Wages, Price, and Profit

Protection and Value Capture in the Mercosur Automotive Industry

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The expansion of the automotive industry in Argentina and Brazil and its regional integration can be attributed to determinants that differentiate them from other contemporary regionalization processes. Their limited scales of production, outmoded technology, and lower productivity levels than the average in the world market and the inward orientation of regional industry are shared characteristics of the two national processes of capital accumulation, which are still organized around the appropriation by industrial capital of a portion of the substantial ground rent available.

La expansión de la industria automotriz en Argentina y Brasil, así como su integración regional, pueden atribuirse a determinantes que las diferencian de otros procesos de regionalización contemporáneos. Sus limitadas escalas de producción, la tecnología anticuada y niveles de productividad más bajos que el promedio en el mercado mundial, así como la orientación interna de la industria regional, son características compartidas por ambos procesos nacionales de acumulación de capital, los cuáles todavía se encuentran organizados en torno a la apropiación, por parte del capital industrial, de una parte de la renta sustancial disponible.

Keywords: *Automotive industry, Mercosur, New international division of labor, Land rent, Wages*

During the decade of economic growth that began in the early 2000s in South America, discussions abounded on the transformations in various production sectors, with the automotive industry of Brazil and Argentina being one of the focal points of debate. Among the central issues was whether the sustained expansion of production and consumption of vehicles and the installation of new plants and the increase in foreign trade, among other things, were evidence of the consolidation of a structural transformation that changed the historical role of these countries in the global economy (Arteaga García, Guevara, and Pinto, 2020: Barbero and Motta, 2007; Duarte and Rodrigues, 2017). With

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the goal of adding empirical evidence and a new perspective to these debates, this essay will highlight the determinants of the expansion of the automotive industry in Mercosur from the launch of the Argentina-Brazil sectoral bilateral system in the early 1990s to its crisis beginning in 2013–2014. To do so, we first summarize the global transformations in the sector, with special emphasis on the relocation and regionalization of production. Then we present a series of indicators that distinguish automotive development in the Mercosur countries from the rest of the pertinent emergent countries, particularly in their scales of production, technical conditions, labor productivity, and features of foreign trade. In the third section, we analyze the forms of valorization of automotive capital in Argentina and Brazil, which are also distinctive in the region. Lastly, we reflect on the state policies and class conflicts that advanced this industrialization process.

The primary assumption of this work is that, despite regional integration and the ensuing changes, the automotive industry in the two major countries in Mercosur was reproduced in recent decades on bases similar to those that characterized its previous historical development. In short, the multinational companies that operate in the region offset limited production scales and low labor productivity levels through various processes of value capture, brokered by state policies and sustained by the abundant land rent available. In this regard, the automotive expansion of the past quarter century in the two countries studied constitutes a type of revival, following the crisis of the 1980s, of the classic import-substitution industrialization, geared toward protected, now regional markets, along with its limitations and corresponding political forms.

RELOCATION AND REGIONALIZATION IN THE GLOBAL AUTOMOTIVE INDUSTRY

The geographic reorganization of the global automotive industry during the past 30 years can be summed up in terms of two important trends. The first is the development of the so-called emergent regions, the set of countries that is not part of the classic "triad" of the global automotive industry made up of the United States and Canada in North America, Britain, France, Germany, and Italy in Europe, and Japan in Asia. Particularly since 2000, the participation of the emergents in global production rose from less than 20 percent to more than 50 percent as a result of their accelerated growth and the stagnation of the traditional areas (OICA, 2021). One of the main determinants in this process was the relocation of production associated with what is called the "new international division of labor." As Iñigo Carrera (2013) and Charnock and Starosta (2016) have argued, the substance of this new international division of labor is the global production of surplus value based on the international differentiation of the productive attributes and the conditions for reproduction of the workforce. Acceleration of automation since the mid-twentieth century has involved the further transformation of workers into appendages of machines, with the ensuing reduction in the skills needed for the work. Combined with other technical advances in transportation and communication, these changes have allowed for international fragmentation of the productive process and

relocation of the portions simplified by automation to regions where labor is relatively cheap but accustomed to disciplined collective work. At the same time, in the classic countries, although the simpler labor processes have not been eliminated, there has been a tendency toward expansion of the more complex portion of the productive process, including technological development, product design, and coordination of globalized processes. From this perspective, the institutional changes and state policies that have accompanied this process (from international cooperation agreements to development plans implemented by the various national governments) are seen as *political mediations* of the intrinsically global *economic content* previously mentioned—changing patterns of exploitation of the global labor force by the total capital of the society through the international division of labor (Starosta, 2016).

The first manifestations of the new international division of labor in the automotive industry were the rise of Japan and then South Korea as competitors in the world markets and the early integration of Spain into the productive and commercial circuits of Western Europe. However, the very development of industrialization in those countries raised real wages because of the increasing skills of workers and the depletion of available workforce reserves. In turn, the subsequent advances in automation renewed the possibility of relocating production to countries with abundant and even cheaper workforces that were well-suited to the new technical conditions of production, such as those in Southeast Asia, Mexico, China, and Eastern Europe.

The second important trend is the regionalization of both production chains and markets for finished vehicles. In North America and Europe, the clearest cases of this process, integration was pursued through the relocation of production from the traditional industrial countries to new "low-cost" plants in relatively close emergent countries, which became an "integrated periphery" of the classic centers of the automotive industry (Humphrey and Oeter, 2000: 51). Thus, this regionalization coordinated the internationally fragmented labor processes that were the result of the trend seen above toward the differentiated exploitation of the labor force. In these integrated peripheries, exports to the respective regional markets made possible an increase in the scale of production that was apparent in a higher ratio between total production and domestic sales (see Table 1).

The changes in the global automotive industry advanced a type of industrial development in the "emergent" or "peripheral" countries that was qualitatively different from what was known until then in the majority of Latin American countries. In fact, in the Mexican case in particular, it entailed the transformation of the basis of preexisting automotive industry reproduction, marked until the 1980s by the characteristics of import-substitution industrialization, especially in the focus on the domestic market with high levels of domestic supply. The new processes of industrialization, by contrast, were mainly aimed at the global export markets, paving the way for an expansion that tended to reduce the labor productivity gap with the classic countries. It should be noted, however, that the boom of the Mexican automotive industry has not produced significant improvement in the life conditions of automotive workers (Crossa, 2021; Covarrubias, 2020; Grinberg, 2010).

TABLE 1
Production, Sales, Labor Productivity, and Growth in Emerging Markets

Country	*Production (000s) 2005–2019*	*Production / Domestic Sales 2005–2019*	*Labor Productivity 2010–2018*	*Growth Rate 1991–2019*
Integrated peripheries				
Czech Republic	1,123	5.10	34	6.39
Slovakia	766	8.63	54	21.99
Mexico	2,887	2.42	47	5.60
Global export platforms				
South Korea	4,159	2.68	52	3.85
Thailand	1,726	1.99	58[a]	6.70
Large domestic markets				
India	3,560	1.18	25[b]	9.07
China	18,795	1.00	n.d.	14.3
Regional markets				
Brazil	2,978	1.05	24	4.12
Argentina	558	0.86	21	4.11

Sources: OICA (2021), Freyssenet (2021), Eurostat (2021), INEGI (2021), NSOT (2014), KOSIS (2021), NSOI (2020), ADEFA (2020), ANFAVEA (2020).
[a]2012.
[b]2018.

In the rest of the world, in addition to the European case previously mentioned, other national experiments followed similar paths. Of particular interest are the Southeast Asian countries, whose regional integration in the Association of Southeast Asian Nations (ASEAN) presents some apparent similarities with that of Mercosur. In fact, both these regional spaces are entirely composed of emergent countries (Baruj et al., 2017; Humphrey and Oeter, 2000). Nevertheless, in contrast to Mercosur, after the crisis of 1997–1998 ASEAN became an exporting platform for the world market (with a hub in Thailand), structured around taking advantage of both the relatively low regional wages and the intraregional differences in the qualities and costs of the labor force (Jetin, 2018).

MERCOSUR IN GLOBALIZATION AND REGIONALIZATION

The development of the automotive industry in Brazil and Argentina in recent years formally embodies the two trends that summarize the global transformations in the sector. On the one hand, consistent with the expansion of the emergents, automotive production has tripled in the past 30 years. On the other, regionalization has clearly advanced in both the marketing of final products and production. The great majority of vehicles manufactured have been destined for a regional market that was relatively closed to imports, and, although the supply of a significant portion of auto parts was globalized, the increase in specialization and division of labor between the two major partners in Mercosur signified an effective regionalization of production. The production of small vehicles and most of the

remaining auto parts industry were concentrated in Brazil, while Argentina tended to specialize in the manufacture of medium-sized vehicles and pickup trucks.

That said, the development of the automotive industry in Mercosur has certain distinctive features. In contrast to the majority of the emergent countries but similar to the Mexican case, the origin of the industry in Mercosur was part of the "first wave" of internationalization of the sector, begun in the 1950s in relatively few countries. In Latin America in particular, these early pursuits were typical import-substitution industrialization cases, embedded in national spaces of capital accumulation specialized in the production of agricultural and/or mining commodities for the world market. In this respect, the automotive industries of these Latin American countries developed "inward"— geared toward a relatively small domestic market (Grinberg, 2013; Iñigo Carrera, 2007). This original base of industrialization (both in general and in the automotive case) imposed limitations in scale, technological lag, and low labor productivity (Shapiro, 1994; Sourrouille, 1980; Lifschitz, 1985). In order to obtain normal profit rates, the multinational companies relied on the market protection and other forms of support of its valorization channeled through state policies and sustained by abundant agrarian, hydrocarbons, and mining rent (Fitzsimons and Guevara, 2018: 249–256; Grinberg, 2011: 150–160). This reproduction pattern went into crisis around the mid- or late 1970s, when raw materials prices entered a long period of contraction, initiating the divergence in trajectories (similar until then) among the Latin American automotive industries.

Actually, although this crisis affected the whole region and unfolded through the rise of neoliberal governments in the late 1980s and 1990s, the policies implemented did not have the same effects across Latin America. In other words, the same political form expressed different economic contents. While in Mexico neoliberal reforms paved the way for export restructuring and in the smaller South American economies led directly to the virtual dismantling of the industrial sector, in Brazil and Argentina they enabled a kind of industrial recovery, although limited to certain sectors dominated by foreign capital such as the automotive sector (Starosta and Steimberg, 2019). During this new phase, the sector maintained its prominence in both national economies in terms of contribution to the product, productive linkages, and employment.[1] At the peak of the expansion phase, Brazil ranked seventh among the major world producers of vehicles, while Argentina held the twentieth spot (OICA, 2021). Nevertheless, the growth rhythms of production, while significant, were less than in the other emergent countries. Additionally, the stagnation in both Argentina and Brazil since 2014 contrasts with the continued development in the rest of the emergents. Keeping in mind these considerations of their historical origin and recent performance, the question is whether the phase begun in the 1990s changed the basis of development of the automotive industry in Argentina and Brazil.

One of the distinctive features of this new phase in the Mercosur countries was the expansion of foreign trade (Table 2). In the Argentine case, the growth in exports was remarkable: from practically insignificant previous levels they reached an average of 57 percent of production in the 2003–2019 period.

TABLE 2
Foreign Trade in Mercosur: Argentina and Brazil, 2003–2019

Year	*Regional Production (000s)*	*Regional Sales (000s)*	*Extraregion Exports / Production*	*Extraregion Imports /Internal Sales*	*Production / Sales*
2003	1,854	1,584	20.4	2.8	117.0
2004	2,385	1,891	19.9	1.3	126.1
2005	2,677	2,117	21.2	2.1	126.4
2006	2,836	2,388	18.3	3.0	118.7
2007	3,370	3,028	14.1	5.1	111.3
2008	3,648	3,432	9.8	6.5	106.3
2009	3,589	3,628	5.4	7.5	98.9
2010	4,099	4,213	6.0	9.8	97.3
2011	4,247	4,517	6.1	14.5	94.0
2012	4,169	4,632	4.2	14.0	90.0
2013	4,505	4,731	4.3	12.2	95.2
2014	3,769	4,112	3.0	9.0	91.7
2015	2,955	3,182	6.6	8.3	92.9
2016	2,650	2,772	6.7	7.3	95.6
2017	3,211	3,123	9.5	6.	102.8
2018	3,348	3,248	6.9	5.6	103.1
2019	3,260	3,157	8.7	0.9	103.3
2003–2019	56,569	55,756	9.1	7.9	101.5

Sources: ADEFA (2020), ANFAVEA (2020).

Meanwhile, in Brazil the increase was much more moderate, from 15 percent of production in the 1980s to 20 percent in 2003–2019. Imports of finished vehicles also increased, rising from virtually zero in the 1980s in both countries to more than 60 percent of domestic sales in Argentina and to 15 percent in Brazil. Clearly this stands in contrast to the classic workings of import-substitution industrialization, where production was aimed almost exclusively at domestic markets that were practically closed to imports.

However, the bulk of each country's foreign sales occurred with the other regional partner (72 percent of Argentine exports and 58 percent of Brazil's in 2003–2019). This means that, looking at the region as a whole, more than 90 percent of automobile production was sold within the regional bloc. Mercosur functioned as a protected market for the national industries of its two principal members, structured around a common tariff of 35 percent and a system of administered trade with offset coefficients for exports and imports. The smaller proportion of extraregion exports (an average of 9 percent between 2003 and 2019) is explained almost entirely by sales to other Latin American countries that operate with preferential tariff agreements and/or administered trade (especially with Mexico).

Basically, therefore, regional integration served to advance specialization and regional division of labor within the companies with subsidiaries in both countries but not to produce markets larger than the national ones. In fact, joint Argentina-Brazil production did not exceed that of the regional common market, but neither did each country's production with regard to its national market. The

scale of production of vehicles continued to be tied, as in previous decades, to the evolution of the national markets—the extent to which the export or import of vehicles by each country was mutually offset (Fitzsimons and Guevara, 2019: 50). Extraregion exports became somewhat important only during the contraction of the local domestic markets, which tended to coincide with currency devaluations and wage reductions, and returned to marginal importance in expansion periods (Fitzsimons and Guevara, 2019: 52; Sturgeon, Lima Chagas, and Barnes, 2017: 55). As a result, growth in regional production depended on (and was limited by) expansion of the domestic markets of both countries, protected from extraregion competition. This limitation on the increase in scale of production is reflected in the ratio between production and domestic sales in the Mercosur countries, which was much lower than that of the integrated peripheries or the global export platforms (see Table 1).

In this context, there is consensus in the specialized literature regarding the harmful impact of limitations on scale despite the global pursuit of "flexible" methods and "modularization." Varying estimates can be found for the exact volumes that determine the optimal scale for each of the different stages of automotive production and the relation between these phases in reaching a minimum scale for production as a whole. However, some minimum thresholds (below which the costs of "diseconomies of scale" make production economically inviable) appear to be fairly well-defined: 600,000 units annually per company and between 200,000 and 350,000 units per final assembly plant (Biesebroeck, 2004; Wynn-Williams, 2009). The scale of automotive production in Argentina, averaging slightly more than 500,000 units annually from 2003 to 2019, distributed among seven main companies of light vehicle production, does not need further analysis in this regard. Companies with the largest production averaged around 100,000 vehicles per year in the 2009–2013 period (the five-year period of greatest production), with maximum isolated peaks of 140,000 units in the "record" year of 2011 (ADEFA, 2020). In the case of Brazil, the larger scale requires a more careful analysis. Total production increased from an annual average of slightly more than 1 million units in the first half of the 1990s to more than 3 million between 2008 and 2014. Nevertheless, given the increase in the number of companies, the production scale per company increased by only 50 percent while total production tripled (ANFAVEA, 2020). If, in addition, we take into account the dispersal of production in the major companies among various factories, the only companies that formally attained per plant production levels compatible with the minimally efficient scale were Fiat and Volkswagen, thanks to extension of the cycle of production of relatively old models. Even so, these companies continued losing market share to their new competitors, whose per plant production scales were smaller.

This limited impact of the differences in scale in competition among companies can be explained by the low productivity levels of the factories in the region. Indeed, the labor productivity indicators in Mercosur, at both the national and the regional aggregate level, considered by company and by plant, are consistently lower than those of the global industry (Tables 1 and 3). This suggests that the larger companies (in terms of production volumes) have simply replicated the forms of production of their competitors, without significantly leveraging the economies of scale to increase labor productivity.

TABLE 3
Labor Productivity by Company

Country	*Firm*	*Production (000s)*	*Employment (000s)*	*Production/ Employment*	*Year*
Triad/classic Countries					
United States	Ford	2,326	34.6	67	2015
Japan	Toyota	4,290	49.0	88	2015
Integrated peripheries					
Poland	FIAT (FCA)	263	2.5	105	2019
Slovakia	Volkswagen	395	9.9	40	2015
Slovakia	Kia	338	3.8	89	2015
Mexico	Nissan	680	14.5	47	2015
Turkey	Toyota	280	5.4	52	2017
Turkey	Ford	374	10.5	36	2018
Global export platforms					
South Korea	Hyundai (+Kia)	3,451	69.0	50	2015
Thailand	Toyota	571	13.5	42	2019
Large domestic markets					
India	Maruti-Suzuki	1,171	20.0	59	2015
Regional markets					
Argentina	PSA	115	4.9	23	2013
Argentina	Renault	118	3.2	37	2013
Argentina	GM	111	3.5	32	2013
Brazil	Volkswagen	479	14.7	33	2019
Brazil	FIAT	523	30.0	18	2019
Brazil	GM	651	22.8	29	2010

Sources: Sturgeon, Lima Chagas, and Barnes (2017), Fitzsimons and Guevara (2018), *Automotive News* (2020), OSD (2020).

In turn, the low labor productivity rates are consistent with the low levels of robotization, which serve as an indicator of the technological level of the plants. International comparison of robot density in relation to the number of workers displays the gap with regard to automation of the automotive industry between Mercosur and other regions (Figure 1).

In short, regionalization in Mercosur had a distinct dynamic. The growing differentiation with respect to the Mexican case in terms of the consistency of increase in production, levels of labor productivity, the relation between scale of production and the domestic market, export orientation, etc., is revealing. Something similar happened with the comparison between Mercosur and ASEAN, whose similarity in terms of "emergent regionalization" attracted attention in the specialized literature in the early 2000s (Humphrey and Oeter, 2000: 55–56). Twenty years later, the development in the two regions made clear the different contents of the two processes. While ASEAN was transforming itself into a global export platform as a result of the unfolding of the new

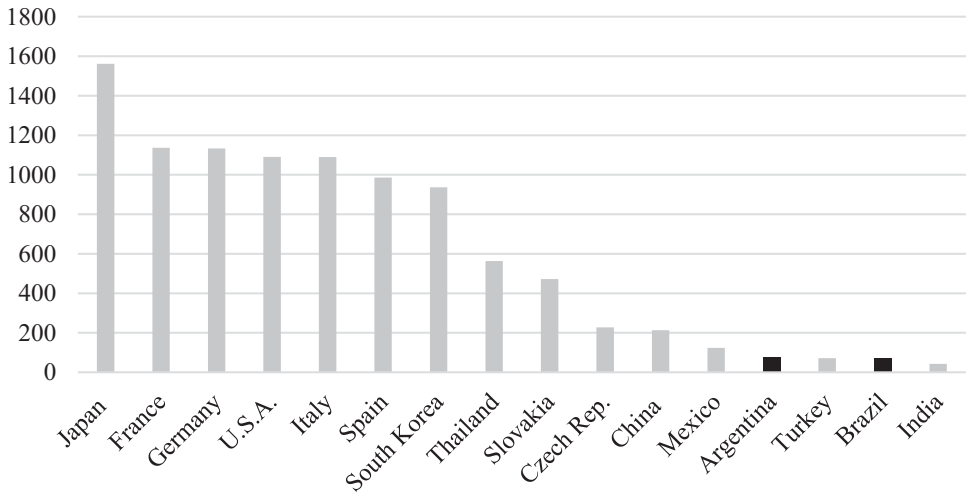

Figure 1. Robots per 10,000 workers, automotive industry, 2012 (IFR, 2013).

international division of labor, Mercosur maintained its distinctly regional focus. To date, it continues to reproduce production conditions that originated in the import-substitution-industrialization phase: volumes of production limited by the size of the domestic market (despite regional integration), suboptimal scales of production, technological lag, and low labor productivity even in the few plants with higher production volume.

AUTOMOTIVE CAPITAL'S FORMS OF VALORIZATION

The persistence of gaps in scale, technology, and labor productivity in relation to international standards was not, however, an insurmountable obstacle for capital accumulation in the sector. As we have seen, not only did production expand at a greater rate than in the classic countries over the past 30 years but also most of the multinational companies increased their presence in the region, meaning that they managed to valorize at least close to the norm, defined by the average rate of profit on a global scale. In order to sustain their valorization in spite of high production costs stemming from the conditions of production just described, automotive capital had to obtain extraordinary or special sources of profit. Let us elaborate on this issue in more detail.

First, higher costs can always be offset if they are transferred to sale prices. Automotive production was largely directed to the protected regional market. This enabled finished-vehicle prices to be set above those prevailing in the world market, particularly given that protection and regional regulations allowed for the marketing of lower-quality and/or less well-equipped versions than the global models (Barbero and Motta, 2007: 216; Marx and Marotti de Mello, 2014: 142–144; Sturgeon, Lima Chagas, and Barnes, 2017: 38–39). Although this market protection effect is familiar, it is important to acknowledge that the sustained sale of production in such conditions presumes the existence of a financially solvent demand capable of validating the higher

domestic prices. It is therefore essential to investigate the source of the purchasing power of the consumers who made up the regional automotive industry market.

To begin with, part of the demand for automotive vehicles came from the agricultural sector, for use as a means of production or transportation and for the direct personal consumption of the landowners. This connection between automotive production and productive and luxury consumption by the social subjects of agricultural production was particularly important in the Argentine case, consistent with the sectoral expansion begun in 2002 and with the relative prosperity of urban settlements in the associated rural and semirural areas. Forty percent of automotive production in the 2002–2019 period was pickups, a product specifically geared toward rurality—although, given its mass production, its consumption has extended to urban sectors with high purchasing power (Catania, 2015: 41, 54). In order for agrarian capital to yield the normal rate of profit, the greater costs due to the rise in price of pickups and other automotive means of production must be transferred "upstream" toward the rent of the landowning class. Thus, the overpricing of vehicles deriving from tariff protection acted as a mechanism of appropriation of part of the agrarian ground rent by the automotive companies. The same thing occurs with the portion of automotive production intended for the direct personal consumption of the landowners.

That said, to the extent that it emerges from tariff and para-tariff protection involving all automotive products, overpricing also applies to all vehicles consumed by the general population. On this point we should stress that the role of nation-states was not limited to protection but also included the substantial expansion of domestic markets (and, consequently, of regional markets) through public expenditures, partly supported by the taxes that directly and indirectly fell on the extraordinary profits of the primary sector. In Argentina, appropriation of agrarian rent by the state was carried out by direct taxes on sectoral exports of up to 35 percent (in the case of soy) of the export value. In this manner, the state directly appropriated one-fourth of the total agrarian rent in the period between 2002 and 2011.[2] In Brazil, since the primary mechanism of transfer of social wealth from the primary sector to the rest of the economy was the overvaluation of the currency, indirect mechanisms of state appropriation predominated. Among them were taxing imports that offset the price reduction caused by overvaluation and taxing affluent sectors favored by the intersectoral transfer of wealth (Grinberg, 2016: 97). These increased tax revenues, sometimes bolstered by foreign indebtedness, allowed for expanding not only public expenditures in general (and from there aggregate demand) but also the subsidized sectoral credit programs for promoting the production and consumption of vehicles.[3] Without these diverse forms of price support, protectionist measures—at the national or regional level—would merely have ended up reducing the consumption of vehicles instead of expanding it as occurred in the region with the formation of Mercosur.

A second way of possibly offsetting the high costs of production might be reducing the cost of the labor-power. In fact, in some historical experiments (South Korea and Spain in their initial stages) and contemporary ones (Mexico, China, and India), the low levels of technology and labor productivity were

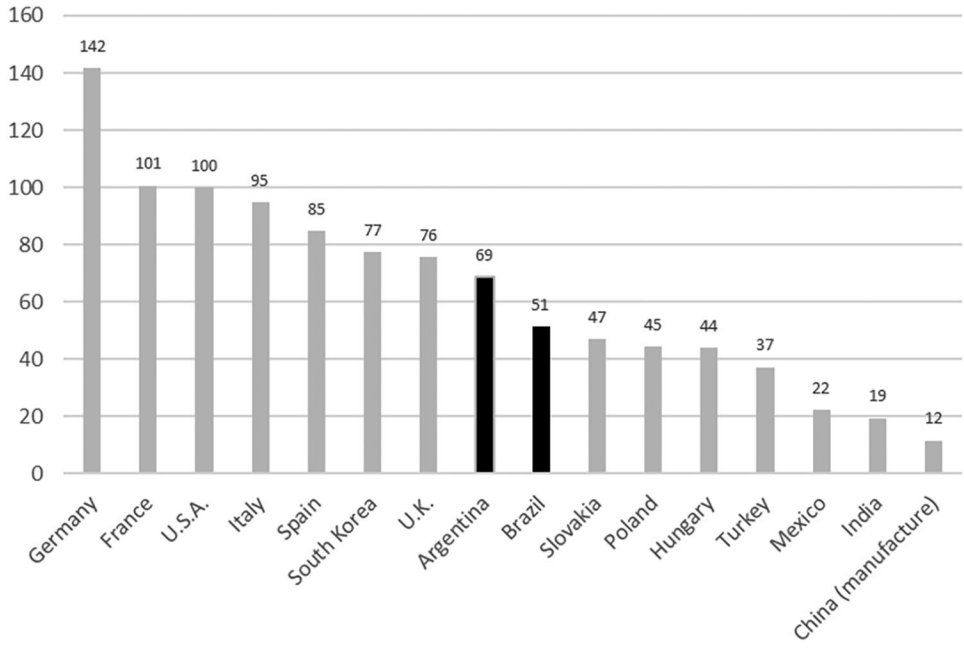

Figure 2. Domestic purchasing power of automotive wages (U.S.A. = 100), average 2008–2016 (World Bank's ICP exchange rates) (Conference Board, 2018; INDEC, 2021).

initially offset by low wage costs, allowing for gradual modernization processes that reduced gaps with the classic countries. However, in terms of domestic purchasing power—the consumption levels of means of subsistence that constitute the simplest determination of the value of labor-power—automotive wages in Argentina and Brazil are in an intermediate position compared with other relevant cases within the global automotive industry (Figure 2).

In other words, the standard of living of automotive workers is lower in the Mercosur than in the classic countries but higher than in the integrated peripheries and the recently developed Asian countries. In this regard, the material conditions of reproduction of the working class in the region do not presume an immediately attractive advantage for capital. There are other areas of the world, in fact, where capital finds lower real wages and better locations for supplying the large markets that make up the bulk of the world market (Grinberg and Starosta, 2009).[4]

Even so, what is truly important for capital is not the purchasing power of wages but the real cost of the labor force—the magnitude of value that capital needs to advance in order to launch production. Although under normal conditions this cost is directly determined by the value of the labor-power, that is, by the workers' consumption level, certain specific capital circulation conditions, imposed by the nation-states, exist in the region that lead to the modification of this simple determination. In fact, throughout the period covered in this research, primary-origin goods (along with some state-subsidized services) were circulating in the internal Argentine and Brazilian markets at lower prices than on the world market as a result of export taxes, currency overvaluation,

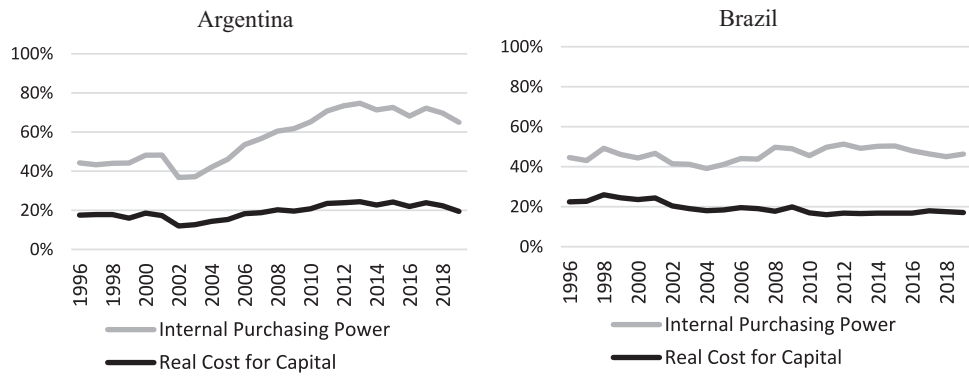

Figure 3. Brazilian and Argentine automotive wages relative to U.S. levels (U.S. = 100) (INDEC, 2021; IBGE, 2021; BLS, 2021; World Bank, 2020).

and various direct forms of price regulation (Grinberg, 2013: Iñigo Carrera, 2007). To the extent that these goods entered directly or indirectly into workers' consumption, their domestic sale below its normal prices of production reduced the price that capital had to pay for the labor-power without affecting their conditions for reproduction (their level of consumption). Furthermore, given that the possibility of cheapening the means of subsistence stems from low production costs as a consequence of the exceptional natural conditions for primary production in these countries, the source of this "advantage" for industrial capital—and therefore for the automotive companies that operate in the region—is also ground rent.

To empirically assess this determinant of the cheapening of labor-power in Mercosur, we must compare wages internationally in terms of their value or real cost for capital. This cost is simply its monetary expression in the national currency. However, the comparison requires its conversion to U.S. dollars in order to relate each national wage to the U.S. one, which we take as expression of normal conditions of reproduction of labor-power. As previously indicated, in both Brazil and Argentina the exchange rate level in the official market has served as a recurring form of transfer and appropriation of social wealth (Grinberg, 2013: 456–459; Iñigo Carrera, 2007), which distorts any comparison made with this type of exchange. In order to correct these problems we turned to the relative purchasing power parity method, which consists of identifying a base period for which it is assumed that, on average, there is a relation of parity between the national currency and the one being compared with it and then projecting to other years according to the relative variation of the consumer price indexes and labor productivity in each country[5] (Balassa, 1964: 584; Iñigo Carrera, 2007: 31–35). Following this method, we can conclude that the real cost of labor-power for capital in the period from 1996 to 2019 in both Argentina and Brazil was approximately one-fifth of that of the United States. In contrast, in terms of consumption capacity for automotive workers, the gap was much smaller (Figure 3).

This illustrates that the relative cheapening of automotive labor-power in Mercosur— the difference between its real cost for capital in this region and the

normal conditions of purchase of labor-power as expressed in the U.S. wage——has two determinants. The first is the lower level of consumption of automotive workers—poorer conditions for workforce reproduction. In Brazil, this level was maintained during the entire period at about half that of their U.S. counterparts, while in Argentina the level was somewhat higher, with an upward trend during the 2000s, topping off at about 75 percent in 2013. As we have already pointed out, this determinant alone does not constitute a particularly attractive advantage for capital relative to other regions and countries. The second determinant—of paramount importance in the process of accumulation in Mercosur—is the reduction in the market price of the means of subsistence that constitute the consumption basket for workers below its normal price.[6] This dimension of the cheapening of labor-power reduces even further its real cost for capital, making it lower than the corresponding level of the relative consumption capacity of the working class. In this way, capital can buy low-cost labor without affecting by the same proportion its reproduction conditions or its productive attributes. In this sense, industrial capitals—including automotive companies—obtain access to a "subsidized" labor-power sustained by the transfer of ground rent that allows them to increase their profit rates and offset their high production costs.

Just as in the case of the rising price of vehicles, the cheapening of labor-power entails a regional specificity: it largely relies on the domestic circulation of primary-origin consumer goods below their normal prices of production and, consequently, on the existence of significant proportions of appropriable ground rent. In turn, the full leveraging of this advantage is conditioned on the sale of production within the protected regional market. In fact, exports to extraregion destinations, being affected by the same currency overvaluation that serves to reduce the domestic prices of "wage-goods," would more than counteract the advantages obtainable through the cheapening of labor-power, in addition to excluding the possibility of overpriced sales. The "inward" focus of regional production and the closure of the market to foreign competition are not only manifestations of the low scale, technological lag, and low labor productivity in the region but conditions for the normal valorization of capital for the local subsidiaries of automotive multinationals.

THE POLITICAL FORMS OF THE APPROPRIATION OF GROUND RENT BY AUTOMOTIVE CAPITAL

As we have seen, the regional automotive industry continues to reproduce itself currently on the same specific basis as determined its initial development in the mid-1950s—through the participation of industrial capital, mostly foreign, in the appropriation of ground rent, mainly by purchasing cheapened labor-power and selling in protected regional markets. The history of the ability of industrial capital to appropriate this wealth goes back to the shaping of Brazil and Argentina as independent national spheres of capital accumulation. We shall now focus briefly on this matter, considering in particular the regionally specific forms of the general contradiction between capital and landownership and their effects on the class struggle.

With particular notoriety in the primary-export model of the late nineteenth and early twentieth centuries but continuing in the present despite increasing productive complexity, Latin American countries have specialized in the production and export of staple foods and raw materials to the world market. The consequences of this specialization in the modalities and potentials for economic development were widely discussed in dependency theory, especially its Marxist tendency (Marini, 2008; Dussel, 1988), but these approaches reduce the problem of the limits to development of these countries to an abstract external imposition. Marini, for example, located the crux of the matter in the "deterioration of the terms of exchange" (that is, the relative decline in the price of raw materials in relation to industrial goods) caused by the monopoly power of the "central countries" over industrial production (Starosta and Steimberg, 2019). In this respect, and despite his discursive insistence to the contrary, Marini conceived of dependency as a relationship generated by the political and economic linkages between national economies and not as the result of the essentially global dynamics of the process of capital accumulation.

In contrast, from our point of view, the productive specialization of the Latin American countries should be recognized as a concrete form of the production of relative surplus value on a global scale by global social capital as such (and not as an imposition of the needs of the "metropolises" over those of the "dependent countries"). This means that, above all, this specialization has had at its material base the existence in the region of exceptional natural conditions for the production of primary goods. Integrating these territories into the global accumulation of capital allows for raising productivity in food production and raw materials, which leads, in turn, to a reduction in the value of the global labor force. Nevertheless, this form of production of relative surplus value by global social capital also entails a flow of social wealth toward Latin American countries in the form of ground rent. This determination of the global process of accumulation (invisible to dependency theory scholars focused on the interactions between national settings) is crucial to understanding the specificity of the development of Latin American countries and the corresponding forms of class struggle.

In effect, the other side of the expansion of the capacity for valorization of global social capital through the integration of these countries into global accumulation has been the creation and reproduction of Latin American landowners, whose monopoly on lands with exceptional natural conditions enabled them to appropriate part of the social wealth that flowed into the region through primary exports. In this respect, the rent of the Latin American landowners constituted a reduction in the surplus value directly accumulable by global social capital (Marx, 1989b: 470). However, given that the landowner class, understood in its purest form as a simple property owner, is essentially a parasitic class that does not participate in any way in material production (Marx, 1989a: 539), the flow of wealth into its pockets can be interrupted without affecting the overall process of reproduction. The particular qualitative modality of accumulation and industrial production in the countries of the region came into existence through this possibility for capital to recover a portion of the available ground rent (Iñigo Carrera, 2013). Dependency theory only sees this second moment in the movement of global unity of capital accumulation,

unilaterally reducing the complexity of the recovery of surplus value by global social capital to a value levy by the central countries.

The dispute over appropriation of ground rent has been one of the distinctive focal points of the class struggle and the subsequent configuration of the dominant political expressions of each historical period in the region. Nevertheless, no matter how contentious this struggle was, capital has been able to impose, throughout the history of these national accumulation processes, the systematic transfer of a portion of this social wealth from the primary sector to the rest of the economy. It has been able to do so because of its social role as the concrete subject that mobilizes the process of social production and consumption, in contrast with the parasitic character of the landowner class. We must point out, however, that its drive for ground rent has been limited by the social validity of the right to private property over the means of production (in this case, the land), which prevented encroachment on the totality of the social wealth in question. Consequently, from the very generation of these national spheres of capital accumulation, the landowners and locally operating industrial capital (especially the foreign but also the national, of varying importance in the different phases and countries) instituted an "antagonistic association" for the appropriation of the extraordinary profits originating from the region's exceptional conditions for primary production.[7]

The phase of import-substitution industrialization begun in the mid-1950s and spearheaded by the entry of foreign capital in the larger Latin American economies (Brazil, Mexico, Argentina) is a good example of this antagonistic association between capital and landownership. As a matter of fact, the automotive sector is probably the exemplary case of industrial development driven by the installation of subsidiaries of the major multinational companies to produce locally at scales much smaller than those existing in their countries of origin. On the one hand, the development of this mode of industrialization presumed the development of state policies for the funneling of rent appropriation to the industrial sector. On the other hand, however, these policies never managed to challenge the survival of the landowners as a class. On the contrary, since the beginning of this phase landowners have appropriated as ground rent (excluding the normal profit from agrarian capital) between 2 percent (Argentina) and 3 percent (Brazil) of the GDP (Grinberg, 2015; Iñigo Carrera, 2007). Moreover, with each cyclical contraction of rent landowners were able to impose temporary reversals in the policies of rent recovery, generally epitomized by military governments.

Concretely, the boom phases of the local automotive industry and, in general, of import-substitution industrialization advanced through "populist" and/or "developmentalist" policies sustained by social alliances with working-class participation, which more or less openly clashed with the landowner class in imposing policies of ground rent recovery by industrial capital. During the 1990s, however, in both Argentina and Brazil neoliberal governments managed to sustain the recovery of the automotive industry through their new regional base without major conflicts with the landowners. They did so largely because extensive access to foreign indebtedness enabled maintaining the appropriation of rent almost exclusively in the general overvaluation of local currencies, setting aside the direct, historically conflictive forms of rent appropriation prevalent in

the classic phase of import-substitution industrialization such as exchange rate control, taxes on exports, regulation of foreign trade, and price controls. In these two countries, in contrast to the Mexican case, the neoliberal governments did not proceed with more substantial reforms that would have involved redirection of production to the global markets. Instead, as we have seen, they maintained a variety of forms of support of inward-oriented capital accumulation, including limiting the scope of regionalization in Mercosur.

Nonetheless, the dispute over appropriation of this source of social wealth has become fairly visible in the past 20 years, particularly as framed by the commodities boom of the 2000s. The great increase in ground rent as a result of the abrupt rise in the international prices of food and raw materials enabled both the reproduction and even the enrichment of the landowner class and the transfer of a growing mass of social wealth to industrial capital. Besides this shared content, the channeling of ground rent to industrial capital (in particular, of the automotive sector) followed different paths in Argentina and Brazil. In the latter, the primary appropriation route, as previously mentioned, was the overvaluation of the exchange rate sustained by the continued ability of the state to acquire debt. In Argentina, in contrast, direct taxes on exports of primary goods predominated, especially until the 2008 conflict with the agrarian sectors. After that they were complemented (but not eliminated) by a growing overvaluation of the currency (even though it remained generally lower than in Brazil and was accompanied by increasing controls of the exchange market). In both countries, there was a return of the forms of transfer more directly associated with phases of expansion of industrialization—strengthening of the state apparatus through increases in public expenditures and an array of policies of promotion and industrial protection, with their effects on growth in employment and real wages in the formal industrial sector. Consequently, many of the classic populist political forms were also resuscitated. Nevertheless, the differences in the mechanisms of appropriation of rent and the relative magnitude of the rent available with respect to the needs of industrial capital (greater in Argentina than in Brazil, given the lower scale and higher wages, among other things), also marked divergences in the prevailing political forms during the phase of expansion. This explains the more marked forms of intervention, political confrontation, and nationalism in the administrations of Néstor Kirchner (2003–2007) and Cristina Fernández (2007–2015) in Argentina vis-à-vis the more moderate character of the governments of the Partido dos Trabalhadores in Brazil (2003–2016) (Grinberg and Starosta, 2015).

After the peak of the phase of expansion between 2011 and 2013, the exhaustion of the commodities boom paved the way for a phase of relative stagnation, which after 2015–2016 became a contraction. Accordingly, populist political forms receded, giving rise to the resurgence of neoliberal political expressions. In contrast to the situation in the expansion phase, state policies of deregulation and withdrawal of the state and an increase in conservative narratives were more sharply displayed in Brazil than in Argentina. While the change in political direction in the case of the latter with the presidency of Mauricio Macri (2015–2019) took place through rule-based alternation of power, in Brazil it occurred by means of an institutional coup against the government of Dilma Rousseff (2011–2016) and the transition under Michel Temer (2016–2018) prior

to Jair Bolsonaro's (2019–present) rise to power. Despite their differences, these administrations were expressions of the same economic content. In both cases, faced with the shortage of ground rent to sustain industrial capital's accumulation, state policies were obliged to voice the need to cut back on transfers of social wealth to industry and, more generally, to shrink the scale of production. Those measures included devaluating national currencies, cutting export taxes (in Argentina), and reducing real wages.

CONCLUSIONS

In this work we have argued that the development of the automotive industry in Mercosur has a specific determination that distinguishes it from that of other regions. As empirical evidence, we have presented a series of international comparisons that show that production scales have been limited, technology lags behind, and, above all, levels of labor productivity have remained considerably below the norm in the world market. In addition, we have shown that in order to offset the "backward" production conditions compared with global standards, the multinational automotive companies participated in the appropriation of a portion of the relatively abundant ground rent available, primarily through the purchase of a specifically cheapened labor-power and the sale of production in protected regional markets. For this reason, we have maintained that integration into Mercosur, in contrast to other contemporary regionalization processes, functioned in those countries as a form of reproduction of the old modality of "inward-oriented" industrial development, now widened to a regional scale.

As a result, the expansion of automotive production in Mercosur only formally matched the growth of the sector in the emergent countries. While the underlying determination in the majority of these countries was the relocation of global production in order to take advantage of lower labor costs, in Mercosur the expansion was triggered by the abrupt increase in ground rent available for industrial capital's appropriation from the beginning of the 2000s. In turn, this allowed for a revival of the substitutive industrialization process, along with the advance of the (neo)populist and (neo)developmentalist political forms necessary for its deployment. This difference in the engine of growth was clearly evident once the price of raw materials took a downward trend. While in the rest of the emergents the 2010s saw continued growth, in Argentina and Brazil a ceiling was reached around 2013. Since then, the insufficiency of the ground rent to sustain the expansion of the valorization of capital has led to a new phase of stagnation and subsequent contraction of the automotive sector; it has even raised doubts about the interest of some companies in continuing their operations in the region. Accordingly, the sectoral analysis presented in this work has attempted to emphasize the essentially limited nature of the industrialization processes in the two major South American economies and the resulting fragility of the (neo)populist governments that epitomized their expansion. To a large extent, the conservative shift in the governments in Argentina (2015) and in Brazil (2016) can be seen as a consequence of the need, generated by the exhaustion of the commodities supercycle, to reverse the policy of funneling ground rent toward industrial capital.

NOTES

1. As Castells and Schorr (2015: 55–56) demonstrate, in Argentina between 2002 and 2013, participation of the automotive complex increased from 7.3 percent to 8.3 percent within the industrial sector, which in turn grew at an average annual rate of 7.1 percent. In Brazil, the automotive complex represents 20 percent of the industrial gross domestic product (GDP) (Marx and Marotti de Mello, 2014: 152).

2. Our update of the calculations provided by Iñigo Carrera (2007; 2008).

3. The role of soft public credit in the evolution of sectoral capital accumulation was particularly important in Brazil, where disbursements by the Brazilian Development Bank in the automotive sector (including auto parts) represented 75 percent of the total investment from 2003 to 2011. In Argentina, although the role of the public bank has been more modest, there was an attempt to sustain the sector following the 2009 global crisis with credits for production (through the "Bicentenario" program, which amounted to US$1.09 billion at subsidized rates) and for consumption (for example, the PROCREAUTO 1 and 2 plans) (see Barros and Pedro, 2012; Baruj et al., 2017: 53).

4. Given the greater availability of comparable international data, we are using the wages of the automotive complex as a whole (that is, including auto parts).

5. The data presented in this work have as base periods 1959–1972 for Argentina and 1968–1988 for Brazil in calculating the parity, according to the original calculations by Iñigo Carrera (2007: 35) and Grinberg (2013: 457), respectively.

6. From another perspective, Lema et al. (2018) estimate that, in Argentina, agrarian producers transferred to consumers an average of US$12 billion annually, or 30 percent of their income, between 2007 and 2016.

7. A more developed approach from this same perspective regarding the relations established between landowners and industrial capital—both foreign and national— can be consulted in Iñigo Carrera (2013: 172–177), Grinberg (2010: 185–202), and Grinberg and Starosta (2015: 236–272).

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