FDI and Technological Development in Brazil: A New Regulatory Framework?

By *Carlos Ragazzo* and *Rafaella Schwartz Jaroslavsky*[*]

Abstract: This paper analyses newly regulatory moves towards Foreign Direct Investment – FDI in Brazil. For that purpose, this paper explores the key economic rationale for regulating FDI and provides a legal baseline based on relevant FDI screening regimes already in force in mature jurisdictions. Later, this paper presents a brief assessment of the current Brazilian regulatory and governance scenario relating to FDI control, to demonstrate potential deficiencies that could emerge due to the lack of a structured FDI screening in the country, particularly the absence of quality control of FDI targeted to certain key areas, as well as risks of high political interference, which could generate undesirable effects on the country's technological development and increase its level of dependence on technology developers.

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A. Introduction

In the international scenario, the push for greater Foreign Direct Investment ("FDI") control has been a growing trend in recent years, even in pre-pandemic times. Many countries, such as the United States of America ("US"), Germany, China, Australia, and Canada, are tightening up their FDI screening rules and appear to share a common concern on transactions that affect public utilities and critical infrastructures.

According to UNCTAD's 2020 World Investment Report[1], since the beginning of the pandemic, a variety of countries have embraced new regulations on FDI screening or reinforced the existing ones, mainly for the protection of key domestic industries. The current global trend seems to be pointing out to industrial policies that focus on internal markets, strengthen national competition, and incentivize state participation on relevant areas through state-owned companies.

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1 United Nations Conference on Trade and Development (UNCTAD), World Investment Report, International Production Beyond the Pandemic, 2020, p. 93, https://unctad.org/system/files/official-document/wir2020_en.pdf (last accessed on 11 April 2021).

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In December 2020, the Brazilian President enacted a decree[2] approving the National Strategy for the Safety of Critical Infrastructures[3]. The decree ratifies the role of the Institutional Security Office ("GSI"), which is a part of the Brazilian Presidency's structure, in the identification and analysis of risks related to critical infrastructures in the country. Such legal instrument could represent a step towards greater FDI control, but a greater level of intervention towards FDI still requires specific regulations and enforcement mechanisms to have the same level of impact and quality control as the FDI screening regimes in force in mature jurisdictions. The referred Decree appears to have merely provided a theoretical basis for a Brazilian FDI screening regime in the future.

In the midst of the discussions related to such decree and right thereafter, on 29 January 2021, in the context of the Brazilian 5G auction, the Brazilian Minister of Communications issued an ordinance[4], which set the guidelines for the auction and established several commitments, including the (i) implementation of a private communication network for the federal administration[5], (ii) assurance of coverage of federal highways with mobile broadband, (iii) assurance of high-speed transport networks, preferably in optical fiber for municipalities that have not yet been served, among others. With respect to the government private network, the ordinance set forth minimum security requirements and standards of governance for the bidding company and for suppliers, manufacturers, and developers of related equipment.

2 Decree No. 10,569 of 9 December 2020, http://www.planalto.gov.br/ccivil_03/_ato2019-2022/2020/decreto/D10569.htm (last accessed on 11 April 2021).

3 The National Strategy for the Safety of Critical Infrastructures provides guidelines and goals to help the elaboration of the future National Plan for the Safety of Critical Infrastructures. Pursuant to article 1, item I, of the Sole Annex of the Decree No. 9,573 of 22 November 2018, responsible for approving the National Security Policy on Critical Infrastructure, critical infrastructures are classified as "facilities, services, goods and systems whose interruption or destruction, in whole or in part, causes serious social, environmental, economic, political or international impact or put the security of the State and society at risk" (Decree No. 9,573 of 22 November 2018, http://www.planalto.gov.br/ccivil_03/_Ato2015-2018/2018/Decreto/D9573.htm#anexoart13p (last accessed on 4 July 2021).

4 Brazilian Ministry of Communications, Ordinance No. 1,924 of 29 January 2021, https://www.in.gov.br/web/dou/-/portaria-n-1.924/sei-mcom-de-29-de-janeiro-de-2021-301396768 (last accessed on 11 April 2021).

5 The Federal Government Private Network should encompass (i) a mobile network, which will be limited to the Brazilian capital's territory, with the purpose of serving public security, defence, rescue and emergency services, responses to disasters and other critical assignments related to the Federal Government, including those performed by federal entities, as well as of serving federal public bodies, and (ii) a fixed network, with the purpose of serving federal public bodies, in addition to the existing government network (Ordinance No. 1,924 of 29 January 2021, note 4, article 2, VIII). Article 12, paragraph 3, of Decree No. 9,612 of 17 December 2018, refers to such private network as the provision of services, infrastructure and support networks for communication and data transmission, in accordance with the legislation in force. (Decree No. 9,612 of 17 December 2018, http://www.planalto.gov.br/ccivil_03/_ato2015-2018/2018/decreto/D9612.htm (last accessed on 4 July 2021).

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The final version of the Brazilian 5G auction notice published on 27 September 2021[6] maintained such commitments, including the one related to the government private network and relating security obligations[7]. The auction notice also provides additional limitations to the participation of foreign companies, such as (i) the prohibition of the participation of telecommunications' companies not headquartered and managed in Brazil[8]; and (ii) a preference on behalf of national suppliers of 5G related equipment and materials in case of equivalent offerings from foreign companies[9].

Taking into consideration not only the widespread public debate regarding foreign companies, but mostly the decree enacted in late 2020 and the 5G auction recently carried out in Brazil, it is necessary to gauge whether the Brazilian stance amounts to a post-pandemic structured approach towards more FDI intervention, thus following the international trend. In order to do so, this paper will first understand what the regulatory failures regarding foreign investments are (as there is a general understanding by the public that any FDI would be desirable), especially investigating whether different policy objectives apply to different countries (as technological development and protectionism measures may vary greatly). The purpose behind such analysis is to establish a baseline for understanding the regulatory moves that are happening for comparison standards.

Established such baseline, secondly this paper will analyse whether the Brazilian FDI legislation is in line with what has been in force in countries with similar characteristics (or even with other countries with more paramount approaches towards FDI). Thirdly, this paper will compare the FDI regulation governance structures to understand whether said decree represents a step towards an approach to sustain a concocted development strategy based on key elements, such as technology, artificial intelligence, and digital infrastructure, or if it still lacks proper governance and accountability mechanisms that could generate undesirable effects over the country's economic development.

So far, there have been little discussion among scholars regarding the current Brazilian approach to FDI screening and relevance of appropriate instruments and governance mechanisms to assure a better-quality control of FDI and, therefore, to achieve technological

6 Please refer to the consolidated version of the Brazilian 5G auction notice of 27 September 2021, https://sei.anatel.gov.br/sei/modulos/pesquisa/md_pesq_documento_consulta_externa.php?eEP-wqk1skrd8hSlk5Z3rN4EVg9uLJqrLYJw_9INcO6OyRD8iqL9S9Xn8pP7_7nZL7eBIQWeOiWAZmPzrP88GsKp4NawWkp9n0q_6bMePRxnAscg5z5FRrlZQdkKAcHw (last accessed on 13 December 2021) and the last amendment to the Brazilian 5G auction notice from 24 October 2021, https://sei.anatel.gov.br/sei/modulos/pesquisa/md_pesq_documento_consulta_externa.php?eEP-wqk1skrd8hSlk5Z3rN4EVg9uLJqrLYJw_9INcO5Z01xWUQBa0N2EX_eZPVm_Bjw7Mf4Alp1AgC0x42AUp-HOY0y0yLoYCXm4T0yTw0V5TVcQ-hXIUUbjSv6xxqKr (last accessed on 13 December 2021).

7 For instance, item 6.4. of Annex IV-B of the auction notice establishes that hardware, software and firmware elements used in the government private network should be subject to a security due diligence to be carried out entirely in Brazil by accredited specialized laboratories (Brazilian 5G auction notice, note 6, Annex IV-B, item 6.4).

8 Brazilian 5G auction notice, note 6, item 4.1.

9 Ibid, item 12.2.

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development[10]. Also, current literature appears to lack in-depth discussions on the different approaches and governance structures to regulate FDI, particularly when it comes to technology developers and non-technology developer countries. Thus, through the arguments herein further developed, this paper will try to argue that the lack of a proper FDI screening system, which includes an increasing level of governance for such intervention, there might be significant impacts to local development, especially taking into consideration the need to improve innovation in non-technology developers.

B. Economic reasons for public intervention - why regulate FDI?

Traditionally, FDI have been well known for generating positive effects. The increase in the number of jobs, level of income and formation of gross fixed capital of an invested country are examples of such advantages. However, the presence of FDI does not always lead to benefits to the recipient countries and could produce negative externalities, depending on the level of economic development, the targeted sectors, among other elements[11]. The intense flow of FDI without proper control could generate harmful effects on the commercial, industrial, and economic policies of recipient countries, including the technological dependence on investor countries and other concerns related to national sovereignty and security (and, over the past years, also regarding cybersecurity[12]).

I. The relation between FDI and technological development

Despite the greater degree of employment, production, and revenue that arises from the entry of FDI, there might be certain negative externalities linked to such kind of investment. The first externality is the so-called "Dutch Disease", which is associated with the

10 There are few exceptions that worth noting: for instance, please see: *Keith S. Rosenn*, Regulation of Foreign Investment in Brazil: A Critical Analysis, University of Miami Inter-American Law Review 15 (1983), pp. 307-365, https://www.jstor.org/stable/40176025 (last accessed on 24 October 2022); *Isabel Costa Carvalho, Rafael Szmid, Cíntia Rosa, Felipe Lacerda and Ana Laura Pongeluppi*, Brazil, in: Global Competition Review (ed.), Foreign Direct Investment Regulation Guide - First Edition, 2021, https://globalcompetitionreview.com/guide/foreign-direct-investment-regulation-guide/first-edition/article/brazil (last accessed on 24 October 2022); *Gabriel de Barros Torres*, Chinese Foreign Direct Investment in Brazil: Evolution, Trends and Concerns Over Critical Infrastructure, Colección (Revista del Departamento de Ciencias Políticas y Relaciones Internacionales, Pontificia Universidad Católica Argentina) 31 (2020), pp. 17-36, https://repositorio.uca.edu.ar/bitstream/123456789/9858/1/chinese-foreing-direct-investment%20%281%29.pdf (last accessed on 24 October 2022).

11 For additional information on the negative effects that could arise from FDI, please see *Md Saiful Islam*, Positive and Negative Impact of FDI (Foreign Direct Investment) on a Country's Economic Development (2014), https://ssrn.com/abstract=3614019 (last accessed on 18 August 2021).

12 For further discussions on cybersecurity and challenges resulting from FDIs, please see *Federica Cristani*, Designing a Governance System for Cybersecurity of Foreign Investment in Europe (2021), https://ssrn.com/abstract=3776292 (last accessed on 18 August 2021).

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appreciation of the national currency, due to the inflow boom of commodities exports, and risks of hindering industrialization or causing deindustrialization. According to Botta[13], Bresser-Pereira, such phenomenon is understood as a "chronic overvaluation of a country's exchange rate [which is] clearly more appreciated than the average exchange rate that makes tradable goods industries economically viable [and therefore] obstruct industrialization [or] provokes deindustrialization".

In countries that are plentiful with natural resources, such as Brazil, which is historically specialized in sectors with low technology, the excess of FDI in the primary sector could be responsible for hindering the country's economic development[14], including the country's technological development process. As a result, sectors linked to tradable goods and the ones that are filled with high technological complexity become less competitive compared to other countries. Such situation normally defines the role of a country in the global value chain ("GVC"): a country mainly specialized in the primary sector has less value in the GVC than a country that concentrates its production in the manufacturing industry and, more recently, in information and communication technology (ICT).

The second externality relates to the level of investment in research and development ("R&D"). Historically, FDI arises from transnational companies that originally developed R&D centres in their country of origin. Subsequently, with the purpose of reducing costs and stimulating access to cheap qualified labour, FDI investors started to encourage the creation of R&D centres in the recipient countries. Even with the increasing internationalization of these R&D centres, planning and conducting of key research remained as the responsibility of the R&D centres located in the transnational companies' headquarters. Thus, the most sensitive and strategic decisions remain under the control of investor countries, with little interference from the recipient countries. In practice, activities with a lower degree of complexity and reduced technical expertise were normally assigned to recipient countries, slowing the development pace therefrom.

In addition, FDI investors began to adopt specific mechanisms, such as royalties and license agreements for the use of trademarks, with the purpose of ensuring proper ownership and the remittance of profits that could emerge from the development of new technologies. Therefore, the countries that used to receive a great level of FDI, without appropriate safeguards, became technologically bounded to FDI investors' country of origin and are normally recognized as mere technology replicators. In this context, China is generally

13 *Alberto Botta*, Dutch Disease-cum-financialization Booms and External Balance Cycles in Developing Countries, Brazilian Journal of Political Economy, 37(3) (2017), http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0101-31572017000300459#B2 (last accessed on 11 April 2021).

14 In Brazil, between the period of 2001 until 2013 primary activities, such as oil and natural gas extraction, mineral extraction, and forestry production, figured as key FDI destinations (*Eduarda Martins Correa da Silveira, Jorge Augusto Dias Samsonescu and Divanildo Triches*, The determinants of foreign direct investment in Brazil: empirical analysis for 2001-2013, CEPAL Review 121 (2017), pp. 177-178, https://repositorio.cepal.org/bitstream/handle/11362/42016/RVI121_Triches.pdf?sequence=1&isAllowed=y (last accessed on 11 April 2021).

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regarded as a good example of a country that received a great deal of foreign investments, but, at the same time, managed to achieve relevant technological development, due to the imposition of certain constraints on FDIs, for example, by means of mandatory technology transfers or minimum production export percentage.

From the analysis of the market failures described above (i.e., Dutch disease and R&D concentration), arises an important lesson: there is a need for carefully analysing the sectors subject to FDIs in recipient countries. This is because, as mentioned, concentration of investments mainly in economic activities with a low level of technological complexity (e.g., activities classified in the primary sector) could further stimulate technological dependence of recipient countries in relation to their investors.

The set of externalities described in this topic could lead to the conclusion on the existence of multiple reasons for regulating FDI that vary depending on the level of technological development of a given economy. In other words, a country deemed as a technology provider usually has different (and even greater) reasons for controlling FDI in comparison to non-technology developers. This is what the following section discusses.

II. The public purposes: technology vs. non-technology developers

The countries / regions chosen for benchmarking and comparing Brazil herein were based on the following criteria: (i) economic development and their relevance in the GVC, such as the US and the European Union; and (ii) development of their governance mechanisms towards FDI control, such as Australia and Canada. This research was mainly based on comparative legislative development, gauging the regulatory instruments and respective governance structure applicable to FDI, and therefore, has obvious limitations in what concerns the level of development of each of the countries assessed being solely related to the FDI structure. Notwithstanding this, it tries to identify the growing concern of regulatory tools and governance with the purpose of fostering innovation. However, to fully understand the comparison proposed it is important to understand their different positions in the global competition environment, thus revealing their FDI stances.

Technology developers and non-developers share a different regulatory agenda with respect to FDI control. Relevant countries from the European Union (e.g., France, Germany and – before Brexit – the UK), US and China could be examples of technology developers. In turn, Brazil, Australia, and Canada could be classified as non-technology developers. Even though Australia and Canada share a higher level of economic development in comparison to Brazil, historically they have a similar economic structure with strong investments in primary activities (e.g., mining, oil and gas, agricultural, etc.) and are not key producers of innovation, as per international ranking standards.

According to the global ranking developed by the World Intellectual Property Organization (WIPO), there are several indicators used to capture the innovation ecosystem performance of key economies around the world and their recent trends, as well as their strengths, weaknesses, and gaps. Those innovation metrics contemplate several indicators, such as

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measures on political environment, education, infrastructure, and knowledge creation of each economy[15]. Such distinct metrics are used to monitor performance and benchmark developments against economies within the same region or income group classification[16]. By relying on such indicators, WIPO publishes annually a global innovation ranking (i.e., the Global Innovation Index – "GII"), which is a relevant benchmark for understanding the level of technological development of key economies, such as the ones discussed throughout this paper (e.g., France, Germany, UK, US, China, Brazil, Australia, and Canada), and their respective FDI approach / rationale.

Based on the innovation metrics applied in the GII, it is possible to link the classification provided for technology developers and non-developers economies with the role each country performs in the GVC. This includes their level of knowledge and technology outputs[17]. In the 2021 edition of the GII, the level of knowledge and technology outputs was measured by several aspects, such as the number of patents by origin, labor productivity growth, high-tech manufacturing, production and export complexity, high-tech and ICT services exports, among others. As per the GII, France (16th), Germany (9th), UK (10th), US (3rd) and China (4th) represented the top 16 countries with the greatest level of knowledge and technology outputs, while Brazil (51st), Australia (42nd), and Canada (23rd) registered lower levels of knowledge and technology outputs[18].

Stemming from the proposed classification (tech vs. non-tech developers), countries with distinct levels of technological development could share different purposes for controlling the entry and application of FDI in their national economies. For the first group (countries that are considered technology developers), the reasoning that encompass FDI screenings relates to the fear of technology steal and competitive advantages that could undermine internal competition. Also, there are concerns related to the control of essential technologies and critical activities by foreign investors, which raises issues of national security and sovereignty conflicts. For instance, in the US and at the European Union context, there is no direct reference to broader public policy concerns (e.g., level of employment or internal competition) in their respective FDI screening procedures.

As regards the second group (non-technology developers), FDI control mechanisms generally considers a broader agenda, which goes beyond the protection of national security and technology supremacy issues. They also deal with other public policy issues, such as the level and quality of employment, internal competition, and revenues.

15 For information see: WIPO, Global Innovation Index (GII), https://www.wipo.int/global_innovation_index/en/ (last accessed on 2 July 2022).

16 Ibid.

17 For additional details on the Global Innovation Index, please refer to: WIPO, Global Innovation Index, 2021, p. 30, https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2021.pdf (last accessed on 14 December 2021).

18 Id.

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For instance, in Canada, the Investment Canada Act[19] allows certain FDI transactions if they are likely to be net benefit to the country. The fulfillment of the net benefit criteria relies on certain factors, such as (i) the effect on employment, on resource processing, on the utilization of parts, components and services produced in Canada and on exports from Canada; (ii) the effect of the investment on productivity, industrial efficiency, technological development, product innovation and product variety in Canada; (iii) the effect of the investment on competition within any industry or industries in Canada, among others[20]. Also, same logics apply to Australia, where the Foreign Acquisition and Takeovers Act[21] allows FDI transactions if they are not contrary to the national interest. In this context, there are the factors that typically underpin the assessment process of national interest: e.g., the character of the investor, competition, impact on the economy and community, national security, and other Government policies (including tax)[22].

C. FDI Screening Statutes: different intervention approaches

To understand how countries develop their foreign investment strategies, it is important to know what mechanisms are available for this type of intervention. First, there is structure and regulation that deal directly with the control of FDI: (i) a general rule applicable regardless of the type of activities and assets subject to FDI, and (ii) specific and strict provisions relating to sectors deemed sensitive[23] in terms of national security.

As for the general rule, by way of analogy, one could compare the broader provisions presented in the FDI regimes with the merger control systems applied by antitrust agencies, in which there are only occasional distinctions or immunities based on the regulated sector involved in transactions that are subject to mandatory notification. In relation to the second type of FDI provisions, there are some differences regarding the sorts of activities considered sensitive or critical and between the notification criteria applied in each FDI screening regime. Despite such particularities, most of the FDI specific provisions set forth stricter requirements in comparison to the general FDI rule.

19 Investment Canada Act, R.S.C. 1985, c. 28 (1st Supp.), article 21, https://laws-lois.justice.gc.ca/eng/acts/I-21.8/page-3.html#docCont (last accessed on 10 July 2022).

20 Ibid, article 20.

21 Foreign Acquisitions and Takeovers Act 1975 (Cth), https://www.legislation.gov.au/Details/C2022C00088 (last accessed on 10 July 2022).

22 For further information on such factors see: Australian Government, Australia's Foreign Investment Policy, pp. 8-9, https://firb.gov.au/sites/firb.gov.au/files/2022-06/Australias_Foreign_Investment_Policy-20220701.pdf (last accessed on 10 July 2022).

23 The selection of FDI policies relating to critical infrastructures, core technologies and other sensitive domestic assets are based on the international trend introduced during the pandemic regarding FDI policies targeted to such sectors, which were mainly motivated by the protection of sensitive domestic businesses from foreign takeovers. This was ratified by the recent report published by UNCTAD. (UNCTAD, note 1,p. 57.

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There is also the possibility of using indirect forms of FDI control, which may happen through a wide variety of other mechanisms applied to this end, such as (i) the creation of state-owned companies or other restrictions to foreign investments in strategic sectors, (ii) differential treatment and benefits to national companies as opposed to foreigners (i.e., national champions), (iii) golden shares, (iv) contractual clauses assuring the continuity of R&D activities in a recipient country, and (v) local content policies.

I. Lessons from mature countries: direct and specialized FDI regulatory regimes

Despite the distinct regulatory agendas between the two groups (technology and non-technology developers), it seems that countries in mature jurisdictions have enacted regulation that deal directly with FDI control. Basically, these countries set out FDI screening regimes by means of ex ante regulations that establish a sort of condition precedent that prevent foreigners from concluding certain types of investments without the approval of the competent authority. And, secondly, they enforce stricter criteria for FDI carried out in critical sectors of the economy, particularly those related to technologies, as well as infrastructure and assets that are relevant for national security.

As for technology-developer countries, in the US, as a general rule, transactions that result in the acquisition of control of any American business, by a foreign government, are subject to the US FDI screening regime[24]. In the US, the CFIUS is the authority with powers to review certain transactions involving FDI in the US and certain real estate transactions by foreign persons. CFIUS is an interagency committee, and its members include the head of the several department and offices[25]. The Secretary of the Treasury is the Chairperson of CFIUS, and notices to CFIUS are received, processed, and coordinated at the staff level by the Staff Chairperson of CFIUS, who is the Director of the Office of Investment Review and Investigation in the Department of the Treasury[26]. When a covered transaction poses any national security risk, CFIUS may also refer a transaction to the

24 Section 721 of the Defense Production Act of 1950, 50 U.S.C. 4565, 4(a), as amended, https://uscode.house.gov/view.xhtml?req=(title:50%20section:4565%20edition:prelim (last accessed on 2 May 2021).

25 The members of CFIUS include the heads of the following departments and offices: Department of the Treasury (chair), Department of Justice, Department of Homeland Security, Department of Commerce, Department of Defense, Department of State, Department of Energy, Office of the U.S. Trade Representative and Office of Science & Technology Policy. The following White House offices also observe and, as appropriate, participate in CFIUS's activities: Office of Management & Budget, Council of Economic Advisors, National Security Council, National Economic Council and Homeland Security Council. (U.S. Department of the Treasury, CFIUS Overview, https://home.treasury.gov/policy-issues/international/the-committee-on-foreign-investment-in-the-united-states-cfius/cfius-overview (last accessed on 3 July 2022)).

26 Id.

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President, who is required to announce a decision with respect to a transaction within 15 days of CFIUS's completion of the investigation[27].

At the context of the European Union, a recent regulation establishing a framework for FDI screening, in full force since 11 October 2020, refers to whether the foreign investor is directly or indirectly controlled by the government, including state bodies or armed forces, of a third country, through ownership structure or significant funding, as relevant general factors for the Members States to consider in determining whether a FDI is likely to affect security or public order[28]. This could be understood as guidance that would orient Members States in establishing general provisions for FDI screening.

In the European Union Level, the final decision in relation to any FDI undergoing screening or any measure taken in relation to a FDI not undergoing screening remains the sole responsibility of the Member State where the foreign direct investment is planned or completed. The recent enacted FDI screening framework refers to cooperation mechanisms that enable Member States to cooperate and assist each other where a FDI in one Member State could affect security or public order in other Member States. In this context, Member States can provide comments to a Member State in which a FDI is planned or has been completed, irrespective of whether that Member State has a screening mechanism in place, or such FDI is undergoing screening. The European Commission is also allowed to issue an opinion to the Member State in which the FDI is planned or has been completed and a Member State can request the Commission to issue an opinion or other Member States to provide comments on a FDI taking place in its territory.

Same applies to non-technology developer yet mature countries. In Canada, the FDI regime provides a general criterion, in which transactions involving the acquisition of control of a Canadian company, by either private foreign investors or foreign state-owned companies (depending on the threshold amount set forth in the specific regulation), are both subject to the scrutiny of the Canadian FDI control system[29]. In Canada, the Minister of Innovation, Science, and Industry is responsible for administering the Investment Canada Act, except with respect to net benefit reviews of cultural businesses, which are administered by the Minister of Canadian Heritage[30]. The national security process encompasses a multi-step process review led by Canada's national security agencies. Based on a recommendation from the Minister of Innovation, following consultation with the Minister of

27 Id.

28 Regulation (EU) 2019/452 of the European Parliament and of the Council of 19 March 2019, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R0452&from=EN (last accessed on 11 April 2021).

29 Information available at: Government of Canada, Thresholds for Review, https://www.ic.gc.ca/eic/site/ica-lic.nsf/eng/h_lk00050.html (last accessed on 2 May 2021).

30 Innovation, Science and Economic Development Canada (ISED), Annual Report 2020-2021, Investment Canada Act, https://www.ic.gc.ca/eic/site/ica-lic.nsf/vwapj/FINAL-ICA-Annual-Report_2020-21_EN.pdf/$file/FINAL-ICA-Annual-Report_2020-21_EN.pdf (last accessed on 3 July 2022).

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Public Safety, the GiC has the authority to take any measure necessary with respect to a FDI that could be injurious to national security[31]. Within each period of the multi-step review process, the legal authorities with powers to investigate are the same from the moment the Minister of Innovation becomes aware of a FDI or a proposed FDI[32].

Following a similar approach to the one seen in Canada, there is a variety of acquisitions subject to the Australian FDI regulator's analysis (i.e., the Foreign Investment Review Board - "FIRB") and to the Australian Treasurer's final approval. Foreign acquisitions of at least 20 percent of an Australian company's capital stock, within a certain amount determined in the applicable regulation, lie among the list of notifiable transactions[33]. In Australia, the responsibility for making decisions about the FDI policy and proposals rests with the Treasurer[34]. The Treasury's Foreign Investment Division (the Division) administers Australia's foreign investment regulatory framework[35]. Since 1976, there is a non-statutory body (i.e., FIRB) that advises the Treasurer and the Government on Australia's Foreign Investment Policy and its administration[36]. FIRB's functions are advisory only and responsibility for making decisions rests with the Treasurer.

With respect to the stricter provisions, the US regime provides that even non-controlling FDI transactions[37] and real estate transactions involving foreign persons, that are related to or located at, in critical technologies or critical infrastructures[38], are of mandatory notification before the Committee on Foreign Investment in the United States - CFIUS. The concept of critical technologies includes articles or services related to national defence deemed harmful pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear non-proliferation, or missile technology, or nuclear technology, biological or toxic agents and related technologies[39]. Critical infrastructures, in turn, are classified as physical or virtual systems and assets that

31 Id.

32 Id.

33 Foreign Acquisitions and Takeovers Regulation 2015 (Cth), section 18, https://www.legislation.gov.au/Details/F2020C00820 (last accessed on 3 May 2021).

34 See: Australian Government, About Foreign Investment Review Board (FIRB), https://firb.gov.au/about-firb (last accessed on 3 July 2022).

35 Id.

36 Id.

37 Department of the Treasury, 31 Code of Federal Regulations, Section 800.401, https://home.treasury.gov/system/files/206/Part-800-Final-Rule-Jan-17-2020.pdf (last accessed on 3 May 2021).

38 Id., section 802.401, https://home.treasury.gov/policy-issues/international/the-committee-on-foreign-investment-in-the-united-states-cfius/cfius-real-estate-instructions-part-802 (last accessed on 18 August 2021).

39 Section 721 of the Defense Production Act of 1950, 50 U.S.C. 4565, 6(a), as amended, https://uscode.house.gov/view.xhtml?req=(title:50%20section:4565%20edition:prelim (last accessed on 2 May 2021).

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are vital to the US, whose incapacity or destruction could have a debilitating impact on national security[40].

At the European Union level, the recently enacted regulatory framework for FDI screening also refers to critical infrastructure, technologies, and inputs as relevant factors for the Members States to consider in determining whether a FDI is likely to affect security or public order[41]. Such new European regulation mentions critical infrastructure as physical or virtual, which includes energy, transport, water, health, communications, media, data processing or storage, aerospace, defence, electoral or financial infrastructure, and sensitive facilities, as well as land and real estate crucial for the use of such infrastructure[42]. Also, the regulation considers (i) critical technologies as, among other elements, artificial intelligence, robotics, semiconductors, cybersecurity, aerospace, defence, energy storage, quantum, and nuclear technologies, as well as nanotechnologies and biotechnologies, and (ii) critical inputs as energy, raw materials, and food security[43].

Moreover, EU Regulation No. 452/2019 grants powers to the European Commission for issuing an opinion to a Member State where an FDI investment that affects projects or programs of Union interest on security or public order grounds[44]. For the purpose of such regulation, projects or programs of Union interest include substantial amount or a significant share of Union funding, or which are covered by Union law regarding critical infrastructure, critical technologies or critical inputs which are essential for security or public order[45]. Some examples are set out in a specific Annex and encompass projects/programs such as the: (i) implementation and exploitation of the European satellite navigation systems, (ii) Framework Program for Research and Innovation, including actions related to Key Enabling Technologies (e.g., artificial intelligence, robotics, semiconductors, and cybersecurity), and (iii) trans-European networks in telecommunications infrastructures, among others[46].

In Canada, there are specific provisions relating to acquisitions that involve a Canadian company active in cultural activities[47], regardless of the country of origin and within the

40 Id.

41 Regulation (EU) 2019/452, note 28.

42 Regulation (EU) 2019/452, note 28, article 4, 1 (a).

43 Ibid, article 4, 1 (b), (c).

44 Ibid, article 8.

45 Ibid, article 8 (3).

46 Ibid, annex.

47 Pursuant to Section 14.1 (6) of the Investment Canada Act, cultural activities means "a Canadian business that carries on any of the following activities, namely, (a) the publication, distribution or sale of books, magazines, periodicals or newspapers in print or machine readable form, other than the sole activity of printing or typesetting of books, magazines, periodicals or newspapers, (b) the production, distribution, sale or exhibition of film or video recordings, (c) the production, distribution, sale or exhibition of audio or video music recordings, (d) the publication, distribution or sale of music in print or machine readable form, or (e) radio communication in which the transmissions are intended for direct reception by the general public, any radio, television and

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threshold set forth in the applicable regulation, are subject to the review and approval of the Minister of Canadian Heritage[48].

Pursuant to the Australian regulations, media, telecommunications, transportation, military and defence-related industries and activities, encryption and security technologies and communication systems, and uranium or plutonium extraction or the operation of nuclear facilities are examples of sensitive business[49], which trigger notification before the Treasurer at lower shareholding percentages and monetary thresholds in comparison to non-sensitive businesses. Transactions involving public infrastructures (e.g., airports, ports, public transport, electricity, gas, water, transport) are also subject to stricter rules[50].

II. Brazil – lack of general and specific direct FDI regulations

Differently from mature jurisdictions, in Brazil, there is no current regulatory framework that deals directly with the control of FDI. Currently, the Brazilian Presidency, through the GSI, is empowered to identify and monitor national security risks associated with critical infrastructures. However, there are no broad regulations targeting specifically the participation of FDI in such critical areas.

Historically, the regulation of foreign capital in Brazil goes back to the previous constitutional regime, particularly to 1962, when the Brazilian Congress approved a specific legislation to deal with foreign capital registration, the remittances of values to foreign jurisdictions and other aspects (i.e., Law No. 4,131 of 3 September 1962)[51]. Such legislation, which is still in force, deals only with foreign capital registration in Brazil and does not tackle any mechanism for screening FDI. This reinforces the argument on the lack of a regulatory framework that deals directly with the control of FDI in Brazil.

The control of FDI is also carried out indirectly either through constitutional limitations or sectoral restrictions. The Brazilian Federal Constitution in force since 1988 ("BFC") sets forth the limitations to foreign investments[52]. According to its provisions, such restrictions may occur through different ways, such as the direct exploitation by the State or conditioned access cases. The direct exploitation of activities by the Brazilian State is applicable in exceptional yet broad cases: i.e., national security or relevant collective interest grounds.

cable television broadcasting undertakings and any satellite programming and broadcast network services; (entreprise culturelle)". (Investment Canada Act, note 19).

48 Information available at: Government of Canada, Cultural Sector Investment Review, https://www.canada.ca/en/canadian-heritage/services/cultural-sector-investment-review.html (last accessed on 18 August 2021).

49 Foreign Acquisitions and Takeovers Regulation, note 33, section 22.

50 Ibid, section 5.

51 Law No. 4.,131 of 3 September 1962, http://www.planalto.gov.br/ccivil_03/leis/L4131.htm (last accessed on 2 July 2022).

52 1988 Constitution of the Federative Republic of Brazil (BFC), http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm (last accessed on 11 April 2021).

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These hypotheses are either determined by means of constitutional monopolies or through explicit restrictions on the participation of foreign companies.

By the time of the enactment of the BFC, explicit restrictions on the participation of foreign private capital were noted in (i) coastal and inland navigation (article 178, § 3, of the BFC), (ii) newspaper, radio, and TV companies (article 222, of the BFC), (iii) telephone, telegraph, data transmission and other public telecommunications services (article 21, XI, of the BFC), and (iv) postal services (article 21, X, of the BFC)[53].

Constitutional monopoly situations (i.e., only carried out by the Federal Government), in turn, were mainly observed in economic activities related to the oil and gas industry, such as (i) research and mining of oil and natural gas deposits and other fluid hydrocarbons (article 177, I, of the BFC), (ii) the refining of domestic or foreign oil (article 177, II, of the BFC), (iii) the maritime transport of crude oil of national origin or basic oil derivatives produced in the country (article 177, IV, of the BFC), among other relating activities[54].

Conditioned access cases apply to situations in which the BFC does not expressly prohibit foreign investment, but their entry is subject to compliance with conditions established in sectoral regulations. Examples of sectoral regulations that restricted the entry of foreign investments included the following: (i) banking and insurance (article 192, III), (ii) medical assistance in the country (article 199, § 3), and (iii) acquisition and exploitation of rural properties by foreigners (article 190)[55].

In addition to these specific sectoral restrictions, at the time of its promulgation, the BFC contained provisions that granted differentiated treatment and favoured companies with national ownership (i.e., controlling shareholders with residence and domiciled in the country), through the concession of special benefits, exclusivity conditions, among other aspects[56]. Furthermore, the original wording of the BFC already comprised an explicit provision authorizing the issuance of regulations to deal broadly with foreign capital investments, reinvestments, and profit remittances, based on national interest grounds[57]. However, despite such provision, which would allow for direct FDI control, so far, there is no general regulation to address FDI control in the Brazilian scenario.

Years later, on 12 April 1990, Law No. 8,031[58] was enacted, thus creating the National Privatization Program. The purpose of such program was to reduce the State's influence in the economy by divesting stakes in state-owned companies and delegating public services to private entities. It is worth noting that the State's influence was not totally eliminated, as

53 Id.

54 Id.

55 Id.

56 Id.

57 Please refer to article 172 of the BFC, *in verbis*: "The law will regulate, based on the national interest, foreign capital investments, encourage reinvestments and regulate the remittance of profits" (free translation).

58 Law No. 8,031 of 12 April 1990, http://www.planalto.gov.br/ccivil_03/leis/L8031.htm (last accessed on 11 April 2021).

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the government insisted on maintaining veto powers, through the issuance of golden shares, in companies operating in strategic sectors, such as mining, aircraft manufacturing and reinsurance. Thus, in certain companies, the Brazilian government still have veto powers over sensitive, and critical decisions, including those related to the exchange of corporate control, which could potentially involve foreign ownership.

Subsequently, between 1990 and 1999, the gas oil sector went through some important changes that reduced State interference. On 15 August 1995, the Constitutional Amendment No. 6[59] lifted the ban on foreign-owned companies in research and mining of mineral resources and the use of hydraulic energy potentials. Such Amendment also removed the provision regarding differentiated treatment of national companies and enlarged the concept of national companies to include those incorporated, with headquarters and management in the national territory. Later, in that same year, Constitutional Amendment No. 9[60] ended the State monopoly in the oil and gas sector.

In 1997, Law No. 9,478[61] ratified the end of the Brazilian state-owned Petrobras' monopoly in oil and gas exploration and production activities and ensured the entry of foreign companies in these economic activities. With the opening of the oil and gas sector, subsequent years were characterized by several public bids in exploitation and production activities. The concession contracts for these bids provided safeguards in favour of protecting national interests against foreign investors, such as (i) clauses that required mandatory investment in R&D (e.g., 1 percent of gross production revenue, 50 percent of which was destined to national universities and research institutions)[62], and (ii) local content clauses (i.e., obligation to purchase national goods and services and to assure preference of national suppliers with similar conditions as the foreigners)[63].

Until 2002, there was no fixed percentage determining the acquisition of national goods and services for carrying out E&P activities[64]. At that time, the percentage of local

59 Constitutional Amendment No. 6 of 15 August 1995, http://www.planalto.gov.br/ccivil_03/constituicao/Emendas/Emc/emc06.htm (last accessed on 11 April 2021).

60 Constitutional Amendment No. 9 of 9 November 1995, http://www.planalto.gov.br/ccivil_03/constituicao/emendas/emc/emc09.htm (last accessed on 11 April 2021).

61 Law No. 9,478 of 6 August 1997, http://www.planalto.gov.br/ccivil_03/leis/l9478.htm (last accessed on 11 April 2021).

62 Please refer to: Concession Agreement for Exploration, Development and Production of Oil and Natural Gas between the Brazilian National Petroleum Agency (ANP) and Petróleo Brasileiro S.A. (Petrobrás), 1998, in the context of the Round Zero, https://www.gov.br/anp/pt-br/rodadas-anp/rodadas-concluidas/rodada-zero/arquivos/modelo-contrato-rodada-zero.pdf (last accessed on 19 November 2021).

63 Id.

64 According to the information provided by the Brazilian National Agency of Petroleum, Natural Gas and Biofuels ("ANP"), (Brazilian National Agency of Petroleum, Natural Gas and Biofules (ANP), Conteúdo Local (local information), https://www.gov.br/anp/pt-br/assuntos/exploracao-e-producao-de-oleo-e-gas/conteudo-local (last accessed on 18 August 2021)).

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content was considered as a scoring factor for bidders' offers[65]. The following years were marked by stricter local content rules that established minimal and maximum percentages for the acquisition of Brazilian goods and services[66]. Almost 10 years later, the Federal Government published the Productive Development Policy[67], which provided incentives to Brazilian companies (e.g., tax waivers in BNDES financing for expansion, modernization, and innovation projects in the service industries). Such companies were later recognized as national champions[68].

In 2017, the E&P sector faced a setback with respect to local content rules. ANP defined a new model[69], where local content obligations were no longer considered as a factor for scoring bids and minimum percentages commitments were simplified. In 2018, ANP published new regulations[70] allowing waivers, adjustments, and transfers of surplus in concession agreements for E&P activities, as well as the possibility of amending contracts with new local content requirements. Exemption requests applied in cases of the absence of national suppliers, excessive prices, or terms, or when involving new technologies[71].

In recent years, in contrast to what is happening in other countries, there was a tendency of more flexibility and openness to foreign investments. This happened especially due to the termination of certain restrictions to foreign investments, with particular emphasis to

65 Id.

66 Id.

67 Instituto de Estudos para o Desenvolvimento Industrial, A Política de Desenvolvimento Produtivo, https://web.bndes.gov.br/bib/jspui/bitstream/1408/17700/1/FCFol213965_A%20Pol%c3%adtica%20de%20Desenvolvimento%20ProdutivocomplP.pdf (last accessed on 2 May 2021).

68 The Brazilian national champions policy took place through the strengthening of national companies by means of sectoral concentrations or subsidies. It was launched in the country, in 2007, in the context of the Productive Development Policy (PDP), whose main objective was to expand the leadership and competitiveness of Brazilian companies in strategic sectors at the international scenario, as well as to foster the development of R&D activities. This policy sought to boost the development of national companies through mergers and acquisitions, to increase their exports and the remittance of profits to Brazil. In addition, BNDES and other public banks, pension funds and funds managed by the Brazilian Severance Indemnity Fund (FI-FGTS) granted subsidies to such national strategic companies, which also occurred by means of corporate interests.

69 Resolution No. 7 of the National Energy Policy Council (CNPE) of 11 April 2017, https://www.gov.br/mme/pt-br/assuntos/conselhos-e-comites/cnpe/resolucoes-do-cnpe/arquivos/2017/resolucao_cnpe-7-cnpe_conteudo_local.pdf (last accessed on 18 August 2021).

70 ANP Resolution No. 726 of 11 April of 2018, https://www.in.gov.br/materia/-/asset_publisher/Kujrw0TZC2Mb/content/id/10488950/do1-2018-04-16-resolucao-n-726-de-11-de-abril-de-2018-10488946 (last accessed on 18 August 2021).

71 See: ANP, note 64.

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health[72], financial[73] and public air transport[74] sectors. In August 2021, the participation of foreigners in the telecommunications sector was also facilitated by the Brazilian government[75]. Therefore, in the past few years, the Brazilian regulatory setting seems to have encouraged the entry of FDI in strategic sectors, without the imposition of constraints normally applied in foreign jurisdictions.

Not even the enactment of Decree No. 10,569, in 2020, approving the National Strategy for the Safety of Critical Infrastructures, could be understood as a more interventionist approach towards FDI. Considering the limited scope of such decree and lack of direct commands or specific criteria in the Brazilian regulatory framework to monitor the entry and application of FDI, it appears that Brazil has not kept up with the global trend in favour of the strengthening FDI direct control mechanisms. The lack of proper arrangement of governance and accountability could be affecting local development in Brazil, especially in what refers to innovation creation in the country.

Thus, Brazil seems to be far behind in comparison to the international scenario, particularly to the jurisdictions that historically did not produce technology internally, such as Australia and Canada. In such jurisdictions, besides the existence of direct mechanisms for controlling FDI, there are also proper regulatory bodies and governance mechanisms in force that allows them to pursue and achieve further public policy issues, such as the

72 In 2015, Law No. 13,097 allowed the participation of FDI in companies operating in health care, including in polyclinics, general and specialized hospitals (Law No. 13,097 of 19 January 2015, http://www.planalto.gov.br/ccivil_03/_ato2015-2018/2015/lei/l13097.htm (last accessed on 11 April 2021)).

73 In 2018, the Presidential Decree No. 9,544 recognized national interest in foreign participation in fintechs active in credit markets, removing the need for a presidential or international treaty's approval (Decree No. 9,544 of 29 October 2018, http://www.planalto.gov.br/ccivil_03/_Ato 2015-2018/2018/Decreto/D9544.htm (last accessed on 11 April 2021)). In 2019, Decree No. 10,029 recognized national interest for (i) the incorporation of new foreign financial institutions subsidiaries; and (ii) the increase in shareholding percentage in Brazilian financial institutions by individuals or legal entities with residence or domiciled abroad (Decree No. 10.029 of 26 September 2019, http://www.planalto.gov.br/ccivil_03/_ato2019-2022/2019/decreto/D10029.htm (last accessed on 11 April 2021)). In 2020, the Brazilian Central Bank issued Circular No. 3,977, removing the need of specific authorization (i.e., by presidential decree or international treaty) for the participation of foreign investors in the capital stock of Brazilian financial institutions (Brazilian Central Bank, Circular No 3,977, 22 January 2020, https://www.in.gov.br/en/web/dou/-/circular-n-3.977-de-22-de-janeiro-de-2020-239630515 (last accessed on 11 April 2021)).

74 Law No. 13,842 of 17 June 2019 introduced a key reform in the air transportation sector, by removing the 20% cap on foreign participation in Brazilian airlines and the exclusivity provision on management by Brazilians (Law No. 13,842 of 17 June 2019, http://www.planalto.gov.br/ccivil_03/_ato2019-2022/2019/Lei/L13842.htm (last accessed on 11 April 2021)).

75 With the purpose of reducing the level of bureaucracy in the country, the Brazilian President enacted a new law that, among other aspects, revoked a provision in the Brazilian General Telecommunications Law (Law No. 9,472 of 16 July 1997, para 18), which allowed the Executive Branch to limit the participation of foreigners in the telecommunications' companies (Law No. 14,195, 26 August 2021, http://www.planalto.gov.br/ccivil_03/_Ato2019-2022/2021/Lei/L14195.htm#art57 (last accessed on 17 December 2021)),

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level and quality of employment, internal competition, which are key to assure proper technological and economic development.

D. Accountability of FDI decisions: a growing institutional challenge

As mentioned previously in this paper, activities linked to telecoms and technologies associated with innovative networks and infrastructures are normally classified as sensitive and/or critical by the most relevant FDI screening regimes around the globe. The strictness addressed to such activities and infrastructures in many FDI screening regimes is routinely justified on security and national defence grounds. The same differentiated treatment is expected and, in some jurisdictions, is already attributed to activities, infrastructures and assets related to the development of 5G networks. In fact, greenfield investments in telecommunications shall grow in the medium term, due to the dissemination of 5G technology in both developed and developing countries[76].

Although most of the jurisdictions mentioned in this paper have published specific rules on the classification of assets and infrastructures considered as critical and within the scope of the respective FDI screening regime, there is a major concern whether such regulatory frameworks contemplate too broad regulatory powers and are really equipped with the appropriate public governance mechanisms. Also, experts worry that the decision-making process of foreign transactions subject to mandatory notification before the FDI authorities is influenced by political decisions, without adequate due process, which may actually hinder the proper effect that FDI brings to those countries.

I. Risks associated with the increase in FDI regulation globally

In recent years, there has been an increase in foreign takeovers either blocked or withdrawn for regulatory or political reasons without due justification. On 12 March 2018, the past US President prohibited the proposed takeover of leading American company Qualcomm, engaged in 5G technology development, by the Singapore company Broadcom, for national security reasons[77]. There are critics stating that the ban was motivated by trade and geopolitical interests and relating conflicts.

A recent publication from UNCTAD[78] highlights the tendency of some jurisdictions that are having trouble to segregate technical reasons from national securities and political

76 UNCTAD, note 1, p. 183 (2020).

77 For more information on this case, please refer to UNCTAD, World Investment Report 2019, Special Economic Zones, p. 89, https://unctad.org/system/files/official-document/wir2019_en.pdf (last accessed on 11 April 2021), and Executive Office of the President, Order of March 12, 2018 Regarding the Proposed Takeover of Qualcomm Incorporated by Broadcom Limited, https://www.federalregister.gov/documents/2018/03/15/2018-05479/regarding-the-proposed-takeover-of-qualcomm-incorporated-by-broadcom-limited (last accessed on 3 November 2022).

78 UNCTAD, note 1, p. 103-105.

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ones with respect to merger cases affecting foreign investors. Pursuant to such publication[79], in 2019, several governments raised objections against a number of foreign takeover proposals, in particular the ones involving the sale of critical or strategic domestic assets to foreign investor (e.g., energy, automotive, information technology, logistics, utility services, medical services, financial services and infrastructure business). In both cases, the arguments that sustained the rejection of the transactions related largely to national security concerns, espionage, and the control of sensitive data.

Following a similar rationale, in July 2020, the European Commission published an updated progress report showing the importance of mitigation measures to address security risks related to the rollout of 5G[80]. The document indicates a common set of measures to mitigate cybersecurity risks in 5G networks[81]. FDI screening control is mentioned as one of the key measures to improve the detection of FDI in the 5G value chain that could pose threats to security or public order[82]. Besides, pursuant to the referred report, EU Member States considered FDI screening mechanisms as a strategic measure for diminishing the risk of single supplier dependency, identifying key assets, and fostering a diverse and sustainable 5G ecosystem in the EU[83]. Ownership transfers and other transactions involving changes in the origin/establishment of 5G equipment and services suppliers were also mentioned in such EU document as of the potential of exposing 5G network value chains to higher cybersecurity risks[84].

These recent examples could lead to questions on the sufficiency of current regulations to assure an effective FDI control and the completion of the public purposes they were designed to achieve. Thus, in addition to the elements that characterize the soundness of the regulatory strategies in the control of FDI (e.g., regulatory targets, type of commands and consequences), the analysis of the sufficiency and quality of the current FDI regulations – especially in tech related matters – also depend on the understanding of the expected governance mechanisms contemplated in these regimes.

II. Risks associated with the Brazilian approach to FDI regulation

As discussed in the previous sections, in spite of constitutional powers allowing the creation of an FDI screening in Brazil, there is still no direct control of FDI in the country. The absence of a direct FDI screening in the Brazilian scenario could harm the country's tech-

79 UNCTAD, note 1, p. 103.

80 NIS Cooperation Group of the European Commission, 2020 Report on Member States' progress in implementing the EU Toolbox on 5G Cybersecurity, https://digital-strategy.ec.europa.eu/en/library/report-member-states-progress-implementing-eu-toolbox-5g-cybersecurity (last accessed on 11 April 2021).

81 Ibid, p. 1.

82 Ibid, p. 24.

83 Constitution of the Federative Republic of Brazil, note 52.

84 Id.

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nological development process and intensify its dependence on more developed countries. Besides, indirect restrictions to FDI could be even more detrimental to the entry of strategic investments in a host country, in comparison to a specialized FDI screening.

It is important to stress that there is no direct link between the existence of direct FDI regulatory mechanisms and the level of openness of an economy to foreign participation. Meaning that sectoral and indirect restrictions to FDI in critical sectors, as occurs in Brazil (which is growing as per the recent Presidential Decree that established the National Strategy for the Safety of Critical Infrastructures[85]), could lead to a great deal of restrictiveness by prohibiting the entry of FDI in key technological sectors instead of allowing the entry of FDI by means of more structured policies capable of assuring better quality-control over FDI. Direct screening mechanisms could allow FDI in technological sectors that are relevant for the country's economic development, as well as assure that the investor country is subject to specific obligations to the recipient country.

The figures below illustrate the high level of regulatory restrictions in technology sectors (i.e., telecoms and computers), in Brazil, as opposed to other mature jurisdictions that have FDI screening regimes in force (e.g., US, Australia, Canada, France and Germany). The selection of such sectors was made based on their growing relevance to the level of economic development of a country and its role in the GVC

In addition, the absence of appropriate public governance mechanisms and the broad regulatory powers granted to regulators has been already criticized in some jurisdictions, particularly due to the high level of interference from the Executive Branch, without proper checks and balances, transparency, and accountability instruments.

All of these criticisms apply to the manner in which Brazil has developed its FDI policy, which not only is not updated, lacking direct regulatory instruments, but is also designed without a proper governance structure that takes into account, at least, three important accountability aspects: (i) the public objectives and the specific regulatory problems that it intends to address, (ii) the regulatory strategies with direct commands, defined targets and properly designed, and (iii) the appropriate public governance mechanisms.

In relation to public objectives and regulatory problems, the current Brazilian framework appears to be focusing on the protection of national security, defence, and sovereignty. For instance, the National Strategy for the Safety of Critical Infrastructures[86] set forth key objectives and principles to guide the protection of critical infrastructures. None of them, however, appear to encompass other goals rather than the protection of national interests.

85 Decree No. 10,569 of 9 December 2020, http://www.planalto.gov.br/ccivil_03/_ato2019-2022/2020/decreto/D10569.htm (last accessed on 22 August 2021).

86

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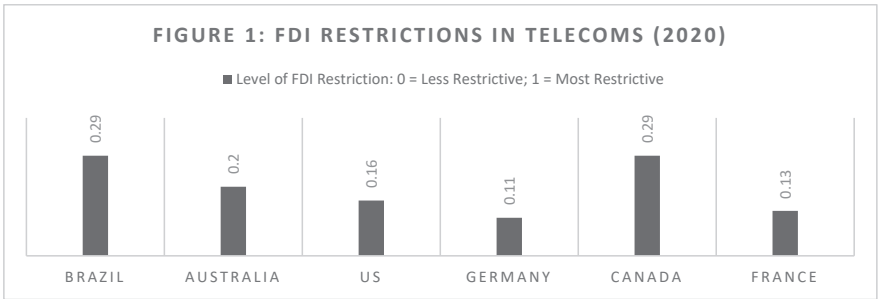

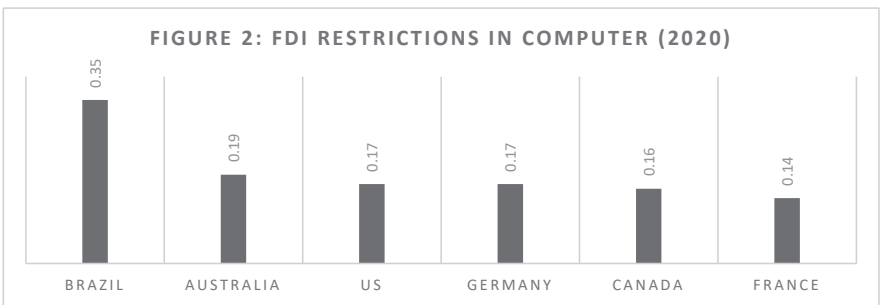

Source: Generated by the authors based on the information available at OECD. Services Trade Restrictiveness Index (2020)[87].

Countries that traditionally have similar productive structure as to Brazil, such as Australia and Canada, have already considered further objectives to lead their dedicated FDI screening regimes. The generation of jobs and income in the country, and the maintenance of the level of competition in the internal market are examples of wide-ranging purposes applied in the FDI systems in force in the referred jurisdictions.

Another key element of FDI regimes relates to regulatory strategies, which should contemplate direct commands with clear-cut and well-defined criteria. Most part of the regimes in force in mature jurisdictions provides direct mechanisms for controlling FDI, mainly through specific regulatory targets (e.g., investments in national companies carried out by foreign governments or foreign individuals) and defined thresholds (e.g., value of

87 Organisation for Economic Co-operation and Development (OECD), Services Trade Restrictiveness Index 2020 (STRI), http://www.compareyourcountry.org/service-trade-restrictions/en/0/532+546/ranking//BRA+AUS+USA+DEU+FRA+CAN (last accessed on 3 May 2021). The OECD STRI take values between zero and one, one being the most restrictive. It considers all the restrictions to trade, including both sectoral restrictions to FDI and restrictions that could arise from a direct FDI screening regime. Further details on the estimation of the STRI are available at: OECD, OECD Service Trade Restrictiveness Index: Policy trends up to 2021, https://issuu.com/oecd.publishing/docs/oecd-stri-policy-trends-2021?fr=sMGVlMjI5ODk2NDE (last accessed on 18 August 2021).

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the investments involved, shareholding percentages in the acquisition of companies, etc.). Moreover, there are specific thresholds for assets and infrastructures, which are normally accompanied by a predetermined list of targeted sectors.

Additionally, an FDI regulation must contemplate broad consequences: i.e., at least superior to a merely binary system, with the possibility of applying different remedies, such as, for example, the protection of an investment by means of intellectual property rights, conditions for the creation of qualified jobs with a high level of expertise, and maintenance or investment in areas that need development in the country. Such non-binary approach is already applied in Canada and Australia, for example.

In Brazil, there are no direct commands with clear-cut and well-defined criteria: instead, there are either sectoral restrictions that limit the participation of foreign investors; indirect restrictions that could be drawn from national security concerns arising from the application of the critical infrastructures' national strategy; or even from other indirect mechanisms (e.g., golden shares, local content policies, etc.).

Even if considering the recent approach for critical infrastructures, there is not even a precise definition for such kind of facilities. The wording provided for in the national policy for the safety of critical infrastructures is very broad and it does not encompass a pre-determined list of sensitive sectors or areas[88]. Actually, such over-inclusive approach could hinder the entry of foreign investments in technology-intensive sectors if they fall into the category of critical infrastructure and lead to national security risks.

As regards public governance mechanisms, the proper instruments for addressing national public purposes seem to involve a great deal of accountability, proper oversight, due process, and the other benchmarks mentioned in section D.I. above (i.e., legislative mandate, expertise, and efficiency). Australia and Canada are good examples of countries that provide proper public governance mechanisms with specialized FDI authorities and advanced accountability and transparency toolkits (both already discussed in section D.I). And both jurisdictions encompass sophisticated mechanisms for transparency, including, for example, guidelines to regulatory targets on the FDI screening process and the requirements applicable in their analysis[89]. In addition, in Canada, the summary of decisions issued by the Investment Review Division ("IRD") is published on the authority's

88 Decree No. 9,573 of 22 November 2018, annex, art 1, item I, http://www.planalto.gov.br/ccivil_03/_Ato2015-2018/2018/Decreto/D9573.htm#anexoart13p, (last accessed on 4 July 2021).

89 In Canada, the Guidelines issued by the Ministers responsible for the Investment Canada Act to assist investors in fulfilling their obligations under the Act are available at: Government of Canada, Guidelines, https://www.ic.gc.ca/eic/site/ica-lic.nsf/eng/h_lk00066.html (last accessed on 2 May 2021). In Australia, a series of guidance notes have been created to assist investors and other stakeholders when engaging with FDI, which are available at: Foreign Investment Review Board of the Australian Government, Guidance notes, https://firb.gov.au/guidance-notes (last accessed on 2 May 2021).

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website[90]. In Australia, albeit to a lesser extent, general information about transactions is available in the annual report on FIRB's performance[91].

Currently, there is no specialized authority in the control of FDI in Brazil or neither does the national regulatory framework has established direct commands or specific criteria for controlling FDI. Such non-structured and indirect approach towards FDI (i.e., by means of sectoral restrictions monitored by different regulatory agencies) could be hindering the entry of FDI in key technological sectors, which could be affecting the country's economic development. Besides, when involving national security risks to critical infrastructures, by the GSI, which is directly linked to the Brazilian Presidency, especially since the enactment of Decree No. 10,569/2020, there is a growing concern that interference from the Presidency, without proper checks and balances controls, could increase uncertainty and hinder strategic investments in facilities that require intense investments in technology, such as 5G networks.

E. Final Remarks

The analysis carried out in this paper seems to lead to the conclusion that, in Brazil, FDI control has not yet reached the same level of discussion experienced abroad. This is because, in addition to not even having a regulatory framework specialized in the direct control of FDI, in comparison to key experienced jurisdictions, during the last few years, Brazil started to open its economy even more to the entry of FDI. Such openness was observed in important sectors such as health, financial, and public air services, which have released certain regulatory restrictions, with the purpose of intensifying FDI.

More recently, the approval of the National Strategy for the Safety of Critical Infrastructures by means of the Decree No. 10,569/2020, and the requirements established in the recently carried out 5G auction, could be interpreted as a step towards more FDI intervention, at least in critical sectors. Nevertheless, given the limited scope of such decree and lack of direct commands or specific criteria for controlling FDI in the Brazilian regulatory framework, the Brazilian stance still does not amount to the structured FDI approach adopted by most experienced jurisdictions in the international scenario.

There is a concern that the absence of a direct approach towards FDI could undermine the entry of FDI in key technological sectors, as well as having a greater level of political interference in the protection of critical infrastructures based on national security grounds, as per the recently enacted Presidential decree. In this scenario, the absence of direct FDI control instruments and governance mechanisms in Brazil seems to create a stricter

90 A list of completed decisions and/or notifications on FDI in Canada is published monthly and available at: Government of Canada, List of Completed Applications for Review and Notifications, https://www.ic.gc.ca/eic/site/ica-lic.nsf/eng/h_lk00014.html (last accessed on 2 May 2021).

91 Please refer to the last version of the report published at FIRB's official website: Commonwealth of Australia, Foreign Investment Review Board, Annual Report 2018-2019, 2020, https://firb.gov.au/sites/firb.gov.au/files/2020-05/FIRB-AR-2018-19.pdf (last accessed on 2 May 2021).

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approach towards FDI and an even greater degree of legal uncertainty to foreign investors, which could generate reverse effects on the country's technological and economic development stage and its level of dependence on technology developers.

At this stage, the country experiences the worst of two worlds: the lack of a structured strategy towards FDI in a technology-driven world put together with newly enacted legislation without the proper governance and clear-cut criteria for intervention. It would make sense to observe what its international counterparts (non-technology developers) are doing and design proper instruments and governance to deal with FDI in the near future, under penalty of prolonging even further its non-technology developer status.

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