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RESUMEN

La agricultura latinoamericana ha desempeñado un papel central para comprender el desarrollo económico a largo plazo de la región. Históricamente, tanto la producción agraria como la productividad han experimentado un crecimiento sustancial. Las diferencias en las características geográficas, incluidas el clima, la altitud y la rugosidad del terreno, junto con los marcos institucionales, las reformas agrarias y los distintos patrones de integración en los mercados globales, han dado lugar a trayectorias nacionales diferenciadas y a diversos grados de persistencia en el desarrollo. Este trabajo analiza estas tendencias generales de la agricultura latinoamericana entre 1870 y 2020, teniendo en cuenta las heterogeneidades específicas de cada país. La exposición a los mercados internacionales, los cambios tecnológicos durante la primera globalización y la posterior Revolución Verde, las transformaciones institucionales y la adaptación a las condiciones ambientales y geográficas locales han moldeado conjuntamente la evolución de largo plazo de la agricultura latinoamericana.

Palabras clave: Historia Económica de América Latina, Historia Agraria de América Latina, PTF agraria

ABSTRACT

Latin American agriculture has been fundamental to understanding the region's long-run economic development. Historically, both agricultural output and productivity have experienced substantial growth. Divergences in geographical characteristics—such as climate, altitude, and terrain ruggedness—alongside institutional frameworks, agrarian reforms, and varying patterns of integration into global markets, have fostered distinct national experiences and varying degrees of developmental persistence. This work examines these overarching trends in Latin American agriculture from 1870 to 2020, while accounting for country-specific heterogeneities. Factors such as exposure to international markets, technological shifts during the first wave of globalization and the subsequent Green Revolution, institutional transformations, and adaptation to local environmental and geographical conditions have collectively shaped the evolution of Latin American agriculture.

Keywords: Latin American Economic History, Latin American Agriculture, Agricultural TFP

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1. Introduction

Latin American agriculture has been fundamental to understanding the region's long-run economic development. Although its relative weight within the overall economy has declined over time, agriculture has remained a crucial component of economic development across the region over the past 150 years. Throughout this period, the agricultural sector has undergone profound transformations shaped by broader economic forces such as institutional change, agrarian reforms, geographical heterogeneity, technological advances, and increasing integration into international markets. These forces have generated diverse trajectories in the persistence, transformation, and outcomes of agriculture across the region.

Over the long run, agricultural production and productivity have increased markedly. An unprecedented process of technical change has transformed agrarian systems, fostering structural change in Latin American economies without compromising food supply, while improving diets and raising factor productivity. At the same time, these transformations have entailed significant environmental consequences, both globally and within the region.

Nevertheless, these broad trends exhibit important particularities in a region as diverse as Latin America (Solbrig 2008; Martín-Retortillo et al. 2022). Differences in geographical characteristics (climate, altitude, and terrain ruggedness), institutional frameworks and agrarian reforms, patterns of integration into international markets, and changes in agricultural production have generated varying degrees of persistence and distinct national experiences regarding the role of agriculture in economic development.

Accordingly, this work analyses these common trends in Latin American agriculture over the period from 1870 to 2020, while also accounting for country-specific differences. The discussion is organised around the main subperiods of this long-term trajectory (Bulmer-Thomas 1994). We begin with the first wave of globalisation and the interwar period, followed by the inward-looking development phase and the so-called "lost decade". Finally, we examine the period of structural reforms and the subsequent commodity boom.

This introduction is followed by a section that analyses the period encompassing the so-called export era and the interwar years. The third section examines the years marked by import-substitution policies. The article then turns to the complex period of

the debt crisis and the lost decade. The fourth section addresses the shift in the development model and the recent decades, characterized by unprecedented export growth and the reprimarization this process entailed. The article concludes with a final section presenting the main conclusions.

2. Commodity export-led growth and the interwar years

In the late nineteenth century, particularly during its final third, Latin America appeared poised to enter a phase of relatively strong economic growth, driven by its capacity to integrate dynamically into the global economy. This process resulted from the convergence of both external and internal factors (Bértola & Ocampo 2012).

External factors stemmed from Latin American countries' increasing participation in international markets. The transport revolution had a significant impact on trade, leading to substantial reductions in maritime and overland shipping costs and thereby narrowing the economic distance between Europe and the Americas (O'Rourke & Williamson, 2001). Demand for raw materials and foodstuffs from the core economies of the world economy was crucial in reinforcing this effect. International liberalisation, through the construction of a network of commercial agreements, also played an important role (Pinilla & Rayes, 2024).

Internal factors derived from the political and institutional transformations that took place in most Latin American countries following independence, expressed in the so-called "liberal economic reforms", whose implementation deepened from the mid-nineteenth century onwards. At the same time, political power structures consolidated, facilitating greater institutional stability.

The interaction of these factors set Latin American exports on a dynamic trajectory (Cortés Conde, 1974; Kuntz-Ficker, 2016). In several economies, exports became the main engine of economic growth; where the export sector was not dominant, it nonetheless generated backward linkages, with varying degrees of intensity across countries. Growth was further fuelled by substantial capital inflows and large-scale immigration from Europe, and to a lesser extent from Asia, although these flows were very unevenly distributed (Williamson, 2002).

Free trade, combined with a certain degree of protection for domestic industry, alongside openness to foreign investment and immigration, constituted common elements of economic policy in the region. However, the implementation of a coherent and consistent policy framework was a recurrent problem. Economic policy was largely oriented towards the needs of export activities, and its influence on the rest of the economy remained uncertain. It was widely believed that export expansion would drive productivity gains and foster structural transformation across the entire economy; however, this outcome was by no means guaranteed.

This phase of economic growth was relatively extensive, as it entailed a significant expansion of the agricultural frontier and the settlement of new regions (Garavaglia & Gelman, 2003; Harley, 2007; Willebald & Juambeltz, 2018), particularly in the fastest-growing areas of Latin America. In some regions, the expansion of export activities also led to deeper productive diversification, reflected in the development of manufacturing (mainly handicraft production), communications, transport infrastructure, financial services, and urbanisation.

2.1 Export-led growth and agricultural world demand

The export sector undoubtedly led the way and acted as the main driving force behind economic growth during this period. It is also clear that this export model relied heavily on agricultural and mining products, while manufactured goods and services played only a marginal role.

The period from the mid-nineteenth century to the First World War was characterised by the emergence of new export products in response to the demands generated by the Industrial Revolution. In most of Latin America, these new exports were predominantly agricultural in origin (Bulmer-Thomas, 1994), including rubber, wool, henequen, cereals, meat, coffee, cocoa, bananas, quinine, quebracho extract, Peruvian balsam, sugar, and tobacco. Accordingly, exports of primary products, including minerals, expanded at an impressive average annual compound rate of 3.4 per cent between 1850 and 1913, underscoring the dynamism of the export-led growth model during this period (Pinilla et al., 2026)[1].

[1] Two examples are Cuba or Venezuela. See Santamaría et al. (2026) or Banko (2026).

As a result, and allowing for a high degree of generalisation, on the eve of the First World War the productive specialisation of most of Latin America was dominated by tropical products, which accounted for almost half of world exports, while temperate-climate products were significant mainly in the Southern Cone, representing about a quarter of total world exports (Bértola & Williamson, 2008). Taken together, Latin America accounted for 16.5 per cent of total world agri-food exports in 1909–13, a share that increased to 20.5 per cent by 1934–38 (Pinilla et al., 2026).

The introduction of new products did not automatically lead to export diversification. On the contrary, the emergence of new exports often coincided with the decline of traditional products, thereby maintaining a high degree of export concentration. In 1870, the leading export commodity in each Latin American country accounted, on average, for around 50 per cent of total exports. By 1913 this share had fallen to 42 per cent, only to rise again to 54 per cent by 1929 (Bértola & Ocampo, 2012).

Dependence on a limited number of export products made countries highly reliant on access to a narrow range of natural resources, strongly exposed to the unpredictability of external markets and vulnerable to price volatility and boom-and-bust cycles. This dependence was mirrored in export destinations, with the four main industrialised countries—the United States, the United Kingdom, Germany, and France—accounting for the bulk of demand. Trade patterns also revealed very limited evidence of intraregional trade (Carreras et al., 2013).

The most problematic scenario arose when exports were concentrated in a single product and a single market, and when the productivity of the non-export sector remained unaffected by export dynamism. Under such conditions, export-led growth was likely to fail. As Bulmer-Thomas (2003) argues, this situation was all too common in Latin America, even during the so-called golden age of export-led growth.

By contrast, the most favourable scenario occurred when exports were diversified across several products –although the number of significant commodities rarely exceeded ten– and markets, and when the productivity of the non-export sector benefited from export expansion. Under these circumstances, it was possible to achieve substantial improvements in living standards, even though such conditions were not predominant across the region; they were, however, important in some countries, notably Argentina and Uruguay (Álvarez et al., 2026; Martirén & Rayes, 2026; Pinilla & Rayes, 2019).

2.2. Export-led growth and the supply side

The competitiveness of exports depended heavily on access to a limited range of natural resources, a situation identified in the literature through the concept of the "commodity lottery" (Díaz-Alejandro 1984). This concept, however, must be approached with caution, as it may suggest that export capacity was merely the result of chance. In reality, a wide array of economic and social factors was involved, generating logical cause-and-effect relationships that help to explain historical outcomes (Bértola & Ocampo, 2012). Results depended on how efficiently each of these factors operated, in a manner consistent with our earlier work on the endogeneity of natural resources (Willebald et al., 2015).

We emphasise that an abundance of natural resources is not a static condition. Rather, it is a dynamic process shaped by changes in commodity prices and factor endowments, and it requires progress in capital accumulation, labour availability, technological advances, and appropriate institutional frameworks. In other words, natural resource abundance is not entirely exogenous but is partly shaped by an evolving economic system.

Population growth, which had begun in the decades following independence, intensified during this period. Migration also played a significant role. Latin America's population grew at an annual rate of 1.7 per cent between 1870 and 1929, exceeding the world average; nevertheless, the region remained demographically small, accounting for only 4.2 per cent of the world population. Even so, the annual increase in the labour supply was insufficient to meet the growing demands of the export sector. As a result, labour had to be drawn either from internal migration or from abroad (Bulmer-Thomas, 2003).

Internal mobility was historically limited, and various forms of labour coercion, a typical feature of colonial labour markets, were still present in different parts of Latin America on the eve of the First World War. Moreover, elite attitudes towards the lower classes reinforced the belief that only international migration from Europe could resolve labour shortages, both in quantitative and qualitative terms.

International migration took two main forms: selective and mass migration. Selective migration did not imply a free labour market, but rather the admission of workers with specific characteristics for particular tasks. Mass immigration, by contrast,

was significant only in a few cases -notably Argentina, Cuba, southern Brazil, and Uruguay- and most migrants originated from southern Europe.

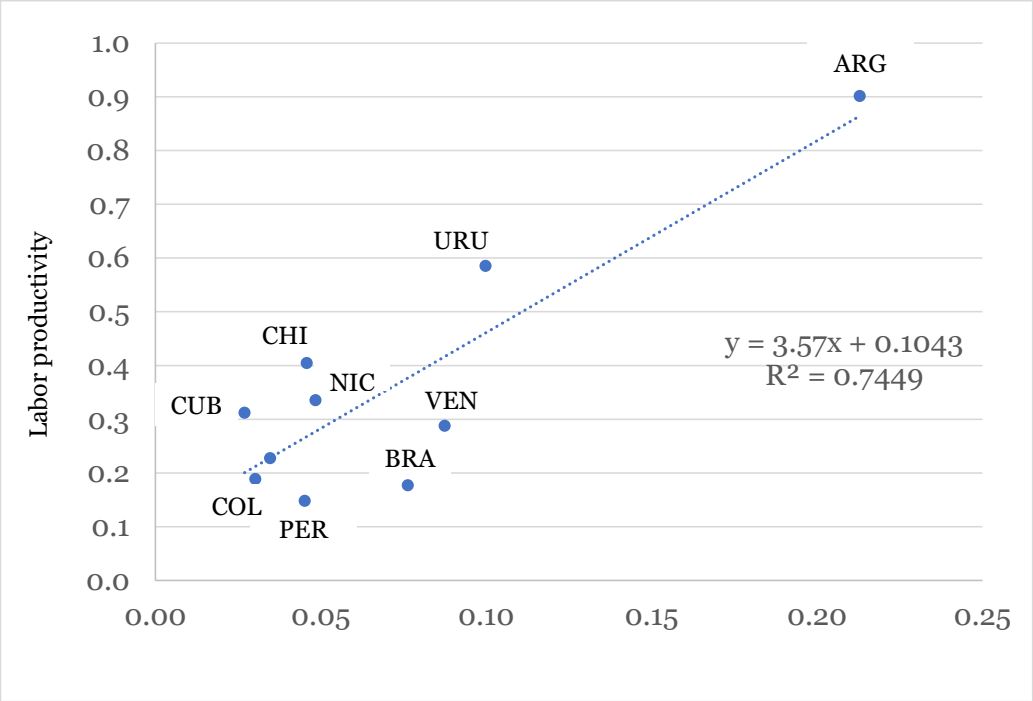
Complaints about labour shortages persisted until the First World War (Bulmer-Thomas, 1994), and the inefficient functioning of labour markets provides at least a partial explanation for the low rates of capital formation observed in some countries.

The expansion of agricultural exports required access to new lands. No Latin American country experienced a physical shortage of land during this period; however, access to land was a different matter. Latin America faced two major challenges. First, inadequate transportation infrastructure rendered vast regions nearly inaccessible until the advent of railways (Kuntz, 2015). Second, the region inherited a system of land tenure from colonial times, resulting in a highly concentrated distribution of land ownership (Bértola & Ocampo, 2012; Frankema, 2009).

The incorporation of "new" lands over almost a century was substantial and could have provided numerous opportunities to alter the concentration of land ownership, had these privately held lands been distributed more equitably. The failure to achieve such redistribution was not only a consequence of colonial inheritance but was also shaped by the balance of political power and economic pressures following independence.

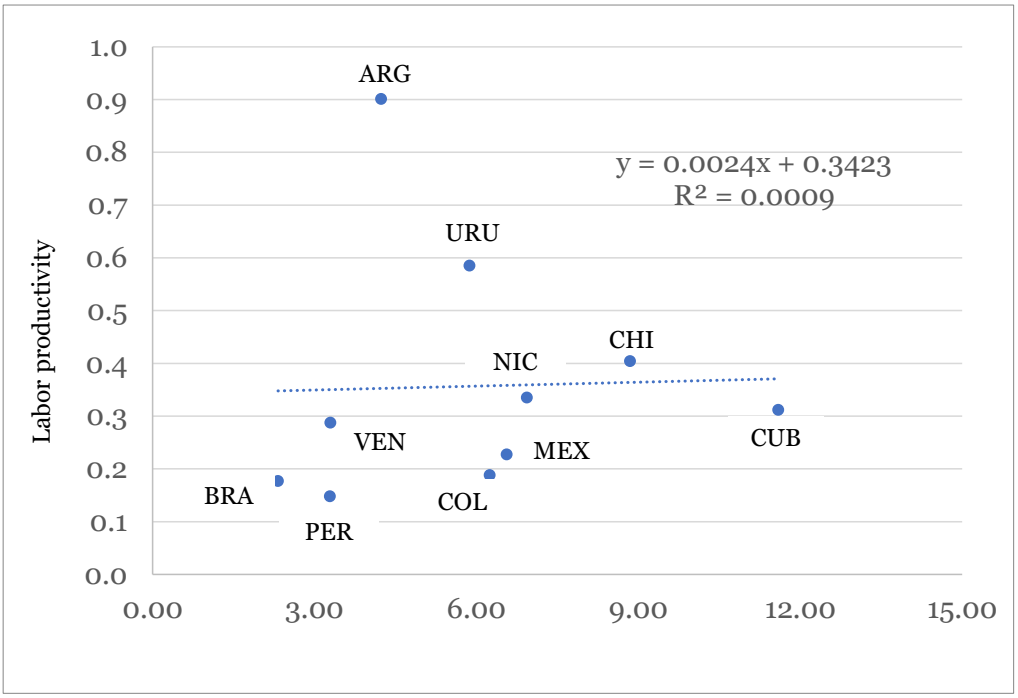
As in other regions with abundant land, such as the United States, Canada, or Australia, the relationship between labour productivity and relative land endowments illustrates that, in economies where land was relatively more abundant and land–labour ratios were high, producers responded by increasing labour productivity (see Figure 1; Martín-Retortillo et al. 2022). This created a clear incentive to adopt labour-saving technologies in the productive development of Latin America. Technological progress encompassed a variety of innovations, combining mechanization, typically aimed at reducing labour requirements, with the use of fertilisers and chemical inputs, primarily to enhance land quality. However, the relationship between labour productivity and land productivity remained weak (Figure 2), which supports the existence of biased technical change towards more intensive labour use as economies incorporated "new" lands into production.

Figure 1. Labour productivity and relative endowments in agriculture, circa 1913



The initials correspond to the following countries: ARG (Argentina), BRA (Brazil), CHI (Chile), COL (Colombia), CUB (Cuba), NIC (Nicaragua), MEX (Mexico), PER (Peru), URU (Uruguay) and VEN (Venezuela). Source: Castro Scavone & Willebald (2025).

Figure 2. Labour and land productivities, circa 1913



The initials correspond to the following countries: ARG (Argentina), BRA (Brazil), CHI (Chile), COL (Colombia), CUB (Cuba), NIC (Nicaragua), MEX (Mexico), PER (Peru), URU (Uruguay) and VEN (Venezuela). Source: Castro Scavone & Willebald (2025).

The political dominance of the landowning class allowed them to manipulate fiscal systems and factor markets, economically and politically marginalising a large portion of the labour force. Capital requirements were evident, although the input per unit of output was generally higher in mining than in agriculture. Increases in labour productivity within the export sector were largely driven by the adoption of technical innovations, often embodied in new capital equipment.

Commercial banking played an important role in mobilising resources but suffered from two main weaknesses. First, the volume of deposits attracted by commercial banks in most countries was modest. Second, commercial banking had a limited impact on overall resource allocation, and particularly on export diversification. In practice, elites often sought to create distributional coalitions that would generate rents for bankers while providing a source of finance for the state (Haber 2012).

The institutional framework for human capital investment was even weaker in most countries (Frankema 2009; Engerman et al. 2012). While some efforts were made to establish professional centres to train labour in the new skills required, such as schools for engineers and institutes focused on plant breeding, agronomy, and livestock management, the situation at the university level remained inadequate. Neither curricula nor course structures had evolved significantly since colonial times (Maloney & Valencia 2014).

Given these constraints on mobilising domestic resources, it is unsurprising that governments across the region sought foreign sources of additional finance. Direct foreign investment (DFI) was attracted to sectors where technological barriers and capital constraints limited the entry of local firms. As a result, most investment flowed into railways, public utilities, mining, banking, and shipping (Esteves 2012; Stone 1999), with railways and utilities being the most significant. However, DFI played only a minor role in agricultural production, except for plantation-based crops in Cuba and parts of Central America, and was negligible for domestic-market agriculture

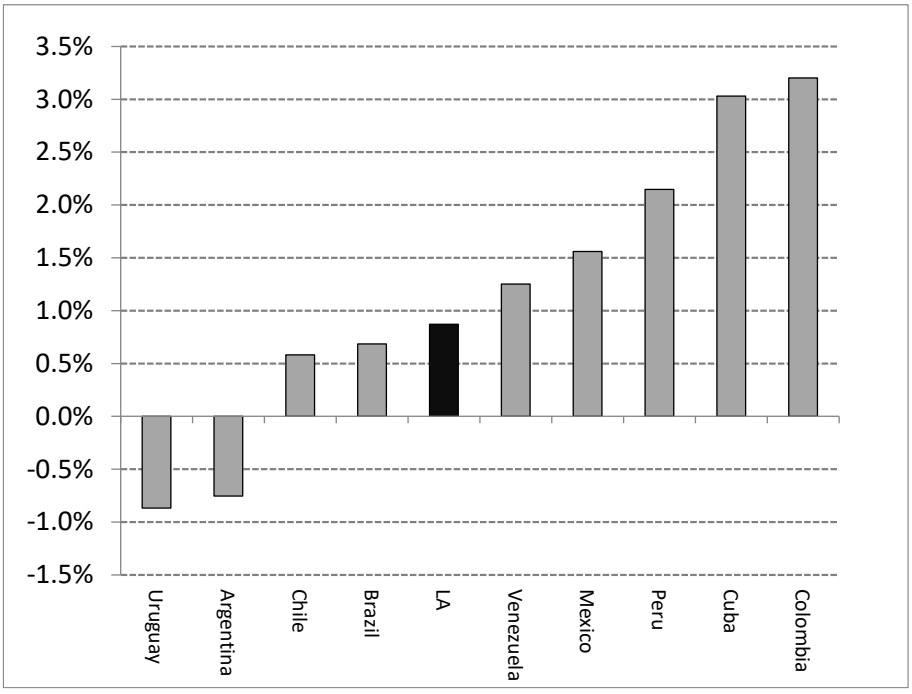
2.3 Domestic-use agriculture

A successful export-led growth model requires a sharp increase in both total and per-capita exports, along with improvements in labour productivity within the export sector. However, this constitutes only the first, albeit crucial, step towards a substantial

rise in real per-capita income. The second essential condition is the transfer of productivity gains from the export sector to the broader, non-export economy. Ultimately, only when strong backward, forward and final demand linkages with the rest of the economy are present can export expansion serve as a powerful engine for growth in other productive activities and foster profound economic diversification.

The contrast between the growth rates of real exports and domestic markets reflects the relative dynamics of these two sides of the economy (Martín-Retortillo et al. 2018) (Figure 3). During the First Globalisation, the Latin American external sector was clearly more dynamic than the domestic market, but this evolution varied considerably across countries. Some, such as Brazil and Venezuela, exhibited growth rates close to the regional average; others, including Peru, Cuba and Colombia, displayed a clearly dominant export sector. Only the Southern Cone countries -Uruguay, Argentina and Chile- sustained truly dynamic domestic markets. In this region, domestic market growth was relatively more stable than export growth, fostering significant structural changes. These included incipient industrialization, the expansion of public utilities, the development of various services, and the consolidation of the state in both political and economic terms (Bértola & Ocampo, 2012).

Figure 3. Dynamics of exports and the domestic market, 1870-1929. Exports/Domestic market growth rates



Source: Martín-Retortillo et al. (2018) based on Bértola & Ocampo (2012).

Regarding the labour force, the most important import-competing sector was domestic-use agriculture (DUA henceforth) (Bulmer-Thomas, 1994). This branch of agriculture employed everyone in the sector not producing exports, including large estates and small plots, owner-occupied farms and rented properties, as well as both efficient and inefficient estates. In 1913, the labour force engaged in DUA constituted the largest component of the economically active population (EAP) in nearly all Latin American countries and produced an output that, in principle, could have been substituted by imports.

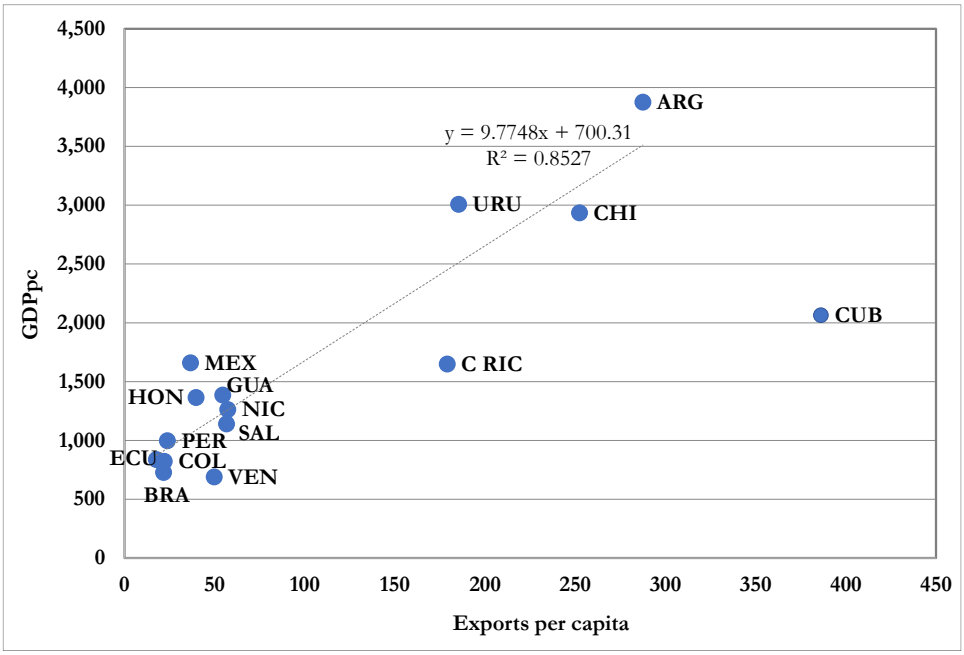
Transferring productivity gains from the export sector to DUA was often challenging. According to Bulmer-Thomas (1994), in some countries export commodities were also staple foods in the national diet; in such cases -wheat in Argentina and beef in Uruguay, for example- it was almost inevitable that technological advances boosting productivity in the export sectors would similarly benefit DUA (Martirén & Rayes, 2026; Álvarez et al., 2026). The situation in Chile was even more striking. Despite the success of wheat exports, most foreign-exchange earnings were derived from mineral exports. Nevertheless, Chilean agriculture still benefitted from mineral production, as the concentration of workers around the nitrate mines in northern Chile's desert acted as a significant catalyst for technological change and increased labour productivity in the fertile central valley (Robles-Ortiz & Doller, 2026). Labour productivity in DUA could also benefit from reductions in transport costs, the growth of financial institutions linked to the export sector, and the emergence of a more sophisticated division of labour associated with population growth and market expansion.

In general, DUA kept pace with growing domestic demand; however, most Latin American countries failed to effectively transfer productivity gains. In a longstanding tradition, Latin American Structuralism associated this phenomenon with the notion of "structural heterogeneity" (Pinto 1965, 1970) and the persistence of dual economies.

The relationship between exports and real per-capita income nearly a century after independence was close (Figure 4). It is difficult to deny that export performance was a key determinant of standards of living in Latin America prior to the First World War (Bulmer-Thomas, 1994). Argentina and Uruguay exhibited higher GDP per capita relative to their levels of exports per capita, positioning them above the trend line for the total sample of Latin American countries. By contrast, Costa Rica and Cuba recorded

lower GDP per capita relative to their exports per capita, placing them below the trend line.

Figure 4. Real GDP and exports per capita circa 1913 (1990 US dollars)



The initials correspond to the following countries: ARG (Argentina), BRA (Brazil), CHI (Chile), COL (Colombia), C RIC (Costa Rica), CUB (Cuba), ECU (Ecuador), SAL (El Salvador), GUA (Guatemala), HON (Honduras), NIC (Nicaragua), MEX (Mexico), PER (Peru), URU (Uruguay) and VEN (Venezuela). The regression line was calculated excluding Cuba, which is an outlier. If it is included in the calculation, the R^2 decreases to 0.6080. Source: Martín-Retortillo et al. (2018).

3. The Inward-Looking Development Model and the Agriculture, 1950–1973

The turbulence and challenges experienced by primary-product exporters between 1914 and 1945 strongly shaped the economic growth strategies pursued in the aftermath of the Second World War. The difficulties faced by agricultural exporters in their traditional European markets -especially during the 1930s- together with the instability and the persistent deterioration in the terms of trade from that decade onwards, fostered widespread pessimism about the long-term sustainability of a growth model based on primary-product exports (Cárdenas et al., 2000; Paiva Abreu, 2006; Ocampo & Parra-Lancourt, 2010).

The Second World War constituted a severe shock for Latin America's agro-exporting economies. The conflict particularly affected those countries in which the external sector carried greater weight and whose exports were more heavily oriented

towards European markets. In volume terms, agri-food exports from Latin America declined by around 22 per cent between 1939 and 1945 (Pinilla et al., 2026). Paradoxically, the return of peace did not improve the situation in the short term; in some cases, it even exacerbated it. Demand for strategic products declined sharply, as did North American preferences for Latin American goods, while European countries were unable to significantly expand their imports in the immediate post-war period. The economic difficulties faced by European economies, their shortage of hard currencies (particularly US dollars), and the non-convertibility of the pound sterling from August 1947 further compounded these problems. Consequently, agri-food exports from Latin America experienced only a limited recovery in the years immediately following the war. Countries with stronger trade ties to European markets experienced more pronounced declines, whereas those oriented primarily towards North American markets were comparatively less affected.

These developments were compounded by a deterioration in the terms of trade which, although already significant in the years preceding the war, continued to worsen in the post-war period, with the brief exception of the Korean War (Pinilla and Aparicio, 2015). Adverse conditions in Europe during the reconstruction period, together with the persistence of high levels of protectionism and the widespread adoption of agricultural support policies, further intensified pessimism regarding the future viability of the agro-export model (Paiva Abreu, 2006). This pessimism was reinforced by the exclusion of agricultural products from the General Agreement on Tariffs and Trade (GATT) in 1947, which confirmed expectations about the difficulty of dismantling the complex network of tariff and non-tariff protections that developed countries had progressively established since 1929 and expanded during the war and the early post-war years (Cárdenas et al., 2000).

The challenges faced by Latin America's export-led economies generated profound scepticism about the sustainability of their growth model. They also exerted a significant influence on the thinking of the founder of the structuralist school, Raúl Prebisch. His ideas were subsequently reflected in the analytical framework of the Economic Commission for Latin America (ECLA), established in 1948. In its original formulation, ECLA's justification for import-substituting industrialisation (ISI) rested on two central arguments: the secular deterioration in the terms of trade for primary products and the

limited capacity of international markets to absorb their expanding supply. Together, these factors were interpreted as imposing structural constraints on growth within an export-led development model.

Under ISI policies, export-oriented agriculture was systematically disadvantaged, as these policies were explicitly biased against exports. Public support was directed primarily towards industrial development, while agricultural and food exports received comparatively little attention (Krueger et al., 1990). The adverse effects on agricultural prices largely emerged as an unintended consequence of this development strategy, undermining the region's most competitive producers, who received only partial compensation through official credit and fertiliser subsidies (Anderson and Valdés, 2008).

Economic policy increasingly prioritised the protection of domestic production through high tariff barriers, the sporadic use of export taxes, the indirect taxation of agriculture arising from industrial protection, and persistent currency overvaluation. Taken together, these measures generated a substantial transfer of resources away from the agricultural sector, where profitability and incentives were severely affected. The resulting net outflow between 1960 and 1984 has been estimated at 85 per cent of agricultural GDP in Argentina, 56 per cent in Chile, and 42 per cent in Colombia (Krueger et al., 1988). The stated objectives of these policies were to restrain food prices, secure the urban food supply, and promote industrialisation.

As a result, agriculture was subject to negative rates of protection, particularly during the early decades of the ISI period. The empirical evidence is clear: the nominal rate of assistance (NRA), calculated as a weighted average, was negative in all Latin American countries for which data are available -Argentina, Brazil, Chile, Colombia, the Dominican Republic, Ecuador, Mexico, and Nicaragua- between 1965 and 1989. Over this period, public policy reduced farm incomes by between 7 and 21 per cent. In subsequent years, support remained limited, never exceeding 5 per cent of farm incomes. Even more striking was the pronounced anti-trade bias: import-competing products received positive protection, whereas exportable products faced negative protection. Overall, these policies maintained a strong anti-agricultural bias until the 1980s (Anderson & Valdés, 2008).

This change in development strategy implied that export-oriented agriculture no longer served as the primary driver of agricultural expansion across most of Latin America, although in certain cases -particularly in Central America- the agro-export model persisted and continued to generate significant growth in output.

Within this new context, agricultural output nevertheless experienced significant growth, driven by expanding domestic demand, technological advances associated with the Green Revolution, and the protection afforded to products destined for domestic markets (Martín-Retortillo et al., 2019). From a long-term perspective, agricultural growth rates exceeded the world average and were in some cases even higher in countries where farmers benefited from greater government support (Reca and Díaz-Bonilla, 1997).

Output growth was particularly strong for products experiencing rising domestic demand, such as oilseeds, vegetable oils, alcoholic beverages, meat, fruit and vegetables, and dairy products, while it remained relatively sluggish for traditional agro-export crops, notably coffee and sugar. It is therefore reasonable to argue that ISI policies -based on tariff protection and the underlying competitiveness of Latin American agriculture- reshaped the composition of farm output by subordinating the sector to the requirements of the industrialisation process.

The volume of agricultural exports in 1950 was already well below the peak reached prior to 1929, and it declined further throughout the 1950s, at a time when world agricultural trade was expanding more rapidly. The weakest export performance was observed in South America, which did not recover its 1929 export levels until 1966. By contrast, Mexico, Central America, and the Caribbean achieved recovery much earlier, from as early as 1947 onwards (Pinilla et al., 2026). This divergent performance reflects the more comprehensive implementation of ISI in South America, whereas—with the exception of Mexico—the smaller economies of Central America and the Caribbean adopted ISI to a much more limited extent.

Although exports began to recover thereafter, their growth lagged behind that of global trade. As a result, Latin America steadily lost market share in world agricultural and food exports until the early 1990s (Serrano and Pinilla, 2014a). This outcome reflected not only domestic policy biases against agricultural exports but also the region's specialisation in products characterised by limited demand growth and low levels of

industrial processing. Additional constraints stemmed from protectionist policies in developed countries, particularly in Europe, where agricultural trade was frequently confined within regional preferential agreements (González-Esteban et al., 2015; Serrano and Pinilla, 2016). At the same time, public support for agriculture was largely directed towards the production of food and raw materials for the domestic market, especially in the context of rapid demographic growth in Latin America.

Table 1 shows that average annual growth in Latin American agriculture was relatively high, around 2.9 per cent, between 1950 and 1973. The fastest-growing countries were Mexico, Venezuela, and Brazil, with average rates of 5.2, 4.4, and 4.1 per cent, respectively. These cases shared a particular variant of ISI in which agriculture supported the industrialisation process while simultaneously benefiting from it. The state played an active role, not only in promoting technological development, often linked to the Green Revolution, but also in implementing major institutional reforms, including agrarian reform (Klein & Vidal Luna, 2026; Robles & Cant, 2026; Tortolero & Méndez Rojas, 2026; Banko, 2026). The rapid growth of Mexican agricultural production, particularly up to 1966, was underpinned by a substantial expansion of irrigated land, which increased by approximately one million hectares. It was also supported by the early adoption of high-yielding seed varieties developed in Mexico from 1944 onwards, making the country both a precursor to and a pioneer of the Green Revolution. In Venezuela, domestic production increasingly substituted for imports of processed agricultural products. Moreover, in an effort to promote agricultural modernisation the government provided cheap credit and subsidised inputs. At the same time, the state actively fostered technological development.

Table 1. Agricultural Gross Production

	Mill. US$ 2004-2006 prices				Annual growth rate (%)			
	1950	1973	1993	2020	1950-1973	1973-1993	1993-2020	1950-2020
Argentina	12,186	14,277	19,487	37,547	0.7	1.6	2.5	1.6
Brazil	8,265	20,707	41,708	110,225	4.1	3.6	3.7	3.8
Chile	1,466	1,966	3,935	6,356	1.3	3.5	1.8	2.1
Colombia	2,980	5,260	9,290	17,400	2.5	2.9	2.4	2.6
Honduras	381	852	1,367	2,644	3.6	2.4	2.5	2.8
Mexico	4,461	14,188	23,912	46,546	5.2	2.6	2.5	3.4
Panama	232	493	784	1,442	3.3	2.3	2.3	2.6
Peru	1,312	2,129	2,783	9,442	2.1	1.3	4.6	2.9
Uruguay	1,211	1,313	1,686	2,985	0.4	1.3	2.1	1.3

	Mill. US$ 2004-2006 prices				Annual growth rate (%)			
	1950	1973	1993	2020	1950-1973	1973-1993	1993-2020	1950-2020
Venezuela	1,557	4,155	7,381	8,713	4.4	2.9	0.6	2.5
Latin America	34,050	65,338	112,333	243,300	2.9	2.7	2.9	2.8

Triennial averages, except 1950. *Source:* Martín-Retortillo et al. (2019) and updated data from the authors, based on Food and Agricultural Organisation (FAO) data.

On the other hand, Argentina and Uruguay recorded the lowest growth rates during this initial period, with annual agricultural growth below 1 per cent. In both cases, the 1950s and 1960s were dominated by industrial promotion policies that involved a systematic transfer of resources from agriculture to manufacturing, often accompanied by pervasive rent-seeking activities. In addition, a wide range of restrictions on imports of machinery and intermediate inputs was implemented, generating negative effects on agricultural production (Martirén & Rayes, 2026; Álvarez Scaniello et al., 2026)

An analysis of the sources of agricultural production growth during this period (Table 2) reveals a very strong increase in capital use, while the contribution of total factor productivity (TFP) was very limited. In other words, state-led industrialisation was associated, in agriculture, with an essentially extensive pattern of growth, sustained largely by factor accumulation rather than by efficiency gains.

Table 2 also reports, alongside country-specific estimates based on national factor weights, aggregate results for Latin America using three alternative weighting schemes derived from the factor shares of Mexico, Brazil, and Argentina. Although the results vary somewhat across these weighting systems, the differences are not substantial. The Brazilian weighting appears particularly appropriate, as Brazil combines both tropical and temperate agriculture. Under this specification, the contribution of TFP is slightly higher than under the other two weighting schemes, but capital accumulation remains by far the dominant source of growth.

Table 2. Annual average logarithmic rates between 1950 and 1973

	Production	Labour	Land	Capital	TFP
Argentina	1.21	-0.49	1.65	4.17	-0.62
Brazil	4.24	1.66	3.24	6.52	0.95
Chile	1.69	0.39	0.45	3.83	0.09
Colombia	2.73	1.45	2.99	4.49	-0.31

	Production	Labour	Land	Capital	TFP
Honduras	3.49	0.15	3.38	6.55	0.00
Mexico	5.35	1.58	0.80	5.49	3.11
Panama	3.43	1.84	3.91	5.88	-0.02
Peru	2.16	1.37	1.72	5.23	-0.33
Uruguay	0.21	-0.83	0.01	3.70	-0.82
Venezuela	4.46	0.28	0.77	5.65	2.81
AL BRA	3.14	1.35	1.91	4.76	0.83
AL MEX	3.14	1.35	1.91	5.57	0.38
AL ARG	3.14	1.35	1.91	5.65	0.07

Source: Martín-Retortillo et al. (2022) based on Food and Agricultural Organisation (FAO) data. The data employed in this article have been updated to cover the period up to 2020.

4. Agricultural Production Growth during the Foreign Debt Crisis and the Lost Decade, 1973–1993

Between 1973 and 1993 -a period marked by economic crisis, the exhaustion of the ISI model, and the foreign debt crisis- the conditions emerged for a gradual shift towards a development strategy increasingly centred on export growth (Bulmer-Thomas, 2003; Ffrench-Davis et al., 1997).

The performance of Latin American agricultural production during this period was somewhat weaker than in the rest of the second half of the twentieth century (Table 3). The widespread adoption of structural adjustment programmes across the region had significant repercussions for agriculture. Public expenditure on rural development declined, as did the provision of subsidised inputs, state procurement at guaranteed prices, technical assistance, and subsidised rural credit. As a result, both public and private investment in agriculture exhibited a downward trend. Although exchange-rate policies generally favoured exporters of crop and livestock products, their impact was constrained by limited access to foreign markets and by the sharp decline in international agricultural prices during this period (Serrano & Pinilla, 2011).

During this subperiod, Brazil once again recorded the highest average annual growth rate in agricultural production (3.6 per cent), followed by Chile (3.5 per cent) and Colombia (2.9 per cent). In Brazil, this expansion was concentrated in the 1970s and early

1980s, as the economy continued to open up and exports of processed and semi-processed agricultural products increased. The creation of the Brazilian Agricultural Research Corporation (EMBRAPA) in 1973 played a key role in this transformation by strengthening the country's agricultural research and innovation capacity.

In Chile, this phase coincided with the broader take-off of an economy shaped by an explicit policy strategy aimed at promoting exports, particularly non-traditional agricultural products such as fruit and flowers. Colombian agriculture, by contrast, experienced what is often described as its 'golden age' from the Second World War until around 1980. As in Chile, much of this performance was associated with an export-oriented production structure in which traditional coffee exports were increasingly complemented by products such as palm oil.

As in earlier subperiods, Uruguay and Argentina recorded the lowest rates of growth in agricultural production, at 1.3 and 1.6 per cent per year, respectively. Both economies implemented rapid and far-reaching trade liberalisation processes similar to those adopted in Chile, involving reductions in import tariffs and export taxes. These reforms, however, were accompanied by rigid exchange-rate regimes that eroded agricultural competitiveness and were not offset by sector-specific support or promotion programmes.

Between 1973 and 1993, productivity contributed more substantially to agricultural growth than in earlier periods, despite overall output expanding at a slightly slower pace. No negative productivity changes were observed during this subperiod. Chile (1.9 per cent), Brazil (1.9 per cent), and Venezuela (1.7 per cent) stand out for their above-average increases in total factor productivity.

Ultimately, while the public sector had been instrumental during the 1960s in laying the scientific and technological foundations that stimulated the initial expansion of the fruit sector—particularly in Chile—it was the private sector that emerged after 1974 as the principal driver of substantial, diversified, and widely diffused technological progress. These innovations were closely linked to Chile's successful integration into international agricultural markets (Jarvis, 2004).

In Brazil, the late 1980s signalled a shift towards a more market-oriented policy framework, with significant consequences for the agricultural sector. Policy reforms increasingly prioritised the elimination of export taxes and price controls, the deregulation

and liberalisation of commodity markets, and the unilateral reduction of trade barriers (Gibson, 2009).

Table 3. Annual average logarithmic rates between 1973 and 1993

	Production	Labour	Land	Capital	TFP
Argentina	1.44	0.02	0.18	3.03	0.08
Brazil	3.44	-0.16	1.44	4.10	1.91
Chile	3.11	1.58	-1.10	1.94	1.93
Colombia	2.62	1.19	0.20	1.56	1.86
Honduras	2.43	1.14	1.13	2.18	0.71
Mexico	2.63	1.16	0.83	3.40	0.20
Panama	2.32	1.20	1.03	1.63	1.11
Peru	1.76	2.30	0.97	0.18	0.98
Uruguay	1.17	0.44	-0.02	1.36	0.44
Venezuela	2.95	0.61	0.16	3.19	1.67
AL BRA	2.65	0.59	0.81	2.92	1.27
AL MEX	2.65	0.59	0.81	2.91	0.71
AL ARG	2.65	0.59	0.81	3.35	0.85

Source: Martín-Retortillo et al. (2022) based on Food and Agricultural Organisation, FAO data.

5. Structural Reforms and the Re-entry of Agricultural Products into International Markets, 1994–2020

The final decades of the twentieth century were marked by the widespread adoption of adjustment policies and structural reforms, particularly from the late 1980s through the early 1990s, within the framework commonly referred to as the Washington Consensus. These reforms reflected a redefinition of the role of the state and the implementation of market-oriented policies aimed at promoting free-market principles. As a result, both the overall economy and the agricultural sector experienced significant changes in productive structures, competitiveness, productivity, and profitability.

With respect to the agricultural sector, it is important to emphasise that the macroeconomic and sectoral policies associated with structural adjustment had differentiated effects depending on producer types and product characteristics. In this regard, Gómez (1994) distinguishes between commercial agriculture and peasant agriculture. Within commercial agriculture, export-oriented producers and those supplying the domestic market can be further differentiated. Export-oriented producers benefited from several favourable conditions, including high real exchange rates, declining real wages, simplified administrative procedures, tax reductions, a more

favourable environment for trade liberalisation, and tariff exemptions for imported inputs and capital goods. At the same time, these producers faced adverse factors such as falling international prices, positive real interest rates, the reduction or elimination of subsidies, and rising prices of imported inputs and capital goods following currency devaluations.

In contrast, the short-term effects of structural adjustment on peasant agriculture were largely negative. These effects were driven by contractions in domestic demand, reductions in subsidies for agricultural credit and basic foodstuffs, declining labour demand, falling real wages, limited investment in rural development programmes, and the application of low or zero tariffs on imported food products.

The new development strategy focused on mobilising resources towards competitive export sectors, including agriculture. This shift resulted in a marked expansion of agricultural exports and significant changes in their composition, favouring products with higher levels of processing or greater potential for demand growth. New commodities—such as fresh fruits and vegetables, vegetable oils, and animal feed—began to compete with, and in some cases replace, traditional export products. Consequently, the strategy adopted from the 1980s onward was associated with a profound restructuring of agricultural trade, driven by a broader reintegration of Latin American economies into international markets.

From the 1990s onward, Latin America began to regain prominence in global markets for agricultural and food products (Ayuda et al., 2024). After reaching a historical low of 8.8 per cent of world agri-food trade in 1992, its share rose steadily to 16.1 per cent by 2024 (Pinilla et al., 2026). This resurgence was facilitated by a substantial shift in export composition. Buoyant Asian demand, particularly from China, drove a formidable expansion of soybean exports, mainly from Argentina and Brazil (Klein and Vidal Luna, 2020). As a result, the product group to which soybeans belong -oilseeds and oleaginous fruits- which accounted for only 5.4 per cent of Latin American agri-food exports in 1994–1999, increased its importance dramatically, reaching 14.8 per cent in 2015–2019. Another leading export product was meat, whose expansion was driven to a large extent by the remarkable growth of Brazilian meat exports. Its share in Latin American agri-food exports almost doubled, rising from 6.5 per cent in 1994–1999 to 11.1 per cent in 2015–2019.

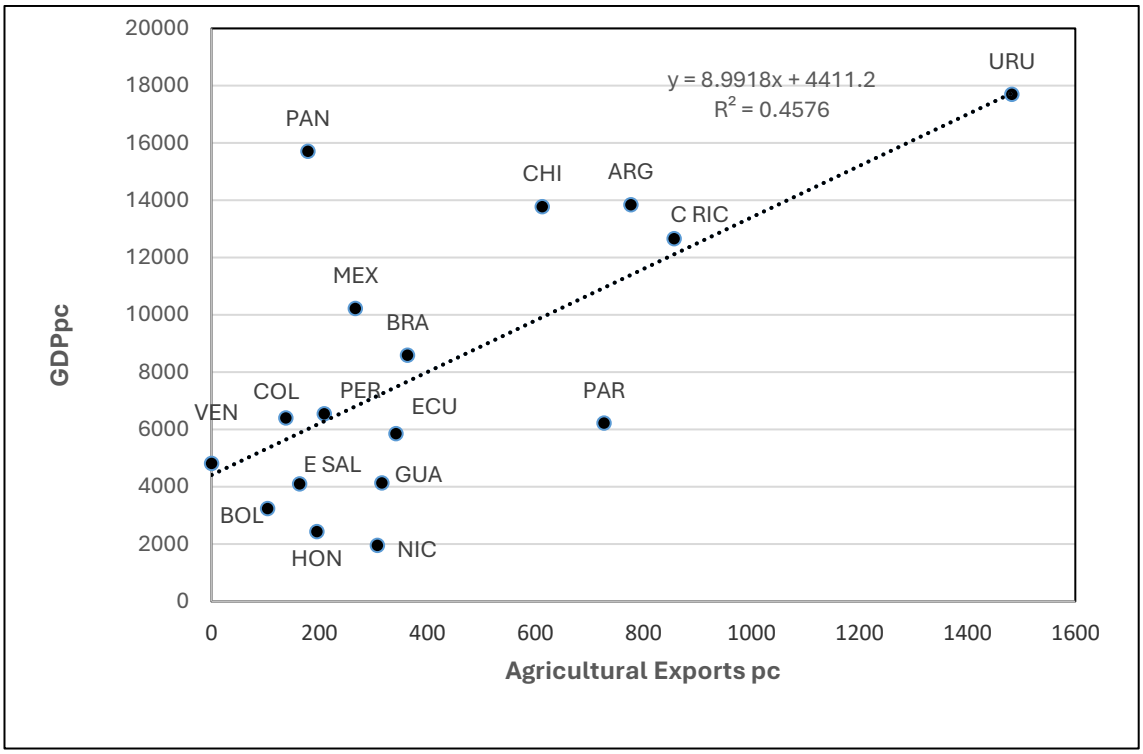
In other countries, exports of what may be considered non-traditional agricultural products also experienced strong growth. The counterpart of these trends was a decline in plantation crops, particularly coffee. The group comprising coffee, tea, cocoa, and spices accounted for 14.9 per cent of Latin American agri-food exports in 1994–1999, but this share fell sharply to 6.8 per cent in 2015–2019 (Ayuda et al., 2024). Global demand for these products had already grown far less dynamically than that for food and agricultural raw materials as a whole since the last quarter of the twentieth century. Reflecting this long-term trend, plantation products represented 44.3 per cent of world agricultural trade in 1961–1963, but only 24.8 per cent in 1998–2000 (Serrano and Pinilla, 2014b). Between 1994–2019, the expansion of external demand was a key driver of the rapid growth of agri-food exports (Ayuda et al., 2022).

At the same time, regional integration initiatives began to yield tangible results, leading to rapid growth in intra-regional agricultural trade.. Despite the heterogeneity of participating economies, these agreements facilitated access to larger markets, thereby stimulating technological upgrading and agro-industrial development (Ayuda et al., 2025). Moreover, this proliferation of regional trade agreements played a crucial role in sustaining the agri-export boom (Ayuda et al., 2025).

In addition, trade distortions introduced by the European Community (EC) during this period were less severe than in earlier decades. As a result, Latin American agricultural exports faced fewer protected markets and lower trade barriers in key destinations. The relative relaxation of agricultural protection in the European Union also contributed to a decline in its own agricultural output (Martín-Retortillo & Pinilla, 2015). Simultaneously, the rapid growth of Asian demand for agricultural and food raw materials provided a further stimulus to Latin American agro-exports.

Finally, Figure 5 revisits the relationship between GDP per capita and agricultural exports per capita for the year 2019, as previously analysed. The figure reveals a stronger and more positive correlation between these two variables, indicating that, within an export-led growth model, the revitalised agricultural export sector has become a key driver of economic growth in Latin America.

Figure 5. Real GDP and agricultural exports per capita, 2019



Source: Authors' elaboration from FAOSTAT database (2024).
Note: The data are in 2015 U.S. dollars. The initials correspond to the following countries: ARG (Argentina), BOL (Bolivia), BRA (Brazil), CHI (Chile), COL (Colombia), C RIC (Costa Rica), ECU (Ecuador), E SAL (El Salvador), GUA (Guatemala), HON (Honduras), NIC (Nicaragua), MEX (Mexico), PAN (Panama), PAR (Paraguay), PER (Peru), URU (Uruguay) and VEN (Venezuela).

We now analyse the main trends in agricultural production and total factor productivity from the 1990s through the early twenty-first century. Average annual growth in Latin American agricultural production between 1994 and 2020 was 2.8 per cent, led by Peru and Brazil (Table 4). In Peru, the implementation of stabilisation programmes and structural reforms transformed the institutional framework, reshaping the conditions under which agricultural producers engaged in market transactions (Velazco & Pinilla, 2018). Brazil, meanwhile, consolidated an expansionary trajectory characterised by increasing factor intensification and sustained productivity gains, following decades of predominantly extensive production practices (Klein & Vidal Luna, 2026; Mueller & Mueller, 2018).

By contrast, Venezuela recorded the lowest growth rates in agricultural production. The uneven evolution of agricultural output, combined with volatile growth in food demand, became a major constraint. Venezuela exemplifies a case of vulnerability

associated with the "resource curse", whereby heavy dependence on oil exports undermined the establishment of conditions conducive to sustainable agricultural development and long-term growth (Willebald et al., 2015; Rubio, 2015).

In Mexico, agricultural expansion remained limited, with the notable exception of export-oriented fruit and vegetable production in northern regions. This outcome largely reflected the shortcomings of agricultural liberalisation policies which, owing to their highly unequal distribution of support among farmers, failed to generate a broad-based transformation of the agricultural sector (Yúnez, 2010; Tortolero & Méndez Rojas, 2026). In the Southern Cone, rising international prices for cereals and soybeans encouraged a rapid expansion of production. Technological innovations—particularly the adoption of transgenic seeds and no-till farming techniques—significantly boosted agricultural output in Argentina from the mid-1990s onwards, resulting in some of the highest growth rates of the period (Barsky & Gelman, 2001; Martirén & Rayes, 2026). As in earlier historical episodes, external demand, reminiscent of the belle époque, played a central role in driving this expansion.

Table 4. Annual average logarithmic rates between 1994 and 2020

	Production	Labour	Land	Capital	TFP
Argentina	2.26	-1.03	1.46	2.43	1.22
Brazil	3.62	-2.07	0.52	3.02	2.74
Chile	1.74	-1.30	-0.66	-0.80	2.74
Colombia	2.39	0.46	-0.09	0.37	2.11
Honduras	2.49	-0.33	-0.75	2.01	1.37
Mexico	2.41	-0.13	-0.39	1.03	1.84
Panama	2.18	-0.44	0.12	1.34	1.61
Peru	4.18	1.54	1.28	1.60	2.66
Uruguay	1.98	-1.16	1.33	3.52	0.46
Venezuela	0.48	0.40	-0.01	-1.12	0.97
LA BRA	2.82	-0.60	0.51	2.36	1.74
LA MEX	2.82	-0.60	0.51	1.23	1.96
LA ARG	2.82	-0.60	0.51	2.55	1.69

Source: Authors calculation based on Food and Agricultural Organisation, FAO data.

For the region as a whole, the period 1994–2020 recorded the highest gains in total factor productivity (TFP). During this period, the contribution of TFP to agricultural growth was particularly notable. As observed throughout the historical series, the countries with the weakest efficiency improvements were Uruguay (0.46 per cent) and Venezuela (0.97 per cent).

This marked increase in TFP coincided with a reduction in labour use, which fell by an average of 0.6 per cent across Latin America—a trend also evident in Argentina, Brazil, Chile, Honduras, Mexico, Panama, and Uruguay. The contribution of land was highly variable, showing an overall increase for Latin America but a decline in five countries.

Kay (1994, 2020) argues that, as part of the process of economic globalisation, transnational agricultural corporations and domestic investors came to dominate the Latin American market. The adoption of new technologies, which facilitated improvements in storage, agro-industrial processing, preservation, transportation, communication, and organisational systems, provided these firms with a competitive advantage in the production of fruits, vegetables, and flowers. The cases of Chile and Peru—and, to a lesser extent, Brazil and Colombia—illustrate these trends. Structural reforms in the 1990s, particularly policies aimed at fostering the agri-food industry, combined with the implementation of free trade agreements, created favourable conditions for the expansion and consolidation of non-traditional agricultural exports.

Thus, during 1994–2020, improvements in TFP were accompanied by further trade liberalisation, growing global demand for high-quality and healthy food products, the incorporation of new land into agricultural production, rising interest in biofuels, increasing incomes that supported demand for a wider variety of foods, and an expansion of private investment in agriculture. In the temperate regions, such as the Southern Cone, the 1990s marked a period of substantial liberalisation, characterised by tariff reductions and the dismantling of rigid exchange-rate regimes. Although these reforms improved competitiveness, agriculture did not benefit from special promotion or support programmes. Nonetheless, these constraints were offset by significant advances in agricultural modernisation, which provided clear evidence of structural change. This included the expansion of the agricultural frontier in Argentina (with increased land-use intensity in the Pampas) and in various states of Brazil, the emergence of new production

methods (such as ‘sowing pools’, with soy as the primary crop), and the rapid expansion of outdoor feedlots (Campi, 2008).

The early twenty-first century was also characterised by rising commodity prices. The upward phase of the commodity cycle that began in the early 2000s came to an end around 2011, after which prices either declined or stabilised, reflecting both expected increases in supply and weaker demand from China and other major importing economies (Ayuda et al., 2024; Gruss, 2014).

To distinguish between the pre- and post-boom phases, Table A.1 in the Appendix divides the period into 1994–2002 and 2003–2020. Although the growth rate of agricultural output was somewhat lower in the latter period—possibly reflecting external shocks such as the 2007–2008 financial crisis and the onset of COVID-19—the previously observed trends were reinforced. In particular, output growth remained driven primarily by capital accumulation and productivity gains, with a notable decline in both labour and land use during the second sub-period.

These patterns are consistent with the findings of Nin-Pratt and Valdés (2020), who estimated TFP and efficiency in the crop and livestock sub-sectors for 24 Latin American and Caribbean (LAC) countries. Their results indicate that the period of rapid agricultural growth in LAC, driven by technological change and resource reallocation, transformed the region’s agriculture and positioned it to better withstand the less favourable regional macroeconomic conditions and slower global market dynamics observed after 2011.

6. Conclusions

Latin America has long been shaped by international influences while simultaneously developing its own distinctive characteristics and trends in the relationship between the agricultural sector, economic development, and patterns of primary-product trade. The region’s development has been closely intertwined with the evolution of its agricultural sector.

Historically, agricultural exports have played a central role in Latin American economies. This trend became particularly evident during the ‘first globalisation’ in the latter decades of the nineteenth century, as agricultural systems in the region increasingly oriented themselves towards international markets. This outward orientation contributed

to rising per capita incomes in several countries. Moreover, during this period, the expansion of agricultural inputs, driven by the incorporation of new lands and the influx of migrants, particularly from Europe, led to increased production, higher productivity, and improved land–labour ratios. The diverse patterns observed during this era were shaped by differing degrees of exposure to international markets, the role of foreign demand for agricultural products, and domestic consumption needs.

The interwar period marked a decline in the agro-export model and fostered pessimism regarding its continued viability, prompting a search for alternative paths for agriculture and economic development. Heavy dependence on demand from a limited number of countries—which themselves faced economic difficulties—exposed the vulnerabilities inherent in specialisation in primary products, particularly in the context of rising protectionism.

Following the Second World War, this shift in economic paradigms was reinforced through the implementation of the ISI model. Under this framework, the agricultural sector was reconceptualised as a source of resources to support industrialisation across Latin America. At the same time, the widespread adoption of technological advances, including capital goods from non-agricultural sectors and innovations associated with the Green Revolution, contributed to substantial increases in agricultural production and productivity throughout the subsequent decades, extending into the 1970s.

The 1970s were marked by oil shocks and a sharp increase in external debt across the region. These developments challenged the sustainability of the ISI model within an evolving international context. The following decade exposed structural weaknesses in Latin American economies and agricultural sectors, culminating in the lowest growth rates in production and productivity during the second half of the twentieth century. This period is widely referred to as ‘the lost decade’, reflecting the widespread economic decline, including within the agricultural sector.

Since the 1990s, structural reforms have significantly reshaped Latin America’s agricultural and economic systems. The agro-export model once again became central to economic policy, signalling a renewed orientation of the agricultural sector towards international markets and a reduced role for the state in economic management. The growing importance of agricultural trade has been pivotal in driving the expansion of new

export products, such as soy-based commodities, particularly in the context of robust growth in emerging Asian economies.

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Appendix

Table A.1. Annual average logarithmic rates between 1994 – 2002 and 2003 – 2020

Country	Annual average logarithmic rates between 1994 and 2002					Annual average logarithmic rates between 2003 and 2020				
	Production	Land	Labour	Capital	TFP	Production	Land	Labour	Capital	TFP
Argentina	2.84	0.43	-0.04	3.01	1.39	1.95	1.60	-0.59	1.76	1.04
Brasil	4.33	0.58	-0.86	2.22	3.53	3.21	-2.58	-2.66	2.64	2.99
Chile	3.02	-1.00	-0.21	2.34	2.19	1.09	-1.66	-1.90	-2.44	3.23
Colombia	1.73	-2.11	0.50	-0.75	2.64	2.68	0.96	0.47	0.83	1.86
Honduras	2.92	-3.80	0.04	0.20	3.64	2.22	0.61	-0.43	2.42	0.53
Mexico	2.78	0.18	-0.29	-0.45	3.07	2.24	-0.67	0.01	1.81	1.20
Panama	3.39	5.97	0.00	-0.39	3.05	1.56	-2.74	-0.67	1.75	1.08
Peru	5.03	0.46	1.69	1.57	3.69	3.75	2.56	1.49	1.62	1.94
Uruguay	1.90	0.37	-0.19	2.72	0.65	1.97	1.86	-1.62	3.27	0.63
Venezuela	2.93	-0.03	-0.70	1.46	2.47	-0.78	0.61	0.98	-2.39	0.11
LA BRA	3.39	0.34	-0.23	1.44	2.74	2.51	-0.94	-0.71	2.36	1.57
LA MEX	3.39	0.34	-0.23	0.69	2.87	2.51	-0.94	-0.71	1.37	1.90
LA ARG	3.39	0.34	-0.23	1.95	2.49	2.51	-0.94	-0.71	2.36	1.73

Source: Authors' elaboration from FAOSTAT database (2024).