

LATIN AMERICA: ENERGY AND COMMODITY BASE FOR INTERNATIONAL BUSINESS

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Abstract

International business has traditionally shown keen interest in the use of mineral resources of Latin American states. At the moment, the interest of energy, mining, and trading corporations in the natural resources of the region is close to its peak, since Latin American states, with their geological reserves are able to ensure the stable operation of both established and emerging high-tech production facilities. In particular, apart from meeting the needs of developed countries for hydrocarbon energy, we also imply ensuring the transition of entire sectors of the world economy to a new technological level. For instance, the transition of the automotive industry from internal combustion engines to electric vehicles, which is impossible without the growing use of copper and lithium, where Latin America is a key supplier. Many facts indicate that the production and export of various types of mineral resources, a natural competitive edge of the region, will play an increasingly important role in the economic performance of Latin American states in the foreseeable future.

Keywords

International business, multinational corporations, energy resources, mining raw materials, Latin America, oil, copper, lithium.

The progressive development of international business depends, to a decisive extent, on the state of its energy and commodity base - the availability of energy and commodities required for industrial production and service infrastructure development. This condition fully remains relevant at the present stage of deep geo-economic transformations, marked by increased cross-border competition and, therefore, placing particularly stringent requirements on business. As a result, another round of inter-country and inter-corporate competition is unfolding for the most promising energy and commodity markets. Moreover, at the epicenter of this confrontation are the regions of the Global South, including Latin America, whose natural resources have attracted keen interest of international business. This applies to both the Latin American market of hydrocarbon energy, primarily oil, and metals that are in great demand by advanced industries, primarily copper and lithium, without the widespread and constantly growing use of which it is impossible to transfer the world economy to a new high-tech level. In view of the above, this article primarily focuses on analyzing the role of these key commodities.

PRODUCTION AND CONSUMPTION OF COMMODITIES: DIALECTICS OF RELATIONS

The historical record shows that the development of international business has always been tightly connected with the production, industrial processing and commercialization of energy and commodities. In fact, the state of all key industries, the rise in production of capital and consumer goods, and consequently, the prospects for business expansion have been determined by the world economy's access to resources. The problem is that mineral deposits are distributed extremely unevenly on Earth, and the dominant trend of the last two centuries has been the pure depletion of natural resources in industrialized countries and, as a rule, a deterioration in the quality of commodities produced on their territory [1]. Leaders of international business - multinational corporations (MNCs) - have found a way out of the situation through the intensive development of commodity deposits in developing countries or, as they now say, in regions of the Global South: Africa, Asia and Latin America. It is this bipolarization of the production and use of natural resources that constitutes the first feature of the global energy and commodity market.

The second important feature of the global commodity picture is the periodic surge in demand for relatively new types of natural resources. Relatively, since these resources were known, produced, and used, but at a certain point, in response to the exponentially increased need of the manufacturing and service industries, they became the object of close attention from international business, which began to intensively exploit them [2]. This was the case with coal, oil, and natural gas at one time; a similar story is now observed with a number of metals. And since the demand for hydrocarbon energy remains high, the megatrend in the development of the world economy is a steady and long-term rise in the consumption of material resources. In particular, according to available estimates, in 1970-2017, the annual production of commodities rose 3.4 times - from 27 to 92 billion tons and continues to increase [3]. Moreover, their consumption is rising in all categories (fossil fuels, metals, non-metallic mineral resources), which has led to a corresponding increase in the turnover of MNCs engaged in mining. This, in particular, can be seen in a 2.5 growth of sales of the largest energy companies in 2002-2022, from 695 to 1705 billion dollars (see table 1). At the same time, we note that there has been a significant change of leaders: in 2022, the first three spots were occupied by non-Western companies, which in 2002 could not be even seen in the top five global energy MNCs. Therefore, large international business has considerably expanded its geography.

Table 1

Sales turnover of top 5 energy corporations (billions of dollars)

№	2002		2022	
	MNC	Sales	MNC	Sales
1	ExxonMobil	192	Saudi Aramco	400
2	BP	174	Sinopec	384
3	Royal Dutch Shell	135	PetroChina	380
4	Chevron Texaco	100	ExxonMobil	280
5	TotalFinaElf	94	Royal Dutch Shell	261
Total:		695	Total:	1705

Source: Top 10 Oil and Gas Companies in the World 2022. Available at: <https://www.mbaskool.com/business-lists/top-brands/17635-top-10-oil-and-gas-companies-in-the-world.html> (Accessed 10 December 2023).

The third feature is the relatively low elasticity of supply and demand on commodity markets. This is dictated by two objective circumstances: 1) as a rule, it is extremely difficult to replace one commodity with another, since in most cases each type of commodities has its own unique properties; 2) it is impossible to significantly increase supply in a short period of time due to the long time frame for the discovery of new fields. For instance, according to the reputable International Energy Agency (IEA), the commissioning of a relatively large iron ore or copper deposit usually takes 10-15 years [4].

The fourth feature of the international energy and commodity market, which often negatively affects the financial standing of exporting countries, is the extreme volatility of prices for the vast majority of commodities. In other words, there is a periodic change of “commodity super cycles”, marked by heightened demand and high quotations, and periods of deep drops in world prices in response to a market decline in consumption of commodities by importing countries. A paradigmatic example is the wildly fluctuating dynamics of spot prices for Brent crude oil, reflecting the current state of the energy market (see Figure 1).

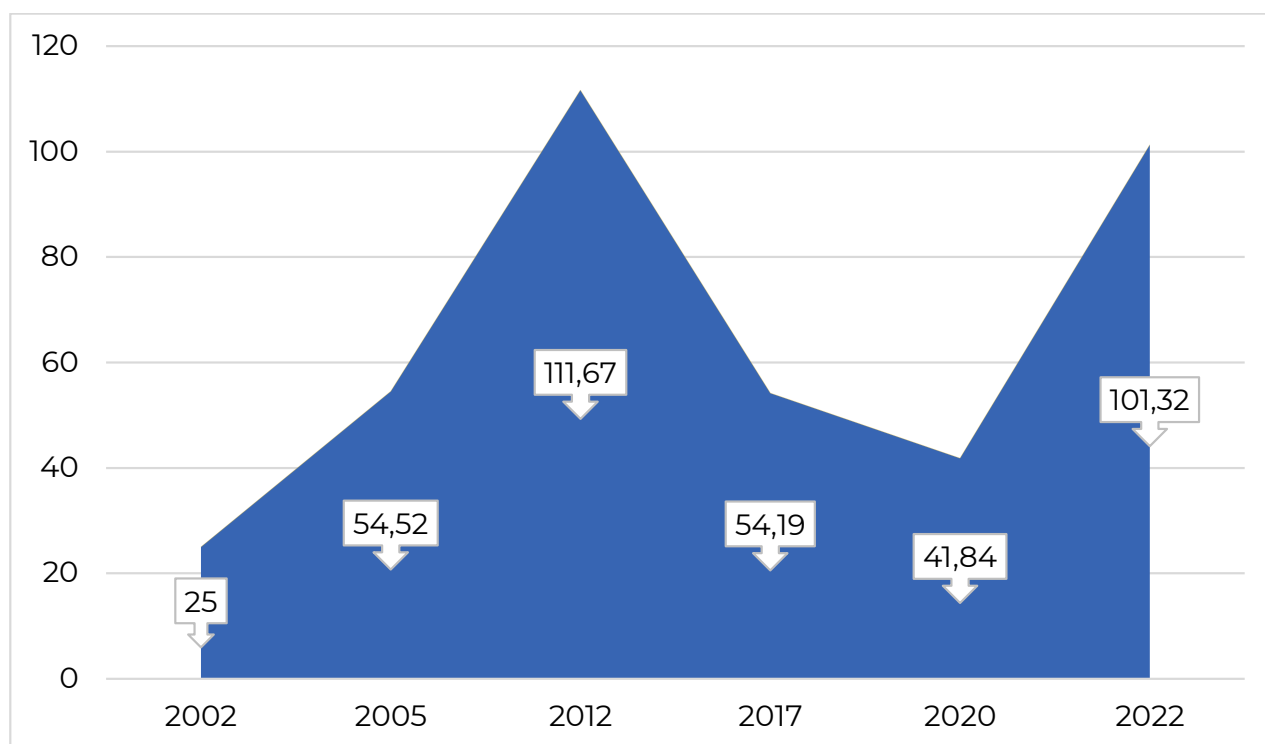


Fig. 1. Changes in spot prices for Brent crude oil (dollars per barrel).

Source: Statistical Review of World Energy 2023. London: Energy Institute. 2023. P. 24.

Finally, the fifth feature of the modern energy market, which has made itself felt with particular force over the recent years, is the extremely important role of a relatively narrow circle of the largest multinational trading companies engaged in the global supply of energy, metals, and mineral commodities. These include: Swiss trading, logistics and mining corporation Glencore (Global Energy, Commodities and Resources); Singaporean trader Trafigura, specializing in the wholesale trade of hydrocarbons and metals; Swiss-Dutch company Vitol, the world's largest oil trader. These members of the "Big Three" actively interact with other international business players operating in Latin American states and are often engaged in production of commodities themselves. In particular, Glencore has interests in Chile (copper, gold and silver mining), Peru (zinc, silver and copper deposits), as well as in the Colombian coal industry [5]. A special study released in 2023 by the renowned consulting firm Oliver Wyman recorded impressive profit dynamics for major global traders, the total amount of which rose from \$36 billion in 2018 to \$115 billion in 2022, which, according to experts, indicates higher profit margin of the international energy and commodity business [6].

Historically, the fundamental importance of Latin America for the world economy was reduced to the supply of commodities and food products to European and other markets. Of course, in different periods the range of commodities supplied varied and was supplemented with new types of products. For instance, in colonial times gold and silver made up tangible export from the region, playing a key role in the monetary support of the rise of the European economy. In the 20th century, oil came to the forefront: first Mexico and then Venezuela became sources of supplying the world economy with "black gold." Over the years, oil and petroleum products occupied a prominent place in the exports of Argentina, Colombia, Peru, Ecuador, and Brazil became one of the largest producers and exporters of iron ore, graphite, and magnesium, Colombia - coal, Mexico - silver, lead and fluorite, Chile - copper and iron ore, Peru - copper, lead, zinc and phosphates, Bolivia - tungsten and tin, Argentina - silver [7].

Over the recent years, Chile and Argentina have experienced rapid growth in lithium production. Bolivia, Brazil, and Mexico have plans for this metal, which is in high demand on the world market. At the same time, the strong dependence of Latin American economies on the production and export of a relatively limited range of commodities, global prices for which are often subject to wild fluctuations reminiscent of a roller coaster, has been dubbed in history as the “resource curse” - a difficult obstacle to overcome on the path of economic diversification and the development of advanced industries [8]. To tell the truth, there is another, directly opposite point of view. Its advocates argue that this is a “myth”, and in fact, there is no “resource curse” in the Latin American economy, and the natural resources available to the countries of the region constitute their international competitive edge of a fundamental nature, which they need to be able to use effectively. The main thing is not only to constantly raise the production and export of commodities but also to encourage their local industrial processing and use them in the interests of national development. In this case, the “pain points” of the Latin American economy have a chance to become points of its growth [9].

Perhaps precisely because of the ambiguity of this phenomenon, the fight against it, although it remains on the macroeconomic policy agenda, does not bring tangible results: even after decades, energy, commodities, and food products continue to account for the biggest share of export of most Latin American states. Moreover, as statistics shows, the share of so-called primary products (energy, mining raw materials, and agricultural produce) in Latin America’s total supplies to the world market tends to rise: if the average annual reading for the period 1999-2001 was less than 27%, then in 2019-2021 it exceeded 36% [10].

At the current stage of technological development, hydrocarbons - oil and natural gas, along with copper, nickel, rare earth metals and the already mentioned lithium, dubbed “white gold,” have acquired particular value. The capacity of expanded production of these commodities and some other highly required energy and raw materials ultimately determine the position of a large number of Latin American states (and the region as a whole) in the modern structure of international business, determining their place in the global strategy of multinational corporations.

ROLLER COASTER OF LATIN AMERICAN OIL

In the economic sense, the 20th century will go down in the history of human civilization as the “oil century.” Largely thanks to the production and refining of oil, which in most countries has become one of the main resources for energy production, the raw material for a number of industries, as well as the largest business on a global scale, the world economy has acquired a powerful growth impetus that has not dried up so far. The uncompromising international struggle for control over oil flows took on all sorts of forms: from intense trade competition to armed clashes, anti-government conspiracies, and coups d’état [11].

Oil passions have not spared Latin America, which has fully experienced all the vicissitudes of the global “black gold” market evolution. Moreover, the main negative outcome of the last decade was the reduction in Latin American oil production, causing a fall of region’s share in global production from 11.4% in 2012 to 8.3% in 2022, and in absolute terms - from 9784 up to 7825 barrels/day (see table 2).

Table 2

Oil production in Latin America (thousand barrels/day)

State	2012	2015	2020	2021	2022
Argentina	657	646	601	628	706
Brazil	2145	2525	3030	2990	3107
Venezuela	2704	2864	660	676	731
Colombia	944	1006	781	736	754
Mexico	2912	2593	1912	1928	1944
Peru	157	153	131	128	128
Trinidad and Tobago	117	109	76	77	74
Others	148	146	187	226	381
Entire region	9784	10046	7378	7389	7825
Share in world production (%)	11,4	11,0	8,3	8,2	8,3

Source: Statistical Review of World Energy 2023. London: Energy Institute. 2023. P. 15.

The decline in production caused a drop in exports: from 5196 to 4131 thousand barrels/day, or from 9.2 to 6% of the world figure [12]. Therefore, Latin America as a whole has lost a significant share of its position in the international oil business.

Why did this happen? The data presented in Table 2 suggests that the main “culprits” for this state of affairs were the historical regional oil leaders - Mexico and Venezuela, whose total production fell by more than half: from 5616 to 2675 thousand barrels / day within the specified period. And the decline in production in these countries was caused by various reasons. To paraphrase the classic saying, we can claim that each of them “was unhappy in her own way.” Mexico faced two key factors: the depletion of the resource base and the low performance of the major state-owned energy company Pemex, which chronically lacked funds for the exploration and development of new fields [13]. In turn, the authorities of Venezuela, which has the world’s largest oil reserves (over 300 billion barrels) and large natural gas reserves (6.3 trillion m³), entered into a clinch with foreign, primarily American, MNCs that had settled in the country, fell under the steamroller of trade and economic sanctions from Washington and the European Union, lost the lion’s share of investments in the oil and gas and other commodity sectors, and lost most of their traditional markets [14].

A significant change in leadership occurred amid a relatively rapid and radical weakening of Mexico and Venezuela’s positions in the oil industry of Latin America. Thanks to the intensive development of deep-water fields on the sea shelf (development of the so-called pre-salt hydrocarbon reserves), Brazil has become the leading producer and exporter of oil and petroleum products in the region for the first time in history. In 2013-2022, local and foreign energy corporations operating on its market (American Chevron, Anglo-Dutch Shell, British BP, French TotalEnergies, Spanish Repsol, Norwegian Equinor, etc.) led by the Brazilian state-owned oil and gas concern Petrobras increased the export of “black gold” almost fourfold - to 1,346 thousand barrels per day, exceeding \$55 billion in value terms (see Figure 2).

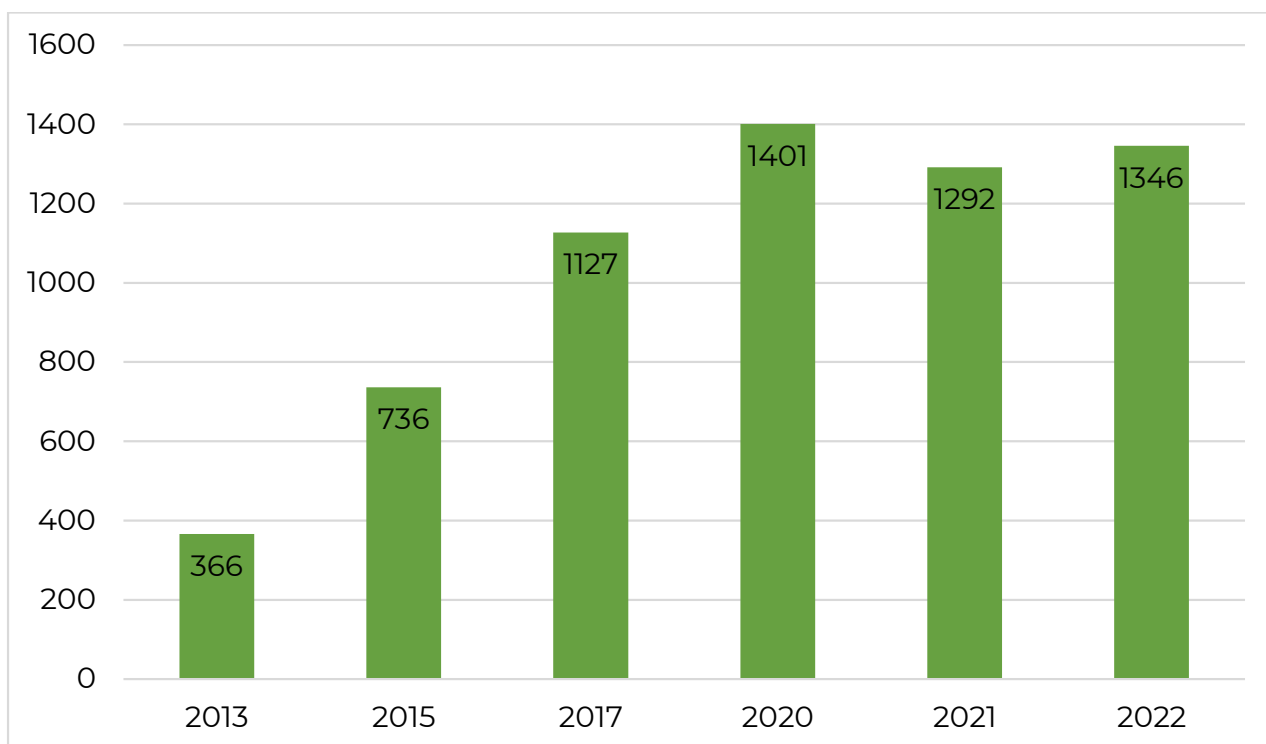


Fig. 2. Brazil's oil exports (thousand barrels/day).

Source: Brazil Crude Oil: Exports. Available at: <https://www.ceicdata.com/en/indicator/brazil/crude-oil-exports> (Accessed 13 December 2023).

All indications are that the potential capacity of the Brazilian oil industry is far from exhausted, since available estimates and forecasts suggest further significant growth in the production, refining, and export of “black gold”. In particular, IEA experts believe that in 2028 crude oil production in Brazil will amount to more than 4 million barrels/day, exceeding the 2022 level by 32%. At the same time, 95% of production will, as at present, be effected in the richest pre-salt deposits of the Brazilian shelf [15].

We emphasize that, largely due to a significant rise in oil production in Brazil, crude oil and petroleum products continue to dominate total Latin American energy exports, significantly exceeding (in value) supplies to foreign markets of natural gas and coal (see Table 3).

Table 3

Energy in Latin American product exports (2022)

Type of energy	Billion dollars	Share %	Price change in 2022 (%)	Price change in 2023 (%)
Crude oil	114,8	8,0	58,1	15,2
Petroleum products	31,6	2,2	80,0	7,3
Natural gas	10,1	0,7	94,7	61,4
Coal	2,9	0,2	138,7	50,9
Total	159,4	11,1	68,1	17,1

Source: CEPAL. Perspectivas del Comercio Internacional de América Latina y el Caribe 2023. Santiago: Naciones Unidas. 2023. P. 58.

Along with Brazil, in general, Argentina has a good chance of significantly increasing the production and export of hydrocarbons, which is primarily due to the exploitation of the Vaca Muerta ("Dead Cow") field, the world's second-largest shale gas reservoir (about 8.7 trillion m³) and the fourth largest oil reservoir (about 16 billion barrels). Located in the west of the country on an area comparable to the territory of Belgium - more than 30 thousand km², this field is the main hope of the Argentine authorities in the energy sector. At the moment, more than 30 companies are engaged in the development of Vaca Muerta, including such global giants as ExxonMobil, Chevron, TotalEnergies, Shell, Petrobras, Equinor, CNOOC, Wintershall Dea, and QatarEnergy. As of mid-2023, oil production at Vaca Muerta amounted to 305 thousand barrels/day, and by 2030, it will more than triple and reach 1 million. Thus, the field will turn into a large regional oil and gas hub and will allow Argentina to export oil and petroleum products worth \$20 billion per year, which will give the country the status of a major global exporter of "black gold" [16].

In fact, Latin American "veterans" of the oil industry can return to the ranks of the leading actors on the international energy market: Mexico and Venezuela. If this happens, then Latin America, as has already happened in history, will take a prominent place in the global hydrocarbon energy sector.

As for the country of the Aztec Eagle, such a comeback is closely related to the prospects for the successful development of the Zama deep-water oil and gas mega field discovered in 2017 in the Gulf of Mexico. Zama's oil reserves are estimated at 675 million barrels, natural gas reserves at 7.4 billion m³. Operation of the field will start in 2025, and its daily output will make up 180 thousand barrels of oil and 2 million m³ of natural gas, respectively. It is typical that the development of Zama is being effected by an international consortium led by Pemex and with the participation of the American company Talos Energy (it discovered the deposit), the largest German corporation Wintershall Dea in Western Europe, and the Scottish corporation Harbor Energy. For Mexico, this is the first experience of creating a public-private consortium in the oil and gas sector. It is also worth noting that private investors were attracted by the projected high profitability of Zama: the lowest estimate of the break-even price for oil production at this mega-field should be a relatively "modest" \$33 per barrel [17].

In turn, Caracas' oil future depends mainly on the easing (or complete lifting) of 930 various financial and trade sanctions and other restrictive measures imposed by Washington and other Western states. The first step in this direction was taken in October-November 2023 when, as a result of US-Venezuelan negotiations, Washington temporarily suspended sanctions against two structural sectors of the Venezuelan economy: oil and gas industry and gold mining. In particular, Western multinational corporations were allowed to invest in the oil and gas industry, and the ban on trading in sovereign stock and debt obligations of the Venezuelan state-owned energy company Petróleos de Venezuela (PDVSA) was lifted [18].

It is obvious that the geopolitical background of the White House's diplomatic demarche was the intention to undermine Caracas' cooperation with Moscow and Beijing by proposing to the Venezuelan leadership to "unfreeze" relations. In any case, Washington's decision served as a signal to players in the international oil business, many of whom were quick to demonstrate their interest in either returning to the Venezuelan market or expanding their activities on it. In particular, the Italian corporation ENI and the American Chevron took advantage of weakening the sanctions regime to begin supplying Venezuelan oil to India in response to requests from Indian refineries Reliance Industries, Indian Oil Corp and HMEL. In turn, the Colombian energy corporation Ecopetrol held negotiations with PDVSA on the purchase of natural gas, the Japanese Mitsubishi announced its readiness to resume the suspended

petrochemical project Metor, and the Spanish Repsol agreed with Caracas to significantly increase production at the fields operated by the joint Spanish-Venezuelan company Petroquiriquire [19].

All the progress (subject to further normalization of US-Venezuelan relations) in the very near future will materialize in the growth of Venezuelan oil production, which, according to available estimates, will rise by 50% in 2024 and reach 1.2 million barrels/day. And this is by no means the limit since in the first decade of the 21st century, the state produced over 3 million barrels.

In 2015, off the Atlantic coast of the small South American country of Guyana (population of 800 thousand people), ExxonMobil discovered large oil deposits estimated at 11 billion barrels and the market value makes up about \$500 billion. This was followed by the discovery of new deposits on the Guyanese shelf, and the production of “black gold” started to surge. If in 2020 its output barely reached 100 thousand barrels per day, then in March 2023 this figure exceeded 400 thousand, and in 2027 (according to forecasts), it will amount to 1.2 million barrels. In this case, Guyana will, in the full sense, turn into a new petrostate and will take first place globally in oil production per capita [20]. However, even today, this country is already breaking all world records for GDP growth (see Figure 3).

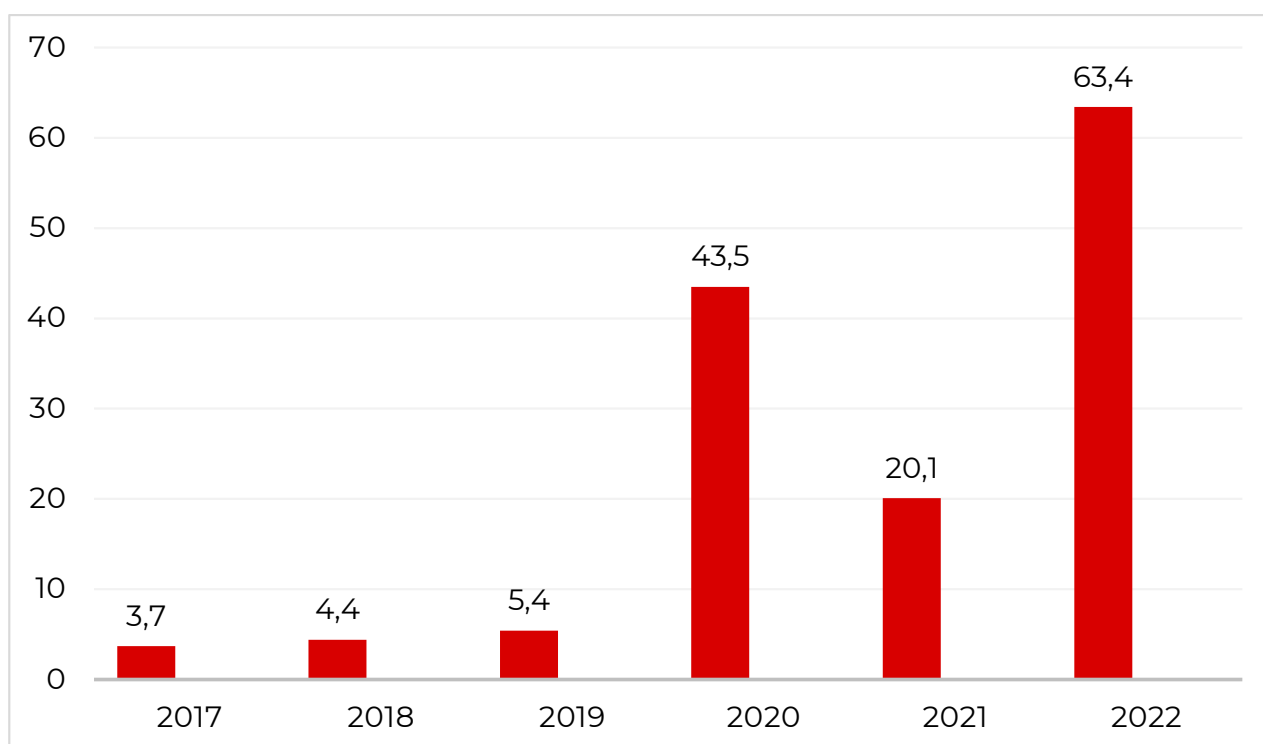


Fig. 3. Guyana's GDP growth (%).

Source: CEPAL. Balance Preliminar de las Economías de América Latina y el Caribe, 2023. Santiago: Naciones Unidas. 2023. P. 148.

The relevant problem for Bolivia is to increase national hydrocarbon production, first of all, to ensure the development of the Madre de Dios («Mother of God») field and to relieve the state of the burdensome need for its budget to import significant quantities of petroleum products (in 2022 worth of more than three billion dollars). The Bolivian state-owned energy company YPEB consigned to the prominent French consulting company Beicip Franlab to analyze the potential capacity of this field, whose experts determined the existing reserves at 5 billion barrels of oil and about 340 billion m³ of natural gas. At today's prices, the value of these resources is estimated at \$475 billion,

which is 11 times the size of Bolivia's GDP in 2022. Based on such forecasts, the Bolivian leadership expects that the successful operation of Madre de Dios could eventually transform this South American country from a net importer into a net exporter of hydrocarbons [21].

Thus, it can be stated that the oil and gas industry in Latin America is experiencing a moment of truth: a period when new promising players have emerged, and traditional oil-producing countries, which have lost their former positions, are able to gain a "second wind" and significantly raise the production and export of hydrocarbons, again becoming a noticeable player on the global energy market [22].

"WHITE GOLD" IN THE FOCUS OF GLOBAL BUSINESS INTERESTS

It has already become a fait accompli that the world economy has entered a period of deep structural transformations, and many countries have set a course for reindustrialization on a modern high-tech basis as part of the "fourth industrial revolution" [23]. On this track, international business strives with redoubled energy to promote its trade and economic interests, persistently looking for support points - commodities that can provide resources for new industrial production and the transition of national economic systems to a new quality.

Latin America, without exaggeration, occupies an outstanding place in the production and supply to the world market of key types of mining raw materials widely used in the vast majority of the most advanced industries. These include nuclear energy, petrochemistry, metallurgy, mechanical engineering, including electric car manufacturing, aircraft manufacturing, microelectronics, etc. In all cases, international business is in great demand for metals such as copper, lithium, silver, zinc, fluorite, tungsten and lead supplied in substantial quantities by Latin American countries (see Table 4).

Table 4

Latin American states in the top three producers and exporters of commodities (% of world figure)

Production		Export	
Product	States	Product	States
Copper	Chile (28), Peru (11)	Silver	Peru (55), Mexico (12), Argentina (6)
Silver	Mexico (26), Peru (14)	Copper	Chile (28), Peru (16)
Lithium	Chile (24)	Lithium	Chile (22), Argentina (7)
Fluorite	Mexico (19)	Lead	Mexico (13), Peru (13)
Iron ore	Brazil (13)	Fluorite	Mexico (23)
Zinc	Peru (11)	Iron ore	Brazil (22)
Graphite	Brazil (9)	Zinc	Peru (17)
Lead	Mexico (8)	Tungsten	Bolivia (16)
Magnesium	Brazil (6)	Silicone	Brazil (11)
-	-	Phosphates	Peru (10)

Source: IMF. Geoeconomic Fragmentation and Commodity Markets. October 2023. Available at: <https://www.imf.org/en/Publications/WP/Issues/2023/09/28/Geoeconomic-Fragmentation-and-Commodity-Markets-539614> (Accessed 17 December 2023).

In the current transitional geo-economic environment, the most typical examples of strategic commodities exported by Latin America are copper and lithium, which are highly valued on global markets and belong to the so-called “green” metals. It is their use in the latest industrial and energy technologies that can ensure the transformation of global energy based on the use of alternative “clean” energy and replace the colossal fleet of cars having internal combustion engines with electric vehicles. In this regard, the British business weekly *The Economist* wrote that heightened demand for “green” metals “will change the world map of raw materials” [24].

According to relevant expert estimates by International Copper Study Group (ICSG), the influential intergovernmental organization of copper producing and consuming countries, global consumption of this metal in 2022 exceeded 26 million tons (in 2010 - 19 million tons) and, apparently, its tangible growth will be observed in the future [25]. At the same time, over 40% of copper ore production is concentrated in Latin American states, primarily in Chile, Peru, Mexico, Panama, Brazil, and Ecuador. The role of Latin America in the export of this “green” metal is even more impressive. In 2022, these six states accounted for over 51% of global copper ore supplies worth \$46.4 billion [26].

Chile has long been a key global producer and exporter of copper products. According to ICSG, this Latin American state of about 20 million people accounts for more than 25% of total global production and is home to four of the ten largest copper mines: Escondida (production in 2022 - about 1.1 million tons), Collahuasi (590 thousand tons), El Teniente (460 thousand tons) and the legendary Chuquibambilla (370 thousand tons), located at an altitude of 2840 m above sea level, where development has been carried out since 1915. Three more of the largest copper mines are also located in Latin America: in Peru - Cerro Verde (434 thousand tons), in Panama - Cobre Panama Project (345 thousand tons) and in Mexico - Buenavista del Cobre (332 thousand tons) [27]. The development of these and many other deposits ensures that international business will continue to pay attention to the commodity wealth of Latin America.

Statistics released by the International Trade Center (ITC) indicates another significant economic trend: Asian countries, led by China, have firmly established themselves as the main consumers of copper products. If in the mid-2010s about 65% of Latin American exports of copper ore and concentrate were sent to the Asian region (about 40% to China), then at the beginning of the third decade of the current century, it reached 75-80%, including to China - over 60%. In fact, currently, the copper ore industry of Latin American states is highly dependent on the demand dynamics on the Chinese market, on the pace at which the Chinese economy is developing (or stagnating) [28].

In other words, thanks largely to the demand on Asian markets, copper is now Latin America's leading non-energy commodity export, significantly outpacing all other types of resources in supply value (see Table 5).

Table 5

Mining raw materials and metals in commodity exports of Latin American states (2022)

Type of raw material	Billion dollars	Share %	Price change in 2022 (%)	Price change in 2023 (%)
Copper	89,0	6,2	0,4	6,3
Iron	35,9	2,5	0,4	6,3
Gold	30,1	2,1	2,0	7,4
Lithium carbonate	7,0	0,5	430,4	46,0
Aluminum	2,9	0,2	25,2	17,1
Silver	2,9	0,2	14,3	8,1
Nickel	1,4	0,1	49,6	12,9
Tin	0,14	0,01	24,8	14,6
Other	37,3	2,6	6,3	9,9
Total	206,6	14,41	0,9	4,7

Source: CEPAL. *Perspectivas del Comercio Internacional de América Latina y el Caribe 2023*. Santiago: Naciones Unidas, 2023. P. 58.

At the same time, in recent years, copper has faced a strong competitor, if not threatening to displace it from the pedestal of the main export metal of the Latin American region, but, in any case, claiming a high place in the hierarchy of export goods. We are talking about lithium, world prices for which showed a phenomenal rise in the early 2020s: from 6.8 to 46.8 thousand dollars per ton (see Figure 5).

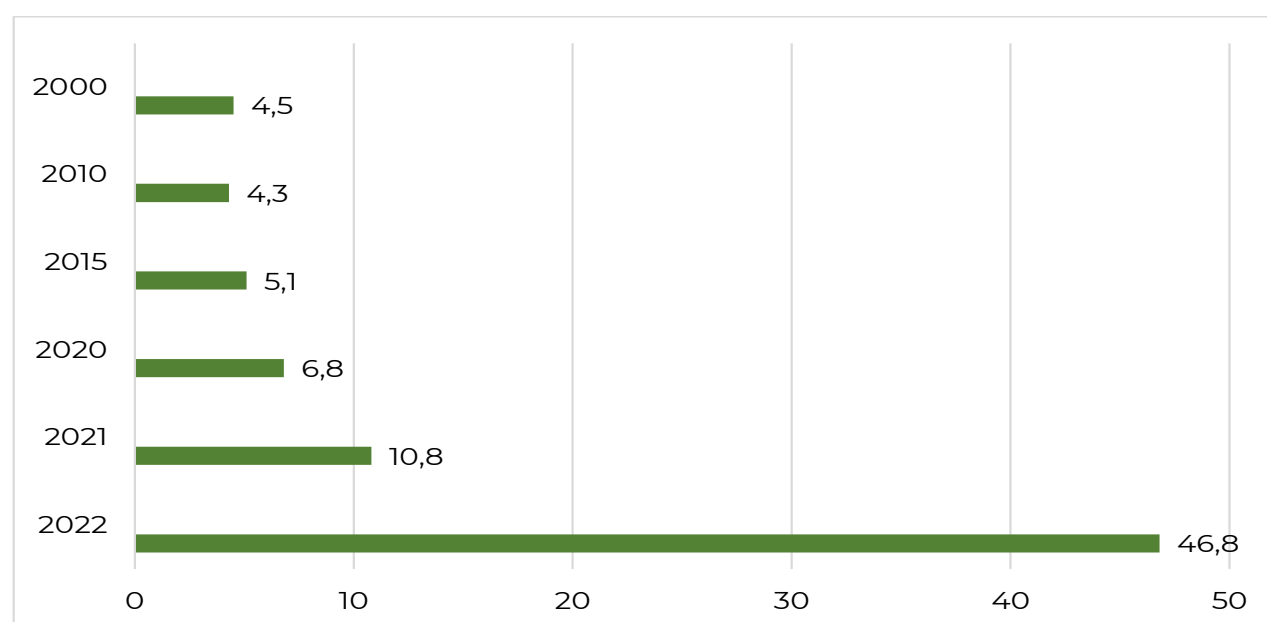


Figure 4. Dynamics of world prices for lithium carbonate (thousand dollars per ton).

Source: Statistical Review of World Energy 2023. London: Energy Institute. 2023. P. 55.

The exceptional attention to lithium is caused, of course, by the unique properties of this “super metal”. The fact is that lithium has been widely used for a long time in ferrous and non-ferrous metallurgy (in particular, to increase the strength of metal alloys), in the nuclear and defense industries, medicine, production of chemicals, glass and ceramics, and special lubricants. But the main thing today is that this metal is a key element in lithium-ion batteries used in electric vehicles and a wide variety of electronic gadgets. It is this quality of lithium that has made it in great demand on the world market amid the energy transition and the development of a green economy. “Without Latin American lithium the green revolution will not be possible,” foreign analysts emphasize [29].

The largest deposits of “white gold” or “oil of the 21st century,” another name for lithium, are located in the so-called “lithium triangle” - regions of three South American states bordering each other: Argentina, Bolivia and Chile, which according to the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) estimates account for more than 56% of the world’s lithium reserves. If we add to this the figures of other Latin American states with lithium deposits (Brazil, Mexico and Peru), then the region’s share will increase to almost 60% [30].

Until now, Australia remains the leading producer of lithium carbonate (the most in demand product), but Chile and Argentina are, as they say, “treading on its heels,” systematically increasing production at existing fields and developing new ones. The largest number of projects is being implemented by Argentina, whose authorities and business community have set an ambitious goal - to increase lithium carbonate production from 138 to 260 thousand tons by 2026, or almost doubling. The development of 35 projects with investments worth about \$7 billion is being effected to this end. One of the largest projects worth \$831 million is Sal de Oro in the province of Salta, implemented by the South Korean steel corporation POSCO [31].

Bolivia has enormous and still untapped potential for the production of lithium products. In June and December 2023, the Bolivian company YLB and the Russian Uranium One Group, part of the state-owned corporation Rosatom, signed two agreements on the joint construction of lithium mining and lithium carbonate production enterprises. According to the Bolivian side, the implementation of this agreement will not only serve as a long-awaited breakthrough in the development of Bolivia’s natural resources, but will also be a major step forward in the industrialization of this South American state, the creation of modern industrial facility on its territory with high export potential [32]. As for Russia, the agreement with Bolivia is an example of the entry of our multinational business into the Latin American market of technological products [33].

These types of facts indicate that the development of copper, lithium, and other deposits of Latin America and the integration of these raw materials into global value chains is a significant element of the development of international business, a priority direction for increasing the economic, export, and financial potential of the states belonging to the Latin American region.

The fundamental issue on the international business agenda in relation to Latin America is a radical expansion of the exploitation of commodities in the states of the region in the interests of saturating the world economy with hydrocarbon resources and technologically advanced industries with “green metals”.

Amid ongoing global transformations, energy, and non-energy commodities are once again becoming a key economic and foreign trade asset of Latin American states. In the emerging new geo-economic reality, Latin America has the potential to play a prominent role in providing international businesses with critical natural resources.

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