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Abstract

This paper discusses different growth trajectories in a choice of Latin American economies – i.e. Argentina, Brazil, Chile and Mexico - comparing the phase of import substitution growth strategies with the more recent period of financial integration within the world economy. Our working hypothesis is that different growth trajectories result from the linkages between macroeconomic conditions and changes in productive structures. When policy space gets narrower, long-term growth performance is impaired, and structural change won't in general foster growth potential. We develop an analysis based on the Framework Space methodology, which allows for comparing phases of growth that are described as an evolving coupling of the dynamical profile of productivity growth (a supply-side condition) with the behavior of capital accumulation (a demand-side condition). Our main conclusion is that, on the light of the FS comparative analysis, economic opening in the 1990s did not enhance the catching up process for all four economies.

JEL Classification: O14; O11; O54

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1 - Introduction

Until the end of the 1970s, state-led import industrialization was the dominant developmental strategy in most Latin American economies. This strategy was abandoned after the external debt crisis in 1980s, and the process of overcoming it spanned roughly the whole decade. The way out of the long economic recession that followed the debt crisis (known as the 'lost decade') is associated with the economic opening and deepening of the financialization process in the region.[1]

Within the financialization process, trade liberalization, privatization and financial deregulation became the main recommendations of economic policy, and the management of monetary and fiscal policies became chiefly subordinated to the views of the international financial markets. As argued by Ocampo and Vos (2008), the policy space in developing economies, and in Latin American economies in particular, has been much reduced since economic opening.[2] According to these authors, its narrowing implied the loss of autonomy for economic authorities to implement 'effective countercyclical macroeconomic policies consistent with longer-term development objectives and developmental policies'(p. 29).[3] The main argument is that, capital flows being procyclical, economic opening restricts the management of countercyclical economic policy to respond to booms and busts. Actually, Ocampo (2007) argues that capital flows to developing countries "exacerbate rather than dampen both economic booms and recessions" (p.9).

Interest in the growth strategies of Latin American economies has recently been resumed, e.g. in ECLAC's (2016) work a discussion is presented about the different phases of Latin America growth since the 1980s. Based on the region's economic cycles, mostly determined by external shocks, the study proposes a criteria to identify different growth periods. In the structuralist tradition, structural change is assumed to depend on the intensity and continuity of investment in capital accumulation, this being the main force to promote and sustain growth rates. As investment is the most dynamic component of aggregate demand, the management of short-term macroeconomic policy that aims at increasing long-term growth, must be able to curb volatility in the main macroeconomic prices and to maintain a countercyclical fiscal policy, a low and stable long-term inflation rate, low real interest rates and a real exchange rate competitive over time.

Our main focus in this paper is to discuss different growth trajectories in four Latin American economies – Argentina, Brazil, Chile and Mexico[4] - comparing the period of the import substitution growth strategies with the more recent period of financial integration within the world economy. Our working hypothesis is that different growth trajectories result from the linkages between macroeconomic conditions and changes in the productive structure. In this light, economic policy plays an important role in explaining the growth process, thus influencing long-term trajectory. When the policy space gets narrower, long-term growth performance is impaired, and structural

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[1] The financialization process can be defined broadly as the growing impact of financial markets, actors, practices and representations on social structures and dynamics (see Epstein, 2005).

[2] China and India are few examples of cautiously financial integration, and not by chance are performing relatively better after the international financial crisis when compared with other developed and developing economies. For a discussion about the BRICS economic performance after the financial crisis, see Nassif *et al* (2016).

[3] Another way of looking at the loss of autonomy of economic policy in developing countries financially integrated is in Rey (2013). The author, in a recent and influential paper, argues that independent monetary policies are possible in developing economies only if capital account is managed.

[4] See, for instance, Moreno Brid and Caldentey (2009) that mention that these economies were the ones that followed state-led industrialization strategy.Also, they are responsible for over 67 per cent of the total manufacturing value added in Latin American in the 2000s.

change does not work towards increasing the growth potential. In other words, we assume that structure change is important to explain long-term growth performance; however, it does not occur smoothly and it generally causes unbalanced growth with consequences on internal and external equilibrium. Thus, in order to increase potential output, the policy space should be widened to allow for the fine coordination between the long-term policies (such as industrial and technological policies) and the short-term macroeconomic policies.[5]

To argue this point, we will develop our analysis based on the Framework Space (FS) methodology, which allows us to compare phases of growth, described as an evolving coupling of the dynamical profile of productivity growth (a supply-side condition) with the behavior of capital accumulation (a demand-side condition). Interaction between these two drivers naturally generates a non-linear growth trajectory, punctuated by discrete jumps or discontinuities, and of course it need not tend towards any predetermined equilibrium position (as predicted in the conventional theory approach). As a bonus, the FS methodology will allow us to interpret the phases of economic growth with reference to either the Kaldorian and/nor the neo-Schumpeterian view, and qualify accordingly the various structural changes Latin American economies underwent. In this sense, the main contribution of this paper is to provide an analytical interpretation, based on the Framework Space methodology, for the differences in growth trajectories of the four Latin American economies.

After this introduction, section two introduces the FS methodology. Section three proposes the identification of three periods as associated with different growth trajectories, which will be analysed in section four for each individual economy. The contribution of section four is to interpret each country's historical growth record, based on the FS empirical evidence, providing a general picture of each economy. Our main conclusion is that, on the light of the FS comparative analysis, economic opening in the 1990s did not enhance the catching up process for all four economies. A final section synthetizes our main conclusions.

2 – The *Framework Space* methodology

The conventional approach to long-term growth assumes, implicitly, that actual economies tend in the long-run to a determined path, belonging to a stable regime, and that such a state is so strong an attractor that any shorter-run dynamics is practically irrelevant, as transient motion.[6] However, observed data fluctuates all the time, therefore growth patterns should be evaluated against the dynamics of related variables. It is to deal with this issue, that the Framework Space (FS) incorporates a menu of growth models. It is from such menu that is constructed actual patterns of growth.[7]

The FS is an analytical device to focus on variables such as capital accumulation, employment and productivity. The primary justification for such a choice is, of course, that these are the variables of growth theories as we know them. The FS has only the rate of growth of investment per employee (on the vertical axis) and the rate growth of labor productivity (horizontal axis) (see Böhm and Punzo (2001:48). The aim of their choice is to explain the relation between the dynamics of the fluctuations in productivity *vis-à-vis* the dynamics of the fluctuations in investment per employee. The construction of the FS starts with the series of GDP or added value (va) and gross fixed capital formation (i) in real terms, and employment (e). Thus it is defined:

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[5]Following the Kaleckian tradition, Tilteman and Caldentey (2016, p. 162n) express this point as: "A first important implication to arise from the analysis is that macroeconomics for development should not present cycle and trend or the short and long run as dichotomous elements. Short-term fluctuations do affect long-term outcomes."

[6]The crystal clear version of such prediction is in the neoclassical theory, stating that in the steady state eventually to be realized, the rate of growth of the economy depends only on the population rate of growth and of the technical progress. It is this clarity that made its fortune as a theory and as a set of econometrically falsifiable propositions.

[7] For deepening in the FS approach the reader can find it in Böhm and Punzo (2001), Brida and Punzo (2003), Gaffard and Punzo (2005), Lamônica *et al* (2012).

$$\frac{d(\log va - \log e)}{dt} = gv \qquad (1),$$

$$\frac{d(\log i - \log e)}{dt} = gi \qquad (2).$$

Where gv is the growth rate of output per employee (a measure of the growth rate of productivity) and gi is the growth rate of investment per employee. The variables gv and gi provide the coordinates of the dynamic trajectory of a given economy in the plane (Figure 1). Changes in coordinate levels (gv, gi) represent changes in the dynamic relation of the economy analyzed, and may modify or change the intensity of the variables or regime changes, ie, structural change.[8]

Figure 1 illustrates how to interpret the growth trajectories and their phases in the FS apparatus. Six growth regimes and one special growth regime are dealt with in this framework. The latter is the tangent line that intersects the plane of the coordinates (gv, gi) at the 45 degrees; it is the so-called Harrodian corridor [9] separating the IV regime above the line, from the I regime below the line. Both the VI (Accumulation) and I (Innovation) regimes are in the first quadrant where economic growth occurs, ie where rates of productivity growth (gv) and investment per employee (gi) are positive. Regime II (Restructuring), in the second quadrant, combines a positive gv and a negative gi. The others regimes, III, IV and V are, in the analytical structure of FS, treated as reflexes of the regimes mentioned above.

Figure 1: Growth regimes in the FS

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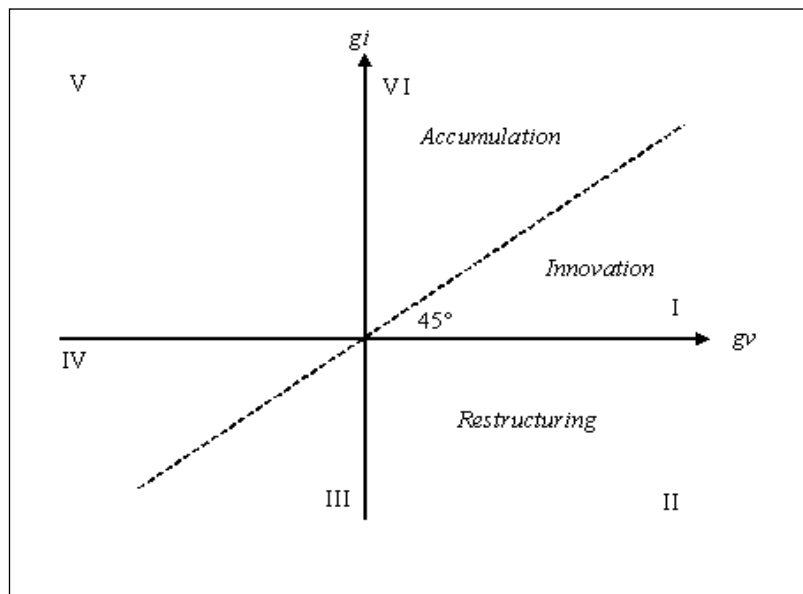
[8] Structural change has a different interpretation in other approaches. It can occur when there are changes in the composition of GDP or economic aggregates, or when there is a change in the organizational and institutional structure of an economy. In Kaldor's view, structural change is observed when there are changes in the composition of the manufacturing industry in relation to the technological intensity. These would be captured by the elasticities of demand for exports and imports. Thus, according to the Kaldor-Thirlwall model, a structural change could be acting in favor of or against the growth of the economy with equilibrium in the balance of payments. See Dixon and Thirlwall (1982), Thilwall (1979).

[9] Harrodian behavior is represented by the steady state trajectories. The coordinates (0,0) are associated with the exogenous growth trajectory (Böhm and Punzo, 2001: 53), with a zero rate of technological progress, see below.

The relevant interpretation for our argument is that the FS is endowed with three categories of **growth regimes**: i) steady state; ii) accumulation, focusing on changes in the intensity of investment, that is to say, whereby productivity will increase the faster is the process of capital accumulation (assuming technical progress to be incorporated) [10] and iii) innovation, functionally independent of capital accumulation and so growth being explained on the basis of innovations, whether new organizational forms or processes, or else the introduction of new products that increase the gap between unit costs and the final price. The growth trajectory is traced by the sequence formed as a function of the pairs of *gv* and *gi*, distributed in the FS plane. Each point in the FS, the pair of these coordinates, is associated with a growth trajectory.

One can relate the FS to predictions of the conventional theories in a simple way. E.g. neoclassical theory (NC) views a unique global attractor which is a steady state path with growth rate g_{NC} defined as (where *n* is the rate of growth of population and λ technical progress):

$$g_{NC} = n + \lambda \qquad (3)$$

However, the observed growth rate of economic growth g will in general be different from such exogenous growth. Thus, FS attempts to explain the *endogenous* rate of growth g_{EN} as the deviations from the steady state growth rate.[11]

$$g_{EN} = g - (n + \lambda) \qquad (4).$$

The FS will take the g_{NC} rate as the origin point of the diagram of Figure 1, the coordinates (0,0), and thus carry on the analysis of the endogenous growth rate. In this sense, we assume that the behavior of the effective rate *g* influences the long-term trajectory and thus, that the endogenous growth rate can be explained by two regimes or *growth models*: capital accumulation and innovation.

In sum, in the two-dimensional space of FS, all long-term theories are present. The Solow model (1957) is at the origin, the observed points lying elsewhere are associated with endogenous growth[12] that can be explained by both the theory, i.e., capital accumulation regime, and the regime of innovation.

3 - Growth trajectories in the 1951-2014 period: an overview of the growth performance of the four selected economies

To shed some light on how to identify, for the selected economies, distinct phases which may be associated with distinct growth regimes, we shall first resort to some indicators related to the evolution of the manufacturing sector.

In the Kaldorian tradition, development is not *sectorially neutral*, and therefore a special role is assigned to the manufacturing industry in promoting and supporting long-term growth rates. Table 1 presents some indicators about the evolution of the share of manufacturing value added and manufacturing international trade over time. The first two columns (Brazil's estimate is available

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[10] Like in Kaldor (1957) and Kaldor-Mirrlees (1962) among others.

[11] León-Ledesma and Thirlwall (2002) tested the hypothesis of the endogeneity of the natural rate of growth for a group of 15 OECD countries, as did Libânio (2008) for a group with the 12 largest economies in Latin America, both of which were successful. The natural rate of growth increases in periods of expansion and reduces during contraction because the labor force and productivity growth are elastic to the growth of demand and output.

[12] Endogenous models with an emphasis on imbalance situations are inspired by the contributions, among others, of Richard Goodwin. See Punzo (2006).

from 1990 onwards) show the relative contribution of each country to total manufacturing industry in Latin America. Brazil, in spite of loosing weight along the 1990s and 2000s, still is the most industrialized economy in the region.

The next four columns present the share of manufacturing industry in GDP for each country and the whole region. The industrialization trend is illustrated in the last row, the share of manufacturing in GDP. For the region as a whole, it increased from 1965 to 1980 to decrease afterwards. The increase in the manufacturing share is observed in Brazil and Mexico from 1965 to 1980, and its decrease takes place in all chosen LA countries in the ensuing decades. The early 1980s can be identified as a period when deep changes occur in the growth trajectory of Latin American economies, all of them badly hit by the debt crisis.

The remaining eight columns present the evolution of the share of manufacturing goods in total exports and imports. It increased in all selected economies from the 1960s to 2000. The share of Mexican manufacturing exports decreased from 1965 to 1980, and sharply increased in 2000, following the NAFTA agreement in 1994. However, one witnesses that from 2000 to 2015 for all economies the share of manufacturing exports has decreased . If compared with 1965, however, for all economies the manufacturing share in exports significantly increased, mostly as the result of the industrialization process. Looking at the end dates, share of manufacturing imports also generally increased. Still, the share of manufacturing imports decreased from 1965 to 1980 everywhere except for Argentina.

Between 1980 to 2000, manufacturing imports generally increased, following the analogous movement in exports. From 2000 to 2015, while the shares of manufacturing exports decreased, shares of manufacturing imports increased except for Argentina. Therefore, as far as flows of trade of manufacturing goods are concerned, the time period 1980 to 2000 exhibits a significant change in the trade balance of the economies in the region, and as such, it might point to significant change(s) in the growth regime.

Table 1: Selected indicators for the manufacturing sector: Argentina, Brazil, Chile and Mexico- selected years -%

	Share of Manufacturing in Total Latin American Manufacturing		Share of Manufacturing Industry in Total GDP				Share of Manufacturing Exports in GDP				Share of Manufacturing Imports in GDP			
	1990	2015	1965	1980	2000	2015	1965	1980	2000	2015	1965	1980	2000	2015
Argentina	7.4	8.7	41.2	29.5	17.8	17.2	5.6	23.2	32.5	29.3	62.2	77.3	87.0	82.0
Brazil	39.0	32.1	26.2	33.5	15.3	11.4	7.7	37.2	58,4	38,1	50.3	40.8	73.3	75.9
Chile	2.5	3.5	24.0	21.5	16.9	11.9	3.9	9.1	16.2	14.4	63.7	59.6	71.4	74.7
Mexico	22.5	26.3	19.5	22.3	20.3	18.4	16.3	11.9	83.5	82.4	82.4	74.9	83.5	81.8
Latin America	71.4	70.5	24.9	27.1	17.5	14.0	9.3	18.5	51.3	50.8	70.9	64.4	77.2	78.1

Source: WDI . Manufacturing value added in constant 2010 US$.

Table 2 presents the rates of GDP growth for the selected economies according to proposed time periods ("dates") of growth. The latter have been chosen to capture different growth trajectories and the transition phases, considering a single indicator: the average growth rate over the time interval (i.e. the date) for GDP. A summary of the main characteristics of each is in Table 3.

"Date 1", the time period of state-led industrialization, captures the most dynamic period for Brazil and Mexico, the most industrialized countries in the region. Date 2 covers the 'lost decade' for most Latin American economies and also the time of greatest instability in the foreign markets (associated with the Asian and Russian crisis in the 1990s.) The passage from Date 1 to 2 correponds to the

narrowing of the policy space in most economies, also given to the shortage of international liquidity for the heavily indebted economies. Therefore, we consider Date 2 a transition to a new growth regime. Date 3, on the other hand, is characterized by the consolidation of this new growth regime, marked by greater financial and trade integration. Therefore, our dates implying distinct growth models, they will often be named "phases".

Table 2: GDP growth rates: Argentina, Brazil, Chile and Mexico- selected periods- %

	1951-81 Phase 1	1982-99 Phase 2	2000-14 Phase 3
Argentina	2.9	2.1	3.3
Brazil	7.0	2.3	3.3
Chile	3.6	4.6	4.2
Mexico	6.6	2.1	2.5

Source: Penn World tables, version 9.0. Real GDP at constant 2011 national prices in millions 2011 US$.

Table 3: Proposed phases of economic growth.

	Period	Description
Phase 1	1951-1981	Growth regime of State-led import substitution industrialization
Phase 2	1982-1999	Debt crisis and consolidation of economic opening
Phase 3	2000-14	Growth regime based on economic integration in an asymmetrical world

In sum, within the overall period the two main phases are the first and the third, the second representing a transition. The phase of state-led import substitution industrialization is characterized by industrialization as the engine of development. State intervention in different domains of economic activity was the main guide to investment decisions, and development had a strong orientation towards the domestic market. However, the accelerated industrialization process led to external imbalances culminating with the external debt crisis. Economic opening was the strategy to overcome the shortage of external liquidity. The transition period is characterized by structural and market reforms that occurred mostly along the 1980s and 1990s along the lines of the Washington Consensus. It was characterized by liberalization unleashing market forces seen as the most efficient way of allocating resources. This phase is in sharp contrast with the orientation in the first phase, the state and other non-market institutions being considered a 'second-best' solution. Phase three is one of a new growth regime with the economies more reciprocally and globally integrated but also more susceptible to external shocks.

4 - Interpreting growth trajectories in the FS

A growth regime qualitatively identifies a specific growth dynamics, generated by a given model of growth. Hence, while a trajectory is any generic sequence of growth paths, a growth regime dynamics is the distilled representation of the trajectory's qualitative features through the properties of its regime representation (Brida and Punzo, 2003). In the FS, therefore, an economy's actual trajectory (its historical growth experience) is sequenced as a string of growth paths within and/or going across regimes. When the latter happens, we talk of a change in growth regime as a qualitative change *in the model of growth* and such discontinuity is taken to be manifestation of an underlying structural change, rendered explicit or "emerging" through certain qualitative aspects of the economy's observed dynamics. Combining the notions implied in the FS methodology with our pre-determined

historic segmentation into phases, we get a variety of possibilities to account for long-term growth trajectories.

It is the combination of qualitatively distinct growth trajectories, the regimes dynamics, that we want to examine. Using the FS as a device, we may analyze the growth trajectories of the four selected economies under the assumption (that we introduce hereafter) that they were, to a great extent, under the same external economic conditions. Thus, different country trajectories might be interpreted as specific responses to domestic macroeconomic policy management measures impacting both productivity and investment performances. Figure 2 presents the trajectory of our 4 economies (Argentina, Brazil, Chile and Mexico) in the pre-defined phases of growth. Table 4, on the other hand, summarizes their growth trajectories as seen through the FS device.[13]

Phase 1: State-led import substitution industrialization growth regime (1951-1981)

After the World War II, large countries of Latin America embarked in a process of industrialization based on import substitution in industry [14] and strict control of the exchange rate. External borrowing was stimulated and was reflected in high investment rates. The 1960s and 1970s are often seen as a golden age in Latin American economic history.[15]

The state-led industrialization as a growth regime focused on a set of institutional arrangements aiming at promoting structural change to accelerate the catching up process to mature economies. Brazil and Mexico are the examples of well succeeded import substitution industrialization strategies. Figure 2 shows that this phase is the one when productivity growth rates were the highest in average for these economies. In both cases, the growth trajectory falls in the innovation quadrant, where average aggregate productivity growth exceeded average growth rate of investment per worker in the period. This result can be seen as a clear indication that the increase in aggregate productivity issued of the deepening of the industrialization process. In both countries industrialization was based on protectionist policies, i.e. in each step of the import substitution process, governments targeted certain industries as priorities for the industrial policy and used both import licences and high tariffs to protect the manufacturing sector.[16]

The Argentinian industrialization process took a different route: Argentina has comparative advantages in its agricultural sector being endowed with large areas of fertile land. Thus, industrialization implied a process of displacement of the dynamic center of agricultural and livestock activities to manufacturing. The industrialization process ended in 1976 (see Ferrer, 2004, *apud* Câmara Neto and Vernengo, 2013), when a neoliberal agenda of economic policy took over the economy, interrupting a process that was left 'unfinished'. Indeed, in the 1951-81, Argentinian growth trajectory falls in the accumulation quadrant (Figure 2), and the striking feature of the Argentinian pattern of development since the post-war is not so much state-led industrialization but the political instability that marks the Argentine development case (see Câmara Neto and Vernengo (2013, p. 115-6)). Indeed, the 1976 military coup was an attempt to return Argentina to the liberal

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[13] See Appendix for a description of the variables in Figure 2.

[14] Industrialization based on protectionist policies in favour of infant heavy industries gained a strong push in the 1950s greatly influenced by Prebisch's centre-periphery model.

[15] See, for instance, Bértola and Ocampo (2012).

[16] In the case of Brazil, mainly during the 1970s, industrial policy was active to foster industrialization, and National Develorplmental Plans were launched to overcome bottlenecks in the trade balance. It is worth mentioning that the Brazilian industrialization process has been largely dependent of foreign savings, and paradoxically, episodes of balance of payment crisis reinforced government arguments in favour of renewing the use of protectionist instruments and import substitution. The import substitution strategy followed by Mexico, also based on protectionist policies followed a different route since the sixties, when protectionist regime relied increasingly on import licenses, and less on tariff protection. According to Vos (1993), import licenses were granted essentially on criteria of availability of domestic supplies.

and agricultural export growth model of the 'country's "glorious past" (Ferrari and Cunha, 2008: 27). Attempt to curb persistent rising inflation was made though ortodox plans[17] and the economy stagnated by the end of the decade.[18]

The Chilean growth pattern in 1952-81 also falls in the accumulation quadrant, signaling that structural change promoted by the import substitution industrialization strategy did not change the most important characteristics of the economy with its heavy dependence on mineral extraction. Actually, the state-led orientation of the Chilenean economy reached all economic sectors. Between 1964-73, Chile implemented a process of agrarian reform that reached 50% of the agricultural land. In 1971, all the mineral wealth was nationalized and the *Corporación Chilena del Cobre* (Codelco) was created and became (and still is) the main exporting company in the country. Financial markets were regulated by the State. However, the military coup in 1973, moved the economy to a radical neoliberal agenda, reducing very quickly the presence of state in the economy through an extensive program of privatization of public enterprises and banks and including the social security, the promotion of private health insurance and the expansion of private education. Economic opening implied the internationalization of the financial sector. Such economic reforms exposed the economy to changes in the international financial markets, and consequently the Mexican default in 1981 badly hit Chilean GDP that decreased over 10 per cent in 1982.[19]

The import substitution industrialization strategy was virtually abandoned by Brazil after Mexico's external default of 1982. Actually, such state-led strategy was eventually to be abandoned in most Latin American: its main flaw was being based on running external deficits and resorting to increasing amounts of external borrowing, a strategy not sustainable mainly due to the high volatility associated with the external financing. Therefore, its abandonment was the result of the behavior of both the trade and capital balances which could not sustain investment, the main variable to expand aggregate income and output. A common criticism to the import substitution strategy is that this strategy left little room for export-led growth for excessive protectionism generated inefficiencies in industrial production. The lack of dynamism in export earnings became a key bottleneck to the import substitution industrialization strategy since the industrial sector was import intensive (Sapelli (2003).

The golden age of Latin American economies, during which time structural change favoured industrialization, came to an end with Mexico's external moratorium.

Phase 2: Debt crisis and consolidation of economic opening: the transition to a new growth regime (1982-99)

The virtual abandonment of the developmentalist agenda guiding Latin American growth strategies since the war was the result of the external debt crisis.[20] The increase in foreign indebtedness after the sharp increase in international interest rates brought about the implementation of recessionary policies to promote external adjustments in all indebted countries. Sharp devaluations in domestic currency, which followed balance of payment crises, on the other hand, implied a rise in domestic prices. In a word, policy space for Latin American economies narrowed substantially after the parting from developmentalist policies.

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[17]In 1978, the plan of the neoliberal minister Martinez de Hoz was a total failure and the economy faced bank crisis.

[18] Before the Mexican moratorium, Argentina had the highest ratio of external debt to GDP in Latin America.

[19]According to the World Development Indicators (WDI), in 2005 US$ PPC.

[20]According to Moreno Brid and Caldentey (2009, p. 37): "By the 1980's, the debt crisis which caused the largest drop in output growth in the region's history and affected most of Latin American countries, was used as the leitmotif to launch a devastating critique of earlier developmental policies and to recommend policies based on the mantra 'stabilize, privatize and liberalize'."

According to the FS (Figure 2), all the economies entered during Phase 2 in a process of reduction of the rates of growth of both productivity and investment per worker.

Following the Mexican external moratorium of 1982, and the increasing financial fragility of the public sector, inflationary rates became resilient in Brazil. High inflation dominated the macroeconomic scenario by mid-1980s and beginning of the 1990s, during which time several anti-inflationary plans were launched, though with little or no success. On the other hand, developmental strategies lost space in the economic debate as the renegotiation of the external debt became the main economic policy priority . High inflation was eventually defeated with the *Plano Real*, in 1994, while trade liberalization reforms were introduced in Brazil in the beginning of 1990s, relatively late in comparison with other selected economies. However, it was implemented very quickly: between 1988 and 1994 most of the non-trade barriers were banished, the nominal import tariff was reduced from 39.6 per cent to 11.2 per cent (simple average) and the standard deviation dropped from 14.6 per cent to 5.9 per cent (Kume, Piani and Souza, 2003:11). Though, among all economic reforms adopted in Brazil, opening the short-term capital account was probably most responsible for exposing the domestic to the instability of the world economy and also for reducing the contribution of monetary, fiscal and exchange rate policies to sustaining growth. If, on the one hand, the opening of the economy helped to stabilize chronic inflation, on the other hand, it contributed to the emergence of a new cyclical trend of appreciation of the its currency in real terms turning the economy more vulnerable to external shocks. Finally, financial integration and a fixed exchange rate regime proved to be inconsistent with one another, and the speculative attacks against the Asian and Russian currencies forced the Brazilian economy in January 1999 to adopt a flexible exchange rate regime. In June the same year, a new arrangement of economic policy was implemented with inflation targeting, primary surplus and flexible exchange rate.

The Mexican reaction to the debt crisis was to start to revert state intervention policies implemented in the previous phase. Therefore, the first 'globalization phase' of the Mexican economy started in the mid-1980s, when trade liberalization policies began to be implemented. In 1986 Mexico entered the GATT. The government quickly began to dismantle the system of trade protection, liberalize the financial market, shrink the public sector by privatizing and reducing public spending. The main macroeconomic goal became keeping low inflation, as this was seen as a necessary and largely sufficient condition for setting the economy on a path of strong and lasting export-led, labour-intensive growth. Liberal policies did not deliver, and the process of integration to the world economy resulted in low growth and increase dependence on oil exports. Indeed, the 1982-99 growth trajectory was the worst for the Mexican economy since the war. In 1994 Mexico entered NAFTA and an immediate consequence was the dismantling of the national productive chains, which made room for the 'maquilas'. Actually, the specialization of Mexican industry in the high-technology sectors generated a desindustrialization of the basic manufacturing sectors, which in turn limited the growth of domestic demand (Levy-Orlik, 2012: 246). Besides the deepening of the deindustrialization process, a speculative attack to the domestic currency in 1994 exposed, according to Ibarra and Blecker (2014), the fragility of domestic policy to anchor monetary stabilization to a fix exchange rate regime. The recovery of the Mexican economy due to its integration to the north american supply chains is observed in the following phase. [21]

Argentina was the economy with the worst growth trajectory relative to the others in Phase 1, and during Phase 2 a sequence of economic plans changed dramatically its economic landscape. The movement towards liberal policies, as seen, started earlier in Argentina, when the liberal economic

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[21]When entering the international market via global supply chains, multinationals corporations have assumed a central role in the production. Thus, Mexico's structural change in the most acute phase of liberalism did not prevent its financial and technological dependence (mainly from the USA), although it has increased the share of its industry, diversified and increased the technological content of its export agenda (Levy-Orlik 2012:237)

platform centered on monetarist policies was introduced. In 1982 Argentina occupied the Falkland Islands (or Malvinas) and came into conflict with the United Kingdom. The result was a massive depreciation of the *peso*, serious domestic inflation and accumulation of sizeable external debts. Along the 1980s growth rates were low and persistent and high inflation became a chronic problem,[22] what was aggravated by severe episodes of flight from the currency at the end of the 1980s. In 1991 a controvertial plan to fight inflation was lauched establishing the convertibility of the currency to the dollar, according to which the value of the *peso* in terms of the US dollar was fixed.[23] It reduced inflation sharply, but the fixed exchange rate reduced the cost of imports, which produced a flight of dollars from the country and a massive loss of industrial infrastructure and employment in industry. The recovery of the Argentinian economy in the beginning of the 1990s was associated with the stabilization of inflation and economic opening. Cunha and Ferrari (2009) claim that Argentina pushed neoliberal policies to the extreme, with the adoption of the system of convertibility of its currency in 1991. If the convertibility program eliminated hyperinflation, it showed a low ability to absorb external shocks (op. cit: 7). The fix exchange rate stimulated the expansion of private consumption, which was financed with increasing external indebtedness. On a context of greater instability in the international financial markets during the 1990s, Argentina became more and more dependent on official resources, financial packages led by the IMF, and funding from the private debt market. The unsustainability of this macroeconomic arrangement came to a halt with the 2001 moratorium: in December 1991, Argentina's total external debt was US $ 62 billion equivalent to 32 per cent of GDP and in 2001, debt exceeded $ 140 billion, more than 50 percent of GDP (op. cit: 14).

The Chilean economy was the most integrated in the 1980s, since Chile had abandoned the import-substitution-based model in early 1970s. But as all other Latin American economies, Chile suffered a severe external crisis in the aftermath of the Mexican moratorium. Its currency was strongly devaluated in 1982 diving the economy into a recession. GDP decreased 13.2% in 1982 and 2.8% in 1983. Economic authorities adopted several measures to attract foreign capital and as a result of interventions in the financial system, much of the private external debt has turned into public external debt. In order to reduce this debt, the government opted for so-called debt-equity swaps, a mechanism by which foreign investors holding Chilean debt were offered the repurchase of bonds in par value but in Chilean *pesos,* provided that the capital remained for investment in the country. Years later, with the stabilization of the economy, the Chilean solution to overcome the crisis ended up being recognized. Economic opening and early integration to the world economy led to the reallocation of resources to industrial sectors targeting the external market (Carton and Slim, 2012). The relative good economic performance of Chile in the 1990s, based on the expansion and diversification of natural resources exports, was the result of structural reforms in previous decades. According to Díaz (2013: 219), liberal macroeconomic policies were consolidated in the 1990s, and responsible for the recovery of the economy.

In summary, trade and financial liberalization policies became the main orientation of most Latin American economies and the four main economies in particular, that definitely enter in a new growth pattern led by market forces.

Phase 3: A new growth regime: economic integration in an asymmetrical world (2000-2014)

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[22]Economic plans to fight inflation were: the Austral Plan (1985-87) and the Primavera Plan (August 1988).

[23] It should be noticed that initially, the early years of convetibility were very buoyant in terms of increase in domestic income and success in fighting chronic inflation (Ferrari and Cunha, 2008: 50). Between 1991 and 1998 annual average growth rate of Argentina was around 6 % .

Growth trajectory in Phase 3 covers the 2000s onwards, a period of greater integration of the four economies to the world economy. Productivity and investment per worker growth rates resumed. [24]

The new growth regime of economic integration is the result of the market oriented economic policies implemented in the 1980s and 1990s that contributed to structural change that led to a greater specialization in commodities production, and, in the case of Mexico, in the insertion in global supply chains. Supported by liberal economic policies, Brazil, Mexico, Argentina and Chile underwent an industrial reorganization that allowed increases in exports from the 1980s to 2000. But because of the effect of exchange rate appreciation on income faced by all economies, and of the industry heavily dependent on imported inputs, they also saw their imports grow even faster (Table 1). It should be observed that even in 2003-2007, which was the fastest growth period in Latin America since the war, any of the four economies were able to reverse the structural change trend towards the reduction of the technological gap with more developed economies.

In the case of Brazil, the recovery of the growth trajectory from 2000 onwards can be considered weak. Growth trajectory is in the innovation part of the FS, but productivity growth is in average lower than Phase 1. This result can be seen as the inability of policymakers to close coordinate polices to enhance productivity, such as industrial, technological and trade policies with the short-term macroeconomic policies (especially monetary and exchange rate policies) (Bresser-Pereira *et al*, 2016; Nassif *et al* , 2018). That is to say, Brazil' s macroeconomic policy regime, which combines an inflation and fiscal targets regimes and a floating exchange rates regime, has not been successful in increasing space policy for growth policies. The very conservative *modus operandi* of this "tripod" of the Brazilian macroeconomic policy has not been able to either bring the short-term domestic interest rates close to international standards or avoid a cyclical trend of real overvaluation of the Brazilian currency.

The macroeconomic policy orientation of the Mexican economy intensified in the 2000s the consolidation of the export industries. Actually, manufacturing exports, which expanded continuously at annual rates of over 10% until the outbreak of the international financial crisis in 2008 and 2009. According to Moreno Brid (2016), these achievements are far from having translated into high and sustained growth, free of financial or balance-of-payments crises. This is so because all the efforts of the Mexican economy to become integrated in NAFTA implied the denationalization of the economy with multinationals transferring very little to Mexico in terms of technology and R&D facilities. The maquila sector implied deindustrialization, and according to Ocampo (2016), all this happened despite a competitive real exchange rate in Mexico assured through wage repression and contractionary economic policies. In Figure 2 the position of Mexico is in the accumulation part of the FS.

In the case of Argentina, the economy dived into a severe depression from 1999-2002, due to the unsustainability of the convertibility plan. Recovery came from 2003 onwards with the Kirchner administration and the implementation of policies to sustain aggregate demand. However, as pointed out by Porta (2016: 394), in late 2007, the growth trajectory was showing signs of considerable imbalances, most of which were rooted in the Argentine production structure. This diagnosis is based on the evidence that Argentine production structure focuses on low-tech production (op. cit: 402). Moreover, as pointed out by Cunha and Ferrari (2009), the process of economic recovery in the 2000s with an inflection in macroeconomic policies with respect to the neoliberal model in force until the 2001-2002 should not be taken as a going back to a developmental growth strategy. The end of the Kirchner era is showing that, as suggested by the authors, in a historical perspective of a longer term,

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[24] Carvalho (2008:122) questions the resilience of the liberal choices in view of the problems that most Latin American economies faced in the 1990s. According to the author, deep crises in the 1990s did not reverse the major characteristics of the financial regimes created in the liberalization process.

it is possible to be noticed that the Argentine society remained much more inclined to adhere to the liberal model, in its various versions, than to development strategies that proposed to structurally change the productive base (op. cit:21).

The Chilean economy is the only one that can be seen as better off in relation to the other economies after the economic opening and specialization in natural resources. However, the growth trajectory did not signal a change in growth regime since the 1950s. Therefore, the Chilean economy presents greater growth capacity and export dynamism, although the economic opening generated more instability. The increase in the inflow of foreign capital and the 'Dutch disease' related to copper exports has led to a prolonged cycle of appreciation of the real exchange rate that affects the competitiveness of production and exports of goods and services with higher value added. Therefore, the productive structure has a high degree of heterogeneity in terms of productivity, and the Chilean economy is still very dependent on copper exports. The stability in macroeconomic indicators, as the result of the implementation of consistent macroeconomic policies since the 1990s do not include advances in developmental of policy instruments to promote economic development. (Díaz, 2013: 246-252).
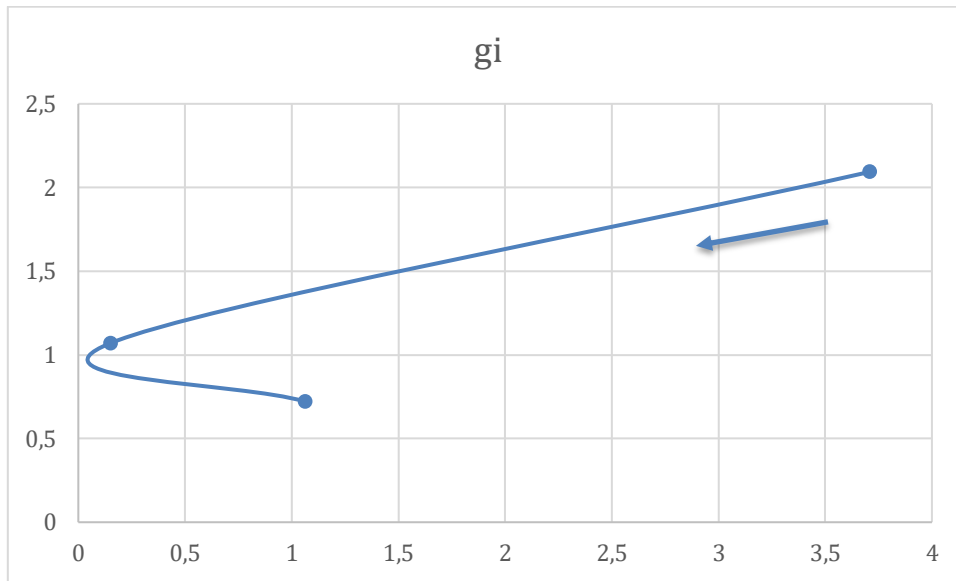
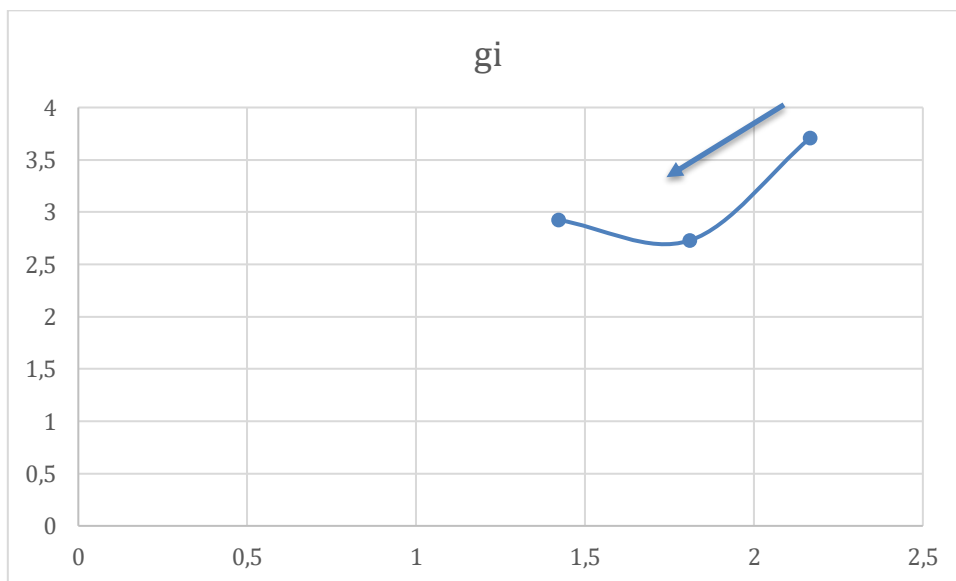**Figure 2**: Space Framework diagram for the selected economies: 1951-2014

Argentina
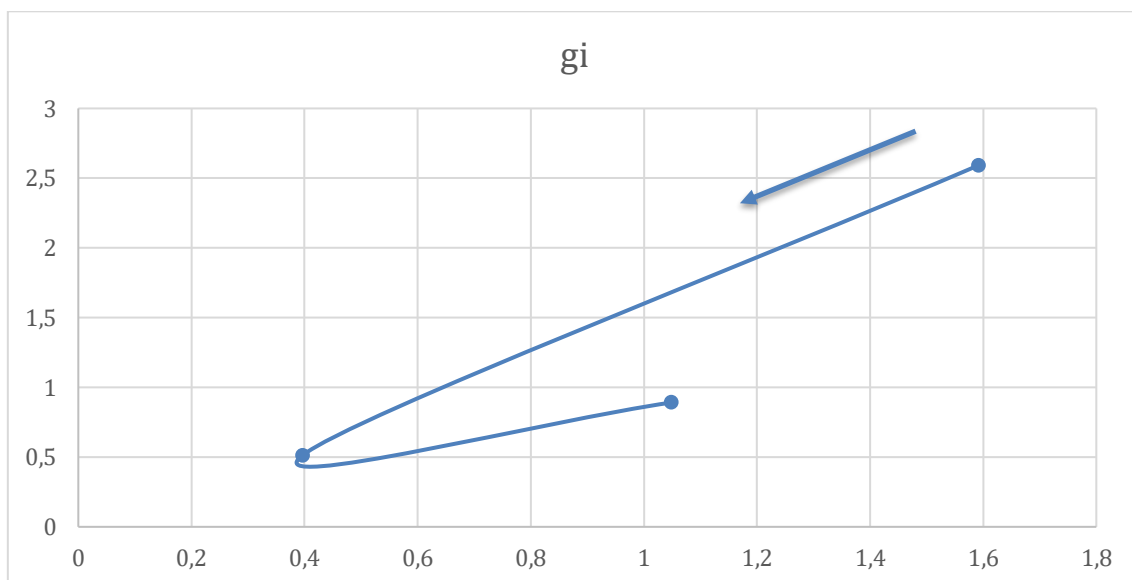
Source: Own elaboration. See Appendix
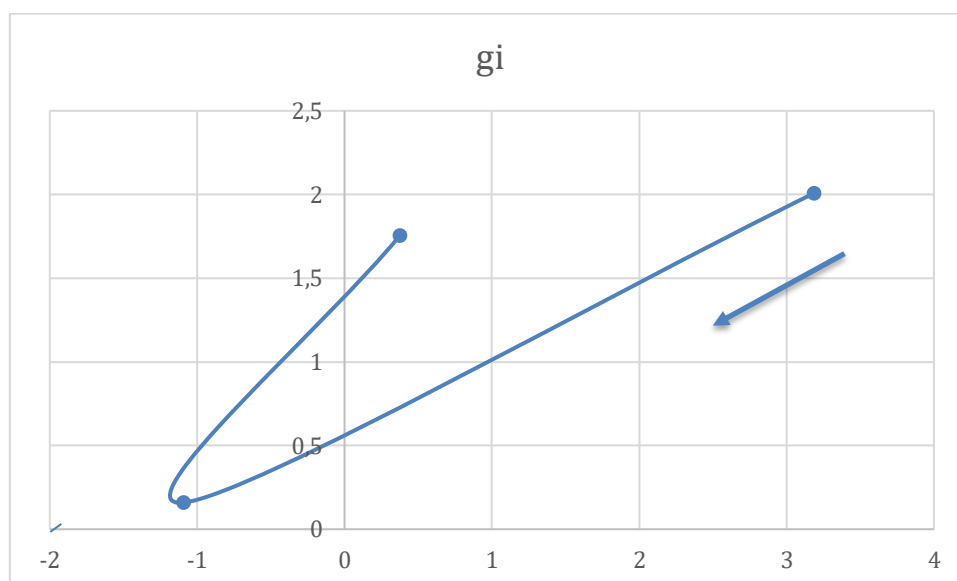
Brazil

Source: Own elaboration. See Appendix

Chile*

Source: Own elaboration. See Appendix *starts in 1952

Mexico

Source: Own elaboration. See Appendix

Table 4: Sum up of the growth trajectories

	Argentina	Brazil	Chile	Mexico
Phase 1 (1951-81)	Accumulation	Innovation	Accumulation	Innovation
Phase 2 (1982-99)	Accumulation	Accumulation	Accumulation	Retraction
Phase 3 (2000-14)	Innovation	Innovation	Accumulation	Accumulation

5. Concluding remarks

From the comparative analysis of the growth trajectories of Argentina, Brazil and Mexico we can conclude that the recent poor performance of these economies should not be seen as a cyclical phenomenon, but as the result of how each economy was integrated in the world economy. In all cases, changes in the growth regime since the 1950s implied the narrowing of their policy space and the scaling down of their growth potential associated with increasing external vulnerability.

Structural change that occurred from the first Phase (Phase 1) to the last Phase (Phase 3) implied the development of an industry specialized in commodities, low-tech manufactured goods (Brazil and Argentina) and high-tech maquila (Mexico). The FS shows that all four economies presented lower productivity growth when compared with Phase 1. Argentina has shown the most unstable growth pattern, as the growth trajectory is closed to the Harrodian corridor.
The long-term growth performance of Chile is quite distinct of all the others because in the last fifty years, it maintained the same growth pattern and was able to diversify its productive structure, although it still is basically natural resource based.

Furthermore, the opening of the economies before they could catch up with developed ones deepened their dependence on international capital flow. The long transition from Phase 2 to Phase 3, the one of economic integration, changed substantially the role of the State, which became less interventionist. Private investors with access to international financial markets became the main actors to guide investment decisions and capital accumulation. In this sense, one can say that the

commitment to a developmentalism approach, prevailing during the state-led industrialization phase, gave way to the short-term perspectives of profitability. Stabilization policies became the priority of economic policy, narrowing the space for long-term economic policies. Their implementation resulted most of the time in higher real interest rates and lower real exchange rates, de-stimulating real capital accumulation. Therefore, specialization in the production of low value added goods and increased financialization are phenomena that come together after the economic opening reduced the policy space.

Finally, in the 2000s, the boom in international trade '… unleashed a wave of prosperity for developing economies, and Latin America in particular, that influenced their development and external trade and investment strategies.' (Souza and Ferraz, 2016: 375). The 2008 international financial crisis brought about a sudden change in this scenario. An open question is whether the semi-industrialized economies of this study are prepared to face the period of lower international trade and greater financial uncertainties due to the slow recovery of developed economies until now. Actually, this question raises the further issue: how much room for manoeuvring to sustain growth each economy has been left with. As a market oriented macroeconomic policy has been put in place and structural change has moved towards low technological industries, are these economies better off to face an international slow down in trade?

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APPENDIX

The FS variables (Table A) are built with data from the Penn World Tables, version 9.0, as follows: **gv** is the growth rate of the ratio of the *Real GDP at constant 2011 national prices (in mil. 2011US$)* (rgdpna) and the *Number of persons engaged (in millions)* (emp).

gi is the growth rate of the ratio of the *Capital stock at constant 2011 national prices (in mil. 2011US$)* (rkna) and the *Number of persons engaged (in millions)* (emp).

Table A: Estimated gv and gi: geometric mean

Phasess	ARGENTINA		BRAZIL		CHILE		MEXICO	
	gv	gi	gv	gi	gv	gi	gv	gi
1951-81	1.5922	2.5927	3.70870	2.09340	2.1660	3.7082	3.18720	2.0081
1982-99	0.3963	0.5124	0.14949	1.069462	1.8098	2.7287	-1.0925	0.1594
2000-14	1.0488	0.8914	1.060694	0.721482	1.4214	2.9241	0.3756	1.7549

Source: Penn World tables, version 9.0. Own elaboration, see notes above.