Working Paper

DECENT WORK AND PRODUCTIVITY IN THE BRICS: THE CASE OF BRAZIL

Author: Paulo Jacinto

ILO PARTNERSHIPS, ILO ENTERPRISES & ILO Brasilia

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1- Introduction

The main objective of BRICS is to foster active cooperation among its member countries in order to promote socioeconomic development and ensure the sustainable growth of their economies. In alignment with the goals set by the United Nations, BRICS aims to advance social inclusion and reduce poverty and unemployment within its member states.

Until 2023, BRICS was composed of five countries: Brazil, Russia, India, China, and South Africa. Starting in 2024 and as of early 2025, six new members were admitted: Saudi Arabia (still pending internal decision), Egypt, the United Arab Emirates, Ethiopia, Indonesia and Iran, bringing the total number of member countries to eleven. Today, the expanded BRICS is considered one of the main political and diplomatic coordination forums for countries of the Global South. In January 2025, Brazil assumed the rotating presidency of BRICS under the theme “Strengthening Global South Cooperation for More Inclusive and Sustainable Governance.”

BRICS countries have made continuous efforts to address various global challenges, including climate change, inclusive global governance, and the promotion of decent work, as well as South-South and triangular cooperation. The meeting of the Ministers of Labour and Employment held in 2023 in South Africa is one example of such efforts. At that meeting, BRICS acknowledged the importance of sharing experiences and highlighted the relationship between productivity and decent work. The member countries committed to implementing policies aimed at increasing productivity and promoting decent employment. To support this goal, they committed to the creation of a space for knowledge and experience sharing: the BRICS Productivity Ecosystems for Decent Work Platform.

This initiative aims to strengthen cooperation among BRICS countries and promote sustainable development, with a focus on the creation of decent jobs and the improvement of productivity. Moreover, the platform seeks to facilitate the exchange of knowledge and best practices regarding effective public policies to foster both decent work and productivity.

There are several reasons to study productivity across BRICS countries. One is that the average labor productivity of BRICS members corresponds to about one-quarter of the average productivity in the United States. Another, fundamental reason, is the relationship between productivity and a nation’s prosperity. In general, the higher a

country's productivity, the greater its level of wealth and that of its citizens. Given the direct link between wages and productivity, as supported by economic theory, higher productivity levels tend to be associated with higher wages – though this relationship is not automatic and requires a combination of robust social dialogue institutions and policies that promote a productivity-wage relationship - and, consequently, improved worker well-being. It would be also a good opportunity for South-South cooperation.

The relationship between productivity and decent work, however, is more complex and not necessarily one-directional, as is sometimes assumed. For instance, countries with high productivity levels tend to offer more opportunities for decent work, including formal employment contracts and the associated benefits, which contribute to enhancing workers' well-being. From another perspective, when work is performed in environments where decent work conditions are ensured, this can also lead to increased productivity.

It is in this context that the study "Decent Work and Productivity in Brazil" was developed. It aims to present an overview of the relationship between productivity and decent work in Brazil. This is an exploratory study which, together with similar studies from other BRICS members, will serve as an initial knowledge exchange under the BRICS Productivity Ecosystems Platform for Decent Work. This study also contributes to the agenda of South-South and Triangular Cooperation (SSTC) by sharing Brazil's experiences in aligning productivity growth with the expansion of decent, formal amd productive employment. It is intended to support mutual learning and technical cooperation among BRICS and other Global South countries.

To that end, this report is structured into seven sections. The second section provides a brief definition of productivity. The third section presents productivity trends among BRICS members. The fourth section describes the multidimensional index of job quality. The fifth section presents some strategies to improve productivity. Finally, the sixth section summarizes the priorities set by the Brazilian Presidency in the context of BRICS.

2. Defining Productivity

Productivity measures the degree of efficiency with which a given country uses its resources to produce goods and services. In general terms, productivity can be defined as the amount of goods and services that can be produced with a given set of inputs. As a measure of efficiency, it is worth noting that productivity can increase when more output is produced using the same amount of inputs, or when the same output is produced with fewer inputs.

There are two widely used concepts of productivity that arise from the use of the term “inputs”: labor productivity and total factor productivity. Labor productivity is defined as the output generated per worker or per hour worked. Although labor productivity is relatively easy to measure, using hours worked presents an advantage over simply counting the number of workers, as it allows for capturing changes in standard working hours, leaves of absence, overtime, and flexible working arrangements.[1] Regardless of whether productivity is measured by the number of workers or hours worked, both measures should reflect the same trend.[2] In addition to measuring the degree of efficiency in an economy, this indicator can be used to identify the evolution of workers’ living standards and to compare these standards over time across different countries.

Total factor productivity (TFP) seeks to identify the efficiency with which an economy combines all its resources to generate goods and services. It is a broader measure because, instead of considering only labor, it incorporates all inputs used to produce output. In addition to the labor and capital inputs typically used in TFP calculations, other inputs—such as electricity—can also be included. Although this indicator is easy to interpret, its calculation is far from simple due to the need to identify all economic inputs. .[3] Depending on the available information, TFP (Total Factor Productivity) can be calculated at the aggregate level, the sectoral level, or at the firm level.[4] Regardless of the level of aggregation, TFP can be seen as a measure of the residual—that is, technological change and everything else we are unable to explicitly measure. In the analysis that follows, we will focus on labor productivity, given its direct relationship with workers' living standards.

2-1 Aggregate and Sectoral Productivity of the BRICS

Between 1980 and 2018, Brazil experienced an average annual growth rate of 2.4%, according to data from the World Bank. However, over the same period, the average growth rate of total factor productivity (TFP) was negative, at -0.98%. This result suggests that the country’s economic growth—considering the accumulation of production factors such as employed labor, physical capital, and human capital—

[1] To measure labor productivity at the sector level, we use the concept of value added in sector i in year t divided by the number of workers in sector i in year t or the value added in sector i in year t by the total hours worked in sector i in year t. This calculation can be extended to measure labor productivity at the company level, simply by replacing sector i with company i.

[2] See Figure A10 in the Appendix.

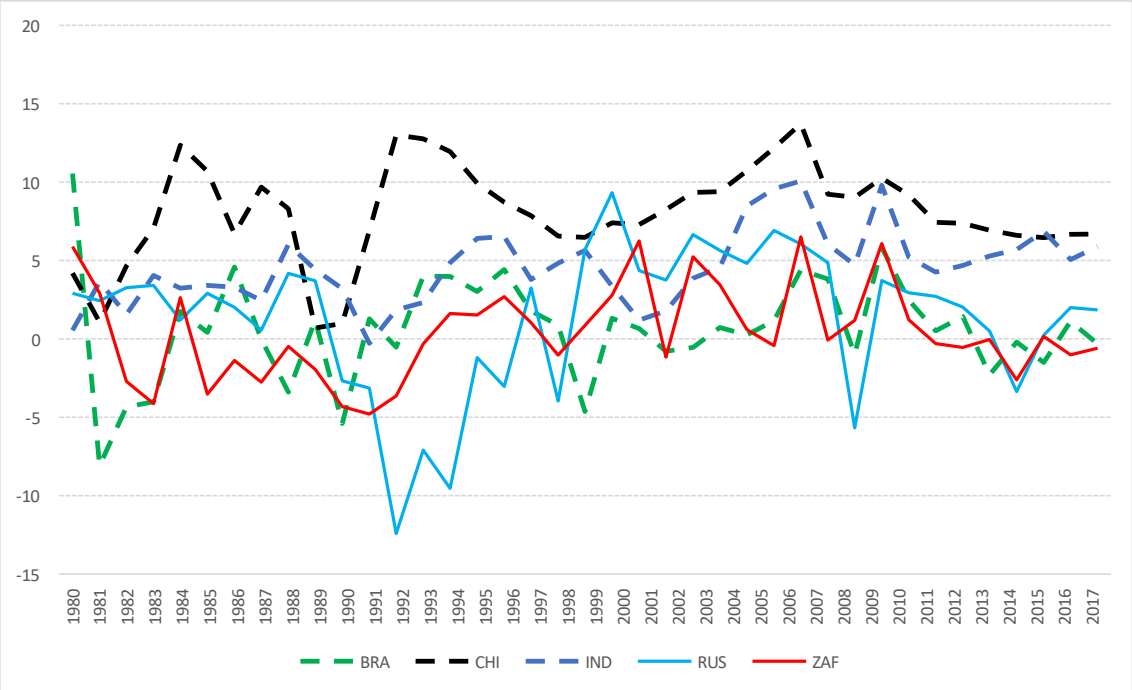
[3] A general discussion of the challenges in measuring total factor productivity (TFP) can be found in Ellery Jr. (2014). The main challenges include relative prices, measures of labor, physical capital, and human capital.

[4] For an estimation of TFP at the firm level, see Olley and Pakes (1996) and Levinsohn and Petrin (2003), who use the control function method to circumvent the endogeneity problem generated by the positive correlation between productivity and labor input levels.

occurred mainly due to the expansion of the labor force.[5] For an international comparison, Figure 1 shows the growth rate of TFP for BRICS member countries. The trajectory of TFP growth in Russia and South Africa is similar to that of Brazil. The highlights are China and India, which recorded average annual TFP growth rates of 3.98% and 1.83%, respectively.

Figure 2 presents the trajectory of labor productivity in BRICS countries, as well as in the United States. Between 1995 and 2018, Brazil's labor productivity followed an upward trend, with increasing value added per worker, similar to that observed in South Africa. However, when compared to the other BRICS countries and the United States, Brazil's labor productivity grew at a slower pace. Again, China and India stand out, showing exceptional trajectories. In particular, labor productivity in China in 2018 was 1,941.18% higher than in 1980—growth far exceeding that observed in the United States.

Figure 1: Total Factor Productivity (TFP) Growth Rate (1980–2018)

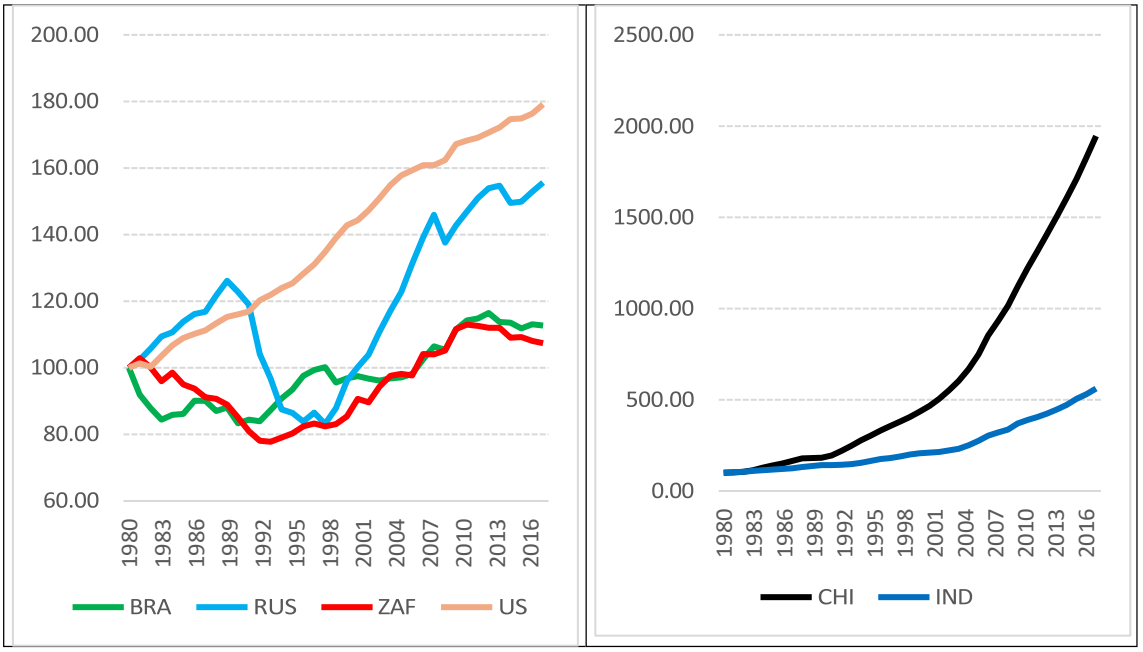


Source: PWT 10.01, Penn World Table.
Note: BRA: Brazil, RUS: Russia, ZAF: South Africa; US: United States; CHI: China and IND: India.

[5] For a more in-depth discussion on the factors of Brazil's economic growth from 1995-2019, see Veloso (2024).

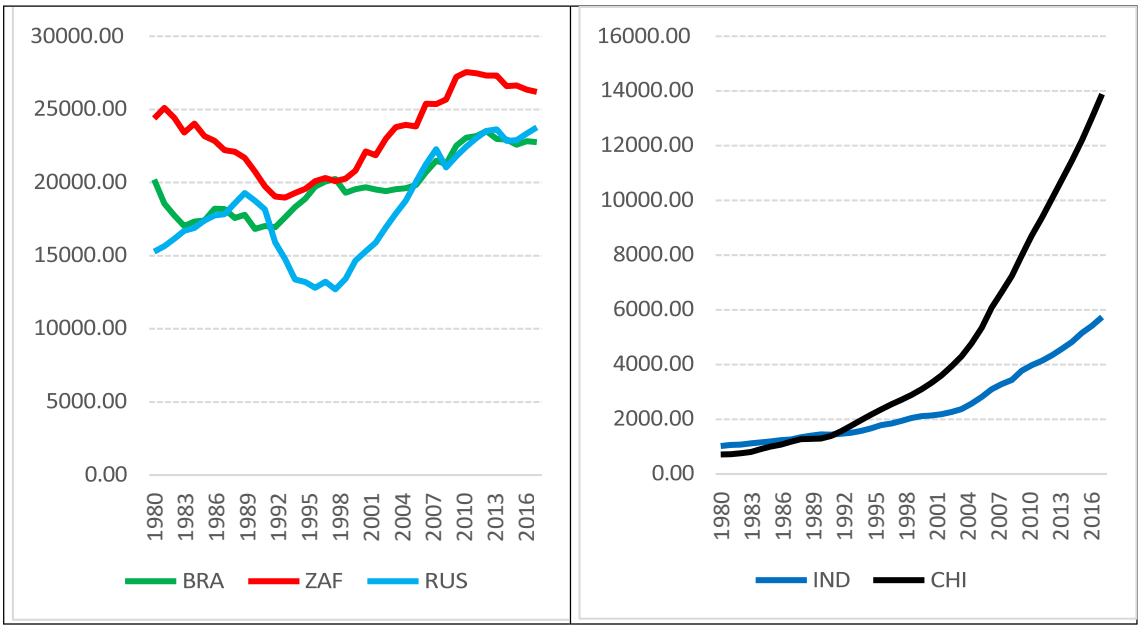
Although Brazil's labor productivity increased by 12.71% in 2018 compared to 1980, the trajectory of its annual growth rate was more erratic, as shown in Figure 4. Productivity growth was marked by fluctuations, with periods of highs and lows reflected in both positive and negative annual growth rates. The average annual productivity growth rate was 0.6%. It is possible to observe that the periods of low productivity growth correspond to phases of weak economic performance in Brazil, such as the early 1990s, the early 2000s, and the 2008–2010 recession. In contrast, the annual labor productivity growth rates in China and India displayed less volatility, with average growth rates of 8.6% and 4.86%, respectively. Furthermore, labor productivity growth in both China and India followed a consistently upward and positive trajectory throughout the entire period (Figure 3).

Figure 2: Labor Productivity – (1980 = 100)



Source: World Bank Group (https://www.worldbank.org/en/research/publication/global-productivity).
Note: BRA: Brazil, RUS: Russia, ZAF: South Africa; US: United States; CHI: China and IND: India.

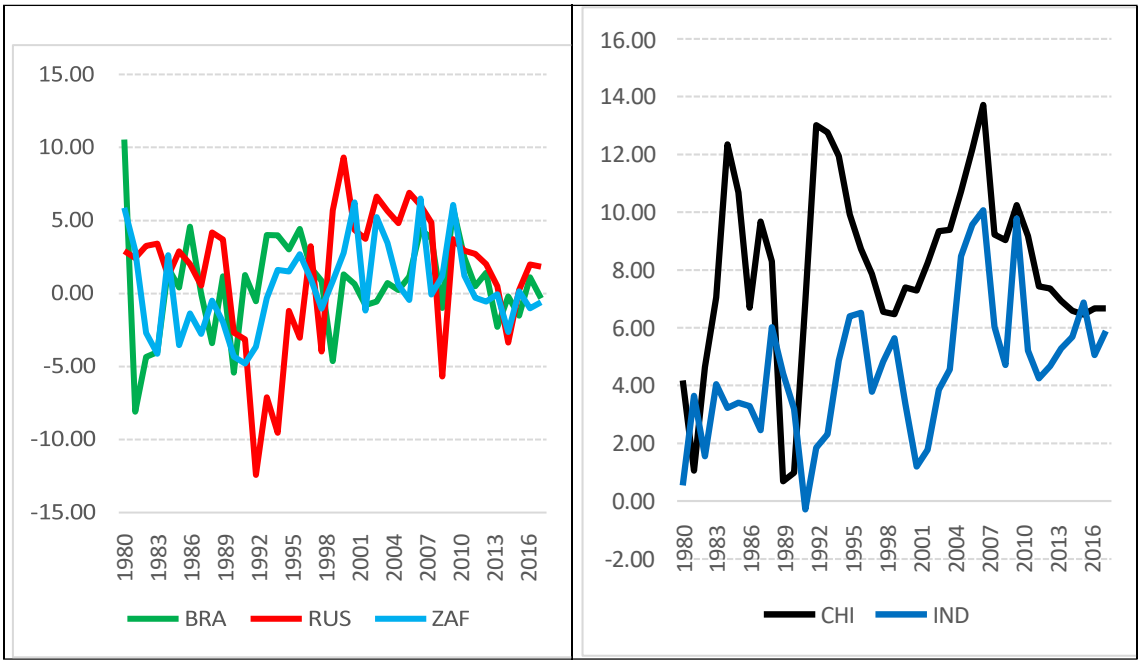
Figure 3: Labor Productivity in BRICS – (1980–2018)



Source: World Bank Group (https://www.worldbank.org/en/research/publication/global-productivity).
Note: BRA: Brazil, RUS: Russia, ZAF: South Africa; US: United States; CHI: China and IND: India.

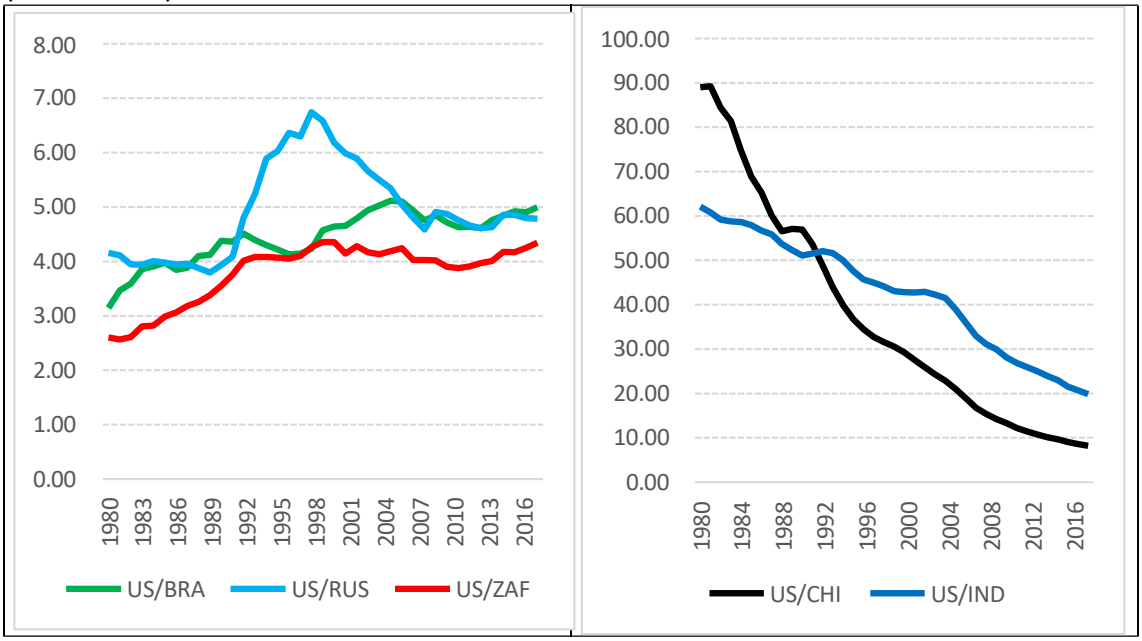
The ratio between labor productivity in the United States and selected countries (Figure 5) shows the convergence or not of BRICS countries' productivity toward that of developed countries. It uses the United States as a reference, over the period from 1980 to 2018. In the specific case of Brazil, we observe that in 1980, U.S. labor productivity was 3.15 times higher than that of a Brazilian worker. By 2018, it was five times higher. In other words, over the last 30 years, there has been a divergence. In addition to Brazil's labor productivity showing stagnation and low growth, it moved further away from the productivity levels of developed countries.

Figure 4: Labor Productivity Growth Rate in BRICS – (1980–2018)



Source: World Bank Group (https://www.worldbank.org/en/research/publication/global-productivity).
Note: BRA: Brazil, RUS: Russia, ZAF: South Africa; US: United States; CHI: China and IND: India.

Figure 5: Convergence of Labor Productivity in BRICS with the United States – (1980–2018)



Source: World Bank Group (https://www.worldbank.org/en/research/publication/global-productivity).
Note: BRA: Brazil, RUS: Russia, ZAF: South Africa; US: United States; CHI: China and IND: India.

In contrast, China and India show the opposite trend—that is, a convergence of Chinese and Indian labor productivity toward that of the United States. In 1980, U.S. labor productivity was 88.9 times higher than that of a Chinese worker. In just over three decades, this gap shrank to 8.2 times, demonstrating rapid convergence. A similar pattern can be observed in Indian labor productivity. These trends reflect the remarkable economic growth of China and India compared to the other BRICS countries.

Since we are discussing the ecosystem of productivity and decent work, it is worth examining sectoral productivity in the BRICS member countries. Table 1 presents sectoral labor productivity for the BRICS members and the USA for the year 2017. Table A1 in the annex describes the aggregation of the nine sectors used in the following analysis.

Among the BRICS members, Russia stands out for having the highest labor productivity in the largest number of sectors (Agriculture, Mining, Construction, and Trade Services) compared to the other countries. Brazil stands out only in the "Other Services" sector.

In relative terms, the aggregate productivity of the USA is four times higher than that of Brazil. If we consider American productivity as the technological frontier, this result reflects the distance between Brazil (and the other BRICS countries) and the

technological frontier. Even though Brazilian agriculture is a highly productive sector, U.S. agricultural productivity is approximately 4.7 times higher than Brazil's. The productivity of U.S. industry is 4.1 times greater than that of Brazilian industry. The sector that most closely approaches U.S. productivity levels is Utilities.

When comparing labor productivity between Brazilian agriculture and industry, we observe that agriculture has lower productivity. This result suggests that reallocating employment from agriculture to industry has significant potential to increase Brazil's aggregate productivity.

Table 1: Sectoral Productivity of BRICS Members and the USA – 2017

Sector	Country						
	South Africa	Brazil	Russia	China	India	United State	US/BRASIL
Total	36.09	27.30	42.89	20.57	15.83	108.65	4.0
Agriculture	18.75	15.47	28.58	7.07	6.13	72.17	4.7
Mining	122.37	103.27	212.88	71.43	62.37	382.15	3.7
Manufacturing	42.03	29.07	40.93	34.58	22.04	117.96	4.1
Utilities	115.10	75.54	43.48	111.30	72.34	116.01	1.5
Construction	16.54	17.22	35.83	15.44	10.78	61.82	3.6
Trade services	26.91	13.84	35.80	19.07	15.31	71.45	5.2
Transport services	57.54	33.03	39.77	34.31	16.77	119.43	3.6
Finance and business services	48.03	48.78	96.33	136.89	100.05	201.04	4.1
Other services	27.86	33.56	24.04	12.63	23.99	83.71	2.5

Source: World Bank Group (https://www.worldbank.org/en/research/publication/global-productivity).

The transfer of labor from low-productivity sectors to high-productivity ones has long been recognized as a major source of productivity growth. The shift of economic activity across different sectors over time is a process of structural transformation. Therefore, an analysis of the sectoral allocation of the employed population in BRICS member countries can be useful to explore the potential productivity gains a country could achieve by reallocating labor from low- to high-productivity sectors.

Table 2 shows the share of the employed population by sector using data from the World Bank's Global Productivity Sectoral Databases. Based on the data for 2017, we observe that the proportion of the employed population in agriculture is highest in India (44.52%), compared to China (26.79%) and Brazil (9.50%). The share employed in Chinese manufacturing (18.47%) is the highest among BRICS countries and close to that of Russia (14.18%). The share of employment in the trade services sector is highest in Brazil (25.03%) and is similar to that of South Africa (20.0%).

Among BRICS countries, the sectoral allocation of labor in Brazil is similar to that of South Africa and Russia, while the labor allocation in China resembles that of India, with a large share of the population working in agriculture—26.79% and 44.52%, respectively. Based on this information, it is evident that China and India have the greatest potential for productivity growth through labor reallocation from agriculture to manufacturing compared to other BRICS members. This may be one of the factors underlying the labor productivity trends observed for China and India, as described in Figure 3.

Table 2: Sectoral Allocation of the Employed Population – BRICS and USA – 2017

	Country					
Sector	South Africa	Brazil	Russia	China	India	USA
Total	5.14	9.50	5.90	26.79	44.52	1.43
Agriculture	2.51	0.44	2.16	0.87	0.58	0.39
Mining	11.22	11.50	14.18	18.47	11.79	10.68
Manufacturing	1.13	0.95	3.35	0.45	0.60	1.34
Utilities	8.35	7.57	7.28	9.64	11.51	7.31
Construction	20.00	25.03	18.48	13.52	12.25	19.82
Trade services	6.21	6.37	10.33	4.99	6.03	9.52
Transport services	15.09	9.70	9.39	1.77	3.32	17.44
Finance and business services	30.35	28.94	28.93	23.51	9.40	32.05
Other services	5.14	9.50	5.90	26.79	44.52	1.43

Source: World Bank Group (https://www.worldbank.org/en/research/publication/global-productivity).

In summary, we know that Brazil's average economic growth rate was 2.4% between 1980 and 2018. Over the same period, total factor productivity (TFP) declined by 0.98%, and economic growth was driven in part by the expansion of the labor force and by human capital accumulation. There is evidence that the low growth of TFP is reflected in the trajectory of labor productivity, which grew at a slower pace when compared to the United States and other BRICS countries. The ratio of U.S. to Brazilian labor productivity, in particular, shows an upward trend over the period, indicating a divergence. This is a concerning outcome, especially when we observe that the same ratio for China and India reveals a pattern of rapid convergence. These statistics raise an important question: Why is productivity low in Brazil? The question is simple, but the answer is rather complex. The concept of efficiency in resource allocation could serve as an initial explanation. Productivity is low in Brazil because resource allocation efficiency is low. If firms were using resources more efficiently, both TFP and labor productivity would be higher.

One way to assess resource allocation efficiency is to analyze the dispersion of TFP and determine whether the distribution is narrow and concentrated around a high average rate. The study by Vasconcelos (2017) shows that real TFP among firms within the same manufacturing industry in Brazil is, on average, high and asymmetric, with a heavy lower tail. High TFP dispersion suggests a misallocation of resources.

In Brazil, this problem has been increasing over time when compared to other emerging economies such as China and Russia, as well as other Latin American and Caribbean countries like Chile, Colombia, Mexico, and Peru (Barbosa Filho and Corrêa, 2017). In the productivity literature, this issue of poor resource allocation is known as misallocation.[6] Resource misallocation becomes more pronounced when two aspects are taken into account: the informal sector and the relationship between firm age and productivity.

In the first case, there is a common assumption among various economic agents that firms remain informal due to the high costs of formalization, and that public policies aimed at reducing these costs would be beneficial. However, based on a general equilibrium model of informality, Ulyssea (2018) shows that the effects of formalization policies that focus on reducing entry costs are limited. Public policies such as the simplified tax regime for micro and small enterprises (SIMPLES) and the Individual Microentrepreneur Program (MEI) have not produced conclusive evidence of increased formalization or a corresponding reduction in informality (Rocha et al., 2018; Piza, 2018).

Feijó et al. (2024) show that the recent rise in MEIs has reflected a trend of "pejotização." This phenomenon occurs when workers change the nature of their employment contracts but continue performing the same tasks or working in the same place. In other words, a formal employment contract with a signed labor card is converted into a MEI registration. "Pejotização" can introduce additional distortions into the economy.

The second aspect concerns the relationship between firm age and productivity. In the productivity literature, some studies explore the idea that older firms tend to be more productive. However, for Brazil, evidence presented by Barbosa Filho and Corrêa (2017) shows that productivity does not increase with firm age. A direct implication of this finding is that more productive firms do not grow, and less productive firms do not exit the market. The result of this dynamic is low aggregate productivity.

The low competitiveness of Brazilian firms is another factor that affects productivity in Brazil. This argument is presented in the World Bank report titled "Jobs and

[6] For a more detailed discussion, see Veloso (2019).

Growth: The Productivity Agenda." One of the premises of the report is that the integration of the domestic market is limited by inadequate infrastructure[7], regulatory barriers and distorted business support policies also contribute to this issue (World Bank, 2020). The main implication of this diagnosis is the low competitiveness of Brazilian firms.

Low integration of the domestic market leads to limited integration with international markets, which is reinforced by the use of tariff and non-tariff barriers, such as local content requirements aimed at protecting domestic firms. Therefore, greater internal market integration could help strengthen competition not only in traditional sectors exposed to foreign competition but also in non-tradable sectors—such as services—which have a large share in the Brazilian economy and typically low productivity.

Trade liberalization in the 1990s contributed to productivity improvements by exposing domestic firms to competition from imported goods and allowing the import of higher-quality intermediate and capital goods. Increasing the exposure of Brazilian firms to international competition would foster integration between the domestic and international markets, generating efficiency gains and productivity growth.

Productivity gains could also result from increased innovation. In theory, the existence of a relationship between innovation and productivity is widely accepted. In practice, however, this relationship is more complex for two main reasons. The first is the difficulty of measuring both productivity and innovation at the firm level. The second is that the existence of a positive relationship between innovation and productivity has limited practical implications for policymaking aimed at boosting productivity. In this context, the government's role is largely to monitor and support firms' innovation efforts, mainly through incentives for R&D activities or the acquisition of more modern machinery and equipment (Cavalcante, Jacinto, and De Negri, 2015).

For Brazil, this relationship was documented in the study by Cavalcante, Jacinto, and De Negri (2015), based on the model proposed by Crépon, Duguet, and Mairesse (1998). The authors used microdata from the Annual Industrial Survey (PIA), the Annual Report of Social Information (RAIS), the Innovation Survey (PINTEC), and data from the Secretariat of Foreign Trade (Secex) for the years 2000, 2003, 2005, and 2008. The results for the industrial sector were consistent with the stylized facts described in the literature on R&D investments and productivity, that

[7]As an example, we can mention the transportation of goods, which, due to the lack of railways, is primarily carried out by trucks. This increases transportation costs and reduces the competitiveness of Brazilian companies. Expanding infrastructure is a challenge when considering the low level of government investment due to Brazil's fiscal difficulties.

is, there is a positive relationship between R&D investments and productivity. Furthermore, the results indicated that this relationship is stronger in technology-intensive sectors.

In recent years, innovation policies in Brazil have focused on the use of tax incentives (Araújo, 2007). The Informatics Law and the "Lei do Bem" (Good Law) are two examples of efforts by Brazilian authorities to foster innovation.[8] Although well-intentioned, the Informatics Law has not proven effective in stimulating R&D among firms (Kannebley Jr. nd Porto, 29012).[9] The "Lei do Bem," on the other hand, showed positive but modest results, with an average impact of 7% to 11% on R&D and innovation investments (Kannebley Jr. and Porto, 2012). The effectiveness of the "Lei do Bem" was also tested in another study by Kannebley Jr., Shimada, and De Negri (2016), which found that the law led to an average increase of 43% to 81% in R&D expenditures and 9% to 10% in the hiring of technical and scientific personnel for R&D. Although these findings suggest that the tax benefit is effective, the authors stress the importance of continuously improving the instrument to prevent diminishing returns.

The business environment, from the perspective of being an external factor to firms, is also unfavorable and contributes to high production costs in Brazil. Feldmann (2023) points out that transportation costs in Brazil are among the highest in the world due to the predominance of road transport by trucks. In most developed countries, freight transport is primarily carried out by rail. Although transportation costs are not included in the World Bank's Doing Business indicator, this is an example of an external factor that raises production costs, reduces international competitiveness, and impacts productivity.

The impact of the business environment on productivity was documented in a study by Mation (2015). Using data from the Doing Business index and productivity figures for selected countries, the study found that a 1% improvement in the business environment—i.e., moving 1% closer to global best practices—would result in a $110 increase in productivity per worker. According to the author, for a country like Brazil, which is far from the best international practices, the cumulative effect would be substantial. For instance, if Brazil had the same business environment as neighboring Chile, Brazilian labor productivity would increase by 11%. This finding highlights that improving the business environment presents a significant

[9] According Klennebley Jr. and Porto (2012), the Computer Law combines tax incentives with requirements for mandatory nationalization of products, regional policy elements and discretion in the approval of projects, which makes it an instrument without effective results, at least with regard to the additionality of research, development and innovation (R&D&I) in the benefited companies. For these authors, "..., its excessive interventionism, as provided for in the Law, means that its main objective is not achieved".

opportunity for productivity gains. For example, greater access to credit for businesses—especially for micro, small, and medium-sized enterprises—improves the business environment and contributes to increasing both labor productivity and Total Factor Productivity (TFP). The study by Cavalcanti and Vaz (2017) found positive effects of acess to credit on labor productivity and TFP in Brazil.

Another factor frequently associated with low labor productivity in Brazil is the low skill level of workers, largely due to the country's limited educational attainment. In recent years, there has been undeniable progress in average years of schooling among Brazilian workers. However, this has not translated into significant productivity gains. According to Ottoni (2017), the national average of schooling increased from 5.3 to 8.8 years between 1992 and 2014, while labor productivity remained stagnant—rising only from R$10.17 to R$10.41. This discrepancy can be explained by the low quality of education. In other words, additional years of schooling have not led to significant improvements in worker qualifications. This provides evidence that productivity gains from improved education depend not only on the number of years studied but also on the quality of instruction and the capacity of the productive sector to absorb skilled labor and transform it into productivity growth (EPE, 2019). Without public policies aimed at improving education quality and vocational training, Brazil will face challenges in adapting to an economy where technology adoption is increasingly important.

In addition to the factors mentioned above that have hindered productivity growth in Brazil, two current challenges must receive attention from Brazilian policymakers if productivity is to resume a positive trajectory in the coming years.

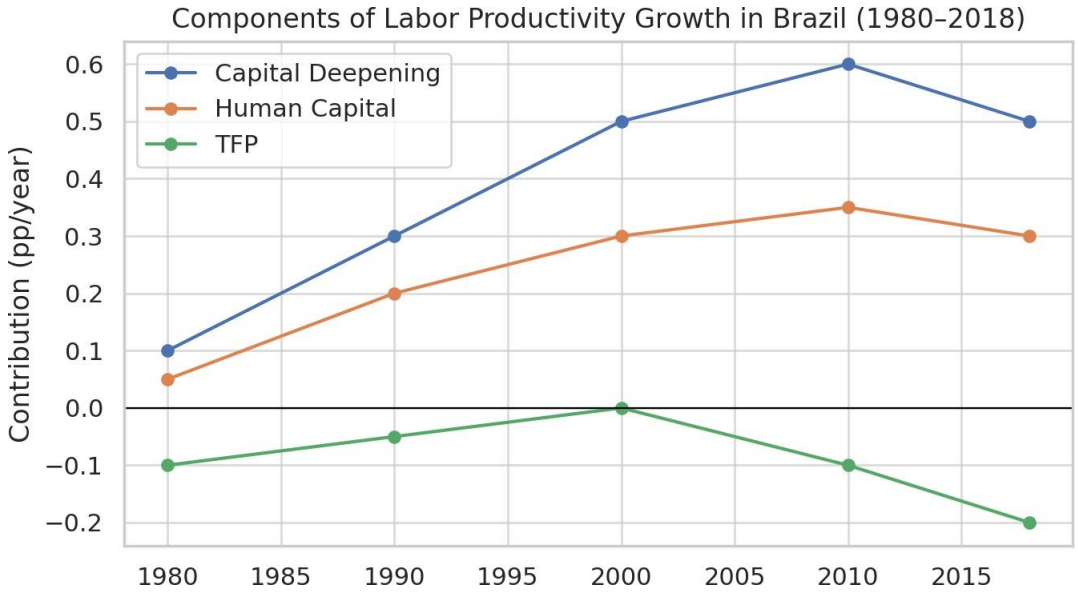
The first challenge relates to the changing profile of the workforce in response to the demands of an increasingly digital labor market, which has diverse impacts. For example, job seekers may lack the skills required to fill available positions, leading to labor market imbalances driven by a mismatch between the skills demanded by firms and those offered by unemployed individuals. This is a hypothesis raised by Lillien (1982) in his study on structural unemployment resulting from sectoral shifts. It refers to unemployment caused by significant technological changes in the economy that affect different sectors in various ways. In a more digitalized economy, mastering new technologies and being able to navigate dynamic work environments will be essential skills for workers to survive the impacts of major sectoral shifts. In this context, policies focused on training and retraining the workforce for productivity-enhancing technologies are needed.

The second challenge is the need for national authorities to prioritize the green transition as a strategy to increase efforts and investments in carbon emissions reduction. The use of new technologies associated with research and innovation could serve as an important tool in this green transition. The benefits are numerous,

including the creation of jobs directly tied to sustainability and environmental protection. These “green jobs” would require specific skills in sustainable practices to meet the growing demand for environmentally responsible work (World Economic Forum, 2025). In this way, the green transition challenge is closely linked to the changing profile of the workforce discussed above.

In short, productivity is essential for sustainable growth, higher wages, job creation, and improved working conditions. It is therefore important to understand the factors that inhibit productivity growth, as described above. It is also important to understand the relationship between decent work and productivity, which lies at the core of the BRICS Productivity Ecosystems Platform for Decent Work. To this end, we will use a multidimensional index of job quality as a proxy for decent work and analyze its relationship with labor productivity.

Figure 6



In order to explore the potential impact of labor reallocation on aggregate productivity in Brazil, we simulated a basic shift-share scenario using 2017 sectoral productivity levels. Assuming that 5% of the employed population in agriculture (9.5% of total employment) and low-productivity informal services were progressively reallocated to high-productivity sectors like manufacturing and finance, we estimate that Brazil’s aggregate labor productivity could rise by approximately 1.5 to 2.5 percentage points over five years, holding sector productivity constant. This illustrates the transformative potential of structural change policies and reinforces the need to combine industrial, educational, and active labor market strategies to enable smoother labor transitions

3- Labor Productivity and Job Quality in Brazil

As a proxy for decent work, we will use a multidimensional index of job quality. This index was calculated using the methodology proposed by González et al. (2021), adapted to the microdata from the Continuous National Household Sample Survey (PNADC)[10] for the period from the first quarter of 2012 to the third quarter of 2023.

The index is composed of four distinct dimensions: wage income, job stability, job security, and working conditions. In the wage income dimension, the earnings indicator considers a job to be of low quality if labor income is less than six times the cost of a basic food basket. In the job stability dimension, employment is considered of low quality when the job tenure is less than 36 months.

In the job security dimension, two indicators are used:

(i) a social security indicator, which considers whether the worker contributes to social security; and

(ii) an occupational status indicator, which classifies a job as low quality when the worker is either employed without a formal contract or is self-employed without higher education.

Finally, in the working conditions dimension, the indicator used is excessive working hours, defined as a work week exceeding 48 hours.

Based on these dimensions, a score ranging from zero to ten is calculated, with each dimension representing one-quarter of the total score. Jobs with a score equal to or below five are considered low quality. Jobs with a score above five may be considered high quality.

The interpretation is based on the concept of deprivation of good-quality employment, suggesting an analysis of the proportion of low-quality jobs. However, it is also possible to analyze the index from the perspective of the evolution of the share of high-quality jobs. In this report, we adopt the latter approach, as it is more intuitive and better aligned with the objectives of this study. Table A2 in the annex provides a detailed description of the dimensions, indicators, and respective weights used in the calculation.

Figure 6 presents the evolution of the multidimensional job quality index for the period from 2012 to 2022.[11] The evolution of the proportion of high-quality

[10] For a detailed discussion, see González, P.; Sehnbruch, K.; Apablaza, M.; Pineda, R. M.; Arriagada, V. (2021). A multidimensional approach to measuring quality of employment (QoE) deprivation in six Central American countries.

[11] An analysis for Brazil covering the period from 2019 to 2023 can be found in Ottoni (2024a, 2024b).

employment, based on the multidimensional index, shows an upward trend from the first quarter of 2012 to the first quarter of 2017, when the index reached a proportion of 54.98% of high-quality jobs. This trend may seem somewhat contradictory, given that the Brazilian economy entered a recession around mid-2014. However, it is important to note that during economic downturns, companies often adopt a strategy of dismissing less-qualified workers, who are, in theory, easier to rehire during periods of economic recovery. As a result, the share of more qualified and higher-paid workers tends to increase, which influences the index.

This analysis is supported by data on the unemployment rate for the same period, which shows a significant increase. Figure A9 in the annex shows that the share of high-quality jobs held by workers with incomplete secondary education declined over time, while jobs held by workers with completed secondary and higher education followed an upward trajectory. Therefore, the result is a higher proportion of high-quality employment relative to low-quality employment.

Starting in 2017, the proportion of high-quality employment declined by 3.22 percentage points, reaching 51.76% by the second quarter of 2019. The increase in the employment rate during this period may have contributed to the growth in the number of lower-qualified and lower-paid workers, which in turn contributed to a drop in the job quality index.

At the onset of the COVID-19 pandemic, there was a considerable increase in high-quality employment (Figure 6). One reason for this was the decline in informality due to lockdown policies. Since informal jobs are typically of lower quality, offering lower wages and less stability, the pandemic period saw an increase in the share of high-quality employment. As the economy began to recover, informal and lower-quality jobs returned, contributing to a decline in the proportion of high-quality employment (Ottoni, 2023). This argument is supported by observing the trends in both the unemployment rate and the job quality index after the COVID-19 pandemic.

The segmentation of the multidimensional job quality index reveals some interesting results. Men have a higher proportion of high-quality employment compared to women (see Annex Figure A8). When segmented by race, white workers show a higher proportion of good-quality jobs, although this difference has decreased over time and became very small after 2019 (see Annex Figure A7).

Figure 6: Evolution of a Multidimensional Job Quality Index

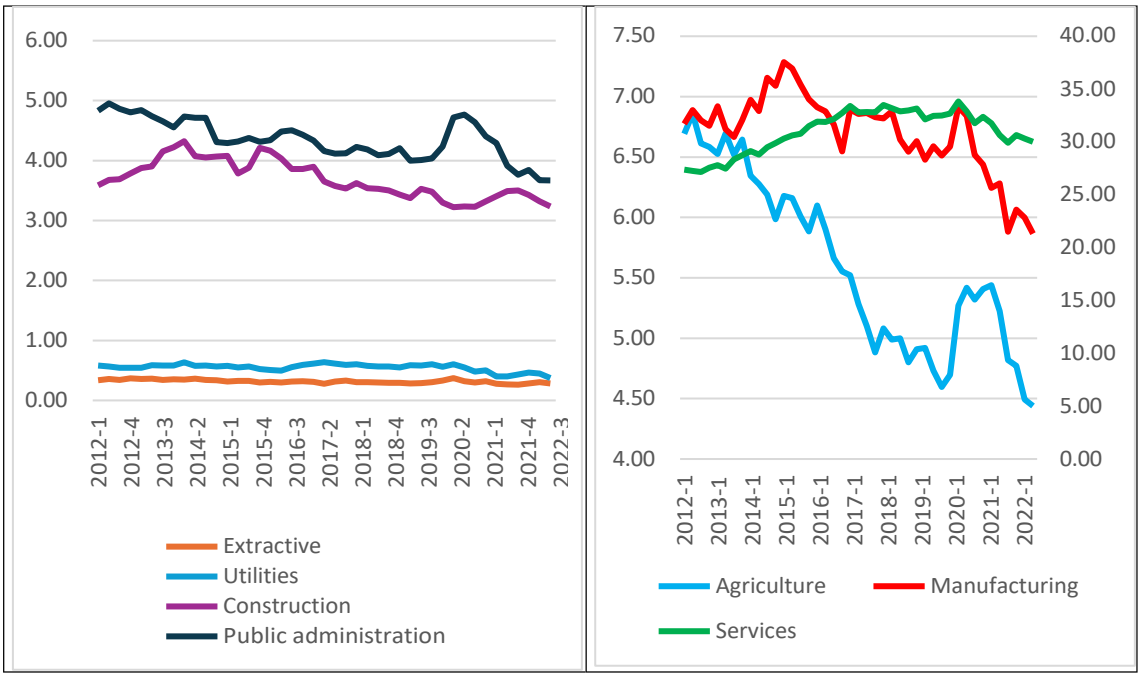
Source: PNADC Microdata, 2012-2022: (https://www.ibge.gov.br/estatisticas/sociais/saude/9171-pesquisa-nacional-por-amostra-de-domicilios-continua-mensal.html?=&t=microdados); Author's own calculations.
Note: Unem_rate: unemployment rate.

When segmented by level of education, the proportion of good jobs held by workers with incomplete secondary education declined over time, while high-quality employment increased among those with completed secondary and higher education (see Annex Figure A9).

Lastly, the sectoral breakdown of the multidimensional index shows a decrease in the share of high-quality jobs in agriculture (2.5 percentage points) and in industry (around 1 percentage point), while the services sector showed fluctuations of about 2.0 percentage points. The proportion of high-quality employment in the other sectors declined only marginally (Figure 7). It is worth noting that the services sector presents the highest share of high-quality employment, mainly due to its large share of total employment - around 70%.

An interesting exercise is to examine the relationship between the multidimensional job quality index and labor productivity. To do this, we must align both indicators to the same periodicity and temporal aggregation. We will use the labor productivity index published by the Regis Bonelli Productivity Observatory, which provides quarterly labor productivity data for the same period covered by the job quality index.

Figure 7: Sectoral Evolution of a Multidimensional Job Quality Index



Source: PNADC Microdata, 2012-2022: (https://www.ibge.gov.br/estatisticas/sociais/saude/9171-pesquisa-nacional-por-amostra-de-domicilios-continua-mensal.html?=&t=microdados); Author's own calculations.

Figure 8 shows the evolution of the job quality index and labor productivity. At first glance, three distinct periods can be identified: from the first quarter of 2012 to the first quarter of 2014, marked by a very close and similar pattern, indicating a positive relationship; from the second quarter of 2014 to the first quarter of 2020, characterized by a divergence between the trajectories of the job quality index and labor productivity—during this period, the share of high-quality jobs remained above 50%, but productivity remained low; and from the second quarter of 2020 to the third quarter of 2022, when labor productivity and the proportion of high-quality jobs once again followed a similar path, showing a positive relationship but with a downward trend.

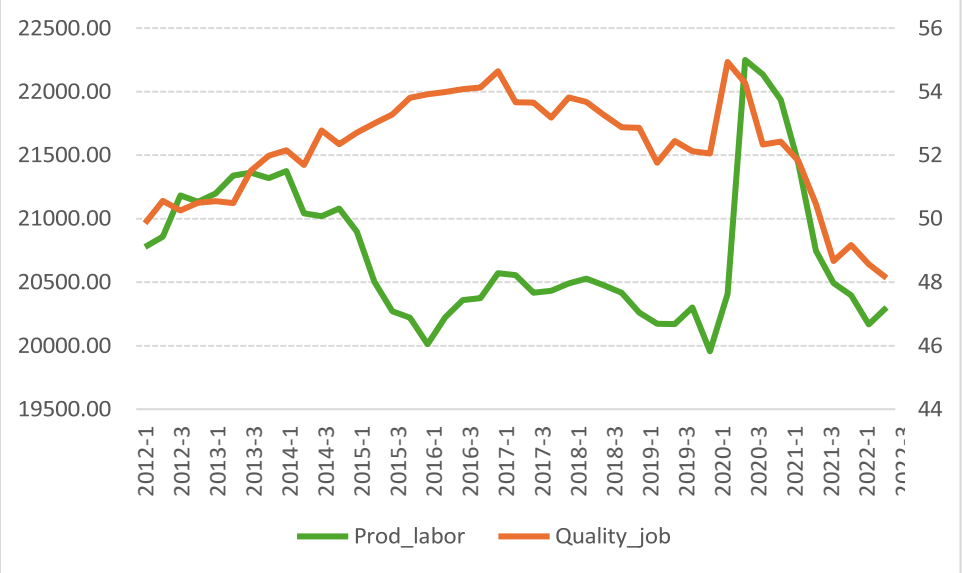
Since labor productivity is a suitable indicator for identifying the evolution of workers' living standards, it is expected that increases in productivity are associated with higher wages, better working conditions, and greater job stability. In other words, there is an expected direct relationship between labor productivity and the share of high-quality employment. This positive relationship can be observed in Figure 8 during the periods from 2012-Q1 to 2014-Q1 and from 2020-Q2 to 2022-Q3.

The period from 2014-Q2 to 2020-Q1 stands out due to the decoupling of the trends in labor productivity and the job quality index, with a significant divergence between them. During this time, the Brazilian economy went through a recession and a slow recovery. The services sector—which accounts for 70% of total hours worked in Brazil—performed poorly and contributed to the decline in productivity. The increase in the proportion of high-quality employment, partly due to the dismissal

of less qualified workers, was smaller than the drop in GDP during the same period, resulting in a decline in labor productivity.

The correlation between labor productivity and the share of high-quality jobs is shown in Table 1. For the periods from 2012-Q1 to 2014-Q1 and from 2020-Q2 to 2022-Q3, the correlation exceeds 50%. For the period from 2014-Q2 to 2020-Q2, the correlation is lower, negative, and close to 40%.

Figure 8: Evolution of the Job Quality Index and Labor Productivity (2012-Q1 to 2022-Q3)



Source: PNADC (https://www.ibge.gov.br/estatisticas/sociais/saude/9171-pesquisa-nacional-por-amostra-de-domicilios-continua-mensal.html?=&t=microdados); Regis Bonelli Productivity Observatory (https://ibre.fgv.br/observatorio-produtividade/temas/categorias/pt-trimestral). Author's own calculations.
Note: Prod_labor: Labor productivity; Quality_job: Job quality index

The graphical analysis (Figure 8) and the correlation results (Table 3) do not allow for causal inference regarding the relationship between labor productivity and job quality. However, it is possible to observe a similar pattern in the trajectories of these two variables—at the beginning of the period, when quarterly labor productivity was increasing, and at the end, when labor productivity showed a downward trend. This provides useful evidence for considering the potential implications of the association between productivity and decent work, here represented by the multidimensional job quality index.

Table 3: Correlation Between Labor Productivity and Job Quality Index (2012-Q1 to 2022-Q3)

Period	Labor Productivity (Workers)	Labor Productivity (Hours Worked)
2012-1 to 2013-4	0.64**	0.68**
From 2014-1 to 2019-4	-0.39**	0.29
2020-1 to 2022-3	0. 52**	0.55**

Source: Author's own calculations. ** Significant at the 10% level.

Productivity is fundamental to economic growth, contributing to higher wages, more employment, and better working conditions. It is also reasonable to assume that improved working conditions, in turn, affect productivity—creating a virtuous cycle between productivity and better work. One way to observe this is by analyzing the relationship between a multidimensional job quality index and productivity. For certain periods between 2012 and 2022, we observed similar trends in both variables, suggesting a correlation between productivity and job quality. Therefore, understanding productivity—and identifying the factors that drive or hinder its growth—is essential for designing public policies capable of fostering productivity improvements.

The next section presents a set of strategies that can contribute to increasing productivity in Brazil. Among these strategies, the "Nova Indústria Brasil" (NIB) stands out. It is an industrial policy developed by the Brazilian government, designed to strengthen the national industry with the goal of boosting productivity, making it more competitive, and generating jobs.

These correlations suggest a relevant but complex dynamic between productivity and decent work. To move beyond association and strengthen the policy dialogue within BRICS, future research efforts could adopt econometric techniques (e.g., fixed-effects panel regressions or instrumental variables) using firm- or worker-level microdata from RAIS or PNADC. Such approaches would help identify the causal direction of the productivity–job quality relationship, providing more robust foundations for the design and evaluation of policies aligned with the Productivity Ecosystem for Decent Work.

4- Strategies to increase productivity in Brazil

Throughout this report, we highlighted several key factors that directly affect productivity in Brazil. These include resource misallocation, high levels of informality in the Brazilian economy, the lack of competitiveness among domestic

firms, and the need for increased innovation. As a strategy to address these issues and promote productivity growth, the Brazilian government launched a new industrial policy in 2023 called Nova Indústria Brasil (New Industry Brazil – NIB). NIB is a systemic and long-term policy designed to stimulate technological progress, productivity, and national competitiveness.

4.1 – New Industry Brazil - NIB

Brazil's productivity is low compared to other BRICS countries, whether measured by total factor productivity (TFP) or labor productivity. Among the factors contributing to this low productivity are resource misallocation, low competitiveness, and the high level of informality among firms, among others. Certainly, most of these challenges can be addressed through public policies designed based on broad dialogue between the state and the productive sector.

It is in this context that the Nova Indústria Brasil (New Industry Brazil – NIB) initiative was introduced as defined in Resolution CNDI/MDIC No. 1, dated July 6, 2023.[12] NIB is an industrial policy launched in 2024, aimed at fostering national development through sustainability and innovation by 2033.

According to Agência Brasil (2024), NIB seeks to improve people's daily lives, stimulate productive and technological development, increase the competitiveness of Brazilian industry, guide investments, promote better jobs (with decent work being one of its guiding principles), and strengthen Brazil's presence in international markets.

The actions, policies, and instruments implemented by the Brazilian government under NIB are based on eight principles defined in Resolution No. 1 of the CNDI/MDIC, dated July 6, 2023. These are:

I – socioeconomic inclusion;

II – equity, particularly in terms of gender, race, and ethnicity;

III – promotion of decent work and income improvement;

[12] The design and implementation of the NIB occurred at a time when the industrial sector was experiencing a loss of share in the economy and was simultaneously becoming increasingly dependent on imports. Therefore, the objective of this policy was to strengthen national industry with a view to increasing productivity and making it more competitive. The NIB was developed based on a broad dialogue with the productive sector, through the National Council for Industrial Development (CNDI), which established objectives and goals to be pursued in the period from 2026 to 2033. Among the defined objectives are the strengthening of industry, the generation of quality jobs based on the principle of decent work, the increase in national income, the reduction of inequalities, the promotion of the energy transition, the low-carbon economy and technological innovation.

IV – productive, technological, and innovation-driven development;

V – increased productivity and competitiveness;

VI – reduction of inequalities, including regional disparities;

VII – sustainability; and

VIII – qualified international integration.

These principles position industry as a key instrument in overcoming structural barriers to development through sustainability and innovation.

The design of NIB prioritized cross-cutting missions in six major areas to be implemented in a systemic manner, reflecting Brazil's key socioeconomic and environmental challenges.[13] Each mission defined a set of actions aimed at achieving its targets. These include incentives to reduce the carbon footprint of industrial products and various measures to increase the competitiveness of the national industry by promoting innovation, productivity growth, and international integration. NIB is expected to generate a range of benefits for the industrial sector, including enhanced competitiveness, sustainable development, and the strengthening of national autonomy.

To meet the goals established under each mission, three strategic pillars of action were proposed:

1- Improvement of the business environment: promoting the reduction of bureaucracy to improve the business climate, with the aim of boosting productivity and competitiveness, and attracting productive investment;
2- Financing: expanding access to credit to support investments in decarbonization, innovation, productivity, and exports;
3- Public procurement: leveraging the potential of public procurement to stimulate the development of sectors considered strategic for the industry.

Regional disparities should also be considered in the design and implementation of these pillars. Productivity gaps between states—such as between São Paulo and Maranhão—remain wide, reflecting unequal access to infrastructure, training, and

[13] NIB is structured around six key missions designed to address Brazil's socioeconomic and environmental challenges in an integrated manner: Mission 1: sustainable and digital agribusiness value chains for food, nutritional, and energy security; Mission 2: a resilient health economic-industrial complex to reduce the vulnerability of the SUS and expand access to healthcare; Mission 3: sustainable infrastructure, sanitation, housing, and mobility to support productive integration and well-being in cities; Mission 4: digital transformation of industry to increase productivity; Mission 5: bioeconomy, decarbonization, and energy transition and security to safeguard resources for future generations; and Mission 6: strategic technologies for national sovereignty and defense. For a detailed description of each of the six missions, see the Action Plan for Neoindustrialization 2024–2026.

capital. Integrating regional planning into NIB actions, for example by prioritizing digital infrastructure and vocational training in lagging regions, could enhance both equity and the overall impact of industrial policy.

Among the instruments and programs adopted to implement NIB are: the Green Mobility and Innovation Program (MOVER); Development Credit Bonds (LCD); the Brasil Mais Produtivo program; accelerated depreciation; export support actions by BNDES; and preference margins in public procurement. It is worth noting that MOVER is a program designed to support innovation, competitiveness, and decarbonization in the automotive sector. Meanwhile, the Brasil Mais Produtivo program aims to increase productivity and promote the digital transformation of Brazilian micro, small, and medium-sized enterprises. This program also seeks to support the development of new technologies. As part of the goals of Mission 4, it aims to digitally transform 90% of Brazilian firms.

A key aspect of interest in this report is the relationship between productivity and decent work, and how this connection is reflected in NIB. The inclusion of Principle III, which concerns the promotion of decent work and income improvement, and Principle V, which addresses productivity and competitiveness growth, as core components of NIB reflects the Brazilian government's commitment to prioritizing policies that simultaneously enhance productivity and improve working conditions—contributing to broader access to decent work in the country. In this regard, NIB aligns with the ongoing efforts within BRICS to establish a Productivity and Decent Work Ecosystem.Below are some additional strategies that may be useful and aligned with the objectives of the Productivity and Decent Work Ecosystem initiative[14].

4.2 Formalization Policies: Special Regimes for Micro and Small Enterprises

Special tax regimes for micro and small enterprises, by reducing the costs of formalization, can help increase business formalization and reduce the level of informality in the economy.

Level	Policy: Special Tax Regime for Micro and Small Enterprises	Implications for Productivity
Micro	The design of formalization policies presents a challenge for public policy, as such measures may not necessarily lead to increased formalization or the creation of new businesses. SIMPLES, a program aimed at simplifying the tax system for micro and small enterprises, did not yield	The formalization of micro and small enterprises contributes to reducing resource misallocation in the economy. It lowers the extensive margin of informality by bringing more businesses into the formal sector, and it can also reduce the intensive margin as

[14] See OIT (2025) more details.

	positive results in terms of business formalization (Piza, 2018). The Individual Microentrepreneur Program (MEI) was targeted at entrepreneurs with no more than one employee and was designed to reduce both the initial registration costs and the ongoing costs of remaining formal, by lowering monthly taxes and cutting bureaucracy. In its first phase, the program eliminated entry costs for eligible entrepreneurs; in its second phase, it significantly reduced the tax burden. An evaluation of the program found that the first phase had no impact on formalization, while the second phase led to an increase of approximately 11%. This result was entirely driven by the formalization of pre-existing informal businesses, rather than by the creation of new formal enterprises or by increased survival rates among formal firms (Rocha et al., 2018). The reallocation of labor from the informal to the formal sector contributed to aggregate productivity growth in the 2000s (Barbosa Filho & Veloso, 2016).	more workers gain access to formal employment contracts.
Meso	One way to maximize the impacts of formalization is to identify the sectors with the highest concentration of informal enterprises. This would allow micro-level interventions to be scaled and amplified at the meso level.	Formalization in sectors with a higher share of informal enterprises would contribute to better resource allocation at the sectoral level. As a result, there would be a significant impact on productivity within those sectors.
Macro	The formalization of businesses contributes to reducing resource misallocation in the economy and has a direct impact on productivity. Simplifying tax costs, depending on the number of businesses formalized, can be cost-effective. This, in turn, could lead to an increase in tax revenues.	It improves resource allocation and stimulates key sectors of the economy, generating positive impacts on productivity.

4.3 Business support policies for Individual Micro-entrepreneurs, micro and small enterprises

The opening of businesses in Brazil after the implementation of the Individual Micro-entrepreneur Program (MEI) presented continuous and considerable growth. In 2009, 74.6% of the total companies opened were MEI (Feijó et al, 2024). The survival of these MEIs as well as micro and small enterprises is directly associated with the

use of good business management practices. The provision of business extension programs that provide these companies with mechanisms or tools for managerial improvement constitutes an effective strategy to boost their development and productivity. Traditionally, interventions have focused on short training courses as the primary tool to optimize business management.

Level	Policy: Financial support for companies	Implications for Productivity
Micro	In general, policies that support MSMEs (Micro, Small, and Medium Enterprises) are a challenge for public policy because they do not have a clear impact on performance outcomes and the labor market (Ulyssea, 2020; Cravo and Piza, 2019). In Colombia, research conducted for a new strategy to support the auto parts sector shows that companies that received extension services through a program by the National Productivity Center to improve their management processes reported higher sales, profits, and productivity levels after the intervention compared to those in the control group (Iacovone et al., 2022). Countries like Colombia and Brazil have programs and institutions supporting MSMEs, such as the *Fábricas de Productividad* program in Colombia, led by the Ministry of Commerce, Industry, and Tourism (MinCIT) and Colombia Productiva (CP), as well as various MSME support programs by Sebrae in Brazil. These mass MSME support programs can learn from successful experiences, such as the one in Colombia (Iacovone et al., 2022), to become more cost-effective.	Optimizing the internal management of businesses through the adoption of best practices and processes is a way to enhance productivity. This results in higher revenues, operational efficiency, and the ability to compete in the market, especially for SMEs that have access to managerial tools and personalized advisory services.
Meso	One way to enhance the impacts found from business extension services at the meso level is to work with sectoral associations and trade unions to identify sectors where MSME support institutions could work to scale up the intervention. Identify the best instruments at the meso level to enhance the impact of the intervention that has impact at the micro level (e.g., Market System Analysis, productive development policies, executive roundtables).	The identification of sectors to implement business extension allows for the transfer of knowledge and best practices between companies in the same industry, which can have implications for productivity at the sectoral level and, consequently, for productivity at the macro level.
Macro	As a result of a greater impact on productivity and being more cost-effective,	Greater cost-effectiveness of interventions has significant fiscal

	the business extension policy has positive impacts on productivity and fiscal outcomes.	implications for mass programs. If the programs impact productivity and are more cost-effective, this means an opportunity to expand services with the same prior fiscal expenditure, but with greater impact (on productivity).

4.4 Financial support for companies

Studies with robust evidence on access to credit and positive impacts on productivity are still scarce in Brazil. The highlight is the study by Cavalcanti and Vaz (2017) that found positive effects of access to credit on labor productivity and TFP. However, access to a credit program conducted by development banks is a useful tool to increase investment, exports, employment, and GDP, mainly when the borrowers are micro, small, and medium-sized enterprises (Barboza et al (2023)).

Level	Policy: Financial support for companies	Implications for Productivity
Micro	Brazil and Colombia have important second-tier financial institutions that support MSMEs, serving as important financing instruments with potential impacts on productivity. Evidence from Brazil and Colombia shows that access to credit and financing from second-tier banks has a positive impact on business productivity (Cavalcanti and Vaz, 2017; Eslava et al., 2011). In Brazil, Cavalcanti and Vaz (2017) demonstrate that permanent improvements in access to credit increase labor productivity and total factor productivity by 13% and 10%, respectively. In Colombia, Bancóldex credit lines are associated with a 10% increase in productivity (Eslava et al., 2011).	Access to credit through second-tier bank programs drives investment, enabling the acquisition of technology, human capital, and improvements in production processes. This fosters higher levels of efficiency and productivity within businesses.
Meso	An approach to maximize the impacts of access to credit and financing from second-tier banks is to collaborate with sectoral credit cooperatives and commercial banks to expand their relationships with second-tier banks based on evidence of the potential productivity benefits for their client enterprises. Identifying the best instruments at the meso level to amplify intervention at the micro level (e.g., Market System Analysis, productive development policies, executive roundtables).	By structuring effective credit strategies at meso level, sectors/industries are strengthened. This credit may target standardizing processes, training the workforce, and adopting new technologies, etc. These actions lead to improvements in sectoral productivity.
Macro	If access to credit and financing lines has a micro-level impact on productivity and is successfully scaled to the meso level, then	Improved resource allocation stimulates key sectors, generating a positive impact on job creation and economic stability.

	credit support will ultimately have a macro-level impact.	

4.5 Demand-Driven Vocational Training Programs

Some of the targets set in the New Industry Brazil Action Plan will require workforce qualification in order to be fully achieved. Demand-driven training can be an effective strategy to increase the likelihood that participants will obtain productive employment upon completion. This is a strategy that benefits both the individual and the firm.

Level	Policy: Vocational Training Aligned with Market Demand	Implications for Productivity
Micro	Vocational training programs have a greater impact on employment when they are coordinated with companies to identify demand. When aligned with employers, these programs help reduce turnover in the industry. Lower turnover has significant implications for productivity.	Better matching between workers and firms can lead to higher-quality jobs and increased productivity.
Meso	To ensure better outcomes from vocational training programs, it is essential to work closely with business associations and labor unions to identify the necessary training courses that align workforce supply with market demand. Identifying the most effective instruments at the meso level to scale up micro-level interventions is crucial.	Aligning training programs with the needs of companies and the market generates higher-quality jobs at the sectoral level, with important implications for productivity.
Macro	Given that coordination with the market leads to greater employment, vocational training policies become more cost-effective, with positive fiscal effects. Additionally, by reducing turnover, such policies have important implications for productivity.	Greater cost-effectiveness in interventions has significant fiscal implications for scaling up programs. If programs positively impact productivity and are more cost-effective, they create an opportunity to expand services within the same budget, but with greater impact.

The importance of aligning vocational training with labor market demands is further reinforced by the gap between education quantity and quality. While the average years of schooling in Brazil rose significantly between 1992 and 2014, labor productivity remained stagnant. This reflects persistent deficiencies in basic competencies and technical skills. Thus, efforts to improve training systems must also be complemented by structural improvements in the quality of education—particularly in STEM disciplines, digital skills, and applied learning—which are critical to ensuring that human capital effectively contributes to productivity growth.

4.6 Public Employment Services/Labor Intermediation Programs

Labor intermediation programs are an active labor market policy and form part of public employment services. Their main objective is to promote effective matching between workers and employers.

Level	Policy: Public Employment Services	Implications for Productivity
Micro	Evidence for Brazil shows that public employment services increase the probability of finding employment and reduce the time spent in job search.	Improving the quality of the matching between workers and firms contributes to higher productivity and higher wages.
Meso	The strategy to increase the impact of labor intermediation at the meso level is to collaborate with industry associations to create partnerships and gather information on the demanded worker profiles.	The impacts are amplified through collaboration with industry associations.
Macro	It increases the probability of finding employment, which has implications for reducing unemployment insurance payments.	As interventions at the micro and meso levels have national implications. By reducing unemployment insurance expenditures, these resources could be reallocated to expand labor intermediation systems.

In the strategies described above, the connection between productivity and decent work may not appear so explicit. However, productivity is fundamental to economic growth, contributing to higher wages, more jobs, and better working conditions. Therefore, by promoting policies aimed at increasing productivity, we are also contributing to improving workers' conditions—whether through higher wages, better working environments, or, ultimately, by indirectly promoting decent work.

In turn, the NIB, as a strategy to promote productivity, presents a more direct link between productivity and decent work. The inclusion of Principle III, which concerns the promotion of decent work and income improvement, and Principle V, which addresses productivity and competitiveness growth, as core components of NIB reflects the Brazilian government's commitment to prioritizing policies that simultaneously enhance productivity and improve working conditions—contributing to broader access to decent work in the country. In this regard, NIB aligns with the ongoing efforts within BRICS to establish a Productivity and Decent Work Ecosystem. In addition, , the NIB's emphasis on green innovation and digital transition—particularly through Mission 4 (Industry 4.0) and Mission 5 (Bioeconomy and Decarbonization)—positions Brazil to lead SSTC dialogues on sustainable industrial productivity. Therefore, in the next section, we will describe the relationship between the NIB and the agenda of priorities established by Brazil

during its presidency of the BRICS.

In addition, the ecological transition opens a new frontier for productivity and employment. According to recent estimates by the World Economic Forum and ILO, Brazil has the potential to create over one million green jobs by 2030, particularly in renewable energy, bioeconomy, and low-carbon infrastructure. Integrating green skills development into vocational training and leveraging NIB missions—such as digitalization and decarbonization—will be essential to seize this opportunity. These actions also resonate strongly with Brazil's leadership in the BRICS agenda and its commitment to a sustainable future.

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5 BRICS Presidency: Agenda of Priorities and NIB

Brazil assumed the BRICS presidency in January 2025. The BRICS presidency is rotational, and for the 2025 term, the guiding theme of Brazil's leadership is "Strengthening Global South Cooperation for More Inclusive and Sustainable Governance." Brazil's presidency of BRICS coincides with the year in which the country will host the United Nations Climate Change Conference (COP30). In this unique context, Brazil holds both the BRICS presidency and the responsibility of organizing COP30 in the same year—an important opportunity for BRICS to play an active role in shaping a global agenda for sustainability. The priorities defined by Brazil's BRICS presidency—especially digital transformation, AI governance, and climate change—create new openings for SSTC. Brazil can use its rotating presidency to foster technical exchanges with other BRICS and Global South partners around decent work strategies, industrial upgrading, and sustainable productivity models.

The Concept Note released by the Brazilian government indicates that the presidency will focus on two main priorities: i) Global South cooperation, and ii) BRICS partnerships for social, economic, and environmental development. Based on these priorities, the Brazilian government defined five themes for discussion within BRICS [15].o guide its 2025 BRICS presidency, the Brazilian government defined five key themes for discussion within the group:

Global Health Cooperation: support for cooperation projects among Global South countries to promote sustainable development with an emphasis on health.

[15] In the Nota Conceitual of the Brazilian Presidency – BRICS 2025 provided on the official information dissemination platform, which was released by the Brazilian government on the portal.

Trade, Investment, and Finance: facilitate trade among member countries through the development of local payment instruments that enable trade and investment, leveraging more accessible, transparent, secure, and inclusive payment systems within BRICS.

Climate Change: promote a BRICS Climate Leadership Agenda by providing policy solutions and enhancing financial structures to address climate change.

Artificial Intelligence Governance: foster inclusive and responsible international governance of artificial intelligence to unlock the technology's potential for social, economic, and environmental development.

Institutional Development: strengthen the institutional capacity of the bloc. Brazil will propose the creation of a Task Force on Institutional Development to (i) update the BRICS Terms of Reference and (ii) discuss the implementation of its provisions. This effort will help maintain cohesion, harmonization, and efficiency within the group, facilitate the transfer of the presidency, improve working methodologies, and better integrate new members into BRICS structures.

These themes will be part of the discussions taking place during the working group meetings scheduled for the first half of 2025, with participation from representatives of member countries. In the second half of 2025, the United Nations Climate Change Conference (COP30) is set to be held in Belém, in the state of Pará. This presents a major opportunity for BRICS, under Brazil’s leadership, to contribute to building a sustainable global agenda while advancing discussions on issues of shared interest among BRICS members.

It is possible to identify several elements in the NIB that align with the priority themes defined by the Brazilian government for its BRICS presidency. This complementarity may support the development of areas of national interest for Brazil and other BRICS countries while also advancing greater international integration.

For example, Mission 2 of NIB focuses on strengthening the health economic-industrial complex to reduce the vulnerability of the public health system (SUS) and expand access to healthcare. One of the Brazilian presidency's priority themes is support for cooperation projects among Global South countries centered on public health. These aligned objectives aim to foster the development of technologies and enhance domestic production of health-related goods and services, while also enabling deeper integration into global value chains in the health sector. This domestic and international market integration in the health field can generate productivity gains by allowing more efficient use of productive resources.

A second example relates to Mission 4, which seeks to promote the digital transformation of industry to increase productivity. Based on a diagnosis that only

23.5% of industrial firms are currently digitalized, and given the challenge of expanding the use of national digital platforms across different sectors of the economy, Mission 4 of NIB aims to prepare businesses for the future rational use of artificial intelligence. The goal is to create a favorable environment for productivity growth in the industrial sector, with positive spillovers for the broader economy. Some challenges are expected to emerge—such as the need to train workers with the specific skills required by these changes—but digitalization and AI adoption are inevitable trends that demand concrete measures to help firms adapt to this new reality. This mission is clearly aligned with another key priority of Brazil's BRICS presidency: promoting inclusive and responsible AI governance.

Mission 5 of NIB, which addresses bioeconomy, decarbonization, and energy transition and security to ensure resources for future generations, includes the following aspirational goals: to foster green industry by reducing CO_2 emissions per unit of industrial value added by 30%; to increase the share of biofuels in the transportation energy matrix by 50%; and to raise the sustainable and technological use of biodiversity by industry by 1% per year (Brazil, 2023). This is a particularly important topic for Brazil, given the country's comparative advantages in producing environmentally sustainable goods that support inclusive development. One of the key challenges for advancing this agenda is the creation of policies and practices that can intensify global efforts to limit temperature rise to no more than 1.5°C above pre-industrial levels. This concern is reflected in Brazil's BRICS presidency by designating climate change[16] as a priority area, through the promotion of a BRICS Climate Leadership Agenda.[17] Brazil is expected to play a key role in this discussion, as COP30 will be held in the country in the second half of 2025, coinciding with its term as BRICS rotating president.

7 Specific Strategies to Increase Productivity

Productivity is fundamental to economic growth, contributing to higher wages, more employment, and better working conditions. It is also reasonable to assume that improved working conditions, in turn, affect productivity—creating a virtuous cycle between productivity and better work. One way to observe this is by analyzing the relationship between a multidimensional job quality index and productivity. For certain periods between 2012 and 2022, we observed similar trends in both variables, suggesting a correlation between productivity and job quality. Therefore,

[16] See Nota Conceitual of the Brazilian Presidency – BRICS 2025.
[17] This agenda includes five lines of action: (i) a Framework Declaration by BRICS Leaders on Climate Finance; (ii) concrete solutions to facilitate climate action; (iii) cooperation on climate technology, with a focus on intellectual property; (iv) cooperation on climate-trade synergies; and (v) high-level BRICS principles for common approaches to carbon accounting (Brazil, 2023).

understanding productivity—and identifying the factors that drive or hinder its growth—is essential for designing public policies capable of fostering productivity improvements.

Throughout this report, we highlighted several key factors that directly affect productivity in Brazil. These include resource misallocation, high levels of informality in the Brazilian economy, the lack of competitiveness among domestic firms, and the need for increased innovation.

As a strategy to address these issues and promote productivity growth, the Brazilian government launched a new industrial policy in 2023 called Nova Indústria Brasil (New Industry Brazil – NIB). NIB is a systemic and long-term policy designed to stimulate technological progress, productivity, and national competitiveness. The instruments used by this policy to address the challenges identified in its design include: financial instruments (both reimbursable and non-reimbursable credit); business environment initiatives (such as actions related to intellectual property, quality infrastructure, professional training and skills development, regional development, and foreign trade); and public procurement tools to leverage development. As a recently launched industrial policy, there is not yet evidence of its actual impact on the economy. However, given that decent work was one of the guiding principles in the design of this policy—and that one of NIB's explicit goals is to increase productivity—it can generally be considered a strategy aligned with the Productivity and Decent Work Ecosystem.

Below are some additional strategies that may be useful and aligned with the objectives of the Productivity and Decent Work Ecosystem initiative.

7.1 Formalization Policies: Special Regimes for Micro and Small Enterprises

Special tax regimes for micro and small enterprises, by reducing the costs of formalization, can help increase business formalization and reduce the level of informality in the economy.

Level	Policy: Special Tax Regime for Micro and Small Enterprises	Implications for Productivity
Micro	The design of formalization policies presents a challenge for public policy, as such measures may not necessarily lead to increased formalization or the creation of new businesses. SIMPLES, a program aimed at simplifying the tax system for micro and small enterprises, did not yield positive results in terms of business formalization (Piza, 2018).	The formalization of micro and small enterprises contributes to reducing resource misallocation in the economy. It lowers the extensive margin of informality by bringing more businesses into the formal sector, and it can also reduce the intensive margin as more workers gain access to formal employment contracts.

	The Individual Microentrepreneur Program (MEI) was targeted at entrepreneurs with no more than one employee and was designed to reduce both the initial registration costs and the ongoing costs of remaining formal, by lowering monthly taxes and cutting bureaucracy. In its first phase, the program eliminated entry costs for eligible entrepreneurs; in its second phase, it significantly reduced the tax burden. An evaluation of the program found that the first phase had no impact on formalization, while the second phase led to an increase of approximately 11%. This result was entirely driven by the formalization of pre-existing informal businesses, rather than by the creation of new formal enterprises or by increased survival rates among formal firms (Rocha et al., 2018). The reallocation of labor from the informal to the formal sector contributed to aggregate productivity growth in the 2000s (Barbosa Filho & Veloso, 2016).	
Meso	One way to maximize the impacts of formalization is to identify the sectors with the highest concentration of informal enterprises. This would allow micro-level interventions to be scaled and amplified at the meso level.	Formalization in sectors with a higher share of informal enterprises would contribute to better resource allocation at the sectoral level. As a result, there would be a significant impact on productivity within those sectors.
Macro	The formalization of businesses contributes to reducing resource misallocation in the economy and has a direct impact on productivity. Simplifying tax costs, depending on the number of businesses formalized, can be cost-effective. This, in turn, could lead to an increase in tax revenues.	It improves resource allocation and stimulates key sectors of the economy, generating positive impacts on productivity.

Barbosa Filho, F. and Veloso, F. (2016). “A Contribuição da Formalização para a Elevação da Produtividade do Trabalho no Brasil nos Anos 2000: Uma Análise Exploratória”. In: Barbosa Filho, F., Ulyssea, G. And Veloso, F (orgs.). *Causas e Consequências da Informalidade no Brasil*. Editora Elsevier: 303-325.

Piza, C. (2018). “Out of the Shadows? Revisiting the Impact of the Brazilian SIMPLES Program on Firms’ Formalization Rates”. *Journal of Development Economics* 134: 125-132.

Rocha, R., Ulyssea, G. and Rachter, L. (2018). "Do Lower Taxes Reduce Informality? Evidence from Brazil". *Journal of Development Economics* 134: 28-49.

7.2 Business support policies for Individual Micro-entrepreneurs, micro and small enterprises

The opening of businesses in Brazil after the implementation of the Individual Micro-entrepreneur Program (MEI) presented continuous and considerable growth. In 2009, 74.6% of the total companies opened were MEI (Feijó et al, 2024). The survival of these MEIs as well as micro and small enterprises is directly associated with the use of good business management practices. The provision of business extension programs that provide these companies with mechanisms or tools for managerial improvement constitutes an effective strategy to boost their development and productivity. Traditionally, interventions have focused on short training courses as the primary tool to optimize business management.

Level	Policy: Financial support for companies	Implications for Productivity
Micro	In general, policies that support MSMEs (Micro, Small, and Medium Enterprises) are a challenge for public policy because they do not have a clear impact on performance outcomes and the labor market (Ulyssea, 2020; Cravo and Piza, 2019). In Colombia, research conducted for a new strategy to support the auto parts sector shows that companies that received extension services through a program by the National Productivity Center to improve their management processes reported higher sales, profits, and productivity levels after the intervention compared to those in the control group (Iacovone et al., 2022). Countries like Colombia and Brazil have programs and institutions supporting MSMEs, such as the *Fábricas de Productividad* program in Colombia, led by the Ministry of Commerce, Industry, and Tourism (MinCIT) and Colombia Productiva (CP), as well as various MSME support programs by Sebrae in Brazil. These mass MSME support programs can learn from successful experiences, such as the one in Colombia (Iacovone et al., 2022), to become more cost-effective.	Optimizing the internal management of businesses through the adoption of best practices and processes is a way to enhance productivity. This results in higher revenues, operational efficiency, and the ability to compete in the market, especially for SMEs that have access to managerial tools and personalized advisory services.

Meso	One way to enhance the impacts found from business extension services at the meso level is to work with sectoral associations and trade unions to identify sectors where MSME support institutions could work to scale up the intervention. Identify the best instruments at the meso level to enhance the impact of the intervention that has impact at the micro level (e.g., Market System Analysis, productive development policies, executive roundtables).	The identification of sectors to implement business extension allows for the transfer of knowledge and best practices between companies in the same industry, which can have implications for productivity at the sectoral level and, consequently, for productivity at the macro level.
Macro	As a result of a greater impact on productivity and being more cost-effective, the business extension policy has positive impacts on productivity and fiscal outcomes.	Greater cost-effectiveness of interventions has significant fiscal implications for mass programs. If the programs impact productivity and are more cost-effective, this means an opportunity to expand services with the same prior fiscal expenditure, but with greater impact (on productivity).

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7.3 Financial support for companies

Studies with robust evidence on access to credit and positive impacts on productivity are still scarce in Brazil. The highlight is the study by Cavalcanti and Vaz (2017) that found positive effects of access to credit on labor productivity and TFP. However, access to a credit program conducted by development banks is a useful

tool to increase investment, exports, employment, and GDP, mainly when the borrowers are micro, small, and medium-sized enterprises (Barboza et al (2023)).

Level	Policy: Financial support for companies	Implications for Productivity
Micro	Brazil and Colombia have important second-tier financial institutions that support MSMEs, serving as important financing instruments with potential impacts on productivity. Evidence from Brazil and Colombia shows that access to credit and financing from second-tier banks has a positive impact on business productivity (Cavalcanti and Vaz, 2017; Eslava et al., 2011). In Brazil, Cavalcanti and Vaz (2017) demonstrate that permanent improvements in access to credit increase labor productivity and total factor productivity by 13% and 10%, respectively. In Colombia, Bancóldex credit lines are associated with a 10% increase in productivity (Eslava et al., 2011).	Access to credit through second-tier bank programs drives investment, enabling the acquisition of technology, human capital, and improvements in production processes. This fosters higher levels of efficiency and productivity within businesses.
Meso	An approach to maximize the impacts of access to credit and financing from second-tier banks is to collaborate with sectoral credit cooperatives and commercial banks to expand their relationships with second-tier banks based on evidence of the potential productivity benefits for their client enterprises. Identifying the best instruments at the meso level to amplify intervention at the micro level (e.g., Market System Analysis, productive development policies, executive roundtables).	By structuring effective credit strategies at meso level, sectors/industries are strengthened. This credit may target standardizing processes, training the workforce, and adopting new technologies, etc. These actions lead to improvements in sectoral productivity.
Macro	If access to credit and financing lines has a micro-level impact on productivity and is successfully scaled to the meso level, then credit support will ultimately have a macro-level impact.	Improved resource allocation stimulates key sectors, generating a positive impact on job creation and economic stability.

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7.4 Demand-Driven Vocational Training Programs

Some of the targets set in the New Industry Brazil Action Plan will require workforce qualification in order to be fully achieved. Demand-driven training can be an effective strategy to increase the likelihood that participants will obtain productive employment upon completion. This is a strategy that benefits both the individual and the firm.

Level	Policy: Vocational Training Aligned with Market Demand	Implications for Productivity
Micro	Vocational training programs have a greater impact on employment when they are coordinated with companies to identify demand. When aligned with employers, these programs help reduce turnover in the industry. Lower turnover has significant implications for productivity.	Better matching between workers and firms can lead to higher-quality jobs and increased productivity.
Meso	To ensure better outcomes from vocational training programs, it is essential to work closely with business associations and labor unions to identify the necessary training courses that align workforce supply with market demand. Identifying the most effective instruments at the meso level to scale up micro-level interventions is crucial.	Aligning training programs with the needs of companies and the market generates higher-quality jobs at the sectoral level, with important implications for productivity.
Macro	Given that coordination with the market leads to greater employment, vocational training policies become more cost-effective, with positive fiscal effects. Additionally, by reducing turnover, such policies have important implications for productivity.	Greater cost-effectiveness in interventions has significant fiscal implications for scaling up programs. If programs positively impact productivity and are more cost-effective, they create an opportunity to expand services within the same budget, but with greater impact.

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7.5 Labor Intermediation Programs

Labor intermediation programs are an active labor market policy and form part of public employment services. Their main objective is to promote effective matching between workers and employers.

Level	Policy: Public Employment Services	Implications for Productivity
Micro	Evidence for Brazil shows that public employment services increase the probability of finding employment and reduce the time spent in job search.	Improving the quality of the matching between workers and firms contributes to higher productivity and higher wages.
Meso	The strategy to increase the impact of labor intermediation at the meso level is to collaborate with industry associations to create partnerships and gather information on the demanded worker profiles.	The impacts are amplified through collaboration with industry associations.
Macro	It increases the probability of finding employment, which has implications for reducing unemployment insurance payments.	As interventions at the micro and meso levels have national implications. By reducing unemployment insurance expenditures, these resources could be reallocated to expand labor intermediation systems.

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Annex

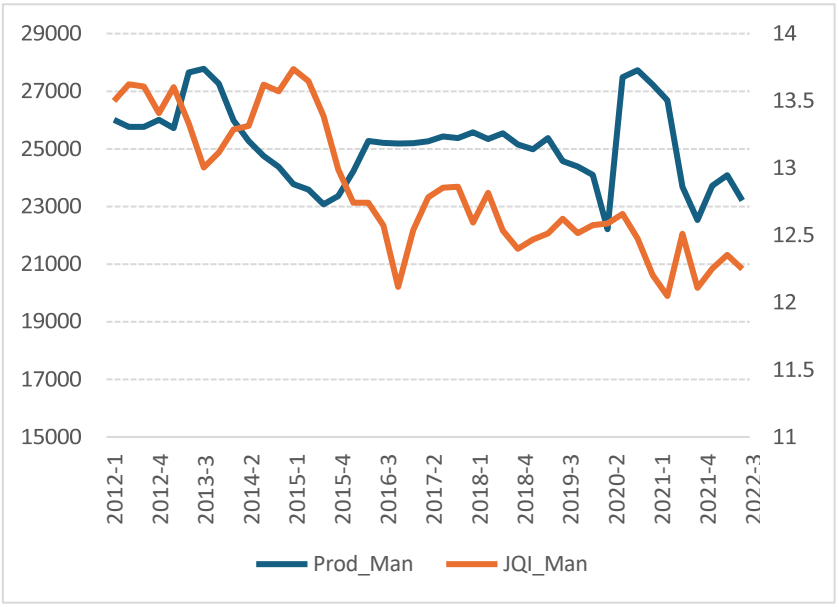
Figure A1: Evolution of the employment quality index and the unemployment rate - (2012-1 to 2022-3)

Sources: PNADC Microdata, 2012-2022. (https://www.ibge.gov.br/estatisticas/sociais/saude/9171-pesquisa-nacional-por-amostra-de-domicilios-continua-mensal.html?=&t=microdados) Regis Bonelli Productivity Observatory (https://ibre.fgv.br/observatorio-produtividade/temas/categorias/pt-trimestral). Author's own calculations.
Note: Unem_rate: unemployment rate. .

Figure A2: Evolution of labor productivity and employment quality index (hours worked) - (2012-1 to 2022-3)

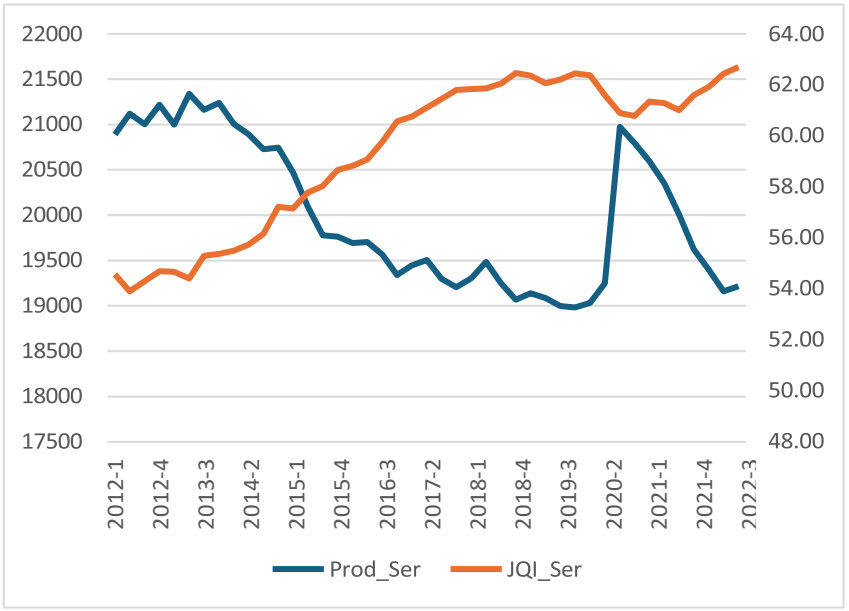
Sources: PNADC Microdata, 2012-2022. (https://www.ibge.gov.br/estatisticas/sociais/saude/9171-pesquisa-nacional-por-amostra-de-domicilios-continua-mensal.html?=&t=microdados) Regis Bonelli Productivity Observatory (https://ibre.fgv.br/observatorio-produtividade/temas/categorias/pt-trimestral). Author's own calculations.
Note: Prod_HT: labor productivity measured by the number of hours worked.

Figure A3: Evolution of labor productivity and employment quality index in the manufacturing industry - (2012-1 to 2022-3)



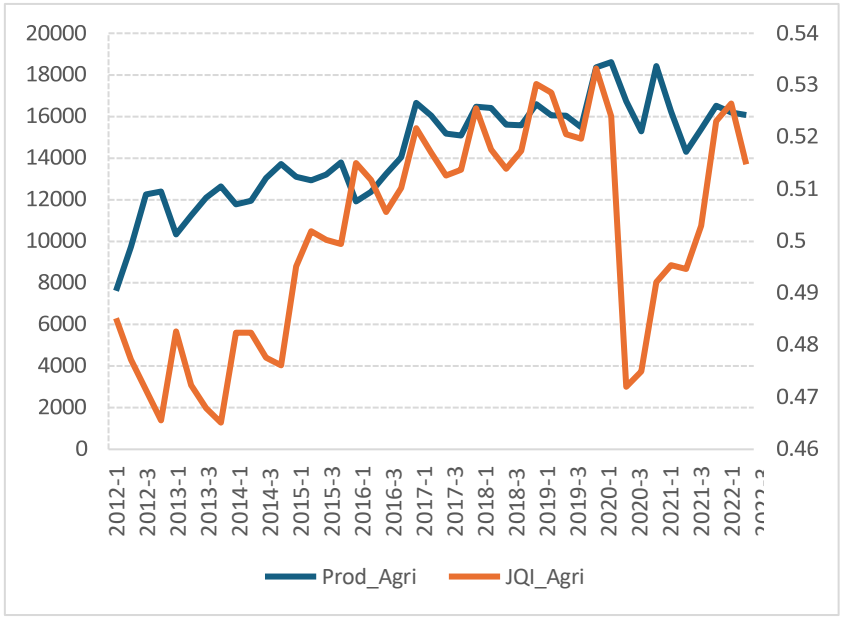
Sources: PNADC Microdata, 2012-2022. (https://www.ibge.gov.br/estatisticas/sociais/saude/9171-pesquisa-nacional-por-amostra-de-domicilios-continua-mensal.html?=&t=microdados) Regis Bonelli Productivity Observatory (https://ibre.fgv.br/observatorio-produtividade/temas/categorias/pt-trimestral). Author's own calculations.
Note: Prod_Man: labor productivity of manufacturing; JQI_Man: job quality index of manufacturing.

Figure A4: Evolution of labor productivity and employment quality index in services - (2012-1 to 2022-3)



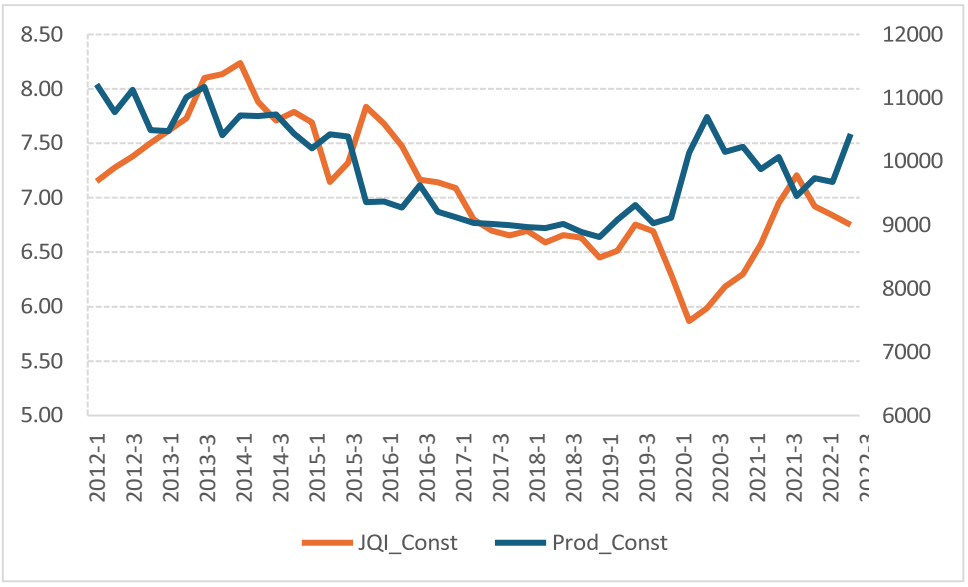
Sources: PNADC Microdata, 2012-2022. (https://www.ibge.gov.br/estatisticas/sociais/saude/9171-pesquisa-nacional-por-amostra-de-domicilios-continua-mensal.html?=&t=microdados) Regis Bonelli Productivity Observatory (https://ibre.fgv.br/observatorio-produtividade/temas/categorias/pt-trimestral). Author's own calculations.
Note: Prod_Ser: labor productivity of services; JQI_Man: job quality index of services.

Figure A5: Evolution of labor productivity and employment quality index in agriculture - (2012-1 to 2022-3)



Sources: PNADC Microdata, 2012-2022. (https://www.ibge.gov.br/estatisticas/sociais/saude/9171-pesquisa-nacional-por-amostra-de-domicilios-continua-mensal.html?=&t=microdados) Regis Bonelli Productivity Observatory (https://ibre.fgv.br/observatorio-produtividade/temas/categorias/pt-trimestral). Author's own calculations.
Note: Prod_agri: labor productivity of agriculture; JQI_Agri: job quality index of agriculture.

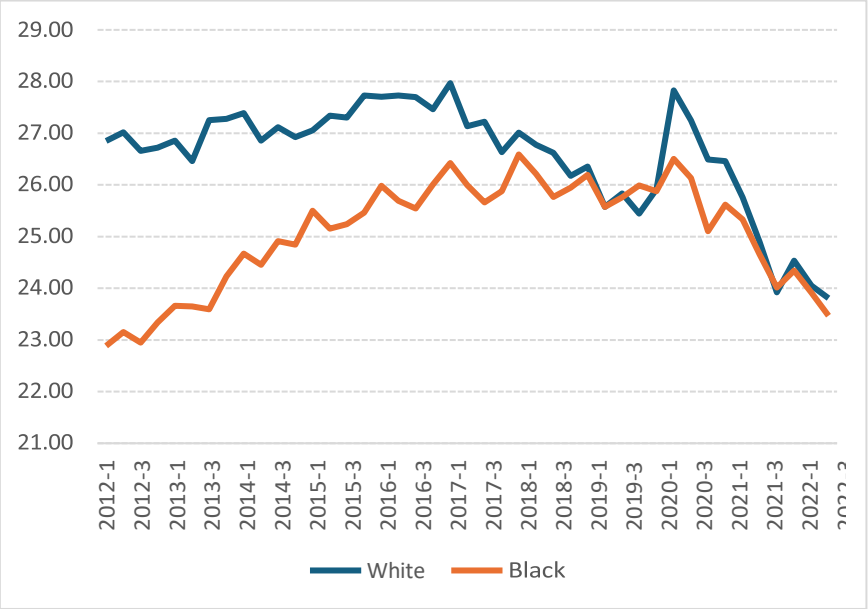
Figure A6: Evolution of labor productivity and employment quality index in the construction sector - (2012-1 to 2022-3)



Sources: PNADC Microdata, 2012-2022. (https://www.ibge.gov.br/estatisticas/sociais/saude/9171-pesquisa-nacional-por-amostra-de-domicilios-continua-mensal.html?=&t=microdados) Regis Bonelli Productivity Observatory

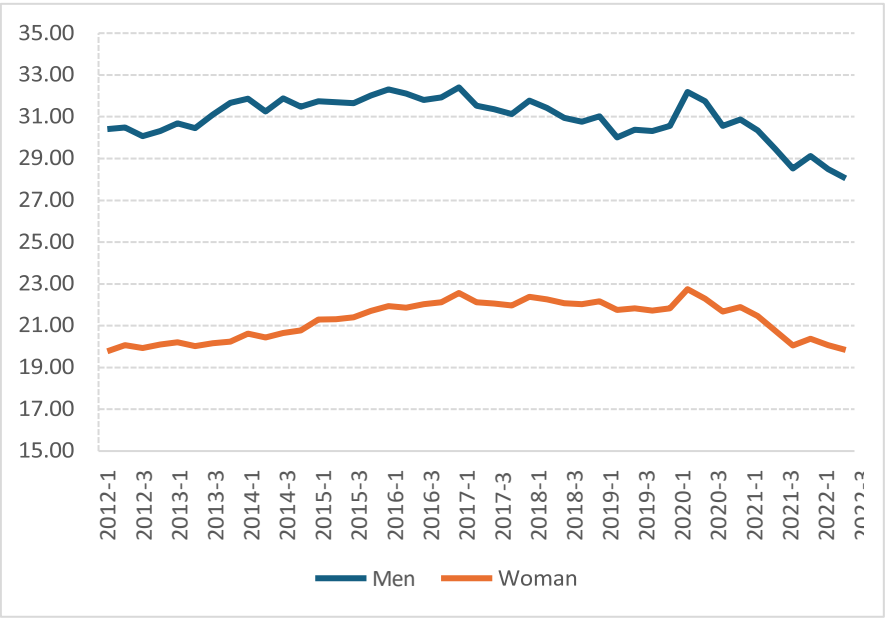
(https://ibre.fgv.br/observatorio-produtividade/temas/categorias/pt-trimestral). Author's own calculations.
Note: Prod_Const: labor productivity of construction; JQI_Const: job quality index of construction.

Figure A7: Evolution of the Employment Quality Index by race - (2012-1 to 2022-3)



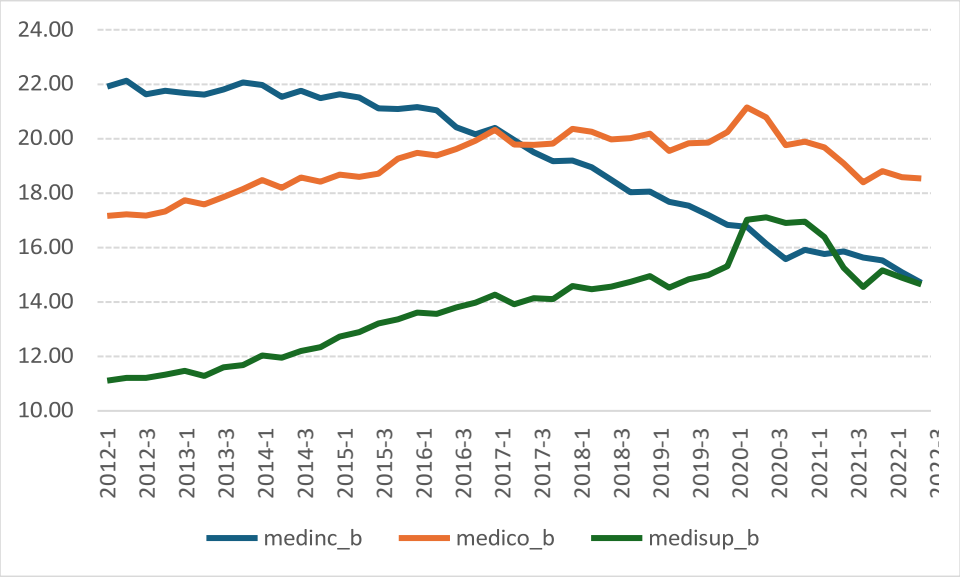
Sources: PNADC Microdata, 2012-2022. (https://www.ibge.gov.br/estatisticas/sociais/saude/9171-pesquisa-nacional-por-amostra-de-domicilios-continua-mensal.html?=&t=microdados) Regis Bonelli Productivity Observatory (https://ibre.fgv.br/observatorio-produtividade/temas/categorias/pt-trimestral). Author's own calculations.

Figure A8: Evolution of the Employment Quality Index by gender - (2012-1 to 2022-3)



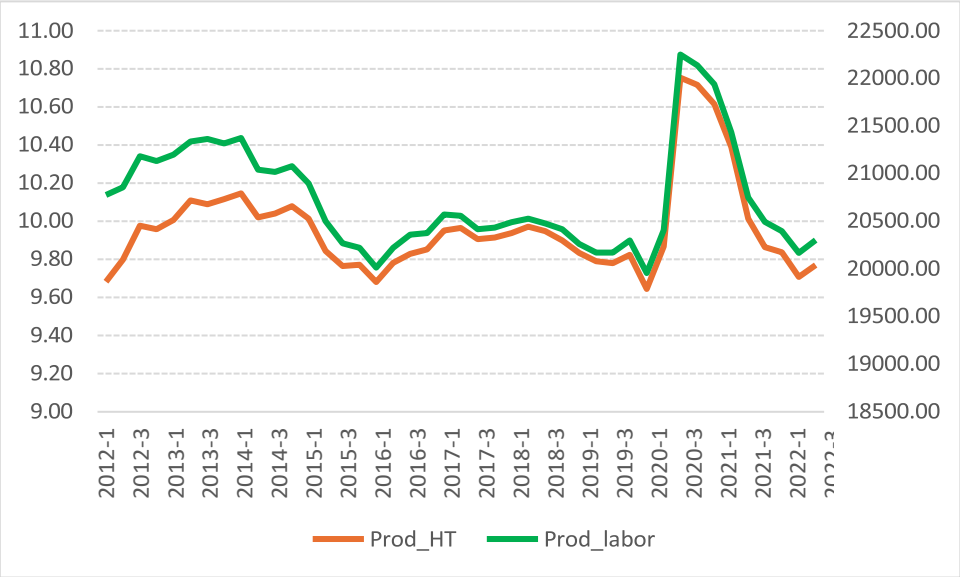
Sources: PNADC Microdata, 2012-2022. (https://www.ibge.gov.br/estatisticas/sociais/saude/9171-pesquisa-nacional-por-amostra-de-domicilios-continua-mensal.html?=&t=microdados) Regis Bonelli Productivity Observatory (https://ibre.fgv.br/observatorio-produtividade/temas/categorias/pt-trimestral). Author's own calculations.

Figure A9: Evolution of the Employment Quality Index by education level - (2012-1 to 2022-3)



Sources: PNADC Microdata, 2012-2022. (https://www.ibge.gov.br/estatisticas/sociais/saude/9171-pesquisa-nacional-por-amostra-de-domicilios-continua-mensal.html?=&t=microdados) Regis Bonelli Productivity Observatory (https://ibre.fgv.br/observatorio-produtividade/temas/categorias/pt-trimestral). Author's own calculations.
Note: .

Figure A10: Labor productivity per hours worked and per number of workers - 1980-2018



Sources: PNADC Microdata, 2012-2022. (https://www.ibge.gov.br/estatisticas/sociais/saude/9171-pesquisa-nacional-por-amostra-de-domicilios-continua-mensal.html?=&t=microdados) Regis Bonelli

Productivity Observatory (https://ibre.fgv.br/observatorio-produtividade/temas/categorias/pt-trimestral).
Author's own calculations.
Note: Prod_HT: productivity measured by the number of hours worked; Prod_labor: labor productivity measured by the number of wroekers.

Table A1: Nine-sector categories

Sector	Description
Agriculture	Agriculture, forestry, and fishing
Mining	Mining and quarrying
manufacturing	Manufacturing
Utilities	Electricity, gas, steam and air conditioning supply
Construction	Construction
Trade services	Wholesale and retail trade; repair of motor vehicles and motorcycles; accommodation and food service activities
Transport services	Transportation and storage; Information and communication
Financial and business services	Financial and insurance activities; Real estate activities; Professional, scientific and technical activities; Administrative and support service activities
Other services	Public administration and defense; compulsory social security; Education; Human health and social work activities; Arts, entertainment and recreation; Other servisse activities; Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use; Activities of extraterritorial organizations and bodies

Source: Dieppe, A., S. Kilic Celik, and G. Kindberg-Hanlon. 2020. "Global Productivity Trends." In Global Productivity: Trends, Drivers, and Policies - World Bank Group.

Table A2: Dimensions, indicators, and weights

Dimension	Indicator	Cut-offs (A individual is deprived if..)	Peso
Labor income	Índice de Rendimentos	Income is lower than 6 times the national basic food basket.	1/4
Employer stability	Tenure	Less than 36 months in the current job	1/8
Employment security	Social security	No affiliation to a social security system	1/8
	Occupational status	Self-employment without higher education or employed without a contractr	1/8
Employment conditions	Excessive work intensity	Works more than 48 h per week	1/4

Source: González, Sehnbruch, Apablaza, Pineda, Arriagada (2021).

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