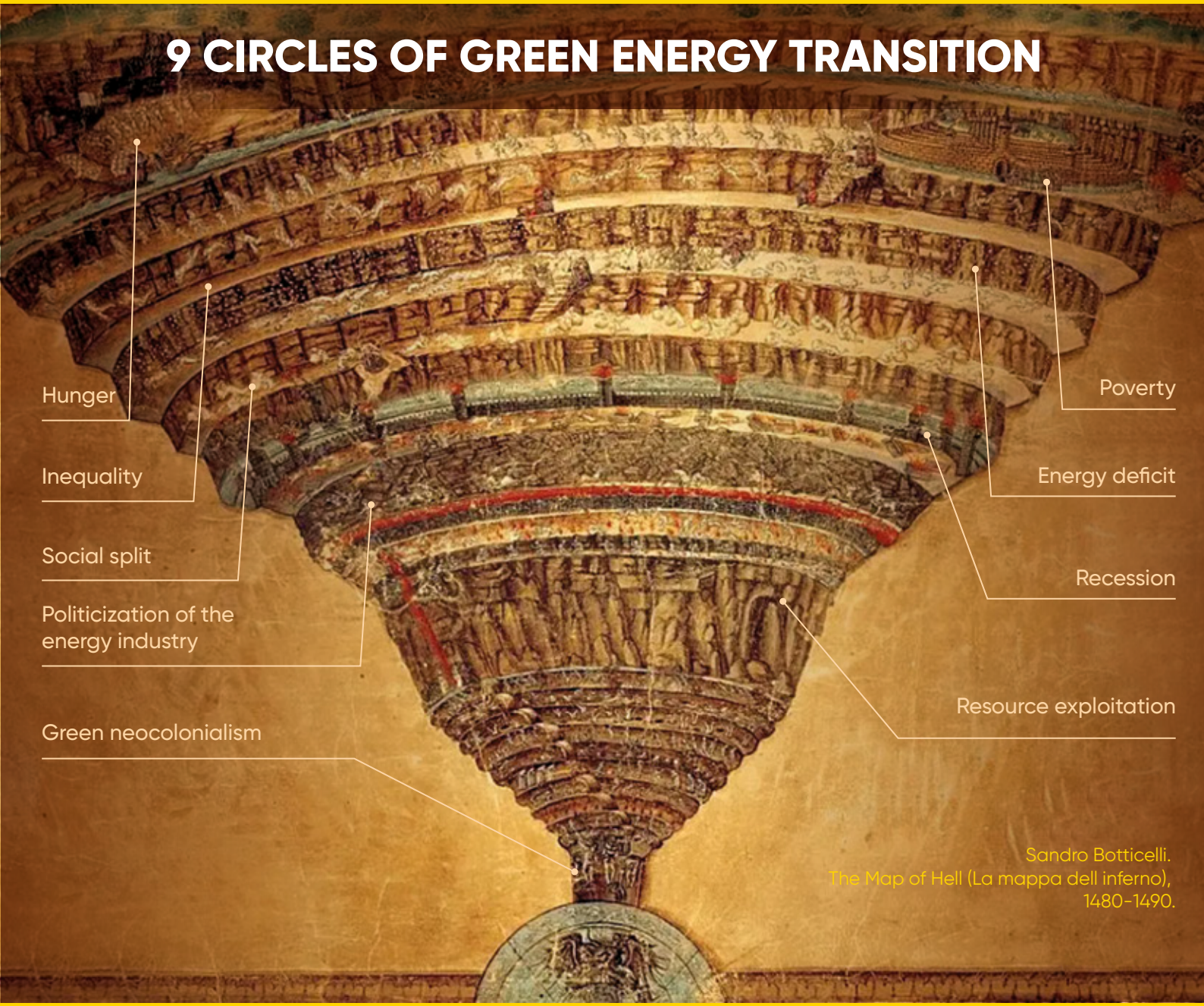
SPEECH BY I. I. SECHIN

ENERGY TRANSITION AND PHANTOM BARRELS:

ABANDON HOPE, ALL YE WHO ENTER HERE.
NOT EVERYONE WILL BE TAKEN TO THE BRIGHT FUTURE OF THE GLOBAL ENERGY INDUSTRY!



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ИГОРЬ СЕЧИН
9 кругов «зеленого» энергоперехода
РОСНЕФТЬ


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DEAR FORUM PARTICIPANTS!

I am pleased to welcome you at the Energy Panel and our discussion today!

I would like to wish everyone to stay in good health and successful fulfillment of your plans. On a separate note, I would like to thank **Aleksandr Aleksandrovich Dynkin,** Academician of the Russian Academy of Sciences and President of the Institute for World Economy and International Relations of the Russian Academy of Sciences, who moderates our discussion, and I would like to express my hope for a fruitful discussion that we will have today.

DISCLAIMER

Before starting this discussion, I should of course mention the limitation of liability since my presentation contains evaluative and predictive judgments.

THE LINK BETWEEN EMISSIONS AND CLIMATE CHANGE HAS NOT BEEN PROVEN

Proponents of the theory of anthropogenic climate change claim that it is caused by **carbon dioxide emissions due to "uncontrolled" burning of fossil fuels** - coal, oil and petroleum products, and gas. **But is this really the case?** Let's try to figure this out.

The Earth's climatic cycles develop according to the natural laws inherent in any cosmic body and are influenced by such basic factors as the condition of the atmosphere, the activity of the Sun, the distance of the Earth's orbit from it, the angle of inclination and position of other planets relative to our planet, and many others.

Climatic changes on the planet occur, among other things, as a result of fundamental natural phenomena that are not comparable in scale to the influence of the anthropogenic factor. Such phenomena include, in particular, **"super volcanoes",** whose eruption of lava and ash emissions exceed 1,000 cubic kilometers. Not only these disasters can radically change the landscape, but they can also provoke sudden cold spells, the so-called **"volcanic winters".**

For example, scientists estimate that the **eruption of the Indonesian super volcano Toba** which occurred **74 thousand years ago,** caused global temperatures to drop between **3.5 and 9 degrees Celsius**[1] as a result of the release of more than **2 billion tons** of sulfur dioxide into the atmosphere. It took several years for temperatures to recover to normal levels.

Comparable eruptions have occurred three times in the **Yellowstone Province in the United States,** and the last known supervolcanic eruption, Taupo, occurred in New Zealand about 25 thousand years ago.

About 2.5 million years ago, the Earth entered a **new climate pattern** - a sequence of alternating ice ages. According to scientists' estimates, during this term there were **40 to 50 separate periods of glaciation,** and each time they became longer and colder.

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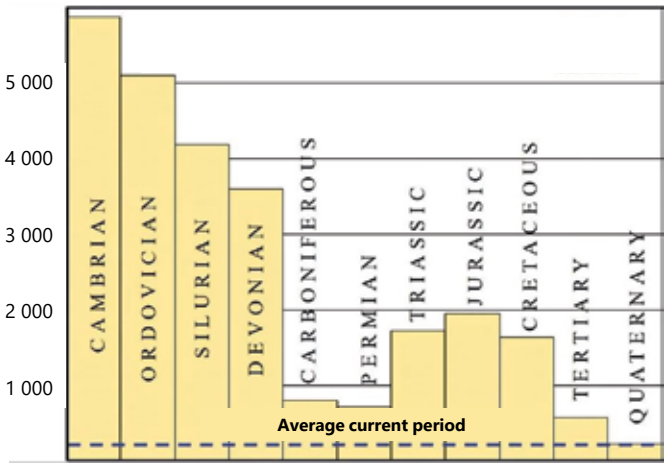
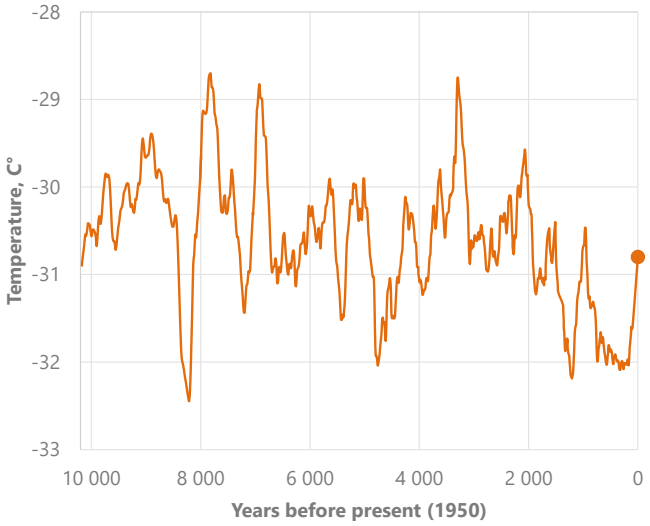
[1] Source: Nature.com, The Toba supervolcano eruption caused severe tropical stratospheric ozone depletion, 12.04.2021.

EMISSIONS IMPACT ON CLIMATE CHANGE IS NOT PROVED

Average CO_2 concentration by geologic period (ppm)



Average annual temperature on ice core in Greenland over 10,000 years



Source: National Centers for Environmental Information; Robert Bernerand ZavarethKothavalaGEOCARB III: A revised model of atmospheric CO_2 over Phanerozoic time, American Journal of Science (February 2001)

Their frequency and scale are determined by the peculiarities of our world and the influence of gravity of other planets in the solar system. The Earth's climate is transformed, among other things, by changes in the shape of the orbit and the tilt and direction of our planet's rotation axis that are subject to cyclical changes, the so-called **Milankovitch cycles[2].**

We should recognize that **the link between emissions and climate change requires an objective assessment,** and without it giving priority to the anthropogenic factor in climate change has no grounds.

According to a number of reputable scientists, such as **the Nobel Prize winner in physics John Clauser, the main cause of the Earth's climate change is the natural self-regulation mechanisms** of the planet, not the "human factor".

Geological evidence indicates that atmospheric carbon dioxide concentration and air temperature have changed continuously over the past **600 million years,** and almost all of these changes have occurred without the impact of fossil fuels or humans[3]. Moreover, **carbon dioxide concentration has been much higher during some geological periods**

[2] Milankovitch cycles are periodic oscillations named after the Serbian scientist who first figured out how space periods change Earth's climate.
[3] Source: Robert Berner and Zavareth Kothavala, GEOCARB III: A revised model of atmospheric CO_2 over Phanerozoic time, American Journal of Science, febraury 2001.

which has not led to catastrophic consequences for the planet. And evidence from the last ten thousand years suggests that **air temperatures have never been constant.** Since the end of the last ice age there have been nine warming periods and during seven of them temperatures were higher than today[4].

The proponents of the anthropogenic factor theory present the energy transition to us **as an illusion of saving the world.** Now, when we have already accumulated some experience of the energy transition, it is clear **that neither its goal nor, accordingly, the preparation for it have been elaborated in accordance with the tasks and needs of the mankind,** such as infrastructure, financing, supply of raw materials and availability of the technologies needed for this.

I would like to remind that back in 1976, the future Nobel Prize winner in Physics, Academician **Pyotr Leonidovich Kapitsa,** using basic physical principles (the law of conservation of energy), predicted the probability of a **global energy crisis in energy production due to the lack of efficiency of all types of alternative energy.**

As Kapitsa argued, the key characteristic of any type of energy is the **density of its energy stream[5].** By this parameter, such fossil fuels as oil (provides 195 W/m^2) and gas (482 W/m^2) are far ahead of solar energy (6.6 W/m^2) and wind energy (1.8 W/m^2) that, among other disadvantages, have an uneven or, to put it in more scientific terms, **stochastic nature of energy generation.**

From the studies available at the moment, **hydrogen** is considered to be the most promising type of "clean" fuel. However, there is still no commercially feasible production technology, logistics and, most importantly, sales markets for it. It is also necessary to take into account the low efficiency so far due to the fact that during hydrogen production the energy consumption spent for electrolysis is greater than the amount of energy obtained at the output. Thus, **alternative energy sources are not yet able to ensure either the reliability of supply or optimum technical and economic performance.**

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[4] Source: Source: P. L. Kapitsa, "Energy and Physics" presentation, 1975.
[5] Source: Source: P. L. Kapitsa, "Energy and Physics" presentation, 1975.

THE ENERGY MARKET - A HOSTAGE OF IRRESPONSIBLE POLICY

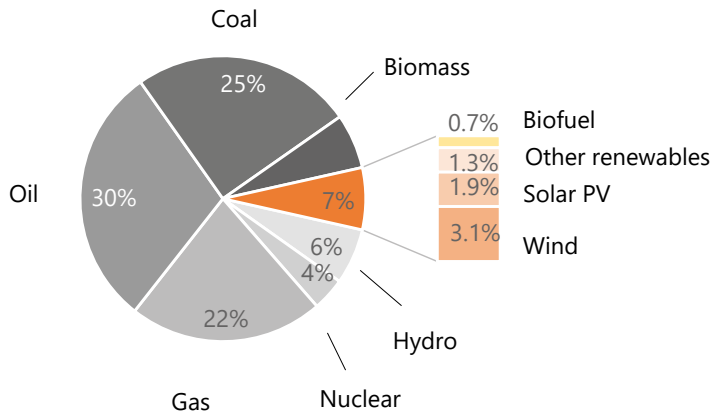
THE GOALS OF THE ENERGY TRANSITION IN ITS CURRENT FORM ARE IDEOLOGICAL AND UNREALISTIC

Despite about **10 trillion US dollars[6] invested in the energy transition** over the past two decades worldwide, alternative energy sources have failed to replace traditional fuels. Today, **wind and solar power** provide less than **5%** of the world's energy production, and electric vehicles account for about **3%[7].**

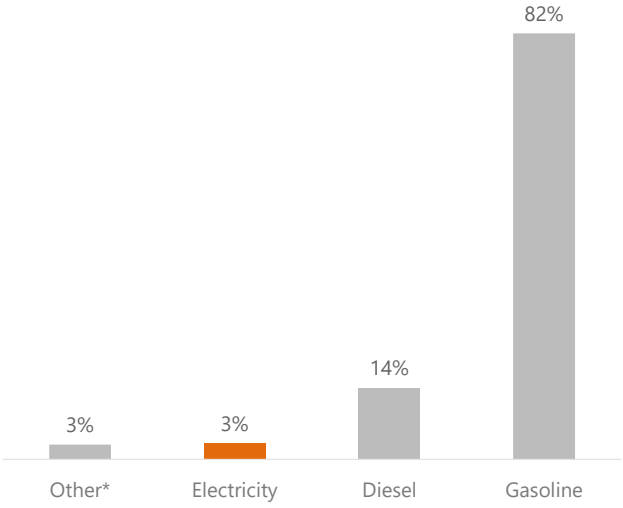
Over the same period, **oil, gas and coal** consumption grew by a cumulative **35%,** while their combined share of the global energy mix remained unchanged[8]. Moreover, **oil and coal consumption and the use of gas in power generation reached a new record** in 2023[9].

SHARE OF RENEWABLES IN THE GLOBAL ENERGY MIX IS STILL LOW

Global energy mix



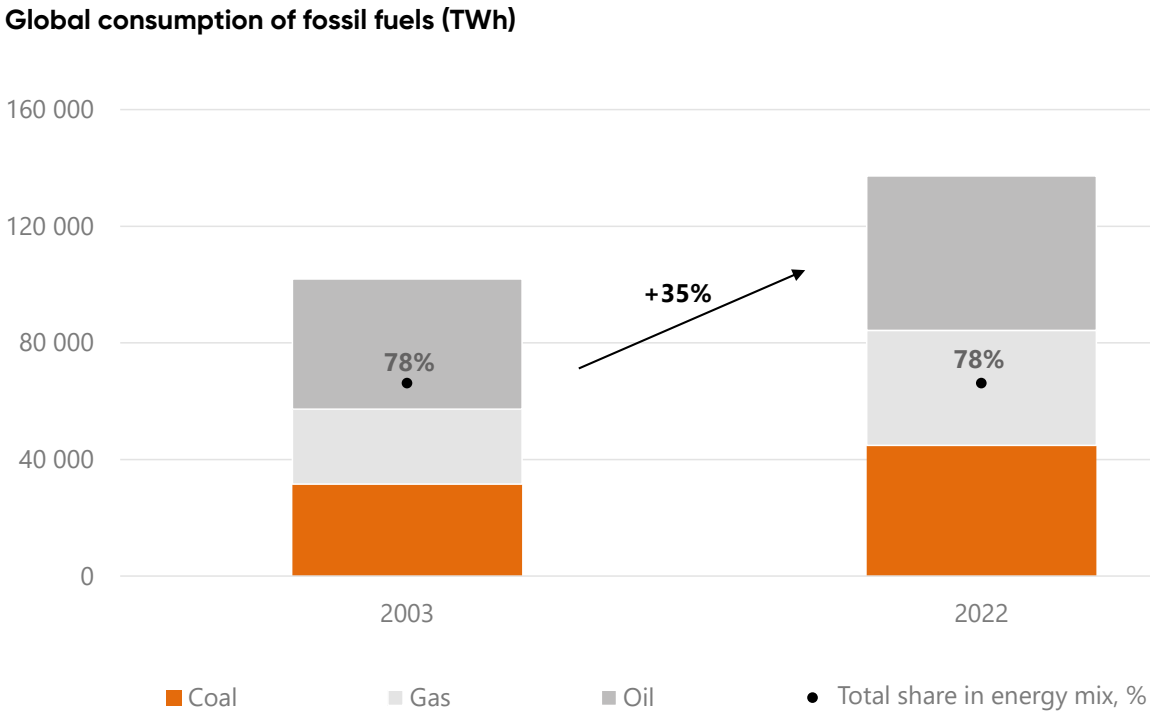
Global light-duty vehicle fleet by fuel type



Source: Our world in data, Wood MacKenzie. Note: (*) Global energy mix is for 2022, Global light-duty vehicle fleet by fuel type is for 2023, (*) includes liquefied petroleum gas and compressed natural gas

[6] Source: BloombergNEF, Energy Transition Investment Trends 2024 report.
[7] Source: Our World in Data (primary energy consumption for 2022, share of electric vehicles for 2023).
[8] Source: Our World in Data (primary energy consumption for 2022).
[9] Source: International Energy Agency, Global Energy Agency.

FOSSIL FUEL CONSUMPTION KEEPS GROWING



Source: Our world in data

THERE ARE NO PROFIT-MAKING SOURCES FOR THE "GREEN" TRANSITION

There are no profit-making sources for the "green" transition, and its implementation is an illusion, which leads to withdrawal of investments from the traditional energy sector. That is, there will be neither.

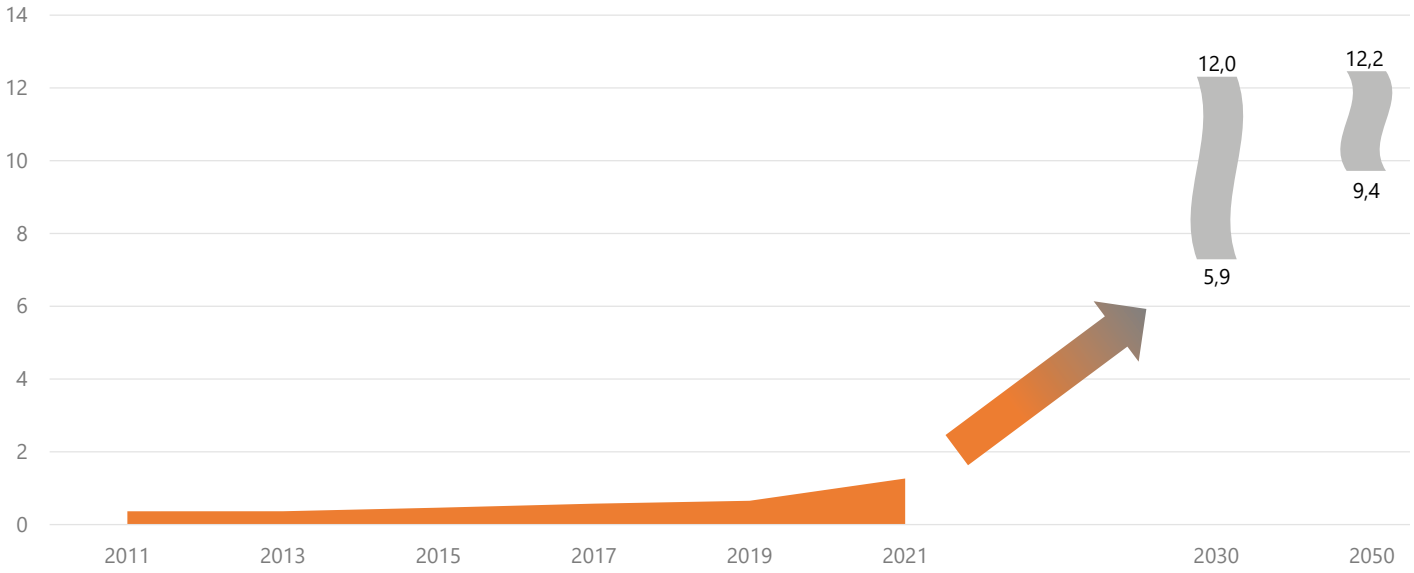
In order to meet the Paris Agreement targets, by 2030 **the global spendings on climate change** will need to be about **$9 trillion** per year[10], which is 5 times as much as was spent in 2023. This number equals almost **10%** of global GDP and more than **3 times** the annual investment in global energy[11]. It is also equivalent to the combined GDP of France, the UK and Italy. In total, **to meet the Paris Agreement targets by 2050 will require more than 270 trillion dollars[12] of investments.**

Obviously, **the climate agenda will require creating a new type of infrastructure, as has been the case many times before,** when in the

[10] Climate Policy Initiative Report: Global Landscape of Climate Finance 2023, November 2023.
[11] Source: International Energy Agency, World Energy Investment 2023 report.
[12] Climate Policy Initiative Report: Global Landscape of Climate Finance 2023, November 2023.

COST OF ENERGY TRANSITION TO TOTAL OVER 270TN US$

Global tracked climate finance investments and average estimated annual needs through 2050 (US$tn)



Source: ReportClimate Policy Initiative: «Global Landscape of Climate Finance of 2023», Novemberof 2023

19th century increasing coal production required huge investments in mines, canals and railroads; developing the oil industry in the 20th century required wells, pipelines and refineries; and generating power required constructing power plants and developing a sophisticated power transmission network system.

HOW EUROPEAN ALLIES WERE "SAVED" FROM PURPORTED ENERGY DEPENDENCE ON RUSSIA

The idea of energy transition and applied regulations are aimed at **strengthening the unipolar structure of the world order** based on the control over financial infrastructure, technology and logistics.

Such concept of energy transition is based on the discrimination against the entire world. Even the interests of allies can be sacrificed at

[13] Source: Eurostat.
[14] $260 billion in 2021 and $154 billion in 2022 IEA estimate , $360 billion in 2023 in BloombergNEF estimate (Energy Transition Investment Trends 2024 report).

any moment. **As a Russian saying goes, "Friends we might be, but we keep our tobacco apart".**

This was especially evident when implementing the project of "saving" Europe **from purported dependence on Russian energy resources.** In fact, by sacrificing its energy security, **the EU also gave up its sovereignty.**

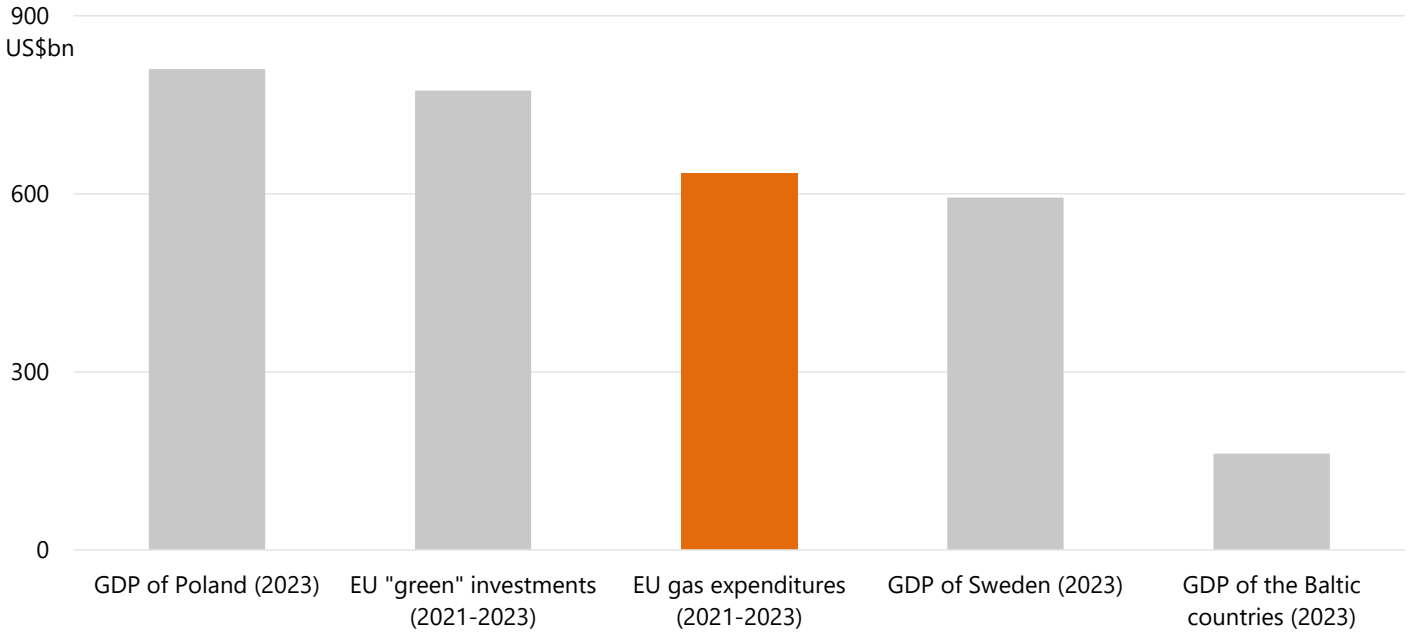
Having reduced its purchases of Russian energy, the **European Union** spent **in 2021 – 2023** more than **$630 billion**[13] on gas import from other countries.

This value is:

- comparable to Europe's total gas spending over the previous eight years;
- close to the European investments into green energy over the same period[14];
- comparable to the GDP of Sweden and Poland[15];
- and almost four times the combined GDP of the Baltic states[16].

EUROPEAN GAS BILL EXCEEDED 600BN US$

European gas bill exceeded 600bn US$

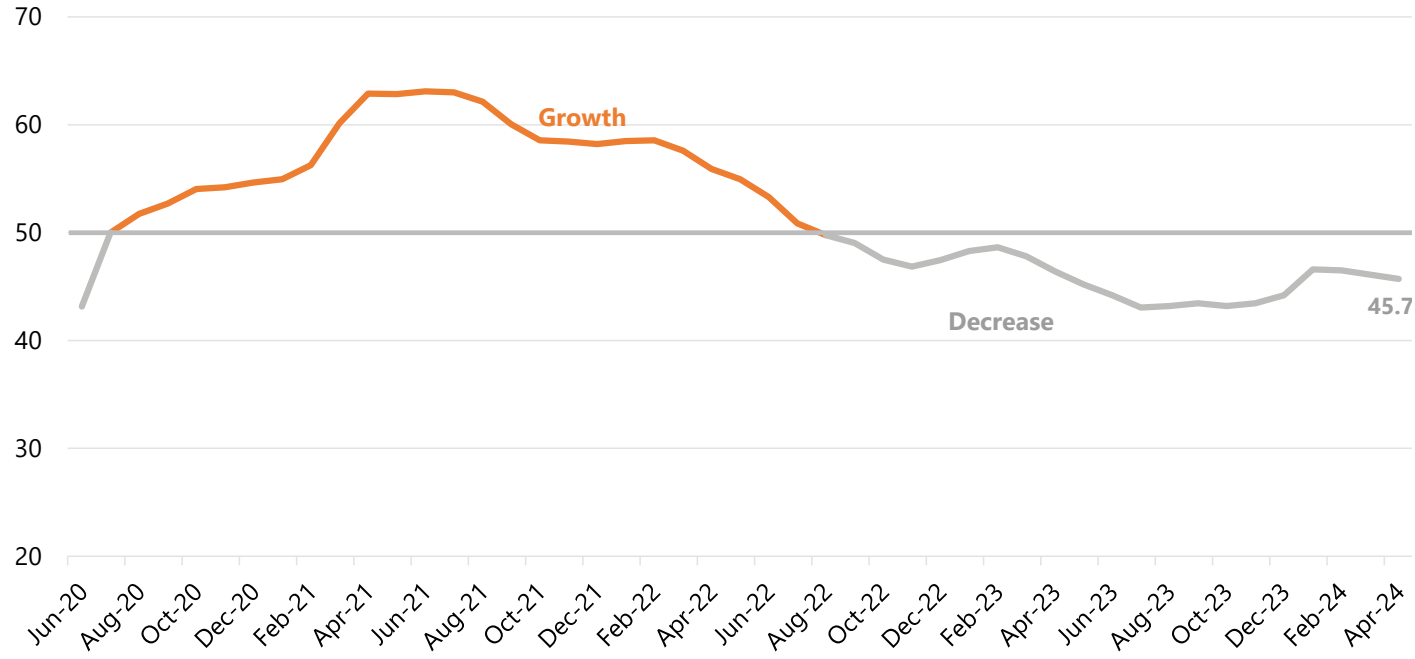


Source: Eurostat, IEA, IMF, Investing.com

[15] Sweden's GDP is $593 billion, Poland's GDP - $810 billion in 2023 according to the International Monetary Fund.
[16] $162 billion in 2023 according to the International Monetary Fund.

EU'S CHALLENGES: DEINDUSTRIALIZATION

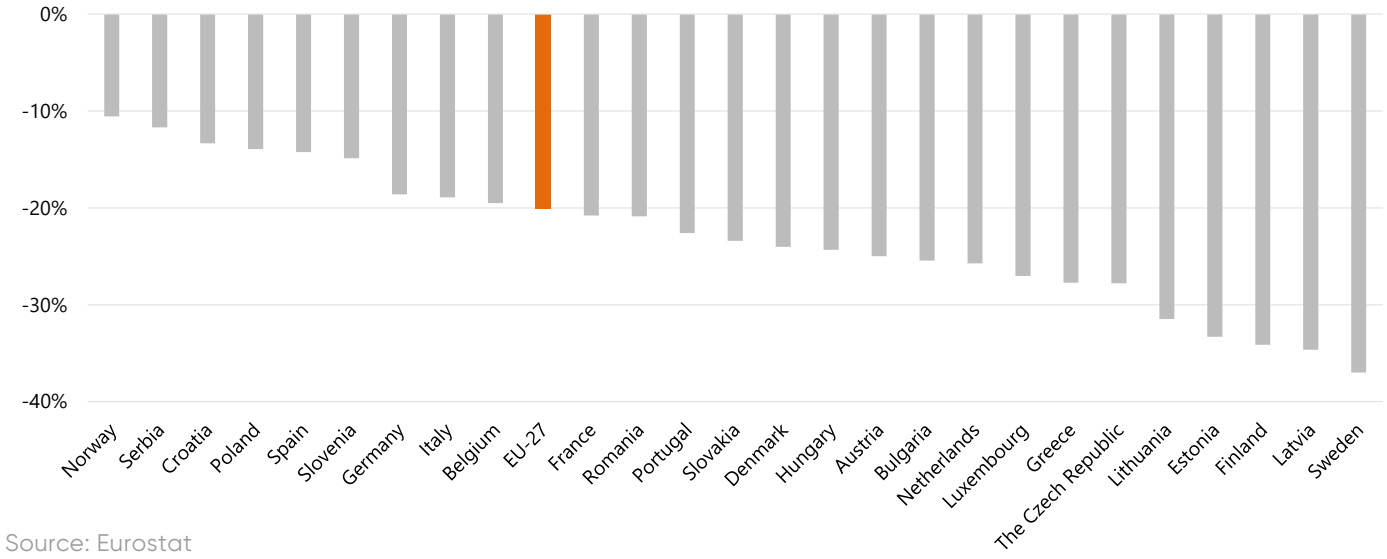
Eurozone Manufacturing Purchasing Managers Index (PMI)



Source:Investing.com

EUROPEAN GAS CONSUMPTION IS DOWN BY 20%

Change in European gas demand in 2023 vs 2021



Source: Eurostat

[17] Business activity index in manufacturing sector has been below 50 points since August 2022.
[18] Source: German Chamber of Commerce and Industry (dihk.de).
[19] Source: International Energy Agency, Gas Market Reviews.

Increased gas spendings are eating up the margin of such energy-intensive industries as **steel making, fertilizers, chemicals, ceramics and glass.** As a result, the manufacturing activity in the Eurozone has been on the decline since the middle of 2022[17], and **32%** of German companies are already planning **to relocate their manufacture capacity abroad[18].**

Despite government subsidies, the household **gas prices in Europe almost doubled** between 2021 and 2023. High energy costs are forcing European households **to reduce gas consumption by unprecedented volumes:** as a result of the price shock, the gas demand in household and commercial sectors of Europe dropped by more than **20%** in the past two years and continues its fall this year[19]. As a result, for the first time vin decades, Europe is facing a new reality - Europeans have become poorer.

In effect, Europe is meeting its emissions reduction targets by directly cutting energy consumption and slowing down the economic growth. The continuation of such policy may eventually destroy **the European industry.** As we all know, **the lowest energy consumption is in the graveyard.**

According to the International Monetary Fund, **the European Union economy** has grown **by only 13%** in US dollar terms over the past 15 years, whereas **the growth of US economy** has been **85%** over the same period[20].

Within the same time, the **average** per capita **income** in **EU countries has fallen** vis a vis **most of the US states[21],** and now it is 52% lower than the US average. If this trend carries on, then already by 2035 the **gap in GDP** per capita **between the US and the EU** will be five-fold, meaning that it will be **as between Japan and Ecuador** today[22].

"GREEN" TRANSITION AS A NEW FORM OF COLONIAL POLICY

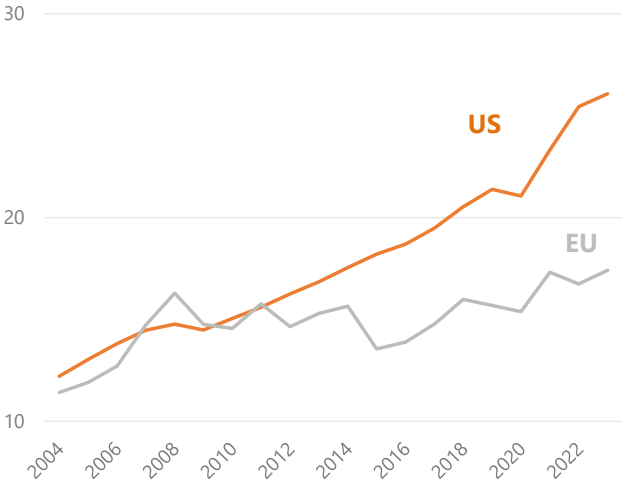
And for developing countries the situation evolves even more unacceptably, when under the pretext of "green transition" in practice we see the construction of "green" neo-colonialism being implemented.

In expert estimates, within the period **from 1990 to 2015** alone, the

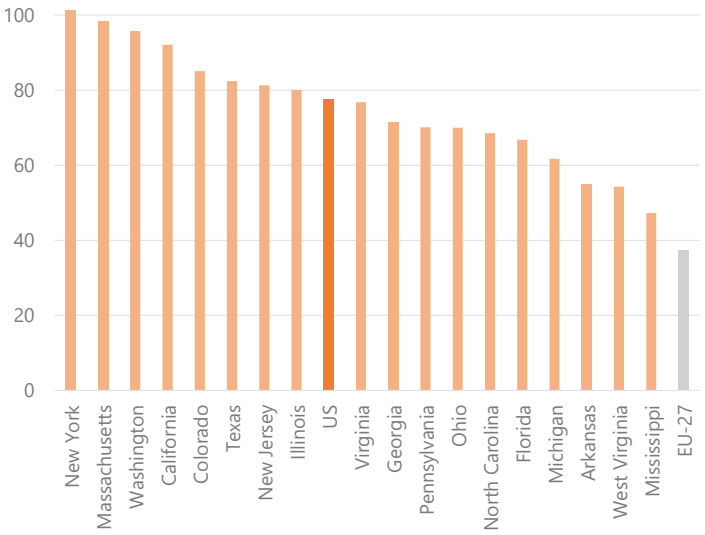
[20] International Monetary Fund data from April 2024 in current prices, growth from 2008 to 2023.
[21] Source: European Center for International Political Economy.
[22] Source: Wall Street Journal, Europeans Are Becoming Poorer. 'Yes, We're All Worse Off.

EU'S CHALLENGES: LAGGING BEHIND THE U.S.

GDP (US$th, in current prices)



EU and the U.S. states' GDP per capita (US$th, in current prices)

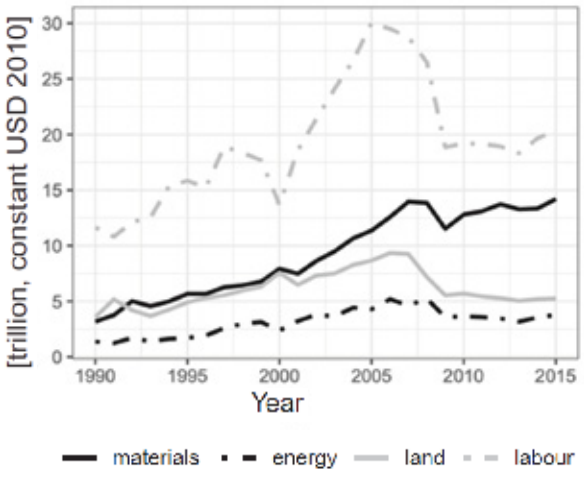


Source: World Bank, U.S. Bureau of Economic Analysis, U.S. Census Bureau

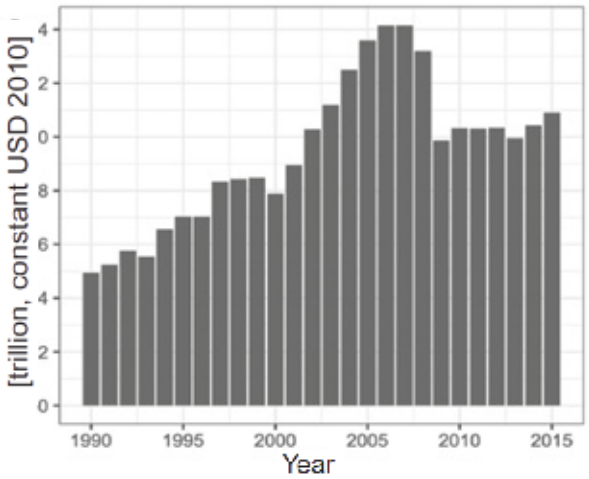
"resource drain" from developing countries to developed countries exceeded **$240 trillion[23].** Energy transition, i.e. the announced program of energy transition, is a **powerful alias sanction barrier** for **88%** of the world's population, i.e. for all those who are not part of the "golden billion". These are essentially undeclared sanctions, which are applied nonetheless.

RESOURCE DRAIN FROM THE DEVELOPING COUNTRIES

Resource drain from the developing countries by type



Average resource drain from the thedeveloping countries

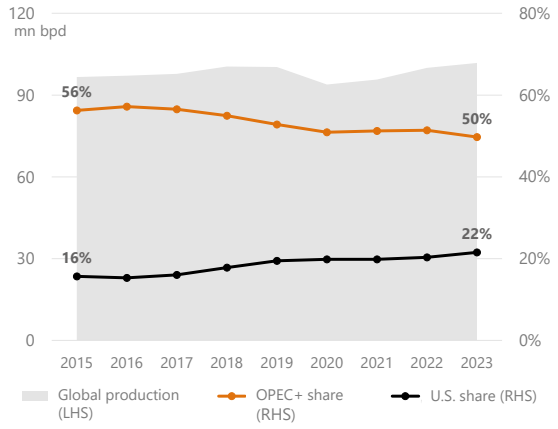


Source: J. Hickel, C. Dorninger, H. Wieland, and I. Suwand. (2022). Imperialist Appropriation in the World Economy: Drain from the Global South Through Unequal Exchange, 1990–2015. Global Environmental Change

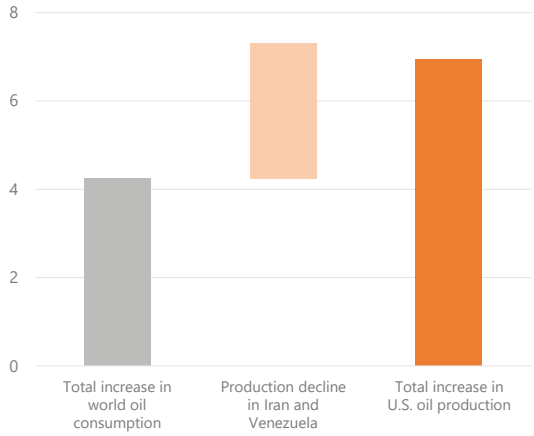
[23] Source: J. Hickel, C. Dorninger, H. Wieland, and I. Suwand. (2022). Imperialist Appropriation in the World Economy: Drain from the Global South Through Unequal Exchange, 1990–2015. Global Environmental Change.

THE US USES SANCTIONS TO STRUGGLE FOR ENERGY MARKETS

The U.S. and OPEC+ shares in global oil supply



Change in oil demand and supply between 2016 and 2023 (mn b/d)



Source: U.S. Energy Information Administration

STRUGGLE FOR THE ENERGY MARKET GOES ON

SANCTIONS AS A METHOD OF STRUGGLE FOR THE ENERGY MARKET

The overall energy shortages which resulted from the energy transition and a wide range of direct sanctions and unfair competition has driven the market off balance.

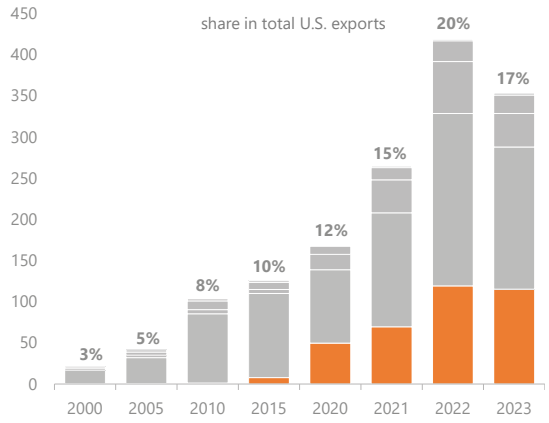
For example, the **illegal sanctions** imposed by the US since 2016 against **Venezuela, Iran, and Russia** have affected a total of nearly **18 million bpd**[24] of oil production and helped the US capture a significant share of the market. As a result of these policies, energy resources have turned into the principal export commodity of the US.

In a **bid to control the global energy market,** the US besides sanctions are also using other tools at its disposal. Thus, for example, Iraq, being the second largest OPEC[25] member in terms of production and one of the founders of this organization, **lost the ability to manage its finances on its own after the US invasion in 2003.** Since that time the country's oil export revenues, which make up to 95% of its budget, have accrued in a special account at the Federal Reserve Bank of New York, which is a branch of the US Federal Reserve System[26]. **This provides the US administration with full control over Iraq's financial system.**

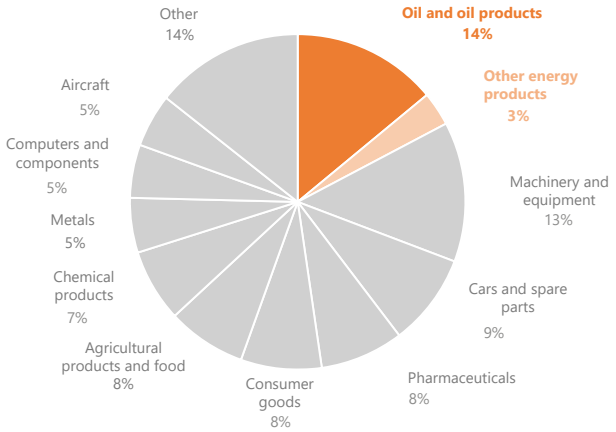
[24] Source: US Energy Information Administration.
[25] Iraq's production stands at 4.2 million bpd.
[26] Source: Financial Times, Crippling dollar shortage underscores vulnerability of Iraq's oil-based economy, 27.03.2023.

SHARE OF ENERGY RESOURCES IN U.S. EXPORTS

U.S. total energy exports (US$bn)



Breakdown of U.S. total exports (%, 9M2023)



Source: U.S. Bureau of Economic Analysis

THE WHITE HOUSE UNVEILS PLANS TO REDUCE RUSSIA'S OIL REVENUES

FINANCIAL TIMES

WORLD BUSINESS NEWSPAPER

1 December 2023

US aims to halve Russia's energy revenues by 2030, says official

Washington is aiming to halve Russia's oil and gas revenues by the end of this decade, a senior US diplomat has said, arguing western sanctions on Moscow will need to be maintained "for years to come".

Russia has continued to export large volumes of oil since its full-scale invasion of Ukraine in February 2022. However, the International Energy Agency has forecast that its oil and gas exports could fall by at least 40-50 per cent by 2030 if western sanctions on Russia's energy industry are maintained.

"We're going to do everything we can to help make that true," said Geoffrey Pyatt, US assistant secretary of state for energy resources.

Source:Financial Times

As for Russia, the US Assistant Secretary of State Geoffrey Pyatt directly stated the White House plans to cut our country's oil revenues. In essence, this means **ouster of Russian oil maritime exports** from the world market[27]. Some oil producers are already getting ready for such scenario and ramping up their production capacity. We will come back to these phantom barrels later.

WESTERN OIL MAJORS ARE BUYING ASSETS AND INCREASING PAYOUTS TO SHAREHOLDERS

The unilateral actions of the US regulator lead to volatility and unpredictability of the energy market. This makes each market player act in its own interests.

A vivid example here is the ban imposed by the US Federal Trade Commission on Scott Sheffield, CEO of Pioneer Company, **to enter Exxon's Board of Directors after the merger deal completion** due to suspicions of his cartel collusion with Middle Eastern producers for the purpose of achieving high prices in the interests of the US shale oil industry.

Given the current standing of the market and its operating conditions, US companies have chosen to consolidate the industry, whereas majors such as Exxon and Chevron are carrying out merger deals with other producers and increasing their own production capacity in order to secure higher profits and dividends. And production growth remains behind the scenes, as it requires capital expenditures that must be supported by high prices.

The volume of transactions and acquisitions in the US oil and gas sector last year reached **$200 billion.** Over the past two years, the five largest Western oil and gas companies have spent **a record $220 billion on payouts to their shareholders[28],** which is 30 % more than their investments over the same period.

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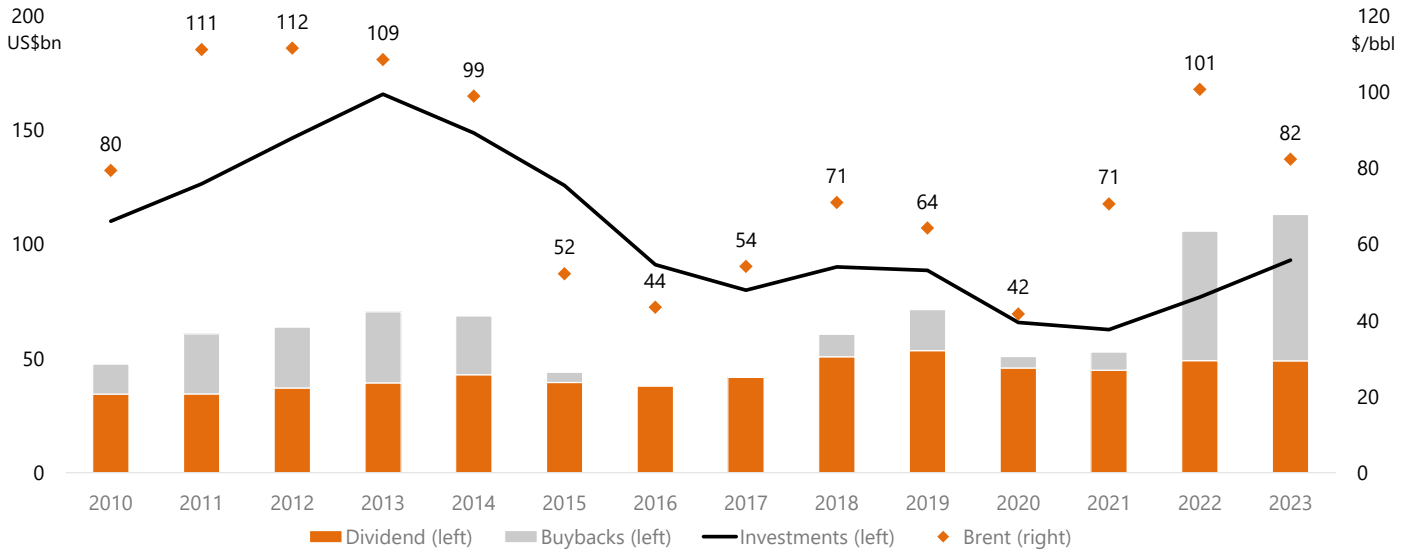
[27] Source: Financial Times, US aims to halve Russia's energy revenues by 2030, says official, 01.12.2023.
[28] Source: Reports of Exxon Mobil, Chevron, Shell, Total, BP.

OIL MAJORS RAMP UP SHAREHOLDERS PAYOUTS

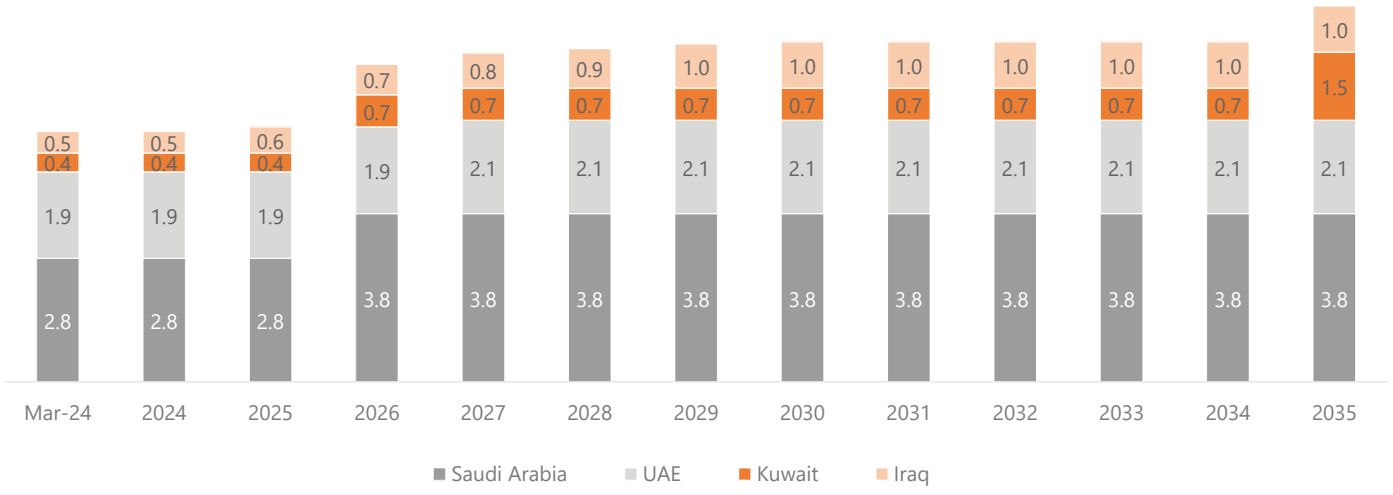
Dividend payments, buybacks and investments of Oil Majors*



Source: companies reporting.
Note: (*) includes ExxonMobil, Chevron, Shell, TotalEnergies, BP

THE GULF ARAB STATES EXPAND OIL PRODUCTION CAPACITY

Persian Gulf countries' spare capacity growth (mn b/d)



Source: U.S.Energy Information Administration, Reuters, RystadEnergy, Aramco, ADNOC, S&P Global

GULF COUNTRIES ARE INVESTING IN CREATING NEW CAPACITY

At the same time we see that **the Gulf countries** are also actively ramping up **spare production capacity, streamlining sales channels and investing in assets in consumer countries.**

The four key OPEC members - **Saudi Arabia, UAE, Kuwait and Iraq** - already have significant **spare production capacity** of around **5.6 million bpd[29],** which is equivalent to 13% of current OPEC+ production. Some time ago these countries announced their plans to further increase their capacity. In expert estimates by 2027 their combined spare capacity will increase by almost **2 million bpd[30].**

OPEC+ AGREEMENT HAS NO IMPACT ON THE OIL MARKET

The stockpiling of reserves by both Western and Middle Eastern companies that we observe may be an expectation of major market changes. **The presence of such phantom barrels** that can have a large-scale impact on the market **will offset the impact of the voluntary production cuts** undertaken by major OPEC members. This is also shown by market quotations, which went down after the recent decision by the ministers of the member countries.

We can assume **higher volatility due to the uncertainty associated with the prospects of presidential elections in the U.S.,** where election sentiment depends, among other things, on the increase in the cost of a gallon of gasoline (an average price - $3.6/gallon, and in some states such as California - $5.4/gallon).

Regulation of the industry can change if a certain candidate wins the upcoming elections. The emerging risks suggest that there may be **a**

[29] Rosneft calculations based on data from International Energy Agency, ADNOC, Aramco.
[30] Rosneft calculations based on data from ADNOC, Aramco, Rystad Energy analytical agency, Reuters news agency.

Plan B in case of a special period for each major participant.

So, **Exxon** is completing its merger with **Pioneer, Chevron** is closing its merger with Hess, OPEC+ has already announced its plans for a gradual return of volumes starting in September, and **Aramco** is conducting its secondary public offering.

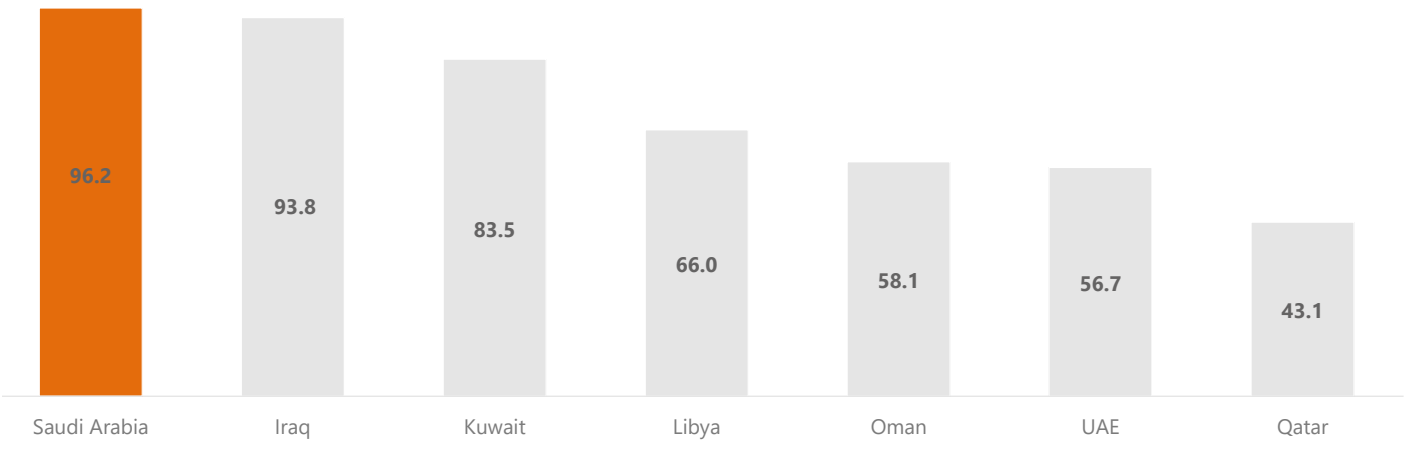
I am confident that **Aramco's** secondary public offering will be successful, attractive and efficient, and will be a historic event in the global oil industry.

The budgets of most OPEC+ member countries are able to withstand a **possible drop in oil prices,** which could be partially or fully offset by an increase in supply.

In theory, for the Russian oil industry, a price decrease can mean the possibility of **removing all restrictions related to price cap,** while the revenue part of the approved federal budget is based on the crude price of **USD 60/bbl.** In these conditions, the ability of OPEC+ to promptly response to new emerging factors of influence will be of fundamental importance for stabilizing the world markets.

BUDGETS OF OPEC COUNTRIES RESILIENT TO OIL PRICE PRESSURE

Breakeven oil price in OPEC countries in 2024 ($/bbl)



Source: IMF,Bloomberg

U.S. HEGEMONY IS NOT JUST ABOUT ENERGY

The U.S. financial system is also **an active instrument of unfair competition.** Financial restrictions extend to the whole world, as the U.S. financial system is the basis of the world financial infrastructure. It is used as **one of the instruments of illegal influence** in violation the fundamentals of the Bretton Woods monetary system, under which the dollar should play the role of the world reserve currency and the main means of payment.

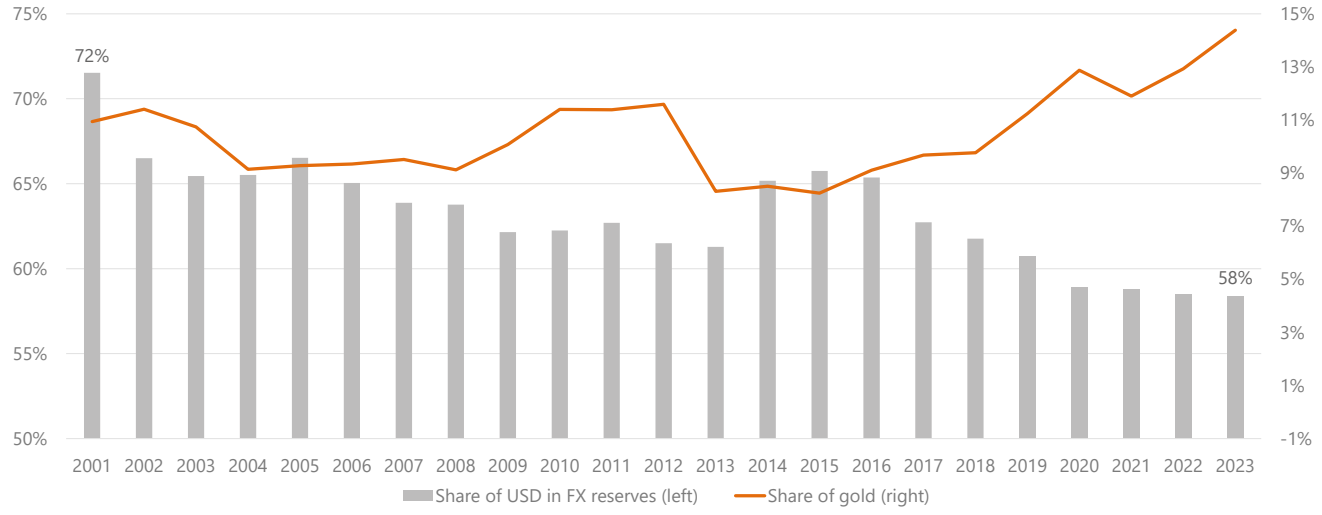
THE DOLLAR AS AN INSTRUMENT OF SANCTION RESTRICTIONS, AND THE SEARCH FOR ALTERNATIVES

In recent years, **the use of the dollar as an economic weapon, and the uncontrolled growth of the U.S. national debt** have set in motion the process of **de-dollarization.**

Since 2001, **the dollar's share in international foreign currency and gold reserves** has fallen from 71% to **58%**[31]**.** The crisis of confidence in the

GLOBAL CENTRAL BANKS DIVERSIFY THEIR FX RESERVES

Share of USD and gold in global FX reserves



Source: International Monetary Fund, World Gold Council

[31] Source: IMF COFER.

U.S. dollar as a reserve currency has caused central banks in developing countries to favor other protective assets, including gold. As a result, its share in foreign exchange reserves has almost doubled over the past ten years[32].

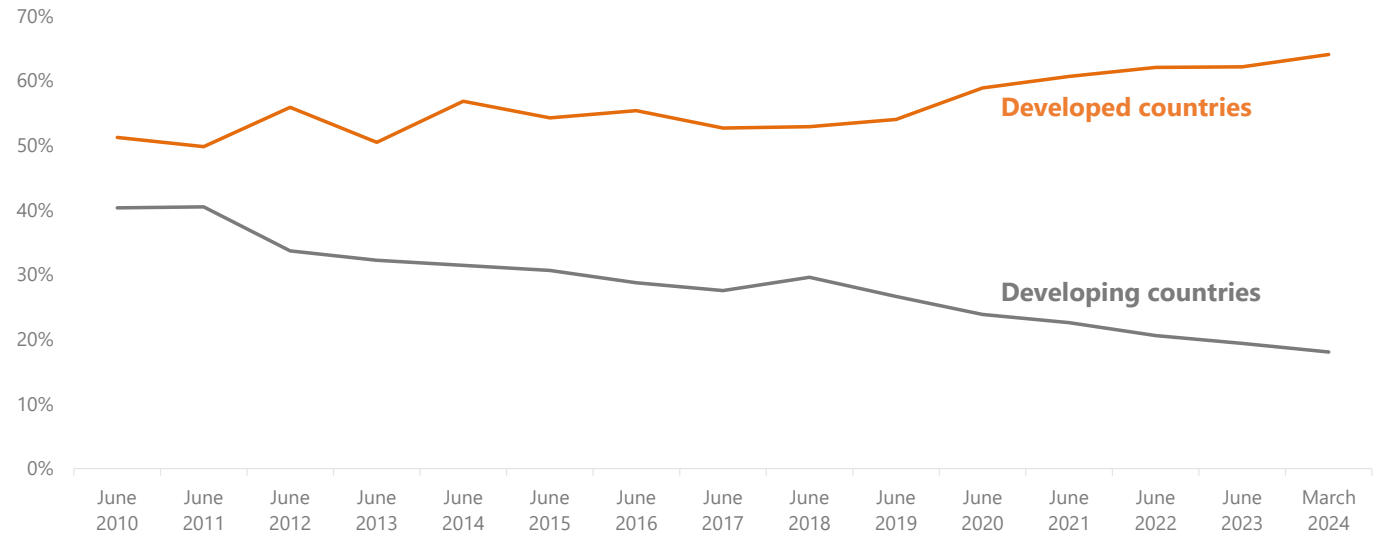
In addition to increasing the share of gold in reserves, **developing countries are withdrawing gold reserves** from the vaults in the United States and the United Kingdom. In particular, the Reserve Bank of India moved more than **100 tons of gold** out of the Bank of England, a quarter of its reserves stored abroad[33]. A number of countries, such as Saudi Arabia, Nigeria, South Africa, Egypt and others have taken similar decisions to repatriate gold reserves.

At the same time, over the past 15 years, the share of developing countries among foreign holders of U.S. Treasury bonds declined from **51% to 28%[34].**

There is also **a need to find alternatives to the dollar in international trade,** for which **many of the generally accepted economic theories are**

DEVELOPING COUNTRIES ARE REDUCING HOLDINGS OF U.S. TREASURY BONDS

Share of top-20* foreign holders of US Treasury bonds



Source: U.S. Department of the Treasury
Note: (*) Includes the top 20 countries by holding percentage of U.S. Treasury Department debt securities as of March 2024.

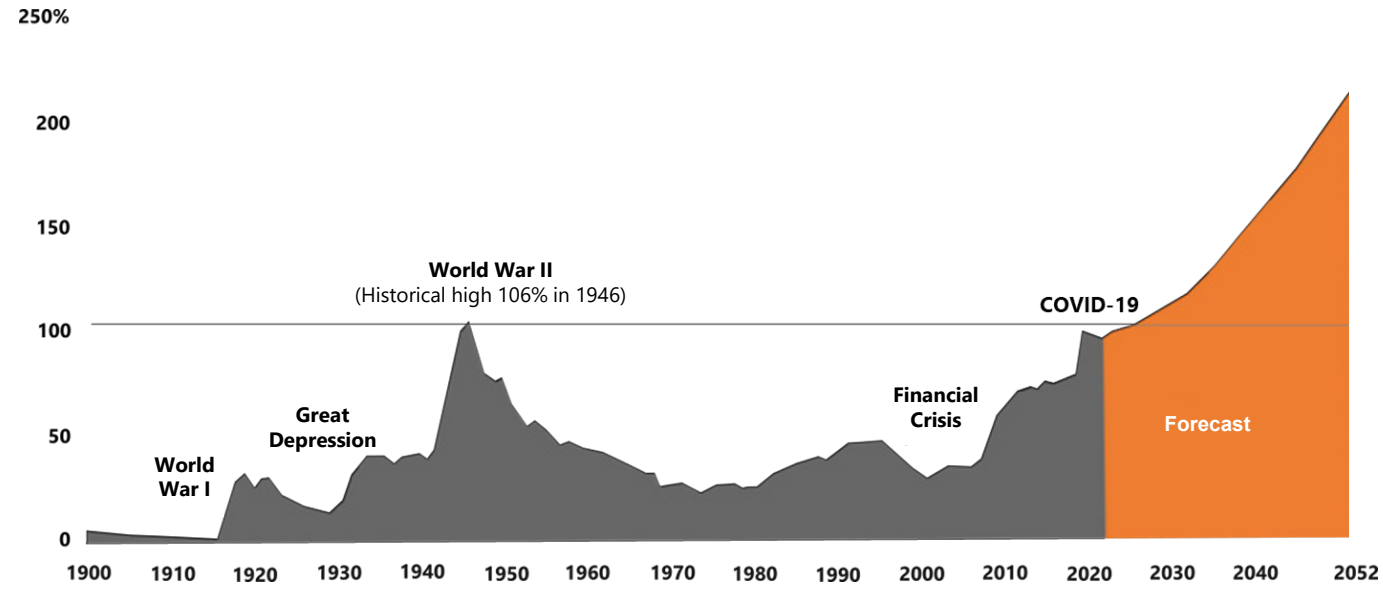
[32] Source: The World Gold Council.
[33] Source: The Times of India, RBI moves 100 tonnes gold from UK to its vaults in India.
[34] Source: U.S. Department of the Treasury, Treasury International Capital reports. Calculations based on top 20 largest holders.

no longer relevant. According to Karl Marx's formula "Commodity-Money-Commodity", money is a product of commodity circulation. However, nowadays we can see that money does not fully perform its main function as a settlement mechanism. Milton Friedman's theory, according to which money is not only an instrument of settlement, but also has an independent value expressed in the interest rate, also fails occasionally. We can observe how **the political system uses money as an instrument of manipulation.**

The growth of US national debt is another important factor in undermining confidence in the dollar and shifting problems from the financial sector to the energy market and the rest of the world. Over the past 20 years, **the US has aggressively used the special status of the dollar to finance large-scale borrowings.** As a result of such policy, in the last year the ratio of US government debt to GDP came close to **100%.** To address the liquidity bubble, the US Federal Reserve was forced to raise interest rates in record time from near zero to **5.5%.**

UNRESTRAINED GROWTH OF U.S. GOVERNMENT DEBT

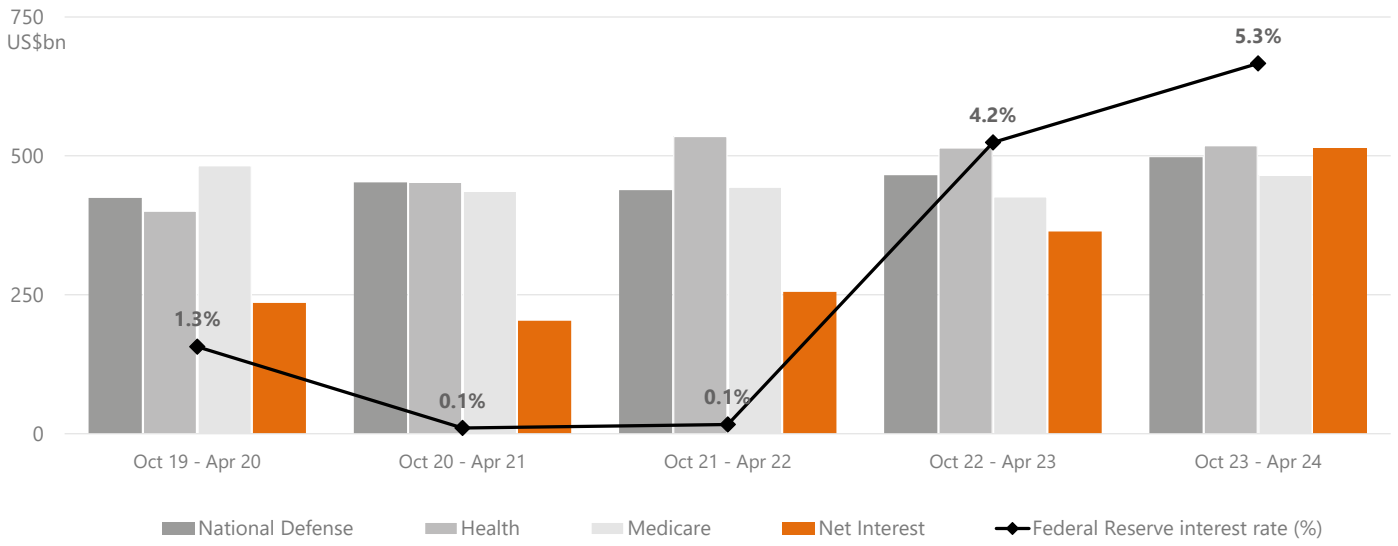
U.S. federal debt held by the public (% of GDP)



Source: Government Accountability Office of the USA.
Note: US state debt includes debts to private investors

US NATIONAL DEBT INTEREST EXCEEDS DEFENSE AND HEALTHCARE SPENDING

State expenditure on interest payments, national defense, health and Medicare



Source: Bureau of the Fiscal Service of the US Department of Treasury.
Note: in the US the fiscal year begins on October 1 and ends on September 30

So far, we have not seen **any practical steps to limit the growth of the national debt.** On the contrary, now the U.S. continues to increase its debt at a record pace - **by USD 1 trillion** every 100 days. Interest payments on the national debt have already exceeded USD 1 trillion[35], which is higher than government spending on defense and health care.

Last year, total U.S. Social Security and Medicare liabilities exceeded **USD 250 trillion,** including **more than USD 70 trillion not supported by future revenues[36].** In a high-rate environment, the U.S. budget deficit is already at **9% of GDP,** four times the average of the last eighty years[37].

History tells us what can happen to the currency of a country whose debt keeps rising. Before World War II, **the British pound** was the world's reserve currency. However, the increase of the UK government debt to **130%** of GDP became one of the factors that put an end to the pound's dominance in the world.

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[35] Source: U.S. Government Accountability Office, The Nation's Fiscal Health Report, February 2024.
[36] Source: U.S. Department of the Treasury, The 2023 Financial Report of the US Government, 15.02.2024.
[37] Source: The Economist, the article "America's fiscal outlook is disastrous, but forgotten", May 4, 2024.

THE RANGE OF SANCTION RESTRICTIONS HAS ALSO TOUCHED THE TECHNOLOGICAL SPHERE.

The use of technology access bans is another sanctions barrier. The latest blatant example of this is **the imposition by the U.S. of barrier duties on renewable energy goods and equipment from China, which is a world leader in this field.** As the Chinese Foreign Ministry rightly pointed out, according to the US logics, the subsidies it provides are considered "essential industrial investment" and the subsidies from other countries are seen as "disturbingly unfair competition".

Like attempts to dominate global energy, U.S. efforts to maintain its technological superiority come at a high cost to its allies. The estimated cost of eliminating Chinese components for 5G network deployment **in the UK** alone exceeds **USD 5 billion[38].** For **Germany,** the figure is much higher.

THE "GREEN" TRANSITION IS NOT VIABLE IN ITS CURRENT FORM

THE WEST BEGINS TO REVISE ITS "GREEN" GOALS

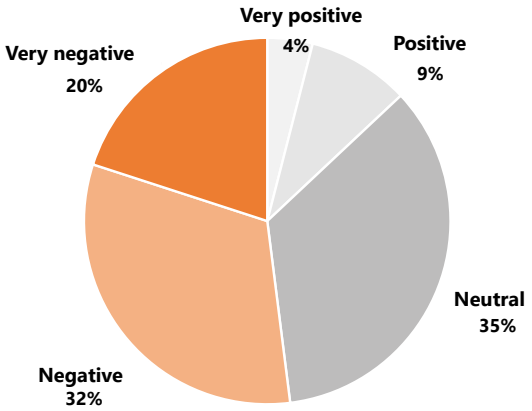
Europeans are already noticing that **their countries' climate policies are hitting their own pockets,** driving up energy, real estate, transportation and food prices. As a result, **Europe's green agenda bill will soon exceed half a trillion euros,** and this is far from a final figure[39]. According to the German Chamber of Commerce and Industry, **the management of more than half of the companies in Germany have a negative attitude towards the energy transition[40].**

Some EU countries, such as Germany, France, Belgium, Sweden and others, are already **willing to reconsider their approach to meeting the**

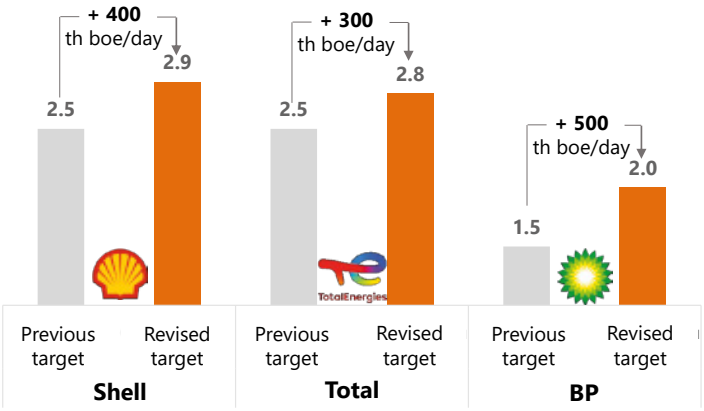
[38] Source: Harvey Dzodin. The U.S. is Blindsided in Efforts to Block China's High-tech Rise - CHINA US Focus 27.03.2024.
[39] Source: Bloomberg, Last-Minute Green Deal Hiccups Expose EU Concerns Over Political Costs.
[40] Source: The German Chamber of Commerce and Industry (dihk.de).

REVISING ENERGY TRANSITION TARGETS

German industrial companies' view on the energy transition



Previous and revised oil and gas production targets (mn boe/d)



Source: German Chamber of Commerce and Industry, companies data.
Note: (*) The oil and gas production target for Shell and BP for 2030, for TotalEnergies the previous target was for 2027, the updated target is for 2028

goals of the so-called Green Pact for Europe. And the World Bank, in a recent report, pushed the deadline for achieving the green transition goals ten years further, to 2060[41]. We are convinced that **the emission targets will be revised many more times.**

Shell has abandoned its goal of reducing emissions by **45%**[42] by 2035 and plans to cut staff in its climate change divisions.

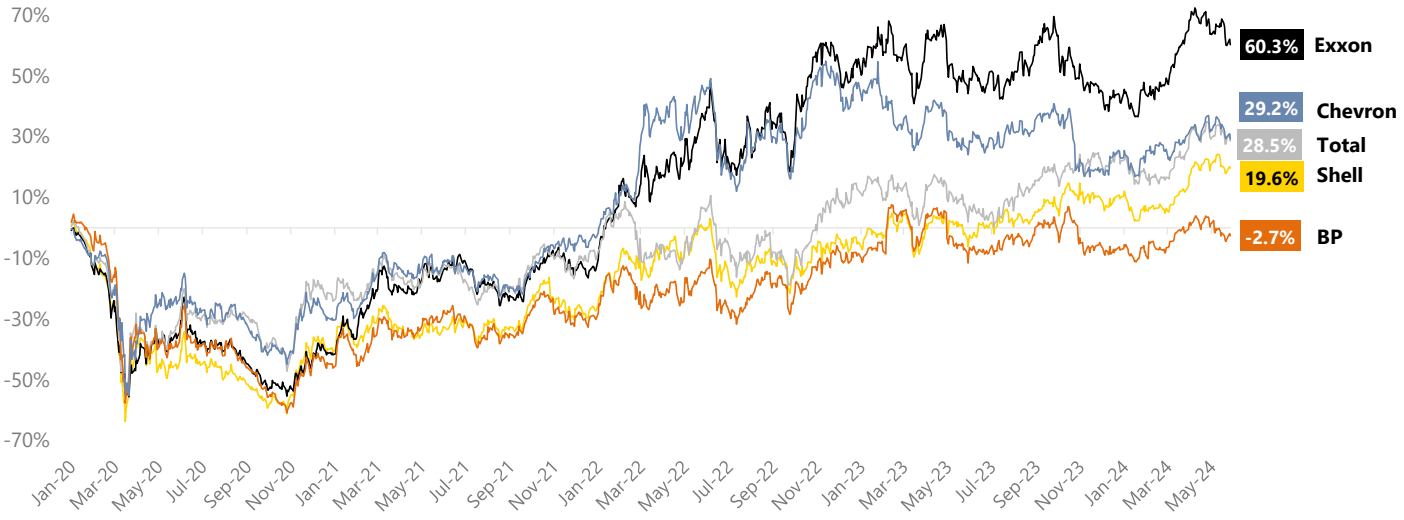
Several years ago, **BP** was a pioneer of the "green transition", but that bet did not work out - the market did not appreciate the change of the strategy. Since the announcement of the new strategy to achieve carbon neutrality in 2020, the company's stock price has fallen by 3% as the European and American supermajors' performance has grown more than **20-60%. Investors have openly referred to BP shares as "dead money".**

The company's management has already publicly stated that **its**

[41] Source: World Bank, The Net zero energy by 2060 Report.
[42] Source: Bloomberg, Shell Weakens 2030 Emissions-Cut Target in Move Away From Clean Power.

BP'S GREEN AMBITIONS DISAPPOINTED INVESTORS

Trend of shares of Oil Majors from the beginning of 2020



Source: Investing.com.
Note: Share price performance excluding dividends

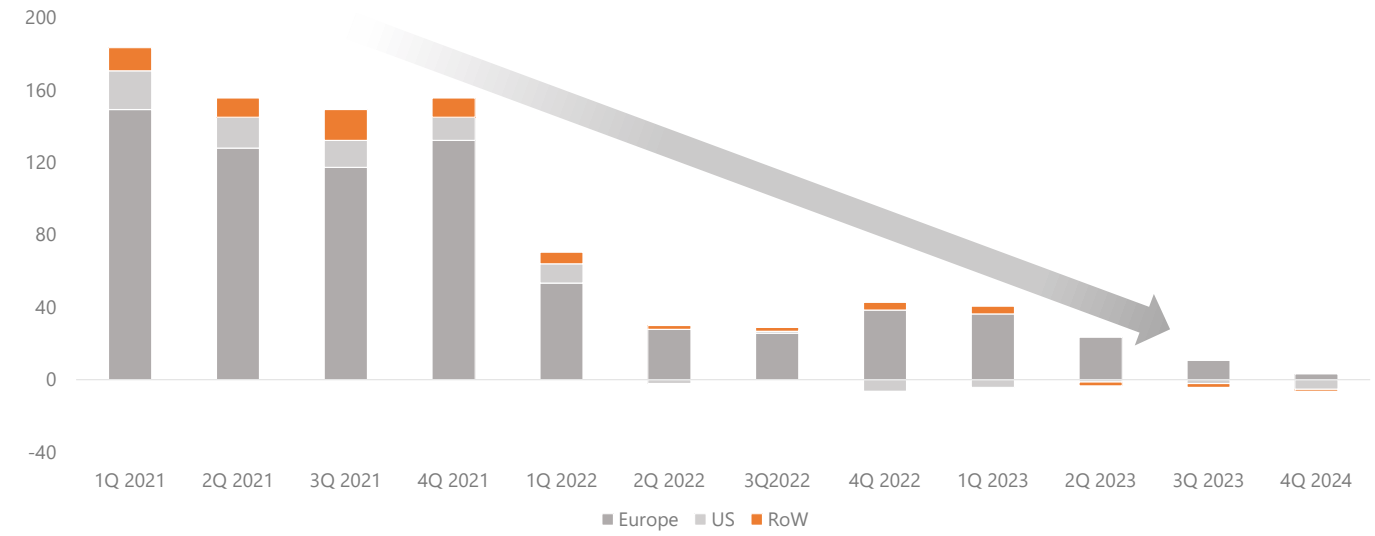
2030 production decrease target may be adjusted, and they do not rule out additional exploration activity or acquisition of new oil and gas reserves, at the same time writing off significant resource base in Russia.

Currently, **BP has the lowest credit rating among supermajors** due to its high debt burden and weak balance sheet. The other day, S&P downgraded the company's credit rating outlook from "positive" to "stable" due to lower-than-expected debt reduction rates.

At the end of the 1st quarter this year, **BP's** total debt exceeded **USD 64 billion** – the growth came to 12% per annum. Its value is the maximum for the last two years and exceeds the combined figure of Exxon and Chevron (for the two companies - USD 62 billion). Such a trend led to the fact that the debt load of the British company became the highest among the indicators of the five majors.

GLOBAL ESG FUNDS HIT WITH OUTFLOWS

Global ESG fund flows (US$bn)



Source: Morningstar Direct

INVESTORS ARE DISENCHANTED WITH THE GREEN TRANSITION

A well-known investment fund - Blackrock, being the largest financial market operator and an apologist for the green transition, having planted its representatives directly into the White House administration, such as **Brian Deese - director of the National Economic Council, Adewale Adeyemo - first deputy secretary of the U.S. Treasury, and Mike Pyle - counselor to the U.S. vice president,** has sought other application for its investments. It is also **heavily investing in the U.S. defense industry** as well. Its investments in the five largest defense industry companies alone exceed **USD 20 billion, that were originally intended for the green transition.**

A WELL BALANCED GREEN TRANSITION IS NEEDED

IT IS NECESSARY TO FOCUS ON THE INTERESTS OF THE MAJORITY

The energy transition should be well-balanced and focused on addressing the interests of the majority that will ensure the growth of energy consumption in the coming years, i.e. developing countries. Indeed, it is the developed countries, representing a minority of the world's population today, that have contributed most to the climate crisis. Here are just a few facts:

- developed countries account for **65%** of the cumulative emissions produced over the last 200 years[43];

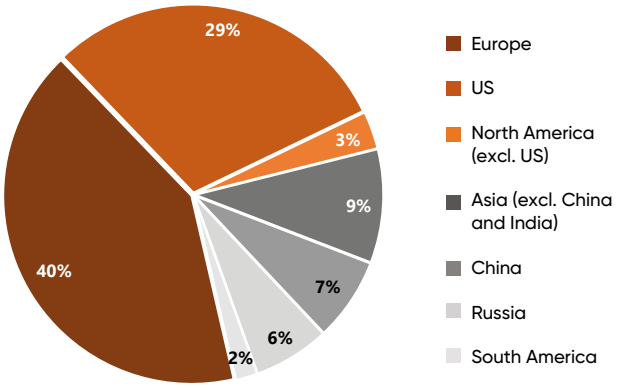
- the world's **10%** wealthiest population is responsible for half of all CO_2 emissions[44];

- the world's **1%** wealthiest population accounts for twice as much carbon dioxide emissions as the poorest **50%** of the world's population[45];

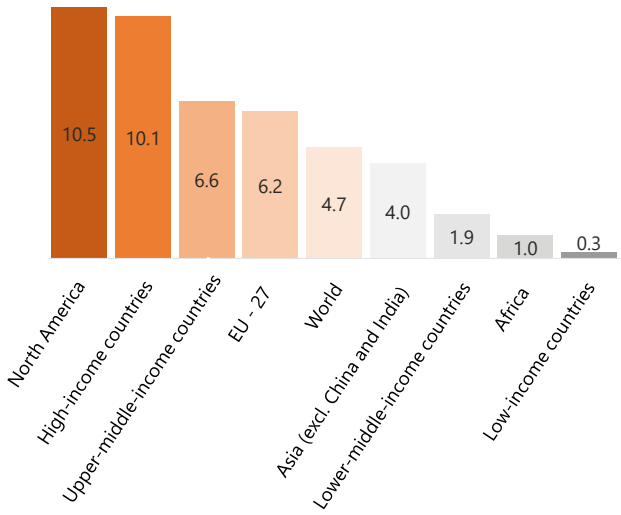
- and the entire African continent produces less than **4%** of the world's emissions[46].

DEVELOPED COUNTRIES ARE RESPONSIBLE FOR EMISSIONS REDUCTION

Cumulative CO_2 emissions over 200 years



CO_2 emissions per capita (tonnes)



Source: Our world in data

[43] Source: Our World in Data.
[44] Source: UN.
[45] Source: International association Oxfam.
[46] Source: UN.

ENERGY SECURITY: SUFFICIENCY, AFFORDABILITY AND RELIABILITY OF ENERGY SOURCES

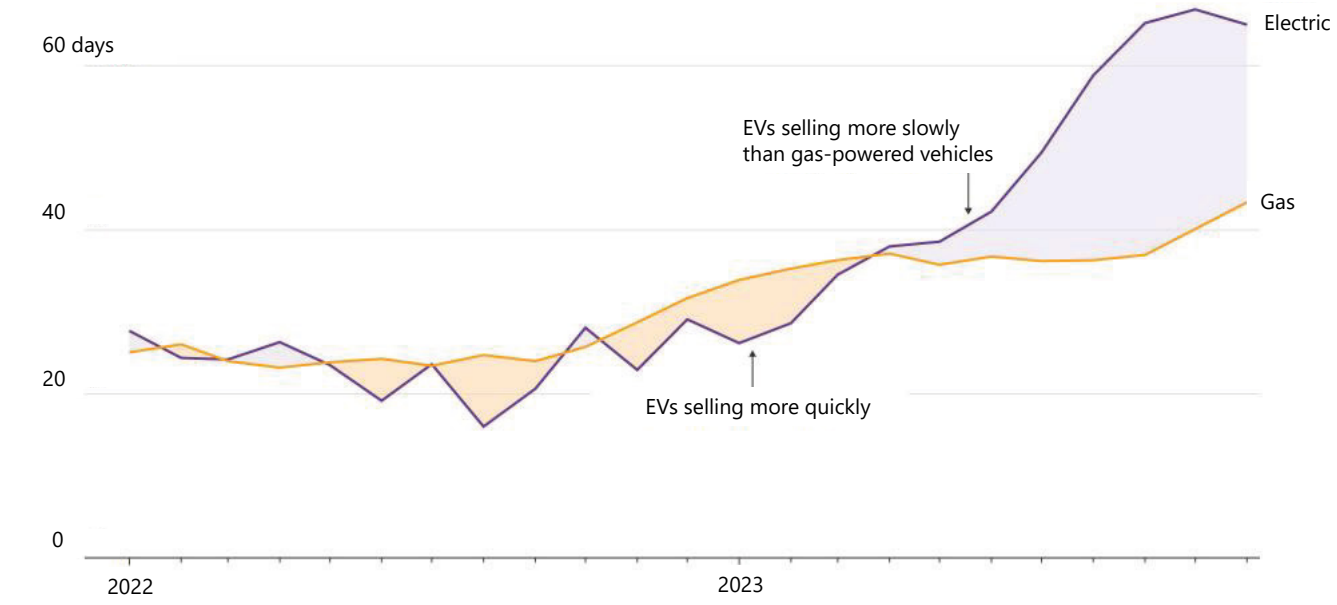
To achieve energy security, it is necessary to ensure the sufficiency, affordability and reliability of energy sources. In fact, today's consumers are concerned not only about emissions, but also about **the security of energy supply** from new sources, as well as **the reliability and convenience** of using new technologies. Unfortunately, the current **green transition strategy does not address these needs.**

ELECTRIC VEHICLES ARE NOT A PANACEA

Electric vehicles are a case in point. It is obvious that, contrary to optimistic forecasts, they **are not a panacea for all environmental challenges. Demand for electric vehicles is slowing down worldwide,** despite unprecedented efforts to support this industry on the part of the governments.

SOFTENING DEMAND FOR EVS IN THE U.S.

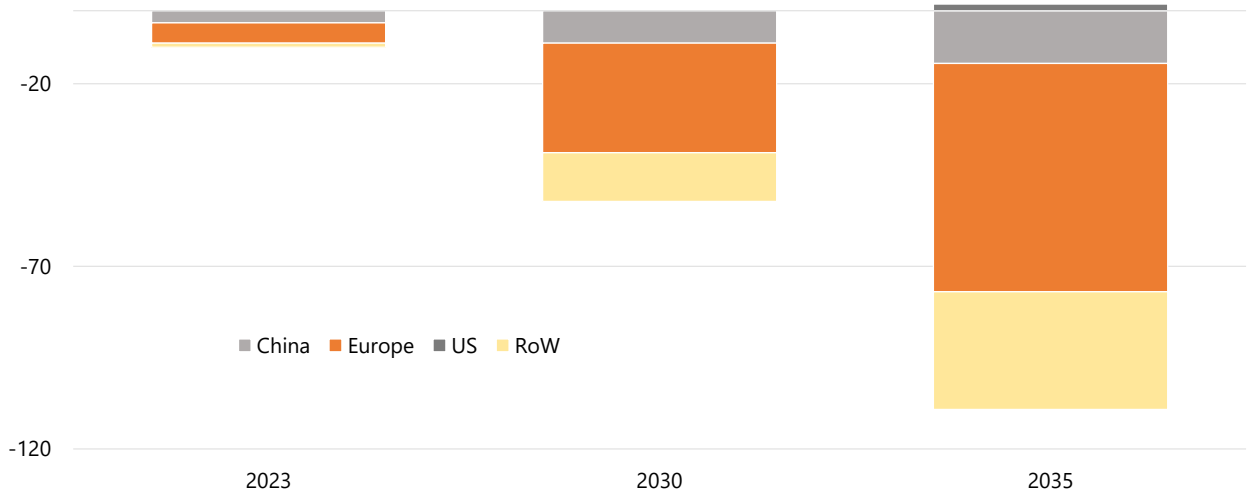
Average days on market before sale for cars in the U.S.



Source: Edmunds

FUEL TAX LOSS MAY EXCEED 110BN US$ BY 2035

Estimated fuel tax loss per year due to growing EV penetration (US$bn)



Source: Financial Times with reference to IEA.
Note: (*) Net losses excluding additional taxes received on electricity

Revision of electric vehicle subsidy policies demonstrates **the lack of planning and haste with which Western countries initially approached electrification of vehicles.** While they succeeded in attracting buyers with high subsidies a few years ago, Western governments are now planning to impose **taxes on electric vehicles to plug budget holes.** The International Energy Agency (IEA) estimates that by 2035, **the shift to electric vehicles could result in a USD 110 billion shortfall in motor fuel taxes,** which are allocated to maintain roads and improve transportation infrastructure[47].

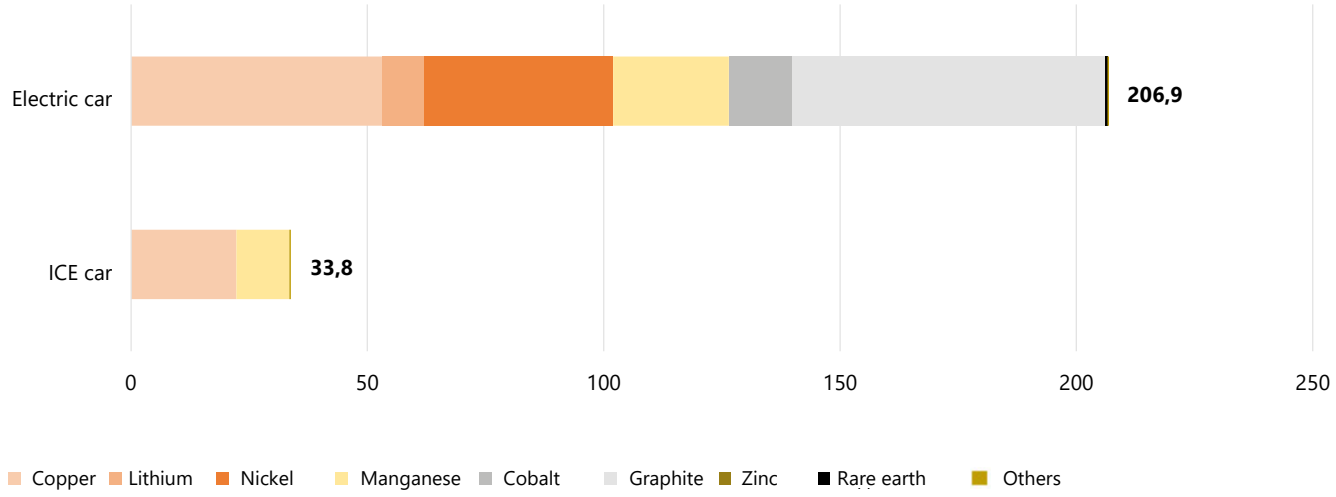
To compensate the budget shortfall in revenue, a number of countries, including the **UK, New Zealand, Israel and most North American states,** are already imposing taxes on electric and hybrid vehicles. And **Germany** recently announced an end to incentives and accelerated removal of subsidies.

As subsidies are reduced, it becomes clear that even in wealthy Western countries, **buyers are not willing to overpay for an electric car.**

[47] Source: Financial Times, Governments slap taxes on EVs as $100bn fuel duty shortfall looms, May 07, 2024.

EVS USE 6.2 TIMES MORE METALS

Typical use of metals in cars (kg/car)



Source: International Energy Agency Report: The Role of Critical Minerals in Clean Energy Transition

On top of the high price, there are **a number of issues that should be addressed to ensure widespread deployment of electric vehicles.** These include insufficient drive range, underdeveloped charging infrastructure, the need to recycle batteries, shortage of critical metals and environmental impact of their extraction, safety issues on the road, and much more.

In particular, studies show that **charging station failures** in the U.S. have jumped **50 percent** in over two years, and that one in five attempts to charge an electric vehicle fails[48].

In terms of safety, recent studies show that **hybrids and electric vehicles are two to three times more likely to hit pedestrians** compared to internal combustion engine (ICE) vehicles[49].

THE WESTERN POWER GRID IS NOT READY FOR THE INCREASED LOAD

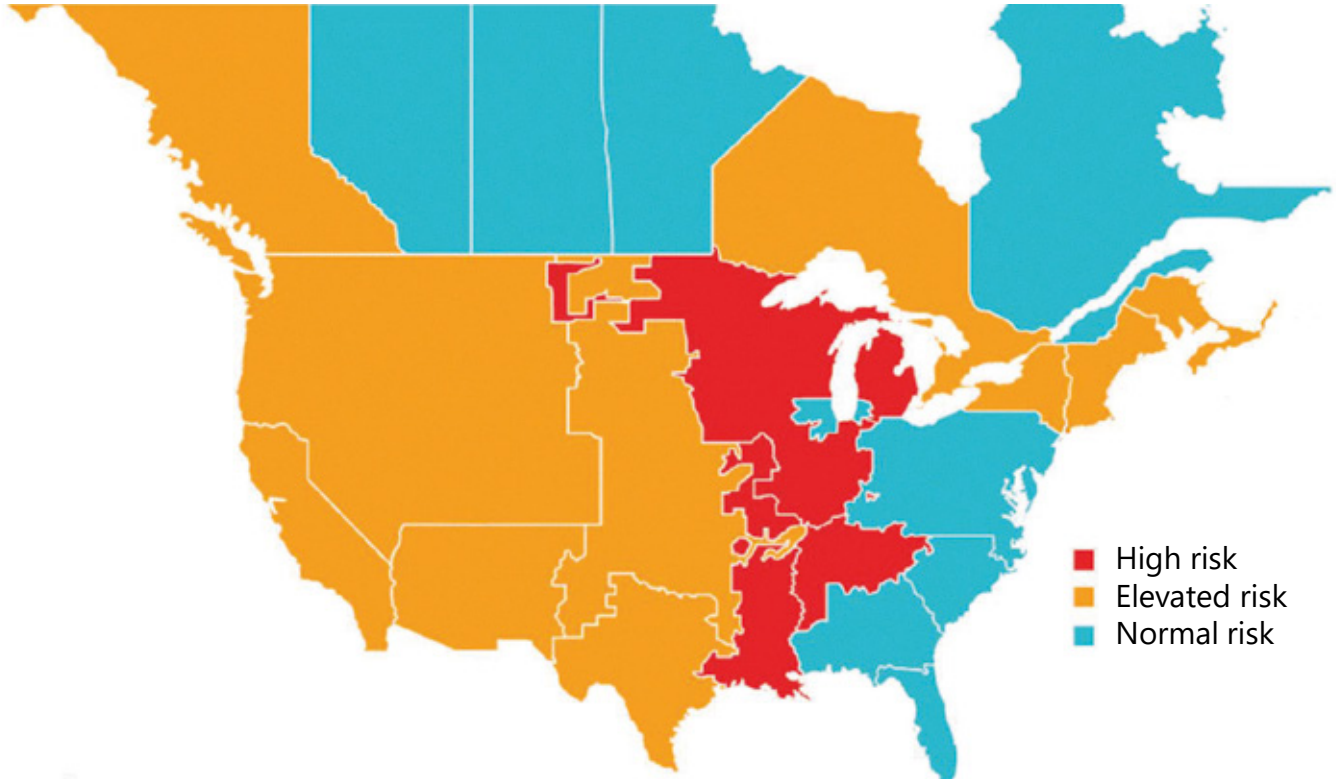
Over the past decade, **Western technology giants have worked**

[48] Source: Utility Drive, EV charging infrastructure is 'inadequate and plagued with non-functioning stations': J.D. Power, February 22, 2023.
[49] Source: London School of Hygiene and Tropical Medicine, study Pedestrian safety on the road to net zero: cross-sectional study of collisions with electric and hybrid-electric cars in Great Britain, 2024.

hard to demonize fossil fuels, shut down power plants that provide reliable electricity supplies, and **promote unreliable renewable energy.** However, as the massive energy crises in California and Texas have shown, **neither solar batteries nor wind farms can replace conventional electricity.**

Thanks to years of aggressive PR campaigns and lobbying efforts, renewable energy has displaced a large amount of reliable power generation facilities from the North American energy market. As a result, **large parts of the United States and Canada are now at risk of power shortages.**

RISKS OF ELECTRICITY SHORTFALLS IN THE U.S. AND CANADA

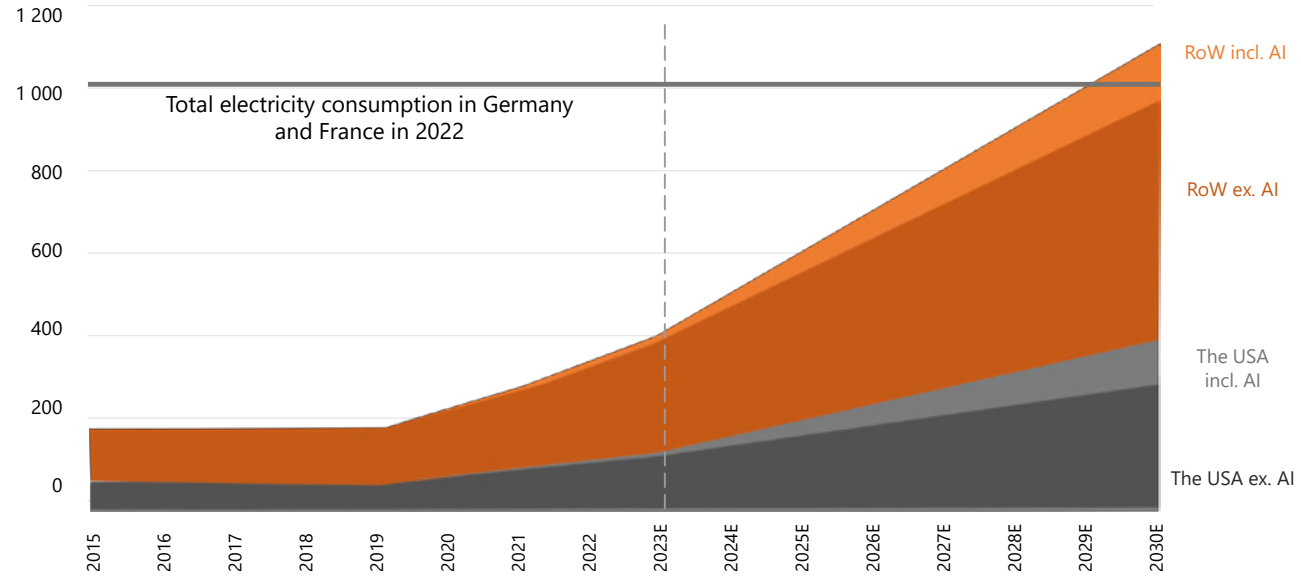


High risk: shortfalls may occur at normal peak conditions
Elevated risk: shortfalls may occur in extreme conditions
Normal risk: low likelihood of electricity supply shortfalls

Source: North American Electric Reliability Corporation

ELECTRICITY DEMAND FROM DATA CENTERS SKYROCKETS

Global electricity consumption by data centers (TWh)



Source: Goldman Sachs, BP Statistical Review. Note: AI – artificial intelligence

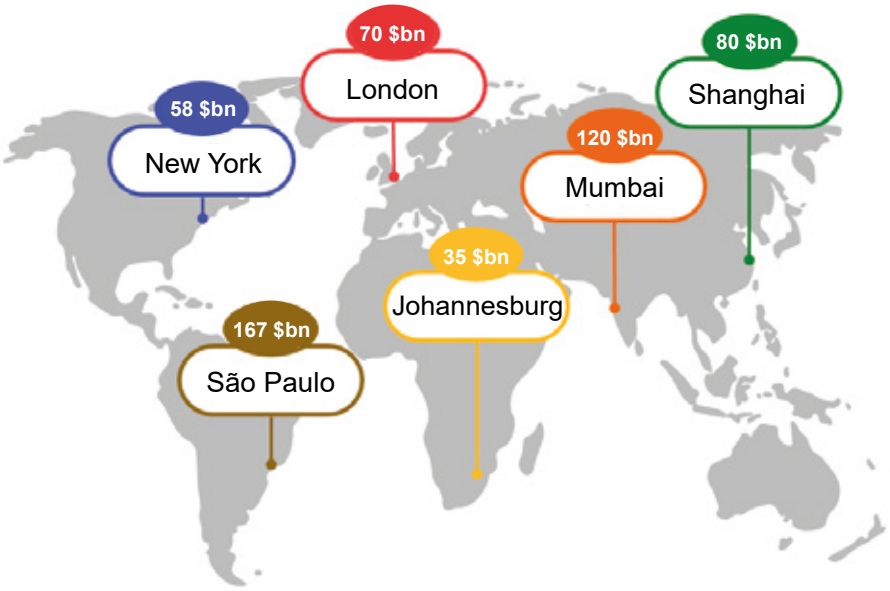
Now, these very same technology giants are reaping the fruits of their labors. The growing **demand for electricity on the part of data centers (DCs)** can no longer be met with existing capacity. While global electricity consumption in this segment barely grew until 2019, it has doubled over the last four years. Investment bank Goldman Sachs estimates that **global power consumption by data centers may grow two and a half times by 2030 per 1,000 terawatt hours, which is equal to the combined power consumption of Germany and France[50].**

Widespread introduction of artificial intelligence will further accelerate the growth of energy consumption. It now takes 10 times more electricity for a **ChatGPT** to process a single query compared to a **Google** search engine[51]. The current burst of artificial intelligence requires a separate analysis. It should be taken into account that artificial intelligence will increasingly **use data from the degrading information environment,** where everyone has the right to express his or her opinion, even if it is the opinion of a madman.

[50] Source: investment bank Goldman Sachs, Generational growth report, 28.04.2024.
[51] Source: investment bank Goldman Sachs, Electrify Now report, 29.04.2024.

THE SHIFT TO EVS WILL COST THE WORLD'S LARGEST CITIES TENS BILLIONS DOLLARS

Potential costs to electrify passenger transport by 2030



Source: Rosneft estimate. Note: (*)The calculations include passenger cars, as well as 2-and 3-wheeled motor vehicles and are given in the prices of 2023.

ELECTRIFICATION OF TRANSPORTATION AND GROWING DEMAND FOR METALS

One should not forget that introduction of new technologies in the context of energy transition requires **huge investments.** In particular, the cost of transition to electric vehicles in large megacities is estimated in tens of billions of dollars.

For example, we estimate that **electrification of transportation** in such cities as **Sao Paulo, Mumbai, New York, London, Johannesburg and Shanghai could cost more than half a trillion dollars.**

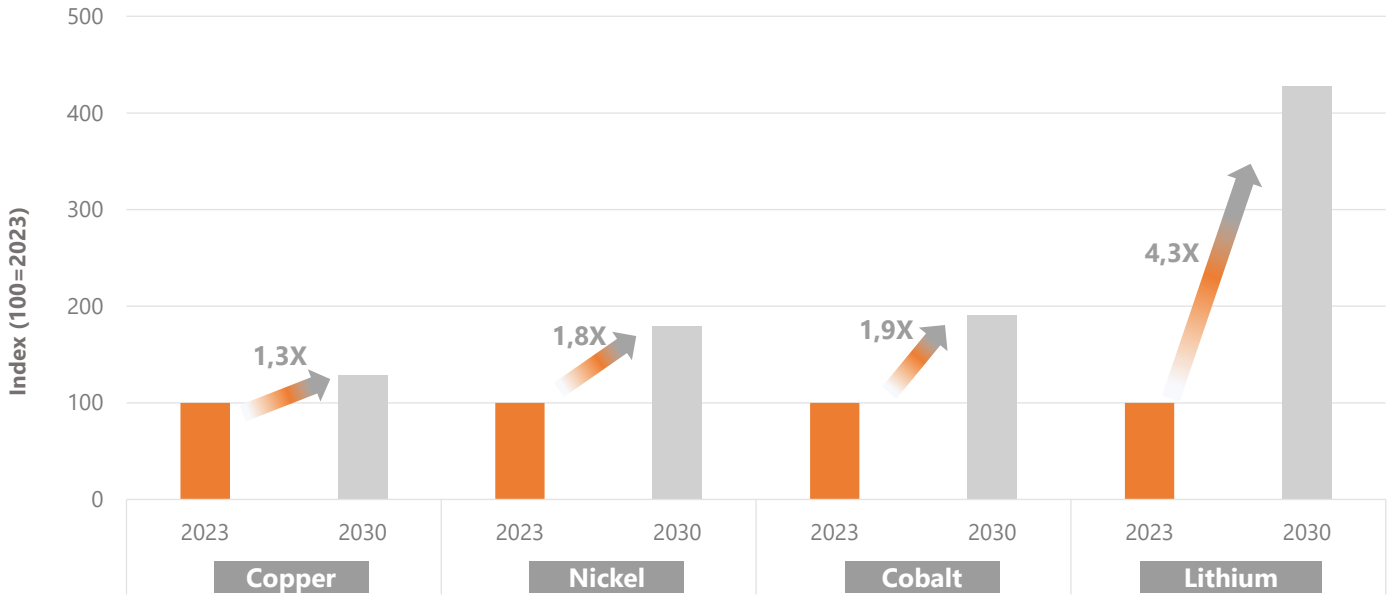
At that, the IEA predicts that on the way to achieving carbon neutrality **by 2030 it will be necessary to increase production of copper by almost 1.5 times, nickel and cobalt by 2 times and lithium by more than 4 times[52].**

This could further increase pressure on land, water and resources in developing countries, where most of the mineral deposits critical to the green transition are located.

[52] Source: International Energy Agency, report Global Critical Minerals Outlook 2024.

DEMAND FOR CRITICAL MINERALS TO GROW MANY-FOLD BY 2030

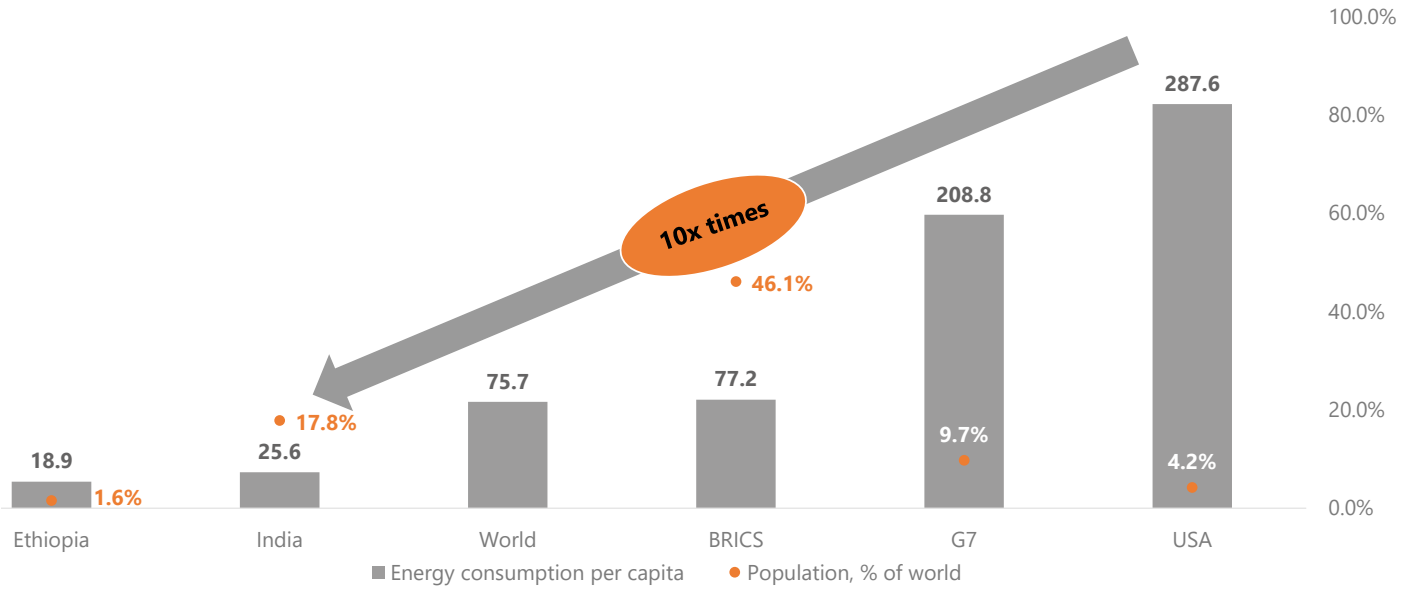
Projected demand growth for key energy transition minerals



Source: IEA report – Global Critical Minerals Outlook 2024

ENERGY TRANSITION WILL HAVE TO ACCOUNT FOR INEQUALITY

Primary energy consumption per capita (GJ)



Source: BP Statistical Review 2023, The World Bank

[53] Source: International Energy Forum, report Copper Mining and Vehicle Electrification, May 2024.
[54] 1 billion tons in 2023 according to the U.S. Geological Survey (Mineral Commodity Summaries, January 2024).

It is worth to mention separately **copper,** the consumption of which, excluding the green agenda, will exceed **900 million tons by 2050.** Furthermore, **another 500 million tons** will be needed to electrify the global vehicle fleet (apart from other energy transition targets)[53].

Thus, cumulative copper consumption by 2050 could double the amount of copper produced in all of human history. It is also **60% more than all recoverable reserves available today[54].**

I believe that at the first stage the emissions issue can and should be addressed by **improving efficiency of energy production,** rather than displacing traditional energy sources with alternative ones.

INCREASE IN OIL CONSUMPTION AS A WAY TO FIGHT AGAINST POVERTY

DEVELOPING COUNTRIES WILL ENSURE ENERGY DEMAND GROWTH

It is evident that **demand for electricity will grow driven by developing countries** that have yet to overcome energy poverty.

Here are just a few figures:

- as of today, more than **two out of eight billion** of the world's population still use open fire for daily living needs[55];
- and more than **700 million people** live without any access to electricity[56].

The gap in energy consumption between poor and rich countries is striking.

Thus, for example, the per capita consumption in **India,** which accounts for about **20%** of the global population[57], is eleven times lower than in the **United States.** Overall, in the so-called **G7** countries, accounting for less than **10%** of the global population, energy consumption per capita is almost three times higher than the **global average.**

I would like to remind you that it is **in the developing countries of Asia and Africa that we are witnessing the greatest population growth** and, as a consequence, **a rapid increase in the need for energy resources.**

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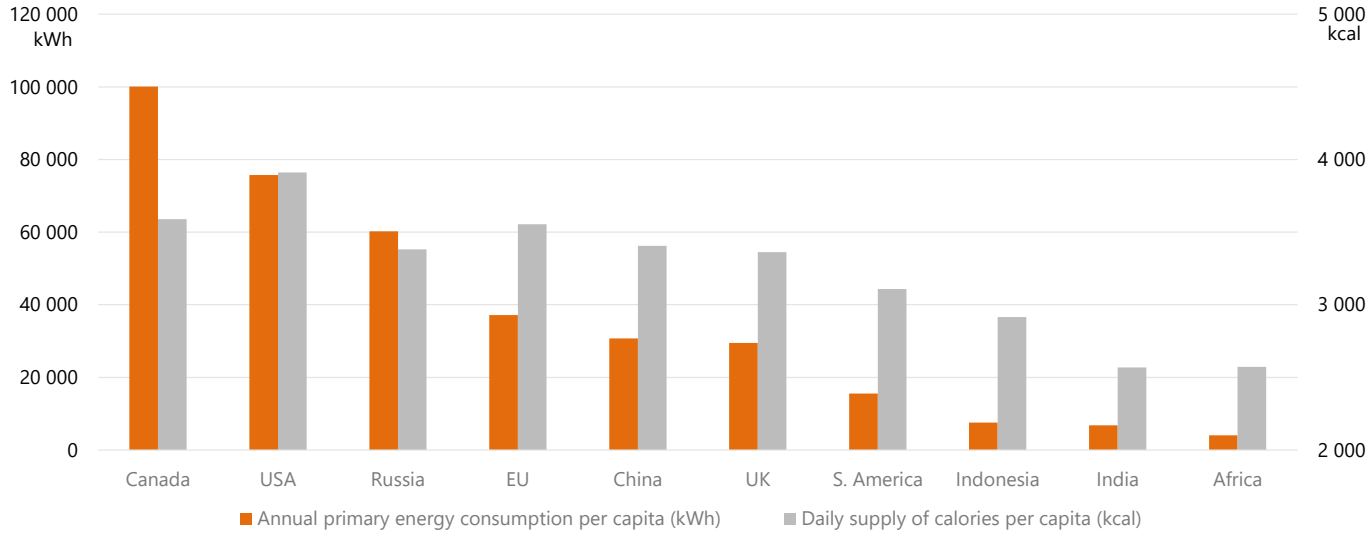
[55] Source: International Energy Agency.
[56] Source: International Energy Agency.
[57] Rosneft's calculations based on data taken from the BP Statistical Review of Energy.

Obviously, in this situation, a reduction in global consumption of fossil resources would automatically mean that the problem of hunger and energy poverty would not only persist, but also worsen.

Thus, aggressive promotion of the "green agenda" actually means **declaring an energy war** on the majority of the world's population.

CORRELATION BETWEEN NUTRITION AND ENERGY CONSUMPTION

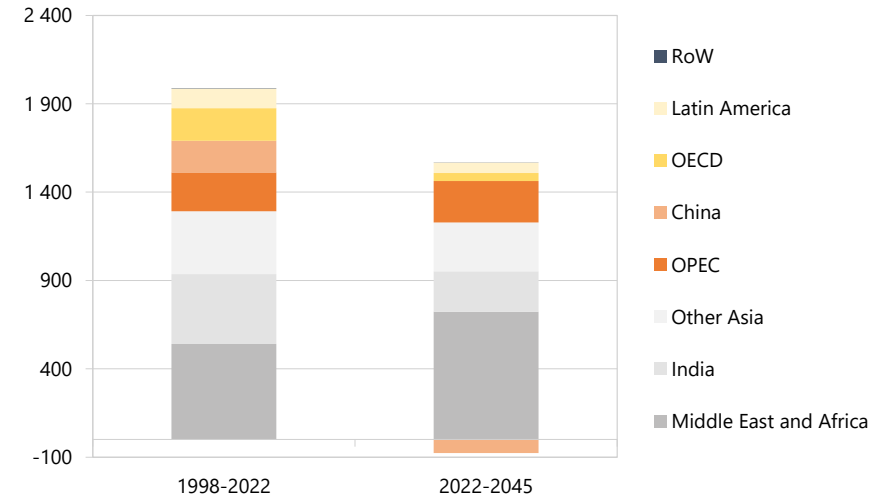
Primary energy and kcal consumption per capita



Source: Our World in Data. Note: data for 2021

OIL CONSUMPTION AS A MEANS OF COMBATING POVERTY

World population growth (millions of people)



Consumer goods produced from petroleum:

- hygiene supplies
- computers
- cameras
- upholstery for furniture
- tableware
- contact lenses
- medical prostheses
- medications
- solar panels
- *and much more*

Source: OPEC World Oil Outlook 2023 with reference to the UN

OVERCOMING ENERGY INEQUALITY IS IMPOSSIBLE WITHOUT RELIABLE SUPPLIES OF OIL AND GAS

Overcoming energy inequality is impossible without reliable supplies of oil and gas. Those advocating a complete ban on fossil fuels, or even a phased withdrawal from them, would benefit from reflecting on the role of oil in the world today. After all, in addition to manufacturing of petroleum products, **oil is used for the production of a huge number of day-to-day goods,** without which the life of modern humans can no longer be imagined.

Giving up oil will also mean **giving up the modern way of life.** Conversely, for many countries, **increased oil consumption means access to the benefits of civilization.**

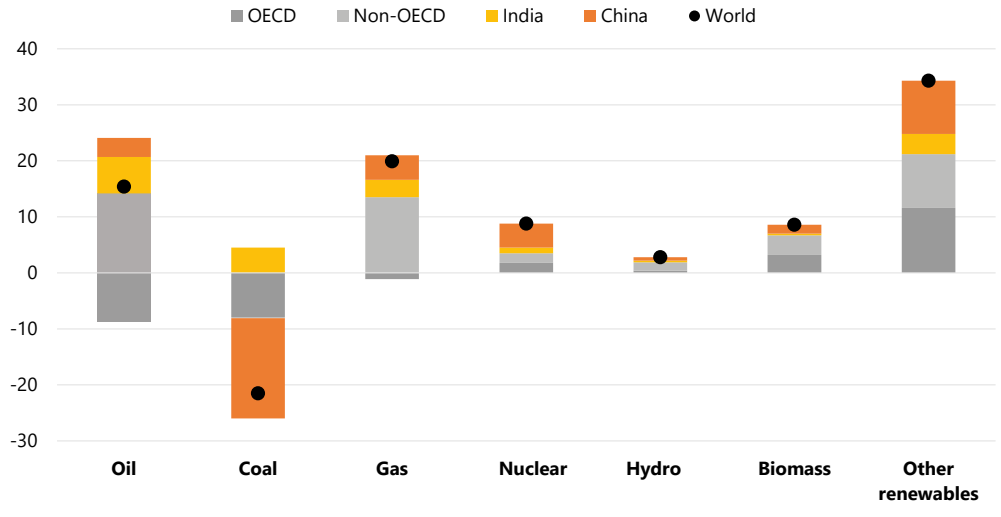
PEAK OIL DEMAND IS STILL YEARS AWAY

It is not surprising that **global oil demand continues to grow** despite the expectations of the so-called "oil peak". I believe that OPEC's forecast paints quite a realistic picture of the future of the global energy industry. According to this forecast[58]:

- **oil demand** is to grow almost by **20%** to the value of **116 million bpd** by 2045;
- **oil** is to continue to account for about **30% of the global energy mix.**

WORLD OIL DEMAND IS SET TO GROW BY 2045

Growth in primary energy demand by fuel type in 2023-2045 (mn boe/d)



OPEC Forecast:

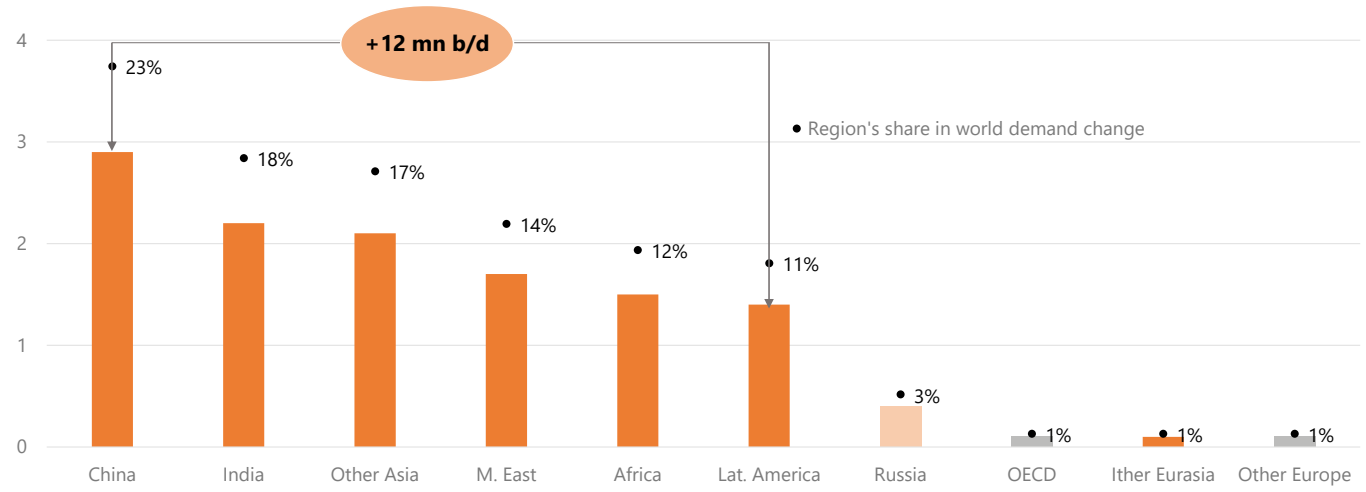
- Oil primary demand is set to reach **116 mn boe/d** (up by 16 mn boe/d) by 2045
- Oil will account for around **30%** in global energy mix

Source: OPEC World Oil Outlook 2023

[58] Source: OPEC, report by World Oil Outlook 2023.

DEVELOPING COUNTRIES TO DRIVE WORLD OIL CONSUMPTION

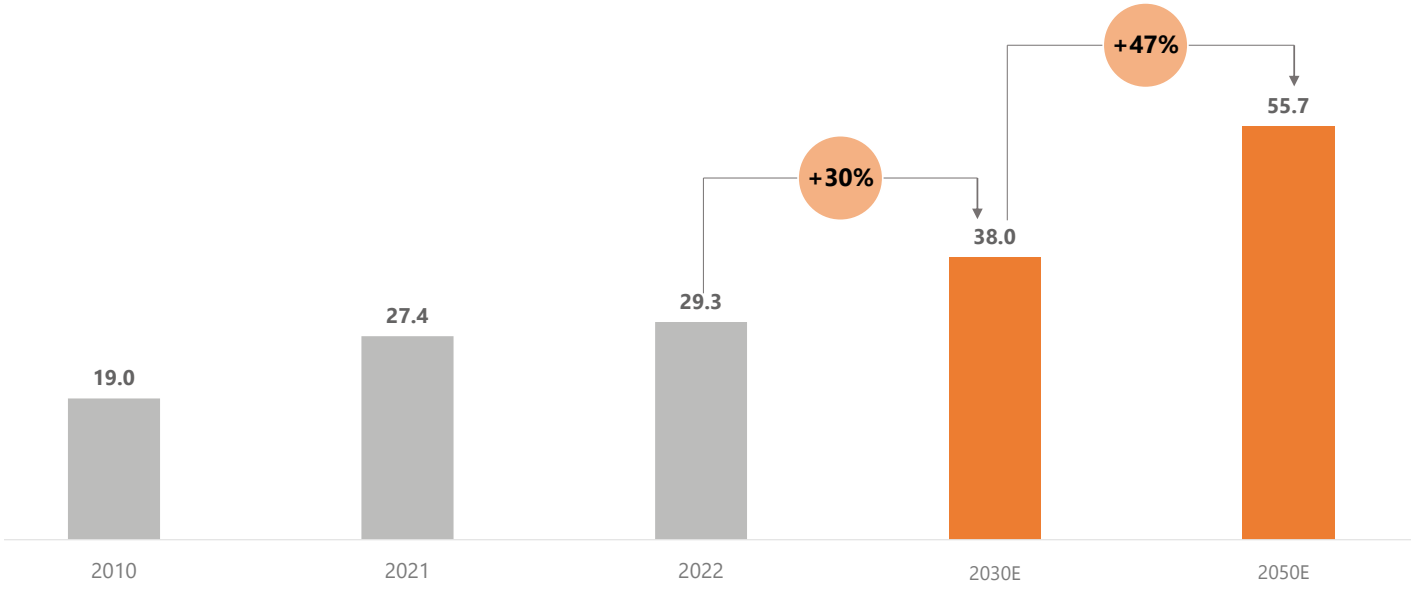
Growth in primary energy demand by region over 2023-30 (mn b/d)



Source: OPEC World Oil Outlook 2023

ENERGY CONSUMPTION IN INDIA TO SOAR BY 90% BY 2050

Final energy consumption in India (EJ)



Source: IEA Report – World Energy Outlook 2023

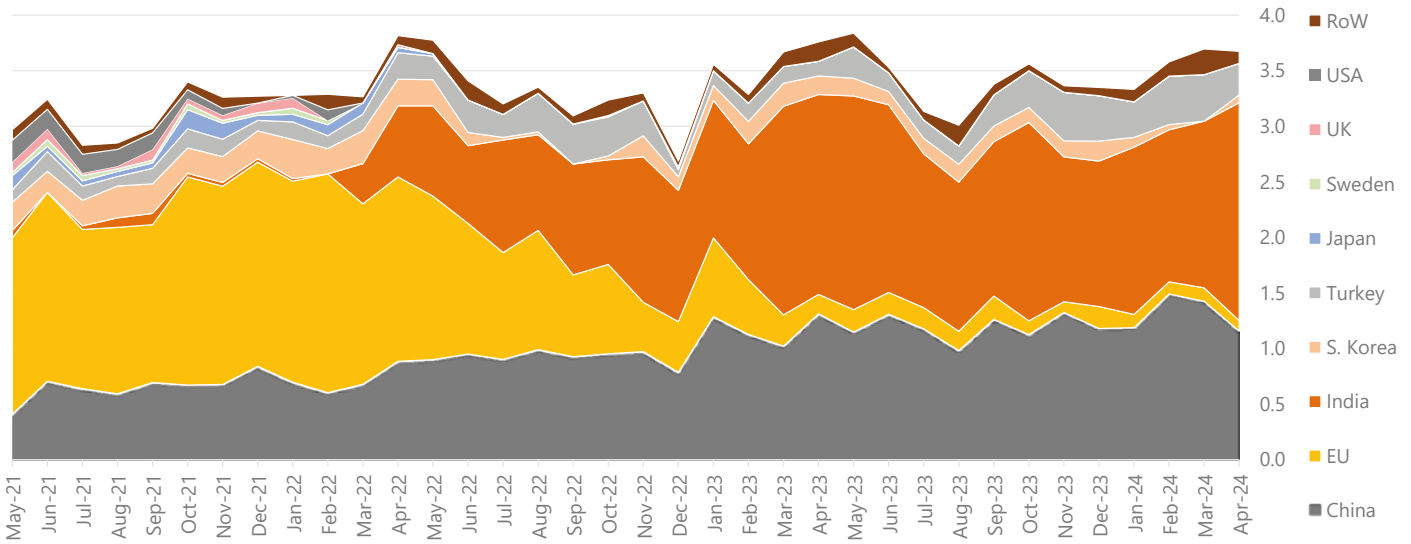
[59] Source: OPEC, report by World Oil Outlook 2023.
[60] Source: The Economic Times, India to become USD 5 trillion economy, third-largest by 2027, 21.09.2023.

Developing countries will be the main drivers of oil consumption in the coming decades. By 2030, demand growth in this group of countries is expected to account for **95%** of global consumption growth in aggregate[59]. **The highest growth in oil demand is expected in Asian countries,** which are Russia's main trading partners.

India's economy has made significant strides in recent years. Since **2010** energy demand has grown by **45%,** making the country **the third largest energy consumer** in the world. Over the next five years, India is projected to continue its strong economic momentum and become one of the top three largest economies in the world with a GDP of **USD 5 trillion[60],** and by 2050 will overtake the U.S. in terms of the size of the economy[61]. **India's end-use energy consumption is set to grow by 90% by 2050** - one of the fastest growth rates in the world[62].

RUSSIAN EXPORTS ARE SHIFTING TOWARDS ASIA PACIFIC

Seaborne Russian oil exports by country of destination (mn b/d)



Source: IEA (World Energy Outlook 2023)

[61] Source: The World in 2050: PwC.
[62] Source: International Energy Agency, report by World Energy Outlook 2023.

RUSSIA IS THE GUARANTOR OF ENERGY SECURITY

RUSSIA IS THE LEADER IN GLOBAL ENERGY

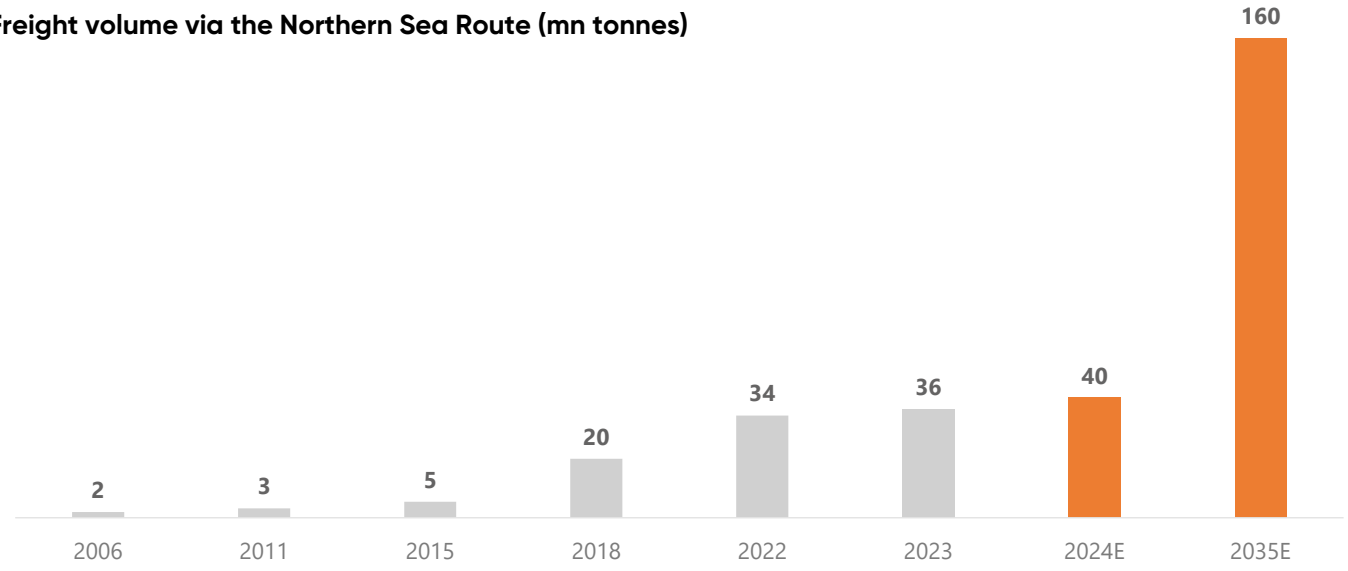
Despite the increasing sanctions pressure, **Russia** is **retaining its role as one of the leaders in the global energy sector.** Taking into account the influencing factors, Russia continues to realize its energy development potential and strengthen its position in the global energy market.

Recently, **the President of the Russian Federation Vladimir Vladimirovich Putin emphasized the importance of reorienting Russian exports** to the APR.

I would like to remind you that the **turnaround of Russian energy exports to Asia-Pacific markets** began with the construction of the ESPO pipeline and investments in India's oil and gas sector long before the European markets were closed to our country. At the moment, the Asia-Pacific region accounts for more than **80%** of Russian oil exports[63], and it is already evident that the **reorientation of supplies** has fully justified itself.

THE NORTHERN SEA ROUTE AS A NEW EURASIAN SHIPPING ROUTE

Freight volume via the Northern Sea Route (mn tonnes)



Source: Rosatom, The Ministry of the Development of the Russian Far East and Arctic, Investment Portal of the Arctic Zone of Russia, RBC

[63] Source: Rosneft calculations based on CDU-TEK and Vortexa data.

THE NORTHERN SEA ROUTE – THE NEW TRANSPORTATION ARTERY

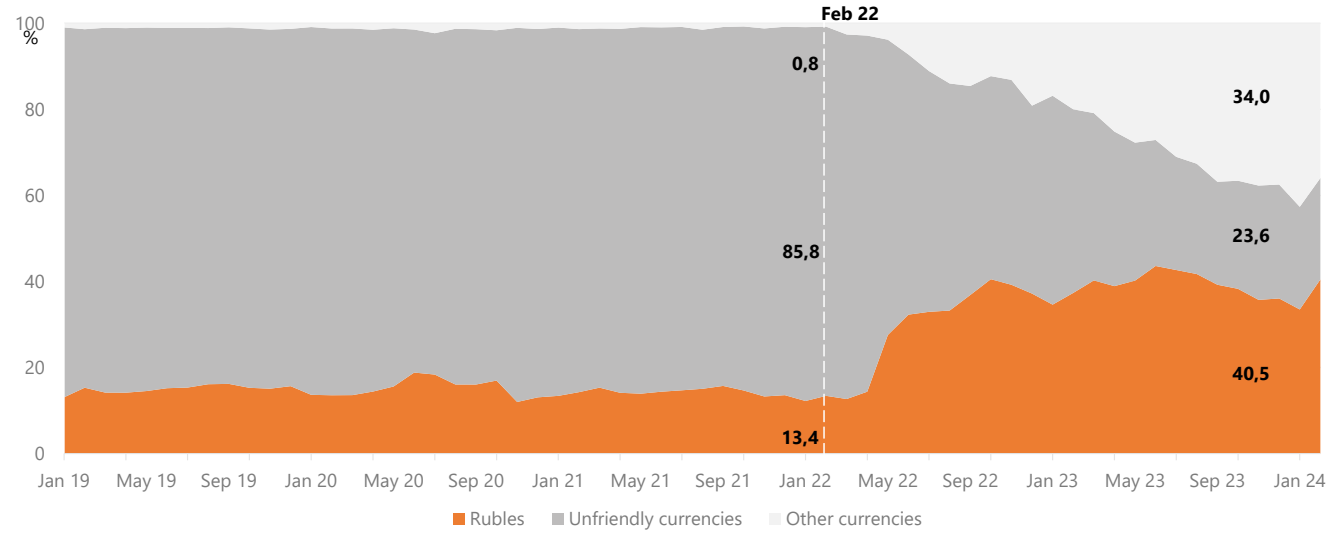
A special mention should be made of the development of the **Northern Sea Route** project, a new transportation artery that will connect the powerful resource base of the Russian North with the markets of developing countries. This project will give energy consumers in Asia access to the **richest resources of the Arctic shelf and Siberia.** Let me remind you that **10%** of the world's oil and **25%** of its natural gas is produced in the Arctic as of today. At the same time, **80%** of the global Arctic oil and gas reserves are concentrated in the Russian Arctic[64].

TRADE DEDOLLARIZATION AND DEVELOPMENT OF ALTERNATIVE PAYMENT SYSTEMS

Trading in national currencies and development of **alternative payment systems** are prerequisites for the continuation of Russian oil exports. Significant progress has already been made in this direction: over the past two years, **the share of the ruble in export payments** has more than tripled and exceeded **40%[65].**

THE SHARE OF RUBLE IN INTERNATIONAL SETTLEMENTS IS INCREASING

Share of ruble and other currencies in Russian exports payments

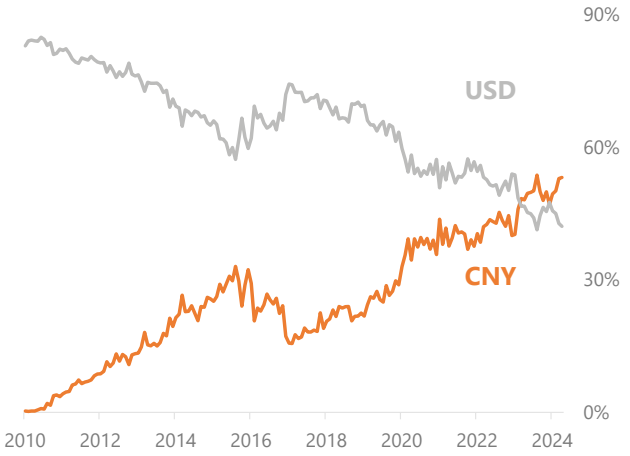


Source: The Central Bank of Russia

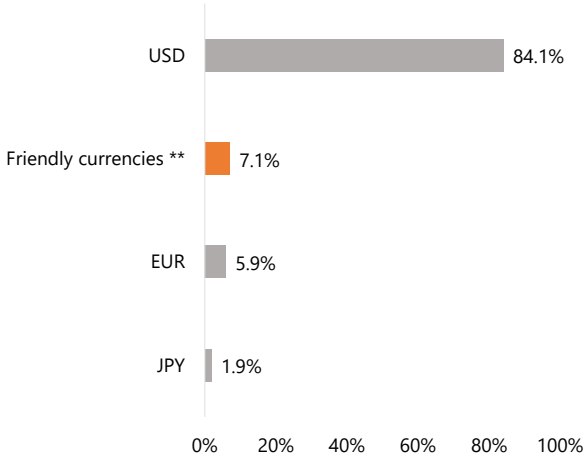
[64] Source: Special project by TASS "Past and Future of the Northern Sea Route".
[65] Central Bank of the RF.

FRIENDLY CURRENCIES PLAY A BIGGER ROLE IN INTERNATIONAL TRADE

Share of USD and CNY in China's international settlements*



Shares of top-10 currencies in international settlements via SWIFT



Source:State Administration of Foreign Exchange of China, SWIFT. Note: (*) All international payments and receipts of companies excluding banks, (**) data for April 2024 includesCNY, INR, SAR,AED,IDR, THB, VND

I would also like to point out the growing role of friendly currencies in the global trade. China's recent success in **using yuan** is a good illustration of de-dollarization. For example, in September last year, **yuan overtook euro for the first time** in trade settlements made via the SWIFT system.

The dynamics of **Russian-Chinese mutual settlements** is also quite indicative. Significant mutual commodity flows, as well as commodity flows of third countries, allowed our countries to promptly switch to settlements in national currencies, the share of which exceeded **90%** by the end of 2023[66].

In order to **further expand the use of national currencies** both bilaterally and in settlements with third countries, **it is necessary to create appropriate infrastructure and instruments** to ensure clearing transactions and opening of correspondent accounts, use of swap lines, as well as the full range of systems for interbank messaging.

[66] Source: 'Vedomosti' - Russia and China have completely abandoned the dollar in trade relations, 22.04.2024.

CONCLUSION

Now that the **failure of the "green transition" concept is evident,** we have to develop a **new strategy for a reliable and secure energy supply** tailored to the needs of developing countries.

The Russian oil industry is self-sufficient in terms of resource base and technologies and **is capable of meeting the challenges it faces.** The economic environment in which our industry operates is currently characterized by the following factors:

- **growing sanctions pressure:** price cap, ban on use of Western financial system, logistical barriers;
- **heavy tax burden** of the oil industry: the industry generates over **RUB 12 trillion** of budget revenues with a tax burden of an average of **75%** of the financial result;
- voluntary **production curtailments** under the OPEC+ Agreement;
- **prohibitive interest rates and limited available liquidity in the financial market:** despite a record **RUB 103 trillion** of liquidity within the perimeter of the Russian banking system, the industry is unable to raise financing.

It is obvious that the high efficiency of deposits with the rate of **18-19% discourages investment processes in the real economy,** which are necessary for sustainable development.

I would like to say that we have no doubts about the ability of the Russian energy complex to **provide the required volume of energy resources for Russian consumers,** and nothing will prevent us from fulfilling our contractual obligations to all our partners.

Concluding my speech I would like to quote the words of the outstanding Chinese philosopher Confucius, who said: **"Where patience ends, endurance begins".**

Thank you for your attention!


Nord Stream

I went out of woods, – winter frost was severe! –
And saw a horse sleigh slowly climbing a hill,
It was full of firewood; I came to it nearer
To find out by whom it was piloted, still
There was just a very small boy on the road,
Who led by the bridle his obedient horse;
In very large boots and too big sheep-skin coat –
In spite that a pocket-sized child he was.
– Hello, big bloke! – "Pass by in the clear!"
– Oh! You are so frightful and strong I would say!
From where's the firewood? – "From woods, cannot hear?
My father is chopping – I'm taking away".
(A woodcutter's axing was heard in the forest.)

A passage from poem "Peasants Children"
Nikolay Nekrasov, 1861

HEADS OF MAJOR ENERGY COMPANIES AND LEADING MARKET EXPERTS TOOK PART IN THE ENERGY PANEL AT SPIEF

ZHANG DAOWEI

Vice President, China National Petroleum Corporation

Indeed, today, in the world, we witness acceleration of previously unprecedented processes that have brought a number of changes to global geopolitics and global economic activity. Following a new round of scientific and technological revolution, the energy market has radically been restructuring and transforming its structure.

The share of fossil sources has become about 80% of primary energy consumption, oil, coal and gas respectively make 29%, 27% and 23% of global consumption. We can also see changes in the share of hydropower and other renewable energy sources.

Considering the energy transition and within the framework of

scientific and technological progress, we are confident that growing global energy needs can be generally satisfied.

We believe that as part of the overall movement towards the energy transition, the proper response to such challenges is committing to our joint coordinated development of conventional and new types of energy, with respect for our countries' peculiarities and capabilities. For a long time, oil and gas will remain a reliable basis for a number of states to build up their competitive capabilities, as well as for the key area – ensuring energy security.

We expect that by 2025, the share of oil and gas in the primary energy balance will remain 50%. This will ensure long-term, stable and sufficient development within the framework of relevant supply of oil and gas markets.

At the same time, new energy sources will be developed, which will allow us to ensure long-term and sustainable investments in the oil and gas industry, and avoid risks of reducing supply flexibility due to possible underfunding.

In 2024, we are celebrating the seventy-fifth anniversary of establishing diplomatic relations between Russia and China, and I would like to note that Chinese imports of Russian oil and gas are steadily growing. The amount of trade as a whole has increased by 338% over the past century, from 24 and 25 million metric tons in 2013 to 107 million tons in 2023, over the past ten years. Pipeline gas trade has increased from zero to 22.7 billion cubic meters in 2023, and we expect LNG trade to reach 38 billion cubic meters by 2025.

We want to take more advanced part in the work aimed at maintaining global order in energy issues, in particular through interaction with the BRICS, the World Petroleum Council, the International Analytical Agency, the Oil and Gas Energy Initiative and other international organizations, and expand cooperation in the fields of renewable energy and hydrogen energy. We intend to contribute properly to our relations.

WANG TAO

President, Hilong Group of Companies

Energy security and environmental protection are the most important issues facing the current world. The integrated approach to energy development, which relies on fossil resources and considers environmental issues, is required.

For quite a long time, oil, natural gas and other fossil resources will still remain main energy carriers worldwide. And this circumstance is extremely important for ensuring energy conservation and reducing emissions.

At present, oil companies face the challenge as follows: how to

achieve sustainable production in old fields and improve the oil recovery factor. And at the same time, to increase production of natural gas, gradually enhancing its share in the structure of primary energy consumption. In recent years, China has been actively developing projects in the field of exploration and reservoir engineering of unconventional oil and gas resources, such as coalbed methane or shale gas. Meanwhile, Chinese companies achieve outstanding results in constructing related infrastructure, as well.

The Hilong Group of Companies is a Chinese oilfield-services company to have been following the strategy of internationalization of its business for quite a long time.

We provide our services to global oil and gas companies in the Americas, Africa and the Middle East. Russia is also an important market for us.

In our development, we adhere to the responsible approach in terms of environmental protection and consumption of resources, both through scientific and technological progress and by increasing efficiency.

For reducing areas occupied by wells, and for more efficient land use, we apply directional drilling and other in-well tools, as well as vertical and cluster wells.

Moreover, we introduce new types of materials, including nanomaterials, into the process of developing oil fields, rationally increasing mineral extraction.

At the stage of exploratory drilling, we increasingly and more efficiently use green materials, in particular in drilling fluids, which enhances protection of petroleum reservoirs. The Hilong Company actively searches for new solutions in this field, accumulates useful experience and achieves good results.

SHERIF SHOHDI

President, Schlumberger in Russia and Central Asia

I fully agree with what Igor Ivanovich said in his speech, noting importance of the role of oil and gas in the global energy system. Especially, about gas. It can be added that its role will become increasingly important. This is already happening.

If it is about Russia, it certainly has a very strong position: huge reserves, close proximity to strategic locations.

As for "Schlumberger", we primarily focus on technology. We invest a lot in technology, largely in new energy opportunities. These are

lithium mining, geothermal energy, thermal energy, and, of course, carbon reduction technology. Herewith, we believe that in the context of security of the energy sector, the need for conventional energy sources will remain. And as the energy transition progresses, we must continue focusing on efficiency, environmental protection and carbon reduction in the oil and gas sector.

Today, I would also like to note the unique leadership of Igor Ivanovich Sechin and the role that Rosneft plays under his leadership in ensuring sustainable development of the energy sector. Our cooperation with Rosneft allows us to actively implement technologies of "Schlumberger" in Russia. Thus, we not only reduce the carbon footprint, but also increase efficiency, which is very important.

These are, first of all, various tests that we conduct in the field of hydrodynamics. This is reduction in associated gas combusion. We also have breakthrough hydraulic fracturing technologies and many other technologies to be developed and created by Russian engineers in Russia.

From my viewpoint, if we succeed in making the energy transition, there will be even more opportunities for cooperation. It will be necessary not only on the part of operators and service companies, but also between governments, for ensuring appropriate regulation and helping the energy transition.

This is a long path of energy transition that has already begun. This is a difficult path that requires involvement of scientists, engineers and, of course, investments and development. Therefore, when I look at the partnership that we have with Rosneft today, I think that this is just an example of cooperation that needs to be developed and increased. This is the only way we will succeed.

JOSE FELIX RIVAS

Sectoral Vice President of Economy of Venezuela

Globalization, as it looked in the 1990s, and the free-trade ideology have failed. We see that sanctions are a new form of limiting the productive potential necessary for countries' development. We don't like to use the term "sanctions", we call them "restrictive measures". The failure of their plan is a kind of suicide for

the globalizators, because Russian gas is not supplied to Europe. This affects the energy security of the whole world. That is, the problem arises in terms of not only prices, but also energy and food security. We work on recovering the oil industry, petrochemicals and refining. This is required not only for our country, but also for the world as a whole.

As for Venezuela, investments are important, so we have created strategic associations with certain investors. Secondly, all the countries to be negatively affected by the sanctions, and there are many of them, should unite and work out their own instrument of interaction. This is a matter of these countries' energy sovereignty.

Now, as for "green" economy, or this "green" extremism: the only thing that is green there is the "green" dollar. This is a form of maintaining dominance and hegemony. For countering this dangerous propaganda that harms our capacities, we must act together.

We need to take a close look at what's happening around. The "green" economy has been discussed for a long time, and the media play a big role here. This is already a real threat. Regional development banks also start participating in these discussions, stating that they can no longer finance fossil fuels. I would like to note that they should be engaged in financing the oil industry, so this is a kind of contradiction. These are double standards. One more thing: the United Nations turned out to be established not for protection, but for manipulation. There, some also demonize oil production and producers of petroleum products.

As I have already said, for abandoning fossil fuels, we need the very fuel. We need to have the holistic understanding of what's going on. We must focus not only on exports. We need oil to ensure motor and air traffic, and water purification. Wind farms are built and operated due to oil, and we must understand this.

HIDEHIRO MURAMATSU

Vice President and CEO, SODECO

In his report, Igor Ivanovich has just noted importance of offshore development. And it is due to offshore development that the production growth is ensured. Our company joined the Sakhalin-1 Project 30 years ago, and since 2005, the project has been engaged in crude-oil production. This is highest-quality oil, and this oil was supplied to the Japanese market. This project is unique in terms of applying modern technologies for oil-reserves development on the Arctic shelf. And Sakhalin Island has very harsh climatic conditions; in its climatic conditions, Sakhalin is similar to the Arctic. And "Sakhalinmorneftegaz-Shelf" took part in the reservoir developing. The most

modern drilling technologies were used. The wells with the longest vertical deviation were built.

The second important factor is that the oil produced within the Sakhalin-1 Project is of high-quality, light and sulfur-free. The project was executed in compliance with all environmental requirements, the consortium monitored the environmental impact both during the project implementation and in the subsequent period. Environmental stewardship is very important for development prospects of this region.

And in the end, I would like to draw your attention to the issue of relations between our countries. We are close neighbours. And it takes very short time to deliver goods from the country. For uninterrupted energy supplies, it is important for us to cooperate with oil-producing countries. Russia is the closest to us producer of oil and gas products, and for 30 years, our collaboration with each other has been successful.

MARTIN WIEWIOROWSKI
Chairman of the Board of Directors, "Advantage Energy"

Thank you so much for the wonderful question, Aleksander Aleksandrovich. Dear Igor Ivanovich, dear colleagues, thank you for the invitation to participate in our discussion.

Oil demand from the Global South is growing almost by 2–3 times faster than one from the Global North. Even before the coronavirus pandemic, this trend was very clear, and now, when the pandemic is over, it is only accelerating.

While the United States remains the largest consumer of oil in the world, China gradually approaches these indicators. The population growth rate in the Global South continues and even accelerates, as well.

In this regard, the following issue definitely is very important: how can the oil industry cover this ever-growing demand, providing sufficient oil production, and, herewith, flexibility needed in the long term.

However, the growing need for financing, as well as importance of the "green" agenda, have led to the situation of often investing not the conventional energy sector, but renewable energy sources. As a result, we observe the sector of oil, gas and conventional energy sources to be ones experiencing severe shortage of investments.

According to our estimates, the conventional oil industry and CAPEX in the upstream have decreased by almost 30%, compared to the figures we saw 10 years ago. And all this happens at a time when global oil demand continues growing. It is determined first and foremost by increasing consumption from the Global South. And lack of investments in priority areas, as well as reduction in exploration activity, result in decreasing the production. This primarily concerns non-OPEC countries.

However, I would like to exact that the ratio of the reserves availability to the production rate, and a high indicator in this ratio, is

not always good. Sometimes this requires, first of all, efficiency improvement, and in this case, it is important to focus on making sure that we increase this coefficient. In this respect, Russia copes with this task much better than the rest of the world. Russian oil producers demonstrate a very good ratio of this indicator, at the level of 100%. After all, in Russia, the ratio of reserves to production even improves, especially if we consider development of new projects, which are at present primarily concentrated in Eastern Siberia. They have now been added to the resource base.

ROVSHAN NAJAF

President, State Oil Company of the Republic of Azerbaijan (SOCAR)

Ladies and gentlemen, rapid transformation of the global economy, along with geopolitical changes and instability in the energy markets, poses new challenges for countries and corporations. In the current geopolitical situation, solving the problem of energy security becomes an even more important issue.

Over the past two decades, global primary energy consumption has increased by 47%, and forecasts indicate further significant growth over the next 30 years, driven by rapid industrial development, population growth and global economic recovery. Azerbaijan prioritizes development and global spread of green energy, which is supported by ambitious goals to reduce greenhouse gas emissions by 35% by 2030 and by 40% – by 2050, compared to the year of 1990.

This year, Azerbaijan will proudly host COP29, one of the major international forums. Holding such a significant conference confirms Azerbaijan's status as a responsible and reliable partner in solving global environmental problems.

SOCAR strategically considers the situation developing in the global economy, shifts and changes in energy markets, for the purpose of ensuring sustainable development due to the multifaceted approach. This approach includes diversifying the energy portfolio, for adapting the changing market dynamics, by expanding the use of renewable energy sources and low-carbon technologies.

Among our long-term goals, there are continuation and expansion of oil and gas production, digitalization, business sustainability, innovation and decarbonization, with an eye to contributing to sustainable energy future.

DAVID GADZHIMIRZAEV
General Director, AO "OFS Technologies"

Before answering the question, I would like to touch upon several issues related to the trilemma of global energy, which is accessibility, stability and price reliability. If it is about oilfield services, there is, undoubtedly, a huge need for high-tech equipment, because even in 2023, development drilling increased by 10% and amounted to about 19 million meters of drilling. According to our estimation, these figures will grow, and by 2030, development drilling will have amounted to about 80%, a huge share of which will be horizontal drilling. This is the first thing.

Secondly, the country approaches to hard-to-recover reserves. To date, their development is about 30% of the total production. And there is a forecast that by 2050, hard-to-recover reserves will be about 70%.

This suggests that we need to invest in high-tech equipment. The country has all the necessary resources for this: this is the most important thing. Therefore, I would like to emphasize that, despite the sanctions restrictions, despite the pressure from the West, this task will be completed.

We, the "OFS Technologies" company, have already started investing in the industry, specifically related to oilfield services. Last year, we laid the foundation stone for constructing a rotary steerable systems plant, and by 2025–2026, we will have been producing entirely onshore equipment that will cover the need for developing hard-to-recover reserves, complex drilling of horizontal wells, and complex drilling of multi-hole wells.

And the issue I would like to touch upon, for adding speed and scale: there is a need for cross-industrial collaboration. I mean now metallurgy, and companies engaged in manufacturing electronics. That is, having received the very cross-industrial collaboration, we will be able to add the necessary speed and scale, for the purpose of being technologically independent and developing all required resources in the territory of the Russian Federation.

NOBUO TANAKA

Chairman of the Supervisory Board of the Non-Profit Initiative of the Government of Japan for Development of Low-Carbon Technologies

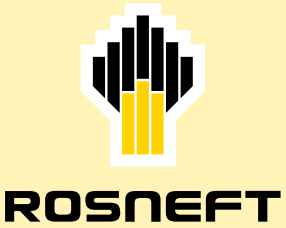
I am the Honorary Executive Director of the International Energy Agency (IEA), and the other day I attended the celebration of the fiftieth anniversary of this organization.

The IEA also cooperates with oil and gas producers, and calls on all countries, especially producing ones, to achieve zero emissions by 2050. This will mean that there will no longer be need for investments in a new field, provided that the zero emissions goal has been achieved.

To my mind, we need to talk not only about sustainability. At COP28, it was emphasized that the process of energy transition is of great importance. And that it is important, for example, to use LNG. Here Russia plays a significant role. Carbon capture and storage is high on the agenda of many countries. When I attended conferences in Singapore, in Thailand, many of the speakers mentioned importance of the carbon capture technology and green hydrogen. All these are important to ensure sustainability.

I am confident that, under the wise leadership of Mr. Sechin, Rosneft can significantly contribute to providing consumers of energy resources, to developing capture technologies and other ones.

I wish you, Mr. Sechin, to succeed on this path. I am proud of our friendship, and thank you for inviting me to the Forum.



RUSSIA, SAINT PETERSBURG
2024