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THE GOOSE THAT LAID THE GOLDEN EGGS? AGRICULTURAL DEVELOPMENT IN LATIN AMERICA IN THE 20TH CENTURY

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Abstract

In the last third of the nineteenth century, a large majority of Latin America adopted export-led models of growth, mostly based on agricultural exports. In some countries, this strategy produced significant results in terms of economic development but in most of the countries, the strategy was not successful, either because of too slow growth in exports or because linkages with the rest of the economy were very weak and there was no significant growth-spreading effect. After WWII, Latin America turned to a new model of economic development: the import substitution industrialisation (ISI). The ISI policies penalised export-led agriculture. The 1980s and 1990s were characterised by an expansion of adjustment policies and structural reforms. The new strategy consisted of mobilising resources in competitive export sectors, including agriculture.

Key words: Latin American agriculture, agricultural development, export-led growth model, import substitution industrialization, agricultural growth, Latin American economic history

Resumen

En el último tercio del siglo XIX, la gran mayoría de los países de Latinoamérica adoptaron modelos de crecimiento dirigidos por las exportaciones, principalmente basados en exportaciones agrarias. En algunos países, esta estrategia dio resultados importantes en términos de desarrollo económico, pero en la mayoría no fue exitosa, bien porque tuvieron un crecimiento demasiado lento de sus exportaciones o porque los efectos de arrastre hacia el resto de la economía fueron muy débiles y no hubo por lo tanto un impulso importante hacia el desarrollo. Después de la Segunda Guerra Mundial, Latinoamérica viró hacia un nuevo modelo de desarrollo económico: la industrialización sustitutiva de importaciones (ISI). Las políticas ISI penalizaron a la agricultura de exportación. Las décadas de los ochenta y noventa estuvieron caracterizadas por una generalización de políticas de ajuste y reforma estructural. La nueva estrategia consistió en movilizar recursos en los sectores exportadores competitivos, incluyendo entre estos a la agricultura.

Palabras clave: Agricultura latinoamericana, desarrollo agrario, modelos de desarrollo dirigidos por las exportaciones, industrialización sustitutiva de importaciones, crecimiento agrario, historia económica de Latinoamérica

JEL CODES: N16, N56, Q10, Q17

1. Introduction¹

Given its productive and commercial capacity, agriculture in Latin America is called on to play a fundamental role in supplying food to the world, and in improving the situation of its farmers. The region needs responsive and efficient policies and programs that will raise agricultural productivity in a sustainable and inclusive manner. To accomplish this objective, the Latin American countries have advanced not only in the formulation of sectoral policies, but also in the coordination of effort among the various organizations that make up the institutional architecture aimed at improving the sector's performance. (ECLAC-FAO-IICA, 2015). Supporting these expectations for the twenty-first century requires an adequate review and interpretation of the arguments, experiences, and learning derived from the agricultural history of the twentieth century.

Latin American agriculture is heterogeneous, reflecting the broad diversity of landscapes, climates, soils, and local conditions. However, some common characteristics offer a clear conceptual unity to the region (Solbrig, 2008). The first and most notable is the importance of agriculture in the economies of Latin America. Since colonial times, the region has depended on crops and livestock as major sources of production, employment, exports, and foreign currency. Second, the uneven distribution of land, the well-known *latifundio-minifundio* coupling, appears as a structural feature that has shaped the agricultural development of Latin America. Third, the persistence of a large sector of small farmers, poorly integrated into the economy and producing primarily food staples for local markets, is a characteristic that exerts its influence on the majority of countries of the region. Finally, in the agricultural export sector, only one (or, occasionally, a very few) products have

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prevailed in each country. This dependence on few export products has exposed countries to the contingencies of the external markets, price fluctuations, and boom-and-bust cycles.

However, in spite of the importance of agriculture in most Latin American countries, the sector has not often been able to encourage the rest of the economy and create dynamic forward and backward linkages. From a world perspective, the twentieth century involved greater changes in the rural sector than at any other time in history (Federico, 2008). From very traditional and conservative modalities of production, agriculture has been transformed into a knowledge and science-based enterprise. This process has augmented productivity and supported the expansion of production to keep up with an increased demand from a growing population. It has also altered the relation of people to the land because the industrialization of farming has increased the linkages and dependence on manufacturing, made agriculture more vulnerable to foreign markets, and exacerbated the environmental consequences of farming (Solbrig, 2008). However, Latin America has been unable to benefit greatly from these changes in supply and demand, and institutional, and technological conditions. The reasons and consequences are discussed throughout this chapter, ordering our analysis and arguments according to the different development patterns that have dominated the Latin American economic evolution during the twentieth century.

2. Commodity export-led growth

In the last third of the nineteenth century, Latin America seemed set for a period of relatively high economic growth rates, thanks to its capacity to integrate itself dynamically into the international economy. This process was the outcome of the confluence of two sets of external and internal factors (Bértola & Ocampo, 2012).

On the one hand, the impact on trade of the revolution in transport, led to significant reductions in maritime and overland shipping costs, narrowing the economic distance

between Europe and the Americas (O'Rourke & Williamson, 2001). This effect was reinforced by the sustained expansion of the demand for raw materials and foodstuffs from the core of the world economy. On the other hand, factors derived from the political and institutional changes that had been taking place in most Latin American countries since their independence had significant influence in the so-called liberal economic reforms, whose introduction continued to run its course. Additionally, political power structures were consolidated, giving rise to greater institutional stability in several countries.

The combination of these factors encouraged a dynamic trajectory in Latin American exports and, although the export sector was not prominent, it induced backward linkages with the rest of the economy of varying power in different countries. Growth was also supported by considerable capital inflows and mass immigration from Europe and, to a lesser extent, Asia, although these flows were very unevenly distributed (Williamson, 2002).

In terms of economic policy, free trade, along with a certain degree of protection for domestic industry and foreign investment and immigration, was considered acceptable and generally encouraged. However, the implementation of a consistent set of economic policies was a recurring problem. Economic policy was concerned mainly with the needs of the export sector, and its influence on other activities of the economy remained uncertain. The (usually implicit) assumption was that export growth would enhance productivity growth and structural change throughout the economy.

This wave of economic growth was, to some degree, extensive, in as much as it translated into a marked expansion of the agricultural frontier and the settlement of new areas (Harley, 2007), especially in those parts of Latin America that were growing the fastest. Increased export activity in some regions led to a greater diversification of the production structure, which was manifested in the development of incipient

manufacturing, communications, transport infrastructure, and financial services, together with rapid urbanization.

Agricultural world demand and export-led growth

There is no question that the export sector set the pace and was the engine of growth for the entire economy during this time. It is also quite clear that this export pattern was based on agricultural and mining products, with manufactured goods and services playing a negligible role.

The period from the middle of the nineteenth century to WWI was characterized by the rise of new export products in response to the demands created by the Industrial Revolution. In major parts of Latin America, new exports were of agricultural origin (Bulmer-Thomas, 2003): rubber, wool, henequen, cereals, meat, coffee, cocoa, bananas, quinine, quebracho extract, and Peruvian balsam, sugar, and tobacco.

As a result, and always considering a high degree of generalization, on the eve of WWI the productive specialization of Latin America as a whole was mostly dominated by tropical products (almost half of world exports), with temperate-climate products only being important in the Southern Cone (a quarter of total world exports, Bértola & Williamson, 2008)².

The introduction of new products did not necessarily lead to export diversification. On the contrary, the rise of new exports was often matched by the eclipse of traditional products, so export concentration remained extremely high. In 1870, the leading export commodity of each of the Latin American countries accounted, on average, for approximately 50 percent of total exports. By 1913, this figure had dropped to 42 percent,

² For the composition of agricultural and food exports from South America in the first third of the twentieth century, see Pinilla and Aparicio (2015).

but it climbed back to 54 percent by 1929 (Bértola & Ocampo, 2012). This clearly illustrates how important commodities were as an export base for the region, whose competitiveness was heavily dependent on access to a limited number of natural resources. The dependence on few export products made countries strongly contingent on the vagaries of external markets and vulnerable to price fluctuations and boom-and-bust cycles.

In terms of export markets, the statistics also indicate a high dependence on the four main industrialized countries (the United States, Great Britain, Germany, and France) with little evidence of intraregional trade (Carreras et al., 2013).

The worst situation was clearly one in which exports were concentrated in a single product and a single market and in which the productivity of the non-export sector was unaffected by the dynamism of the exports. It was highly probable that, under such circumstances, export-led growth failed. According to Bulmer-Thomas (2003), such cases were found all too often in Latin America, even during the so-called golden age of export-led growth.

The export-led model, therefore, needed to be extremely dynamic; new products and markets had to be found and introduced. Under these circumstances, it was possible to achieve a significant rise in living standards, provided that the dynamism of the export sector was also reflected in some increase in labour productivity in the non-export sector.

Export-led growth and the supply side

The competitiveness of exports was heavily dependent on access to a limited number of natural resources; a situation that the literature identifies with the concept of “commodity lottery” (Díaz-Alejandro, 1984). This concept must be viewed with caution, however, because it can give the impression that export capacity was a question of luck, whereas a

broad range of economic and social factors did exist, offering logical cause-and-effect relationships to understand historical patterns (Bértola & Ocampo, 2012).³ The efficiency with which each factor functioned determines the results.

The increase in population experienced in the decades following independence deepened during this period. This was also a time in which migration was to play a prominent role. Latin America's population grew at an annual rate of 1.7 percent in 1870-1929, which was above the world average; even so, of course, it was still a small continent in demographic terms (only 4.2 percent of the world population). However, the annual increase in labour supply was never enough to satisfy the needs of the export sector for additional workers. The export sector therefore had to attract its labour supply either through internal or international migration (Bulmer-Thomas, 2003).

Internal mobility was historically restricted, and different modalities of coercion – a typical feature of the labour market in colonial times – were still found in different parts of Latin America on the eve of WWI. Many individuals shared the prevailing scorn for the lower classes found among the elite, and assumed that only international migration from Europe could solve the problem of labour shortages (in quantity and quality).

International migration was, in fact, of two kinds: selective and mass. Selective international migration did not mean a free market in labour; workers were imported for specific tasks. Mass immigration was only really important in Argentina, Cuba, Southern Brazil, and Uruguay.

Complaints of labour shortages persisted up to WWI (Bulmer-Thomas, 2003), and the inefficient way in which the labour market operated was certainly one explanation for the low rate of capital formation in certain countries.

³ Willebald et al. (2015) discuss the endogeneity of natural resources.

The expansion of agricultural exports required access to new lands. No Latin American country suffered from a physical shortage of land, during this period, but access to land was another matter. Latin America suffered from two serious problems. First, inadequate modes of transport meant that large areas were practically inaccessible until the coming of the railways (Kuntz, 2015). Second, Latin America maintained a system of land tenure, inherited from the Iberian Peninsula, that left the ownership of land highly concentrated (Bértola & Ocampo, 2012; Frankema, 2009).

The incorporation of “new” lands over nearly a century was enormous and would have provided many opportunities to alter the concentration ratio if those lands in private ownership had been allocated more equally. The failure to do so responded not only to inherited colonial patterns, but also related to the balance of political power and to economic exigencies post-independence.

The exercise of political hegemony by the landowning class led to the manipulation of fiscal systems and factor markets, which marginalized much of the labour force in both economic and political terms.

Capital requirements were evident, although this input per unit of output was generally higher in mining than in agriculture. The growth of labour productivity in the export sector was made possible through the adoption of technical innovations that tended to be embodied in new capital equipment.

Commercial banking was an important contribution to mobilizing resources, but it suffered from two main weaknesses. First, the volume of deposits attracted to commercial banks in most countries was modest. Second, commercial banking had a limited impact on resource allocation in general and on export diversification in particular. In fact, elites attempted to create distributional coalitions that would generate rents for bankers and a source of finance for states (Haber, 2012).

The institutional framework for investment in human capital was even more deficient in most countries (Frankema, 2009; Engerman et al., 2012). Some effort went into the creation of professional institutions for training labour in the new skills required. Schools for engineers were established, along with institutions specializing in plant breeding, agronomy, and livestock raising. At the university level, however, the situation was far from adequate, for neither the curriculum nor the course structure had changed much since colonial times (Maloney & Valencia, 2014).

Given the difficulties encountered in mobilizing domestic resources, it is not surprising that governments in every country turned to foreigners as a source of additional finance. Direct Foreign Investment (DFI) was attracted to those areas where technological barriers and access to capital restricted the entry of local firms. The bulk of the investment, therefore, flowed toward railways, public utilities, mining, banking, and shipping (Esteves, 2012; Stone, 1999), although the first two activities were by far the most important. However, above all in agricultural production for the home market, DFI played only a minor role in most countries.

Domestic-use agriculture

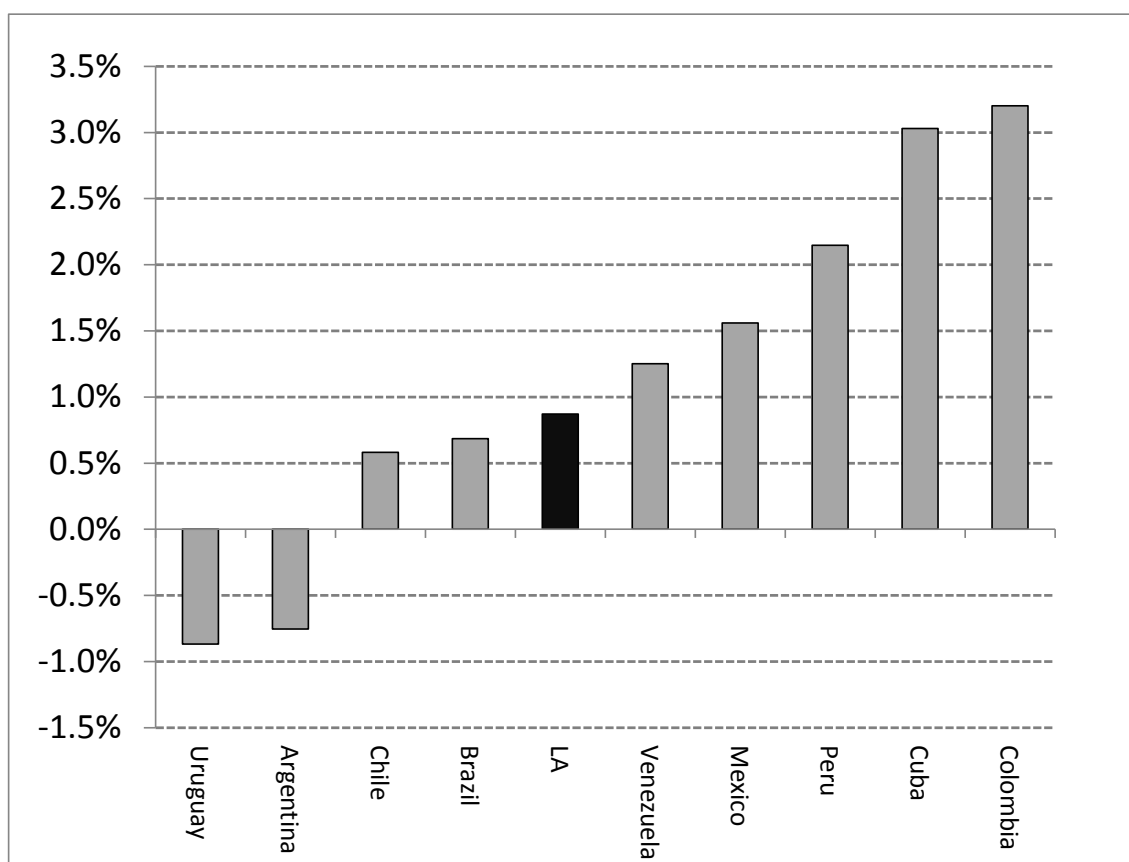
A successful export-led growth model implies a rapid rise in exports and in per-capita exports, coupled with increases in labour productivity in the export sector. Yet this is only the first, albeit very important, condition for a significant rise in real per-capita income. The second condition is the transfer of productivity gains in the export sector to the non-export economy.

Bértola and Ocampo (2012) propose exercises to examine the dynamics of exports and the domestic market in 1870-1929, and the differences between countries are very important. We consider the growth rates of real exports and domestic markets reported in

this study and construct a ratio that represents the relative dynamics of both “sides” of the economy (Figure 1). For the whole of Latin America, the external sector was clearly more dynamic than the domestic market. Brazil and Venezuela showed records around the regional average. The countries where the export sector showed a clearly dominant role were Peru, Cuba, and Colombia, and only the Southern Cone of South America –Uruguay, Argentina and, Chile– had truly dynamic domestic markets. In these cases, the domestic market growth was somewhat more stable than the export sector, and gave rise to important structural changes in terms of urbanization, the development of public utilities, industrialization, and the development of the state in various areas (Bértola & Ocampo, 2012).

Figure 1. Dynamics of exports and the domestic market, 1870-1929:

Exports/Domestic market growth rates



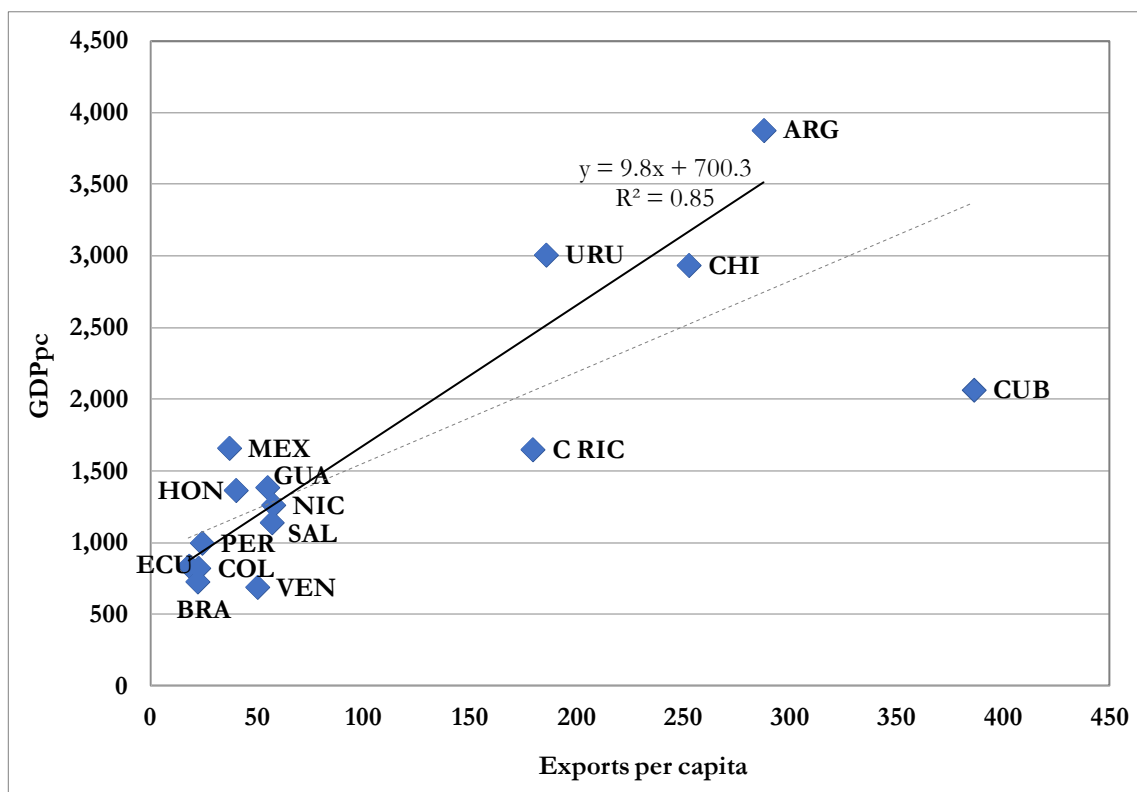
Source: Bértola and Ocampo (2012:100).

In terms of the labour force, the most important import-competing sector was domestic-use agriculture (DUA) (Bulmer-Thomas, 2003). This branch of agriculture employed everyone in the sector not producing exports, huge estates and tiny plots of land, owner-occupied farms and rented properties, and efficient and inefficient estates. In 1913, the labour force in DUA was the largest component of the economically-active population (EAP) in practically all countries and produced an output which, in principle, could be replaced by imports.

The transference of productivity gains from the export sector to DUA was often very difficult. According to Bulmer-Thomas (2003), first, in a few countries the export commodities were also the staples of the national diet; in these cases (e.g., wheat in Argentina and beef in Uruguay) it was almost inevitable that the technological changes that brought productivity gains to the export sectors would do the same for DUA. The Chilean case is more impressive. Despite the success of wheat exports, foreign-exchange earnings were derived mainly from minerals. Yet the productivity of Chilean farming could still benefit from mineral production because the concentration of workers around the nitrate mines in desert northern Chile was a powerful stimulus to technological change and labour productivity in the fertile central valley. Second, labour productivity in DUA could expect to benefit from the lowering of transport costs, the growth of financial institutions linked to the export sector, and the rise of a more sophisticated division of labour, related to population growth and the expansion of the market. In general, DUA kept pace with the growth in demand but the majority of Latin American countries failed to transfer productivity gains. In a long tradition, the Latin American Structuralism identified this fact with the concept of “structural heterogeneity” (Pinto, 1965, 1970) and the conformation of dual economies.

The relationship between exports and real income per-capita almost a century after independence is plotted in Figure 2. Despite that our data on exports includes all types of products, we assume that they represent a good proxy to our point. It is difficult to deny that export performance was an important determinant of the standard of living in Latin America before WWI (Bulmer-Thomas, 2003). Points above the line refer to countries –Argentina, Uruguay– whose real GDP per head is higher than predicted by export performance. Points below the line refer to countries –Costa Rica, Cuba– with below-predicted income per head. Even when we exclude Cuba from the analysis, the best fit improves significantly showing the relevant “underperformance” of a country with noticeable characteristics of an enclave economy.⁴

Figure 2. Real GDP and exports per capita circa 1913



Source: Bértola and Ocampo (2012) and own elaboration from Bulmer-Thomas (2003).

⁴ When Cuba is included, the R² coefficient decreases to 0.61.

3. The inward-looking development model: agriculture loses its leading role, 1950-1973

The turbulence and problems for exporters of primary products in the years 1914-1945 had a severe impact on the strategies of economic growth followed after the second postwar period. The Great Depression, which began in 1929, was a great external shock for Latin America, the countries of the region having no capacity to control it. It seriously affected world trade, with falls in volume and prices. However, one of the principal sources of recovery in South America, following the worst years of the Depression, was the promotion of exports, which recovered from 1931 on. Many governments took active measures to try to ensure the survival of the export sector; they included devaluation, the creation of new financial institutions providing credit for exporting companies, moratoria on external debt, governmental purchase, and even the destruction of harvests to maintain prices, and the establishment of multiple exchange rates (Paiva Abreu, 2006: 106-118).

The Second World War constituted a heavy blow for the Latin American agro-exporting economies. The war affected mostly those in which the foreign sectors had a greater weight, and whose exports were more oriented towards the European market. Paradoxically, peace did not improve the situation in the short term; in fact, it worsened it for some countries. The demand for strategic products declined, and so did the North American preference for Latin American goods, while the European countries did not substantially increase their imports in the short term. The difficulties of European countries, their shortage of hard currencies, and the non-convertibility of the pound sterling further complicated the situation. The difficult situation of Europe during reconstruction, the maintenance of high levels of protectionism, and the generalized measures and support for agriculture in Europe, only increased the pessimism regarding the possibilities of the agro exporting model (Paiva Abreu, 2006: 121). The exclusion in

1947 of agricultural products from the GATT reinforced this pessimism, confirming the difficulties foreseen for the dismantling of the complex system of tariff and non-tariff protection, which the developed countries had progressively constructed since 1929 and developed further during the war and the early postwar years (Cardenas et al., 2000: 13-14).

These difficulties faced by Latin American export-led economies caused deep pessimism regarding the continuity of their model of growth. The United Nations Economic Commission for Latin America (ECLA), led by Raúl Prebisch, proposed, soon after its foundation in 1948, a new model of economic development for the region: the idea of import substitution industrialization (ISI). In the original formulation of the ECLA to justify the ISI, the decline in the terms of trade for primary products, and the lack of markets with sufficient capacity to absorb them, played a crucial role in explaining the limits to growth imposed by the export-led development model.

Export-led agriculture was penalised by ISI policies, which were clearly biased against exports, giving place to support for industry while side-lining overseas trade in agricultural and food products (Krueger, 1990). The resulting impact on agricultural prices was largely a sub-product of this development strategy, hurting the region's most competitive producers who received only meagre compensation in the form of official farm loans and fertiliser subsidies (Anderson & Valdes, 2008).

Policy now focused on measures to protect national output, including high tariff barriers, the imposition of occasional export taxes, indirect taxation of agriculture as a by-product of industrial protection, and overvaluation of the currency. These policies caused a major transfer of resources away from agriculture. The resulting net outflow between 1960 and 1984 has been estimated at 85% of agricultural GDP in Argentina, 56% in Chile and 42% in Colombia (Krueger, 1988). The goals, of course, were to hold down food prices, assure the domestic food supply in the cities, and foster the process of industrialisation.

These policies resulted in negative protection rates for agriculture, especially in the initial decades of the period considered. Reasonably reliable estimates exist of the impact of these policies on agriculture in a significant group of Latin American nations between 1965 and 2004. The figures are telling: the nominal rate of assistance (NRA), defined as ‘the percentage by which government policies have raised gross returns to producers above what they would be without government intervention (or lowered them, if the NRA is below zero)’ was negative in weighted average terms in the Latin America nations examined (Argentina, Brazil, Chile, Colombia, the Dominican Republic, Ecuador, Mexico, and Nicaragua) between 1965 and 1989. Public policy depressed farm incomes by between 7% and 21% in this period. Support in the subsequent years was minimal, at no time exceeding 5% of farm incomes. Even more striking was the substantial anti-trade bias. Breaking farm output down into import-competing and exportable products, we may observe that the former enjoyed significant, positive protection throughout practically the whole of the period (1965 to 2004), despite wide variations in actual levels of support, while the latter were unremittingly disadvantaged, despite a fall in the penalty from around 25% in the 1980s to less than 5% by the 1990s. Finally, the relative rate of assistance (RRA), constructed as the ratio between the nominal rates (NRA) for farm and non-farm products, reveals a strong anti-farm bias in the policies followed in Latin America until the 1980s (Anderson & Valdes, 2010:21-39).

In this context, significant output growth was achieved, driven by the expansion of domestic demand, the technological gains provided by the green revolution, and the protection afforded to products destined for consumption in the home market (Martín-Retortillo et al., 2015). From a long-term standpoint, agricultural growth rates were above the world average and sometimes even higher in those countries where farmers enjoyed greater government support (Reca & Díaz-Bonilla, 1997). Output growth was exceptional in the case of products for which demand was rising in Latin America (oil seeds, vegetable oils, alcoholic

beverages, meat, vegetables and fruit, and dairy products) but very slow for the main agro-export crops (caffeinated beverages and sugar). It would seem reasonable, then, to argue that ISI policies, resting on the competitiveness of Latin American agriculture and tariff barriers, caused a shift in farm output, subordinating the sector to the needs of the industrialisation process.

Consequently, Latin America lost significant weight among world exporters of agricultural products and food until the early 1990s (Serrano & Pinilla, 2014). This was due not only to policy changes and their bias against agrarian exports, but also to specialisation in products with limited demand and a low level of industrial transformation. Additional restrictions were caused by protectionist policies with respect to agricultural products from developed countries, especially from Europe, because trade was often carried out within zones of regional agreements (Serrano & Pinilla, 2016; González et al., 2015). However, support for agriculture was directed at the production of food or raw materials for the domestic market, particularly in the context of the demographic boom in Latin American countries.

Table 1. Agricultural Gross Production (annual growth rates, %)

	1950- 1973	1973- 1993	1993- 2008	1950- 2008
Argentina	0.7	1.6	3.0	1.6
Brazil	4.1	3.6	4.4	4.0
Chile	1.3	3.5	2.6	2.4
Colombia	2.5	2.9	2.2	2.6
Honduras	3.6	2.4	3.2	3.1
Mexico	5.2	2.6	2.6	3.6
Panama	3.3	2.3	3.4	3.0
Peru	2.1	1.3	5.6	2.7
Uruguay	0.4	1.3	2.7	1.3
Venezuela	4.4	2.9	2.7	3.4
Latin America	2.9	2.7	3.5	3.0

Source: Authors' elaboration, from FAOSTAT and FAO (1948-2004 a). Triennial averages, except 1950.

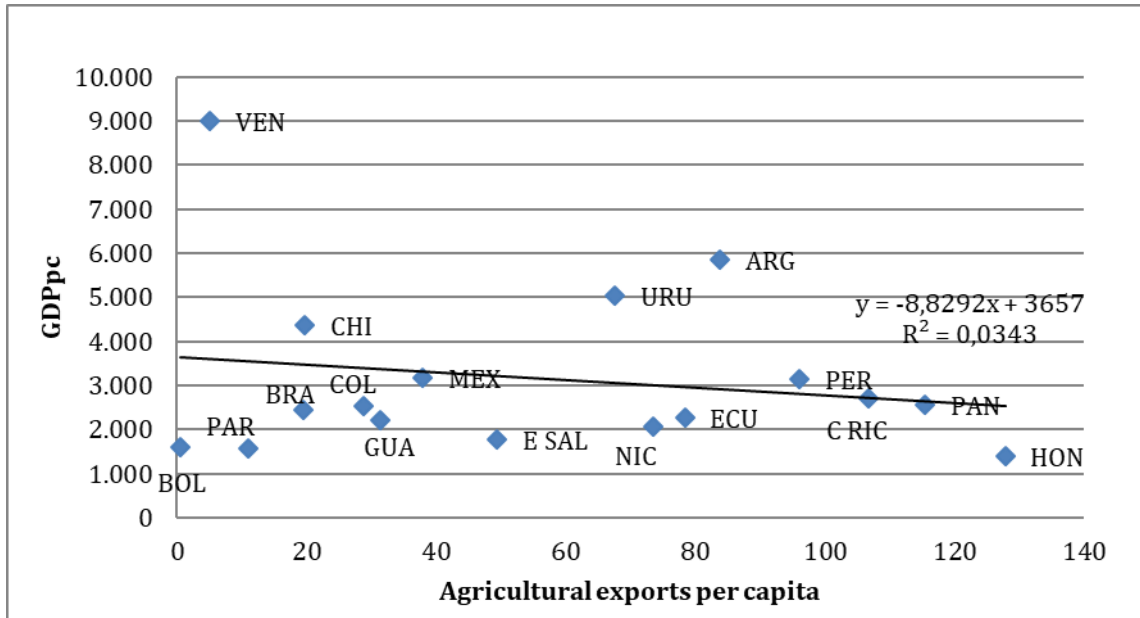
Table 1 shows that the average annual growth of Latin American agriculture was moderately high (2.9%) between 1950 and 1973. The countries that grew the most were Mexico, Venezuela and Brazil, with average rates of 5.2%, 4.4%, and 4.1%, respectively. These countries have in common an integrationist approach to ISI, in which agriculture serves as a support for the industrialisation process and nourishes itself from it. Regarding the role of the state, it is actively involved in technological development (linked to the Green Revolution in some countries) and important institutional changes, such as those related to agrarian reform.

On the other hand, Argentina and Uruguay were the countries with the lowest growth rate for the entire period, below 1% annually. In both countries, the 1950s and 1960s were dominated by a policy of industrial promotion, which involved the transfer of resources from the agricultural sector to the manufacturing sector (with profuse rent-seeking activities). Furthermore, a diversity of restrictions on imports of machinery and inputs that caused negative effects on the production of agricultural commodities was carried out.

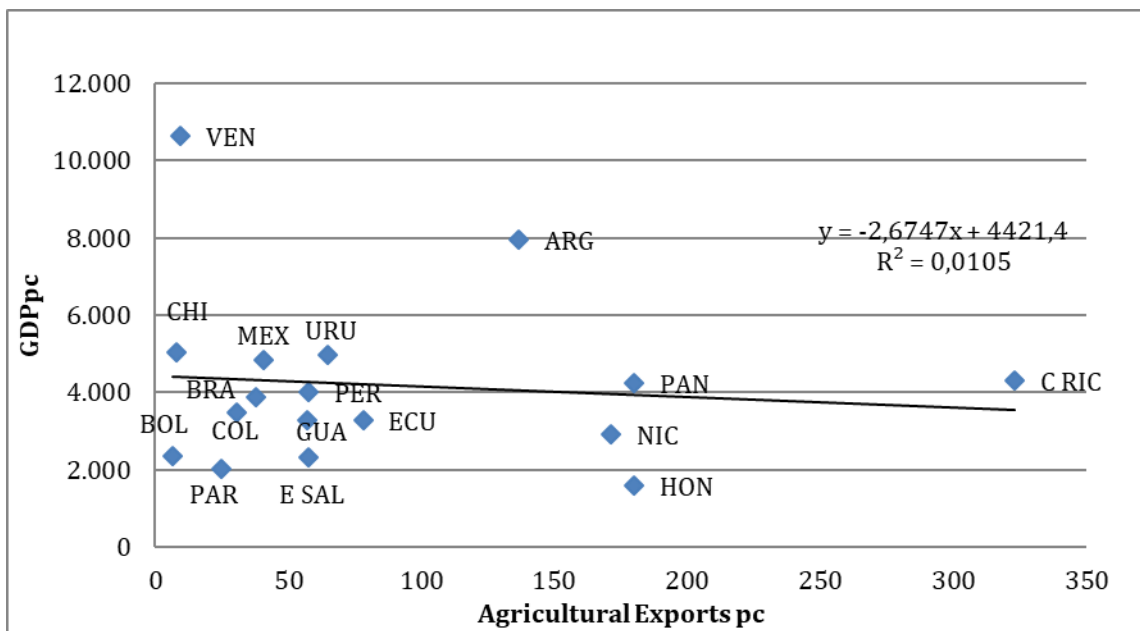
Figure 3 plots the relationship between per capita GDP and per capita agricultural exports. For 1961 and 1973 the low level of adjustment, represented by the value of R^2 , indicates that during this period, characterized by ISI and policies with anti-agrarian bias, agricultural exports would not have been one of the key factors explaining GDP growth. Moreover, the line of best fit seems to suggest a negative relationship between both variables.

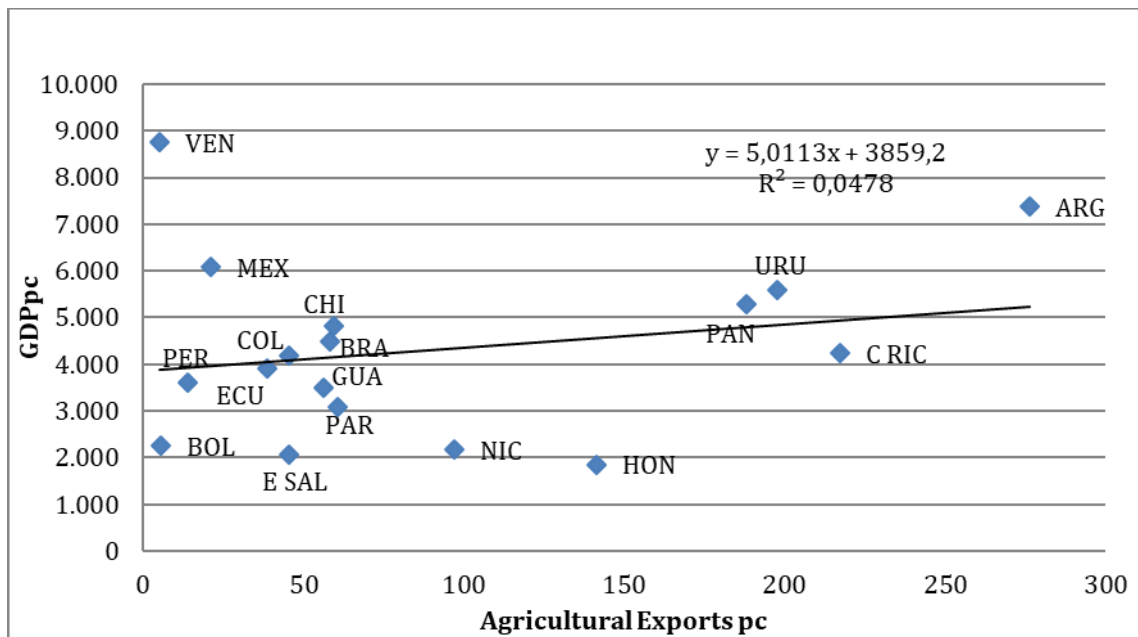
Figure 3 Real Agricultural GDP per capita and Agricultural exports per capita, 1961-1983

1961



1973





Source: Authors' elaboration, from FAOSTAT database (2017), Maddison database (2010).

4. The foreign debt crisis and the lost decade, 1973-1992

Between 1973 and 1992, the time of economic crisis, the exhaustion of ISI and the foreign debt crisis created conditions for a change to a development model based on export growth (Bulmer-Thomas, 1994; Ffrench-Davis, 1997).

The performance of Latin American agricultural production between 1973 and 1993 was the lowest of the second half of the twentieth century (Table 1). The generalised implementation of adjustment programmes adopted in the region had an impact upon agriculture. There was a fall in the funds allocated to rural development, the supply of subsidised inputs, state purchases with guaranteed prices, and technical assistance, as well as subsidised rural credit. Therefore, both private and public agricultural investment showed a declining trend. Although exchange rate policies tended to benefit agricultural and livestock product exporters, their impact was limited due to the constraints on access

to foreign markets and the marked deterioration of international agricultural prices during this period (Serrano & Pinilla, 2011).

Despite the crisis that characterized this period and considering as a reference the year 1983, Figure 3 shows that there is a positive relationship between GDP per capita and agricultural exports per capita. Although the adjustment level of R^2 is very low, suggesting that variations in agricultural exports per capita explain only 5% of the variations in real GDP per capita, a change in the relationship is evident when compared with the previous years.

5. Structural reforms and the return to the international markets of agricultural products, 1992-2015

The closing years of the 20th century were characterised by an expansion of adjustment policies and structural reforms, applied in the late 1980s and early 1990s. As a consequence of the redefinition of the role of the state and the implementation of policies aimed at favouring the free market, the economy as a whole and agriculture in particular underwent changes in productive structure, competitiveness, productivity, and profitability. The new strategy consisted of mobilising resources in competitive export sectors, including agriculture. The outcome was an increase in agricultural exports and a change in their composition towards products with a greater degree of industrial transformation, or with more options for demand expansion. New products, such as fresh fruit and vegetables, vegetable oils, and fodder tended to compete with or replace traditional exports. Thus, the shift in development strategy that began in the 1980s was followed by significant changes in the composition of agricultural trade resulting from the move towards a strategy of reintegration in international markets.

Table 2. Latin America in the international trade of agricultural and food products (% of world trade in 1985 \$US)

Agricultural exports	1961-63	1971-73	1981-83	1991-93	1998-2000
Latin America and Caribbean	16.52	15.07	14.66	11.20	13.32
Latin American participation by product group					
Basic products	9.61	8.09	7.86	7.14	10.67
Plantation products	44.26	41.53	40.90	23.70	24.75
High value and processed foods	10.31	10.57	10.72	9.48	11.21
Other agricultural processed products	5.46	5.18	7.97	7.72	11.11

Source: Author's compilation from FAO (1948-2004 b) and FAOSTAT

Therefore, from the 1990s onwards, Latin America tended to regain importance in international markets for agricultural products and food, as Table 2 shows. This was possible due to a change in the mix of exports, resulting in significant gains in the share of high value products and a decline in the share of basic and, especially, plantation commodities. Moreover, regional integration initiatives began to bear fruit. Intra-regional trade in farm products grew rapidly at this time. The biggest success stories, however, were agreements like the Asia-Pacific Economic Cooperation (APEC) and Global System of Trade Preferences for developing countries (GSTP), between very different economic structures, which provided the opportunity to supply wider markets, driving technological progress and agro-industrial development.

In addition to this, the trade distortions implemented by the European Community (EC) were less severe than in the first period, with the result that agricultural exports from Latin American countries faced less protected markets and lower penalties in key

destination markets. Meanwhile, the European Union's relaxed agricultural protection resulted in a certain decline in agricultural output (Martín-Retortillo & Pinilla, 2015). The growing demand from Asia for agricultural or food raw materials also strengthened this impulse to the agro-exporting sector.

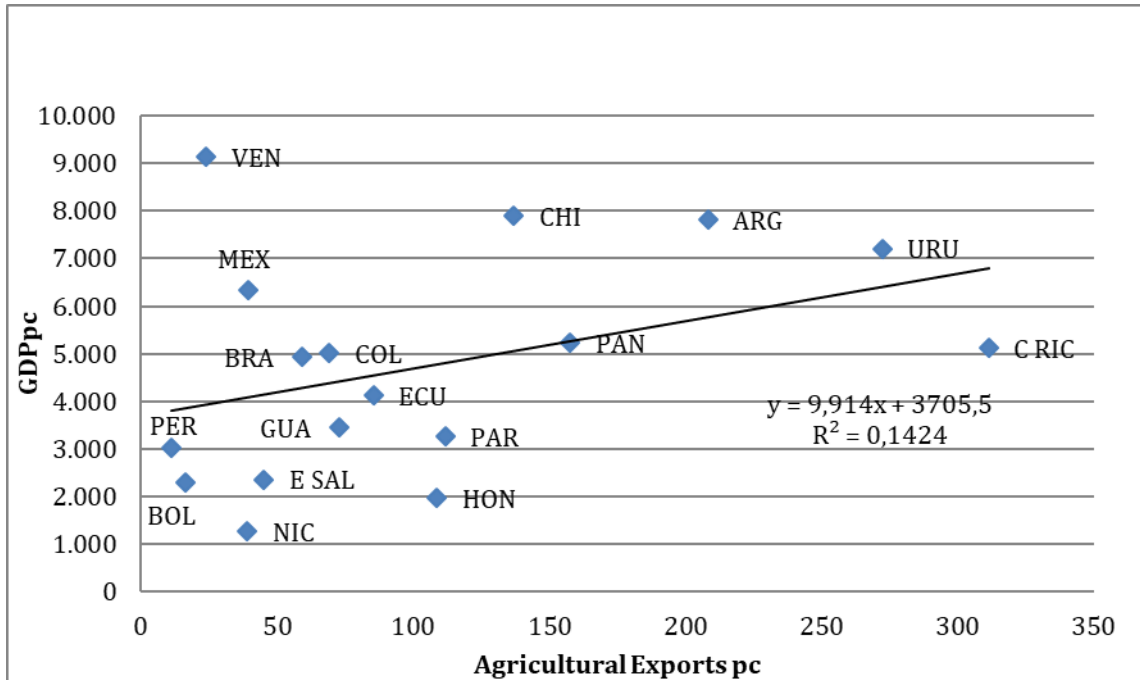
However, the prices of traditional agricultural exports from Latin America experienced an acute decline in real terms from 1976 onwards and thus their improvement in terms of volume was not reflected in a similar increase in their real value (Serrano & Pinilla, 2011).

The highest annual growth in Latin American agricultural production in the second half of twentieth century occurred between 1993 and 2008, at an average rate of 3.5%, the leaders being Peru and Brazil (Table 1). In the former, the implementation of the stabilisation programme and state structural reforms modified the institutional framework and the conditions in which agricultural producers took part in market relations (Velazco & Pinilla, 2017). Meanwhile, Brazil consolidated an expansionary trajectory where, progressively, the extensive character that prevailed for decades gave rise to an increasing intensification in the use of productive factors and increased productivity (Mueller & Mueller, 2017).

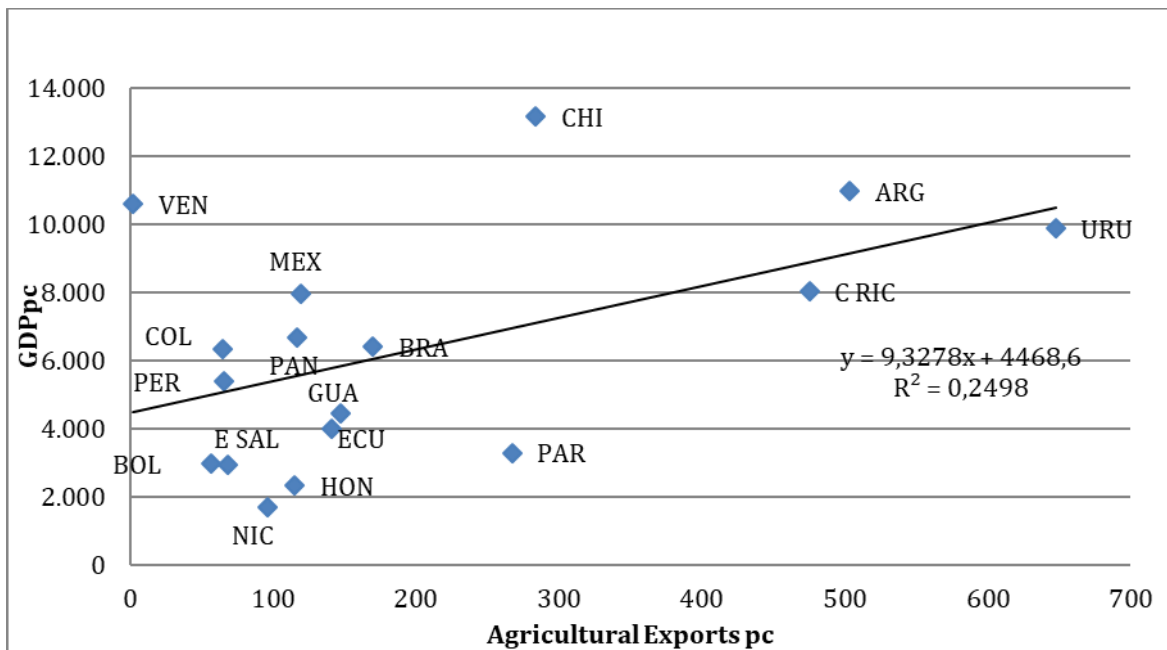
On the other hand, the lowest increases were found in Colombia, Mexico, and Chile. Regarding Mexico, its agriculture as a whole did not expand sufficiently, with the exception of fruit and vegetable crops for export in the north of the country. This outcome can be largely attributed to the inability of a liberalising agricultural policy, highly inequitable in its support for farmers, to transform the agriculture of the country (Yunez, 2010).

Figure 4. Real Agricultural GDP per capita and Agricultural exports per capita, 1993 and 2008

1993



2008



Source: Authors' elaboration, from FAOSTAT database (2017), Maddison database (2010).

In the Southern Cone, increasing international prices for cereals and soya encouraged a growth in the production of these crops. The adoption of transgenic seeds and other innovations such as direct sowing stimulated Argentinean production from the mid-1990s onwards, reaching its highest rates in the whole period (Barsky & Gelman, 2001). Therefore, foreign demand, as in the 'belle époque', boosted this increase in production.

Finally, Figure 4 compares, once more, the relationship between GDP per capita and agricultural exports per capita. The years of analysis are 1993 and 2008. It is observed that the relationship between both variables becomes stronger and positive. This result indicates that, in the context of the export-led model, the new dynamism of agricultural exports would become one of the driving forces behind the growth of Latin American economies.

Conclusions

Initially, we have described the commodity export-led growth model that extended from the last third of the nineteenth century to the 1920s, when a series of profound transformations in the world economy determined changes in the previous development trajectory. Although a large majority of the Latin American republics adopted these models of growth, their results were varied. Two extreme cases can be distinguished. On the one hand, the countries in which this strategy produced significant results in terms of economic development and per capita income growth, mainly Argentina and Uruguay; and on the other hand, most of the countries in the region, especially those in the tropics, where the strategy was not successful, either because of too slow growth in exports or because linkages with the rest of the economy were very weak and there was no significant growth-spreading effect.

These changes led to the progressive creation of the so-called inward-looking development model, in which agriculture definitively lost its previous leading role. As a country develops, the economic importance of agriculture diminishes and its contribution to internal generation of value-added is reduced. This is because the income elasticity of demand for agricultural products is low; once people have satisfied their basic needs, their attention moves to the satisfaction of other wants. This type of argument supported the insistence of Latin American Structuralism of the 1940s-1950s, in the regional necessity of stimulating the industrialization even –often-times– at the expense of diminished agricultural growth. In this sense, the transference of resources from agriculture to manufacturing may have killed the goose that laid the golden eggs. Usually, as an economy develops, the productivity of agriculture increases and the sector can be the driving force of the economy. A modern agriculture, in contrast with traditional farming, has many linkages with industry as a user of manufactured products (e.g., fertilizers, machinery), as a source of materials for industrial enterprises (e.g., fibres, raw food products) or as consumer of services (e.g., banking, transport, and research).

The inward-looking development model –ISI or state led industrialization– prevailed during the 1950s and 1960s in the majority of the Latin American countries, with the exception of the large economies –Argentina, Brazil, Mexico– that advanced through a second stage of the ISI in the 1970s. However, this last decade meant major changes in the world economy and we conceptualize another analytical period from 1973 to the beginning of the 1990s, characterized by the foreign debt crisis and the lost decade. Finally, the last period considered includes the structural reforms and the return to the international market of agricultural products, from the 1990s to 2015. The resulting new strategy involved mobilising resources in competitive export sectors, with increasing agricultural exports and a certain change in their composition towards products with a greater degree of industrial transformation, or with greater expectations from the point of view of demand. In this

sense, we find a sort of long-run reversion of agricultural production in Latin America, with a renewed role for agriculture and the perception of many scholars and specialized technicians that we are witnessing a real resurrection of the goose that laid the golden eggs.

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