



# **Anxious Empire**

Russia Vulnerabilities Report



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# Executive Summary

Vladimir Putin and his propaganda machine claim all is going well for Russia: the economy is growing and the people are content with the war. While Western resolve to confront Russia wilts, the argument goes, Putin's resolve is only waxing stronger.

But underlying dynamics are much harder to read in a closed, authoritarian system like Russia's than they are in an open democracy. Polling is inherently challenging in an autocracy. Some economic data sets are fudged, while others such as crime statistics are outright closed. How can one tell what's really going on?

FilterLabs.AI, a Massachusetts-based data analytics company founded by Harvard researcher Jonathan Teubner, works with a collection of over 7,200 economic, discursive, and behavioral data sets. This allows us to peek beneath the bonnet of Russian propaganda narratives and see a much more nuanced portrait of the country. Our analysis shows that:

- The war economy has led to economic growth in regions where there are large weapons factories, such as along the Volga. Another region that has benefited is the far east, where there is an uptick in trade with China. However, regions along the border of the EU have seen economic decline.
- Attitudes on social media in all regions, even booming ones, are increasingly negative towards Moscow. Our hypothesis is that this is due to inflation, which is officially at about 7.5%, though some independent researchers calculate consumer inflation at 21% on an annualized basis. Though salaries are going up, it can feel as if they are growing slower than prices. The problem for the Kremlin is that Russians find themselves in an inflationary trap that is intrinsically connected to its war of choice: the more money it pushes into arms production, the more the currency heats up.
- The Kremlin's famed propaganda machine has been unable to distract from this economic reality. Though the Kremlin pushes out propaganda about how great salaries are, and how people should save and decrease household debt, the discursive and economic data shows that people are taking out more household debt in the belief the ruble will devalue further. Since the start of the full-scale invasion, Russians have increased their household debt by 30 billion rubles per month, an approximately 18% rise since the invasion. This, in turn, is driving up the costs of taking out loans, which is leading to shortages on the store shelves in basic goods like eggs.
- The Kremlin's propaganda falls flat on other issues critical to peoples' self-interest and personal well-being as well. For example, though the Kremlin is pushing out stories about how great health products are, social media discourse about the topic is increasingly negative. We see clear patterns showing that Kremlin propaganda can keep the discourse "positive" on a topic for a relatively short period. For example, the propaganda promoting mobilization keeps the online mood on this topic positive for about two weeks, before attitudes go negative.
- Attitudes towards the war are particularly negative in areas directly exposed to military conflict: the Southern district and in the occupied areas of Crimea.

These tensions and trends in Russia debunk the idea of a happy, cohesive system. When we look at dynamics in Russia we should avoid falling into the Kremlin's propaganda narratives ourselves and believing all is as smooth as they say. While there may be few signs of a democratic resistance in Russia, this is a society with deep contradictions, which are being intensified with the war.

# Introduction and Methodology

According to Vladimir Putin, all is going wonderfully in Russia: the war economy is purring along and there's strong support for the war.

But peek below the propaganda bonnet and you immediately get a more complex picture. FilterLabs' analysis of Russian socio-economic, behavioral, and discursive data reveals an anxious country riven by new regional divisions. This is an anxious empire where the regions benefiting from the war are sharply contrasted with the losers. This is an economy where inflation is spiraling out of control, and the government doesn't have the levers to slow it down. For all the rhetoric of the Kremlin about Russia having withstood Western sanctions, it's a country where the population doesn't believe in the stability of the currency, and where the government propaganda is failing to convince them otherwise—leaving household debt in a parlous situation. Add to this the shortages in basics like eggs, protests in Bashkiria, and breakdown in communal heating and water supply and we have a system that looks much less solid than the regime's propaganda would like everyone to believe. Indeed, our analysis shows that Putin's famed propaganda model has many vulnerabilities.

Founded by Harvard researcher Jonathan Teubner, FilterLabs has pioneered hyper-local discourse and behavioral analysis. Informed by Teubner's academic work tracking local sentiment in conflict zones in the Middle East and South Asia, the company has developed an innovative framework for a more holistic understanding of geo-political instability and uncertainty. FilterLabs maintains over 7,200 streams of data in Russia alone, and has pioneered a unique method that integrates into a single platform both what people are doing and what people are saying—providing a more powerful way to explore tensions and vulnerabilities in the current Russian system.

A data fusion approach adds another dimension of insight in a context where people are not always honest about their thoughts, and can often think and behave in contradictory ways depending on the context. FilterLabs leverages natural language processing (NLP) in order to derive meaningful signals in real time from discursive online data. Among the NLP signals processed are key phrases, entities, sentiment, and emotion.

The underlying discursive data come from a wide range of sources of varying reliability and frequency, from Kremlin-informed national news to hyper-local web forums. A large portion are derived from Russian social media platforms (VK and OK), Telegram, and local news. FilterLabs' analysts systematically verify the data through a regular spot-checking methodology. A range of behavioral data – economic, financial, and social statistics – are drawn on to provide the larger context required for interpreting the sometimes highly volatile discursive data. For more details regarding FilterLabs' methodology, see the Appendix.

By bringing together a wide range of attitudinal and behavioral indicators, FilterLabs can reveal disagreement with government policies, even when people avoid direct criticism of issues they dislike or are concerned about. People may tell pollsters one thing, but by contrasting Russian state

propaganda lines, what people talk about online, and most importantly what they DO, FilterLabs can detect dynamics that simple polling or mere “social media listening” misses.

In particular, FilterLabs’ curated data and data fusion approach allows us to identify:

- **Regional divides.** Our data sets allow us to explore the new polarization between winners and losers from the war and between Moscow and the regions.
- **When state propaganda lines are working or failing.** By analyzing differences between state media and social media discussions on the same topic, we quickly see where state propaganda is succeeding, and where and when it’s failing. By examining the patterns in the timing of propaganda campaigns, we can predict when they will rise and falter.
- **Differences between attitudes and behaviors.** While people may often say one thing to pollsters in a dictatorship, their behavior betrays a deeper truth that allows us to identify and even predict societal trends.

**In this report we apply these dimensions to look at the following:**

1

Regional differences in economic development

2

The Kremlin’s failure to control inflation and household debt

3

Systemic failures in Kremlin propaganda campaigns

4

Differing attitudes toward war across Russia (especially in regions impacted by the war)

PART 1

# The New Regional Divide: Nervous Winners, Anxious Losers

If you look at the macro picture of the Russian economy, things seem to be looking up. But as soon as you look at regions more granularly, you see the war economy is producing new winners and losers.

Some of the winners are predictable. The capital, Moscow, is doing well. It's no surprise that the regions with the greatest military production, such as the ones along the Volga, are seeing rising business openings and consumer spending.



Fig. 1. Business Openings, Moscow Oblast



Fig. 2. Restaurant spending, Moscow Oblast



Fig. 3. Business Openings, Volgograd Oblast

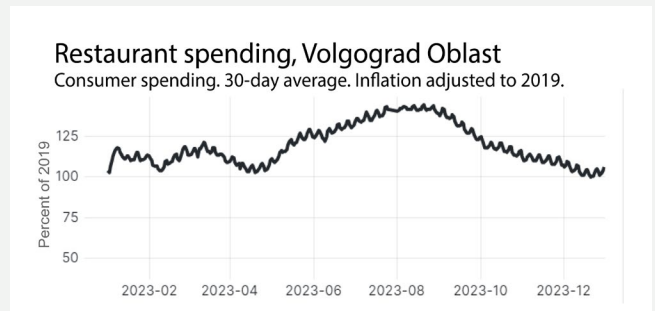


Fig. 4. Restaurant spending, Volgograd Oblast

A more unexpected winner from the war are the regions of the far East — which are profiting from the increased trade with China.

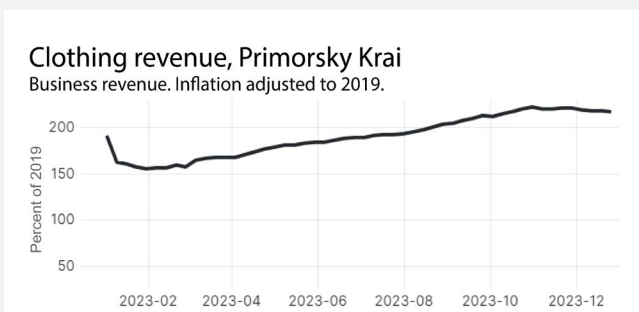


Fig. 5. Clothing revenue, Primorsky Krai

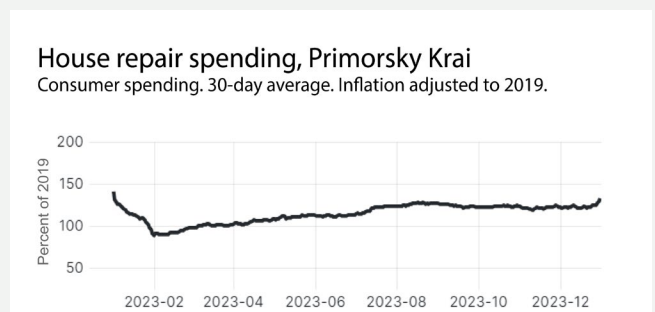


Fig. 6. House repair spending, Primorsky Krai



However, the west of the country, bordering the EU, sees a quite different picture. Here the economy has been hit harder by sanctions. Consumer spending and business openings are down in oblasts such as Leningrad and Kaliningrad.

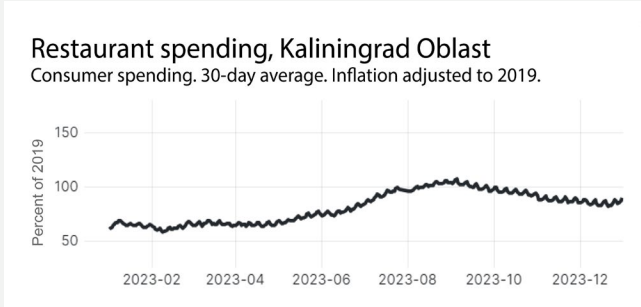


Fig. 7. Restaurant spending, Kaliningrad Oblast

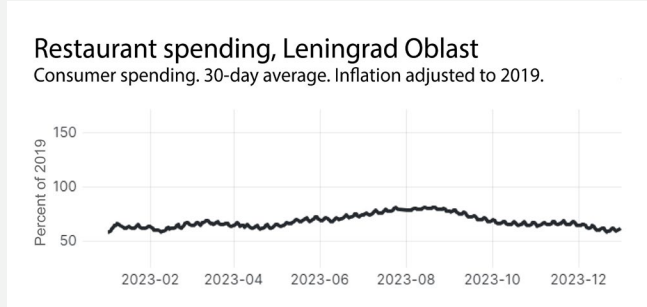


Fig. 8. Restaurant spending, Leningrad Oblast

One would expect that the regions that are doing well economically would therefore have a more positive view of the Kremlin than the ones doing badly. However, surprisingly, while this was the case in the first year of the war, we now see how regions across the economic divides have increasingly negative views of Moscow.

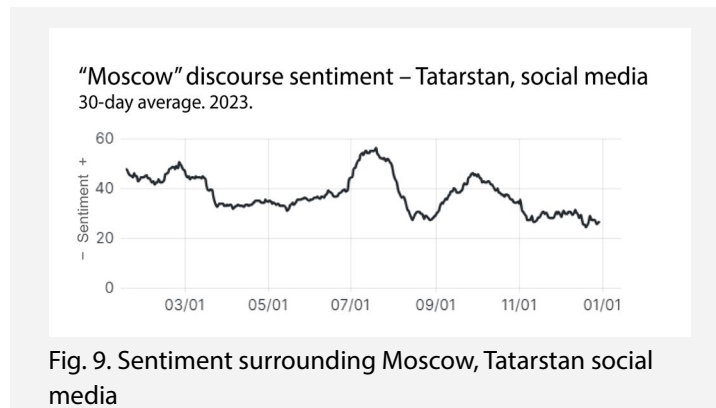


Fig. 9. Sentiment surrounding Moscow, Tatarstan social media

Attitudes towards Moscow are souring even in regions that, on the surface, are doing well economically. Even in the economically booming region of Tatarstan, for example, sentiment towards Moscow is trending down, much as it is in the west of the country. Something is clearly having a negative impact on peoples’ attitudes to the Kremlin’s policies—and that ‘something’ is intrinsically connected with the in-built inflationary effects of Russia’s war-time economy.

PART 2

# It's Inflation, Stupid

While there are economic winners and losers from the war, they are united in one thing: a deep fear of inflation and the lack of faith in the currency. And that fear is influencing behaviors throughout the country in ways the Kremlin is struggling to control.

Inflation is rising, and no amount of government propaganda can hide it. In early 2023 it seemed the country's inflation rates, which had spiked following the invasion of Ukraine, were finally stabilizing — but inflation soon began trending upward again. Costs for cars, for example, have gone up 15% since 2022.

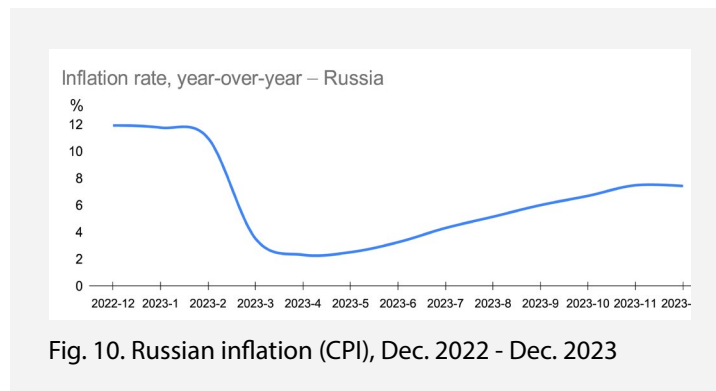


Fig. 10. Russian inflation (CPI), Dec. 2022 - Dec. 2023

Consider this data from the wealthy Moscow Oblast. State news is pushing out stories about how wonderfully high salaries are<sup>1</sup>, which we can get a glimpse of in the positive trend in sentiment that Filter detected in news media coverage of the topic (Fig. 11). On social media, on the other hand, sentiment in discussion of salary increases on social media became ever more negative over the course of last year (Fig. 12).

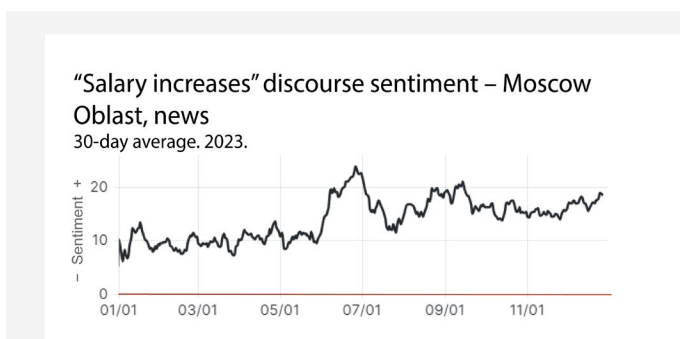


Fig. 11. Salary increase sentiment, Moscow Oblast (news).

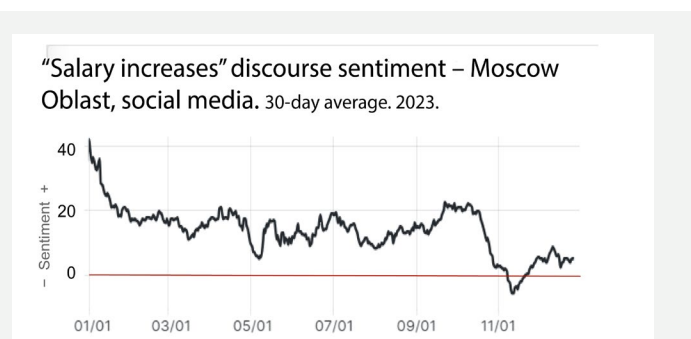


Fig. 12. Salary increase sentiment, Moscow Oblast (social media)

The sense of out-of-control inflation is leading people to spend more in the belief that their money will soon be worthless. In fact, increased consumer spending is driven primarily by the inflationary environment.

Consumer supermarket spending (Tatartstan) and year-over-year inflation (Russia-wide, CPI)

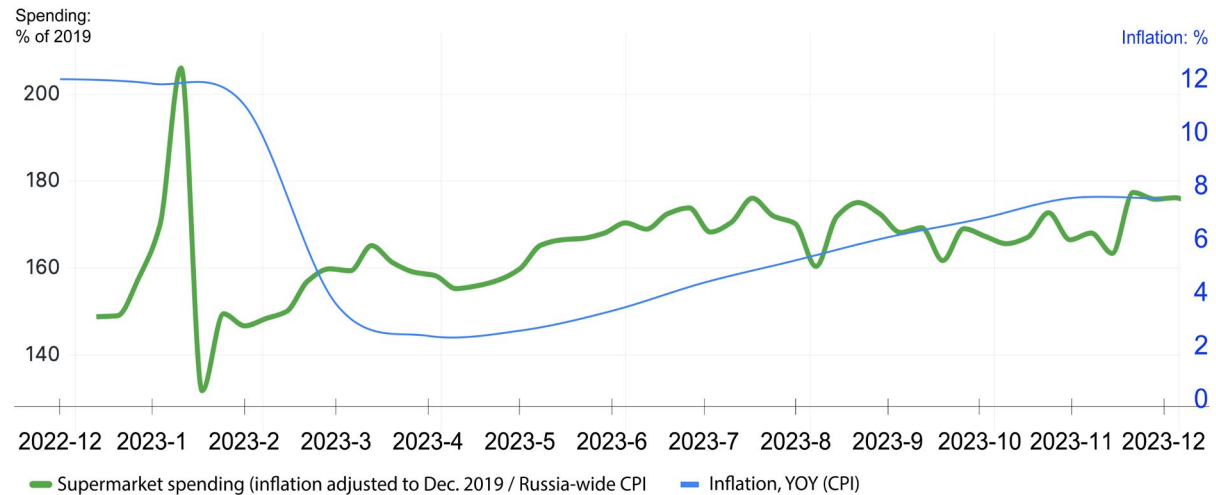


Fig. 13. Supermarket spending and inflation

And Russians appear to be spending on the things that they think might not be available soon: clothes, restaurants and construction materials, which by late last year were up by 39.8%, 48.2%, and 28.5% respectively year over year.

Clothing revenue, Russia

Business revenue. 30-day average. Inflation adjusted to 2019.

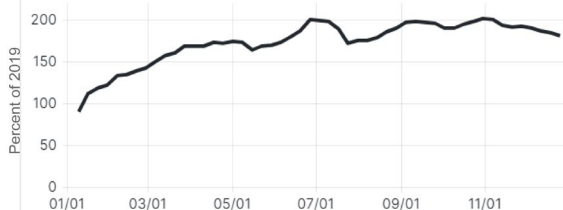


Fig. 14. Clothing revenue, Russia

House repair spending, Russia

Consumer spending. 30-day average. Inflation adjusted to 2019.



Fig. 15. Home repair spending, Russia

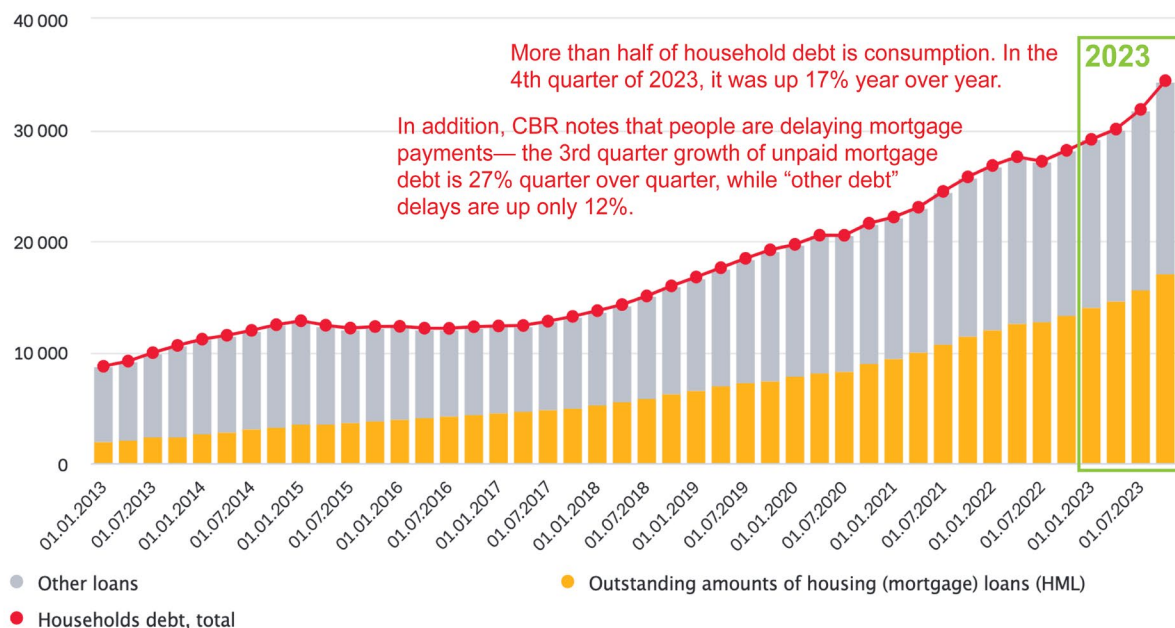
PART 3

# Reality Bites: When Putin’s Propaganda Fails

The dramatic rise in inflation across Russia has not only created an economic problem, but has, for Putin, created a significant challenge for his propaganda machine.

A case in point is the debacle Putin has found himself in with household borrowing. As people spend more, they start to borrow more in the belief that the money they are borrowing will soon be worthless soon and cheaper to pay back:

## Makeup of overall household debt\*, billions of rubles



\* Domestic and external borrowings of households. Source: Bank of Russia (CBR), [http://www.cbr.ru/eng/statistics/macro\\_itm/dkfs/ext\\_dep\\_indicator/](http://www.cbr.ru/eng/statistics/macro_itm/dkfs/ext_dep_indicator/)

Fig. 16. Breakdown of overall household debt, Russia<sup>2</sup>

The government is trying to counteract this. The annual official government [policy](#) on “Growing the Financial Literacy of Russians” particularly stresses the need to reduce household debt.<sup>3</sup> This policy is then promoted in dozens of state national and regional media sources.<sup>4</sup>

Looking at the data from Samara, an industrial capital of the Volga Region, we can see how news sentiment on the topics of reducing household debt and salary increases trends positive in early summer 2023.

“Salary increases” discourse sentiment – Samara Oblast, news. 30-day average.



Fig. 17. Salary sentiment, Samara (news)

“Paying off debt” discourse sentiment – Samara Oblast, news. 30-day average.



Fig. 18. Debt sentiment, Samara (news)

Online attitudes follow state news for a while, but as soon as the campaign ends they turn highly negative on this topic: people don’t like the idea they should stop borrowing, and they don’t trust stories about how great their salaries are.

“Paying off debt” discourse sentiment – Samara Oblast, social media. 30-day average.



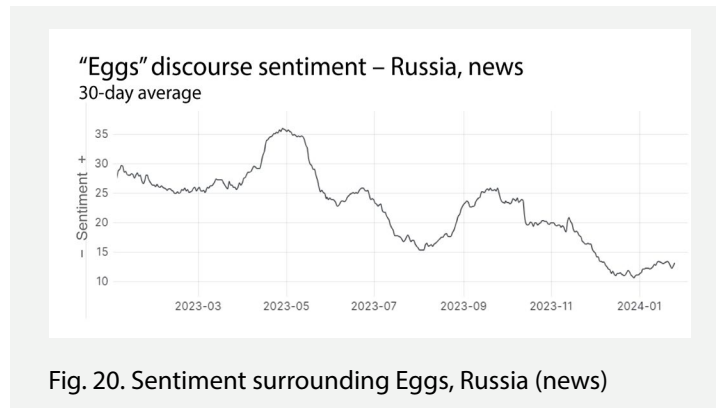
Fig. 19. Debt sentiment, Samara (social media)

A sampling of online discourse on debt from fall of 2023:

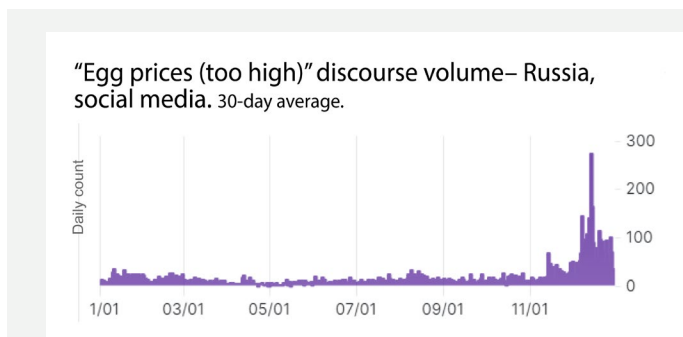
- **“Well, what do you expect? Our salaries are small and the utilities get increased every year. It’s only the beginning.”**  
— Comment to a previous post noting: “Residents of 116 houses managed by ‘Novograd Service’ have over 1 million rubles in debt for utilities”
- **“We have a lot of debt for pet food, please help [phone number]”**
- **Bailiffs seized an apartment from disabled elderly people for their daughter’s debt of 38 thousand rubles**  
— News story shared on social media
- **“Can you get evicted for having utilities debt?”**  
— a whole VK post dedicated to helping people understand this question and the relevant regulations
- **“If I declare bankruptcy, what parts of my debt will be erased?”** (multiple posts)
- **“Not a problem exclusive to teachers, we med personnel struggle with this too”**  
— comment on the news story “Salary debts to teachers from regional budgets increased to 152 million rubles.”
- On a post about the news story about new cuts to the number of free / federal scholarship seats in universities: **“have to take up more debt now? can’t even pay for gas”** and **“time to apply for another Sberbank credit card.”**
- Various questions about repossession.

The situation has become so extreme, the Russian parliament has passed a law that encourages people to “hand themselves in” and include themselves in a black list of those with poor credit histories. The hope is, one assumes, that family members will try to “sober up” bad debtors by putting them on the list.<sup>5</sup> This all speaks to a situation where borrowing is [threatening](#) to become a social pathology.<sup>6</sup>

And as people borrow more, interest rates go up, and this starts to mean businesses that need longer-term loans in their production cycle struggle to afford them. Russian interest rates rose dramatically in the second half of last year, and this has led to shortages in basics like eggs. Unable to afford longer-term credit, chicken farmers couldn’t provide their product for consumers. The problem has become so acute it has even led to acts of violence against poultry farmers.



This dynamic can also be detected in the inflationary environment. One can easily see how sentiment about egg prices is becoming ever more negative. While the state news on the topic of eggs tries to be neutral (fig. 20), the volume of negative chatter only increases (fig. 21)—and the sentiment scores of that chatter continue to decline (fig. 22).

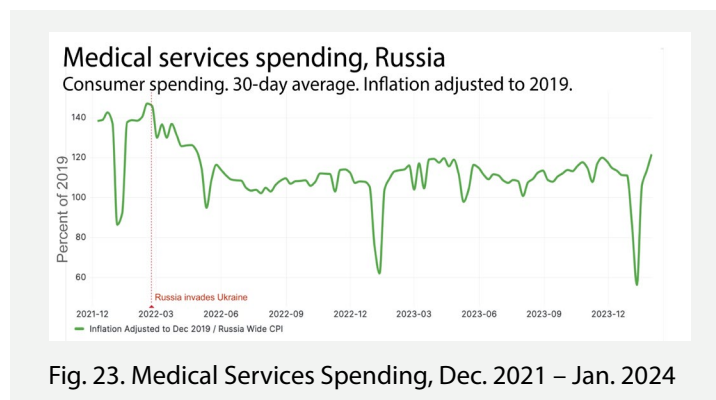


Lack of supply in basics like eggs are particularly “triggering” in Russia, with many people still remembering the empty shelves and destitution of the 1980s and early 1990s. Since the “chicken and egg” crisis we have seen a cascade of online panic about the return of the bad old days of empty shelves. This leads to panic-buying, which in turn results in the increasing the ratio between spending and saving in households.

Russia is in an inflationary spiral which, under other circumstances, could be addressed with a combination of decreased fiscal outlays and more restrictive monetary policy. This standard approach to the management of the economy is one thing Putin can't afford: he needs to continue several significant fiscal outlays – subsidizing military production, paying soldiers and for all the other costs of his war – and will not risk a likely recession that even higher interest rates would induce.

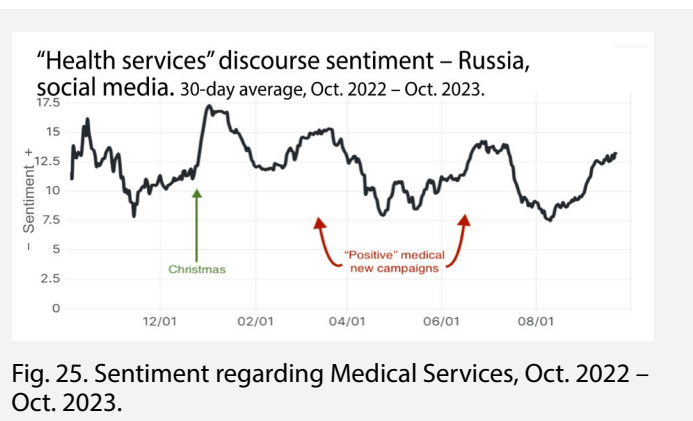
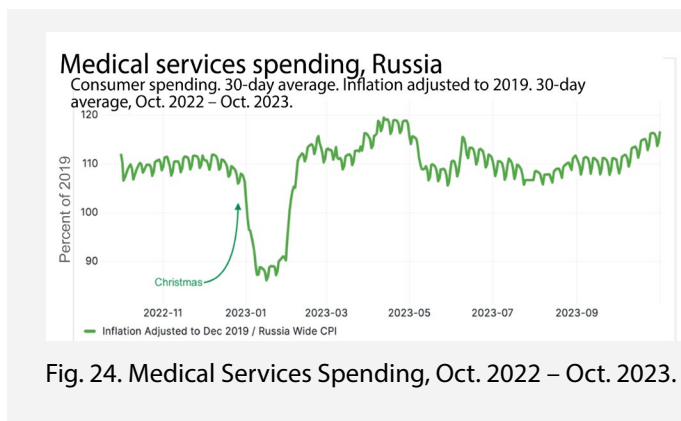
And it's not only inflation and debt where Putin's propaganda is struggling. There is a clear pattern of failure across issues that matter to people—not least on questions of health care.

In 2023, the Kremlin tried a more restrictive approach in the medical supplies sector. The Russian state spent almost 23% less on investment in medical supplies in 2023 than in 2022. In the previous five years, the monetary volume of state purchases of medicines had been continuously increasing. The analytical companies DSM Group and Headway Company believe that the reduction was due to the [redistribution](#) of the drug budget for the needs of the Russian army.<sup>7</sup>



Public spending on both pharmacies and healthcare services crashed after the invasion of Ukraine, and it has only partly recovered (Fig. 23).

Taking a closer look at last year (Fig. 24 below), we see that while health care consumer spending slightly increased (besides a predictable drop around the winter holidays), sentiment has been trending slightly downward overall during the same period (Fig. 25). The discrepancy suggests that people are upset at the lack of medical products and services.



The Kremlin knows this is a problem, and we can see how its propaganda brigades respond. In early spring 2023 there was a slew of “positive” news stories in state-controlled media, all pushing the line that the Kremlin was investing in new medical production, and creating new state-supported pharmaceutical companies. Another followed in late spring and early summer.<sup>8,9</sup>

These coordinated articles helped drive up positive sentiment on news media and social media. But this temporary positivity doesn’t last long in the data: within a month we see it return to its depressed level (Fig. 25.)

This is a pattern we see repeatedly in Russia: the Kremlin uses its vast propaganda assets to push positive news on sensitive themes, but they can’t convince people for long. A good example of this is found in the Kremlin’s attempts to control attitudes toward the draft and mobilization. Sentiment surrounding these topics is pushed up artificially through pro-Kremlin campaigns, then [crashes](#) after two weeks on average.<sup>10</sup>

We have also found a correlation between changes in attitudes after informational campaigns and changes in the range of views expressed in those contexts. For example, as the average sentiment expressed in online discourse surrounding the draft trends up, the range of views or perspectives narrows, suggesting a concerted propaganda campaign on the subject.<sup>11</sup>

So while many polls are indicating that people are acquiescing and adapting to the war, as we look more closely at both socioeconomic and discursive datasets, we see a much more volatile landscape.



PART 4

# The War Comes Home

If there's one area where attitudes to the war are particularly negative, it's the southern Russian regions that are most directly impacted by the war. Here we find another form of regional polarization in Russia, one based on exposure to the direct effect of the war rather than on economics.



Fig. 26. Sentiment regarding anxiety/fear and the war, Moscow Oblast

While social media discourse regarding anxiety about the war is generally negative in places like Moscow (with the exception of the celebration of “Victory Day” on May 9th, around which sentiment always spikes positively), it's a different story in the southern regions where military forces are stationed, and which are most affected by Ukrainian military strikes. In those contexts, sentiment is much less stable.

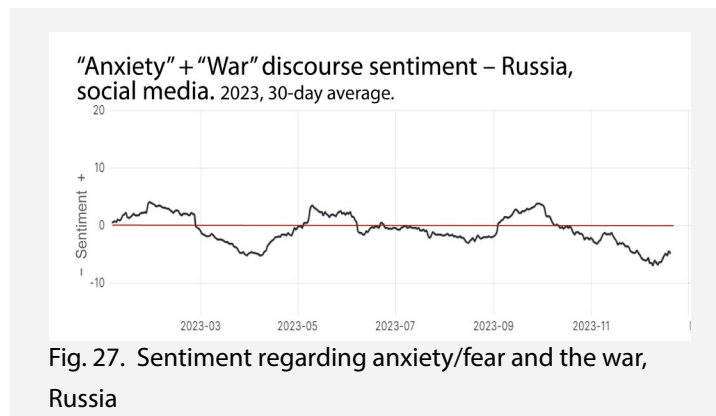
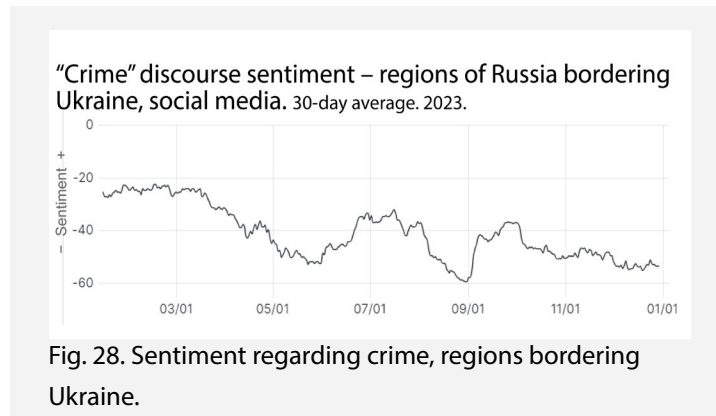


Fig. 27. Sentiment regarding anxiety/fear and the war, Russia

In Russia more generally, sentiment experienced a dip during summer 2023 tensions with Wagner/ Prigozhin and a rebound in autumn. It is quite possible that the autumn rebound (see in fig. 27) was the result of a concerted informational campaign.

Though the Kremlin has shut down crime statistics, the southern regions near Ukraine that are most exposed to the war are also the ones where there is most negativity in conversations about crime.



The conclusion these various trends in sentiment and behavior point to is that rather than a society functioning smoothly, Russia is in fact riven with increasing tensions that are caused by the war. Perhaps rather than looking at issues in Russia along an axis of "democratic" versus "authoritarian" sentiments, we should give our attention to the real problems that are deepening: new economic divides, struggles around inflation, and lack of trust in the ruble.

We'll keep looking. In future studies Filter Labs will track these issues, along with others like attitudes toward Russia's increasing closeness with China.

# About FilterLabs.AI

## The Company

FilterLabs.AI is a data analytics company based in Cambridge, MA. Founded in 2021, FilterLabs has pioneered hyper-local discourse and behavioral analysis in hard-to-reach locations around the world. FilterLabs scours geo-located online communications to make sense of local communities' needs, issues, and understandings of the world, and pairs these data with over 7,200 behavioral, social, and economic indicators. FilterLabs technology and analysis is used by some of the world's most reputable brands in media, strategic communications, and finance.

## Talisman

Talisman is FilterLabs' flagship product. Talisman integrates FilterLabs' wide range of datasets and data streams under a single pane of glass to enable partners to understand not only what people are talking about in a given locale, but also how they are behaving. Integration of data on this level allows Talisman to provide more precise diagnostics – yielding better understanding of developments inside the country, hyper-local market sentiment, the impact of sanctions and other past policies, and the consequence of communication interventions. Monitoring data at this depth also has the potential to allow analysts to measure the impact of policies and communications interventions and refine theories of social change.

## Leadership

Dr. Jonathan D. Teubner is Founder and CEO of FilterLabs and is Research Faculty at Harvard University's Institute for Quantitative Social Science. Teubner has served in a number of leadership capacities in academia, business, and non-profits and has pioneered the application of machine learning to improving peace building methods. Previously, Teubner led a collaborative team of data scientists and scholars across the social sciences at the University of Virginia to create NLP tools. Outside of academia, Teubner has served as Director of Global Covenant Partners and Economist at Lehrman, Bell, Mueller and Canon in Washington, DC. Since 2021, Jonathan has led the Social Connectedness Research group at the Human Flourishing Program in Harvard's Institute for Quantitative Social Science. Teubner has a Masters degree from Yale and a Ph.D. from the University of Cambridge and has held fellowships at the Sorbonne in Paris, the Humboldt-Universität zu Berlin, and Yale.

David P. Smith is Co-Founder and CTO at FilterLabs. Most recently, Smith served as Director of Engineering at A Cloud Guru. Previously, he was VP of Technology at Linux Academy. Smith has gained extensive experience in full stack development, agile methods, dev-ops, management of security and engineering processes, and team leadership in a wide range of tech startup scenarios. His experience ranges from cloud-based application development, database management and security administration, to Natural Language Processing corpus collection and training. In his academic career he specialized in language and literary theory. David has Masters degrees from Princeton Seminary and Yale.

# Appendix: Methodology

## Data Types and Processes

### Discursive Data Collection

- We collect artifacts by region for several broad categories:
  - News
  - Forums
  - Social Media (VK, OK, FB, Telegram)
  - Legislation
- This data is structured by:
  - Author
  - URL
  - Body Text
  - Title Text
  - Publish Date

### Discursive Data Processing

- Each artifact is processed for:
  - Key Phrases
  - Entities
  - Sentiment
  - Emotion
- In addition, Key Phrase and Entity findings are processed for:
  - Local Document Sentiment
  - Local Document Emotion

### Discursive Data Analysis

- This data is made available for Subject Matter Experts (SMEs) to query and review.
- Available Query Scopes:
  - Date Range
  - Location
  - Media Type
  - Lucene Text Matching

### Behavioral Data Collection

- We collect data from a catalog of over 7000 sources
- Once we select a source we ingest it and normalize it in our data clusters

### Behavioral Data Analysis

- The data can then be charted by behavior, region and date range.

### SME Analysis

- Our SMEs help design the queries based on knowledge of the problem and their knowledge of Russian social and political domains

## SME Reporting

- Our SMEs make available current queries, findings for real-time viewing throughout the time period
- Our SMEs produce a report outlining their findings for the final deliverable.

## Definitions

- **Sentiment** - A measure of the probability that the average reader would label the document as positive, negative or neutral. We then average these scores out to produce a single score for each document, or document fragment in the case of entity or key phrase scoring. It is important to note that sentiment scores are often much more useful as a means of detecting subtle shifts in overall language over a given period of time than as an exact representation of a particular attitude.
- **Key Phrase** - A key phrase is detected in a document by finding strong correlations between a whole document and a particular phrase within a large language model.
- **Emotion** - Similar to sentiment, this is a measure of the probability that an average reader would label a document or document fragment as an expression of joy, sadness, fear, anger, or surprise.
- **Entity** - We use entity extraction techniques to automatically identify people, places, and other objects of potential interest within a document.

## Standard Deviation

A low standard deviation in this kind of data indicates a smaller range of views being expressed, or most views clustering around a few points. A high standard deviation indicates a larger range of views being expressed. The correlation between attitude change and the range of perspectives in the conversation is a key technical indicator that FilterLabs tracks.

## Verification

Analytical outputs are routinely spot-checked by FilterLabs Russian specialists to verify that results correspond with underlying data. Our spot-checking method follows the following conventions:

- FilterLabs analysts perform spot-checks of recent results by reading a selection of the underlying articles or posts to determine whether signal processing accurately assessed the topic, sentiment, and emotional register of the relevant text artifacts. Periodic assessments will be reported internally to the technical team; technical team lead will determine whether any modification is necessary.
- FilterLabs analysts will perform a more comprehensive assessment of any anomaly and/or any statistically significant divergence from the trendline by reading a more comprehensive selection of articles and posts that underlie the relevant output in order to verify the changes being tracked. Anomaly assessment will be reported directly to the technical team lead.
- FilterLabs technical team performs regular performance tests on signal processing algorithms and NLP tools. Results are cross-checked with manual review of a selection of the outputs.

# Notes

- 1 For example: “Москва оказалась на втором месте по средним зарплатам” (“Moscow in second place in terms of average salaries”), 12 July 2023, <https://www.bfm.ru/news/529468>.
- “Зарплата московских строителей почти на 20% выше региональных коллег” (The salaries of Moscow builders are almost 20% higher than their regional colleagues”), 3 July 2023. <https://realty.interfax.ru/ru/news/articles/146092/>.
- “Мосстат назвал зарплаты москвичей в течение восьми месяцев этого года” (“Mosstat announces the salaries of Muscovites for the first eight months of the year”), 2 Nov. 2023, <https://rg.ru/2023/11/02/reg-cfo/mosstat-nazval-zarplaty-moskvichej-v-teche-nie-vosmi-mesiacev-etogo-goda.html>.
- 2 Source: Central Bank of Russia, [https://cbr.ru/eng/statistics/macro\\_itm/dkfs/ext\\_dep\\_indicator/](https://cbr.ru/eng/statistics/macro_itm/dkfs/ext_dep_indicator/)
- 3 “Правительство утвердило стратегию повышения финансовой грамотности” (“The government has approved a strategy to improve financial literacy”). 27 October 2023. <https://www.vedomosti.ru/finance/news/2023/10/27/1002911-pravitelstvo-utverdi-lo-strategiyu-povisheniya-finansovoi-gramotnosti>
- 4 See, for example, “Задолженность россиян перед банками превысила 30 трлн рублей.” (“The debt of Russians to banks passed 30 trillion rubles”), 30 June 2023 ( <https://iz.ru/1537075/2023-06-30/zadolzhennost-rossiian-pered-bankami-prevysila-30-trln-rublei>) and “Долговая нагрузка россиян на фоне кризиса снизилась впервые за семь лет” (“The debt burden of Russians decreased for the first time in seven years amid the crisis”), 21 October 2023, (<https://www.rbc.ru/finances/21/10/2022/6352655e9a7947d29f128d6b>).
- 5 See “Депутаты приняли закон о самозапрете на кредиты с 1 марта 2025 года” (“Deputies adopt a law on self-ban on loans from March 1, 2025”), 20 Feb. 2024, <https://www.interfax.ru/russia/946973>, and “Сенаторы одобрили закон о самозапрете на кредиты” (“Senators approved the law on self-ban on loans”), 21 Feb. 2024, <https://www.interfax.ru/russia/947131>.
- 6 “От пяти кредитов и больше: россияне погрязли в долгах” (“From five loans or more: Russians are mired in debt”). Banki.ru. 2/1/2024. <https://www.banki.ru/news/lenta/?id=10998738&fbclid=IwAR0TE6-hVljccGEhLyWHmx23iow0g-zcshY9eUmTEhLT-Lblw5YDzwmhDuUU>
- 7 “Russia has reduced spending on drug purchases in 2023. Saved funds could be redistributed to the needs of the army.” ВАЖНЫЕ ИСТОРИИ (Important Stories). 24 January 2024. <https://istories.media/news/2024/01/24/rossiya-sokratila-raskhodi-na-zakup-ku-lekarstv-v-2023-godu-sekonomlennye-sredstva-mogli-pereraspredelit-na-nuzhdi-armii/>
- 8 “Зарплата в 125 тысяч рублей реальность? Какие доходы у тюменских медиков.” (“Is a salary of 125 thousand rubles a reality? What are the incomes of Tyumen doctors?”). 10 September 2023. <https://72.ru/text/gorod/2023/09/10/72683339/>
- 9 “Здоровая конкуренция: как российское производство медизделий справляется с санкциями”. (“Healthy competition: how Russian medical equipment production deals with sanctions”). 14 June 2023. <https://www.vedomosti.ru/gorod/ourcity/articles/kak-rossiiskoe-proizvodstvo-medizdelii-spravlyaetsya-s-sanktsiyami>
- 10 Erol Yayboke, Jonathan D. Teubner, Abigail Edwards, and Anastasia Strouboulis, “AI Can Tell Us How Russians Feel About the War. Putin Won’t Like the Results,” Politico, February 25, 2023: <https://www.politico.com/news/magazine/2023/02/25/ai-russians-feel-war-putin-ukraine-00084145> [Accessed on February 14, 2024].
- 11 See the Standard Deviation portion of the Appendix for more information.