

Argentina's economic relations with China and their impact on a long-term production strategy

Marta Bekerman, Federico Dulcich and Pedro Gaité

Abstract

This article analyses how trade and investment relations between Argentina and China have evolved in the post-convertibility period. In the case of trade, Argentina's sales to China are more concentrated in the primary sector than its exports to other countries. Chinese competition has adverse effects on Argentina's domestic production only in specific sectors, but it has caused significant displacement of Argentine exports to Brazil. In the case of foreign direct investment, Chinese FDI is driven by a quest for natural resources and generates little productive or technological spillover. Thus, the trends of both bilateral trade and Chinese investments in Argentina (which are closely linked) in neither case are conducive to a long-term export diversification strategy.

Keywords

International trade, economic relations, investments, foreign direct investment, imports, exports, economic growth, production diversification, China, Argentina

JEL classification

F14, L60, O10, O14

Authors

Marta Bekerman is Director of the Centre for Economic Structure Studies (CENES) of the Faculty of Economic Sciences of the University of Buenos Aires (FCE/UBA), Argentina. Email: marbekerman@gmail.com.

Federico Dulcich is assistant researcher at the National Scientific and Technical Research Council (CONICET) at the General Pacheco Regional Faculty of the National Technological University, Argentina. Email: fdulcich@docentes.frgp.utn.edu.ar.

Pedro Gaité is a doctoral fellow of the National Scientific and Technical Research Council (CONICET) and a research fellow at the Centre for Economic Structure Studies (CENES) of the Faculty of Economic Sciences of the University of Buenos Aires (FCE/UBA), Argentina. Email: gaitepedro@gmail.com.

I. Introduction

China's unprecedented economic growth in the late twentieth century is why the extent of its influence in the international arena is debated widely in foreign policy circles. In this context, a key question is how the relationship between China and the Latin American economies is likely to evolve in the near future. Optimists view relations with China as a balm for economies that face tight external constraints, while more pessimistic authors argue that becoming unduly dependent on China is detrimental to a long-term strategy.

Against this backdrop, this article addresses the problems of the relationship between China and Argentina, from the standpoints of both foreign trade and investment. In the case of trade, it analyses the extent to which Chinese production is displacing both Argentina's domestic supply and its exports to Brazil; and it assesses the trade profile that is developing with China. With respect to investment, the aim is to analyse the trend of Chinese investments in Argentina, in terms of both volume and sector composition. In both cases, the aim is to shed light on the extent to which these relations could affect the development of a long-term production strategy.

Following a brief review of current knowledge in this area (section II), the article then analyses the impact of Chinese imports on Argentine industrial production serving the domestic market (section III), and the competition that this China-sourced supply generates in the Brazilian market (section IV), given its relevance for Argentina's external sales, especially in the case of manufactured goods. In terms of international trade, the article also analyses the impact of China's rise as a factor in the dominance of commodities in trade in the Argentine economy (section V). In investment, the aim is to identify the effect of Chinese foreign direct investment (FDI) entering the country, and to identify the resources that this investment seeks to exploit or develop; and it makes brief comments on currency swaps between the two economies (section VI). The article concludes with some final thoughts.

II. Brief analysis of current knowledge: China's trade relationship with developing countries and the strategies of its burgeoning outward FDI

As part of its vigorous export-oriented industrialization process which has seen a substantial increase in commodity imports — fuelling the internationalization of its enterprises in pursuit of the corresponding resources — China has become a major trading partner and direct investor in developing countries in Asia, Africa and Latin America.

As regards trade, the literature shows that the parts and components sector (mainly electronic intermediate goods) increased its share of China's imports from East Asia by more than 25 percentage points between the mid-1990s and the decade of 2000. On the export side, China has ceased exporting manufactured end-products to the region and now exports intermediate goods, especially machinery. This illustrates the extent to which regional value chains have developed as intermediate stages in exports to areas outside the region (such as the United States and the European Union), with China serving as the main export platform (Athukorala and Kohpaiboon, 2009).

In the case of Africa, in contrast, trade relations with China focus less on the deployment of value chains than on China's pursuit of African natural resources and the supply of manufactured goods to that continent. These exchanges were enhanced by direct investments by Chinese companies (mostly State-controlled) to develop various infrastructures in Africa, such as ports and roads (Eisenman, 2012).

In Latin America, China has become one of the region's main trading partners, accounting on average for 10% of the exports and 19% of the imports of the subregion's largest economies (see table 1). However, as in Africa, the composition of the two flows is very different: while Latin America exports primary products, food, beverages and basic metals almost exclusively, its imports consist mainly of industrial manufactures. The only exception is Mexico, which sells relatively little to China, thereby generating a very large bilateral trade deficit. This is because it does not have a commodity-biased export basket —its key exports to China include electronic circuits and vehicles (see Bekerman, Dulcich and Moncaut, 2013).

This wide technological disparity between the exports and imports of Latin American economies to and from China has led several authors to question whether this implicit specialization is forming a new type of centre-periphery relationship (Da Rocha and Bielschowsky, 2018).

In the case of Argentina, besides emphasizing the scant diversification of its exports to China, other authors consider China's impact in terms of improving Argentina's terms of trade. China's demand for commodities pushed up the price of exportable commodities while its industrialization process lowered the relative price of various manufactured goods imported by Argentina (López and Ramos, 2008). These authors highlight the opportunity that exists for exporting to China goods that are more differentiated than commodities. This is also mentioned by Girado (2011), who notes the potential for launching higher value-added products and services on the Chinese market, such as biotechnology, software and nuclear technology.

Foreign direct investment by Chinese firms is another facet of China's positioning as a global power, which needs to be analysed. Large Chinese firms have had various motivations for investing abroad: the pursuit of natural resources and energy, the quest for technological assets, knowledge and brands, competitive pressure in the domestic market, the circumvention of trade barriers, and the incidence of China's economic policies that promote outward FDI (Salidjanova, 2011; Peng, 2012).¹

As the vast majority of large Chinese firms are under State control, their FDI decision-making reflects the economic development objectives of the Chinese government itself, which acts as an instrument in this process alongside profit maximization (Salidjanova, 2011).

The Chinese government has deployed various incentives to promote foreign investment in priority sectors and activities. These include tax refunds, credit at subsidized interest rates, preferential access to foreign currency for outward FDI, and deregulation of the local financial system to allow commercial banks to finance mergers and acquisitions abroad (Salidjanova, 2011; Peng, 2012).

The pursuit of natural resources and energy is one of the key drivers of China's outward FDI, and is a major factor explaining its investments in Latin America (Da Rocha and Bielschowsky, 2018) and in Africa (Cheung and others, 2011). This quest is heavily stimulated by economic policy and national security guidelines, given the relative scarcity of such resources in its territory (Salidjanova, 2011). In this context, FDI is complemented by other instruments, such as the signing of bilateral or regional free trade agreements.

¹ The course of China's outward FDI has suffered several ups and downs since the 1980s. However, following the financial crisis in Southeast Asia, Chinese outward FDI intensified in the decade of 2000, under the *Go Out Policy* (also known as *Going Global Strategy*), to which its large firms adhered (Salidjanova, 2011).

Table 1
Latin America (6 countries): foreign trade with China, average for 2015–2017
(Millions of dollars at current prices and percentages)

Country	China			World			China/world (Percentages)		Exports to China – commodities, food, beverages and basic metals ^a (Percentages of total)	Imports from China – manufactured products ^b (Percentages of total)
	Exports	Imports	Trade balance	Exports	Imports	Trade balance	Exports	Imports		
Argentina	4 644	11 538	-6 895	57 682	61 004	-3 322	8	19	93	97
Brazil	39 410	27 135	12 275	198 034	153 249	44 785	20	18	88	94
Chile	17 489	14 811	2 678	63 870	62 332	1 538	27	24	89	93
Colombia	1 797	9 139	-7 343	34 834	48 306	-13 472	5	19	90	92
Mexico	5 652	71 220	-65 568	387 965	400 900	-12 935	1	18	37	93
Peru	9 170	8 582	588	38 072	37 979	92	24	23	98	92
Total selected countries	78 161	142 425	-64 264	780 457	763 770	16 686	10	19	86	93

Source: Prepared by the authors, on the basis of UN Comtrade [online] <https://comtrade.un.org/>.

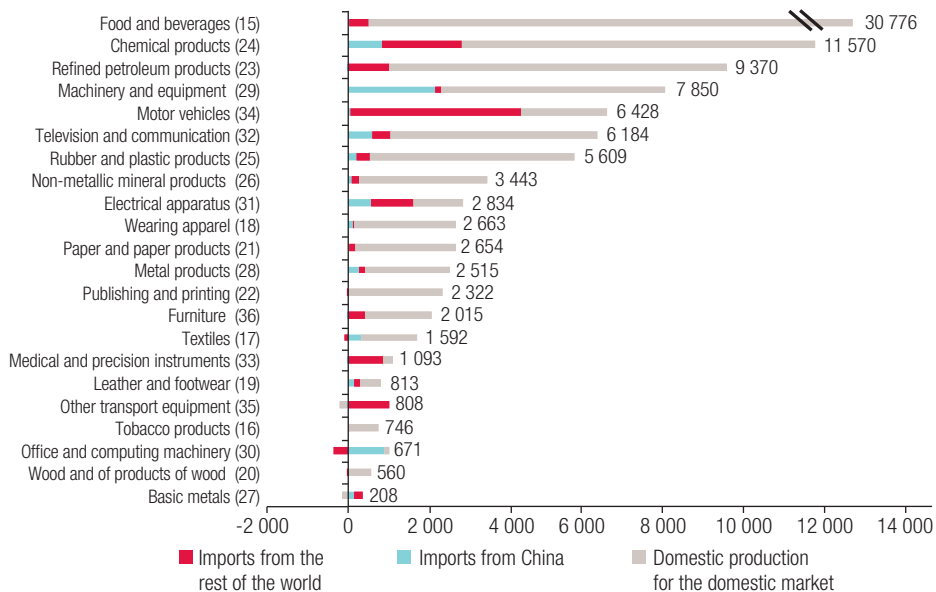
^a Includes chapters 01, 02, 05, 10, 11, 12, 13, 14, 15 and 27 of the International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 3.

^b Includes chapters 16 to 36 of the International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 3, except 27 (manufacture of basic metals).

III. Argentina's domestic market: are imports from China displacing the supply of domestic output?

During the more than ten-year-period analysed in this study, the Argentine domestic market has grown in all sectors, supplied largely by domestic production (see figure 1 and annex table A1.1). This was made possible by a set of policies that promoted the expansion of the supply of industrial sectors (Lavarello and Sarabia, 2015). However, both domestic consumption and industrial production trended heterogeneously throughout the period in question, with vigorous increases in the early years, followed by an almost total stagnation as of 2011, and even an outright recessionary process during 2016 (Bekerman, Dulcich and Gaite, 2018).

Figure 1
Argentina: variation in domestic consumption by source of supply,
between 2004–2006 and 2015–2017
(Millions of dollars at 2004 prices)



Source: Prepared by the authors, on the basis of National Institute of Statistics and Censuses, and UN Comtrade [online] <https://comtrade.un.org/>.

Note: The number of each product division, according to the International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 3, is indicated in parentheses. The bar corresponding to "Food and beverages" is off-scale, to make it possible to appreciate the variation in the other product divisions.

As shown in figure 1, the displacement of Argentine industrial production by imports from China is a phenomenon that is confined to specific sectors, albeit intense in some cases. The clearest example is the office and computing machinery sector (division 30 of the International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 3), in which China monopolized nearly all of the growth in domestic consumption between the periods 2004–2006 and 2015–2017. Other sectors in which Chinese imports gained relevance are machinery and equipment (division 29) and electrical appliances (division 31).

There are various reasons for these phenomena. In the case of machinery and equipment, China's revealed comparative advantage increased in the decade of 2000, and it displaced Latin American import

sources such as the European Union and the United States (Bekerman, Dulcich and Moncaut, 2014), in a tariff-free sector of the Argentine market (Lavarello and Sarabia, 2015). Electronic products, meanwhile, were a key component of China's great export expansion in the decade of 2000. Its increasing competitiveness was based on the technology transfer generated through the sector's FDI inflow to China, in which multinationals in the sector were required to establish joint ventures with Chinese partners (Rodrik, 2006). At the same time, in Argentina, this sector is mainly located in the province of Tierra del Fuego, which has an incentive regime that has failed to consolidate the sector's productive and technological capacities, and is mainly oriented towards the assembly of products for the domestic market, while importing the higher value-added components. In 2017, this regime was amended to allow duty-free imports of information technology (IT) products (Bekerman and Dulcich, 2017a).

Lastly, China has succeeded in capturing a small part of the growth of Argentina's domestic market for television and communications equipment (ISIC Rev. 3, division 32), chemical products (division 24) and textiles (division 17).

Sectors in which the growth of the domestic market has been monopolized by non-Chinese imports are medical and precision equipment (ISIC, Rev. 3 division 33), the automotive chain (division 34) and other transport equipment (railway locomotives, aircraft and others) (division 35). The automotive chain is governed by a major regulatory framework in the context of the Southern Common Market (MERCOSUR) —especially with Brazil, as specified in Economic Complementation Agreement No. 14— and therefore exhibits a highly regionalized structure. Moreover, while China has become the world's leading producer of motor vehicles, its output is sold almost entirely in the domestic market. As a result, its firms remain less globalized than their Western, South Korean and Japanese counterparts (Sturgeon and others, 2009).

IV. Displacement in third markets: the case of Brazil

Trade between Brazil and China grew strongly as from the 1990s, and China consolidated its position as Brazil's main trading partner in the decade of 2010, displacing both the United States and Argentina. This displacement was particularly detrimental to Argentina, since Brazil is the main market for its industrial exports, which benefit from MERCOSUR preferences.

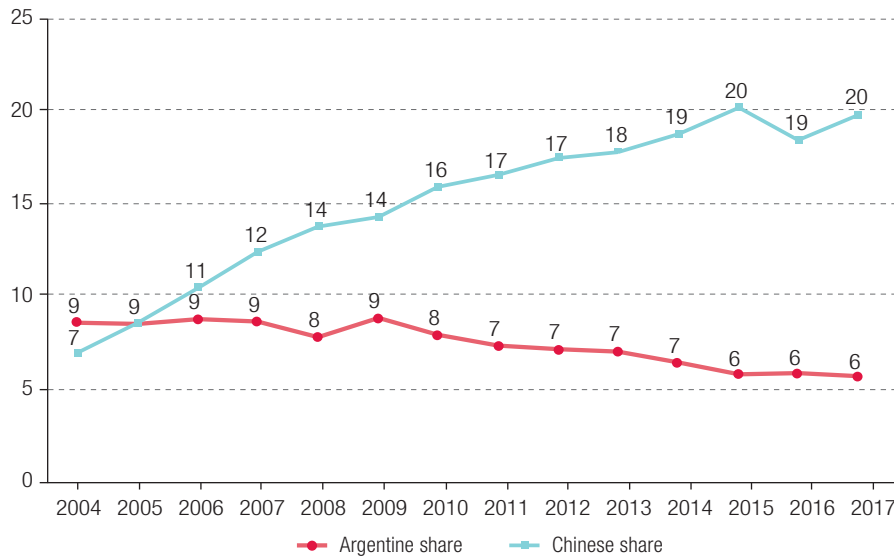
In 2004, Brazil's industrial imports from Argentina exceeded those sourced from China. However, owing to their rapid growth, Chinese imports increased their share of the Brazilian market from 7% in that year to 20% in 2017. In contrast, the share of industrial imports from Argentina remained more or less stable around 9% until 2009, before slipping to 6% in 2017 (see figure 2).

This reduction in Argentina's share of industrial exports to Brazil does not imply a reduction in absolute terms. In fact, between the periods 2004–2006 and 2015–2017, the exports in question grew by 21%. This is explained mainly by the vigorous expansion of Brazilian imports, based on macroeconomic policies that fuelled a real appreciation of its currency for much of the last 15 years (Bekerman and Dulcich, 2017b). Nonetheless, except in the case of the automotive industry, Argentina did not participate in that great expansion of the Brazilian market. In contrast, during the same period, China quadrupled its exports to Brazil; and even its exports to the rest of the world (excluding China and Argentina) grew by 64% (see annex table A1.2).

During the period analysed, the automotive industry generated practically all of the growth of Argentina's industrial exports to Brazil, increasing by US\$ 1.8 billion at constant 2004 prices (+131%), under the special regime in force between the two countries. The food and beverage industry also

experienced some growth, with exports increasing by US\$ 490 million (+81%). The rest of Argentina's industrial exports to Brazil declined by more than US\$ 1.1 billion at constant 2004 prices (-36%), despite slight growth in certain segments, such as metals and their by-products.

Figure 2
Argentina and China: share of Brazil's industrial imports, 2004–2017
(Percentages)



Source: Prepared by the authors, on the basis of UN Comtrade [online] <https://comtrade.un.org/>.

The steepest reductions between 2004–2006 and 2015–2017 occurred in petroleum (ISIC Rev. 3, division 23) and chemicals (division 24). In the first case, the reduction reflects factors endogenous to Argentina (Bekerman, Dulcich and Gaité, 2018), since it was not China but other suppliers that eroded Argentina's market share. In contrast, in the case of chemicals, Argentina's exports were clearly displaced by Chinese ones. In addition, there are other sectors in which Argentina's exports to Brazil decreased in absolute terms, but which do not exceed US\$ 100 million at constant 2004 prices. These are textiles (division 17), leather and footwear (division 19), electrical appliances (division 31) and medical and precision equipment (division 33). In each of these cases, the reductions in Argentina's exports are matched by robust growth in Brazilian imports from China, which became a generalized phenomenon at the sector level.

In short, the displacement of Argentina's industrial exports to Brazil by Chinese products is based on two key factors. The first is China's growing competitiveness in various industrial sectors. This had effects transcending the borders of the South American region, with profound impacts on the international division of labour (Bekerman, Dulcich and Moncaut, 2014).

Secondly, however, there are factors that are endogenous to Argentina itself. Since 2009, the real exchange rate has been clearly appreciating. In addition, export quotas were put in place for certain agricultural products and manufactured goods. Malt and wheat flour, for example, lost market share in Brazil even though China did not gain prominence in that sector (Bekerman and Dulcich, 2017b).

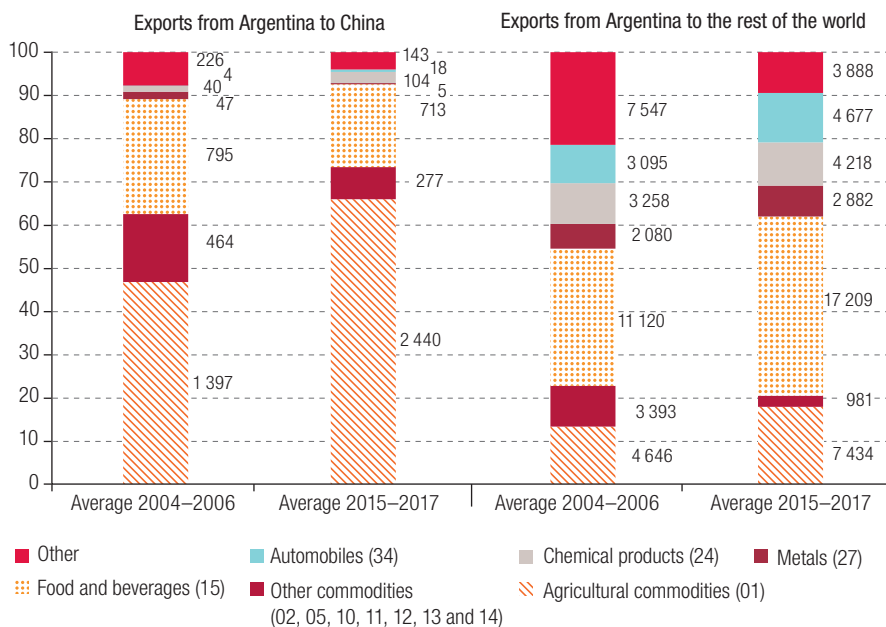
In addition, certain policies of indiscriminate trade protection (non-automatic licenses and advance import affidavits, among others) generated frictions in international trade and an anti-export bias against Argentine industry (Bekerman, Dulcich and Gaité, 2018). The key mechanisms generating this bias are price increases among imported inputs, the loss of scale resulting from the incentive to sell to the

domestic market, and the real appreciation stemming from decreased demand for foreign currency to pay for imports. This anti-export bias could explain how Argentine exports lost share in the Brazilian market because of competition not only from China but also from the rest of the world.

V. Dominance of commodities in exports to China relative to exports to the rest of the world

In the foreign trade sphere, another effect of the intensification of bilateral relations with China is the increased proportion of commodities in Argentine exports. Figure 3 shows that nearly 90% of Argentina's sales to China are commodities, of both agricultural and other origin (forestry, fishing, oil and mining), as well as food and beverages. In contrast, in its exports to the rest of the world, the primary product share is lower (around 60%), owing to the greater prominence of exports of processed metals (ISIC Rev. 3 division 27), chemical products (division 24) and the automotive chain (division 34).²

Figure 3
Argentina: average annual exports to China and the rest of the world,
by sector, 2004–2006 and 2015–2017
(Millions of dollars at 2004 prices and percentages)



Source: Prepared by the authors, on the basis of UN Comtrade [online] <https://comtrade.un.org/>.

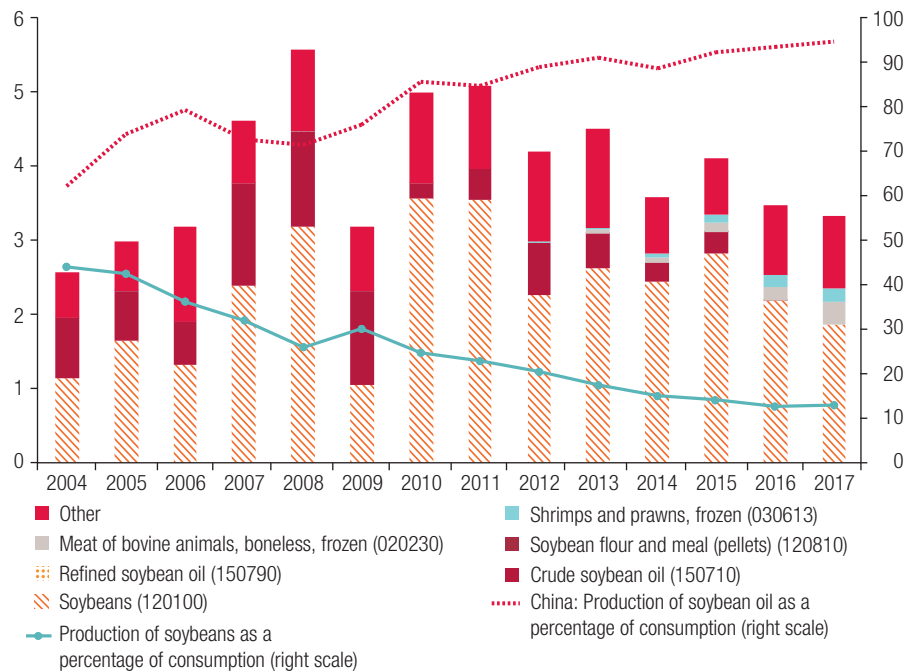
Note: The division of each product group according to the International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 3 is indicated in parentheses.

Moreover, the dominance of commodities in exports to China is increasing. In the three years 2004–2006, commodities of all origins accounted for just over 60% of Argentina's exports to China. Between 2015 and 2017, the share had increased by almost 10 percentage points, driven mainly by agricultural commodities (ISIC Rev. 3, division 01) at the expense of food and beverages, for which exports also declined in absolute terms.

² For further details and a more detailed sectoral breakdown of these variables, see annex table A1.3.

When analysing the composition of sectors that export to China, it is worth noting that agricultural commodities consist mainly of soybeans (code 120100 of the Harmonized Commodity Description and Coding System (HS), 2002 edition); while food and beverages are mainly represented by crude soybean oil (HS code 150710), in the first decade of the period under study, and by beef (code 020230) and shrimp and prawns (code 030613) in more recent years (see figure 4). In contrast, exports of refined soybean oil (code 150790) and soybean pellets (code 120810) are practically non-existent. A large fraction of the exports included in the “Other” category in figure 4 correspond to crude petroleum (Bolinaga and Slipak, 2015).

Figure 4
Argentine exports to China by product and incidence of the production of the Chinese soybean complex in its domestic consumption, 2004–2017
(Billions of dollars at 2004 prices and percentages)



Source: Prepared by the authors, on the basis of UN Comtrade [online] <https://comtrade.un.org/>, United States Department of Agriculture (USDA), and World Bank, World Development Indicators [online] <https://databank.worldbank.org/source/world-development-indicators>.

Note: The code of each product according to the classification of the Harmonized Commodity Description and Coding System (HS), 2002 edition, is indicated in parentheses.

The drastic reduction in exports of crude soybean oil since 2010, and their disappearance in 2016 and 2017, reflects tariff measures adopted by China. Oviedo (2012) notes that, in early 2010, the Chinese government changed the way in which import permits were issued for crude soybean oil from Argentina, the effect of which was to practically ban the product altogether. The rationale for the ban was that the Argentine oil did not comply with the Chinese standard GB 1535/2003, which came into force in October 2004 and set a maximum hexane residue limit. In early 2005, the two governments had reached an agreement that this standard would not affect Argentine exports; but in 2010 the dispute resurfaced and China started to restrict imports of crude soybean oil from Argentina on the basis of this standard. It even promoted imports from Brazil and the United States by not applying this requirement to them (Oviedo, 2012).

Speculation as to the reasons behind this change of attitude by the Chinese government has spawned various hypotheses. One of the arguments put forward is that, in the midst of the international

crisis, the Chinese government decided to defend its overall trade surplus (by restricting imports of various products) and to protect its growing domestic soybean oil industry in particular, which benefited from various incentives in China (Oviedo, 2012). Thus, China has replaced Argentine oil mainly with domestic production, which has considerably increased its share of the domestic consumption of soybean oil (see figure 4). However, its limited production of the commodity meant that, to increase the crushing of this oilseed, it was increasingly dependent on soybean imports, with the result that domestic production supplied a decreasing fraction of the domestic demand for it. In fact, soybean imports from Argentina increased because of the aforementioned restrictions on soybean oil imports, to provide raw material for China's growing domestic crushing sector (see figure 4).

Another view speculates that China's restrictions on soybean oil imports from Argentina were imposed as retaliation for the anti-dumping measures and import restrictions (non-automatic licences, among others) applied by the Argentine government to industrial products of Chinese origin, especially since the outbreak of the international crisis (Oviedo, 2012).

Specifically, Argentina's exports of crude soybean oil to China were sharply reduced as from 2010 and disappeared as of 2016.³ Argentina maintains its dwindling exports of food and beverages to China thanks to growing exports of boneless frozen beef (HS 2002 edition, code 020230) and frozen shrimp and prawns (code 030613).

The situation described above may have generated a turning point in bilateral relations, and demonstrates the asymmetry existing in the political and economic power of the two trading partners. Argentina has eschewed anti-dumping and tariff measures to avoid retaliation; it has signed investment and loan agreements at the provincial level, even though they are inconsistent with the national government's development plans; and it has granted geopolitical concessions, such as the construction of a space observatory in Neuquén by a Chinese State-owned firm with links to the military (Laufer, 2019). Other countries, such as Brazil, India and the Russian Federation have adopted protectionist measures against Chinese products without suffering the same reprisals (Miranda, 2015).

VI. Chinese productive and financial investments in Argentina: foreign direct investment and currency swaps

1. Analysis of the flow and stock of Chinese FDI in Argentina

Chinese outward FDI has grown significantly in recent decades, both globally and regionally. Asia is by far the leading recipient (accounting for 74.4% of the total), followed by Latin America and the Caribbean at 8.6% (Oviedo, 2017).

However, China's share in the total FDI stock in Argentina is even smaller at just 1% (see table 2), and well below its global presence as a foreign direct investor (5%).⁴ Nonetheless, its presence is growing,

³ In late 2018, Sinograin, a Chinese State-owned firm, gradually resumed imports of Argentine soybean oil, following the signing of an agreement with the Argentine Ministry of Agribusiness (Fundación INAI, 2018).

⁴ Data on Chinese FDI in Argentina, in both flow and stock terms, should be treated with caution, because there is a very clear difference between the two countries' official statistics. According to the Central Bank of the Argentine Republic, Chinese FDI in Argentina in 2006 totalled US\$ 30 million (see table 2); but the National Bureau of Statistics and the National Foreign Exchange Administration of China report just US\$ 6 million in that year. The reasons for this discrepancy include the fact that FDI from China to Latin America is sometimes channelled through "tax havens" (Oviedo, 2017), thereby generating a triangulation that makes it harder to identify the origin and destination of FDI in the statistics.

as net FDI inflows from China have gathered pace in recent years, especially since 2012 —attaining a large share in 2016 as net FDI inflows from other origins declined sharply.⁵

Table 2
Argentina: foreign direct investment inflow and stock, total and of Chinese-origin, 2004–2016
(Millions of dollars and percentages)

Year	Gross FDI liability position in Argentina ^a			Chinese share of total outward FDI stock worldwide (Percentages)	FDI flows in Argentina ^b			Chinese share of total FDI outflow worldwide (Percentages)
	Total	Stock of Chinese FDI in Argentina	Chinese share of total FDI stock in Argentina (Percentages)		Total	FDI flows from China to Argentina	Chinese share of total FDI inflow to Argentina (Percentages)	
2004	55 067	13	0.0	0.4	n.d.	n.d.	n.d.	0.6
2005	60 904	10	0.0	0.5	6 242	-3	-0.05	1.5
2006	66 479	44	0.1	0.5	6 934	30	0.40	1.3
2007	75 889	89	0.1	0.6	8 284	43	0.50	1.2
2008	79 151	110	0.1	1.1	12 139	30	0.20	3.3
2009	77 714	124	0.2	1.3	3 766	17	0.40	5.1
2010	85 097	191	0.2	1.5	10 871	75	0.70	5.0
2011	91 763	239	0.3	2.0	10 981	47	0.40	4.8
2012	98 208	575	0.6	2.3	16 844	332	2.00	6.4
2013	87 907	607	0.7	2.6	13 436	110	0.80	7.8
2014	89 939	726	0.8	3.5	11 476	126	1.10	9.8
2015	80 990	661	0.8	4.3	15 264	81	0.50	9.0
2016	74 922	618	0.8	5.1	395	49	12.3	13.3

Source: Prepared by the authors, on the basis of Central Bank of the Argentine Republic and United Nations Conference on Trade and Development (UNCTAD).

Note: n.d. = No data.

^a Represents the gross FDI liability position in Argentina classified according to the direct investor's country of residence. Includes liabilities for: (i) equity holdings of non-resident direct investors in resident firms; and (ii) debts of resident firms with non-resident related entities (whether parent companies or subsidiaries). The figures correspond to the values as of December 31 of the respective year.

^b Classified according to the direct investor's country of residence.

2. Sector composition of Chinese FDI in Argentina

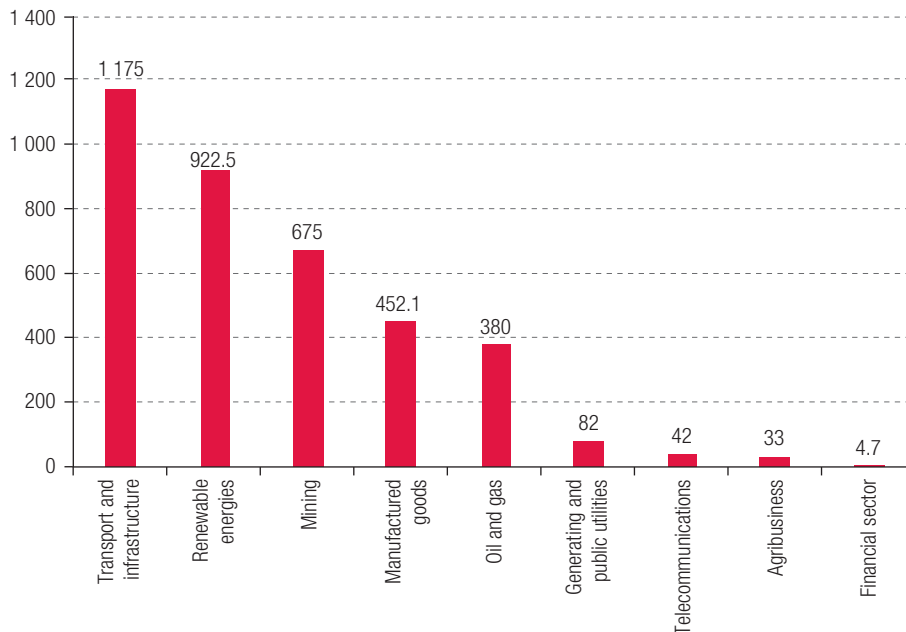
The fact that the sector composition of FDI has an impact on the indirect dissemination of the production and technology associated with the investments, makes it necessary to identify the main target sectors of Chinese FDI in Argentina.

Between 2015 and 2018, the transportation and infrastructure sector received the largest volume of announcements of Chinese investment in Argentina (see figure 5).⁶ However, this resulted from a single investment project —the award of a US\$ 1.175 billion tender to China Construction America to build roads between Luján (Province of Buenos Aires) and the city of Santa Rosa (La Pampa) (Infobae, 2022), under a public-private partnership contract.

⁵ Owing to the restrictions on profit repatriation and foreign exchange controls imposed by the Argentine Government in late 2011 (Damill, Frenkel and Rapetti, 2014), many foreign firms were unable to remit funds abroad and were forced to reinvest them in Argentina. The sharp drop in the total net FDI flow to Argentina in 2016, is explained by the fact that these restrictions were lifted and outward FDI increased significantly in that year (ECLAC, 2018).

⁶ Investment announcements do not always materialize. Between 2000 and 2008, large Chinese firms completed only 47% of their acquisitions abroad. One of the main reasons for this ineffectiveness is the political resistance that such acquisitions generate (especially since they usually involve State-controlled firms), which tends to occur mainly in developed countries (Peng, 2012).

Figure 5
Argentina: Chinese FDI announcements by sector, 2015–2018
(Millions of dollars)



Source: Prepared by the authors, on the basis of Argentine Investment and Trade Promotion Agency.

Apart from this announcement, investments are predominantly driven by the quest for natural resources and energy (the main resource that Chinese firms seek through their FDI in Latin America): renewable energies, mining, oil and gas.

Renewable energy investments included Goldwind's announcements of wind energy projects worth US\$ 525 million in 2017. In mining, with an emphasis on lithium, Ganfeng Lithium Group announced investments worth US\$ 675 million in 2018 over the next four years, to exploit two salt flats and construct two lithium carbonate plants in Salta and Jujuy. This metal is a key input of batteries for electronic products and electric vehicles produced in China (Goonan, 2012).

In addition, Chinese firms announced investments to produce industrial goods in Argentina, which surpass those of the oil sector (see figure 5). Nearly all of the announced investment amount is represented by two projects to produce electric vehicles: Dongfeng Motor Corporation announced an investment of US\$ 310 million, while BYD is planning an investment of US\$ 100 million to produce electric buses. This would be FDI that aims to circumvent trade barriers (see section IV), since the automotive chain is heavily protected by the MERCOSUR preferences and the Common Automotive Policy in force between Argentina and Brazil (Cantarella, Katz and Monzón, 2017).⁷ A priori, these investments have a much greater potential for productive and technological linkages than investments pursuing natural resources. Moreover, as Latin America is lagging behind in the transition to electromobility (Dulcich, Otero and Canzian, 2019), leveraging these Chinese investments could enable Argentina to position itself as a frontrunner in the region.⁸

⁷ China is the world's leading producer of electric vehicles (IEA, 2017); and it views the potential transition to electromobility as an opportunity to dispute the leadership of the automotive chain globally with Western, South Korean and Japanese companies (Wang and Kimble, 2011).

⁸ Making this process effective would entail coordinating various tools of economic and science-technology policy, while also amending the regulatory frameworks governing the activity (safety, environment, etc.), among other measures (Dulcich, Otero and Canzian, 2019).

In contrast, announcements of investments in the oil and gas and agribusiness sectors, which were the core of Chinese FDI in earlier years, have now been relegated to the background. China's strategy to secure oil supplies from Latin America is based on two instruments:⁹ firstly, on FDI from Chinese State-owned enterprises; and, secondly, on loans from Chinese public banks repayable in barrels of oil (Da Rocha and Bielschowsky, 2018). In Argentina, supply is ensured through FDI in domestic firms. The leading cases are those of China National Offshore Oil Corporation (CNOOC) and Sinopec in 2010.

China National Offshore Oil Corporation entered Argentina with a US\$ 3.1 billion purchase of 50% of the shares of Bidas, which operates a joint venture with British Petroleum. This firm produced 18.5% of Argentina's oil in 2014 (the country's second largest crude oil producer, after Repsol-YPF). For its part, Sinopec bought out the Argentine subsidiary of Occidental Petroleum Corp (OXY) for US\$ 2.45 billion (Schujovitzky, 2017).

In the case of soya, Chinese consumption increased from about 10 million tons in the early 1990s to 83 million tons in 2014 and is set to continue growing vigorously (Da Rocha and Bielschowsky, 2018). Domestic supply, however, will not be able to match this growth, owing partly to the relative scarcity of arable land.

The largest Chinese investments in the Latin American soya complex were made between 2014 and 2015, when the State-owned China National Cereals, Oils and Foodstuffs Corporation (COFCO) bought a 51% stake in Nidera (for US\$ 1.2 billion) and 100% of Noble Agri (for US\$ 2.25 billion). The former generates about 5% of Argentine soybean exports and the latter 10%. These acquisitions put COFCO's turnover on a par with the other four large enterprises that dominate the Latin American soya market: Archer Daniels Midland (ADM), Bunge, Cargill and Louis Dreyfus, known as the ABCDs (Wilkinson, Wesz Junior and Lopane, 2015).

COFCO's aim is to participate throughout the soya production chain, in other words to provide services and infrastructure, as the ABCD companies also do. These firms are mainly traders and provide storage, financing, inputs and technical assistance to local producers, in addition to carrying out grain and oilseed processing (Myers and Jie, 2015). Thus, if the Chinese FDI strategy were confined to the primary or secondary link in these chains, without investments in marketing, it would ultimately have to rely heavily on these large multinationals (Da Rocha and Bielschowsky, 2018).

This strategy also explains China's interest in improving infrastructure and logistics in the region. In Argentina, for example, the Chinese banks, China Development Bank (CDB) and Industrial and Commercial Bank of China (ICBC), lent US\$ 2.1 billion to Belgrano Cargas for the restoration and upgrading of railways and ports, with works being executed by a Chinese construction firm.

Lastly, in the case of soya, there are several incipient technology transfer projects involving collaboration between Chinese and Argentine enterprises. For example, the Argentine biotech firm, Bioceres, partnered with Beijing Dabeí Nong Biotechnology (BDN) and obtained approval in Argentina for a genetically modified soybean developed in China. In addition, BDN is handling the approval in the Chinese market of a genetically modified drought-resistant soybean developed by Bioceres (La Nación, 2019). It should be noted that biotechnology is widespread in Argentine agriculture, and the country has the potential to generate biotech developments on a national scale (Gutman and Lavarello, 2007).

⁹ This supply guarantee is not always effective, since Chinese firms do not export all of the oil under their control to their country of origin. Owing to the type of oil produced in Latin America (too heavy for Chinese refineries) and transportation costs, much of the production is exported to the United States or even to other Latin American countries (IEA, 2014).

3. Currency swaps between China and Argentina

The last aspect of the investment relationship between China and Argentina that needs to be analysed are currency swaps. These were first used in 2009¹⁰ as a hedge against uncertainty and potential international illiquidity following the crisis that broke out in 2008. At that time, the international reserves of the Central Bank of the Argentine Republic totalled US\$ 47 billion, and the instrument expired three years later having never been used. The situation was different in 2014, when a new swap for the equivalent of US\$ 11 billion was signed. By October 2015, the instrument had been fully executed, representing approximately 40% of international reserves (Almedia Gentile, Jara Musuruana and Tessmer, 2015).

A few days after taking office in December 2015, the new Argentine Government converted 20,000 yuan into US\$ 3.086 billion. The cost of the conversion entailed the payment of a Shibor rate¹¹ +400 basis points, as agreed on at the time of the swap, which corresponds to an approximate dollar financing cost for the Central Bank of the Argentine Republic of less than 4% (Banco Central de la República Argentina, 2015, cited in Oviedo, 2017, p. 25). Subsequently, after the loss of reserves resulting from the foreign exchange crisis suffered by Argentina in 2018, the Government agreed to a new swap with China for approximately US\$ 9 billion (Brenta and Larralde, 2018).

China has entered into swap agreements with different countries generally with a view to promoting the yuan as a means of international payment (Almedia Gentile, Jara Musuruana and Tessmer, 2015). Moreover, swaps facilitate bilateral trade by exchanging the foreign currencies to be used to pay for future imports. However, this function is vitiated if the yuan are subsequently exchanged for dollars, which entails a considerable conversion cost.

VII. Concluding remarks

In view of the Chinese economy's increasingly predominant role on the international stage, this article analyses the effect of trade and investment relations with China on Argentina's economy.

In the case of trade, Chinese imports have a limited impact in terms of displacing Argentine industrial production in its domestic market, since the phenomenon is confined to specific sectors.

The package of trade protection measures implemented after the international crisis (which the Cambiemos coalition government¹² substantially dismantled) enabled Argentine production to suffer less from the vicissitudes of Chinese competition. However, it generated an anti-export bias (through different transmission mechanisms) which rendered Argentine industry less competitive abroad.

The domestic market needs to be protected with a strategic industrial policy criterion that manages the tensions between trade protection and export incentives. Coordinating the public and private sectors, as well as the different industrial policy instruments (educational, science and technology, sectoral and foreign trade, among others), is essential in fostering international competitiveness. Similarly, sustaining a competitive real exchange rate is a necessary condition for undertaking a structural transformation that will make it possible to substitute imports and increase export capacity.

China's exponential rise in international trade caused Argentina to lose ground even in markets such as Brazil, where it enjoys MERCOSUR preferences; and, in fact, this one of the areas hurt most by Chinese penetration. However, Argentina lost market share in Brazil also because other countries

¹⁰ See communiqué No. 49.465 of the Central Bank of the Argentine Republic.

¹¹ Shanghai Interbank Offered Rate.

¹² The political coalition of which the presidential candidate was Mauricio Macri, who won the elections and took office as President of Argentina in 2015.

were able to take better advantage of the growth of that market. This may be due to an endogenous competitiveness problem in Argentina, possibly associated with an anti-export bias resulting from the generalized trade protection provided for industry.

In addition, the basket of products that Argentina exports to China is more heavily dominated by commodities than those that it sells to the rest of the world; and, in recent years, it has tended to become even more so. For example, exports of soybeans have gained ground to the detriment of soybean oil. The sharp drop in the latter is linked to the Chinese government's application of tariff protection measures, with the veiled and hypothetical aim of protecting its domestic soybean oil industry. In fact, this measure seems to be retaliation by China against the protectionist measures adopted by the Argentine Government, in a context in which the existence of asymmetric relations between both countries could hamper Argentina's domestic policies.

In terms of investment, Chinese FDI is significantly less intensive in Argentina than it is globally. Nonetheless, it is trending up, driven by its quest for natural resources that are relatively scarce in China, such as foodstuffs, oil and minerals. The motivation for Chinese FDI in Argentina differs from that of its FDI in developed countries, namely the acquisition of technology and brands, the search for new markets and the circumvention of tariff and para-tariff barriers to trade. Foreign direct investment for the production of electric vehicles to circumvent the protectionism generated by MERCOSUR and sectoral agreements with Brazil is a promising exception.

In short, China invests mainly in sectors that reinforce Argentina's existing international specialization—in commodities and the initial stages of their processing—based on its static comparative advantages. This effect is intensified by China's growing demand for these Argentine export products.

This begs the question as to the economic policy guidelines that would enable Argentina to reposition itself in the bilateral relationship and obtain greater economic benefits from it.

Firstly, to exploit the potential of MERCOSUR as a tool for structural transformation and export diversification, a regional political consensus needs to be reached (mainly between Argentina and Brazil, the bloc's two largest economies) to implement national policies vis-à-vis China and the rest of the world. In particular, foreign trade policies are needed that go beyond the common external tariff already agreed-upon. Such policies should aim to develop dynamic comparative advantages, with a view to achieving a pattern of intra- and extra-bloc specialization that is not guided by static incentives alone. They would also increase political bargaining power vis-à-vis China in response to possible claims and retaliation by it.

At the same time, the complementarity between Argentine agrifood production and Chinese demand could be used to leverage the technological development of the sector in Argentina, through the possibility of undertaking collaborative projects and transferring technology to China, an area in which incipient partnership experiences already exist between Argentine firms and their Chinese counterparts.

In addition, Argentina could attract Chinese FDI into sectors where it would have a greater productive and technological impact. An example would be investments for the production of electric vehicles, which would enable Argentina to position itself strongly in this sector at the regional level. The current context is probably auspicious for the establishment of Chinese automotive firms, since they have not yet globalized their installed capacity to any significant extent.

Aside from these opportunities, neither bilateral trade nor China's predominant investments in Argentina (which are closely linked) are conducive to a long-term strategy aimed at altering the country's international specialization and thus raise the technological level of its exports. In fact, they hinder Argentina's higher value-added exports to third markets, such as Brazil. The problem is that such a strategy, which Argentina needs for its economic development, might compete with (and no longer

complement) China's own structural change strategy. As currently configured, Argentina's trade and investment relations with China are uncondusive to a long-term production strategy. Accordingly, it is necessary to address the problem and seek objectives and instruments to transform these relations —by reducing their asymmetry— in a way that clearly benefits the economic development of both partners.

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Annex A1

Table A1.1

Argentina: imports by origin, and domestic production serving the domestic market, by sector, averages for 2004–2006 and 2015–2017
(Millions of dollars at 2004 prices and percentages)

	ISIC, Rev. 3	Imports from China				Imports from the rest of the world				National production for the domestic market			
		Average 2004–2006	Average 2015–2017	Absolute variation	Percentage variation	Average 2004–2006	Average 2015–2017	Absolute variation	Percentage variation	Average 2004–2006	Average 2015–2017	Absolute variation	Percentage variation
Food and beverages	15	9	31	23	267	457	949	492	108	24 521	54 783	30 261	123
Tobacco products	16	0	0	0	-	18	29	11	60	735	1 470	735	100
Textiles	17	26	343	316	1 197	583	482	-101	-17	2 545	3 922	1 377	54
Clothing	18	14	140	127	935	93	115	22	24	2 954	5 468	2 514	85
Leather and footwear	19	72	214	141	195	190	352	162	85	1 557	2 067	510	33
Wood and wood products	20	5	23	18	377	117	103	-14	-12	1 523	2 079	556	37
Paper and paper products	21	4	30	26	625	651	796	146	22	2 825	5 307	2 482	88
Publishing and printing	22	5	30	26	564	141	119	-22	-15	2 749	5 067	2 318	84
Oil refining	23	19	6	-12	-67	640	1 666	1 026	160	5 833	14 190	8 357	143
Chemicals	24	308	1 142	834	270	5 251	7 245	1 993	38	10 954	19 697	8 743	80
Rubber and plastic	25	68	264	196	287	868	1 220	353	41	4 315	9 375	5 060	117
Non-metallic minerals	26	31	131	100	324	254	427	173	68	2 933	6 102	3 170	108
Basic metals	27	74	225	151	203	1 293	1 514	222	17	6 642	6 478	-164	-2
Metal products	28	69	350	282	410	578	706	128	22	4 153	6 258	2 106	51
Machinery and equipment	29	418	2 568	2 150	514	3 088	3 252	164	5	4 037	9 573	5 537	137
Office and computing machinery	30	368	1 272	904	246	737	387	-351	-48	241	359	118	49
Electrical apparatus	31	129	710	582	452	929	1 958	1 029	111	1 730	2 953	1 223	71
Television and communications equipment	32	159	752	593	374	1 996	2 449	454	23	555	5 692	5 137	926
Medical and precision equipment	33	24	0	-24	-99	606	1 467	861	142	503	759	256	51
Automobiles	34	8	55	47	576	4 301	8 529	4 228	98	5 990	8 144	2 153	36
Transport equipment n.e.c.	35	47	0	-47	-100	696	1 712	1 015	146	310	149	-160	-52
Furniture	36	70	29	-41	-59	303	733	430	142	1 927	3 553	1 626	84
Total	Total	1 926	8 316	6 390	332	23 659	35 575	11 916	50	90 193	174 729	84 536	94

Source: Prepared by the authors, on the basis of UN Comtrade [online] <https://comtrade.un.org/>.

Table A1.2
Brazil: industrial imports by origin and sector, averages for 2004–2006 and 2015–2017
(Millions of dollars at 2004 prices and percentages)

	ISIC, Rev. 3	Imports from Argentina				Imports from China				Industrial imports from the rest of the world			
		Average 2004–2006	Average 2015–2017	Absolute variation	Percentage variation	Average 2004–2006	Average 2015–2017	Absolute variation	Percentage variation	Average 2004–2006	Average 2015–2017	Absolute variation	Percentage variation
Food and beverages	15	609	1 099	490	81	31	350	319	1 043	1 316	3 904	2 588	197
Tobacco products	16	0	2	2	-	0	0	0	-	3	18	16	588
Textiles	17	74	36	-38	-51	248	1 223	975	393	531	872	341	64
Clothing	18	5	11	5	99	109	776	668	615	100	516	416	416
Leather and footwear	19	43	3	-40	-94	133	302	169	127	151	393	242	161
Wood and wood products	20	56	3	-53	-95	6	39	33	572	35	72	38	108
Paper and paper products	21	91	97	5	6	6	116	110	1 843	780	699	-82	-10
Publishing and printing	22	13	2	-11	-86	5	32	27	570	97	114	17	18
Oil refining	23	986	226	-760	-77	202	146	-56	-28	2 724	8 080	5 356	197
Chemicals	24	1 262	1 052	-209	-17	653	3 271	2 618	401	13 141	24 569	11 428	87
Rubber and plastic	25	205	198	-6	-3	114	807	693	606	1 526	2 570	1 043	68
Non-metallic minerals	26	11	11	0	-4	63	340	277	437	488	704	216	44
Basic metals	27	150	167	17	11	116	826	709	609	2 929	3 840	911	31
Metal products	28	34	43	8	24	123	703	580	473	1 158	1 839	681	59
Machinery and equipment	29	184	187	3	2	496	2 956	2 461	496	7 156	9 636	2 481	35
Office and computing machinery	30	1	0	0	-46	1 042	3 175	2 133	205	2 755	3 006	252	9
Electrical apparatus	31	94	31	-62	-67	451	1 946	1 496	332	2 250	3 436	1 186	53
Television and communications equipment	32	18	14	-4	-22	987	1 942	955	97	3 961	2 957	-1 004	-25
Medical and precision equipment	33	45	21	-24	-52	312	567	254	81	2 510	3 739	1 229	49
Automobiles	34	1 376	3 177	1 801	131	45	529	484	1 080	3 607	6 485	2 878	80
Transport equipment n.e.c.	35	4	2	-2	-53	77	761	684	888	2 308	3 786	1 478	64
Furniture	36	5	4	-1	-18	179	695	516	288	288	618	330	115
Total	Total	5 266	6 386	1 119	21	5 397	21 501	16 105	298	49 812	81 853	32 041	64

Source: Prepared by the authors, on the basis of UN Comtrade [online] <https://comtrade.un.org/>.

Table A1.3

Argentina: share of China in total exports and sector shares in total exports to China and the rest of the world, averages for 2004–2006 and 2015–2017

(Percentages and percentage points, on the basis of dollars at 2004 prices)

ISIC, Rev. 3	Exports to China/exports to the world			Sector exports to China/total exports to China			Sector exports to the rest of the world/ total exports to the rest of the world			
	Average 2004–2006	Average 2015–2017	Absolute variation (Percentage points)	Average 2004–2006	Average 2015–2017	Absolute variation (Percentage points)	Average 2004–2006	Average 2015–2017	Absolute variation (Percentage points)	
Agricultural commodities (01)	23	25	1.9	47	66	18.6	13	18	4.7	
Other commodities (02, 05, 10, 11, 12, 13 and 14)	12	23	11.0	15	8	-7.2	10	2	-7.4	
Food and beverages	15	7	-2.8	27	19	-7.9	32	42	10.1	
Tobacco products	16	0	24	0	0	0.1	0	0	0.0	
Textiles	17	6	8	1	0	-0.3	1	0	-0.4	
Clothing	18	2	4	0	0	0.0	0	0	-0.2	
Leather and footwear	19	16	12	5	2	-2.9	2	1	-0.9	
Wood and wood products	20	2	17	0	0	0.2	1	0	-0.6	
Paper and paper products	21	4	7	1	1	0.1	1	1	-0.5	
Publishing and printing	22	0	0	0	0	0.0	0	0	-0.2	
Oil refining	23	1	1	1	0	-0.9	9	1	-7.6	
Chemicals	24	1	2	1	3	1.5	9	10	0.9	
Rubber and plastic	25	0	0	0	0	0.0	1	1	-0.4	
Non-metallic minerals	26	0	0	0	0	0.0	0	0	-0.2	
Basic metals	27	2	0	2	0	-1.4	6	7	1.1	
Metal products	28	0	0	0	0	0.0	1	0	-0.2	
Machinery and equipment	29	1	0	0	0	-0.1	2	2	-0.4	
Office and computing machinery	30	0	8	0	0	0.0	0	0	0.0	
Electrical apparatus	31	0	0	0	0	0.0	1	0	-0.4	
Television and communications equipment	32	5	1	0	0	-0.1	0	0	-0.1	
Medical and precision equipment	33	1	0	0	0	0.0	0	0	-0.2	
Automotive	34	0	0	0	0	0.3	9	11	2.6	
Transport equipment n.e.c.	35	0	0	0	0	0.0	0	1	0.3	
Furniture	36	0	0	0	0	0.0	0	0	-0.4	
Total	Total	8	8	0.4	100	100	0.0	100	100	0.0

Source: Prepared by the authors, on the basis of UN Comtrade [online] <https://comtrade.un.org/>.