A brief history of development theory. From Schumpeter and Prebisch to new developmentalism[f]

Luiz Carlos Bresser-Pereira[*]
José Luis Oreiro[**]

Latest version, October 12, 2022.

Abstract: Classical developmentalism was heterodox economics that showed countries require a moderate intervention of the state in the economy to industrialize and catch up. Growth depends on investments and on a satisfying expected rate of profit, which import tariffs legitimized by the infant industry argument assure. Latin-American countries adopted this industrial policy from the 1950s and experienced high growth rates. But the infant argument loses validity with time. In the 1980s, under the pressure of the Global North, Latin American countries adopted the neoliberal reforms, and are quasi-stagnant since then. New developmentalism emerged in the 2000s, made the critique of conventional economics, proposed a new growth strategy focused on a competitive exchange rate, and legitimized the use of import tariffs with the Dutch disease argument.

Keywords: Classical developmentalism, infant industry, new developmentalism, exchange rate, Dutch disease.

JEL Classification: O11, 014, 023, 024

[f] We would like to thank Gilberto Tadeu Lima, Mauro Boianovsky and Tiago Couto Porto for their useful comments.

[*] Luiz Carlos Bresser-Pereira is Professor Emeritus of Getulio Vargas Foundation. E-mail: bresserpereira@gmail.com. Web-page: www.bresserpereira.org.br.

[**] José Luis Oreiro is Associate Professor at University of Brasilia (UnB), Professor at Graduate Program in Economics Integration of the University of Basque Country (Bilbao/Spain) and Level I Researcher at National Council of Scientific and Technological Development (CNPq). E-mail: joreiro@unb.br. Web-Page: www.sdmrg.com.br.

Introduction

Mercantilist economics in the 17th and 18th centuries,[1] Friedrich List (1789-1846), the precursor of the German historical school, in the 1800s, and Joseph Schumpeter (1883-1950) in the early 1900s were the founders of the theory of economic development. The latter started out from a critique of classical and neoclassical economics, which has the general equilibrium model at its heart. He showed in his 1911 book that this conventional economics cannot explain profits and economic development because it assumes a competitive economy defined by a circular flow of goods, money, and production factors where there is no distinction between profits and interest rate, i.e., between the reward for the introduction of innovations and the reward for the use of "indirect means of production", which are "capital goods" that constitutes the "stock of capital".[2] In such an economy there is no room for innovations since the income generated within the system is entirely spent to pay wages for workers and interests for capitalists. Without innovations capitalist economies will rest forever in a steady-state growth explained by exogenous factors like population growth. To economic development to occur, the circular flow must be broken from inside: new production process or new goods must be introduced in the system. For Schumpeter, the entrepreneur is the person that introduces the innovation within the system, and he/she does it to obtain a monetary gain that is "profit", defined as the remuneration for the successful introduction of an innovation. When an innovation is introduced by an entrepreneur, a (temporary) monopolistic advantage over other firms is created which allowed the income received by the entrepreneur to be higher than the "normal" interest rate, making possible to reward the effort of research and development required by the introduction of an innovation. The introduction of an innovation is closely associated with investment in new and more sophisticated capital goods required to produce the new goods as services making available by the innovation and/or to substitute the old and less efficient production techniques for the new and more efficient ones.

In 1936, at the bottom of the Depression, John Maynard Keynes published his *General Theory*, representing a revolution in the history of economic thinking. In the book's opening chapter, Keynes criticized "Say's law" – the notion that supply creates its own demand –, which also lies at the heart of conventional economics and not only excludes the possibility of economic crises but also assured that the market mechanism will always be capable to make capitalists economies to operate with full employment of production factors. Keynes argued that the normal situation of a capitalist economy was not full employment but "(…) a chronic situation of sub-normal activity for a considerable period of time without any marked tendency either towards recovery or towards complete collapse" (Keynes 1936, p.249). This underemployment equilibrium is the result of insufficient aggregate demand for goods and services produced by firms due to the lack of incentives for entrepreneurs to invest. For Keynes investment demand was the *causa causans* of the level of employment due to the autonomous nature of entrepreneurs´ decision to invest in comparison to the more reactive role of consumption demand of families.

Although Keynes himself was not interested in economic development, since his theory is built in the Marshallian short run, his theories of effective demand and investment decision process had long-term implications that make then a masterpiece for the demand side of development theory. Indeed, Joan Robinson (1962), one of Keynes´s main disciples, argues that the desired rate of capital accumulation, i.e., the rate at which entrepreneurs desire to expand their capital stock is a function of the difference between expected rate of profit and the long-term interest rate. A high rate of capital accumulation requires a high expected profit rate, and the actual profit rate depends on a high rate of capital accumulation (Asimakopoulos 1991, p. 176). This means that profits and investment had a bi-dimensional causality relation which makes impossible for the market mechanisms to achieve a "golden-age" rate of economic growth in which the economy expands in the required pace for the full employment of productive resources.

The theory of economic development was therefore heterodox from its inception, as it was born out of Schumpeter's and Keynes's critique of conventional economics. It was only after the Second Word War, however, that a set of economists focused on development problems appear. We refer to classical developmentalism, followed in the 2000s by new developmentalism – two schools of thought which are primarily devoted to economic development and adopted the historical method. Originally the classical developmentalists were viewed as the pioneers of development economics, but we don't use this expression which is far more comprehensive; it includes all schools of thought that worked with economic development and abstract models that rely on complex mathematical syllogisms, as well as new institutionalist models that remain part of neoclassical economics and try to give it a historical perspective. This paper does not discuss this approach.

The first generation

Classical developmentalism emerged during the Second World War. It is a thinking that has its roots in Marx, Schumpeter, and Keynes, but focuses on countries that had not, at that time, completed their national and industrial revolutions, that is, the capitalist revolution, and, to do so, had to face the opposition coming from the Global North – that is, from economic liberalism. The first generation of classical developmentalist economists included Gunnar Myrdal (1898-1987), Michal Kalecki (1899-1970), Raúl Prebisch (1901-1986), Simon Kuznets (1901-1085), Paul Rosenstein-Rodan (1902-1985), Ragnar Nurkse (1907-1959), Hans W. Singer (1910-2006), Arthur Lewis (1915-1991), and Albert Hirschman (1915-2012). Rosenstein-Rodan and Hirschman argued that peripheral countries had not yet industrialized because they lacked the associated positive externalities and economies of scope and scale found in industrial countries.[3] Because of external and internal increasing returns a country with a low capital stock per-worker will face a situation in which profit rate will also be low, thereby the private incentives for capital accumulation will be insufficient for the country to escape from the "low-income trap". Such "paradox of underdevelopment" (Ros 2013, chapters 7 and 8) required industrialization to be State led. Prebisch and Singer criticized conventional economics, which was based on the implicit assumption that all productive activities are equal good for economic development (Reinert, 2007), and argued

that economic development implies industrialization or structural change.[4] The idea that industrialization is the key for economic development was also developed by Kaldor according to whom the growth rate of manufacturing output had a causal relation over the growth rate of GDP and labor productivity due to increasing returns in manufacturing activities and decreasing returns on agriculture. The so-called "Kaldor-Verdoorn´s Law" was applied to explain to sluggish economic growth of the United Kingdom after the Second World War in comparison to countries like France, Germany, Italy, and Japan.;[5] Nurkse argued that capital is made at home.[6] Lewis explained that underdeveloped economies are dual economies with a modern or capitalist sector and a traditional or subsistence sector. Industrialization is the expansion of the modern sector through capital accumulation and transference of labor from the subsistence sector to the modern sector. During the transition from a dual economy to a mature economy, wages are kept constant due to the unlimited supply of labor from the subsistence sector to the modern sector, which allowed profit share and hence savings ratio to increase, thus making development process to create the savings required to finance itself..[7] These economists were heterodox because they rejected the heart of conventional economics – the general equilibrium model (based on perfect competition and constant returns of scale) – and the law of comparative advantage of international trade, which is a beautiful syllogism, but a misguiding economic model. In the 1950s and '60s, however, orthodoxy and heterodoxy were not discussed because Keynesian and developmentalist economists were either part of or close to mainstream economics, and their papers were published in the main economics journals. The distinction became necessary when, around 1980, the mainstream became exclusive to conventional economics, its economists became arrogant, the economics departments of the major universities ceased to hire developmental economists, and the main journals began rejecting heterodox papers.

Raúl Prebisch, who ran the ECLAC since 1949, was the founder of the classical developmentalism and his Latin-American, structuralist, version. He started out from Keynes, and therefore from demand, to formulate his center-periphery model – to show that, without prejudice of long-term supply-side policies and Keynesian macroeconomic policy, demand could be guaranteed for industrial companies by means of import tariffs and, therefore, through the industrialization policy by imports substitution. He understood that such tariffs were legitimate based on the classical *infant industry* argument, originally proposed by Alexander Hamilton in 1792 and later by Friedrich List in 1844. The contributions of Latin-American structuralism to classical developmentalism were: (1) the critique of neo-classical orthodoxy, which rejected the need for industrialization or "structural change", showing that it was not true that the productivity gains made in central countries' industrial sectors were transferred to non-industrialized countries by lower prices; (2) the critique of the law of comparative advantage of international trade, which was not valid in the long term; and (3) the definition of the external constraint. Because of Engel's law, the income elasticity of imports of primary goods by rich countries is lower than 1, and the income elasticity of imports of manufactured goods by developing countries is greater than 1. This means that if center and periphery countries grown at the same rate, then the import´s growth rate of peripherical countries from the center countries will be higher than the growth rate of imports of center countries from the periphery. This situation will produce a balance of

payments crisis which will force peripherical countries to reduce the rate of economic growth. In other words, the nature of exports and imports of the peripherical countries creates an external constraint for the catching-up process with the center countries. This constraint can only be relieved by an industrialization process that starts initially by imports substitution but must advance to the phase of export promotion to be well succeed.

Liberal orthodoxy soon called the industrial policy based on import tariffs "protectionist", but there was nothing protectionist about the tariffs. Because the manufacturing industries in these economies at hand were in their infancy, the tariffs created a level playing field in the competition for industrial companies located there. Yet, over the years, this argument lost strength. Prebisch considered arguing for currency depreciation instead of import tariffs but must have realized that when the depreciation took place, the profits of commodities exporters would increase, capitals would flow to this sector, and the exchange rate would appreciate again.[8] As in the 1950s the Dutch disease had not yet been defined, nor how it is possible to neutralize it and make possible industrialization while preventing the exchange rate from appreciating again, Prebisch preferred to rely on import tariffs at least for some more time.[9]

Anti-imperialism and the dependency theory

In the 1950s, while the ECLAC's economists defended growth defined the center-periphery model, in Brazil the group of nationalist intellectuals of the ISEB built the national-developmentalist model.[10] Both groups defended industrialization, and both were anti-imperialist. They started out from the thesis that the imperial center opposes the periphery's industrialization. Rich countries are interested in an unequal exchange, in exporting to developing countries sophisticated manufactured goods that suppose a value-added per capita and pay high wages, while importing primary goods. Prebisch did not use the term "imperialism", which was incompatible with his position at ECLAC a United Nations agency. The term "center-periphery" enabled circumventing the issue. According to both models, developing countries should reject the Global North's ideological hegemony and define a national development project.

The most important economist of the ISEB was Ignácio Rangel (1914-1994) and its main political scientist, Hélio Jaguaribe (1923-2018). While the ECLAC's contribution was mainly in economics, the ISEB's was in the realm of political economy. Celso Furtado, who worked next to Prebisch at the ECLAC and delivered conferences at the ISEB, served as liaison between the two groups.[11]

Both models argued that at the political level, the industrialization of Latin America, which was underway at the time, was due to the formation of developmental class coalition made up of industrial entrepreneurs, the public bureaucracy, and urban workers. Despite being informal and unstable, these political pacts reasonably reflected the reality of the 1950s. Developmental policies were successfully adopted in Latin America at several moments, when industrialization picked up pace, and had the support of left-wing intellectuals. In Brazil, for example, it in its 1958 Congress the Communist Party decided to support this interpretation. But the Latin-American industrial bourgeoisie was not as firmly nationalistic as those of Asian countries. In the 1960s, after the

Cuban Revolution (1959) and within the context of the Cold War, Latin America underwent a process of political radicalization. Feeling threatened, industrial entrepreneurs broke their agreement with the public bureaucracy and organized workers and aligned themselves with the old exporting elites, the liberal middle classes, and the United States. Then came the coups d'état in Brazil (1964), Argentina (1967) and Uruguay (1968) – right-wing coups that violently repressed the region's left-leaning intellectuals.

As a reaction against the military coups, the "dependency theory" remerged – a misguided thesis that would deliver a harsh blow on both the center-periphery model and the national-developmentalist one. This originally Marxist theory was formulated by German economist Andre Gunder Frank (1929-2005) in the days of the military coup of 1964 and reflected the outrage of the left in Latin America.[12] It criticized the ECLAC's center-periphery model and the ISEB's national-developmentalist model, arguing that they were both doomed to failure because the bourgeoisie at the periphery of capitalism was intrinsically dependent – incapable of leading a national and industrial revolution.

The thesis was simplistic and only partly reflected the reality of developing countries and the Latin-American bourgeoisies, which are contradictory and ambiguous; at some points, they align with the state to promote economic development; at others, when they feel threatened by the left, they embrace the center's imperial economic liberalism. Although conservative, this interpretation appealed to left-wing intellectuals left outside of the political process by the military coups in Brazil, in 1964, in Argentina, in 1967, and in Uruguay, in 1968. Resentful of the coups and their own exclusion, they criticized those among them who had argued for a political agreement with business industrialists and embarked in the dependency theory. They thus abandoned the center-periphery model and condemned Latin America to quasi-stagnation. Two currents of the dependency theory formed: the Marxist stream of Frank himself and of Ruy Mauro Marini (1932-1997) and the "associated" current of Fernando Henrique Cardoso (1931) and Enzo Faletto (1935-2003). The former group concluded that, given the bourgeoisie's dependency, the solution was to be found in socialist revolution – a logical solution, but unrealistic.[13] The associated dependency theory criticized the ECLAC's and the ISEB's anti-imperial stance and the book *Underdevelopment and Stagnation in Latin America,* which Furtado, the more representative intellectual of these two groups, published in 1966, only two years after the coup in Brazil and his exile.[14] The theory of associated dependence look to the investments that industrial multinationals had been making in the region since 1950 as an "empirical evidence" that the Global North was not attempting to prevent the periphery's industrialization, and defended aligning with the Empire. This was a misguided criticism that can be found in Cardoso and Faletto's intellectually sophisticated book meaningfully titled *Dependency and Development in Latin America.* Published in 1969, few at that time realized the subordinate character of the associated dependency interpretation. They preferred to stay with the criticism of the military regimes and the social-democratic character of the book.[15]

The submission to imperialism was unclear to Latin America's left-wing intellectuals, who, outraged by the military coups, and attracted by the book's class analyses and defense of democracy, embarked in the new "truth". The ECLAC chose not to recognize that it was under criticism and allowed itself to

be meekly coopted. The ISEB was extinguished, and its intellectuals were repressed. In the United States, the associated dependency theory was enthusiastically received, as Cardoso noted somewhat ironically.[16] The ECLAC's thinking and, more broadly, classical developmentalism plunged into crisis – which Albert Hirschman recognized in a 1981 paper.[17] Only Celso Furtado remained true to the thinking of the ECLAC and ISEB.

Beginning in the 1970s, two Global Northern Marxist sociologists, Immanuel Wallerstein (1930-2019) and Giovanni Arrighi (1937-2009), contributed to the political economy of development with their "world-systems theory". According to this model, built based on the long-term concept of French historian Fernand Braudel (1902-1986), Wallerstein and Arrighi inserted the periphery's development into the wider process of capitalist development and international division of labor. Arrighi's contribution was particularly interesting because he developed a theory of phases-cycles of capitalist development and was quick to realize the emergence of China.[18] Unlike classical developmentalism, however, the two were sociologists and never formulated a model of economic development. After the collapse of the Soviet Union, they argued that the triumph of liberalism had ever taken place, but that the final crisis of capitalism was beginning. They have been too optimistic.

The second generation

The *second generation* of classical developmental economists emerged in the 1950s. Hollis B. Chenery (1918-1994), Anibal Pinto (1919-1996), Celso Furtado (1920-2004), Maria Conceição Tavares (1930), Bresser-Pereira (1934), Antônio Barros de Castro (1938-2011), Fernando Fajnzylber (1940-1991), Lance Taylor (1940-2022), Luiz Gonzaga Belluzzo (1942), and José Antonio Ocampo (1952) were part of this generation. Anibal Pinto focused on the structural heterogeneity of developing countries; Conceição Tavares's subject was the exhaustion of the industrialization policy by imports substitution and the dominance of financial capitalism; Castro argued for the tariff-based industrial policy and for the technology policy; Bresser-Pereira and Antonio Barros de Castro argued that the recovery of economic growth of several Latin American countries that began in the late 1960s was based on the concentration of income from the middle class, combined with reforms in the financial system[19] with the introduction of indexation of long-term contracts to past inflation as a device to allow the expansion of credit for buying durable consumer goods and real estate - induced a huge increase in the demand for the automobile industry which was being installed in the region since the 1950s.[20] In ECLAC, in the 1980s, Fernando Fajnzylber (1940-1991) tried to renovate structuralism with *La Industrialización Trunca de América Latina*, but his contribution was eventually a signal of the crisis in the developmental thinking at that time. He argued that with the passage of time the imports substitution industrialization had turned into a "frivolous protectionism". This proposals implied abandoning Prebisch's model and returning to the old logic of supply-side growth, which always makes sense but is partial: it does not resolve the problem originated in the exports of commodities.[21] As noted by Ricardo Bielschowsky, the main historian of ECLAC thinking, we had "the merger of the structuralist view and of the Schumpeterian interpretation".[22] The ECLAC's model became known as "neo-structuralist" – one of the forms of the liberal orthodoxy.

Celso Furtado was the main economist of this second generation by building a political economy of development and underdevelopment. Adopting a line of thinking close to the Marxian view, development arises in history with industrial capitalism, when the new bourgeois class begins to use systematically the economic surplus to accumulate capital instead of building temples and palaces and financing armies. For him, underdevelopment is not a phase of economic development, but the result of the Global North's development and imperialism – its policy against the periphery's industrialization. Furtado also defended the historical method to study economic development. Economics at the periphery of capitalism should address the reality of underdevelopment; conventional economics and liberal orthodoxy did not apply to the reality of underdeveloped countries.[23]

Third generation

Around 1980, rich countries experienced the Neoliberal Turn (the transition from developmental to neoliberal policy regime) under the lead of the UK and the US. The United States Treasury charged the World Bank with pressuring developing countries to carry out neoliberal reforms, while WTO was created to regulate the opening of national markets and limit the policy space of peripheral countries. The 1985 Baker Plan and the 1989 Consensus of Washington were manifestations of this pressure. The neoliberal diagnosis was simple. The state had become the problem rather than the solution and quasi-stagnation was caused by the "protectionist populism" that would have characterized the industrialization by imports substitution model. This was not true, but classical developmentalists lacked a convincing response to this criticism from liberal orthodoxy. Around 1990 they capitulated to the Global North and carried out the neoliberal reforms: mainly, trade and financial liberalization and generalized privatization. Liberal orthodoxy guaranteed to Latin American governments that growth would resume as soon as they opened their economies; instead, they entered a process of premature de-industrialization and have remained quasi-stagnant since then. There was some growth in the first decade of the 21st century, but due to a commodities boom. When the boom ended the region quickly returned to its quasi-stagnant condition.

In the 1980s, the developing countries faced a great foreign-debt crisis, experienced external debt default and stop growing, while the East Asian countries continued to grow. In reaction to this fact, a *third generation* of classical developmental economists then emerged. The 1982 book by Chalmers Johnson (1931-2010), the 1989 book by Alice Amsden (1943-2012), and the 1990 book by Robert H. Wade (1944) showed the rich countries, which were pressing the developing countries to abandon developmental policies, had adopted industrial policies and that these policies were important for the East Asian countries to develop,[24] while Eric Reinert (1949) and Ha-Joon Chang (1963) showed that the policies the Global North was pressing the developing countries to abandon were adopted by the former when they had made their own industrial revolutions.[25] Jan Kregel (1944), based on Hyman Minsky and his experience at the UNCTAD, provided a deep analysis of financial crises. Gabriel Palma (1947), with studies always supported by empirical research, contributed to the analysis of premature de-industrialization, financial crises, and the Dutch disease.

The new-developmental theory emerges

The new-developmental theory emerged in the early 2000s in Brazil also as a reaction to the quasi-stagnation that Latin America was facing since 1980. It was based on a methodological critique of orthodox or neoclassical economics which is a mathematical castle built on air. By adopting the hypothetical-deductive method, it starts out from axioms such as the *homo economicus*, the general equilibrium model and rational expectations. Instead of using fit with reality as its main criterion, it deems true that which is logically consistent. It is thus uncommitted to reality. This economics and its proposed reforms and economic policies (liberal orthodoxy) are misguided, purely ideological, and harmful to the development of countries, be they developed or developing. Conventional economics survives in universities because it is abstract, expressed as mathematical models; because it caters to the interest of rentiers and financiers; and because it matches the idealistic Platonism of academia. For sure, there are neoliberalism-classically trained economists who are remarkable and discuss economic reality with competence, but they can do that because they have cast aside the core neo-classical tenets. It is also worth pointing out that many researchers have emerged in the universities who carry out empirical investigations into topical subjects without support from any economic theories; they rely on econometrics, or develop algorithms, usually to evaluate public policy. They make useful research.

New developmentalism understands that the balance of economic systems and their economic development arise from the combination of the two institutions that coordinate the capitalist economies: the market and the state. The market is unparalleled when it comes to coordinating an economy's competitive sector but is unable to coordinate monopolistic sector and the macroeconomic prices.

New developmentalism argues, based on a classical view, that the state's role in the economy is to guarantee the general conditions for the accumulation of capital (education, healthcare, institutions to guarantee the market's proper functioning, investments in infrastructure, investments in science and technology, and a domestic financial system capable of funding investments in domestic currency) so that entrepreneurs can innovate by investing. It is therefore to ensure the microeconomic conditions for development – the conditions on the supply side that are essential for economic development.

Rather than engaging in the opposition between the Market and the State or stating the obvious that the two institutions are complementary, new developmentalism starts out from the distinction between the economy's competitive sectors, which the Market coordinates better than the State, and the naturally non-competitive sectors (infrastructure, the basic inputs industry, and too-big-to-fail large commercial banks), which the state must coordinate.

New developmentalism, adopting a post-Keynesian perspective, argues that to implement a macroeconomic policy that generate a volume of effective demand enough large for the economy to operate at its maximum capacity at a given point of time is also a role of the State. And new developmentalism argues that in order to avoid the Minskian financial fragility in the public sector was necessary for the State to build public savings in order to funding public investments and to implement a macroeconomic policy regime that keeps the

macroeconomic prices at a “right level” are also main roles of the State.[26] It is important to notice that “right prices” here not means prices “set by the market” or “market clearing prices” but a price system that generates the necessary incentives for a high pace of capital accumulation with embodied technological progress in order to complete the structural change in developing economies, which means to transfer all labor force from the subsistence or traditional sector (that are nowadays located in the urban rather than rural areas) to the modern sector. Finish the “structural change problem” is a necessary condition for increase the quality of the employment structure (Oreiro et al 2022) and hence the real wages and the population's standard of living, but this problem will only be solved when the five prices (real exchange rate, real interest rate, real wage, profit rate and inflation) are right.

The market is incapable of keeping either the five macroeconomic prices or the two main macroeconomic accounts – the current or foreign account and the fiscal account – at the “right” levels. The most strategic of all macroeconomic prices is the foreign exchange rate because is the one that allowed the most efficient domestic firms to have access to demand. The interest rate is a price that can be easily controlled by macroeconomic policy and had an important role for achieving a competitive exchange rate. The profit rate is the most important price for capital accumulation since private investment decision depends critically upon it. Inflation must be kept at a low and stable level to reduce the perceived uncertainty of business environment by entrepreneurs, which is harmful for long-term investment.

If left to the market’s devices, macroeconomic prices will prevent stability and growth. Regarding the interest rate if the Central Bank leaves the interest rate to be determined by the “money market”, the instability of money demand (due to changes in liquidity preference) will translate into a huge volatility of short-term interest rate, threating the solvency of the banking sector and making possible the occurrence of huge financial crisis. So, the Central Bank must define the short-term interest rate at a level that fluctuates around the “right level” for an open economy which is the sum if the international interest rate and the country risk premium. The foreign exchange rate in turn tends to be chronically and cyclically overvalued due to the Dutch disease (which is a negative externality of the primary sector over the manufacturing sector) and the liquidity cycles in developed economies that generate swings in the net inflows of short-term foreign capital. Real wages can increase in the short term due to exchange rate overvaluation, but it will be depressed in the long-term due to the premature deindustrialization caused by exchange rate overvaluation, which changes the composition of the employment from the high-wage sector (manufacturing industry) to low-wage sector (low-tech services and informal employment), reducing the average real wage due to a reduction of employment quality. Premature deindustrialization will also act as a force to increase the long-term average inflation due to the reduction in the growth rate of labor productivity. Finally, the profit rate will fall below the “desired” level for entrepreneurs to invest due to the long-term reduction of capacity utilization and profit margins caused by the decreasing access to demand caused by exchange rate overvaluation. The state, in addition to ensuring supply-side conditions for capital accumulation and adopting a Keynesian macroeconomic policy, must

also adopt a *macroeconomic policy regime*[27] an active macroeconomic policy to avoid incorrect macroeconomic prices.

For the macroeconomic prices to remain right, the two main *macroeconomic accounts* must remain in balance, but in developing countries (mainly in Latin America) the fiscal account tends to be in a chronic deficit because of fiscal populism, and the foreign current account tends to be in chronic deficit because of foreign exchange populism. The fiscal account must go into deficit when the economy's demand level is insufficient, and the state undertakes countercyclical fiscal policy. As for the current-account deficits, no valid justification exists. Or, more accurately, one only does in the rare times of accelerated growth, when the rate of substitution of foreign for domestic savings increases because in this case the capital inflows do not push up consumption or discourage investment.[28]

It is part of the development policy to maintain public investment between 20 and 25% of total investment, due to the complementarities, but this policy is hampered by the state's difficulty in achieving public savings due to both the fiscal and exchange rate populism that are very attractive to politicians. As a matter of fact, it is more profitable in terms of obtaining the support of the voters to increase government consumption instead of generating public savings for funding public investment without an unsustainable increase in the public debt. An overvalued exchange rate artificially increases the purchasing power of wages and rentiers' earnings, thus stimulating consumption and hence reducing the private savings, mainly corporate savings, while making investment projects in the manufacturing industry unprofitable, which reduces the long-term growth of real output and the growth rate of government taxes.

New developmentalism is being enriched by a fourth generation of developmentalist economists. They include, among others, Nelson Marconi, José Luis Oreiro, Paulo Gala and André Nassif. The former was our co-author for the most comprehensive book published so far on new developmentalism – *Developmental Macroeconomics* (2014).[29] Paulo Gala was co-author of Bresser-Pereira in the previously mentioned paper that makes a complete critique of the policy of growth with foreign debt. André Nassif, in addition is writing an important book of which one of the authors have read several chapters, *Forty Years of Quasi-stagnation in Brazil.*[30]

The tendency to overvaluation

In the 1950s, Prebisch took currency devaluation into account, but chose to defend an import tariffs policy provisionally. In the 2000s, new developmentalism stated that developing countries face the *tendency to the overvaluation* of foreign exchange rate. Therefore, industrial companies using the best technology lose *access* to the existing demand, both domestic and foreign.[31] The foreign exchange rate is therefore a switch that turns companies on, when the exchange rate is competitive, or off when the foreign exchange rate is overvalued in the long run. Even when the foreign exchange rate is undervalued for some years, as is the case when financial crises occur, companies form long-term expectations about the cash-flow of their investment projects taking in consideration the long-term average or "normal" exchange rate, which is overvalued and hence uncapable to produce the desired rate of

profit for the majority of the investment projects in the manufacturing sector (Oreiro 2020).

One of the causes of the trend of chronic and cyclical overvaluation of the foreign exchange rate, preventing access to demand, is frequent and misguided policy adopted mainly by Latin American economies but also in other developing countries like India, the so-called growth with external savings model. This model is based on two assumptions. The first one is that domestic and external savings are complementary, rather than substitutes. The second assumption is the investment needs previous savings to be done. Based on this assumptions, governments of developing countries liberalize the capital account of the balance of payments and set the domestic interest rate above the "right level" discussed previously to attract the "foreign savings" for increase the pace of capital accumulation. The result of such a policy, however, is an appreciation of real exchange rate due to the foreign capital inflows and a decrease in domestic savings, thus generating a substitution of domestic saving for external saving without increase the investment rate.

The second cause is a structural one, resulting from the abundance of natural resources which produces an *unbalanced productive structure* (Diamand 1972). Abundance of natural resources makes the supply price of primary goods lower than the supply price of manufacturing goods in these countries because productivity is much higher in the domestic primary sector than in the domestic manufacturing sector. In countries that are not rich in natural resources, productivity levels of primary and manufacturing sector are the same, equalizing the supply price of both primary and manufacturing goods. If the exchange rate for primary goods is the same of the exchange rate for manufacturing goods and considering that primary goods are almost perfect substitutes due to the absence of product differentiation; than the law of one price for primary goods will hold and the foreign exchange rate will be set – in a system of floating exchange rate – at a level that equalizes the prices of domestic and foreign primary goods measured in domestic currency. However, at this level of foreign exchange rate the price of domestic manufacturing goods will be higher than the price of foreign manufacturing goods measured in domestic currency, which means that domestic manufacturing firms will not be competitive even if they use the same (state-of-art) technology[32] of the foreign firms. This means that exploitation and export of primary goods in countries with abundant natural resources will result in a negative externality – in the form of an overvalued exchange rate for the manufacturing firms - over domestic manufacturing industry. This negative externality is what new-developmentalists defines as Dutch disease.

Conventional economics state that chronic current-account deficits are a legitimate policy for developing countries, by the very existence of the World Bank and regional public banks, such as the Inter-American Development Bank, extending loans denominated in foreign currency, assumes support for this policy. John Williamson's concept of the fundamental equilibrium exchange rate is an additional proof of this.[33] Given the forecast GDP growth, this concept of equilibrium exchange rate assumes that the country will incur current-account deficits and must only keep this deficit from exceeding GDP growth to avoid a balance-of-payments crisis.

Instead of discussing the policy of growth with foreign savings and current-account deficits, conventional economics prefers to explain current-account deficits as resulting from the "volatility" of financial flows, as fortuitous "misalignments" usually arising from variations in the terms of trade. Such variations certainly do take place, but chronic and indefinitely repetitive deficits cannot be understood without admitting that an economic policy lies behind them – a policy of capital attraction and foreign indebtedness.

The second cause of the trend towards an overvalued exchange rate when Dutch disease is not neutralized. The Dutch disease is a structural problem; it is the gap between the current equilibrium (the exchange rate that leads to a country's current-account equilibrium over time) and the industrial equilibrium exchange rate – the one required by industrial investment projects using the best technology available. The presence of this gap is a major market failure that keeps the exchange rate overvalued in the long term, not for all goods, but just for industrial ones.[34] In 1982, Corden and Neary published the first Dutch disease model.[35] It was a pioneering model, one that assumed that this over-appreciation only occurred occasionally during periods of commodities booms. In 2008, Bresser-Pereira published the second model; he argued that the imbalance was also caused by Ricardian rents that persisted particularly in oil-exporting countries, even if international prices were normal; he emphasized the presence of a dual equilibrium (industrial and current); and derived from the model itself a means of neutralizing this major competitive disadvantage. This may be a variable tax on commodities exports, but this is usually not politically feasible; the alternative embraced by commodities exporting countries that managed to industrialize has been a policy of high tariffs on manufactured goods imports. Import tariffs are equivalent to an exchange rate depreciation targeted at manufactured goods. This policy was adopted by the United States, for example. It alone explains why that country maintained very high import tariffs until 1939, when its manufacturing sector had long ceased to be infant. It was also used by Brazil and almost every Latin-American country. Latin America's great industrial development from 1950 to 1980 was only possible because of them. In Brazil, beginning in 1967, they were supplemented with subsidies to the exports of manufactured goods, with impressive results; the subsidy neutralized the Dutch disease affecting exports and the country became a great exporter of manufactured goods. Economic policymakers were unaware of the Dutch disease model but knew in practice that they had to industrialize to develop, and that industrialization could not proceed in the absence of high tariffs. They thus embraced import tariffs – the most important industrial policy in the history of development.

Political economy

The meaning of the term "developmentalism" is twofold: it designates a historic phenomenon, a style and ideology of economic development and two schools of economic thought: classical developmentalism and new developmentalism. As a historical fact, it also means a form of economic coordination of capitalism that stands as an alternative to economic liberalism. New developmentalism promoted a semantic expansion that enables better understanding the development of capitalism and the role of the state therein. Either there is a state and a capitalism where moderate state intervention in the

economy and economic nationalism prevails, or there is the complete rejection of any economic intervention, and we have economic liberalism. All capitalist revolutions took place within the framework of developmentalism; after this revolution, periods of fast growth took place mainly within the framework of developmentalism, and not of liberalism.

The political economy of new developmentalism casts to the formation of the nation-state and the capitalist revolution a key role, the two jointly corresponding to the country's capitalist revolution. This is the key transformation in the history of nations, because only from this point onwards can countries develop economically, politically, and socially, but on one condition: that the country rejects the imperialism of the Global North that seeks to thwart developing countries from industrializing – a thesis that the Latin American subordination to the Global North beginning in 1990, after 60 years of relative autonomy,[36] and the deindustrialization and quasi-stagnation that followed confirmed. New developmentalism distinguishes four capitalist revolution models: two central, and two peripheral which rejected the Global North's pressures and arguments: (a) the original central model of England and France; (b) the late central model of Germany and the United States, which were late to make their capitalist revolutions; (c) the independent peripheral model of Japan and South Korea; and (d) the national-dependent model of Brazil and Mexico. "National-dependent" is an oxymoron, reflecting the fact that Latin-American elites and ambivalent and contradictory as to the national question.

The class coalitions involving a national industrial bourgeoisie play a key role in economic development. They are a means to include the industrial bourgeoisie in the struggle for industrialization and development. Only in countries that made socialist revolutions, such as the Soviet Union and China, technobureaucrats instead of the bourgeoisie conducted the national and industrial revolution. Once the phase of investing in infrastructure and large companies of the non-competitive sector was complete, however, the state showed its inability to coordinate efficiently the competitive sectors and the innovations that are constantly taking place and the countries had no alternative but to move towards capitalism. A developmentalist capitalism that was particularly successful in China – a country that the Dutch disease does not affect and has firmly rejected the policy of growth with foreign savings.

The relationship between the Global North's developed countries and the Global South's developing ones is defined by the imperialism of the former group, which attempts to prevent the Global South's industrialization, and by the dependence of developing countries. East Asian countries always rejected imperialism, and this is one of the reasons for their great development. Latin-American countries, by their turn, bowed to the Global North's recommendations and pressures in the 1990s and have since then endured quasi-stagnation. To develop, the Global South's countries must overcome dependency and define, albeit informally, a national development project.

In addition to the submission to the imperialism and economic liberalism of the Global North, developing countries face a domestic political hurdle in adopting the new-developmental policies: economic populism – a country and/or its state irresponsibly spending more than they make in revenue to reelect political leaders. The policy of chronic public deficits is fiscal populism – the

state expending irresponsibly more than it gets. It has the support of heterodox economists that we call “vulgar Keynesians”; proper fiscal policy must be countercyclical and, except for periods of crisis, must guarantee that public savings fund public investment. The policy of growth with foreign savings that conventional economics supports, and the resulting chronic current-account deficits are exchange rate populism – the country expending more than it gets; the current account deficit is turned into something good, an objective of the country's development policy

A policy of growth with foreign indebtedness assumes a current-account deficit; the presence of the Dutch disease is compatible with the equilibrium of the current account. When a country neutralizes the Dutch disease, it tends to show current-account surpluses. If a country that fails to neutralize the Dutch disease (being therefore an exchange-rate populism country), also chooses to adopt a policy of growth with foreign savings, it will be adding injury to insult– it has been taken over by out-of-control populism.

The issue of protectionism

After 40 years of quasi-stagnation, Latin-American countries have not yet found their way back to development. Firstly, at the political economy level, in the 1970s, given the dependency theory’s critique of the center-periphery model they were left without a political justification for the industrialization policy by imports substitution; second, with Fajnzylber, Latin-American intellectuals recognized that the argument of the infant industry no longer applied because, with the passage of time it had turned “frivolous”, and adopted the Schumpeterian supply-side model that did not stray far from the orthodox view; thirdly, around the 1990s, in the face of the Global North’s Neo-Liberal Shift and its pressure for developing countries to make liberal reforms, they opened up their economies and thus ceased to neutralize the Dutch disease. The outcome has been a quasi-stagnation of Latin American economies that been going on for 40 years.

Liberal orthodoxy has been offered harsh criticism of the high tariffs policy since the 1970s. It accused the Latin-American countries that had been industrializing since 1950 of protectionism. It is a serious criticism, but one that was misguided in its early years. Originally, import tariffs did not “reward incompetence”, but assured domestically established industrial companies a *level playing field* competing with companies from other countries. The infant industry argument did apply to the case. Over time, however, the argument lost validity. In the 1990s, after ten years of persistent foreign debt crisis and stagnation, and after the crisis of the classical developmentalist theory, Latin-American governments yielded to the Global North’s pressure and opened their economies. Their manufacturing industry then began to face a major competitive disadvantage, the countries de-industrialized, and entered a regime of long-term quasi-stagnation. As we already saw, only in the 2000 policymakers had at their disposal a justification for the high import tariffs their countries adopted before 1990, but until today no country adopted them with this specific objective.

New developmentalism has a clear sense of what economic policies will lead Latin-American countries back to the path of growth. They must adopt long-term supply-side policies. They must guarantee a satisfactory expected rate of profit

for companies in general and industrial ones. To this end, aside from supporting domestic demand, they must neutralize the tendency towards chronic exchange rate appreciation and, thereby, ensure access of these companies to domestic and foreign demand. They must therefore reject the policy of growth from foreign indebtedness by reducing the level of openness of capital account and setting the interest rate at its right level and neutralize the Dutch disease by means of import tariffs and subsidies to the exports of manufactured goods. This neutralization must take place by means of a legislative reform to regulate manufactured goods import tariffs, providing that the tariff will break down into two components: one specific, the other general. A product or service's specific rate will be lower than the one currently in force; whereas the general tariff will be equal for every product and vary depending on the prices of the commodities that each country exports. Through these proposals, new developmentalism represents a new opportunity for developing countries to escape the liberalization trap and find their way back to development.

Conclusion

In sum, the theory of economic development was a heterodox economics that Schumpeter founded based on a critique of the circular flow model of conventional economics, gained a significant advance with the Keynesian revolution, and became the specific subject of a new school of economic thinking in the 1940s: classical developmentalism. Three generations of economic development-oriented economists have emerged since then. All three agreed that economic development depends on the accumulation of capital *cum* the incorporation of technical progress, which, by its turn, depends on the expected profit rate minus the interest rate. They disagreed, however, on how companies might rely on demand and make a satisfactory profit rate. The Schumpeterian approach argued that innovation guaranteed demand at the level of each company by involving a monopolistic advantage; the Keynesian approach argued that the expected rate of profit depends on aggregate demand, which tends to be insufficient; the Latin-American approach, beginning in 1949, proposed import tariffs to guarantee demand, and justified them with the infant industry argument.

The infant industry justification, however, was fragile because it was time limited. Circa 1980, the Global North had its Neo-Liberal Shift and began pressing the rest of the world to embrace conventional economics and neo-liberal reforms. In the 1980s, Latin-American countries faced a major financial crisis, the foreign debt crisis, and became vulnerable. Around 1990, they yielded to the Global North, opened their economies, and embraced the policies of conventional economics. Since then, their economics have become quasi-stagnant, while classical developmentalism ran into a deep crisis. With the emergence of a third generation of development economies in those same 1980s, who had studied the successful experience of Each Asia and upheld an industrial policy, there was hope of resumed development, but industrial policy alone was not an alternative development strategy, and Latin-American countries remained quasi-stagnant, even when left-leaning administrations rose to power and attempted to implement developmentalist economic policies.

This was the context in which new developmentalism emerged as a theory in the 2000s, originated from Marxian political economy, post-Keynesian economics, and classical developmentalism. It brought up a counterintuitive argument against the growth policy with foreign indebtedness and foreign savings, and an argument for resuming import tariffs as a strategy to guarantee access to demand to the manufacturing companies that use the best technology available: the argument of the Dutch disease and its neutralization.

Classical developmentalism under the ECLAC's center-periphery model or ISEB's national-developmentalist model, was an anti-imperialist theory, but lacked both a model to critique foreign debt and a theory and strategy to neutralize the Dutch disease – the two causes of the tendency towards an overvalued exchange rate that prevents private-sector investment, mainly in the manufacturing sector Nor did it criticize fiscal populism and the capture of the public assets by a wide variety of economic players, preventing public savings. New developmentalism makes this critique and defines the required policies. The failure of conventional economics and neo-liberalism has been bad in relation to developing as well as rich countries. New developmentalism was originally developed having in mind the growth of middle-income countries, but some of its models are general enough to be applied also to rich countries. The euro crisis (2010-2015) and the United States' difficulty in competing with China are two cases in which new developmentalism has been – and in the case of the United States it continues to be – useful, if not enlightening.[37]

References

Amsden, Alice H. 1989. *Asia's Next Giant: Global South Korea and Late Industrialization*, New York: Oxford University Press. ISBN-13: 978-0195076035

Arrighi, Giovanni. 1994. *The Long Twentieth Century: Money, Power, and the Origins of Our Times*, London: Verso Books.

Arrighi, Giovanni. 2007. *Adam Smith in Beijing: Lineages of the Twenty-First Century*, London: Verso.

Asimakopulos, A. 1991. *Keynes´s general theory and accumulation.* Cambridge University Press: Cambridge.

Bhaduri, Amit; Stephen Marglin .1990. "Unemployment and the real wages: the economic basis for contesting political ideologies", *Cambridge Journal of Economics,* 14 (4) December: 375-393. https://www.jstor.org/stable/23598376

Bielschowsky, Ricardo. 2009. "Sesenta años de la CEPAL: estructuralismo y neoestruturalismo" [Sixty Years of the ECLAC: structuralism and new structuralism], *Revista de la CEPAL* 97, April: 73-194.

Bohn-Bawerk, E. v. 1891. *The Positive Theory of Capital.* Macmillan: London.

Bresser-Pereira, Luiz Carlos. 1970. "Dividir ou multiplicar? A distribuição da renda e a recuperação da economia brasileira" [To divide or multiply? Income distribution and the recovery of the Brazilian economy], *Visão*, November 21, 1970. Included in *Development and Crisis in Brazil,* Bolder: Westview Press, 1984: 143-148.

Bresser-Pereira, Luiz Carlos. 1974. "El nuevo modelo brasileño de desarrollo" [The new Brazilian development model], *Desarrollo Económico* 55(14) October: 569-588.

Bresser-Pereira, Luiz Carlos. 2008. "The Dutch Disease and its neutralization: A Ricardian approach", *Brazilian Journal of Political Economy* 28(1): 47-71. doi.org/10.1590/S0101-31572008000100003

Bresser-Pereira, Luiz Carlos. 2011. "From the national-bourgeoisie to the dependency interpretation of Latin America", *Latin American Perspectives* 178, 38(3), May: 40-58. https://doi.org/10.1177/0094582X10391064.

Bresser-Pereira, Luiz Carlos. 2015. "The access to demand", *Keynesian Brazilian Review* 1(1) 1st. semester: 35-43. https://doi.org/10.33834/bkr.v1i1.14

Bresser-Pereira, Luiz Carlos. 2020. "Neutralizing the Dutch disease", *Journal of Post Keynesian Economics* 43:2: 298-316. https://doi.org/10.1080/01603477.2020.1713004

Bresser-Pereira, Luiz Carlos. 2020. "New Developmentalism: development macroeconomics for middle-income countries", *Cambridge Journal of Economics*, 44: 629–646. https://doi.org/10.1093/cje/bez063

Bresser-Pereira, Luiz Carlos; José Luis Oreiro; Nelson Marconi. 2014. *Developmental Macroeconomics: New Developmentalism as a Growth Strategy*, London: Routledge. ISBN: 978-0415817783

Bresser-Pereira, Luiz Carlos; Paulo Gala. 2008. "Foreign Savings, Insufficiency of Demand, and Low Growth", *Journal of Post Keynesian Economics*, 30(3), Spring 2008: 315-334. http://dx.doi.org/10.2753/PKE0160-3477300301.

Bresser-Pereira, Luiz Carlos; Fernando Rugitsky. 2018. "Industrial policy and exchange rate skepticism?", *Cambridge Journal of Economics*, 42(3), April 2018: 617-632. https://doi.org/10.1093/cje/bex004.

Cardoso, Fernando Henrique. 1977. "The consumption of the dependency theory in the United States", *Latin America Research Review* 12(3): 7-24.

Cardoso, Fernando Henrique and Enzo Faletto. 1969. *Dependencia y Desarrollo en América Latina* [Dependency and Development in Latin America], Mexico: Siglo Veintiuno Editores.

Chang, Ha-Joon. 2002. *Kicking Away the Ladder*, London: Anthem Press.

Chenery, Hollys and Michael Bruno. 1962. "Development alternatives in an open economy: The case of Israel", *Economic Journal* 72(285), March: 79-103.

Diamand, Marcelo. 1972. "La estructura económica desequilibrada de Argentina y el tipo de cambio" [Argentina's unbalanced economic structure and the exchange rate], *Desarrollo Económico* 45 (12) April: 1-24.

Fajnzylber, Fernando. 1983. *La Industrialización Trunca de América Latina* [Latin America's Interrupted Industrialization], Santiago de Chile: Commission Económica para América Latina y Caribe. http://hdl.handle.net/11362/43130

Frank, Andre Gunder. 1966. "The development of underdevelopment", Monthly Review 18(4) 1966: 17–31. http://dx.doi.org/10.14452/MR-018-04-1966-08_3

Frank, Andre Gunder. 1969. *Capitalism and Development in Latin* America, New York, Monthly Review Press.

Furtado, Celso. 1961. *Desenvolvimento e Subdesenvolvimento* [Development and Underdevelopment], Rio de Janeiro: Editora Fundo de Cultura. ISBN-10: 8578660196

Furtado, Celso. 1966. *Subdesenvolvimento e Estagnação na América Latina* [Underdevelopment and Stagnation in Latin America], Rio de Janeiro: Editora Civilização Brasileira.

Herr, H; Kazandziska, M. 2011. Macroeconomic Policy Regimes in Western Industrial Countries. Routledge: London

Hirschman, Albert O. 1981 "The rise and decline of development economics", in *Essays in Trespassing*, New York: Cambridge University Press: 1-24. ISBN 0 521 28243 8

Jaguaribe, Hélio. 1956. "O problema do desenvolvimento econômico e a burguesia nacional" [The problem of economic development and the national bourgeoisie], São Paulo: FIESP –Roberto Simonsen Fórum, 1956. Conference delivered on May 11, 1956.

Jaguaribe, Hélio. 1962. *Desenvolvimento Econômico e Desenvolvimento Político* [Economic Development and Political Development], Rio de Janeiro: Fundo de Cultura.

Johnson, Chalmers. 1982. *MITI and the Japanese Miracle*, Stanford: Stanford University Press.

Kaldor, Nicholas. 1966. *Causes of the Slow Rate of Economic Growth of the United Kingdom: An Inaugural Lecture*, Cambridge: Cambridge University Press.

Kaldor, Nicholas. 1967. *Strategic Factors in Economic Development*. Ithaca: New York State School of Industrial and Labor Relations, Cornell University.

Keynes, John Maynard. 1936. *The General Theory of Employment, Interest and Money*, London: Macmillan.

Marini, Ruy Mauro. 1969. *Subdesarrollo y Revolución* [Underdevelopment and Revolution]. Mexico: Siglo XXI.

Marini, Ruy Mauro. 1973. *Dialéctica de la Dependencia* [Dialectics of Dependency]. México: Ediciones Era.

Nurkse, Ragnar. 1953. *Problems of Capital Formation in Underdeveloped Countries*, Oxford: Basil Blackwell.

Oreiro, J. L. 2020. "New Developmentalism: beyond competitive exchange rate". *Brazilian Journal of Political Economy*, 40(2), 238–242.

Oreiro, José L; K. Martins Da Silva; Marwil Dávila-Fernandez (2020a) "A New Developmentalist Model of Structural Change, Economic Growth and Middle-Income Traps". *Structural Change and Economic Dynamics,* Vol. 55, pp. 26-38.

Oreiro, J. L., D'Agostini, L. L. M., Gala P. 2020b. "Deindustrialization, economic complexity, and exchange rate overvaluation: The case of Brazil (1998-2017)". *PSL Quarterly Review*, 73(295), pp. 313-341

Oreiro, José L.; S. W. D'Amato; Luciano L. D'Agostini; Paulo S. Gala. 2022. "Measuring the technological backwardness of middle- and low-income countries: The employment quality gap and its relationship with the per capita income gap". *PSL Quarterly Review*, *75*(301): 139-159.

Prebisch, Raúl. 1949 [1950]. *The Economic Development of Latin America and its Principal Problems*, New York: United Nations, Dept. of Economic Affairs. Original Spanish publication, 1949.

Rangel, Ignácio M. 1957. *A Dualidade Básica da Economia Brasileira* [The Fundamental Duality of the Brazilian Economy], Rio de Janeiro: ISEB, Instituto Superior de Estudos Brasileiros.

Rangel, Ignácio M. 1960. *Elementos de Economia do Projetamento* [Elements of Project Economics]. Salvador: Livraria Progresso Editora, 1960.

Reinert, Erik S. and Sophus A. Reinert. 2005 [2011]. "Mercantilism and economic development: Schumpeterian Dynamics, institution building, and international benchmarking", OIKOS, Rio de Janeiro 10(1): 8-37 www.revistaoikos.org. Original publication, 2005.

Reinert, Erik S. 2007. *How Rich Countries got Rich… and Why Poor Countries Stay Poor*, New York: Carroll & Craf.

Robinson, Joan. 1962. *Essays in the Theory of Economic Growth*. Macmillan: London

Ros, Jaime. 2013. Rethinking economic development, growth, and institutions. Oxford: Oxford Economic Press.

Schumpeter, Joseph A. 1911 [1961]. *Theory of Economic Development*, Oxford: Oxford University Press, 1961. Original publication in German, 2011. ISBN-10: 0195004612.

Singer, Hans. 1950. "The distribution of gains between investing and borrowing countries", *American Economic Review* 40, May 1950; 473-85.

Steuart, James. 1767. *An Inquiry into the Principles of Political Economy*. London: A. Millar & T. Cadell.

Terra, Fábio H.B; F. Ferrari-Filho. 2021." Public Sector Financial Fragility Index: an analysis of the Brazilian federal government from 2000 to 2016," Journal of Post Keynesian Economics, 44:3, 365-389.

Thirlwall, Anthony P. 1979. "The balance of payments constraint as an explanation of international growth rates differences", *Banca Nazionale del Lavoro Quarterly Review* 128: 45-53.

Thirlwall, Anthony P. and M. Nureldin Hussain. 1982. "The balance of payments constraint, capital flows and growth rates differences between developing countries", *Oxford Economic Papers* 34(3) November: 498-510. https://www.jstor.org/stable/2662591

Wade, Robert. 1990. *Governing the Market*, Princeton: Princeton University Press. ISBN-10: 0691117292.

Williamson, John. 1994. "Estimates of FEER", in John Williamson, ed. (1994) *Estimating Equilibrium Exchange Rates*, Washington: Institute for International Economics.

---

[1] Some of whom include Italian Antonio Serra (16th century), Englishman James Stewart (1712-1780), and American Alexander Hamilton (1755-1804). See Reinert and Reinert (2005).

[2] The concepts of "indirect means of production" and "stock of capital" were created by the Austrian Economist Eugen Von Bohn-Bawerk (1891).

[3] Rosenstein-Rodan (1943); Hirschman (1957).

[4] Prebisch (1949); Singer (1950). They formulated the model for deteriorating terms of trade.

[5] Kaldor (1966; 1967).

[6] Nurkse (1953).

[7] Lewis (1954).

[8] See Bresser-Pereira and Rugitsky (2018) about Prebisch's thinking in connection with the exchange rate.

[9] The Dutch disease model including the way of neutralizing this major market failure was only complete with Bresser-Pereira (2008), which offers a solution for these two problems.

[10] The Higher Institute of Brazilian Studies (ISEB) was a group of nationalist intellectuals that addressed the problem of underdevelopment in the 1950s and built the national-developmentalist model. The ISEB was dissolved in 1964 by the authoritarian regime that rose to power in that year.

[11] Rangel (1957; 1960): Jaguaribe (1956; 1962).

[12] Gunder Frank (1966; 1969).

[13] Marini (1969; 1973).

[14] Cardoso and Faletto (1969).

[15] One of the authors, for instance, only became fully aware of this subordinated character of associate dependency in the early 2000s.

[16] Cardoso (1977).

[17] Hirschman (1981).

[18] Arrighi (1994; 2007).

[19] In the beginning of Military Government in Brazil (1964-1967) a broad plan of economic reforms, the so-called PAEG (Plan of Government´s Economic Action), introduced the indexation of long-term contracts and debts which allowed the expansion of bank credit to finance the acquisition of cars and housing by the emerging middle-class. The increase in the share of income into the middle classes combined with a huge expansion of consumer and real estate credit allowed a growth acceleration of the Brazilian economy in the period between 1968 to 1973, known as the "Brazilian Economic Miracle".

[20] Bresser-Pereira (1970; 1972).

[21] In 1987, Bresser-Pereira reacted similarly when he became Minister of Finance in Brazil and learned that the average import tariff on manufactured goods was 45 percent, with a like subsidy to manufactured goods exports in force since 1967. He perceived that Brazil stood before unacceptable protectionism and launched the trade opening process, which took place in 1990. Later, however, he argued that had been wrong in liberalizing trade because he didn't know that the high tariffs were the pragmatic way policymakers neutralized the Dutch disease.

[22] Bielschowsky (2009).

[23] Furtado (1961).

[24] Johnson (1982); Amsden (1989); Wade (1990)

[25] Reinert (2007); Chang (2002).

[26] See Terra and Ferrari-Filho (2021).

[27] Based on Herr and Kazandziska (2011), we can define macroeconomic policy regime as the set of goals, targets and instruments of macroeconomic policy and the institutional framework where macroeconomic policies are implemented.

[28] Bresser-Pereira and Gala (2008).

[29] Bresser-Pereira, Oreiro and Marconi (2014).

[30] In Portuguese, *40 Anos de Quase-estagnação no Brasil*. Many developmental economists are members of the fourth generation, not only in Brazil, but also in Argentina, Colombia, Italy, Mexico, United States and Uruguay. We just cite here Eliane C. Araújo, Carmem Feijó, Matías Vernengo, Esteban Pérez Caldentey, Marwil Dávila-Fernandez, José Gabriel Porcile Meirelles, José Antônio Ocampo, Martin Rapetti, and Luiz Fernando de Paula

[31] The most comprehensive paper summarizing new developmentalism is Bresser-Pereira (2020). A formal (mathematical) presentation of the new-developmentalist model is done by Oreiro et al (2020a). Some empirical evidence regarding the effect of exchange rate overvaluation over premature deindustrialization of Brazilian economy can be found in Oreiro et al (2020b).

[32] It is obvious that firms in developing countries do not, as a rule, had the same level of technological knowledge of firms of developed countries, which means that manufacturing firms of developing countries stay behind the technological frontier. However, we have shown that even if this was not the case, i.e., even if domestic firms use the same technology of foreign firms, the negative externality will exist – the Dutch disease. In other words, the existence of Dutch disease does not require the existence of a technological gap.

[33] Williamson (1994).

[34] More technically, for tradable non-commodity goods and services.

[35] Corden and Neary (1982).

[36] The Great Depression and the great war that followed allowed the Latin American countries to gain some independence from the Global North – an independence from which national-developmentalism was the expression.

[37] In this case, we believe that policy that the US adopts for long of live together current-account deficits on the argument that being the dollar the reserve money, debt in dollars is no problem to the country, is a huge mistake which new developmentalism identifies and explains.