ЭКОНОМИЧЕСКИЙ ФАКУЛЬТЕТ
МГУ имени М. В. Ломоносова

# The Effects of Competition Policy
# on the Petroleum Products Markets in Russia

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# Table of contents

# Applied Motivation: Are oil companies hurt?

**ФАС прокомментировала резкое письмо «Транснефти»**

*Служба увидела его содержанием и считает неконструктивным*

Галина Старинская

Руководитель ФАС Игорь Артемьев / С. Пятаков / Ведомости

Президент «Транснефти» Николай Токарев в среду написал письмо руководителю Федеральной антимонопольной службы (ФАС) Игорю Артемьеву, в котором подверг жесткой критике работу ведомства.

Source: Vedomosti

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06 августа 2008    18:25

**ФАС приостановила рост российского рынка акций**

Утренний рывок вверх российского фондового рынка был остановлен заявлением ФАС о проверках в нефтяных компаниях. По итогам дня индекс РТС вырос на 0,14% до 1814,60 пункта. Индекс ММВБ прибавил 1,05%, составив 1412,09 пункта.

Несмотря на неприятности, больше всех прибавил "ЛУКойл" (+2,6%). "Роснефть" и Сбербанк выросли на 1,5%. "Газпром" потерял 0,5%. "Норникель" явно лихорадит (-3,2%).

Source: Vesti

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**«Северсталь» пожаловалась в Генпрокуратуру на главу ФАС**

«Северсталь» пожаловалась в Генпрокуратуру на главу ФАС Максима Шаскольского, узнал РБК. В компании считают, что чиновник мог оказать давление на комиссию службы, которая проводит антимонопольное расследование в отношении российских металлургических компаний.

Гендиректор «Северстали» Александр Шевелев попросил генерального прокурора Игоря Краснова проверить публичные высказывания руководителя Федеральной антимонопольной службы (ФАС) Максима Шаскольского — он направил соответствующее письмо, с которым ознакомился РБК.

В «Северстали» жалуются, что некоторые высказывания Шаскольского оказывают давление на расследование, которое ведется против главных металлургических компаний. Речь о том, что весной 2021 года дело против «Северстали», Магнитогорского металлургического комбината (ММК) и группы НЛМК, заподозрив их в поддержании монопольно высокой цены на горячекатаный прокат. Тогда в ведомстве сочли, что рост цен на прокат происходил более быстрыми темпами, чем рост стоимости сырья, необходимого для его производства.

Все три металлургические компании с обвинениями ФАС не согласились. Пока решения по делу нет, однако глава ФАС уже публично грозит металлургам высокими взысканиями. Еще в декабре Шаскольский дал интервью телеканалу RTVI, где заявил, что «штрафы в отношении металлургов будут больше, чем по Google (речь об оборотном штрафе в 7,2 млрд рублей за повторное неудаление запрещенной информации. — The Bell)».

В письме «Северстали» заявила, что такие заявления чиновника порочат деловую репутацию компании: расследование еще не завершено, а глава ФАС уже говорит о нарушении законодательства как об установленном факте. Помимо этого, отметил топ-менеджер компании, заявления чиновника уже негативно повлияли на капитализацию крупнейших металлургических компаний России и привели к снижению стоимости их акций.

Глава компании попросил Генпрокуратуру проверить действия Максима Шаскольского на предмет их соответствия требованиям законодательства и принять меры прокурорского реагирования.

Source: The Bell

3

# Applied Motivation: Are oil companies hurt?

«...the boundary between informing about one's [FAS Russia's] activities and shaping public opinion on the cases under investigation has been erased. **The reputation of entrepreneurs, whose business may not even be completed yet, is under the strongest pressure of the information activity of the FAS, in the publications of which one often finds, in our opinion, emotional coloring of the facts of the behavior of companies, their owners and managers, which is inappropriate for a public authority.** It has become a real information "weapon" along with legal procedures»

Source: Yaroslav Kulik, managing partner of a consulting company Kulik  Partners Law.Economics

# Table of contents

## Costs of Violating Antitrust Laws

- **Direct costs of violation** – formally appointed by a regulatory body that can impose legal penalties

- **Indirect (reputational) costs of violation** in the form of a reduction in market value – imposed by the market, which can additionally penalize shareholders of public companies for violating the rules (Karpoff and Lott, 1993)

- **Falling share price** $= \underbrace{\text{lost profits} + \text{legal costs}}_{\text{direct costs}} + \underbrace{\text{loss of reputation}}_{\text{indirect costs}}$ (Bosch, Eckard, 1991)

- **Loss of reputation is no less important factor preventing violations than formal sanctions from the regulator**

# Does antitrust policy always work the way we thought it would?

- One of the reasons antitrust decisions are made public is **to increase the deterrent effect by affecting the reputation of firms** (Jiménez, Perdiguero, Gutiérrez, 2016)

- **There is no consensus in the literature about the response of firms to antitrust prosecution.** It is logical to assume that the successful application of antitrust laws reduces prices to competitive levels

- However, there is some evidence that **prices do not always decline** after antitrust intervention ends (Crandall, Winston, 2003; Davies, Ormosi, 2013)

# Why is it important?

**Motivation**

- Companies accuse the antimonopoly authority that even inspections and investigations are the reason for the decline in the value of their shares
- Sanctions must be taken into account in the aggregate to ensure effective antitrust deterrence
- Renewed US-EU Debate on the Advisability of Using Antitrust Policy Tools to Complement PrEP to Combat Price Rise (Van Dorpe, 2022)
- A number of inspections of various industries by the FAS Russia showed that the agency uses completely different methods to stabilize the level of prices in the market

**Relevance**

- Discussion on expanding the use of "precautionary" response measures by the antimonopoly authority
- The assessment of competition policy measures in most cases is devoted to the study of economic concentration transactions
- There are very few works that study the possible indirect costs of imposing sanctions in the form of reputational effects
- Researchers pursue different empirical strategies but rarely compare results
- The trend towards evidence-based policy in the Russian Federation and evidence-based antitrust in the world

# Table of contents

# Hypotheses

1. **Any measures** of competition policy applied by the FAS Russia **lead to a drop in the market value** of the company

2. **Identification of signs of violation** of antitrust laws has a significant **impact on the price behavior** of the company, but less than **the establishment of the fact of violation**

3. **Identification of signs of violation** of antitrust laws has a significant **impact on the market value** of the company, but less than **the establishment of the fact** of violation

## Sanctions for violating antitrust laws

- **Order of the Federal Antimonopoly Service of Russia No. 339** «On approval of the FAS administrative regulation on the performance of the state function of initiating and considering cases of violations of the antimonopoly legislation of the Russian Federation» (Приказ ФАС России №339 «Об утверждении административного регламента ФАС по исполнению государственной функции по возбуждению и рассмотрению дел о нарушениях антимонопольного законодательства РФ»)

  **1** measures that correspond only to **the primary signs of violation of the antimonopoly law**
  - warnings (предупреждения)
  - cautions (предостережения)
  - initiation of cases (возбуждения дел)

  **2** measures corresponding to **the established fact of violation of the company**
  - adjudication of cases and issuance of orders (вынесение решений по делам и выдача предписаний)

# Methodology I

### 1. Estimating the effects on the market value of companies

① A series of asset prices translates into a series of returns $r_{i,t} = \frac{P_{i,t} - P_{i,t-1}}{P_{i,t-1}}$

② Choosing the width of the event window: (-3;+3), (-6;+6), (-12;+12) hours for intraday data and (-3;+3), (-7;+7), (-15;+15) days for daily quotes
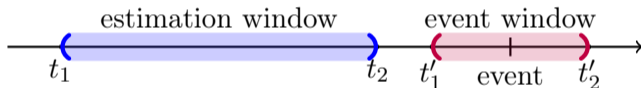


③ The observed return on a stock is a **random variable**, because consists of a normal (expected) component and a random one, which arises due to an occurring event

# Methodology II

④ **Abnormal return** is the difference between the observed and normal returns $\underbrace{AR_{i,t}}_{\text{abnormal return}} = \underbrace{r_{i,t}}_{\text{observed return}} - \underbrace{\mathbf{E}\left[r_{i,t} \mid X_t\right]}_{\text{normal return}}$

⑤ Estimating the normal return model on a series of returns where no events occurred (estimation window) – risk-adjusted returns model $\hat{r}_{it}^{norm} = \hat{\alpha} + \hat{\beta} \cdot r_m$

⑥ For each event, we build a forecast of the normal return $\hat{r}$ on the event window and calculate the abnormal return $AR_{it} = r_{it} - \hat{r}_{it}^{norm}$
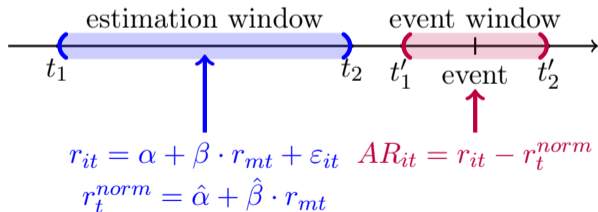
# Methodology III

7. We calculate the accumulated abnormal return and test it for significance
$$\text{CAR}\,(t_1'; t_2') = \sum_{t_1'}^{t_2'} AR_t$$

# Methodology IV

## 2. Estimating the effects on the price behavior of companies

- Panel Data Model for Warnings, Judgments and Prescriptions **(with wholesale price)**:

  - $\ln\left(\frac{retail\_petrol_{igt}}{retail\_petrol_{igt-1}}\right) = \alpha \cdot sort_{ig} + \beta \cdot \ln\left(\frac{oil\_price_t}{oil\_price_{t-1}}\right) +$

    $\gamma \cdot \ln\left(\frac{wholesale\_petrol_{igt}}{wholesale\_petrol_{igt-1}}\right) + \delta \cdot damper_t + \rho \cdot damper_t \cdot \ln\left(\frac{wholesale\_petrol_{igt}}{wholesale\_petrol_{igt-1}}\right) +$

    $\phi \sum_{i=1}^{14} event\_dummy_{it} + \tau_t + \xi_i + \omega_g + \varepsilon_{igt}$

    - $retail\_petrol_{igt}$ – retail price for gasoline (ruble/l)
    - $sort_{ig}$ – brand of gasoline, equal to one for AI-95
    - $oil\_price_t$ – oil price (ruble/barrel)
    - $wholesale\_petrol_{igt}$ – wholesale price for gasoline (thousand rubles/ton)
    - $damper_t$ – binary variable, equal to one from the moment the damper mechanism starts, and equal to zero the rest of the time
    - $\sum_{i=1}^{14} event\_dummy_{it}$ – set of 14 binary variables (7 days before the event and 7 days after the event)

# Methodology V

**❷** Panel data model for warnings and litigation **(no wholesale price)**:

- $\ln\left(\frac{retail\_petrol_{igt}}{retail\_petrol_{igt-1}}\right) =$

  $\alpha \cdot sort_{ig} + \beta \cdot \ln\left(\frac{oil\_price_t}{oil\_price_{t-1}}\right) + \delta \cdot damper_t + \phi \sum_{i=1}^{14} event\_dummy_{it} + \tau_t + \xi_i + \omega_g + \varepsilon_{igt}$

  - $retail\_petrol_{igt}$ – retail price for gasoline (ruble/l)
  - $sort_{ig}$ – brand of gasoline, equal to one for AI-95
  - $oil\_price_t$ – oil price (ruble/barrel)
  - $wholesale\_petrol_{igt}$ – wholesale price for gasoline (thousand rubles/ton)
  - $damper_t$ – binary variable, equal to one from the moment the damper mechanism starts, and equal to zero the rest of the time
  - $\sum_{i=1}^{14} event\_dummy_{it}$ – set of 14 binary variables (7 days before the event and 7 days after the event)
  - $\tau, \xi, \omega$ – period, company and region fixed effects

**❸** Standard errors are clustered at the company-region level according to (Abadie et al, 2017)

# Timeline of available data
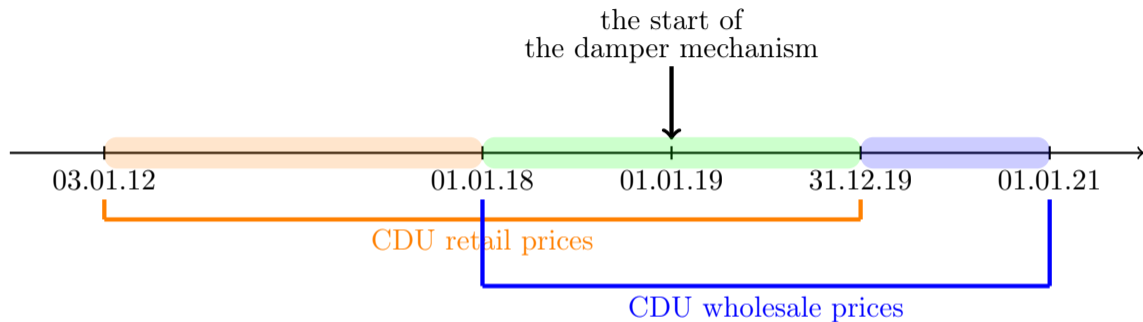


Source: drawn by the author

# Data

## Companies' pricing behavior

- Panel data on **retail prices** with **daily** frequency by companies, type of gasoline, regions
    - **03.01.2012 – 31.12.2019**
    - CDU TEK Ministry of Energy of Russia (ЦДУ ТЭК Минэнерго России)
    - there are NA for independent VI companies

- Panel data on **wholesale prices** with **monthly** frequency by company, type of gasoline and regions
    - **01.01.2018 - 01.01.2021**
    - CDU TEK Ministry of Energy of Russia (ЦДУ ТЭК Минэнерго России)

## Market value of companies

- **Daily and intraday** (minute) **stock quotes** to assess the effect in the short term
    - **01.01.2012 – 01.01.2022**
    - Finam.ru

## News data sources

- Web scraping and data parsing with Finam.ru for all researched companies
    - **01.01.2012 – 01.08.2021**

# Selection of events from Finam.ru

- **Events collected from Finam.ru:**
  - 9 warnings (предупреждений)
  - 2 cautions (предостережения)
  - 6 initiation of cases (возбуждений дел)
  - 3 adjudication of cases and issuance of orders (вынесений решений и выдач предписаний)
  - 187 other
- 207 out of 6,625 news items mention the FAS
- 20 out of 207 news fit classification of measures

Source: calculated by the author
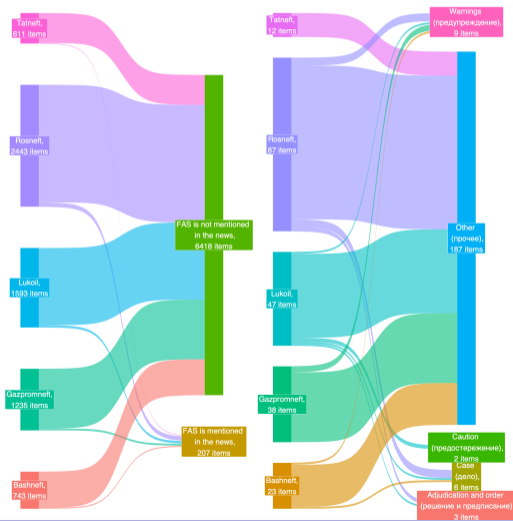
# Event distribution by time and by companies
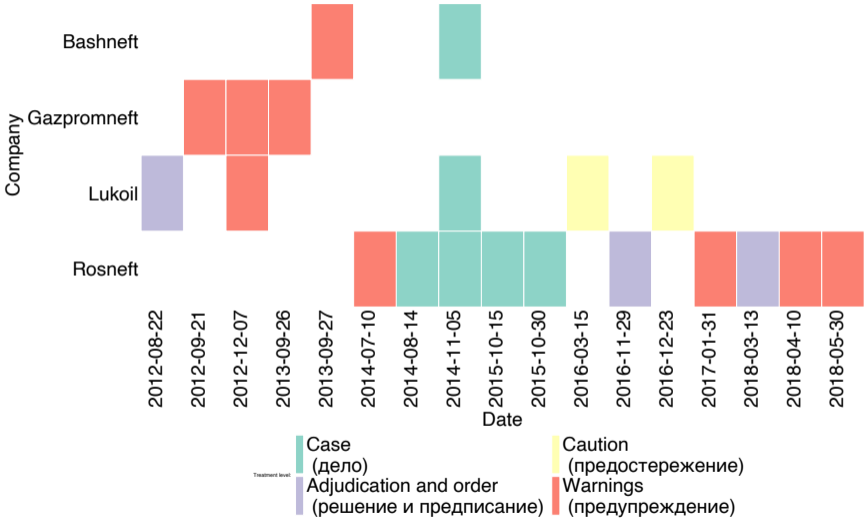


Source: calculated by the author

# Table of contents

# Results

| Event Type | | Intraday effects on the stock market | Daily effects on the stock market | Effects on price behavior |
|---|---|---|---|---|
| Violation not proven | Warning | Not significant | Not significant | Multi-directional |
| | Caution | Positively | Negatively | Not significant |
| | Initiation cases | Positively | Not significant | Positively |
| Violation proven | Making a decision and issuing an order | Negatively | Negatively | Multi-directional |
| Hypotheses | | Hypothesis 1 – rejected Hypothesis 3 – accepted | | Hypothesis 2 – accepted |

Source: calculated by the author

**Rejected**

*Any measures of competition policy applied by the FAS Russia lead to a drop in the* **market value** *of the company*
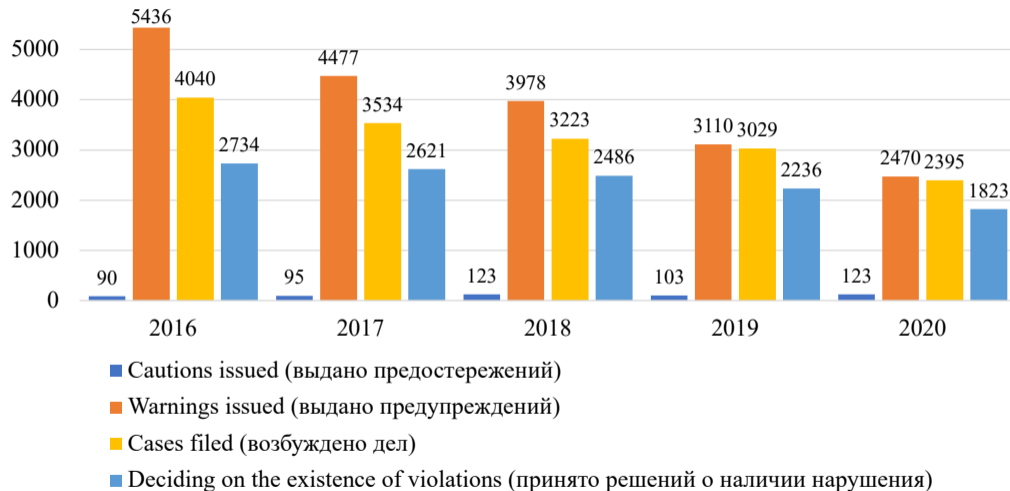
**Accepted**

*Identification of signs of violation of antitrust laws has a significant impact on the* **price behavior** *of the company, but less than the establishment of the fact of violation*

**Accepted**

*Identification of signs of violation of antitrust laws has a significant impact on the* **market value** *of the company, but less than the establishment of the fact of violation*
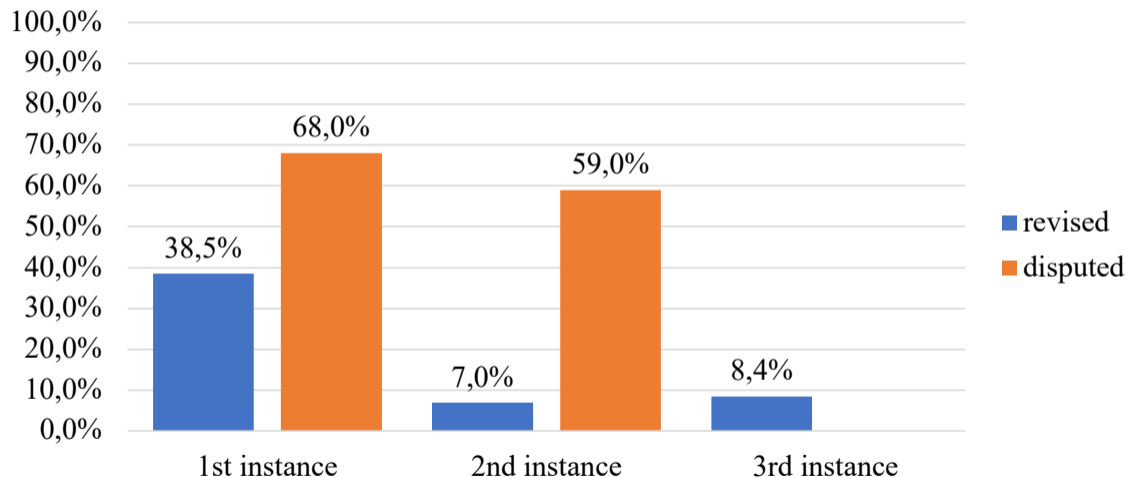
# Antitrust Violations Statistics



Bar chart showing antitrust violation statistics for 2016–2020:

| Category | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|
| Cautions issued (выдано предостережений) | 90 | 95 | 123 | 103 | 123 |
| Warnings issued (выдано предупреждений) | 5436 | 4477 | 3978 | 3110 | 2470 |
| Cases filed (возбуждено дел) | 4040 | 3534 | 3223 | 3029 | 2395 |
| Deciding on the existence of violations (принято решений о наличии нарушения) | 2734 | 2621 | 2486 | 2236 | 1823 |

■ Cautions issued (выдано предостережений)
■ Warnings issued (выдано предупреждений)
■ Cases filed (возбуждено дел)
■ Deciding on the existence of violations (принято решений о наличии нарушения)

Source: Report of the FAS Russia on the state of competition in the Russian Federation for 2020

# Probability of the case being reviewed



Source: Novikov V. Bulletin of antimonopoly statistics for 2019. Annual analytical report on the results of 2019

# Table of contents

# Conclusions

- The media and press services of the antimonopoly authorities are the most important factor in shaping the company's reputation
- Along with formal sanctions for violations of antitrust laws, companies can also receive **reputational sanctions**, and in order **to build an effective system of deterrence, these sanctions must be taken into account in aggregate**
- **The effects of competition policy are heterogeneous** both in terms of the type of measures and the long-term impact
- **It has been proven in the work that**
  - the antimonopoly service can indeed influence the reputation of companies both before establishing the fact of a violation (with the help of warnings and initiating cases) and after (with the help of making decisions and issuing orders)
  - the non-optimality of the impact of the antimonopoly authority on the price behavior of companies was discovered: warnings and cautions do not affect prices in any way, while simultaneously with the initiation of a case, we observe an increase in prices, and with a decision and issuance of an order - a decrease