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Entrepreneurship and Economic Development in Brazil: Recent Trends

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This paper deals with the evolution of entrepreneurship and economic development in Brazil over the last decades. It shows the importance of the services sector in the creation of jobs for the growing Brazilian population, stressing also the factors at work for the slowdown in progress of the nation's overall productivity in modern times. Some proposals to overcome this lacklustre performance of the Brazilian economy are contemplated in the end.

Keywords: entrepreneurship, productivity, innovation, interest rates, credit.

Przedsiębiorczość i rozwój gospodarczy w Brazylii – ostatnie tendencje

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W artykule poruszono temat ewolucji przedsiębiorczości i rozwoju gospodarczego w Brazylii w ciągu ostatnich dziesięcioleci. Ukazano w nim znaczenie sektora usług w tworzeniu miejsc pracy dla coraz liczniejszej ludności Brazylii, a także podkreślono czynniki warunkujące współczesne spowolnienie postępów w zakresie ogólnej wydajności w kraju. Na zakończenie rozważono propozycje przezwyciężenia problemu słabych wyników gospodarki brazylijskiej.

Słowa kluczowe: przedsiębiorczość, wydajność, innowacje, stopy procentowe, kredyt.

JEL: H2, N8, M2

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1. Introduction

The relationship between entrepreneurial activity and economic development has been a long-standing subject of attention within the economic science. The term 'entrepreneur' was firstly introduced in political economy in the early nineteenth century by the French economist Jean-Baptiste Say. He wished to indicate by that the individual in charge of creating, at his own initiative and risk, any kind of product or service from some combination of productive factors (Say, 2011, p. 49). Later, in the second decade of the twentieth century, the Austrian economist Joseph A. Schumpeter presented the entrepreneur as the key protagonist in the process of economic development for his unique role in conducting economic innovation through the creation of new goods, the introduction of new productive arrangements, the opening of new markets, the discovery of new sources of supply or even by changing the structure of an existing market. Those kinds of breakthroughs, for Schumpeter, are the crucial factors pushing the economy forward, while the provision of new credit would be essential to finance such risky endeavours (Schumpeter, 1935 [1911], chaps. III and IV).[2]

As for what is understood here as economic development, its contemporary meaning comprehends a process that evolves historically from the idiosyncratic characteristics of each country and is related to its economic, cultural and social aspects. Therefore, it is not only the result of positive per capita growth rates of the gross domestic product, but also the outcome of a complex network of institutions that promotes structural changes designed to improve the living conditions of most of the population. From this standpoint, economic development occurs when changes in the economic, social, and political organization come together to benefit the society at large (Myrdal, 1957; Sen, 1999). For the Brazilian case, though, it will be shown that the dominant structure of the entrepreneurial activity in the country involves a rather large number of small-sized firms whose success or failure impacts directly on the standard of living of its population in its various aspects. Hence, our emphasis on certain factors of the economic environment in Brazil during recent years may be taken as a good approximation to its degree of development and, yet, to what has been called in the literature as the "middle-income trap" of emerging nations (Abu Bakar, 2014; Eichengreen, Park and Shin, 2013).[3]

This expression is quite appropriate in the sense that it portrays with reasonable accuracy the situation experienced by Brazil over the last decades. Since the 1980s, the Brazilian economy has registered a steady long-run decline in its rate of economic growth, particularly when compared to the remarkable advances in its GDP and per capita income through the thirty-year period starting in 1950. This more recent trend has been permeated by short-lived spurs of faster economic growth associated with cyclical spikes in the international price of basic commodities exported by

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the country such as soybeans, crude oil, iron, meat, and coffee. Particularly after 2010, the Brazilian GDP growth rate came down to an average of 1.1% in the 2011–15 period (Ipeadata, 2017).[4] This lack of dynamism of the Brazilian economy, as we are going to see, has been due to the action of some structural factors that have been at work to keep the country's overall productivity sluggish.

The present paper attempts to bring up the chief reasons behind such frustrating performance of the Brazilian development in modern times, linking it also to the need for wide legal and institutional reforms to make the domestic entrepreneurship activity stronger and more innovative-friendly in the future. To that end, and based on specialized journal articles, books, working papers and opinion editorials, as well as on reliable data sources like the Brazilian Institute of Geography and Statistics and Ipeadata, we examine, in the second section, the country's population dynamics and the nature of its entrepreneurial activity.[5] Section three goes over the main macroeconomic obstacles to the progress of small-sized firms, including the recurrent economic instability, the high cost of capital and the misallocation of public credit operations. The fourth section proposes some pressing legal, institutional and economic reforms to mitigate these difficulties in order to allow a more robust growth of the Brazilian economic productivity. The concluding remarks point out the need of fiscal consolidation as well as of institutional reforms to enhance the doing-business milieu in the country.

2. Population and Economic Trends in Entrepreneurship

Over the last six decades, the Brazilian population has experienced an extraordinary increase. From a total of 94.7 million people in 1970, the country reached 200.8 million in 2015, in a factor increase of 2.2 times in a short span of 45 years. Given that Brazil was discovered in 1500 by the Portuguese navigator Pedro Álvares Cabral, we see that it took 470 years to populate the country with something over 94 million people, both by natural increase or immigration, although the last type of increase had virtually ceased by the first decades of the twentieth century. What happened in the post-1970 period, as a consequence of a process started after World War II, was an incredible leap forward in the Brazilian demographics. This remarkable change was mainly due to the advancements in basic health, making, on the one hand, for a huge drop in mortality rates from 1940 onwards, followed sometime later, on the other hand, by a slow but continuous fall in fertility rates (Paiva, 1997).

The combination of these two basic forces resulted in some very particular demographic dynamics, with population growth rates declining from a yearly-average of 2.5% over the 1970s to just 1.0% in the five-year period of 2011 to 2015. What is more important, though, is that during this almost half a century interval, an absolute number of new 106 million people grew up in the Brazilian territory, so that its overall population more than doubled, as depicted in Figure 1. Considering that the country has 8.5 million square kilometres, its demographic density has increased from 11.1 people per square kilometre in 1970 to 23.6 in 2015, a considerable advance indeed, but reaching still one of the lowest ratios in the Americas and the whole world. This means that Brazil may have plenty of people and land, but it could not be considered a developed country by any standard.

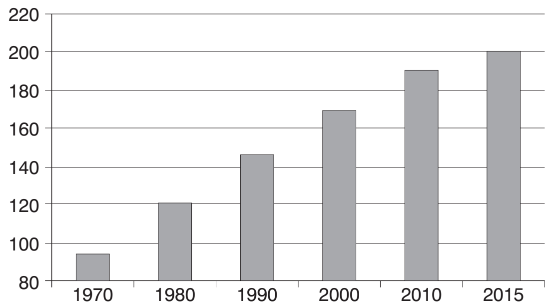

Fig. 1. Brazilian population 1970–2015 (millions). Source: IBGE, Social Statistics 2017.

This high unusual and volatile demographic pattern has been accompanied by two most relevant trends regarding the conditions surrounding the possibility of entrepreneurship in Brazil. First, the rate of the population in economic age (15–64 years) as a fraction of the whole population has consistently increased during the last decades, going from 57.8 in 1980 up to 66.4 per cent in 2010, it being estimated to hit a ceiling of 70.7 per cent by 2020. Having more grown up individuals composing the society means that the assortment of potential entrepreneurs in the country is almost at its historical maximum. With such an aspect in sight, this trend means also that each family now has to raise a lower number of dependent infants, which favours both their investment in child education and the potential for personal savings, considering, of course, that the proper environment for these initiatives is actually there (Alves and Martine, 2011; Hakkert, 2007).

Parallel to that, a strong movement of urbanization in Brazil took place, particularly during the second half of the twentieth century. In 1970, for the first time the urban population overcame the rural one, reaching 55.9% of the total. By 2010, this proportion had grown to 84.3%, with some high-populated states like Rio de Janeiro and São Paulo registering now an urban rate over 90% (Brito, Horta and Amaral, 2001). That is pretty much a characteristic similar to high developed countries, although far from

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any proximity with the productivity levels experienced in more complex economies. The question then is where all these additional millions of people found a way of living, or how they distributed themselves among the different branches of the Brazilian economy.

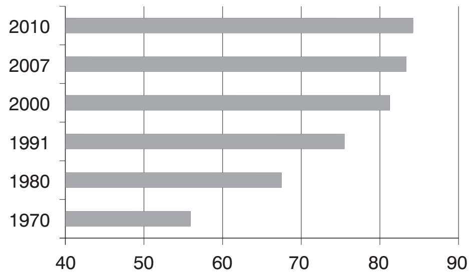

Fig. 2. Urbanization rates, Brazil 1970–2010 (% of total population). Source: IBGE, Social Statistics 2017.

The answer can be gleaned from the production indicators for the Brazilian economy during the interval covering the years 2000–2014, as shown in Table 1 below. Despite its huge landmass, Brazilian agricultural production, including crop raising and farming, was responsible for only 5.4 per cent of the country's GDP in 2014. The industrial sector has witnessed its proportion decline along the period, coming down from 27.4 per cent in 2010 to reach 24.4 per cent of the Brazilian GDP five years later. The most important branch of the Brazilian economy is actually the services sector, encompassing commerce, transportation, information, financial intermediation, real estate, health and education etc., making for a highly diversified assortment of occupations which has been responsible for a growing share of the country's economy, with a proportion of 70.2 per cent of the 2014 Brazilian GDP, up from 50.0 per cent in 1985. As proof of its contemporary relevance, the sector has been responsible for 83 in every new 100 job posts created in the country during the last decades, employing 72.3 per cent of the nation's workforce in 2012.

Year	**GDP**	**Agriculture**	**%**	**Industry**	**%**	**Services**	**%**
2010	3302.8	159.9	*4.8*	904.1	*27.4*	2238.7	*67.8*
2011	3426.4	168.9	*4.9*	941.3	*27.5*	2316.1	*67.6*
2012	3780.4	184.1	*4.9*	1003.7	*26.6*	2592.5	*68.6*
2013	4212.0	217.4	*5.2*	1088.7	*25.8*	2905.7	*69.0*
2014	4574.7	246.9	*5.4*	1114.5	*24.4*	3213.1	*70.2*

Tab. 1. Sectoral distribution of Brazilian GDP, 2000–2014 (in R$ billions). Source: IBGE, National Accounts System 2017.

This movement, however, is chiefly the result of the feeble dynamism of the Brazilian industrial sector – despite the phenomenal expansion of 13.5 per cent per year during the 2000–2014 period in domestic oil production – and the quick growth of big and medium-sized cities all over the country. We may say that the low requirement of capital, technology and professional formation has made the services sector a natural outlet for millions of individuals in the Brazilian population seeking a way to survive. It is in this sector that thousands of new firms have been created in Brazil each year, a situation that has been characterized in the literature as "entrepreneurship of necessity". According to Jorge Arbache (2015, p. 277) in a recent study on the Brazilian services sector:

> In this way, it seems reasonable for us to say that the participation of the services sector would have increased, at least in part, more out of its natural growth and of the loss of impetus of the remaining sectors than due to the sector own dynamism. It is likely also that the expansion of the urban population and the demographic transition have contributed to such a result. Furthermore, the peculiar characteristics of services, like their low entrance cost in terms of the capital stock needed, technology and human capital, would have made this sector the best, if not the only source of employment and income for a good number of people arriving at the labour market, especially over a period of low economic growth as happened in the 1980s and 1990s.

As per Arbache's findings, the average size of the firms in the services sector, measured by the number of employed people, was 5.2 in 2011, with the 0–2 range comprising over half of the total, that is, 52.5 per cent. Only 11.2 per cent of the firms within the total had 11 or more workers. The average wage in the services sector is about one and a half times the Brazilian official minimum wage, with a very small dispersion value. This means that the sector is relatively homogeneous, with most people involved being young and having about ten years of formal education (Arbache, 2015).

The destination of the distinct services provided by the thousands of formal firms in the sector is massively the domestic economy, with a negligible part being connected to international markets. Still, in 2012, from about 1,023 million firms in the services sector covered in an official survey, only 214 provided some kind of exportable service, which is an almost nil number.[6] Moreover, the average productivity of the Brazilian worker in the services sector is quite low, reaching only 2.733 dollars in 2011 (Arbache, 2015). Research has shown, though, that such is the case also for the Brazilian industry as well, both sectors achieving, in 2009, only 18 and 16 per cent, respectively, of the American productivity (Ferreira and Fragelli, 2017; Messa, 2015). As explained in a recent inquiry on the subject:

> In other words, the numbers suggest that the Brazilian backwardness is not due to the fact that the country got specialized in sectors with low productivity, but instead to the harsh reality that, in all sectors and subsectors, the productivity of the Brazilian worker is remarkably inferior to the one observed in the United States and other developed countries (Ferreira and Fragelli, 2017, p. 3).

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What looks more significant, though, is that the smaller the enterprise in the services sector, the more productive it is, with increases in size being a factor that makes production costlier to bigger firms in providing their final service to customers. That, of course, may well be the effect, on the one hand, of the suppression of tax benefits to small firms when they become bigger, and, on the other, of the severity of the Brazilian labour legislation that lacks any flexibility over the business cycles (Menezes Filho, Cabanas, and Komatsu, 2014). The next section attempts to point out some of the causes of the Brazilian low productivity in the services sector and, by extension, in the other economic sectors as well.

3. Chief Impediments to Brazil's Economic Progress

Almost half of Brazil's yearly productivity gains between 1950 and 1980 (3.5 per cent) were due to the composition effect, that is, the movement from low productivity jobs in the agricultural sector to the growing industry and services sectors, with higher yield per worker. From the 1980s onwards, though, Brazil has lost its dynamism and yearly productivity gains have stalled in the last decades (0.6 per cent), irrespective of the political orientation of the government in charge, configuring therefore what we have indicated in the introduction as the "middle-income trap" (Cavalcanti, 2017).

In recent years, the economic policy called the New Economic Matrix, put in place during the years 2008–14, was an attempt at redirecting the country's productive structure toward the so-called "champions" of the national economy, supposedly with higher productivity per worker. Most of those companies received billions of dollars of subsidized money through the state-owned "development" bank BNDES (Banco Nacional de Desenvolvimento Econômico e Social), with low long-run interest rates (around 5 to 6 per annum), while this money was being provided by the Treasury to the bank through the issue of public bonds at interest rates close to 14.5 per cent per annum. The total amount of money lent by BNDES between 2008 and 2014 was somewhat about 120 billion dollars, which one Brazilian economist has recently estimated to be commensurate with the total of funds (corrected to contemporary values) conceded to Europe by the United States under the Marshall Plan (Pessoa, 2017).[7]

This massive stimulus experiment, however, proved to be an equally gigantic failure, and that for four basic reasons. First, the real aggregate investment showed no significant increase, since the money received by the big companies ended up channelled either to pay off costlier debts and thus reduce their liabilities or even to buy the low risk public bonds issued by the Treasury to finance the whole scheme. Second, the benefited companies, like the giant meatpacking JBS and the heavy construction companies such as Odebrecht, OAS, Andrade Gutierrez, among others, have low technological complexity and, thus, very weak forward and backward linkages with other economic activities. Thirdly, this generous line of credit turned the Brazilian Central Bank efforts to keep inflation under control even higher than usual and, therefore, the indexed public bonds more attractive to these very same companies. Needless to say, this factor meant also costlier conditions of credit for small and medium-sized firms spread all over country. Fourth, and perhaps most important of all, these substantial loans granted under undisclosed conditions and with doubtful guarantees fuelled corruption in large scale within the country's political realm, compromising the overall competition of the economy and even the foundations of Brazilian democracy (De Bolle, 2015).

A recent parliamentary committee constituted to probe the actions of BNDES pointed out a series of flaws in its internal process of evaluation and concession of subsidized loans, particularly to big Brazilian construction firms responsible for highly controversial and costly projects in underdeveloped countries with a less than desirable reputation in financial markets and often under non-democratic regimes in Latin America and Africa. As described in the committee's partial report on loans to foreign countries (Brasil, 2017, p. 13):

> Contracts of about R$ 300 million in value are approved by the respective directing board in few paragraphs, using generic and abstract terminology and without any specific analysis of the work to be carried out. Loan requests to distinct projects in different countries are approved with practically the same reasoning and expressions, lacking any indication that the nations and projects being scrutinized are distinct from other projects.

The committee's final report, for its turn, suggested, among other things, an audit into the bank position as a shareholder of big companies; the blocking of loan requests through consultant firms run by politicians; a reorientation of the bank priorities to small and medium-sized firms established in the poorer regions of the country; the adoption of independent auditing firms to supervise the implementation of approved projects, besides the passing of new legislation suppressing the secrecy of the bank operations (Câmara dos Deputados, 2017).

The conclusion one arrives at by looking at the outcome of the New Economic Matrix experiment is that any public policies directed to jumpstart some specific sectors of the Brazilian economy would deliver poor results anyway, since, as already mentioned, the problem of low productivity cuts across all sectors of national production, as shown in Table 2, where a comparison of returns per worker is made between Brazil and ten other advanced or developing countries. We can easily verify that in terms of productivity in the three main branches of the economy, Brazil is only ahead of India, but falling behind Mexico and South Korea, to keep matters within the developing world. If one takes into account all the 48 countries covered by the Social Economic Accounts database, Brazil does

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not even reach one third of the average productivity of these countries together. As expressed in a recent piece on this very subject:

> Besides being low in absolute terms, Brazilian productivity in both traditional and modern services is always inferior to countries with similar per capita income. The results indicate that if the productivity of services in Brazil were similar to the one estimated for countries with the same per capita income, it would be 75% higher and would have increased along the 1995–2009 period, contrary to what really happened, since it remained essentially stagnated. The main conclusion is that although there exist potential gains through a reallocation of the workforce to more productive sectors, the Brazilian low productivity is associated with the low productivity prevailing in all sectors of the economy. In other words, the issue is a systemic one instead of being something restricted to specific sectors (Veloso et al., 2017, p. 27).

	Total	**Agriculture**	**Industry**	**Services**
Brazil	14.6	4.7	19.3	15.8
United States	89.3	66.2	109.9	85.6
Ireland	84.9	27.9	114.8	80.3
Australia	67.5	65.4	88.3	61.5
France	66.4	50.0	64.0	69.2
Japan	64.9	18.1	70.6	65.4
Great Britain	56.7	25.1	70.8	54.6
South Korea	52.5	24.9	74.5	44.2
Mexico	25.2	6.1	31.4	27.8
China	14.7	3.6	25.6	18.5
India	8.4	2.2	11.9	17.3
US/Brazil	6.1	13.9	5.7	5.4
SEA/Brazil	3.2	5.3	2.7	3.0

Tab. 2. Sectoral productivity: Brazil and other selected countries (2009 PPP 1000 dollars). Source: Social Economic Accounts (SEA), processed by Veloso et al. (2017).

4. Some Necessary Steps to Boost Brazilian Productivity

A recent study about the overall environment for doing business in Brazil, focusing on the conditions for opening and closing firms, as well as for their paying of taxes, has revealed there being a positive link between, on the one hand, the quality of the legal and institutional setting for business and, on the other, aggregate investment and the productivity of labour. More to the point, the World Bank, in its annual *Doing Business* report, has been surveying different countries on the following eleven items: (i) the conditions for opening a new enterprise; (ii) the concession of permits for construction; (iii) the supply of electric power; (iv) the registration of property; (v) credit availability; (vi) protection for minority investors; (vii) tax collection; (viii) international trade; (ix) contract execution; (x) bankruptcy resolution, and (xi) labour market legislation. An econometric panel analysis of the data for 81 countries over the period of 2005 and 2011 has found Brazil with 49.2 points in 2011 within a scale running from zero to 100. The exercise shows also that if the Brazilian environment for business ever reached the levels prevailing in Mexico (71.03) and Chile (71.04), for instance, that would mean an estimated increase of 45% in the country's aggregate investment and, therefore, in its capital stock per worker and productivity as well (Cavalcante, 2017).

A progressive improvement in the Brazilian setting for doing business so that the entrepreneurship activity becomes more efficient – considering the issue from a holistic approach to propel the national economic development in all branches of production – requires that many bottlenecks of the country's legislation and infrastructure be properly addressed. With regard to the external factors compromising the productive performance of the Brazilian firms, first, what can be mentioned is the poor transportation network, which makes it extremely difficult for domestic enterprises to export; second, the deficiencies in the communications structure, such as the low speed and unreliability of the internet; and, lastly, the reduced level of competition in many sectors, meaning low incentives to modernization and innovation. As for the factors internal to the firms, one may indicate, first, the reduced qualification of the labour force, with little in job training; second, the scanty investments in research and development by Brazilian firms; and, lastly, the small gains of scale of many domestic oligopolistic companies (Cavalcante and Negri, 2014, pp. 168–169).

Approaching the matter from a macroeconomic perspective, Brazilian interest rates have been consistently ranked as ones of the highest in the world. That, of course, works against any significant improvement in the provision of credit and turnover capital for medium and small-sized firms that, as seen, have been left behind by the mistaken policy of public banks in providing cheap money to big companies. On the other hand, real interest rates in general in Brazil have been standing as some of the highest in the whole world, basically because of the constant government deficits, which require the Treasury to regularly issue large amounts of short-term bonds indexed to current inflation (the LTFs or Letras do Tesouro Nacional). This situation drastically reduces the availability of funds for private enterprises, making it costlier to producers in general and, therefore, blocking a more sustained advance of the economy's capital stock (Oreiro et al., 2012). In connection with this point, public investment in infrastructure has been declining over the last decades as other items of public expenditure increase, a situation that demands a reformulation of the Brazilian fiscal policy. No government during the last decades, however, has seemed willing to undertake the drastic and unpopular measures required to balance the federal

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budget. That is crucial though to free up the resources required to reduce the outstanding debt and diminish interest and amortization payments, making thus room for the sorely needed investments in the country's infrastructure.

Recently, Otaviano Canuto, a World Bank executive director, has indicated what he understands as the key bottlenecks of the Brazilian economy with respect to its productivity weakness, stressing the factors already mentioned in the preceding paragraphs. "[A]t the current juncture, to be able to impact the aggregate productivity in a significant way, changes in the economic structure would have to be extraordinarily high, while cross-sector factors seem much more significant. … The scope and time for picking low hanging fruits are gone" (Canuto, 2017). Still, according to Canuto, the shortage of infrastructure investments has compromised the overall performance of the economy, limiting the creation of externalities that could make production in general more efficient. Moreover, he adds, the nation's economic environment has been unfavourable to innovative activities by small and medium-sized businesses, particularly due to the hurdles those firms have to overcome to get access to medium and long-term credit. Another serious flaw of the Brazilian economy, Canuto concludes, is the lack of a more adequate education for the workforce in applied productive skills.

5. Concluding Remarks

In the last three years, the Brazilian economy has been through one of the hardest periods in its modern history. A deep recession hit the country in 2015 and has prolonged itself until now, with an accumulated plunge of national GDP of almost ten per cent, as the unveiling of a large-scale corruption scandal shook up the foundations of the domestic political scene. This dire situation, though, is the outcome of mistaken policies implemented by the Brazilian central government over the previous decades, along with the long-term structural and intertwined problems plaguing the country's economic performance. These problems are the lack of a sustainable fiscal policy, with its perverse effects on credit conditions, competition and innovation, accompanied by the very modest growth in the economy's productivity in all its branches. Addressing these issues will require both a severe reversal in the deteriorating fiscal position of the central government, allowing thus a permanent lowering in interest rates that improves credit conditions for private enterprises, along with far-reaching changes in the legal and institutional setting for doing business in the country.

Endnotes

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of Warsaw, on 23 May 2017. We are thankful also to an anonymous referee for their valuable suggestions. Translations from Portuguese to English done by the authors.

2 An evolutionary approach to innovation theory from a Schumpeterian viewpoint can be found, for instance, in Nelson and Winter (1982, Part V); a brief account of this line of inquiry is provided by Salter and McKelvey (2o16).

3 "The middle-income trap is a theorized economic development situation where a country which attains a certain income will get stuck at that level. A developing nation gets 'trapped' when it reaches a certain, relatively comfortable level of income but can't take that next big jump into the level of a high-income nation. Escaping the 'trap' requires an entire overhaul of the economic growth model most often used by emerging economies" (Abu Bakar, 2014).

4 The historical evolution of productivity in the Brazilian economy can be divided into three large periods: the first, from 1950 to 1980, with an average yearly growth rate of 4.5%; the second, covering the so-called 'lost decade' of 1980, when the yearly average rate fell to -2.0%, and, lastly, the weak recovery spanning 1990 to 2010, reaching a yearly average rate of 0.6% (Silva, Menezes Filho and Komatsu, 2016).

5 The paper draws also freely on a recent two-volume book published by the Brazilian Institute for Research on Applied Economics (IPEA) entitled *Produtividade no Brasil: Desempenho e Determinantes* (Cavalcante and De Negri, 2014–2015).

6 For many of the new Brazilian firms created in recent years, most notably in the agribusiness sector and directed to foreign markets, the major risks have been the erratic behaviour of exchange-rate fluctuations, coupled with the macroeconomic instability and sudden climatic changes (Leite and Moraes, 2014).

7 In Pessoa's own words: "Between 1948 and 1951, the US spent a little more than $13 billion to assist the reconstruction of 16 European countries, with a population, at the time, of 290 million people. … Here [Brazil], between 2008 and 2014, the Treasury lent to BNDES, at reduced rates and under extremely favourable conditions, R$ 400 billion. That is, an amount of money 25% bigger and with a 31% lesser population than the ones benefited by the Marshall Plan" (Pessoa, 2017).

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