

Economic inwardness and stagnation: why does Brazil persist?

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1. Introduction¹

Adolfo Canitrot was the quintessential *porteño* and a true latinoamericanist. He held important positions in the Argentinian government and was an adviser on economic policymaking for the governments of Chile and Peru. His dedication to international economics dates from his doctoral dissertation for Stanford University where, under the guidance of Hirofumi Usawa, he dealt with import tariffs in a neoclassical two-sector growth model. But Canitrot was not a theoretical economist, his subsequent intellectual production was fully dedicated to empirical analyses of macroeconomic topics relevant for economic policy making.

In 1993, Adolfo Canitrot and Silvia Junco organized for the Interamerican Development Bank a study of macroeconomic conditions and trade liberalization in the Southern Cone. One of the book's most important findings was that eliminating the public sector deficit was essential to the success and sustainability of trade liberalization (Canitrot and Junco, 1993). Nowadays, Canitrot might be puzzled by the insistence of both Brazil and Argentina to maintain Mercosur as a customs union relatively closed to the rest of the world when neighboring Chile is such an economic success since opening its economy to international trade in the 1970s.

Along these lines, this chapter argues that the refusal to open the economy to foreign trade is one of the central causes that prevent Brazil from growing at an accelerated rate and reducing the gap of the country's per capita income to that of rich countries.

The next section begins with a brief comparison of Brazil's growth experience with that of South Korea after World War II. This is the motivation for the subsequent statistical analysis of the collapse of Brazil's growth from 1980 onwards. The section argues that the collapse was associated with the deepening of import substitution dissociated from export expansion. The third section considers the arguments supporting the importance of openness to foreign trade for economic growth. One wonders why, given this evidence, Brazil persists in remaining relatively closed to international trade, as illustrated in the fourth section. In the fifth section, five justifications for this posture are considered. The chapter concludes with elements of a program for the integration of Brazil to the world economy.

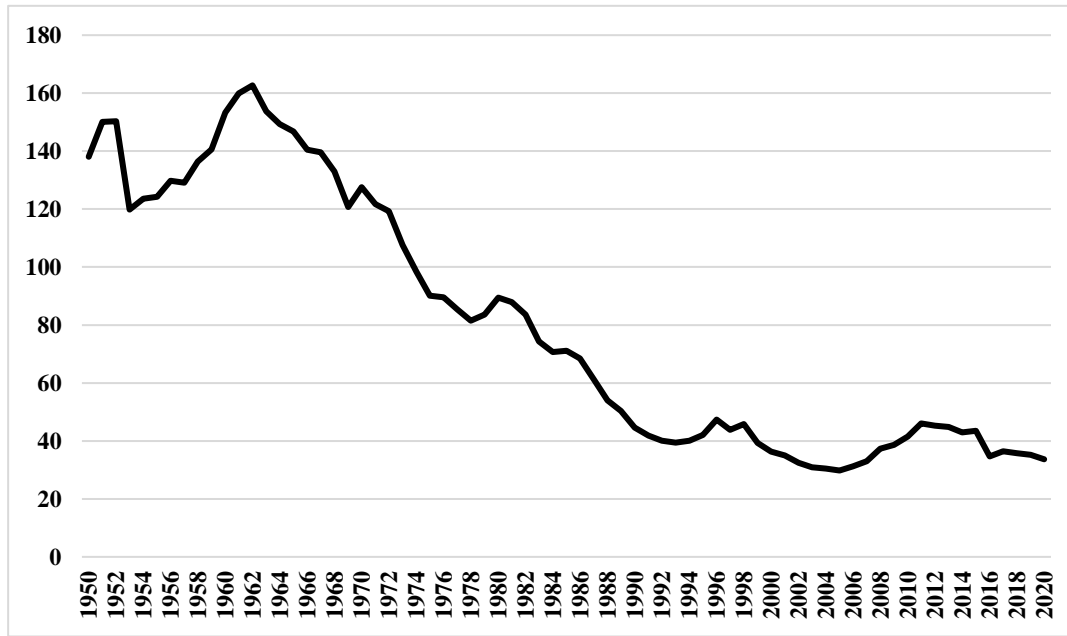
2. Economic inwardness and low growth

A comparison of Brazil's and South Korea's economies since 1950 illustrates the importance of trade openness for growth. As seen in Graph 1, until 1974 South Korea had

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a per capita income lower than Brazil's, but, from the beginning of the 1960s, it begun a process of catching-up and then overtaking Brazil. Currently, Brazil has a per capita income of only 1/3 of South Korea's.

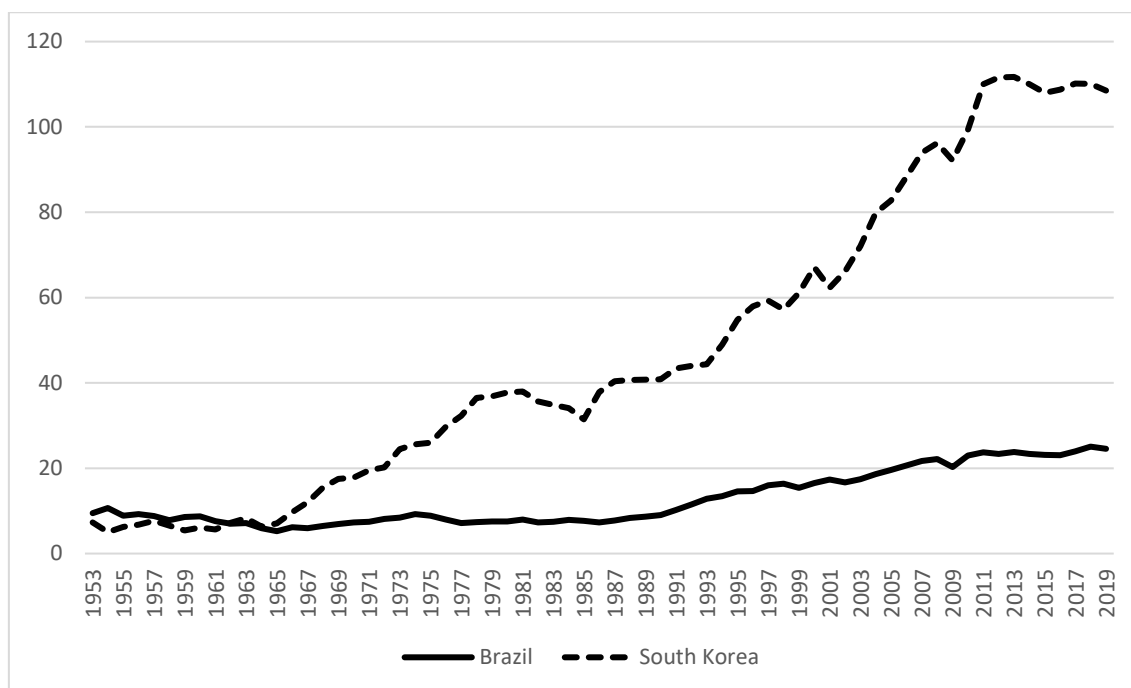
Graph 1: Brazil's per capita income as a ratio to South Korea's (%), 1950-2020



Source: Our own calculation, with data from the Maddison Project (1950 to 2016) e from the IMF (2017 to 2020). Series corrected by the purchasing power parity.

There are several hypotheses about why South Korea succeeded in overcoming the so-called middle-income trap, and Brazil did not. One hypothesis that we explore in this chapter is illustrated in Graph 2: the opening to foreign trade that South Korea did from the beginning of the 1960s, when it started to take off, and Brazil did not.

Graph 2: Shares of foreign trade in GDP, Brazil and South Korea, 1953-2018

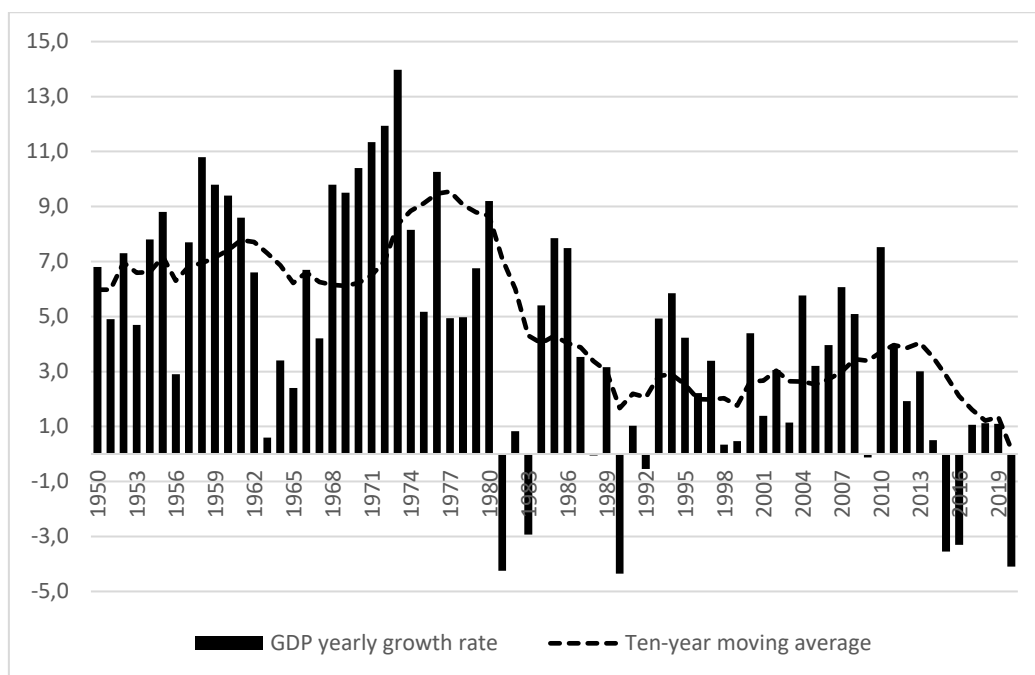


Source: Our own elaboration with exports, imports, and GDP data from PWT 9.1 and World Development Indicators, in constant 2011 prices. Foreign trade share is defined as the sum of exports and imports over GDP.

In the mid-1960s, South Korea's openness to foreign trade – measured by the ratio of the sum of exports and imports to GDP – was around 7%. Today, that figure is around 110%. Meanwhile, Brazil, which in the mid-1960s had an openness ratio of around 5%, currently has it at just around 25%.

To support the conjecture regarding the relationship between the closure of the economy to foreign trade and the collapse of growth, we study the Brazilian experience in the post-World War II period. Graph 3 shows the evolution of Brazil's GDP since 1950. The bars indicate annual GDP growth rates and the dotted line the ten-year moving average of these rates. There is a growth collapse from 1981 onwards.

Graph 3: Brazil's GDP growth rates, 1950-2020



Source: Our own elaboration with data from Ipeadata

Until 1980, Brazil grew at around 7.5% p.a. After that, there was a transition – the so-called lost decade – at the end of which a new growth pattern of just 2.5% p.a. was established until the mid-2010s. More recently, there has been an additional downturn with the growth rate in the last decade close to 1%.

In a simplified Harrod-Domar (HD) model, GDP growth depends in the first place on an increase in capital goods' stock: machinery, buildings, and equipment capable of generating more production. To enable the acquisition of new capital goods, it is necessary that a portion of total income is not spent on the purchase of consumer goods and directed towards the purchase of new capital goods. Households, firms, and the government generate savings, which are made available to firms to buy new capital goods. Foreign savings is an additional way of financing the acquisition of new capital goods. The amount of capital goods that will be purchased with savings depends on these goods' prices, which determine the purchasing power of savings—with the prices of new capital goods defined as the ratio of the implicit price deflator of fixed capital formation to the implicit price deflator of GDP. The more expensive these goods are, fewer of them savings will be able to acquire.

Finally, and critically, how much additional GDP will be generated by the new capital goods depend on their productivity. The higher the marginal output-capital ratio the higher will be the GDP growth rate.

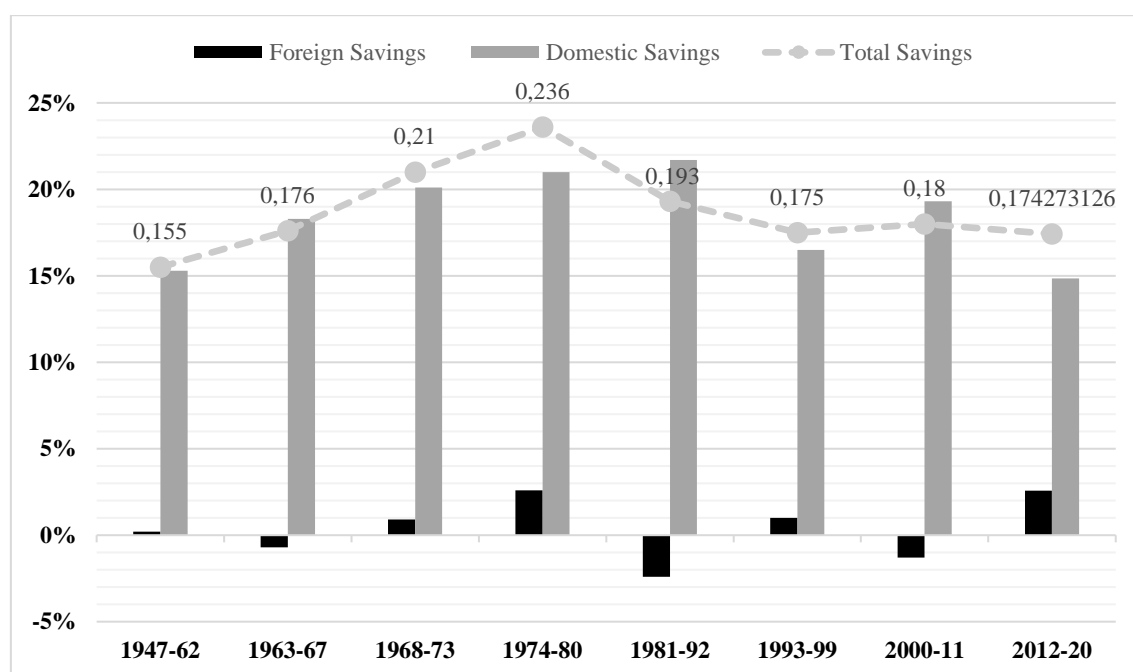
This simplified HD growth story is illustrated in Figure 1 below.

Figure 1: Simplified Harrod-Domar growth story

Savings → Capital Goods Prices → Purchasing power of savings → Increase in the Stock of Capital Goods → Marginal Productivity of Capital → GDP growth

We now consider what happened during post-war Brazilian growth in these dimensions – savings, prices of new capital goods and capital productivity. Firstly, savings, which is illustrated in Graph 4.

Graph 4: Evolution of savings rates by periods (% GDP), 1947-2020

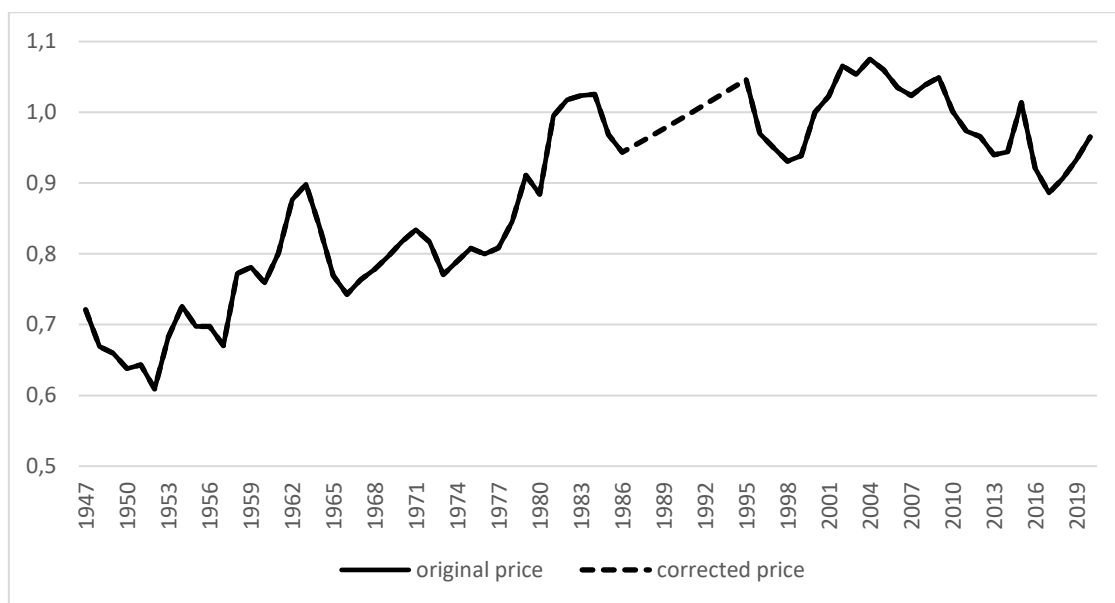


Source: Our own elaboration with data from Ipeatada. Foreign savings calculated by subtracting internal savings from gross capital formation.

Comparing the averages for the periods before and after 1980, a slight reduction in the savings rate can be seen, from 19.4% to 18.1% of GDP. Therefore, after 1980 Brazilian society dedicated a lower income share to acquire the capital goods needed to boost growth.

More important, however, were two other phenomena. First, savings began to buy fewer new capital goods due to the rising price of these goods. This price increase was around 30% when comparing the averages for the period prior to and after 1980, as illustrated in Graph 5.

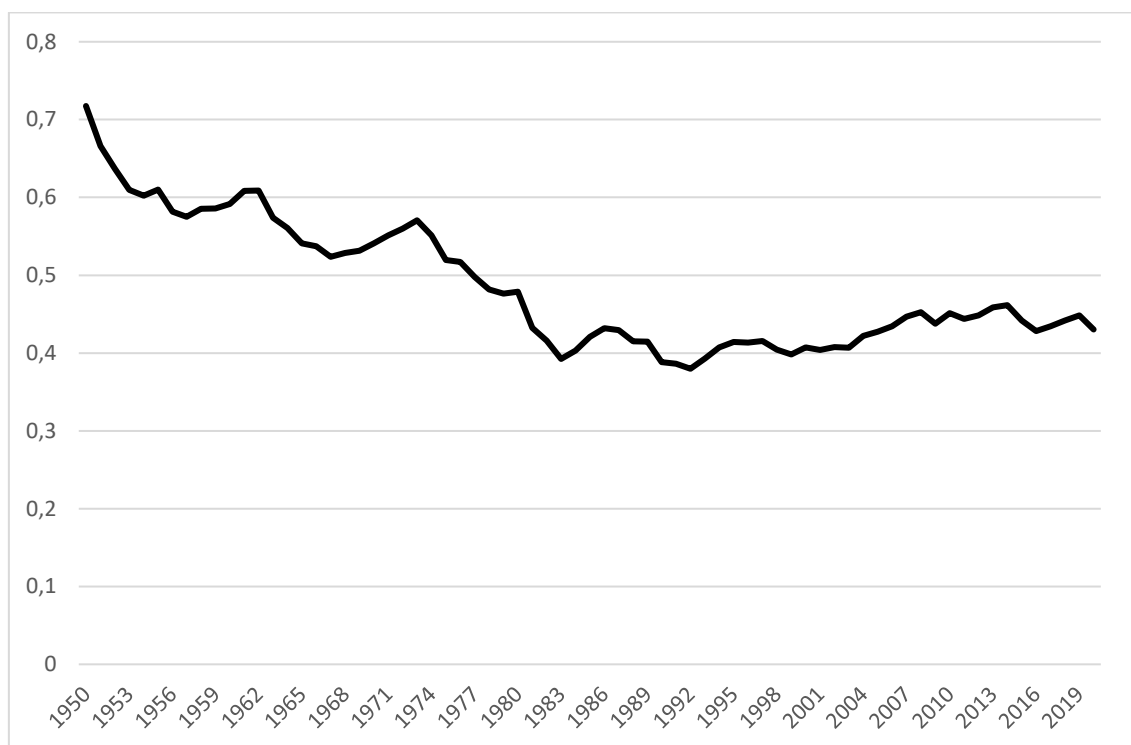
Graph 5: Evolution of new capital goods prices, 1947-2020 (p=1 in 2000)



Source: Data from Ipeadata and IBGE for Gross Fixed Capital Formation (GFCF) in current prices and GFCF in 2010 prices, to calculate the implicit price deflator of GFCF. Implicit price deflator of GDP from Ipeadata. Capital goods prices calculated as the ratio of the implicit price of deflator of GFCF to the implicit price deflator of GDP, with $p=1$ in 2000. See Bacha and Bonelli (2016a) for an explanation of the correction of p between 1986 and 1995.

Additionally, capital goods became less productive to generate GDP. There was a drop in capital productivity of around 25%, when comparing the averages for the periods before and after 1980, as illustrated in Graph 6.

Graph 6: Evolution of capital productivity (GDP/fixed capita stock), 1950-2020



Source: Our own elaboration based on Bacha and Bonelli (2016a). The series are in 2000 prices. The data for fixed capital formation are from Ipeadata.

Capital goods became more expensive and less productive throughout the post-war industrialization process. Why did this occur? One explanation lies in the insistence on keeping the economy closed, and starting to produce in Brazil inputs, machines and equipment that were previously imported at lower prices and with higher productivity. The country deepened import substitution instead of increasing exports to facilitate imports and efficient investment. This would be the path for the efficient production of goods and services capable of competing in the international market. It was the path that South Korea took. In addition to more expensive and less productive machines and equipment, savings also declined (albeit with lesser influence), and the result was the growth collapse from 1980 onwards.

Bacha and Bonelli (2016a) discuss this hypothesis in more detail, but it is worth noting its contrast with the widely held view that Brazil's growth collapse was due to the external debt crisis of 1981-83 followed by the acceleration of inflation and the failed stabilization plans until 1994. Without denying the importance of these events, the interpretation proposed here is, so to speak, more structural. The process of growth deceleration was already underway in the 1970s, particularly during the Geisel government (1974/79), but this was masked by an increase in the savings rate from 17.6% to 23.6% of GDP between 1963- 67 and 1974-80 (with a large contribution from external debt). In the 1970s, the savings increase more than compensated for the fall in capital productivity and the rise in capital goods prices which were under way.

Against the background of Brazil's low growth experience since 1980, associated with the deepening of import substitution, in the following section we consider arguments in favor of trade openness.

3. Integration is beneficial

Ever since the classic book by David Ricardo, *Principles of Political Economy and Taxation*, in 1817, economists have known that a country benefits from being integrated to the international economy. Ricardo had in mind the benefits that would accrue from a country's specialization in those goods in which it is relatively more productive. The country would sell such goods to its trading partners and buy from them at cheaper prices the products in which it is relatively less productive. This is the principle of comparative advantage: each country specializes in those goods in which it is relatively more productive and, as a result, all countries can benefit from greater world production and lower prices than in an alternative scenario, in which countries would produce and consume in isolation. As it is relevant to the contemporary discussion on the so-called Brazil cost, of which more later, it should be noted in his two-countries two-goods example Ricardo deliberately placed England with lower productivity than Portugal in both lines of production (namely, wine and cloth), and even so he demonstrated that England would benefit by specializing in that line (namely, cloth) where its productive disadvantage was relatively smaller.

Nowadays, international trade is no longer in final products as in Ricardo's example, but predominantly in intermediary products along global value chains: each country specializes in a production stage--a smartphone, for example, has parts produced in many countries, automotive companies specialize not in producing the entire vehicle, but in parts and components that are assembled in third countries. Company headquarters are normally responsible for design, technology and, in many cases, advertising and marketing.

Nor is it trade between small firms, operating with increasing costs, under perfect competition, as in Ricardo's example. The game is now predominantly between large companies, which can differentiate their products by brands or specific attributes, thus gaining the ability to set prices and have some mechanism to protect their markets. Apple and Samsung have attributes to retain their customers, who do not automatically move from one brand to another. Specialty coffee brands or sportswear create their differentiation and compete through other means than merely lower prices.

Finally, much of international trade is no longer between independent firms, but between branches and subsidiaries of the same multinational company. For a review of modern international trade theory, see Helpman (2011).

Under these conditions, three other dimensions of the benefits of trade beyond specialization stand out. Firstly, trade allows firms located in a country to absorb the technology available at the international production frontier, either because they are multinationals that are on this frontier, or because national firms become part of the production chain of the firms on the frontier. Firms in a country engaged in global value chains incorporate the world's "state of the art" into their production processes. They therefore become more productive and capable of generating more growth.

Second, due to the expansion of markets brought about by international trade, the more productive firms can gain scale without the limitations of their domestic market. In this way, they produce goods and services at lower costs and more competitive prices.

Finally, by increasing competition for markets, trade allows a natural selection of the most productive firms, which overcome those that previously survived under the protection of import barriers. Workers, physical capital, and inputs are transferred from less to more productive firms. As a result, the economy as a whole benefits.

Thus, international trade favors innovation and growth through technology transfer, market size, and competition. Each of these mechanisms offers a potential source of dynamic welfare gains, expressed by a higher rate of economic growth. Recent literature suggests that these gains are substantial in relation to the static gains of the Ricardian theory. For a review of the theoretical and applied literature on trade and innovation, see Melitz and Redding (2021).

The historical experience of “economic miracles” in Southeast Asia, on the periphery of Europe, and in Oceania documents that countries that overcame the middle-income trap and joined the developed countries after the 2nd World War did so with a growing integration to international trade. Not all countries that opened to trade developed, but all countries that developed did so with a significant trade integration to the rest of the world. We use a per capita income cutoff of US\$ 25,000 to characterize a country as rich. As summarized in Table 1, we identify twelve successful cases of the transition from middle-income to rich. South Korea, Hong Kong, Israel, Singapore, and Taiwan became rich with industrial exports; Spain, Greece, Ireland, and Portugal, with exports of services including labor; Australia, New Zealand, and Norway, with exports of natural resources. The nature of the products varied according to the countries’ comparative advantages, the common factor being integration to the world economy.

Table 1: Features of 12 countries that overcame the middle-income trap after WW-II

	Per Capita Income (USD mil)	Population (million)	Gini	Trade/GDP (%)
Industry				
South Korea	43	52	35	108
Hong Kong	60	7	54	375
Israel	40	9	39	56
Singapore	97	6	46	322
Taiwan	25	24	34	118
Services				
Greece	30	11	34	68
Ireland	87	5	33	210
Portugal	35	10	34	85
Spain	41	47	35	66
Natural Resources				
Norway	64	6	27	69
Australia	50	26	34	43
New Zeland	43	5	36	53
Median	43	10	35	77
Brasil	15	213	54	24

Source: Central Intelligence Agency (CIA), available at: www.cia.gov.

Curiously enough, the median per capita income of these 12 countries (US\$ 43.000) is three times that of Brazil (US\$ 15.000), the same relationship between the median of their degree of openness (77%) and that of Brazil (24%).

In addition to being open, these 12 countries are small and relatively egalitarian, as seen in Table 1 by their population and Gini coefficients. Brazil is a large and unequal country. Size and income inequality are problematic for growth. For Mexico, it was not enough to open to foreign trade through NAFTA. The northern part of the country joined US and Canada, but the South remained relatively stagnant. This experience suggests that to ensure growth in large and unequal countries, two integrations are necessary: the external and the internal, and the latter from both social and regional points of view, a theme elaborated by Bacha and Bonelli (2016b) in a comparison of the post-WW-II growth experiences of Brazil and Mexico.

Donaldson's (2015) and Irwin's (2019) reviews the recent empirical literature on trade and growth and confirms the benefits of trade. There is a positive causal relationship between the share of trade and the size of GDP, and liberalizing trade reforms have a positive impact on economic growth. In a macroeconomic model that takes into account the existence of an informal sector, using data from Brazil Dix-Carneiro et al. (2021) suggest that a 40% reduction in foreign trade barriers would bring an output gain of 9.6% to the country.

4. Brazil is one of the most inward-looking countries in the world

In contrast to the abundant evidence of the benefits of international trade, Brazil remains one of the most closed economies in the world.

Big economies are big exporters: in 2018 the United States was the first economy in the world and the second biggest exporter; China was the second largest economy and the first exporter; Japan was the third largest economy and fourth largest exporter; Germany was the fourth largest economy and third largest exporter; France ranked fifth in both the size of the economy and the importance of exports; the UK had the sixth largest economy in the world and was the tenth largest exporter.

Brazil, in 2018 the eighth biggest economy in the world, was only the 25th biggest exporter. Brazil's GDP stood for 3% of world GDP, but its exports reached only 1.1% of world exports. A tiny giant in terms of GDP, Brazil is a dwarf in terms of exports.

What is seen on the export side is confirmed on the import side. In 2018, the share of imports in Brazil's GDP was only 11.6%. This was the lowest value among the 164 countries considered by the World Bank.

This is a paradoxical situation, because in 2018 Brazil was the sixth most preferred destination for foreign direct investment in the world (behind only the United States, China, Canada, Hong Kong and Singapore). The country allows the free entry of foreign firms but creates obstacles to exports and imports of goods and services. This is a ready-made recipe for “impoverishing growth”, as Harry Johnson and Jagdish Bhagwati warned us in the 1960s. Multinationals and their employees thrive by exploiting the protected home market. For example, producing and selling, within the country, inferior quality cars with high prices, as there is no competition from imported cars nor the possibility of producing better cars, due to restrictions on the importation of machines and other inputs of good quality. But the rest of the country becomes impoverished, seeing its domestic resources used in an inefficient import substitution activity instead of in production lines in which the country could compete in the international market.

As Rios and Veiga (2022) point out, Brazil is an outlier when it comes to the level of tariff protection granted to industrial products. In 2020, only nine countries in the world had higher average import tariffs for non-agricultural products: Algeria, Argentina, Bhutan, Cameroon, Comoros, Gabon, Iran, Venezuela, and Zimbabwe. The country is tied to a common trade protection framework with Argentina on account of Mercosur, but there is no economic or social criterion that justifies Brazil's presence in this small group of countries with high tariff protection for industrial goods.

Another characteristic of the protection structure in Brazil indicated by Rios and Veiga (2022) is its lack of selectivity. The country not only has high tariffs for inputs and capital goods compared to the rest of the world, but also for products that are relevant to the citizen, in particular for young people, jeopardizing their social and professional insertion. Brazil and Argentina charge significantly higher tariffs than Australia, China, India and the European Union for notebooks and tablets, eyeglass frames, bicycles, and sports shoes. Brazil's degree of protection is in line with that in India for cell phones and video game consoles, but it is significantly higher than in Australia, China, or the European Union, where there are no tariffs on these products. This high degree of protection makes goods available to the Brazilian consumer more expensive. While rich Brazilians may buy

these goods on their trips abroad—escaping the harmful effects of tariff protection—the vast majority of the population pays more, often for worse quality products available in the local market.

5. Arguments against opening to foreign trade

Why does Brazil remain closed, when the benefits of integration to foreign trade are so big as argued in Section 3? We explore five possible reasons:

- the pro-integration argument is too complex
- opposition from vested interests is very strong
- the benefits of integration are distorted by the Brazil cost
- a simplistic reading of the country's history disfavors openness
- pro-openness hypotheses are wrong about the real functioning of the economy.

5.1. Complexity of the pro-openness arguments

In the 1960s, a mathematician who disbelieved the scientific nature of economics challenged Paul Samuelson (Nobel Prize in Economics in 1970) to indicate a logically true economic proposition that was not obvious. Samuelson replied: the theory of comparative advantage! In his words (Samuelson, 1969):

That [the theory of comparative advantage] is logically true needs not be argued to a mathematician; that it is not trivial is attested by the thousands of important and intelligent people who have never been able to understand the doctrine for themselves or believe it even after it has been explained to them.

In fact, it is not intuitive that a country should abandon part of its production and jobs to concentrate its resources on goods and activities the demand for which depends on the mood of foreigners. The theory of foreign trade before David Ricardo was that of Adam Smith, for whom countries should export what was left over after satisfying domestic demand—trade was a vent for surplus, an outlet for excess domestic capacity. This is a more intuitive and easy-to-understand position than Ricardo's famous but complex example, according to which Portugal should specialize in wine production even though it was also more productive than England in textile production. (But Ricardo's intuition can perhaps be better captured by the example of a lawyer who is a better typist than her assistant, but still profits by dedicating herself only to the law, leaving the typing in the assistant's care).

The idea of protecting the internal market and exporting what's left over domestic demand is a common platform for populist politicians on the left and right. Recent examples are Donald Trump's America First foreign trade plans, and Dilma Rousseff's speeches in 2011 calling for the defense of the internal market against the international financial crisis. On a political level, the openness to trade that stems from the theory of comparative advantage appears to be an act of intellectual masochism. To try to overcome

this cognitive barrier, all that remains to academic economists is to appeal to the saying that water dripping day by day wears the hardest rock away.

5.2. Vested interests' opposition

The second explanation for the difficulty of opening is the opposition of vested interests—firms and unions that would stand to lose with the lack of protection of the domestic market. The benefits of opening to international trade are diffuse: it is consumers in general and firms and workers without the habit of exporting that benefit from it. On the other hand, firms that monopolize the domestic market and would lose out are politically powerful, as illustrated by the influence of manufacturing associations on Brazil's government's trade policy decisions. Not only manufacturing interests; the agricultural lobby also prevents the entry in Brazil of goods such as bananas from Ecuador, meat from Paraguay, Robusta coffee from Vietnam. Not to mention law and engineering associations that do not allow competition from foreign practitioners. These professional associations create barriers to hiring foreigners, in addition to the bureaucratic difficulties they face to obtain work visas from the National Immigration Council.

This is not a question of economics, since there is not a denial that openness increases social well-being. It is a political economy question: organized and powerful economic interests would be harmed. Keynes once said that in the long run it is not interests but ideas that prevail. If he is right, the task ahead is winning the war of ideas, including in this effort the mobilization of business groups that manage to see beyond their immediate interests.

5.3. Distorted resource allocation due to the "Brazil cost"

The third explanation for not liberalizing trade is that government failures generate a distorted domestic allocation of resources. More specifically, Brazilian manufacturers' associations frequently invoke the "Brazil cost" to resist openness, referring to the dysfunctions of the consumption taxation system and the deterioration of infrastructure.

To the extent that they equally affect the entire economy, these distortions reduce the competitiveness of firms located in Brazil in general, but do not affect the country's comparative advantages. In equilibrium, the exchange rate of the Real to the US dollar would balance imports with exports, devaluing to the extent necessary to offset the Brazil cost.

The argument has some validity insofar as the Brazil cost punishes some sectors more heavily than others, artificially altering the composition of domestic demand. For example, industrial products are more heavily taxed than agriculture and services. This negatively affects the consumption of both domestic and imported industrial products and benefit the expansion of agriculture and services at the expense of manufacturing.

A consumption tax reform to simplify tax compliance and equalize the taxation of different goods and services would thus be a welcome companion to a program of opening the economy to foreign trade. This would avoid both sectoral distortions and an excessively undervalued exchange rate.

5.4. A simplistic reading of history?

A fourth explanation for opposition to trade liberalization derives from a simplistic reading of the country's economic history. According to it, Brazil stagnated in the 19th century with an open economy, based on exports of primary products. The country progressed in the 20th century with a closed economy based on industrial import substitution. Why then, in the 21st century, open the economy to international trade, which according to this view would be synonymous with deindustrialization and condemnation of the country to the status of exporter of primary products?

To qualify this simplistic view, it should be noted that for 120 years, from the 1840s to the 1960s, coffee alone accounted for more than 50% of Brazil's exports. Given its dominance of the international coffee market, from the early 1900s Brazil practiced a policy of valorization of the product, one consequence of which was the overvaluation of the currency, with the resulting elimination from the export list of other products that could otherwise have become competitive, such as cotton and fabrics. These Brazilian products found it difficult to compete in foreign markets, as the dollar price of coffee was very attractive, and the exchange rate remained overvalued. Brazil's coffee valorization also resulted in the progressive entry of other countries into the international coffee market, reducing the country's monopolist power. From 70% at the beginning of the 20th century, Brazil's share of world coffee exports dropped to 30% in the 1960s. There was also a dramatic reduction in the share of exports in Brazil's GDP, as the country's share of the world coffee market declined and domestic sectors that did not participate in foreign trade expanded. The share of total exports in GDP declined from 20.6% in 1906, when coffee valorization was introduced, to just 3.3% in 1964, when coffee finally lost its dominant position in Brazilian exports.

The coffee valorization policy was intended to increase revenue from coffee exports in the short run, taking advantage of the low reaction of demand to high prices and the time it took for coffee production in competing countries to react. Paradoxically, in the medium term it resulted in a chronic shortage of foreign exchange, as the share of exports in national income was compressed. This shortage was dealt with through the so-called national similar policy. It meant that products similar to those produced in Brazil could not be imported, either because of quantitative restrictions, or because of high tariffs and complex port bureaucracy. But these domestic products that replaced imports could not be exported due to their high prices and low quality. Thus, an industry was created almost exclusively dedicated to supplying a protected domestic market.

At the same time, the foreign exchange generated by coffee exports was reserved for the import needs of inputs and capital goods of this industry. For a long time, this reservation policy was guaranteed by quantitative controls, by the licensing of imports. Later, a multiple exchange rate system prevailed. Under this system, importers of goods considered essential had access to international currency at more favorable rates. From the late 1970s onwards, a system of high tariffs on industrial imports prevailed, under a unified exchange rate regime.

Nowadays, other commodities have gained importance in the export basket and Brazil no longer depends on coffee. But a shrinking industrial sector remains inward-looking, not able to compete in foreign markets.

Import substitution worked well for a while because when it started, in the 1930s, the country was an underdeveloped agrarian economy, characterized by an excess of labor that emigrated from rural to urban sectors. Also, from 1930 until the end of World War II, protectionism prevailed in international markets. The simple fact that workers left low-productive subsistence farms to start working in the urban environment ensured the country's productivity growth. It was urbanization associated with industrialization that transformed Brazil from poor into a middle-income country.

Nowadays, the population is almost entirely urban and the easy source of productivity gains associated to labor migration from the countryside to the cities has ceased to operate. Productive gains have now to be achieved through the modernization of already established activities. As argued by Dix-Carneiro et al. (2021), the presence of an important urbanized informal sector increases the benefits of trade openness, as it allows more productive formal firms to replace less productive informal firms.

Furthermore, in the 21st century, at issue is no longer exporting primary products in raw form and in isolation from the rest of the economy, but adding value to these primary products through agro-mineral-industrial complexes, whose productivity is comparable to and even higher than that of the manufacturing sector. In *Agriculture and Industry in Brazil: Competitiveness and Innovation*, Fishlow and Vieira-Filho (2020) argue that the recent agricultural expansion in Brazil was technologically intensive and therefore significantly different from commodity booms of the past.

Furthermore, the example of rich countries that are mostly exporters of primary goods, such as Canada, Norway, Australia and even Chile, show that it is inappropriate nowadays to associate the export of primary products to backwardness and poverty. As Bacha and Fishlow (2011) argue, the so-called curse of natural resources can be overcome with good institutions and appropriate policies.

4.5. Excessive optimism of pro-openness hypotheses

The previous criticisms seem insufficient to deter a move towards trade openness, but they do not exhaust the subject. There is a fifth possibility to consider. It refers to the excessive optimism of the hypotheses entertained by trade-liberalization advocates about the real functioning of the economy. In its traditional neoclassical formulation, the implicit assumption is that supply creates its own demand. It would suffice to reduce tariffs and other protectionist measures to produce an efficient allocation of resources, without affecting either the internal balance (full employment) or the external balance (exports paired with imports).

However, due to price rigidities and fixed costs in the reallocation of resources, replacing domestic production with imports can generate unemployment and trade imbalance. If the exchange rate floats, then, in principle, when the economy opens to imports the exchange rate depreciates, which would help to keep the economy under full-employment and balance of payments equilibrium. But in a managed exchange rate regime as Brazil had until January 1999, such devaluation may not occur. Dix-Carneiro and Kovak (2019) document that, following Brazil's trade liberalization episode in the early 1990s, the regions of the country most exposed to external competition faced an increase in unemployment in relation to the national average.

The transition from the initial trade-liberalization shock back to full balance can be long and painful. In democratic regimes, where politicians need to give immediate answers to the plight of the population, the opening of the economy to trade can simply be aborted.

This is what happened in Brazil in the second half of the 1990s, when there was a rollback of the 1990 trade liberalization of the Collor government. In this period, the negative impact of import liberalization on manufacturing activity was amplified by an overvaluation of the real exchange rate.

6. Outline of a trade liberalization program

The implication of the fifth criticism to trade liberalization is that to be successful an integration strategy needs to be based both on carrots and sticks. In other words, it is necessary to stimulate demand and remove impediments to the restructuring of supply. Tax reform and infrastructure recovery should complement the trade liberalization strategy, to raise the productivity of the economy and the competitiveness of the manufacturing sector.

The suggestion is, first, to make trade liberalization a gradual and pre-announced process. Second, to expand unemployment insurance and workforce retraining and reallocation programs to mitigate transition costs. Additionally, to promote trade reciprocity arrangements to ensure that foreign markets are open to exports as the domestic market is opened to imports--taking care that these arrangements, always slow and difficult to implement, as shown by the slow progress of the proposal for a trade agreement between Mercosur and the European Union, are not used by business lobbies to extend unlimitedly the timetable for trade liberalization.

Starting from a situation of trade balance, when tariffs and other protectionist mechanisms are reduced there must be a currency devaluation that compensates domestic producers, making imports more expensive and increasing the competitiveness of exports. Under a floating exchange rate regime, this may happen naturally as, anticipating a liberalization of imports and the corresponding increase in demand for foreign currency, financial agents would start hoarding dollars, thus devaluing the domestic currency even before the increase in imports. Destabilizing short-term capital inflows may however act in the opposite direction and should be dealt with.

More broadly, the suggestion is to devise a strategy for the future of Brazilian industry that involves both trade liberalization and the reduction of the Brazil cost--an industrial strategy that to be successful needs to be able to motivate relevant segments of the country's business community.

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