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## Russia’s adaptation to sanctions crisis: how far do the advantages of a “big country” go?

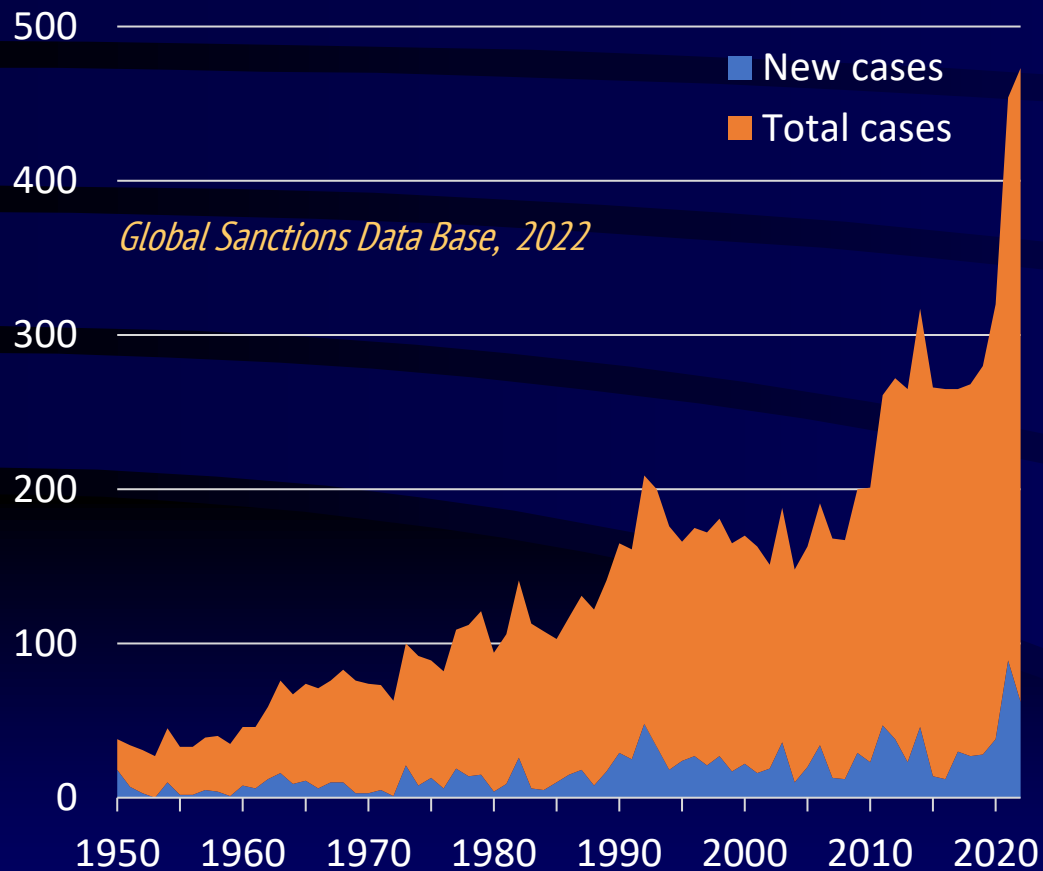


**Nataliya Smorodinskaya & Daniel Katukov**  
**Institute of Economics,**  
**Russian Academy of Sciences**  
(Centre for Innovation Economy and Industrial Policy)

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**As a tool of international policy, sanctions have both its proponents and critics.** However, their use has seen a steady expansion in the past seven decades (especially rapid since 1990s). Today, the number of active sanctions cases increased tenfold compared to 1950 (with approximately **500** cases per year spanning roughly **100** countries) *(Syropoulos et al., 2022)*

### **The intensity of sanctioning steadily rises (number of new and active sanctions cases per year)**

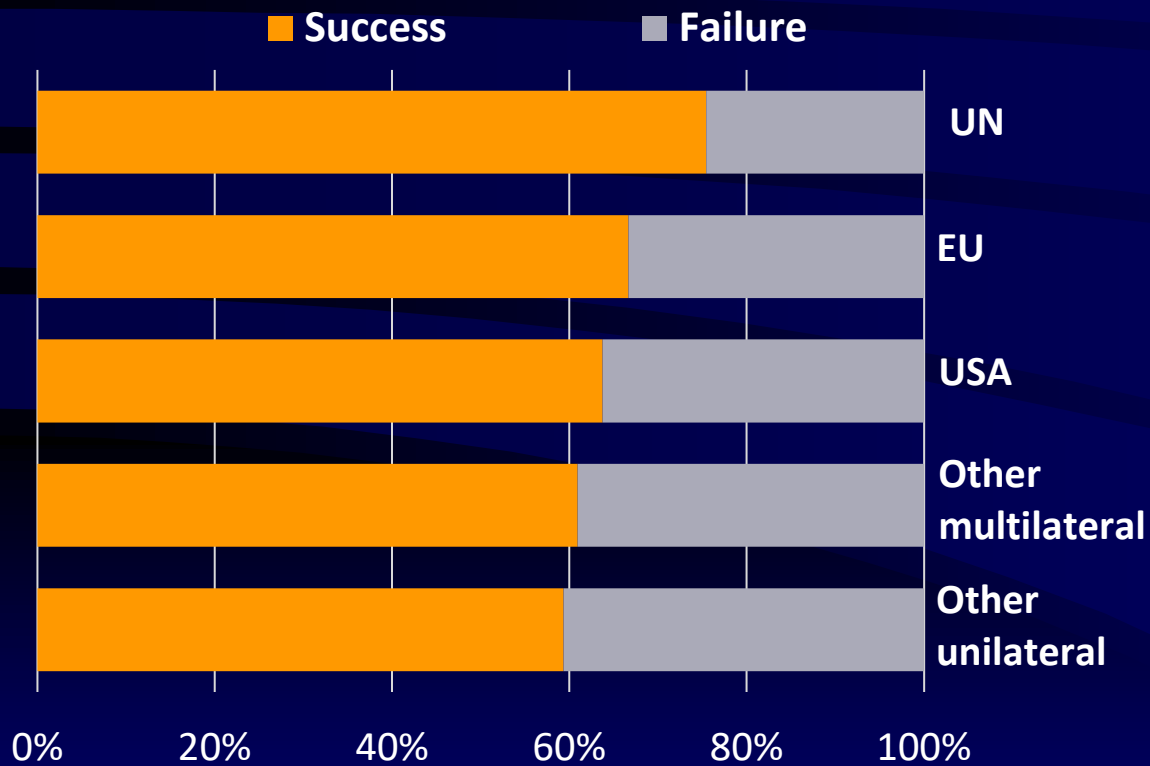


**The modern sanctions concept** originates from the **neoclassical idea of a rational agent** - imposing economic losses on a target country should make its leaders to revise their political decisions violating the international law *(Jones 2015)*.

- Unlike many historians and political scientists *(Mulder, 2022)*, **most international economists view sanctions as a justified measure** – they save many lives even if their political goal (from stopping military conflicts to protecting human rights) is achieved only partially *(Hufbauer, 2009; Morgan et al, 2023)*.
- **The success rate of completed sanctions cases** is represented in scores in the **Global Sanctions Database** – the main statistical source for analyzing sanctions (1,325 cases spanning from 1950 to 2022).
- A universally accepted theory of sanctions has not yet emerged *(Hufbauer, 2021)*. Economists recognize the complexity of this issue and **the need for an interdisciplinary theory of sanctions** *(Felbermayr et al, 2021)*.

**The key challenge for sanctions senders** is how to improve the performance of restrictions without negative side effects for third countries and the members of sanctioning coalition themselves. Adverse effects on the senders can intensify as the scope of restrictions on a target country expands (*Felbermayr et al., 2021*)

**The most effective sanctions are multilateral ones imposed by major international associations and organizations (cases for 1950-2022)**



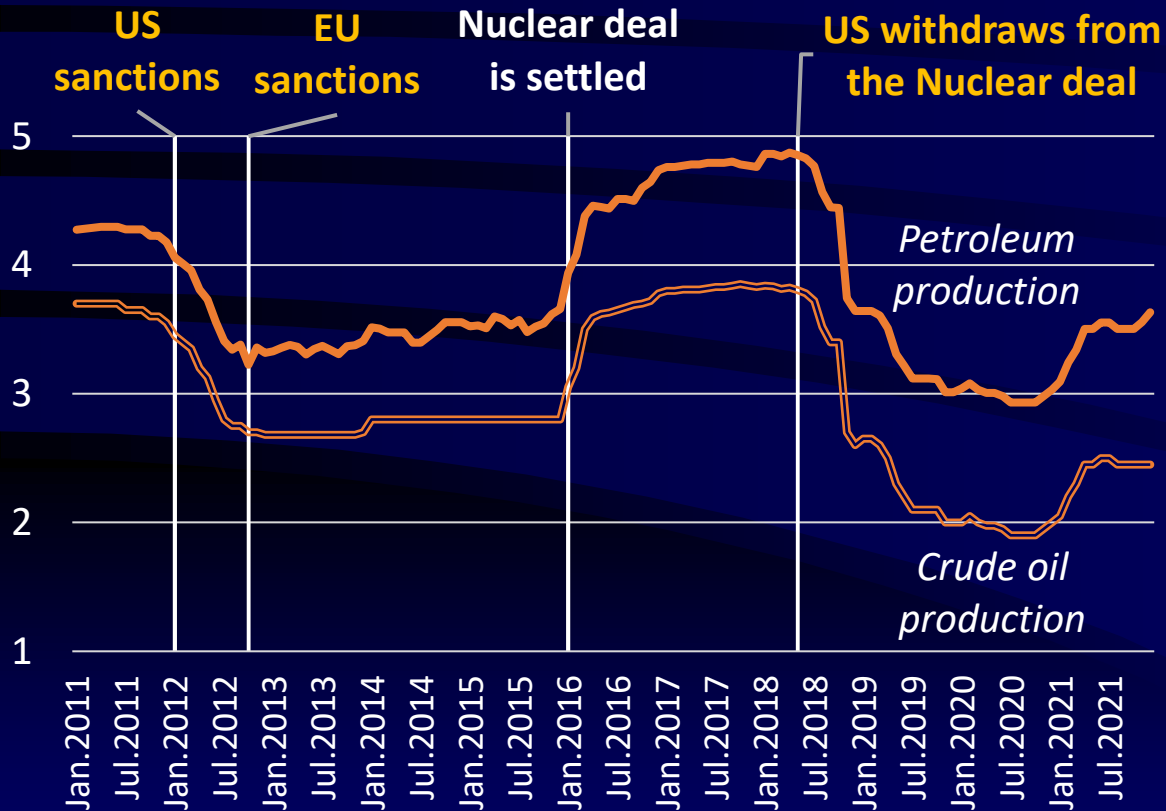
*Global Sanctions Data Base, 2022*

By the moment, **the empirical literature has unveiled the following** (*Morgan et al, 2023*):

- even if sanctions achieve their final political goals only in 25% of the time, the alternative of not using them would cost the world much greater, so **'the sanctions glass' should be seen a quarter full**
- the problem of 'black knights' (powerful countries that help the targets) can be solved **by broadening the sanctioning coalition**. Therefore, multilateral sanctions are most effective.
- the dynamics of mutual costs of both sides are important. **Coordination within a coalition has a double effect**: it increases the average welfare loss for the target country and simultaneously reduces collateral losses for each coalition member
- For example, coordination of broad sanctions of 2012 against Iran increased its losses by 4.5% (while reducing losses of the senders by an average of 8.3%), coordination of narrow restrictions of 2014 against Russia increased its losses by 9.3% (while reducing losses of the senders even more, by 9.6%) (*Chowdhry, Hinz et al. 2022*)

When modeling the 2022 sanctions regime against Russia, Western countries largely relied on the crisis experience of oil-exporting Iran, which is close to Russia in its structural vulnerabilities. Iran has been under collective sanctions by the US, the EU and the UN since 2011 and its experience has revealed the following.

### Decline, recovery and further decline in Iran's oil sector, 2011-2021 (million barrels per day)

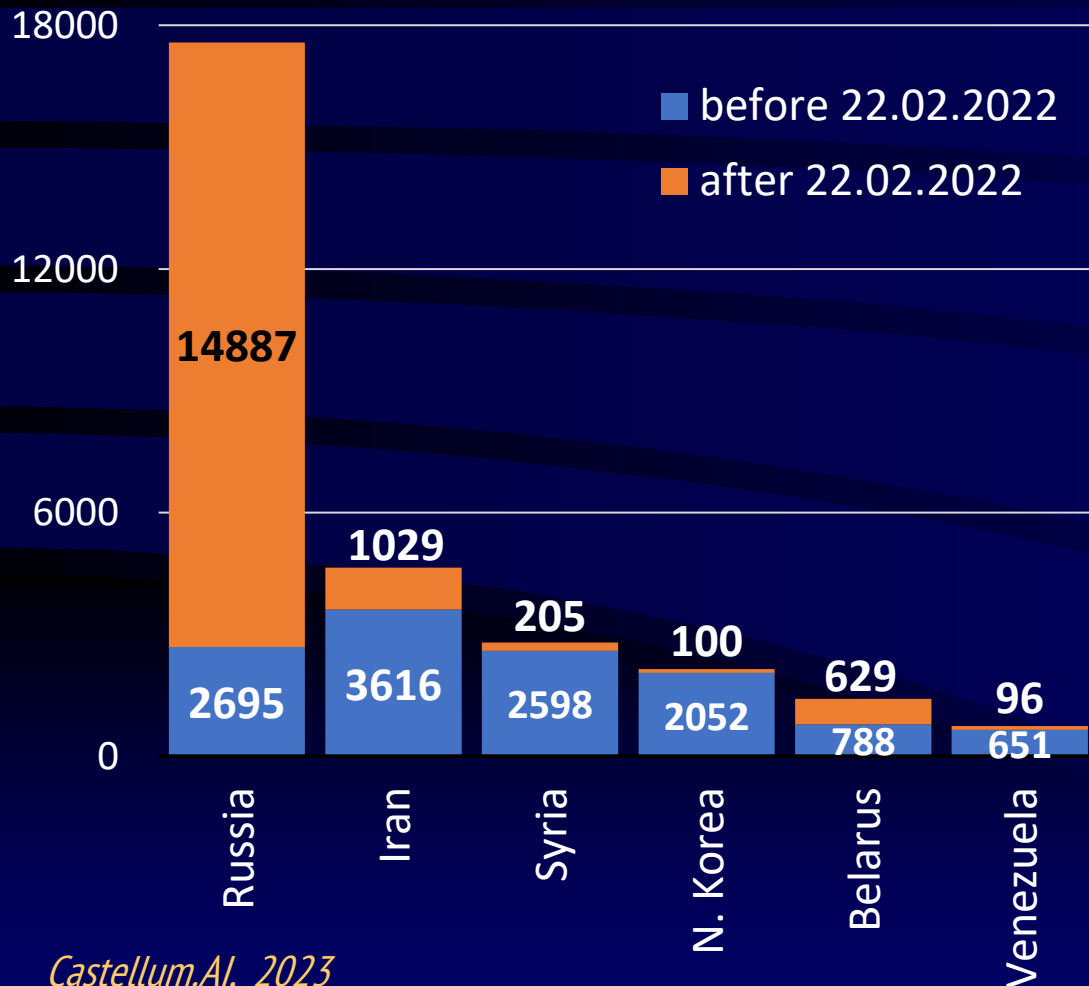


Energy Information Administration, 2022

- **Export embargo does work.** In Iran, the oil industry, and subsequently the entire economy, could return to growth only when embargo was temporary lifted (in 2016-2018, after Iran's agreement to the nuclear deal). And upon the reintroduction of embargo, it slipped below the initial decline and had not recovered yet (*Katzman, 2022*).
- **Sanctions oppress the economy even under well-established evasion schemes.** For 12 years in a row, Iran keeps suffering from hyperinflation (20-40% annually), frequent currency devaluations, and large GDP fluctuations, often marked by recessions (from +9% to -4%).
- **Sanctions deprive the economy of sources for development.** If it grows, then always below potential, which translates into **decades of lost output**. Today, Iranian GDP remains at the pre-crisis level of 2010, while per capita GDP has fallen back to the level of 1990s (*according to World Bank estimation at current prices*).
- **The sanctions crisis** lacks a classical cycle of a fall and a recovery, rather it is a **chaotic and long-lasting process of the economy's structural transformation in a regressive direction**

Nevertheless, **in the case of Russia**, the coalition of 43 nations (incl. 27 EU members) has embarked on a **unique historical experiment** fraught with uncertain implications for its participants and for the entire global economy

### Cumulative number of sectoral and targeted sanctions on key target countries (as of 21.08.2023)



Castellum.AI, 2023

Previously, oil exporters were subject to broad sanctions in the case of small economies (Iran, Venezuela) or on the contrary, to narrow sanctions in the case of large economies (like Russia in 2014).

**But in Feb 2022, for the first time, an unprecedented volume of sanctions was imposed on a "big country"** – the 11th largest economy and one of the first three global hydrocarbon suppliers, able to produce in case of its isolation a **powerful backlash effect** on the global energy market, other international markets, and the coalition participants themselves.

➤ Russia is subject to **17,500** restrictions (together with 2014 sanctions) – almost **4 times** more than Iran (a long-term leader among sanctioned states), and **1.5 times** more than all major target countries.

### The set of coordinated sanctions against Russia mirrors the Iranian one:

- **export embargo** undermines the mining sector (thereby affecting nearly half of Russia's budget revenues)
- **import embargo** disrupts the currency-deficient manufacturing sector
- **financial sanctions** cut-off both sectors and the government from capital markets and settlements in hard currency.

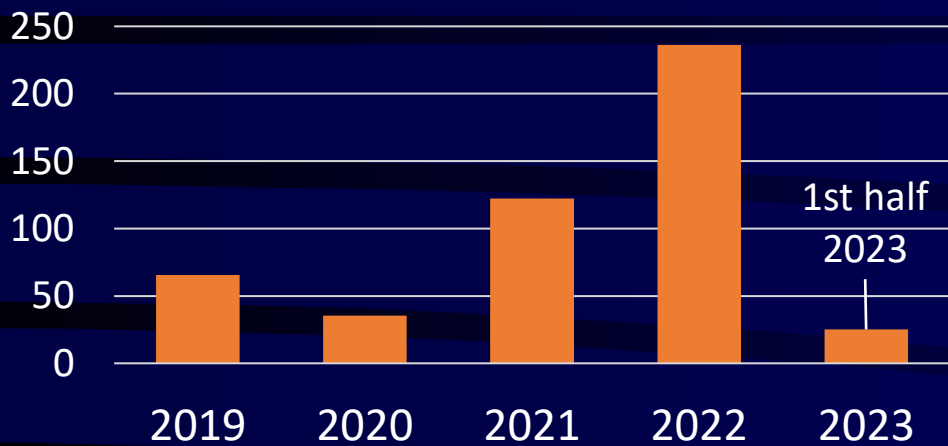
However, unlike Iran in 2012, **Russia went through the sanctions shocks of 2022 with a remarkable positive deviation in the history of sanctions** – it quickly curbed the inflation upsurge, sharply softened the annual GDP decline (down to -2.1% as compared to pessimistic forecasts of minus 8-11 %), and even **earned windfall profits on sanctions**, achieving record high surpluses for the last decade in both the current account (\$236 bn.) and the federal budget (1.5 tn. rubles)

**During the 1<sup>st</sup> year of sanctions, Russia managed to decrease costs for itself and increase them for the sanctions senders:**

- 1. Prompt reaction of the Bank of Russia to financial sanctions** helped to stabilize currency rates and the banking system's functioning
  - 2. Adaptive capacities of a large market economy (inertial safety margin, price flexibility, wide potential of alternative partners)** have enabled businesses to quickly reconfigure their disrupted supply chains. **The legalization of parallel imports and the rapid switching of trade towards Eastern countries** (China, India, Turkey and others) played a significant role in this adaptation.
  - 3. The "big country" factor (the risk of Russia's disengagement from the global energy supply system)** compelled Europe to postpone the full oil embargo until Dec. 2022. Meanwhile, global markets responded with an abnormal upsurge in oil and gas prices. Acceleration of global energy inflation in the 1st half of the year enabled Russia to enlarge revenue from exports (both to Europe and to alternative markets) even under a fall in its physical volumes. With imports from Europe halving, this provided Russia with a record current account surplus (*Demertzis et al., 2022*)
  - 4. The budgetary stimulus to support economic growth became operational in the end of 2022.** The authorities converted foreign currency windfalls into growing budget expenditures to serve the needs of SMO ("special military operation"). These money bolstered government investment and military procurements, and also indirectly stimulated consumer demand.
- By the end of 2022, there occurred a strong impression among experts that **sanctions were working more against the sanctions coalition than against Russia itself**. However, this impression turned out to be false.

The achievements of 2022 did not save Russia from the sanctions crisis effects but just postponed them for a while. As soon as energy inflation in the West started to recede, and Europe imposed a complete oil embargo, **the dynamics of key macro-financial indicators in Russia has reversed**

**Worsening of the current account** (bn. USD)



Bank of Russia data

**Worsening of federal budget** (tn. RUB)

	1 half 2022	1 half 2023	%
Revenue	158	145	-8
<b>Oil revenue</b>	7.2	4.2	<b>- 41</b>
Expenditure	153	173	<b>+ 14</b>
Balance	0.6	- 2.8	<b>- 606</b>
<i>Jan-May peaks</i>	<b>+ 1.5</b>	<b>- 3.4</b>	<b>- 327</b>

Ministry of Finance operational data

### Trends observed in the 1<sup>st</sup> half of 2023

- **The current account surplus has almost gone to zero**, falling below the pandemic 2020 levels (to \$25 billion), because exports shrunk in physical volumes and fell in price, while imports, on the contrary, increased and became more expensive. **Currency earnings from capital operations also sharply decreased** due to a continued capital flight coupled with a zero inflow of FDI to Russia.
- **Oil and gas budget revenues shrank** (by 40-46%), **while military expenditures grew steadily** (50% increase in Q1). This led to **a record budget deficit**, exceeding in the first 5 months (3.4 trill. Rb) the planned annual figure (2.9 trill.), or a sixfold surge in 1<sup>st</sup> half 2023
- **The ruble fell into a 7-month trend of slow but steady weakening**. This ended in August with its abrupt depreciation (to the level of 100 Rb per USD), which much contributed to **the unwinding of inflationary spiral once again**
- **The main challenge for a 'big country'** is not sudden sanctions shocks but rather the cumulative effects of sanctions over time, i.e. the subsequent macroeconomic stress (**a "sanctions stress"**) which cannot be mitigated by traditional anti-crisis measures (*Smorodinskaya & Katukov, 2022*)

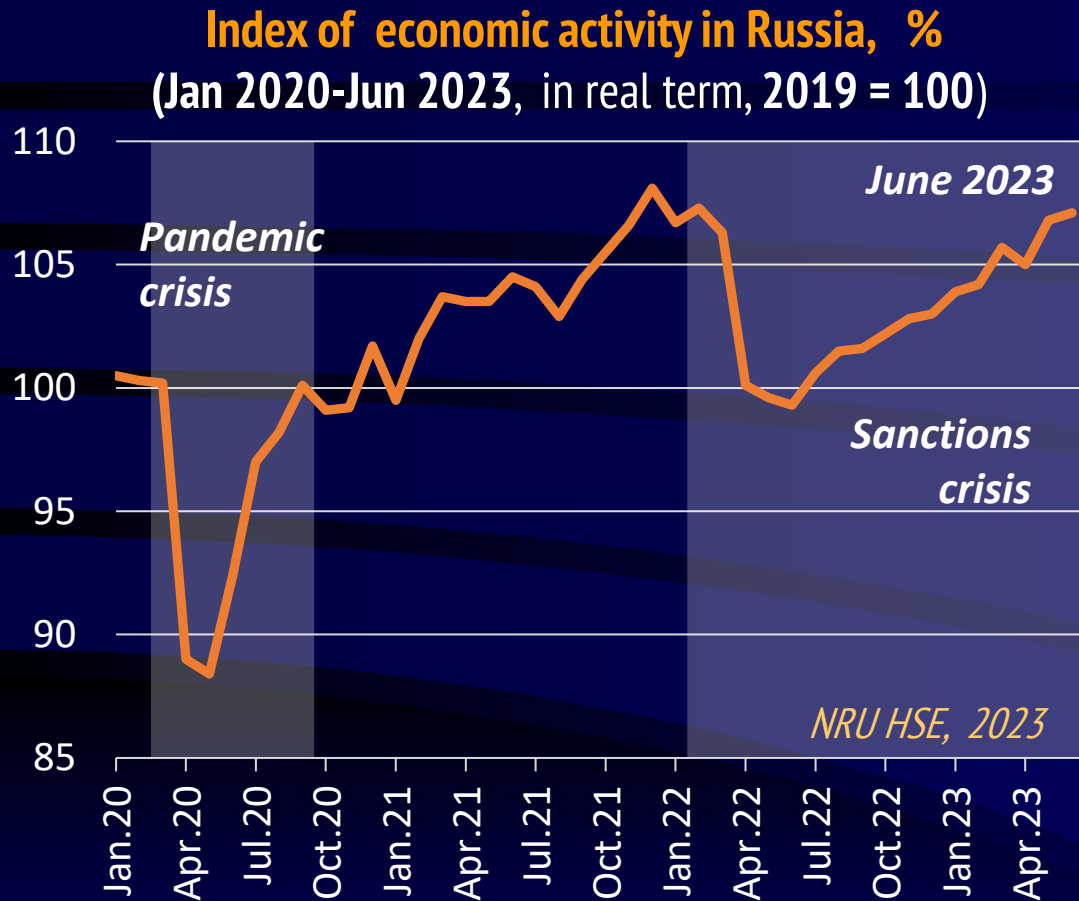
**The 2<sup>nd</sup> year of sanctions** is marked for Russia **by exhaustion of its advantages as a “big country”** – it is seemingly no longer possible to support the stability of the ruble and of the federal budget by extracting oil rents

**Fundamental factors accelerating further inflation and undermining Russia’s macro-financial stability:**

- 1. Stabilization of oil and gas prices.** Markets have already adapted to backlash effects of sanctioning Russia and to Russian gas counter-sanctions. Europe has got over a severe crisis and has practically got out from its dependence on Russian supplies
  - 2. The trend of eroding Russia’s export revenues by sanctions has become more pronounced** (*Golovnin, Lenchuk, 2023*). Russia’s switch to the Eastern oil markets can slow down this erosion but not compensate for the loss of Western markets after the imposition of a full embargo. And Russia’s practical loss of natural gas markets across the world just exacerbates this trend.
  - 3. The trend of rising Russia’s costs in the sphere of imports, production, and trade transactions** (due to payments to intermediaries in circumventing sanctions, costs of switching to far eastern markets, due to regressive import substitution, structural simplification, etc.)
  - 4. The situation of currency hunger.** A combination of factors (the dwindling export revenues, the ruble depreciation, the sanctions ban on payments in dollars and euros) creates a **chronic shortage of convertible currency for Russian businesses to pay for increasingly expensive imports**, even for critically important ones. In Iran, a similar shortage has led to barter trade and to using the semi-legal ‘hawala’; in Russia, it leads to receiving export earnings in rubles and yuan, which, however, poorly solves the problem of import supply
  - 5. Formation of a money supply overhang.** To finance military activities, Russia injects growing volumes of budget money into the economy, which fuels consumer and investment demand (through rising employment and wages) but does not create a mass of civil goods that the economy and citizens could consume to cover this demand.
- **Raising interest rates or other monetary measures can do little to curb the inflation pushed by sanctions costs and the fiscal overhang.** The recent drastic increase in the key rate by the Bank of Russia (from 7.5% in June to 12% in August) is likely to bring no relief but rather deprives businesses of a crucial source of borrowings to continue activity.



By mid-2023, a year after the peak decline, **the Russian economy had already restored its pre-crisis aggregate output levels.** This recovery is not a V-shaped rebound, as was the case after the pandemic shock in 2020, but it is twice as fast as usually happens in sanctioned countries. However, **this success also does not speak of Russia's high resilience to sanctions.**



Decomposition of aggregated industrial data (Bank of Russia, CMASF, HSE calculations for the 1st half of 2023) reveals that the **accelerated recovery is primarily driven by an artificial fiscal stimulus** - a sharp rise in budgetary allocations to industries serving the needs of the military operation (in manufacturing, this provided recovery by 60-65%).

Such growth model, heavily reliant on government spending and military procurements, **is highly vulnerable** – it leads to **structural distortions that exacerbate the effects of sanctions and creates significant imbalances in the supply and demand structure.**

➤ The dynamic growth of "heavy" investment sectors serving the military-industrial complex stands in contrast to the sluggish recovery of consumer-oriented manufacturing sectors and to the stagnation close to recession in mining sectors. **The rapid influx of government investment into prioritized sectors contrasts with the private investment decline in other sectors.**

➤ **Budgetary stimulus embedded in the idea of Keynesianism and in Roosevelt-era 'military Keynesianism'** is meant to trigger a sustainable rise in consumer and private investment demand. But **when sanctions are in place**, government demand remains the main or even the only driver of growth, while budgetary injections into the military-industrial complex do not entail an equivalent rise in the civilian sectors.

**How sanctions work.** By the fall of 2023, the Russian economy had passed the peak of recovery and now it is entering a slowdown trend close to L-shaped stagnation. Its further rise is hindered by a combination of factors, including the impact of sanctions, resource constraints (technological, financial, labor), subdued demand, the accumulation of imbalances, and inflationary rise in costs. All of these are **the attributes of a prolonged sanctions-induced stress.**

**Dynamics of main Russia's macroeconomic indicators after 1.5 years under sanctions, %**

	2021	2022	2023
<b>GDP</b>	4.7	-2.1	1.5-2.5
<b>Investment</b>	6,8	3,3	3,3
Exports	3,5	+ 14	+ 5.5
Imports	16.9	- 15	+ 15
<b>Inflation</b>	8.4	13.8	5.1-5.7

GDP growth in the 1<sup>st</sup> half of 2023 is up 1,6%

*2023 r. - July forecast by Bank of Russia (averages)*

The Central Bank's summer macroeconomic forecast will undergo revisions. But regardless of concrete performance indicators for the end of 2023, **sanctions and the excessive concentration of resources in the military-industrial sector will make GDP growth nominal**, when it doesn't reflect the country's well-being but rather masks the decline in overall welfare.

- Key growth drivers (export demand, consumer and private investment demand) have been severely undermined by sanctions. Furthermore, **the state's budgetary capacity to maintain the previous level of demand and to support civilian sectors is narrowing.**
- Under sanctions, Russia fundamentally loses productivity and moves to **an extremely costly growth model**, in many ways reminiscent of the Soviet one in its inefficiency. The main mechanism of **the economy's self-adaption to the sanctions stress is its structural simplification**, starting with the return of businesses to an archaic labor-intensive cost model

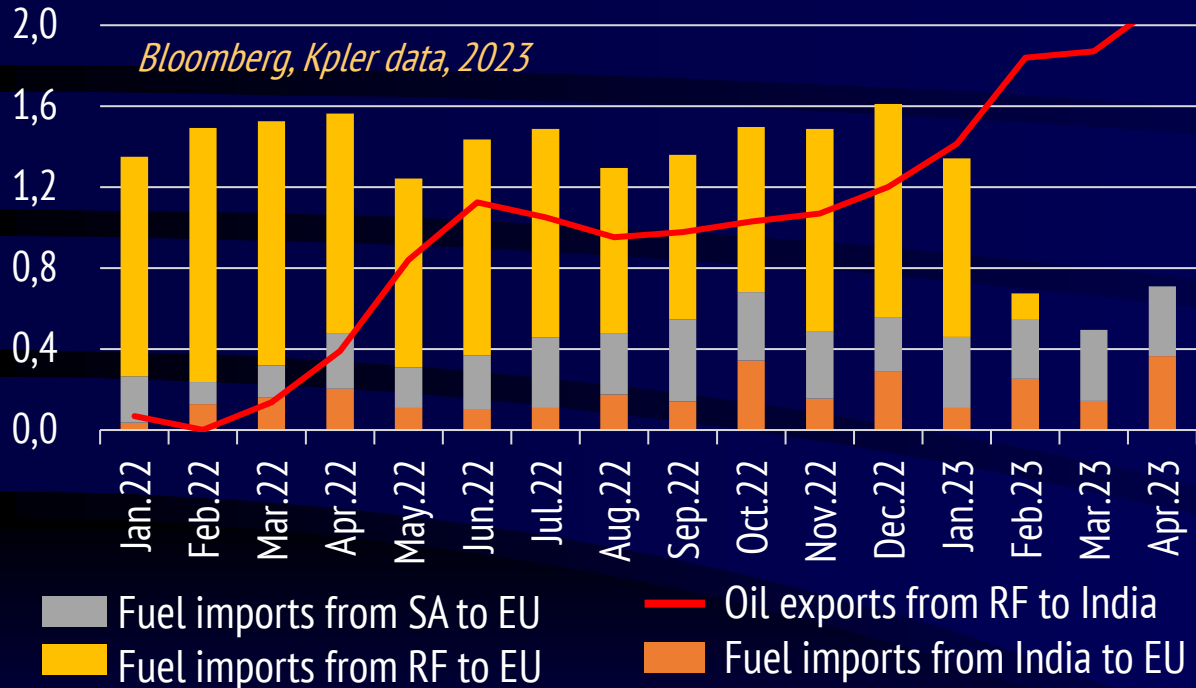
- **The current growth model, based on budgetary stimulus and defense procurement, presents a trap. It's easy to enter this model under sanctions but it's difficult to exit it without avoiding an economic collapse.** As the costs continue to grow due to rising inflation, it will require ever greater budget expenditures and hence, their inflationary financing. On the other hand, **any reduction in government spending can disrupt stabilization, resulting in a deep downfall** with the retirement of excess production facilities.

**How else sanctions work.** In the case of a "big country," they can work in a non-linear way through reshaping global markets. Russia's sanctions losses can turn into benefits not for sanctions senders but rather for its 'friendly countries' who thus become **primary beneficiaries of Russia's sanctions regime**

**EU, Russia and third countries:**

shifts in fuel and crude oil trade (million barrels/day)

*Bloomberg, Kpler data, 2023*



Russia's benefits from increasing ties with third countries will gradually diminish. **The broader these ties are, the greater share of Russia's potential income they will appropriate** – through trade intermediation, through buying raw materials cheaper and selling mass consumption goods at higher prices, as well as through capturing Russia's processing capacities.

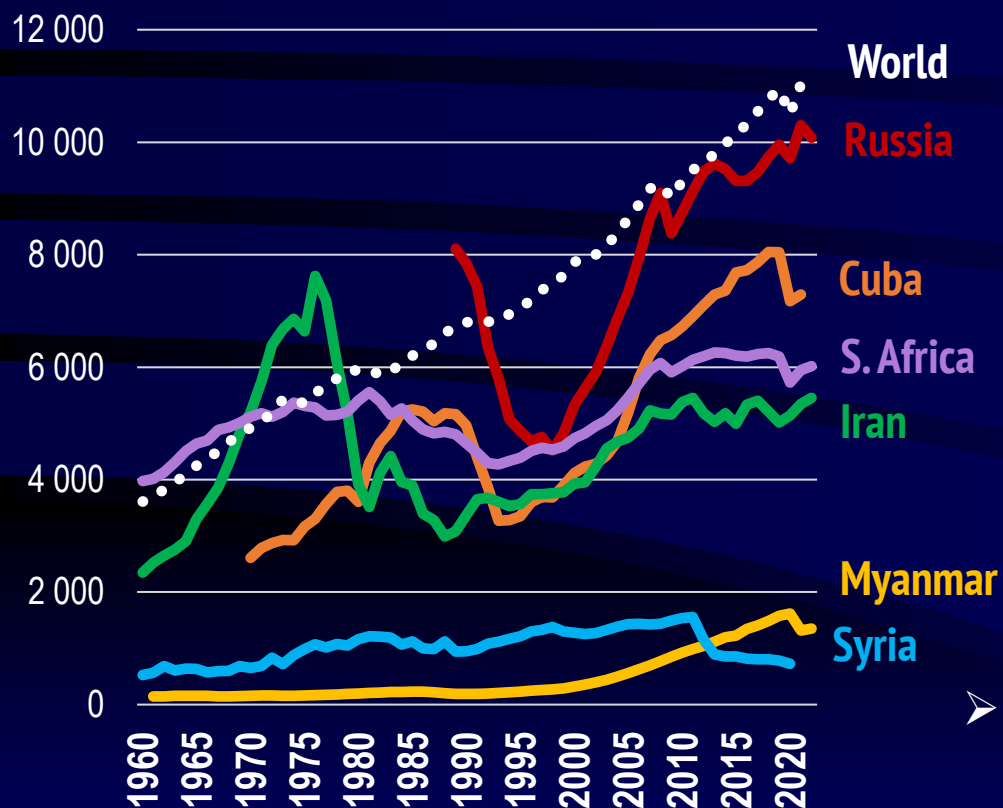
For instance, **India has unexpectedly become the main beneficiary of Russia's oil embargo.** In 2022, it increased its purchases of cheap Russian oil 33 times (China - by 30%), started refining it and now earns money on exports of diesel fuel to Europe, fully replacing Russia in the role of main supplier.

➤ To cover currency losses in refining, **Russia has to enlarge physical volumes of crude oil exports** (going by 80% to China and India), which under current discounts makes these efforts even more costly.

➤ **In terms of their economic capabilities, Russia's eastern partners cannot replace the western ones.** But they are pragmatically making a profitable business on Russia's sanctioned position. And **China will be the largest long-term beneficiary.**

The patterns of the sanctions crisis are not addressed in traditional economics. Nevertheless, it is evident that unlike market shocks, **sanctions are artificial, politically motivated external restrictions** that impose an immovable burden on the target economy, producing a cumulative depressing impact on its structure and productivity

### Countries under sanctions: GDP pc lags behind the global average (\$, constant prices 2015)

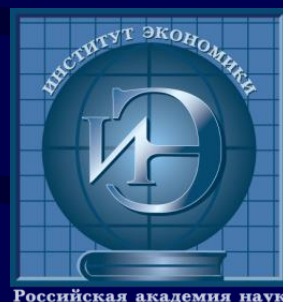


*World Bank.* No data for North Korea and Venezuela, data for Russia reflect the impact of 2014 sanctions

### The sanctions crisis regularities (Smorodinskaya & Katukov, 2022):

- Current success in resisting sanctions comes at the price of increased structural imbalances, **undermining further stability of the budget and the economy**
- Under sanctions, the crisis transformations can create new market opportunities for certain agents but simultaneously entail losses for others. **This prevents the translation of local achievements into macroeconomic gains.**
- In terms of imputed welfare losses, sanctions work similarly in any economy, regardless of its initial size, safety margin, or influence on global markets. Stylized facts (Neuenkirch, Neumeier, 2015) and World Bank statistics show that **the longer sanctions last, the further a country lags behind the rest of the world in terms of per capita GDP** (Iran, once a growing middle-income economy with the standard of living above the world average, now belongs to the group of poor countries due to cumulative impact of sanctions)
- Sanctions may not yield immediate results in achieving their stated objectives and may incur costs for members of the sanctions coalition. **But even a “big country” is subject to negative adaptation**, which gradually depletes its ability to continue its previous foreign policy

**Thank you for your attention!**



[smorodinskaya@gmail.com](mailto:smorodinskaya@gmail.com)  
[katukov@gmail.com](mailto:katukov@gmail.com)