do not represent a widespread practice of studying certain indicators that affect the role of the judiciary in antitrust policy. An interesting result was the statistically significant effect of economic, theoretical and econometric analysis in the system of provided standards of evidence, as well as the importance of qualitative evidence of the position in the antitrust proceedings in accordance with the legislatively established methodology – Procedure (or Law) 220.

Thus, the Russian judicial system in the context of the application of antitrust policy, traditionally referring to countries with a transitional stage of institutions, has a number of features that distinguish it from other countries from a similar group. At the same time, explaining the differences of the Russian judicial system in antitrust law enforcement from the specifics of a similar institutional environment of other countries, it is important to take into account not only the generally accepted beliefs about the critical lack of independence of judges or economic competencies, but also take into account that the observed results can also be explained by the peculiarities of transitional justice, including continuous improvement of competition law, changing the order of the standards of evidence, as well as the lack of experience of administrative authorities, and of judges because of relatively short period of the history of Russian antitrust policy. It is also important to emphasize the special importance of the specialization of the judiciary in the practice of dealing with violations of the antitrust legislation, which requires a comprehensive economic expert assessment, to improve the quality of the institutional environment for the legal regulation of antitrust policy.

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Appendix I. Summary Statistics

Variable	Name	Obs	Mean	Std. Dev.	Min	Max
1. General information about a case						
Duration of the case consideration by courts of all instances (days)	duration_days	1,133	354.82	208.84	22	1 469
Duration of the case consideration by courts of all instances (months)	duration	1,133	11.57	6.94	1	57
Duration of the case consideration by the court of first instance (months)	first_duration	1,133	4.78	3.64	1	46
2. Characteristics of the case under consideration						
Fine as a measure of punishment (yes=1, no=0)	penalties	1,133	0.20	0.40	0	1
Fine size (thb RUB)	penalty_size	1,121	10,531.77	151,551.3	0	4,197,813
Behavioral remedies stated by the FAS (yes=1, no=0)	remedies	1,133	0.39	0.49	0	1
3. Parameters of the court decision						
Antitrust decision is annulled by the court of the first instance (yes=1, no=0)	first_annulled	1,133	0.45	0.48	0	1
Antitrust decision is appealed (yes=1, no=0)	appealed_higher	1,133	0.80	0.40	0	1
Antitrust decision is annulled by the	annulled_higher	1,133	0.16	0.37	0	1

Variable	Name	Obs	Mean	Std. Dev.	Min	Max
court of the higher instance (yes=1, no=0)						
Antitrust decision is annulled by the court of the final instance (yes=1, no=0)	annulled_final	1,133	0.45	0.50	0	1
Number of court instances for the entire period of the case consideration	n_instances	1,133	3.03	1.74	1	15
4. Standards of evidence						
The presence of expert assessments during the trial (yes=1, no=0)	experts_ap	1,133	0.08	0.27	0	1
Theoretical economic models are used during consideration (yes=1, no=0)	theory	1,133	0.05	0.21	0	1
Econometrial models are used during consideration (yes=1, no=0)	econometrics	1,133	0.001	0.03	0	1
Analysis is hold by the FAS in accordance with the officially stated methodology (law-220) (yes=1, no=0)	guidelines	1,133	0.25	0.44	0	1
5. Individual characteristics of the judge						

Variable	Name	Obs	Mean	Std. Dev.	Min	Max
Economic education (yes=1, no=0)	econ	1,133	0.03	0.16	0	1
PhD in Law (yes=1, no=0)	phd	1,133	0.07	0.25	0	1
Qualification class (yes=1, no=0)	class_j					
	2	1,105	0.37	0.48	0	1
	3	1,105	0.40	0.49	0	1
	4	1,105	0.04	0.21	0	1
	5	1,105	0.03	0.18	0	1
Awards (yes=1, no=0)	awards	1,133	0.17	0.37	0	1
First 3 years of work (yes=1, no=0)	first_3	1,133	0.27	0.44	0	1
«New generation» of judges, got secondary education after 1992 year (yes=1, no=0)	new_gen	1,076	0.38	0.49	0	1
Total judge's working experience (years)	exp_j_tot_year	1,120	7.47	5.32	0	23
Total judge's working experience of antitrust cases' consideration (number of cases)	exp_j_tot_case	1,118	10.87	14.07	1	188
Total judge's working experience of <i>proper antitrust</i> cases' consideration (number of cases)	exp_j_pa	1,133	2.64	2.01	1	13

6. Parameters of the parties' incentives

Variable	Name	Obs	Mean	Std. Dev.	Min	Max
The presence of third parties in the courtroom (yes = 1, no = 0)	thirdparty_ap	1,133	0.41	0.49	0	1
Belonging of company to 400 largest in Russia (yes = 1, no = 0)	400_largest	1,133	0.21	0.41	0	1
The company's experience in participating in litigation against the FAS (the number of cases)	exp_compag_fas	1,133	3.21	12.25	1	276
Experience of the FAS of participation in the consideration of antitrust cases in court (number of cases)	exp_fas	1,118	100.76	135.64	1	786
Experience of the FAS of participation in the consideration of <i>proper antitrust</i> cases in court (number of cases)	exp_fas_pa	1,133	2.64	2.01	1	13
7. Information on the type of antitrust law violation						
Art. 10 – abuse of dominance (yes = 1, no = 0)	art10	1,133	0.32	0.47	0	1
Horizontal agreements (yes = 1, no = 0)	horizontal	1,133	0.44	0.50	0	1
Vertical agreements (yes = 1, no = 0)	vertical	1,133	0.24	0.43	0	1

Variable	Name	Obs	Mean	Std. Dev.	Min	Max
Art. II – concerted practice (yes = 1, no = 0)	artII	1,133	0,68	0,47	0	1
8. Control variables						
Year of starting the investigation	year	1,133	–	–	2008	2015
Law period in accordance with competition law modernization periods ([2008-2011]=0, [2012-2015]=1)	lawperiod	1,133	0.60	0.49	0	1
Industry of the accused company	industry	1,133	–	–	150	999
Region of the case consideration (code of the regional unit of commercial court)	region	1,133	–	–	3	82