

"The industrial sector under Lula's presidencies in Brazil: an old or new chapter to be written?"

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Introduction

In recent weeks, the world has turned its attention to the presidential elections in Brazil, which saw Luis Ignacio Lula Da Silva, better known as Lula, as the winner. It will be the third time that Lula becomes the Head of State of the South American country, considering his first and second terms between January 1, 2003, and December 31, 2010 (being that in 2006 he would obtain his second presidency).

Considering the international context, characterized for more than two years by the covid-19 pandemic, the Russia-Ukraine conflict and inflation and recession in several countries, it will be important to consider what Lula's priorities will be for socio-economic development. Brazil, in addition to more structural issues such as the fight against hunger and poverty, and deforestation, among others. In all of this, the industrial sector will become an engine that will accelerate the path of growth and development.

Lula will become president of the South American nation on January 1, 2023. With his victory, the largest economy in the Latin American region will be ruled by the left, a fact that could change the commercial future of Brazil.

The first two governments of Lula and the industrial sector

President Lula took office on January 1, 2003, and maintained the macroeconomic policy implemented since 1999, based on the combination of the inflation targeting regime with a floating exchange rate and the primary fiscal surplus generation policy, aiming at the continuity of control inflation. If, on the one hand, the previous macroeconomic policy continued, on the other hand, the Lula government soon put an end to the veto of the Industrial Policy and began the formulation of the Industrial, Technological and Foreign Trade Policy (PITCE), with the contribution of renowned specialists in industrial, technological, and foreign trade policy. This contradictory combination generated a serious paradox, to the extent that, being strongly limited in the movement of the classic instruments of exchange, interest, and public spending, it would have no way of loosening the moorings for industrial policy. Welcomed by many, the

implementation of the PITCE had, however, to face many difficulties, including the legacy inherited from the 1990s, when many of the coordination and planning instances that played an important role throughout the process of industrialization: the inter-ministerial instances, town halls, planning bodies, etc., in addition to the instances that existed within the public infrastructure companies that were privatized.

The PITCE (consolidated in a set of 57 measures distributed in 11 policy programs) proposed to articulate three different plans: 1) Horizontal lines of action (innovation and technological development; external insertion; industrial modernization; institutional environment/increase in production capacity); 2) Strategic options (semiconductors, software, capital goods and pharmaceuticals); 3) Future activities (biotechnology, nanotechnology, biomass/renewable energies). There were two mobilizing macro-programs: I) Strong Industry (objective of strengthening and expanding the Brazilian industrial base); II) Inova Brasil (objective of increasing the innovative capacity of companies). It was, therefore, an action plan that explained the objectives of increasing the efficiency of the productive structure, increasing the innovation capacity of Brazilian companies, and expanding exports. This would be the basis for a greater insertion of the country in international trade, stimulating the sectors where Brazil would have the greatest capacity or need to develop competitive advantages and opening paths for insertion in the most dynamic sectors of international exchange flows. Cano, W. & Gonçalves da Silva, A.L. (2010)

Between the launch of the PITCE in March 2004 and the end of the first Lula government, the following actions stand out: 1) the strengthening of the institutional structure of support for the policy, with the creation of the National Council for Industrial Development - CNDI, a public instance - with a high level of representativeness, and the Brazilian Agency for Industrial Development - ABDI; 2) the construction of a legal-regulatory framework dedicated to promoting innovation, mainly with the approval of the Innovation Law and its regulations, as well as the Lei do Bem and its regulations. PITCE's focus on innovation was reinforced by two other important milestones: the well-known Informatics Law and the Biosafety Law, which makes possible research with genetically modified organisms and the so-called stem cells. Regarding smaller companies, PITCE presented a set of instruments, including lines of support for innovation from Finep and BNDES, financing lines for investments from BNDES, special lines for working capital from BNDES and CEF, changes in the legislation for MyPE and programs to support organizational and managerial development. Although they represent an advance, they had a little practical effect in these early years. An important point to highlight in this balance of the PITCE refers to the rigidity in the form of use and availability of resources to implement high-impact projects. A large part of the available resources was used to finance exports and the resources available for investment were costly for potential investors. Attempts to introduce interest-levelling mechanisms in investment credit, like those used in export financing (Proex), faced strong resistance from the Ministry of Finance (Cano & Gonçalves da Silva; 2010).

The second term of President Lula begins as a continuation of the PITCE. Between January 2007 and May 2008, numerous initiatives continued to be taken, but they lacked greater coordination and resources. At the same time, work was done on the formulation of a new phase of the PITCE (Phase II) that would represent an advance in terms of scope and powers, as well as a firmer articulation with other government programs, aiming to deepen the trajectory of recovery of the capacity of the State to formulate and manage policies. The new policy, called Productive Development Policy - PDP and supported by various types of measures (tax/fiscal, financial, government purchasing power, legal improvement, regulation and technical support), aimed to support a long cycle of productive development, supported by investment, innovation,

the competitiveness of companies and the expansion of exports. Among other instruments, the new program proposed tax exemption for several productive sectors between 2008 and 2011.

With a broader and more transversal scope, the new policy covered sectors of the economy. Understanding the scope and complexity of the Brazilian industrial structure and, at the same time, defining specific action focuses, the sectors were considered in 3 groups of programs, according to their different types of challenges. The first included “programs to consolidate and expand leadership” in sectors where Brazil was already strong, in a total of 7 programs: aeronautics; oil, gas and petrochemicals; bioethanol; mining; cellulose and paper; metallurgical industry; and meats. In the second, were the "competitiveness strengthening programs", with 11 areas: automotive complex; capital goods; naval industry and cabotage; textiles and clothing; leather, footwear, and artefacts; wood and furniture; agribusiness; Civil construction; service complex; hygiene, perfumery, and cosmetics; and plastics. In the third group were the “mobilizing programs in strategic areas”, which included 6 programs: health industrial complex; Technology of information and communication; nuclear energy; nanotechnology; biotechnology; and defense industrial complex. Also, there was a group called “strategic points”, which contains 6 programs: Export promotion; Regionalization; Micro and small companies; sustainable production; Integration with Africa; Productive integration of Latin America and the Caribbean. These last two programs represented an innovative step, insofar as, for the first time, the need to integrate Brazil with these two groups of countries was formally considered. Some goals were affected by the world crisis that erupted in August 2008.

Export and import statistics accompany the explanation of Brazil's foreign trade behavior. In Table 1, it can be seen a list of main products exported by Brazil under Lula's governments (2003-2010), where minerals, oil products, mineral fuels, meats, metals, sugar, and machinery have had a dynamic behavior, with the exception in some items due to the global financial crisis of 2008-2009.

With monetary policy repeatedly holding back the growth of domestic demand, the main stimulus for the expansion of industrial production could only come from foreign trade, driven by growing demand from Asian economies, especially China. With exports on a rapidly increasing trajectory, external restrictions eased significantly under the Lula government. However, the international crisis, in addition to the negative effects on investment decisions, reduced Brazilian exports, with direct implications on the level of economic activity. In this context of increased competition for foreign markets, the Chinese have been conquering increasingly larger shares of Brazilian markets, deepening a process that began in the 1990s. A balance of the competition between China and Brazil in 11 markets or blocs confirms that the Brazilian position has been suffering a progressive deterioration since the last decade. In dispute over the sale of similar products, Brazil had, according to data from ECLAC (Economic Commission for Latin America and the Caribbean), a profit of US\$ 13.6 billion between 1995 and 2008, while China had an increase of \$512.5 billion (Cano & Gonçalves da Silva; 2010).

Table 1 - List of main products exported by Brazil under Lula's governments (2003-2010)

Code	Product label	Exported value in 2003	Exported value in 2004	Exported value in 2005	Exported value in 2006	Exported value in 2007	Exported value in 2008	Exported value in 2009	Exported value in 2010
TOTAL	All products	72772250	95115401	118592084	137574211	159816181	195764624	151791674	200433953
'26	Ores, slag and ash	3643859	5237110	8024769	9756785	12025456	18726292	14445870	30794681
'12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit;	4334624	5450772	5392095	5737475	6792833	11095815	11564701	11177744

	industrial or medicinal ...								
'27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral ...	3796198	4421840	7100453	10590291	13296877	18689279	13657462	19843470
'02	Meat and edible meat offal	3637783	5533999	7161951	7318117	9590195	12236881	9875624	11860393
'72	Iron and steel	4701312	6709002	8543115	8792804	9530586	12844071	6722999	8386012
'84	Machinery, mechanical appliances, nuclear reactors, boilers; parts thereof	5526728	7711559	9796491	10852766	11376572	12317062	7701483	10730465
'17	Sugars and sugar confectionery	2287660	2815366	4102976	6346570	5280136	5693534	8561866	12954236
'87	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof	6039524	8370965	11546571	12338889	13349889	14664871	8462016	12134426
'23	Residues and waste from the food industries; prepared animal fodder	2711743	3393401	2991480	2586152	3190197	4684046	4878128	5036945
'47	Pulp of wood or of other fibrous cellulosic material; recovered (waste and scrap) paper or ...	1742735	1722365	2033912	2484000	3024190	3917103	3313171	4759055
'09	Coffee, tea, maté and spices	1422644	1889961	2668798	3123750	3601970	4372585	3979478	5395856
'71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad ...	561896	676373	788664	1079829	1242208	1544178	1736387	2269459
'10	Cereals	417574	827752	199069	607991	2042231	1931169	1635286	2605451
'44	Wood and articles of wood; wood charcoal	2076611	3034390	3029238	3158196	3332394	2753058	1676508	1913251
'28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, ...	718275	928635	1148141	1711049	2061929	2611840	2074231	2730743

Unit: US Dollar thousand

Sources: ITC calculations based on Ministério do Desenvolvimento, Indústria e Comércio Exterior statistics since January 2015.

ITC calculations based on UN COMTRADE statistics until January 2015.

On the contrary, Table 2 shows the List of main products imported by Brazil under Lula's government (2003-2010). Mineral fuels, machinery, electrical appliances, fertilizers, vehicles, chemicals, and pharmaceutical products have stood out. Also, with a decreasing behaviour between 2008-2009.

In addition to the effects of the international crisis, it is necessary to consider the perverse consequences of the appreciation of the real, not only on exports but also on imports, which have been increasing considerably. As if the negative effects in terms of trade balances were not enough, there is an ongoing process of losing space in the domestic market as well. The outlook becomes even bleaker when considering the technological intensity of the export basket (which is retreating rapidly) and the import agenda (in the opposite direction).

Table 2 - List of main products imported by Brazil under Lula's governments (2003-2010)

Code	Product label	Imported value in 2003	Imported value in 2004	Imported value in 2005	Imported value in 2006	Imported value in 2007	Imported value in 2008	Imported value in 2009	Imported value in 2010
TOTAL	All products	51866683	67459080	78702314	97033999	128110616	183920682	135377600	193184262
'27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral ...	9076059	13341591	15575412	19347042	25010557	37832258	21587903	33048227
'84	Machinery, mechanical appliances, nuclear reactors, boilers; parts thereof	8055003	9684232	12046577	14256950	19229666	26818655	21825418	29899307
'85	Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television ...	7031486	9075913	10928200	13483168	15511346	20990924	16278422	23508405
'31	Fertilisers	1876365	2962477	2551236	2629929	4972035	9984383	4218032	5445234
'87	Vehicles other than railway or tramway rolling stock, and parts and accessories thereof	2630384	3301321	4406352	5880240	8589391	13409850	11843435	17914870
'29	Organic chemicals	3204223	4199038	4470942	4935402	6575368	8700616	7180573	8732612
'30	Pharmaceutical products	1549708	1836429	2085443	2668261	3588496	4379152	4559262	6201424
'39	Plastics and articles thereof	1945345	2514261	3045921	3584449	4446934	6099287	5053537	6945509
'38	Miscellaneous chemical products	1053496	1537269	1446435	1423700	1972570	2698053	2490288	3115590
'90	Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical ...	1866045	2435607	2963966	3610501	4709981	6169394	5009989	6280768
'72	Iron and steel	399923	568333	896453	1462847	1937681	3568849	2341651	5090540
'40	Rubber and articles thereof	991736	1264255	1623924	1930670	2494835	3531622	2397783	4198796
'73	Articles of iron or steel	656883	862936	1109214	1374770	1957020	3031396	2555340	3430695
'10	Cereals	1566745	1176290	1020436	1451942	2056137	2690091	1925829	2273633

Unit: US Dollar thousand

Sources: ITC calculations based on Ministério do Desenvolvimento, Indústria e Comércio Exterior statistics since January 2015.

ITC calculations based on UN COMTRADE statistics until January 2015.

Table 3 shows the Trade Balance of main products in Brazil under Lula's government (2003-2010), where the trade surplus is corroborated, which is magnified between 2005-2006 due to the increase in the prices of commodities, in which Brazil has a decisive participation; then, the downward trend because of the 2008 crisis continues, and a sign of recovery towards 2010.

Table 3 - Trade Balance of main products in Brazil under Lula's governments (2003-2010)

Code	Product label	Balance in 2003	Balance in 2004	Balance in 2005	Balance in 2006	Balance in 2007	Balance in 2008	Balance in 2009	Balance in 2010
TOTAL	All products	20905567	27656321	39889770	40540212	31705565	11843942	16414074	7249691
'26	Ores, slag and ash	3290880	4527117	7208994	8265039	10415773	17329984	13564456	29386399
'12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal ...	4055391	5319134	5260547	5658657	6681629	10941686	11406209	10989740
'02	Meat and edible meat offal	3563338	5447997	7061289	7231498	9469033	12080035	9721103	11646342
'72	Iron and steel	4301389	6140669	7646662	7329957	7592905	9275222	4381348	3295472
'17	Sugars and sugar confectionery	2268448	2790412	4075901	6315169	5237179	5631163	8513856	12886238
'27	Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral ...	-5279861	-8919751	-8474959	-8756751	-11713680	-19142979	-7930441	-13204757
'23	Residues and waste from the food industries; prepared animal fodder	2581847	3266428	2859917	2444411	3015127	4463643	4702648	4827159
'47	Pulp of wood or of other fibrous cellulosic material; recovered (waste and scrap) paper or ...	1573012	1515356	1810874	2258401	2781098	3624360	3055755	4374804
'09	Coffee, tea, maté and spices	1399891	1856576	2644920	3101048	3566076	4329010	3932792	5337830
'71	Natural or cultured pearls, precious or semi-precious stones, precious metals, metals clad ...	419146	496076	562288	749906	802734	990327	1360408	1702902
'44	Wood and articles of wood; wood charcoal	2014062	2950476	2943206	3039364	3188544	2566084	1558086	1766448
'52	Cotton	373565	550246	677466	439236	541541	461269	571648	385001
'10	Cereals	-1149171	-348538	-821367	-843951	-13906	-758922	-290543	331818
'28	Inorganic chemicals; organic or inorganic compounds of precious metals, of rare-earth metals, ...	-58720	-134	-1898	388942	463469	-143892	237334	712170

Unit: US Dollar thousand

Sources: ITC calculations based on Ministério do Desenvolvimento, Indústria e Comércio Exterior statistics since January 2015.

ITC calculations based on UN COMTRADE statistics until January 2015.

What can be expected from the third government

In recent years, the industry has suffered from the pandemic, supply chain issues and the raw materials roller coaster. In the first half of 2022 alone, the sector's revenue fell by 3.7%. For next year, the prospects are not the most positive: the market is preparing for a slowdown in the world economy, driven by the rise in interest rates by the Federal Reserve and the appreciation of the dollar. The market projections in the Focus Report point to an almost symbolic increase of 0.50% in the Brazilian Gross Domestic Product (GDP) by 2023, compared to 2.67% this year (Américo; 2022).

Lula affirmed that to build a modern industrial policy, based on investments in innovation, technology and the climate agenda, union and dialogue between the government, the private sector and society will be necessary. On the other hand, he emphasized speeding up the reform agenda, especially the tax reform. The National Confederation of Industry (CNI) released a letter with its expectations for the next Lula government and the challenges of his next term, where the entity that brings together the main industrial companies in the country cites that the new government has the challenge of “accelerate GDP growth, promote the transition to a low carbon economy and improve the quality of life of Brazilians”. It insisted that a long-term vision of the country must be adopted, whose main objectives are innovation, productivity gains and a greater insertion of the Brazilian economy in the competitive international market (Vettorazzo; 2022).

Lula affirms that it is necessary to recover industrial capacity since industry represented 30% of Brazil's GDP and today it represents 10% to 11%. Lula wants to focus on which industry niche Brazil is going to bet on so that it re-industrializes. The new president defends investments in technology and the participation of society in the discussion on the new industrial policy. Lula will seek to involve universities, businessmen and the State to discuss what to do. For investments in innovation and technology, Lula will highlight the importance of the Brazilian Development Bank (BNDES) in the process of recovering industrial capacity. Furthermore, he mentioned that Petrobras needs to be treated not only as a company but also as a promoter of development (PT, 2022).

For the São Paulo State Industry Center (CIESP) -an arm of FIESP, the homonymous federation that brings together 8,000 members from more than a hundred sectors and has been one of the most powerful economic voices in Latin America-, the absence of a long-term project in Brazil does not come so much from political fractures as from the legislations that do not accompany it. They argue that predictability, stability, and reforms are necessary. Some voices in the industrial sector acknowledge that some labor law reforms have been made but point out that, due to the covid-19 pandemic, technologies and consumer behavior have altered exponentially, causing new needs. As an example, it is cited that in São Paulo some 400,000 IT professional jobs have been created because Covid has multiplied home office jobs. For this reason, they insist, the legislation must adapt to this new reality in the profession. FIESP is promoting education with holograms and augmented reality in schools in São Paulo, through metaverse training (Beldyk; 2022).

The National Confederation of Industry (CNI) compiled five studies on the Brazilian economy and prepared a document, listing what must be done to ensure the recovery of the sector and the country's growth; among the recommendations is the approval of PEC 110, which implies a tax reform. The idea is to replace the consumption taxes with a Value Added Tax (VAT). Also, it is suggested to reduce corporate taxation from 35% to a level below the average of 23% of the tax

practices of the Organization for Economic Cooperation and Development (OECD). In addition, public spending must be balanced, and the Fiscal Responsibility Law and the spending ceiling must be maintained. Otherwise, setbacks in fiscal rules would lead to a devaluation of the real and, consequently, to an increase in inflation and interest rates. In relation to inflation, the sector highlights that the government needs to control the rise in prices (Américo; 2022).

Beyond the question of technological acceleration, another aspect that the covid-19 has left behind is the fact that concentrating purchases so much, especially in China, can be detrimental to product supply. Therefore, one of the ideas will be their decentralization, with a greater role for Brazil in this regard. In other words, reinforce Brazil's role in the supply chain. The majority in the industrial sector in Brazil -mainly in São Paulo-, is not against the opening of the market, but disagrees with respect to the way it was proposed, lowering the import taxes without first resolving what, according to them they consider that Brazil has a huge problem: the lack of competitiveness. Before opening the borders unilaterally, they maintain, Brazil must resolve aspects such as the training of human capital and infrastructure up to the level of an efficient legal and regulatory environment, and taxes, among others.

In addition, regarding decarbonization and the need for a more sustainable matrix, specialists from the industrial sector suggest that Brazil can work in partnership with countries such as Argentina, Paraguay, Colombia, Uruguay, Mexico, and India to produce a new energy source from ethanol and hydrogen. With this, propose a new solution for the automotive industry. With Argentina, a neighboring country, Brazil is a regional leader, and both need a strategic alignment to grow sustainably. However, the increased imports from Asia as a growth strategy have affected the industries of both countries the substitution of regional purchases. Therefore, a win-win strategy is insisted on between Brazil and Argentina industries. This would help to recompose the productive chains in Latin America and the Caribbean (Beldyk; 2022).

One of the central points that Lula will have to relaunch will be the claim of Mercosur as a regional bloc, and particularly the agreement with the European Union that has not yet been ratified. The agreement was approved in 2019 at a time when the political map of Mercosur turned towards the neoliberal right, very pro-trade liberalization with a certain alignment of Brazilian, Argentine, Uruguayan, and Paraguayan interests within the bloc. However, due to internal conflicts in the European Union (especially in France, an agricultural producer that was threatened by the entry of primary products with lower tariffs), it was not ratified. At that time, the countries of the European Union used Bolsonaro's environmental policy as an element that blocked progress. Regional integration specialists believe that the agreement implies a regressive socio-environmental impact and crystallizes the primary agro-export productive structure. It is an agreement that repeats very centre-periphery logic since it tends to lower tariffs for industrial products and puts industrial production and employment in Mercosur at risk while creating more pressure on the environment. They also maintain that Lula has an industrial background, so it is difficult for him to want to break with the strong industrial fabric of Brazil. There are more possibilities to rearticulate a more productive Mercosur in a difficult international context (Risso; 2022). Besides, specialists predict that, with Lula at the head of Brazil, the BRICS could have a greater focus on energy businesses, becoming a factor of international pressure to reconfigure global geopolitics (Díaz; 2022).

Productive digitization will be one of the main issues that the industrial sector will need all kinds of encouragement, with industry 4.0 as a roadmap for socio-economic development. Digital purchases invite to rethink of the modes of production based on consumer choice, with a production and logistics mechanism to receive the product in a matter of hours. The Lula Institute held a discussion on industry 4.0 in May of this year and created the Lula Play Booklet, with suggestions to stimulate this digital market. One of the focuses will be the creation of software. Among the proposals are regulating the profession of the developer, as a guarantee of

the rights of workers in the industry; creating technical and advanced courses for game developers, revise broadband legislation to remove data caps and improve connection speeds; in addition to creating tax incentives and adequate financing for the creation of new companies in the sector ('Lula no Flow: Brasil debe ser competitivo para competir en el mercado de la industria 4.0'; 2022). Lula will activate a policy to develop the digital industry by encouraging the export of products with high added value to reinforce the industrialization of the country ('Lula dice que si es elegido hará en Brasil una política de incentivo a industria digital con valor agregado'; 2022).

The government of Luiz Inácio Lula da Silva in Brazil will seek to intensify the presence of the State in the oil refining sector, with possible impacts on the direction of Petrobras' fuel prices. Lula promised to review the Import Parity Price (PPI) practiced since 2016 by Petrobras, so that fuel values reflect "national costs", without following, therefore, the oscillations of the dollar and oil in the international market. In practice, Lula will try to contain an eventual escalation in the prices of oil derivatives like the one experienced by Bolsonaro in the first semester, in the middle of an election year, under the impact of the war between Russia and Ukraine, which reduced global supply of the products. However, the eventual change in Petrobras' pricing policy is likely to encounter obstacles in State Law and in the company's statute. The government would also have to find a way not to reduce the competitiveness of imports, since in the case of diesel they currently supply around 30% of national demand. The policy review would be accompanied by a strengthening of Petrobras' derivatives production, if the new government follows the technical studies that were the basis of its program ('¿Qué hará Lula con Petrobras y la industria minera en Brasil?'; 2022).

The confirmation of Luiz Inácio Lula da Silva as the next president of Brazil brings a new spirit to the biofuels sector, which has been suffering losses during the Jair Bolsonaro administration with interference in state policies to try to sustain fuel prices fossils. In the case of ethanol, the implementation of the ICMS ceiling in the states and the exemption from federal taxes on fuel prices had the immediate effect of reducing the competitiveness of biofuels compared to gasoline, with an increase in fossil fuel consumption. and a drop in renewables. In biodiesel, the downward revision in the mandatory addition to diesel – supposedly this year it was going to be 14%, but it stayed at 10% – took some 2,500 million liters of the product based on vegetable oils and fats of the market residuals. With an idle capacity in the industrial park of around 53%, the main demand in the biodiesel sector today is predictability: producers do not yet know what the percentage of the mixture will be for next year, but they need to close advance contracts for the acquisition of raw material. This, in a regional context where thirteen organizations of ethanol and biodiesel producers from Argentina, Brazil, Colombia, Paraguay and Uruguay signed a manifesto demanding stronger actions from regional governments to promote biofuels as a transportation decarbonization strategy. For Brazil, a declaration document has been signed by the Brazilian Association of Vegetable Oil Industries (Abiove); Association of Producers of Biofuels of Brazil (Aprobio); National Union of Corn Ethanol (Unem); and the Union of the Sugar Cane and Bioenergy Industry (Unica) (Machado; 2022).

The Lula government could also seek more revenue from mineral exploration, such as a possible tax on the most profitable minerals. The additional value, called "special participation" - as it already exists in the oil sector - would potentially affect the benefits of Vale, which extracts one of the minerals with the highest iron content in the world in Carajás. In the opinion of representatives of the mining sector and experts, this could compromise the investments of mining companies and favor Brazil's main competitors, such as Australia and Canada, by reducing activity margins in the country. In the electric power sector, the expectation is that Lula will maintain the process of diversifying the generation sources of the Brazilian matrix, mainly through wind and solar renewable energies, which have led to the expansion of the

national generation park in the last few years. These two sources, in addition to being among the cheapest and most competitive, have a low environmental impact and have brought economic development to regions where the sector was not traditionally strong, such as the northeast and the north of Minas Gerais (‘¿Qué hará Lula con Petrobras y la industria minera en Brasil?’; 2022).

A new chapter for Lula and the industrial sector? Or just the same story?

In the introduction, this author asked the question ‘will the industrial sector have the same behavior as Lula in relation to his two previous mandates?’. Like his second term, Lula will seek support from public institutions, as at the time of the 2008 crisis. In his third term, Luiz Inácio Lula da Silva will have to deal with a complex macroeconomic scenario at the global level and, in the domestic economy, reconcile concern about fiscal risk with the resumption of economic activity.

Lula's previous administrations meant a bet on the real economy and redistributive policies and had a positive impact on Brazil's economic growth. However, this time Lula assumes a very broad coalition government, where he will have to strike a balance to contain all sectors. In addition to that, he will begin his administration with a legislative power with a conservative majority. Therefore, it is not clear what the course of economic policy will be in this new chapter. Beyond that, Brazil has been a country without significant changes in its foreign policy in the economic field, despite the changes in political signs.

As in his previous mandates, Lula will seek to rely on financing and cooperation -national and international- for public and private investment, to promote and expand the domestic consumption market, and develop trade, services, food agriculture and industry. It will be to invest in public and social services, economic infrastructure and in strategic natural resources.

Brazil has a potential that should be strengthened in the sectors of software, defense, telecommunications, and other new technologies. It has competitive advantages that must be activated, especially in the economic-industrial complexes of health, agribusiness, and oil and gas. In addition, an industrial policy that supports innovation stimulates public-private cooperation, strengthens science and technology, and guarantees access to affordable financing. Therefore, the segments of micro, small and medium enterprises, as well as startups, should receive special attention.

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