SCENARIO AND PERSPECTIVES FOR THE NATIONAL PHARMACEUTICAL INDUSTRY

2021-2025

INDUSTRIAL CHAMBER OF ARGENTINE PHARMACEUTICAL LABORATORIES

2021

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I. INTRODUCTION

The local policies of most developed countries consider the pharmaceutical industry a strategic sector. This responds to facts such as scientific knowledge creation, technology, healthcare, and the production of high value-added assets, as well as the need to make all therapeutic innovations available to the population in order to improve national health standards.

The manufacturing and marketing of pharmaceuticals around the world is led by multinational companies present in most markets. In 2020, the global pharmaceutical market size, measured by the volume of sales of all companies in the main markets, amounted to USD 1.25 trillion, a value that grew by 6.7% in 2020 compared to the previous year. Global sales increased by 50.9%, rising from USD 831.4 billion in 2009[1]. Such growth rate implies a 3.8% annual accumulated rate for the period 2009-2020.

Market distribution of pharmaceuticals, by region, is as follows:

By region	2020		
	USD Bn	%	Variation
North America	557.4	44.4%	5.7%
Europe	250.2	19.9%	1.3%
AAA	197.4	15.7%	6.6%
Others	122.7	9.8%	12.4%
Japan	79.2	6.3%	0.4%
Latin America	47.6	3.8%	4.4%
Totals	**1,254.5**	**100.0%**	**6.9%**

AAA: Asia, Africa and Australia.

Source: IQVIA Argentina, ex-factory prices.

The production and consumption of pharmaceuticals in the world is highly concentrated in developed countries that lead the scientific research, innovation and development of new products. In fact, the United States and Canada account for 44.4% of the whole global pharmaceutical consumption, which reaches 70.6% if Europe and Japan are included.

[1] Based on IQVIA Argentina S.A. data.

The Latin American pharmaceutical industry accounts for 3.8% of the global pharmaceutical sales, which reached a total of USD 47.6 billion in 2020.

LATIN AMERICA PHARMACEUTICAL MARKET – In millions of USD

Country	2008	2010	2015	2020	Annual accumulated variation 2008-2020
Brazil	12,449	17,543	19,484	20,939	4.4%
Mexico	8,551	7,761	6,731	7,425	-1.2%
Argentina	3,242	4,018	5,852	4,791	3.3%
Colombia	1,609	1,805	1,652	1,550	-0.3%
Central America	1,072	1,181	1,758	2,176	6.1%
Chile	1,059	1,207	1,540	1,617	3.6%
Ecuador	679	825	1,172	1,552	7.1%
Peru	647	722	907	1,011	3.8%
Dominican Republic	351	421	501	736	6.4%
Uruguay	259	332	341	348	2.5%
Paraguay	195	199	284	376	5.6%
Bolivia	149	192	307	418	9.0%
Total	30,263	36,206	40,531	42,938	3.0%

Source: IQVIA Argentina; ex-factory prices (tenders excluded).
The Venezuelan market is not included due to distortion of currency prices.

The Latin American market exhibited an erratic behavior in the 2015-2020 five-year period, with a growth of 16.4% in 2017, a decrease of 3.6% in 2018 and another decrease of 5.6% in 2020; however, the 2020 market value is 5.9% higher than the 2015 value.

In 2020, the Latin American pharmaceutical market experienced a drop compared to 2019, which was decisively influenced by Brazil's market decline of 12.3% in dollars, while Mexico's market increased by 0.5% and Argentina's, by 2.5%. Likewise, variation in currencies' real exchange rates of the countries in the region also affected this behavior.

The annual accumulated variation of the Latin American total market, in value terms, was 3% for the period 2008-2020.

LATIN AMERICA PHARMACEUTICAL MARKET – In millions of units

Country	2008	2010	2015	2020	Annual accumulated variation 2008-2020
Brazil	1,632	2,067	3,402	4,743	9.3%
Mexico	933	915	815	1,112	1.5%
Argentina	511	587	729	690	2.5%
Colombia	296	311	391	429	3.1%
Central America	155	166	221	266	4.6%
Chile	224	223	280	309	2.7%
Ecuador	165	189	217	253	3.6%
Peru	101	105	142	193	5.6%
Dominican Republic	38	41	44	63	4.3%
Uruguay	64	72	88	92	3.0%
Paraguay	41	44	57	75	5.1%
Bolivia	25	27	38	44	4.8%
Total	4,186	4,747	6,424	8,269	5.8%

Source: IQVIA Argentina; ex-factory prices (tenders excluded).

In units, the Latin American total market expanded by a 8.7% during 2020, led by Dominican Republic (43.2%), Peru (26.2%), Central America (13.3%), Paraguay (38.1%), Bolivia (12.8%), Uruguay (12.2%), Ecuador (10.0%), Mexico (8.9%), Brazil (8.8%), Colombia (6.1%), Chile (4.8%) and Argentina (3.0%).

Between 2002 and 2020, the increase in consumption of units reached 90.4%, with the most notable increases being 168% in Brazil, 102% in Peru, 76% in Paraguay, 72% in Central America, 54% in Bolivia, 41% in Colombia, 39% in Chile, 30% in Argentina and 29% in Uruguay. The annual accumulated variation of the Latin American total market, in units, was 5.8% for the period 2008-2020.

Prospects for the drug consumption growth rate in the main world markets for the period 2021-2025 are as follows:

- World total: between 3% and 6% per year
- North America: between 3% and 5% per year
- Europe: between 1% and 3% per year
- Latin America: between 4% and 8% per year
- Japan: between 1% and 2% per year
- Asia, Africa and Australia: between 5% and 9% per year

II. THE PHARMACEUTICAL INDUSTRY IN ARGENTINA

II.1. Added Value, Sales and Employment Level

Argentina's national pharmaceutical industry (NFI) is highly competitive and technologically modern, which meets the strategic goal of ensuring an adequate supply of medicines at affordable prices, manufactured according to international standards. Within this context, Argentina is —altogether with countries such as USA, Japan, Germany and Switzerland— one of the few countries in the world where the locally-owned laboratories' presence and share in the domestic market are higher than the multinational laboratories.

Also, the pharmaceutical industry in Argentina is the third industrial sector in terms of the industrial added-value that it generates, only behind the oil refinery and the iron and steel sectors. In addition to this fact —not widely known—, it should be noted that this industry also has the highest research and development levels by sector, which generates high quality and professional job positions; it also plays a key role in the local health system since, by providing significant discounts and facilitating access to medications to social security beneficiaries.

The national accounts show that the added value of the pharmaceutical sector accounts for 4.9% of the total added value of the industry, while the share of the pharmaceutical sector in the gross production value of the whole Argentine industry is 3.3%, according to the latest economic census data.[2]

These characteristics, together with the key role the industry plays in keeping its competitiveness level in the domestic market and defending the country position in the world in terms of intellectual property, render it a strategic industry from the standpoint of national interests.

In 2020, the Argentine pharmaceutical industry sales in the domestic market amounted to 590.1 bn argentine pesos at retail prices,[3] which is equivalent to USD 8.3 bn. Those sales, at ex-factory prices, amounted to 336.3 bn argentine pesos, equivalent to USD 4.7 bn.

Sales in units amounted to 690 million for the year, with an increase of 1.35% compared to 2019, which partially reversed the decline experienced in 2019.

[2] INDEC, 2003.

[3] Source: IQVIA Argentina. It does not include sales to institutions, hospitals, public bids or "Plan Remediar" (a free medicine program).

TOTAL PHARMACEUTICAL MARKET

Year	In value		In units	
	Bn of USD	Variation	Millions of units	Variation
2003	1,545		346	
2004	1,808	17.0%	387	11.8%
2005	2,039	12.8%	405	4.7%
2006	2,285	12.1%	443	9.4%
2007	2,681	17.3%	485	9.5%
2008	3,242	20.9%	511	5.4%
2009	3,332	2.8%	535	4.7%
2010	4,018	20.6%	588	9.9%
2011	4,923	22.5%	651	10.7%
2012	5,577	13.3%	681	4.6%
2013	5,713	2.4%	711	4.4%
2014	5,201	-9.0%	689	-3.2%
2015	5,797	11.5%	729	5.8%
2016	5,327	-8.1%	736	1.1%
2017	6,117	14,8%	741	0,6%
2018	4,877	-20.3%	710	-4.1%
2019	4,704	-3.5%	681	-4.1%
2020	4,748	0.9%	690	1.4%

Source: IQVIA Argentina, ex-factory prices.

An analysis of the whole period mentioned above shows that the behavior of the accrued growth annual rates for the period 2003-2020 is as follows:

- Units sales: 4.1%
- Sales in USD: 6.8%
- Sales in argentine pesos: 28.8%

At present, the Argentine pharmaceutical market is being supplied by nearly 320 laboratories that manufacture a wide range of products to meet the domestic and foreign market demand.

The country has around 230 plants set up in its territory that manufacture medicinal specialties authorized by the health authority, of which 182 are nationally-owned companies. This represents a solid industrial foundation for production growth and expansion.

It is worth pointing out that these industrial plants are authorized and approved by the National Administration of Pharmaceuticals, Foods and Medical Technology (ANMAT), which enforces the Pharmaceutical Inspection Co-operation Scheme (PIC/S) guides to good manufacturing practices. Moreover, some of them have obtained certifications from health authorities of developed countries, such as the Food and Drug Administration, (FDA, USA) and the European Medicines Agency (EMA, European Union).

The offer of pharmaceutical products in Argentina is divided into three segments: innovative products, licensed products, and multisource products (similar brand name, similar non-branded and generics).

Brand name products account for, approximately, 90% of the market in value terms, and the remaining 10% is the similar non-branded share of products. Prescription drugs account for 88.1% share of the market in value terms, and 72.4% share in units; while the remaining 11.9% and 27.6% correspond to over-the-counter drugs (OTC).

Around 2,000 active ingredients and their combinations are used as critical supplies in drug manufacturing, and are imported in most cases. According to available data, the 20 most demanded active ingredients in Argentina account for nearly 30% of units sold to the domestic market.

The current direct and indirect labor force amounts to 43,000 and 120,000 employees, respectively. The rate of technicians and university graduates in different professions is relatively higher compared to other sectors.

The economy globalization was accompanied by a process of concentration of industrial plants and, as a result, many of them closed down. Latin America, and Argentina as part of the area, have not been excluded from that process, during which many foreign companies ceased their local manufacturing activities and concentrated their production in few and specific countries in Latin America. In the case of Argentina, these industrial plants were taken over by local companies, which kept the original production and employment sources.

During the recovery of the aggregate demand after the international economic crisis of 2008, the industry growth was evidenced by an increase of the installed capacity utilization, and the implementation of different investment plans regarding state-of-the-art technology, machinery and production plants, in order to strengthen the presence in new markets and, at the same time, supply the continually growing local demand, despite having slowed down in the last years.

Regarding the structure of the drug domestic consumption, in terms of their local manufacturing and imports, 62% is currently being supplied by locally-manufactured drugs and the remaining 38% by imported drugs. However, an analysis of the historical evolution of such share shows that imports were significantly lower in the 90's. In fact, imports accounted for only 6.9% of the total sales in 1994 while, in 2000, it had grown by 19.3%. Therefore, the share of imported medicines in the Argentine market has grown five times in the last 27 years.

Should this trend continue, a significant amount of the positive results that this sector generates for the rest of the economy will improve, since the economic contribution provided by the local production is much higher than that of imports in terms of employment, tax collections, currency and technological progress.

In fact, it is to be noted that the access to medicines for the population would increase if a higher share of the domestic market were supplied by local production, since the price of imported drugs is growing, in particular, due to the imports of innovative biotechnological medicines (monoclonal antibodies) recently introduced in the market, which treat critical and special pathologies. Therefore, it appears to be important for the public health policy to encourage the local manufacturing of biological and biotechnological medicines, thus reducing the cost of treatments, while improving their access.

Argentina's pharmaceutical market evidences some differences as compared to the characteristics observed internationally, in particular, in Latin America, due to the higher presence of locally-owned companies. In 2020, in Argentina, the pharmaceutical laboratories owned by local entrepreneurs account for 68.4% of the units sold in the market and 67.9% of the sector turnover. Foreign companies commercialize 31.6% of the units sold and 32.1% of sales in value terms. Typically, these companies are branches of multinational corporations, mostly North American, German or Swiss.

II.2. Pharmaceutical Foreign Trade

II.2.1. Trade Balance

In 2020, pharmaceutical exports amounted to USD 714.7 million, a 1.9% decline as compared to 2019. However, the exports rate in 2020 was 168% higher than the 2003 value, an accrued annual rate of 6%. It is worth pointing out that, in 2015, exports reached their higher level in history: 1,049 million; this situation was caused by the loss of the Venezuelan market, the impact of taxes on exports and the high international competitiveness in non-traditional markets. In spite of that, local pharmaceutical laboratories advance in their plans of international penetration in different target countries, with the encouragement of export duties elimination and the increase in export refunds for finished chemical synthesis pharmaceuticals, effective as of October 2020.

In terms of imports, they accounted for USD 2,144 million in 2020, a 2.6% increase as compared to the previous year. This value is 351% higher than in 2003, evidencing an accrued annual rate of 9.3%, consistent with the steady increase in participation of imported pharmaceuticals in local market.

ARGENTINA: EXPORTS AND IMPORTS OF PHARMACEUTICALS

Year	EXPORTS		IMPORTS	
	Millions of USD	Variation	Millions of USD	Variation
2003	266.4		475.3	
2004	344.8	29.4%	545.1	14.7%
2005	351.2	1.9%	624.8	14.6%
2006	434.3	23.7%	762.7	22.1%
2007	510.8	17.6%	938.8	23.1%
2008	627.7	22.9%	1,140.7	21.5%
2009	658.2	4.9%	1,207.9	5.9%
2010	689.0	4.7%	1,566.0	29.6%
2011	806.3	17.0%	1,790.4	14.3%
2012	902.2	11.9%	2,091.9	16.8%
2013	912.2	1.1%	2,138.0	2.2%
2014	845.9	-7.3%	2,147.7	0.5%
2015	1,048.8	24.0%	2,400.2	11.8%
2016	907.9	-13.4%	2,157.3	-10.1%
2017	744.2	-18.0%	2,381.0	10.4%
2018	731.0	-1.8%	2,372.0	-0.4%
2019	728.0	-0.4%	2,090.0	-11.9%
2020	714.7	-1.6%	2,144.0	2.6%

Chapter 30 of the MERCOSUR Common Nomenclature (Nomenclatura Común del MERCOSUR, NCM), "Pharmaceutical Products."
Source: INDEC.

As a consequence of the flows of exports and imports, the sector shows, in historical terms, a negative trade balance, which increased until reaching a value of USD 1,361 million in 2019, although it is lower than the 2018 record of USD 1,641 million.

However, the evolution of the trade exchange of the sector is largely influenced by the variations in prices, as shown in the following chart.

EXPORTS AND IMPORTS OF PHARMACEUTICALS

Average prices (USD/Ton)

Year	Exports in tons	Imports in tons	Exports average prices USD/ton	Imports average prices USD/ton
2005	17,325	11,841	20,283	52,748
2006	20,879	12,504	20,896	60,995
2007	21,632	15,128	23,699	62,043
2008	22,370	16,004	28,058	71,275
2009	24,150	16,125	27,308	74,908
2010	25,080	20,847	27,641	75,100
2011	26,562	23,904	30,500	74,900
2012	28,629	24,359	31,541	85,702
2013	30,926	25,016	29,500	85,464
2014	30,534	24,756	27,880	86,804
2015	30,709	23,379	34,153	102,936
2016	30,348	30,569	29,916	70,576
2017	29,956	25,588	24,843	93,051
2018	32,927	22,530	22,203	105,374
2019	35,418	27,994	20,578	74,644
2020	31,886	27,126	22,414	79,035

Source: INDEC. Chapter 30 of the NCM.

In 2020, the price of the exported ton was USD 22,414, compared to USD 79,035 of the imported ton of pharmaceutical products.

While exports measured in quantities show a drop of 10.0 % in 2020, the average price of the exported ton grew by 8.9%. In the case of imports, the volume showed a reduction of 3.1% and the average price of the imported ton increased by 5.9%, compared to the previous year.

In 2015, the average price of exports had a maximum of USD 34,153, decreasing in the following years until reach the value indicated for 2020. The maximum average price of the imported ton was reached in 2018, with a value of USD 105,374.

II.2.2. Imports and Exports Structure

The accrued annual growth rate (9.3%) for imports is higher than the respective export rate (6.0%) for the period 2003-2020, which leads to an increase of the trade deficit during the last decade. However, the analysis of imports structure shows that each kind of product has a different behavior.

The table below shows the structure of imports and exports, broken down by biological/biotechnological medicines and traditional medicines:

PHARMACEUTICAL IMPORTS/EXPORTS STRUCTURE
In millions of USD

	2003	2005	2010	2015	2016	2017	2018	2019*	2020*
Exports									
Biological/Biotechnological Medicines	20	26	53	152	85	86	78	82	82
Traditional Medicines	247	326	640	897	823	658	655	649	633
Total	266	351	693	1.04 bn	908	744	731	729	715
Imports									
Biological/Biotechnological Medicines	50	102	420	826	702	784	749	646	680
Traditional Medicines	425	522	1.14 bn	1.58 bn	1.45 bn	1.59 bn	1.62 bn	1.44 bn	1.46 bn
Total	475	625	1.56 bn	2.40 bn	2.15 bn	2.38 bn	2.37 bn	2.09 bn	2.14 bn
Trade Balance									
Biological/Biotechnological Medicines	-31	-76	-367	-674	-617	-698	-671	-564	-598
Traditional Medicines	-178	-197	-506	-683	-633	-939	-970	-794	-831
Total	-209	-273	-873	-1.35 bn	-1.25 bn	-1.63 bn	-1.64 bn	-1.35 bn	-1.42 bn
Biological/Biotechnological exports /	7.3 %	7.4 %	7.7 %	14.5 %	9.4 %	11.6 %	10.7 %	11.2 %	11.54 %
Total exports									
Biological/Biotechnological Imports /	10.6 %	16.4 %	26.8 %	34.3 %	32.5 %	32.9 %	31.6 %	30.9 %	31.7 %
Total Imports									

Source: INDEC AND CUSTOMS.

Biological/Biotechnological medicines: comprise the following 8-digit items of the NCM until 2017:2937.11.00, 3002.10.24, 3002.10.26, 3002.10.29, 3002.10.36, 3002.10.38, 3002.10.39, 3004.39.11, 3004.39.19, 3004.39.29. From 2018 onwards, it comprises the following 8-digit of the NCM in 2018: 30.021.410, 30.021.223, 30.021.300,0, 30.021.900, 30.021.510, 30.021.239, 30.021.490, 30.021.590, 30043929, 29371100, 30.021.520, 30043911 y 30043919.

It can be noted that imports of biological and biotechnological medicines increased by a 1,25% between 2003 and 2020, while imports of traditional medicines grew by 244% in the same period. The accrued growth annual rates for the mentioned period are 16.6% and 7.5%, respectively.

Unlike pharmochemically-based drugs, which active ingredient is a substance obtained through chemical synthesis, the manufacture of biotechnological medicines is based on biological matter, i. e., live matter, which is genetically modified and intended to the treatments of complex diseases.

The significant increase in the imports of biotechnological medicines is related to the growing need to purchase innovative products to treat complex and expensive treatment pathologies (cancer, multiple sclerosis, rheumatoid arthritis, etc.). As a consequence of such increase, the share of biotech drugs in the total imports of pharmaceutical products has been gradually growing during the last 17 years, from 10.6% in 2003 to 31.7% last year.

The introduction of a medicine in the international market involves a long-term process, from obtaining the approval for marketing from the recipient country health authorities to the product gradual participation within its segment. It should also be taken into account that, in an inflationary economy and with periods of relative delay in the exchange rate, it is not possible to transfer the increase in domestic costs to export prices. Thus, it becomes clear that the industry has made a remarkable effort in its long-term goal to expand production and exports with the aim of consolidating its position in the international pharmaceutical market.

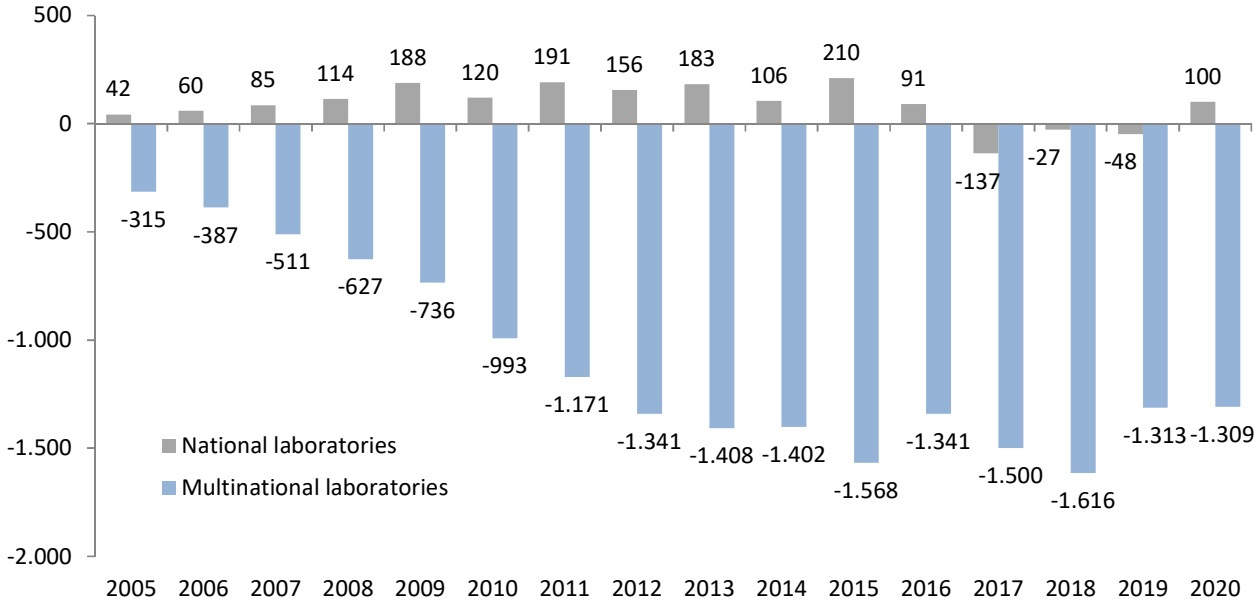
With regard to the pharmaceutical exports, drugs from biological and biotechnological origin have increased by 319% between 2003 and 2020, while exports of chemical synthesis drugs increased by 156% in the same period. The accrued growth annual rates for the mentioned period are 8.8% and 5.7%, respectively. It is worth pointing out that, between 2015 and 2020, biological/biotechnological drugs exports remained at the same level, while those of chemical synthesis decreased by 29% due to the intense international competition within the market of similar and generic drugs.

II.2.3. Evolution as per Capital Origin

Another way of analyzing the trade evolution of the sector consists in differentiating imports and exports as per the laboratories' capital origin. Such analysis evidences that locally-owned pharmaceutical companies accounted for a commercial surplus until 2016, while multinational corporations showed a strong deficit. In 2017, 2018 and 2019, locally-owned laboratories showed a commercial deficit in the international trade of pharmaceutical products, but returned to show a surplus in 2020. Likewise, in 2020, the multinational laboratories showed a deficit that reached USD 1,309 million, while locally-owned laboratories exhibited a surplus of USD 100 million. It should be clarified that, last year, and as a consequence of the needs arising from the COVID-19 pandemic, there were government imports that amounted to USD 221 million.

DRUG EXCHANGE TRADE BALANCE BY LAB CAPITAL ORIGIN

Values in millions of USD



Source: Own elaboration based on Customs and INDEC data.

Drug exports by locally-owned laboratories reached USD 515.5 million in 2020 (72.1%), while the multinational companies reached USD 199.2 million (27.9%).

In the period analyzed in the following chart, there was an increase in the local laboratories' share in the total exports of medicines. While in 2006 locally-owned laboratories accounted for 32% of the country's NCM chapter 30 exports, such share rose almost by 72% in 2020; on the other hand, the multinational companies' exports share of pharmaceutical exports fell from 68% in 2006 to 28% in 2020.

PHARMACEUTICAL EXPORTS

Structure as per corporate capital - Annual variations

Year	LABORATORIES				Total	
	National		Multinational			
	USD Million	Variation	USD Million	Variation	USD Million	Variation
2005	114.0		237.2		351.2	
2006	137.6	20.7 %	298.0	25.6 %	435.6	24.0 %
2007	166.5	21.0 %	346.0	16.1 %	512.5	17.7 %
2008	205.0	23.1 %	423.0	22.3 %	628.0	22.5 %
2009	298.4	45.5 %	361.6	-14.5 %	660.0	5.1 %
2010	362.9	21.6 %	330.1	-8.7 %	693.0	5.0 %
2011	467.2	28.7 %	342.8	3.8 %	810.0	16.9 %
2012	518.6	11.0 %	384.4	12.1 %	903.0	11.5 %
2013	546.0	5.3 %	367.0	-4.5 %	913.0	1.1 %
2014	512.6	-6.1 %	338.7	-7.7 %	851.3	-6.8 %
2015	729.8	42.4 %	319.0	-5.8 %	1,048.8	23.2 %
2016	621.2	-14.8 %	286.4	-10.2 %	907.9	-13.4 %
2017	464.9	-25.2 %	279.3	-2.5 %	744.2	-18.0 %
2018	529.4	13.9 %	201.7	-27.8 %	731.0	-1.8 %
2019	502.3	-5.1 %	226.5	12.3 %	728.8	-0.3 %
2020	515.5	2.6 %	199.2	-12.1 %	714.7	-1.9 %
2020/05 Increase:	352.2 %		-16.0 %		103.5 %	
Annual accrued growth rate:	10.6 %		-1.2 %		4.9 %	

Source: Customs and INDEC data.

It is worth pointing out that total export of pharmaceuticals increased by 103.5% during the period 2005-2020, while exports by local companies grew by 352.2%, and those of foreign companies fell by 16% during the same period.

According to the export values included in the chart above, the exports annual accrued growth rate of local pharmaceutical laboratories was 10.6%, against -1.2% for the multinational laboratories for the period 2005-2020. The annual accrued growth rate for total exports was 4.9%, for the same period.

II.2.4. Main Destinations and Origins

Uruguay became the main destination for pharmaceutical products export in 2020 with 16.4% of total exports (USD 117.1 million), leaving Brazil on the second place. Brazil is the second market in order of importance, with exports for USD 84.6 million (11.8%) and Paraguay is the third destination with USD 43.2 million (6%).

During 2020, our pharmaceutical exports to MERCOSUR countries reached 34.3%, while all the Latin American countries together received 64.6% of those exports. The United States and Canada receive 6.4% of exports, and Asian countries, 13.1%, while China in particular, 3.9%.

Regarding the origin of pharmaceutical products imports, in 2020, the ranking was led by Germany, with 17.2% (USD 367.8 million), followed by the United States, with 14.3% (USD 305.9 million) and Italy, with 9.3% (USD 198.7 million).

If we analyze the composition of imports by region, we can observe that 66.7% comes from European countries and 17% from the United States and Canada (this percentage raises to 19.1% if Puerto Rico is included).

II.3. Pharmaceutical Industry Contribution to Tax Income

In 2020, the contribution of the sector to the Treasury was approximately 79.5 bn argentine pesos in local taxes. This amount implied a 41.1% increase in the annual comparison, and reached 1.2% of the national tax revenues. Within this total, the value-added tax (VAT) accounted for 53.7%, which grew at a higher rate than the total average, while the income tax accounted for 18.2%, and social security taxes, 9%. In 2020, customs revenues (import tariffs and export duties) increased 28.8% compared to the previous year. Other contributions are the tax on checks, with a 5.7% share, and personal property tax, which, despite a strong increase in 2020, still does not have a significant impact on the total tax collection.

ESTIMATION OF TAX COLLECTION BROKEN DOWN BY TAX ITEM
PHARMACEUTICAL INDUSTRY - IN MILLIONS OF ARGENTINE PESOS

Tax	2014	2015	2016	2017	2018	2019	2020
VAT	6,042	7,697	11,298	11,543	18,727	28,916	42,707
Income Tax	3,302	4,260	6,092	8,034	7,266	10,810	14,464
Social Security	1,354	1,800	2,431	3,125	3,901	5,321	7,183
Import Tariffs	991	1,265	1,832	2,296	3,911	5,916	8,883
Tax on Checks	706	899	1,403	1,734	2,210	3,094	4,570
Minimum presumed income tax	222	281	406	320	257	0	0
Withholdings	173	244	0	0	770	2,303	1,701
Personal property tax	2	2	3	4	2	4	29
Total	**12,792**	**16,448**	**23,465**	**27,056**	**37,044**	**56,365**	**79,537**

Source: Own elaboration based on official data.

The total tax burden of the industry is distributed by income equivalent to 58% provided by national laboratories and 42% provided by multinational laboratories.

II.4. Technical Health Regulations

The manufacture of pharmaceuticals is considered a clean activity, as its environmental impact is very low.

The Argentine pharmaceutical industry complies with the highest quality standards recommended by the World Health Organization (WHO) in terms of good manufacturing and drug control practices. In fact, the National Administration of Pharmaceuticals, Foods and Medical Technology (Administración Nacional de Medicamentos, Alimentos y Tecnología Médica, ANMAT) has followed WHO and PIC/S (Pharmaceutical Inspection Co-operation Scheme) recommendations on Good Manufacturing and Control Practices (GMP). In 2018, the ANMAT enforced its provision 3827, which includes the latest guidelines of both organizations in this area.

As of January 1, 2008, the ANMAT has been accepted as a member of PIC/S, becoming the first Latin American country to be a member of such cooperation plan on good manufacturing and control practices, applied by the main European and Asian health agencies.[4]

In December 2009, The Pan American Health Organization (PAHO) certified the ANMAT as a Health Authority of reference, and it became the first Latin American health agency to obtain such certification, which has been renewed in December 2018

[4] For a full member list, visit www.picscheme.org.

At the beginning of 2019, ANMAT achieved the status of observer member of ICH (International Conference of Harmonization), a status that the health authorities from Colombia, Cuba and Mexico already have.

In 2020, ANMAT also obtained the member status in the International Coalition of Medicines Regulatory Authorities (ICMRA). Likewise, ANMAT participates in different working groups of the International Pharmaceutical Regulators Programme (IPRP).

There is, then, the challenge to continue generating business opportunities in the country and abroad, where the quality of Argentine medicines is widely acknowledged and valued. Therefore, in order to compete at a global scale, it is essential to encourage investments in new industrial plants, and refurbishment, extension and technological updating of the existing ones.

ARGENTINA'S KEY PHARMACEUTICAL SECTOR DATA

1) Structure	2020
Laboratories	354
Manufacturing plants	230
* Locally-owned laboratories	182
* Multinational laboratories	48
Labor force	43,000
Average number of employees per laboratory	187
Utilization of installed capacity	80%
Turnover of the top ten laboratories/total turnover(*)	49%
Industry GPV/2423 GPV(**)	3.30%
Industry GVA/2423 GVA(**)	4.90%
2) Performance	**2020**
Sales growth in units (2020-2003 annual accrued rate)	4.10%
Sales growth in USD (2020-2003 annual accrued rate)	6.80%
Turnover (current argentine pesos in billions) (***).	336.3
Imports Chapter 30 NCM (millions of USD)	2,144
Percentage fluctuation 2020/2003	351%
Exports Chapter 30 NCM (billions of USD)	715
Percentage fluctuation 2020/2003	169%
Trade balance Chapter 30 NCM (millions of USD)	-1,429

(**) GPV: gross production value. GVA: gross value added.
(***) Ex-factory prices (IQVIA Argentina)

III. SCENARIO AND PERSPECTIVES FOR THE ARGENTINE PHARMACEUTICAL INDUSTRY

This section provides a forecast on the pharmaceutical sector, and takes into account the following pivotal items: investment, financing, exports and R&D.

The aim is to identify the typical characteristics of the sector which may exert an influence on its competitiveness, such as possibilities, strengths and weaknesses, as well as opportunities for development and future threats faced by the activity.

Strengths

Among the main identified strengths, we can highlight the high versatility and dynamics that have made it possible for this sector to overcome the successive economic crises of the Argentine economy.

The Argentine pharmaceutical sector has an important comparative advantage over the other nations of the region and a large number of the emerging world markets: it is one of the few that concentrate over 50% of the production and sales in domestically-owned companies.[5] In Argentina, this percentage has reached 67.9% in 2020, measured in sales values, and 68.4%, if measured in units.

For the last eleven years, the manufacture of biotechnology medicines in local plants has experienced a significant boost as a result of the installation of local plants to produce biotech active ingredients, the manufacture of the first biosimilar monoclonal antibodies in Latin America (rituximab y bevacizumab) within country, the growth of first-generation biotech drugs production (interferon, erythropoietin, growth hormone and others), and the exports of these to non-traditional markets.

Argentina has locally-owned laboratories that have become multinationals, with subsidiaries in most of the Latin American countries, USA, Europe and some Asian countries.

The pharmaceutical industry has managed to "…significantly increase work productivity, becoming one of the industrial sectors that allocate the highest amount of its income to R&D efforts and one of the most intensive sectors in terms of qualified workforce."[6]

[5] González García, Catalina de la Puente, Sonia Tarragona, *Medicamentos. Salud, Política y Economía*, 2005, Isalud, page 106:"In the domestic market, local labs account for over a 50% share in the local industry's total sales. This situation is atypical and almost unprecedented for developing countries, and only occurs in those with major world manufacturing companies, such as the United States, Japan and Germany."

[6] González García *et al.*, 2005, pages 103-104.

The Ministry of Science, Technology and Productive Innovation's National Office of Scientific Information (Dirección Nacional de Información Científica) publishes data from its survey on R&D (Encuesta sobre Investigación y desarrollo, ESID) addressed to the corporate sectors, whose latest edition corresponds to 2019.

Private companies spent 35.97 bn argentine pesos in R&D in 2019.

R&D DISTRIBUTION BY INDUSTRIES

CURRENT ARGENTINE PESOS IN MILLIONS

Industry	TOTAL R&D	% Share
Pharmaceutical	11,761	32.7%
R&D services	7,061	19.6%
Software and IT services	6,067	16.9%
Seed production	2,173	6.0%
Automotive, auto parts and other transportation equipment	1,362	3.8%
Food and beverages	1,110	3.1%
Other corporate services	1,064	3.0%
Chemical products	1,061	2.9%
Electricity, gas and water supply	853	2.4%
Iron and steel	727	2.0%
Machinery and equipment	629	1.8%
Financial brokerage services	496	1.4%
Other manufacturing products	418	1.2%
Oil, gas and mining	332	0.9%
Plastic and rubber products	277	0.8%
Electrical, radio and television devices, and medical equipment	269	0.8%
Agricultural services	161	0.4%
Other agricultural activities	142	0.4%
Total	**35,973**	**100.0%**

Source: Survey on R&D (ESID) to the corporate sector 2019.

The above table shows that the pharmaceutical industry sector is the leader in terms of volume of R&D investment in the Argentine economy, with a total of 11.7 bn argentine pesos in 2019, followed by R&D services, software and IT services, and seed production. The total R&D investment performed by the pharmaceutical industry amounts to 32.7% of the total private R&D in the country.

As revealed by the Employment and Innovation Dynamics National Survey latest edition from 2014-2016, 78.1% of the companies surveyed in the pharmaceutical industry carry out R&D efforts; this indicates that our sector occupies the second place in R&D intensity, behind the electronics sector.

NUMBER OF COMPANIES PERFORMING R&D EFFORTS FROM 2014 TO 2016

Industry	Number of companies	% Share
Electrical, radio and television devices and equipment	461.4	81.8%
Pharmaceutical	221.1	78.1%
Chemical and petrochemical	716.2	76.4%
Machinery and equipment	921.5	75.5%
Other industries	538.3	60.9%
Rubber and plastic	737.2	57.5%
Automotive, naval and railroad equipment	459.8	51.7%
Iron and steel	1,391.0	50.9%
Leather and footwear	294.4	44.5%
Wood and furniture	656.5	43.7%
Food, beverages and tobacco	1,723.7	42.0%
Paper and publishing	431.0	33.8%
Textile and clothing	585.6	28.9%
Total	**9,137.8**	**49.8%**

Source: Own elaboration based on the Employment and Innovation Dynamics National Survey - Manufacturing sector.

In terms of the research, innovation and development processes carried out by local firms, it is worthwhile highlighting four of the main facts that evidence the strategic significance of the public and private sectors combined efforts in the performing of research, development and innovation projects to manufacture new medicines.

The first one is the agreement reached between a national company and AstraZeneca to produce the COVID-19 vaccine active ingredient at a modern industrial plant located Garín (province of Buenos Aires) for the whole Latin America. The active ingredient is sent to Mexico to complete production and filling process. Production is expected to reach 200 million doses per year.

The second milestone is the agreement signed by a national laboratory and the Russian Gamaleya National Research Center for Epidemiology and Microbiology with the intermediation of Hetero laboratory (India), for the transfer of technology that will allow the Sputnik V vaccine production in Argentina. This is a three-stage process: the first one starts with the filling process of the vaccine formulation received; the second stage will be the vaccine formulation that will be elaborated from the active ingredient; and, in the third stage, the complete process will be carried out, starting from the local manufacture of the active ingredient through the first biotechnological processes.

The third case is benznidazole, a medicine used to treat the Chagas disease, discontinued worldwide in 2011, and developed by a private and public consortium between the Ministry of Health and a national family pharmaceutical and chemical company, which manufactures the active ingredient, and a locally-owned laboratory, which produces the medicine specialty. Production started in April 2012.

The fourth case to be noted is the worldwide launch of the therapeutic vaccine against lung cancer, racotumomab (Vaxira), approved by the ANMAT and the CECMED (Cuba).This research, development and innovation effort was carried out by a public and private consortium consisting of the Universidad Nacional de Quilmes (Quilmes National University), the Angel Roffo Oncology Institute, the CONICET, the Garraham Hospital, the Center of Molecular Immunology (Cuba) and a locally-owned laboratory. This laboratory markets the vaccine both in Argentina and Brazil.

It is worth mentioning the research and development process of hyperimmune equine serum for the early treatment of patients with COVID-19, carried out jointly by a national company and a research institute.

The commitment the industry has undertaken with regards to its investment and productivity standards has made it possible to maintain its prices in levels that ensure massive access to medicines by the population.

In order to export to the markets of developed countries, which demand high regulatory standards, local companies that export to such markets have their industrial plants approved and technically verified by the national health agency (ANMAT); therefore, they offer high quality and reliable products to both foreign and domestic markets.

Weaknesses

One of the weaknesses of the sector consists in the fact that a significant part of the supplies and capital assets must currently be imported. The strong influence of scale economies on the manufacturing of active ingredients has led to their manufacture being centered on Asian countries, in particular, China and India. This phenomenon has contributed to the growing need of importing these raw materials.

Besides, it has caused initial difficulties in the supply of critical raw materials in practically the whole world due to the restrictions implemented in production and trade for controlling the COVID-19 pandemic.

Also, the lack of financing available for production and investment development is a factor that limits the chances of expansion.

Opportunities

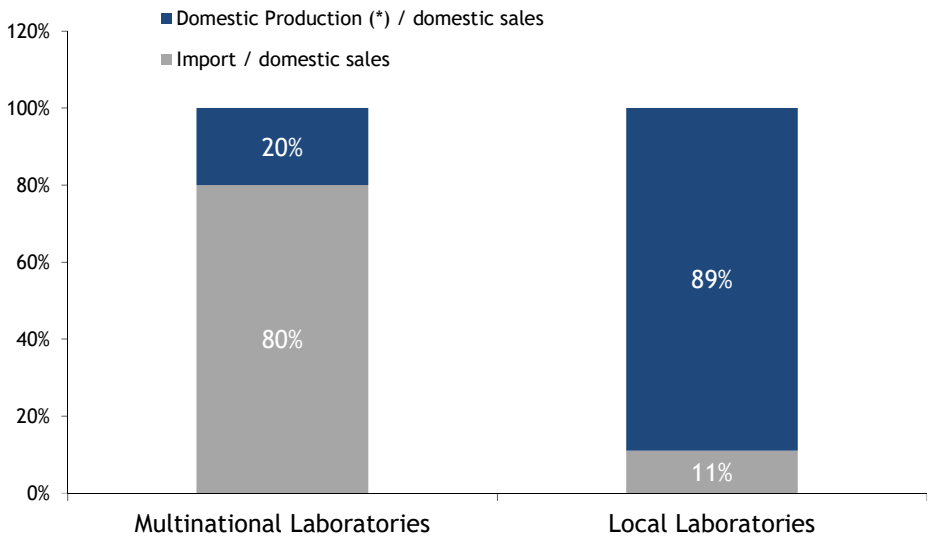
Regarding opportunities, it highlights the sector's possibilities to increase scale economies in production (with the consequent increase in productivity and cost reduction) and in investment levels, both in productive capacity and in R&D.

The Argentine pharmaceutical industry exports are still centered on the Latin American countries mainly, which represents an important base to have access to non-traditional markets and for expanding the reach of the sector abroad.

The deficit reduction in the pharmaceutical trade balance will depend on the pace of the exports growth, but also on substituting the imports of a wide range of medicine specialties for which local production is absolutely feasible, even by multinationals that may engage in such production in their establishments or in third parties facilities, if they do not have a manufacturing plant.

One of the most significant restrictions in the sector is the growing relevance of imports in the overall sales to the domestic market. In fact, in 2020, 38% of the medicines purchased in the country were of imported origin. In 1994, that percentage was only 6.9%.

DOMESTIC SALES STRUCTURE. YEAR 2020



(*) Products manufactured inside the country for the domestic market, both by local as well as multinational laboratories. Source: Own elaboration based on IQVIA Argentina and INDEC.

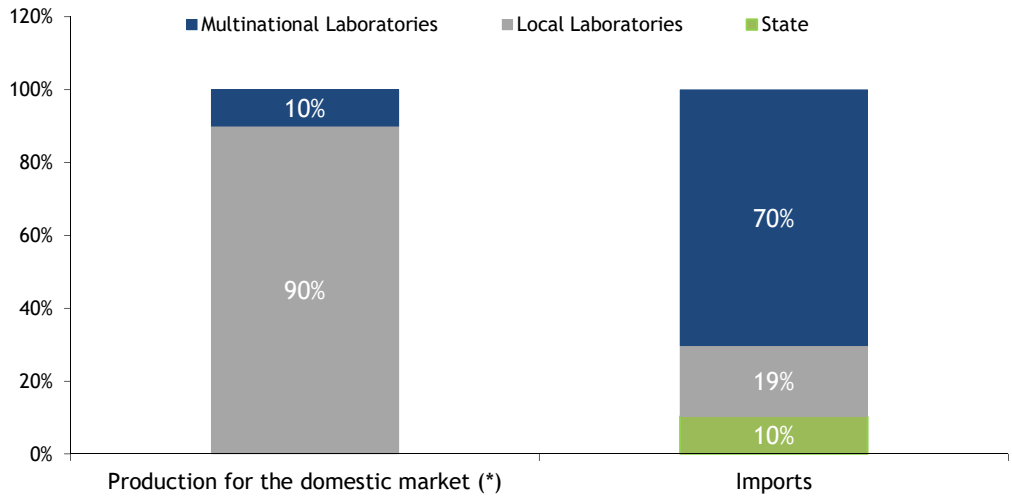
As shown in the previous graph, there is a significant difference between local and foreign laboratories in relation to the participation of imported products in the total sales to the internal market.

The market share supplied by either local or multinational laboratories has a very different composition in terms of the origin of drug production. According to the 2020 data, in the case of local laboratories, 89% of the drugs they sold domestically were produced in the country, while only the remaining 11% share was covered by imports of finished drugs. In the case of foreign laboratories, their share is around 20% and 80%, respectively.

An analysis of the total number of medicines manufactured in the plants operating in the country shows that domestically-owned companies account for 90% of the production, while multinational companies manufacture the remaining 10%.

Regarding the annual volume of finished pharmaceuticals imports, the domestically-owned companies only import 19.4% of the total, while multinational corporations account for 70.3%. The State carried out the remaining 10.3% of imports for covering the pressing need caused by the COVID-19 pandemic.

PRODUCTION AND IMPORTS STRUCTURE. YEAR 2020



(*) Products manufactured inside the country for the domestic market, both by local as well as multinational laboratories.

Source: Own elaboration based on IQVIA Argentina and INDEC.

This scenario makes it possible to foresee an opportunity to encourage the local manufacturing of medicines, which tends to substitute products being imported at the moment, in particular, those of low incidence and high cost for social security.

Threats

One of the issues that Argentina must face is its relative weakness to face the significant capacity of countries such as Brazil, China, and India in terms of incentives to production, exports and research, development and innovation.

Another threat that the nationally-owned pharmaceutical industry faces is the subscription to free trade agreements,[7] which provide for the standards and legal requirements in their patents and protection of undisclosed information sections that are stricter than those undertaken by each country in the multilateral frame, under the provisions of the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement of the World Trade Organization (WTO).

In particular, it is worth mentioning that the Free Trade Agreement that MERCOSUR negotiated with the EUROPEAN UNION, which is in a difficult process of parliamentary approval, maintains the standards on intellectual property rights consistent with the WTO's TRIPS Agreement. The Free Trade Agreement between MERCOSUR and the EFTA (European Free Trade Association) is exactly in the same situation.

Currently, MERCOSUR is negotiating free trade agreements with Canada, Singapore, Korea and Israel.

The table below analyzes the main characteristics of the Argentine economic scenario of the pharmaceutical industry sector, in terms of strengths, opportunities, weaknesses and threats.

[7] For example, between the United States and Latin American countries (Chile, El Salvador, Honduras, Guatemala, Costa Rica, Dominican Republic, Colombia, Ecuador and Peru).

Areas	Strengths	Opportunities	Weaknesses	Threats
Investment and Production	Very important industrial sector in the economy, with solid links in the production chain.	Possibilities of strongly increase scale economies in production.	Still in need of medium and long term public funding.	Signing of trade agreements that facilitate imports of finished products from countries that apply production subsidies.
	High capabilities of management, adaptability to change and generation of qualified jobs.	The existence of a wider net of suppliers could improve the manufacturing efficiency	Most of the machinery is imported, which implies a huge economic and financial effort for laboratories that affects the trade balance.	Lack of incentives may lead to future investment being relocated to other marketplaces.
	Technological capacity based on investment in state-of-the-art installed machinery and equipment.	Higher levels of investment in production will lead to more medicines available at more competitive prices.	Highly dependent on imported supplies and raw material.	Unfair competitiveness due to the State incentives to the public production of medicines.
	Strong R&D+i sector, capable of generating new pharmaceutical alternatives, new combinations of active ingredients and new pharmaceutical forms.	Increase in the medicines availability which will allow exports to be diversified.		Stricter standards on data protection as compared to those currently being applied by the WTO, which could be implemented through a Free Trade Agreement.
	Leading laboratories stand out on account of the significant regional and worldwide presence of their international subsidiaries.			

Areas	Strengths	Opportunities	Weaknesses	Threats
Financing and the domestic market	Efficient retail and wholesale distribution structure, which allows for the availability of all medicines in all the pharmacies of the country, at the same suggested retail price.	Possibilities of reducing the transportation and logistics costs.	Lack of suitable financial tools, with reasonable interest rates, to support the investment expansion and the growth of the demand.	High inflation rates in the economy have an impact on the sector's financial and production costs, as well as on the economic planning.
	High coverage of each therapeutic segment' needs.	Generation of new skilled job positions.	Lack of *"venture capital"* culture to incentive corporate rationing and growth of small and medium size companies.	The permanent and excessive delays in collecting high debts from some provincial medical insurance companies and from PAMI may affect corporate finances.
	Local laboratories portray a very good brand image in the domestic market.	Promote a steady recovery of the domestic market, both in units and values.		Multinational companies attempts to block certain market segments by arbitrary judicial actions, in order to limit competition.
	The competitiveness and diversification of the offer of local laboratories allow maintaining affordable prices for the population.			
	The drug supply system that belong to health insurance entities awards special discounts that benefit users.			

Areas	Strengths	Opportunities	Weaknesses	Threats
Exports	High quality of exported medicines. Many laboratories with exports experience.	Wide scope of diversification of external markets and increase of exports.	Lack of financial support from the State in the process of selling abroad products from the sector.	Growing competition from Asian countries in the world market as a result of strong national policies to promote the sector.
	State-of-the-art industrial plants, which comply with the highest international standards in terms of good manufacturing and control practices.	Possibilities of penetrating markets of developed countries, with a more stable demand and medicines of higher value.	Difficulties to enter foreign markets due to the complexity and cost of certifications and registration of pharmaceuticals.	
	International ANMAT recognition for its adhesion to the Pharmaceutical Inspection Co-operation Scheme (PIC/S) and its status as Health Reference Authority for the PAHO.	Reinforce the association of exported local medicines to the Argentine brand.		
R&D	Availability of highly qualified and experienced professional human resources.	Room to intensify R&D efforts and create high capacity to generate knowledge and innovation.	Lack of financing lines and R&D+i investment incentives, in particular, on the biological and biotech fields.	Poor educational orientation towards professions of strategic demand.
	Development of scientific innovation activities to generate new products and accumulate knowledge.	Promote a closer link between universities and research institutes, with the private sector.	Scarce regular resources to scattered research centers, lack of coordination and planning.	

IV. FORECAST FOR THE ARGENTINE ECONOMY AND THE PHARMACEUTICAL SECTOR

IV.1. Macroeconomic Perspectives

Argentina's economy is going through a partial recovery after experiencing an unprecedented contraction of -9.9% in its activity level in 2020. The main cause was the quarantine imposed to face the COVID-19 pandemic, which lasted for most of the year; furthermore, the monetary and exchange rate instability scenario that the country is immersed in since April 2018 also played a decisive role in such contraction, which had a peak in October 2020 when the gap between the official exchange rate and alternative dollar rates exceeded 100%.

So far, the Government has managed to stabilize devaluation expectations and to halt the growing loss of reserves thanks to its own actions and favorable external events. Its own successes consisted in reducing the BCRA's monetary assistance through the issuance of debt indexed to the exchange rate or the inflation, cutting expenses through a new mobility system for retirement and pensions, and a quick end to the assistance granted due to the pandemic, which, together with a tax burden increase, began to generate expectations of a strong decrease in tax deficit. The international context contributed by driving soybean prices close to their historical maximum, precisely at a time when Argentina's coarse grains are being sold, which will imply almost USD 10 billion extra from exports; likewise, in August, USD 4.35 billion will be added due to the extension of the IMF's Special Drawing Rights (SDR).

Even so, the risks remain. The recovery underway in 2021, after three consecutive years of recession (2018-2020), is critical to stop the unemployment increase, the drop of purchasing power and the advance in the country's poverty rates. However, the pandemic worsening forced the establishment of new restrictive measures, which, although not as severe as last year's, caused a halt on many sectors' emerging growth and generated political tensions over the need to reactivate budget allocations to assist the affected population. Currently, the focus is on the vaccination campaign speed, which will be decisive for the further opening of the economy.

At the same time, the country faces important inconsistencies in its economy that may cause serious problems in the medium term, most likely after the elections. The most important of them is the acceleration of inflation as a result of financing most of the 2020 deficit through printing money, which brought annualized inflation to a level of 48.8% in May 2021, while in 2020 it stood at 36.1%. This problem, which occurs in a year with legislative elections, was faced by the Government through all available tools: reduction of money printing by means of greater tax adjustment; the traditional exchange rate delay; the tightening of price controls (which led to the closing of exports as in the case of meat) and the freezing of utilities' rates. These measures increase uncertainty, as the pandemic and the elections proximity generate pressure to increase public spending[8], and pressure on tax and monetary policies; at the same time, the exchange rate lag is reducing exports competitiveness and

[8] Authorities had announced a mobility of utility rates to align them with inflation in 2021, but had to backtrack on the measure in the face of political difficulties that arose within the ruling coalition.

increasing dependence on soybean prices, which increases the possibility of devaluation after the elections and makes the economy more fragile in the face of external shocks.

Given this situation, it is very important that the country is able to reach an agreement with its main creditors to clear the debt horizon. Negotiations with the IMF have prolonged since 2020, and expectations of reaching an agreement before the elections are scarce. On the other hand, the May maturity with the Paris Club, which amounted to USD 2.485 billion, was defaulted and, during the 60-day term to obtain a waiver to postpone the maturity date, the Government announced an agreement whereby, through a "goodwill" payment of USD 430 million, the dates would be extended and a complete debt renegotiation would be enabled at a later date.

Thus, the current recovery is mainly based on 2020 statistics, while real growth is very low, so it will not be possible to return to pre-pandemic production levels in 2021, nor will it be possible to recover formal employment or halt the decrease on the wages' purchasing power. As a result, ongoing negotiations for wage increases are either closed at high levels or reopened to adjust to higher inflation levels, warning about the risk of accelerated wage and price increases in the medium term.

For the rest of the year, no changes are expected in current direction, which would allow for consistency in macroeconomic policy, at least, in the direction demanded by the market or the IMF. On the contrary, the focus is on how much the tax situation may deteriorate due to the impact of the pandemic's second wave and, therefore, on how much the BCRA will have to increase its assistance to the treasury. It is very likely that strong pressure on the private sector will remain in terms of price control policy, just as rate will not have an additional adjustment until the end of the year, despite the subsidies' gradual increase from 1.9% of GDP in 2019 to 5% of GDP in the first quarter of 2021. With respect to exchange rate policy, efforts will be made to maintain the delay in the exchange rate, but this will depend on soybean prices remaining high and the achievement of an agreement to postpone the debt with the IMF and the Paris Club.

After November elections, challenges will not diminish. A more accelerated increase in the official exchange rate is expected, in order to reduce tensions in the exchange market by narrowing the gaps and to encourage the competitiveness of non-primary exports. At the same time, there will no longer be any margin to continue postponing some kind of agreement with the IMF to clear the exchange rate outlook for 2022. The challenge will be to stop inflationary pressures without having to raise interest rates further, as this would negatively impact on the economic activity emerging recovery and cause monetary problems due to the further growth of the BCRA's debt, and without generating social tensions due to a further fall in real incomes.

Summary of the Economic Forecast

	2017	2018	2019	2020	2021	2022	2023	2024	2025

Real GDP *(Var. %)*	2.7	-2.6	-2.1	-9.9	6	2.6	2.5	2.3	2.2
Inflation *(%) (December vs. December)*	24.8	47.6	53.8	36.1	48.5	40	35	31	28
Exchange Rate (ARS/USD) (end of period)	18.05	37.9	59.9	84.1	110	156	207	274	351
Per capita GDP *(current USD)*	14,588	11,627	9,890	8,555	9,128	9,219	9,634	9,779	10,023
Primary result, 2017 methodology *(GDP %)*	-4.2	-2.2	-0.4	-6.5	-4.2	-3	-2.5	-2.1	-1.6
Exports *(Billions of USD FOB)*	58.6	61.6	65.1	54.9	67	68	69.5	71.5	73.5
Imports *(Billions of USD CIF)*	66.9	65.4	49.1	42.4	59.5	61	63	65.5	68
Trade Balance *(Billions of USD FOB-CIF)*	-8.3	-3.9	16	12.5	7.5	7	6.5	6	5.5

Source: Own elaboration based on INDEC, BCRA and IMF.

IV.2. *Prospects for the Pharmaceutical Sector*

The goals of the Argentine pharmaceutical industry for the next five-year period arise within the frame of a steady recovery in production, domestic sales and exports, although they will be achieved in the context of the severe consequences of COVID-19 pandemic.

A gradual recovery of production and sales in the domestic market is being sought, with a view to improving the population's access to medicines. As far as exports are concerned, an increase of the sales flow and the diversification of destinations and products are planned.

Following is a production and sales forecast for the pharmaceutical sector for the period 2021-2025, goals set, and data broken down in domestic sales and exports.

IV.2.1. *Domestic Sales Estimate*

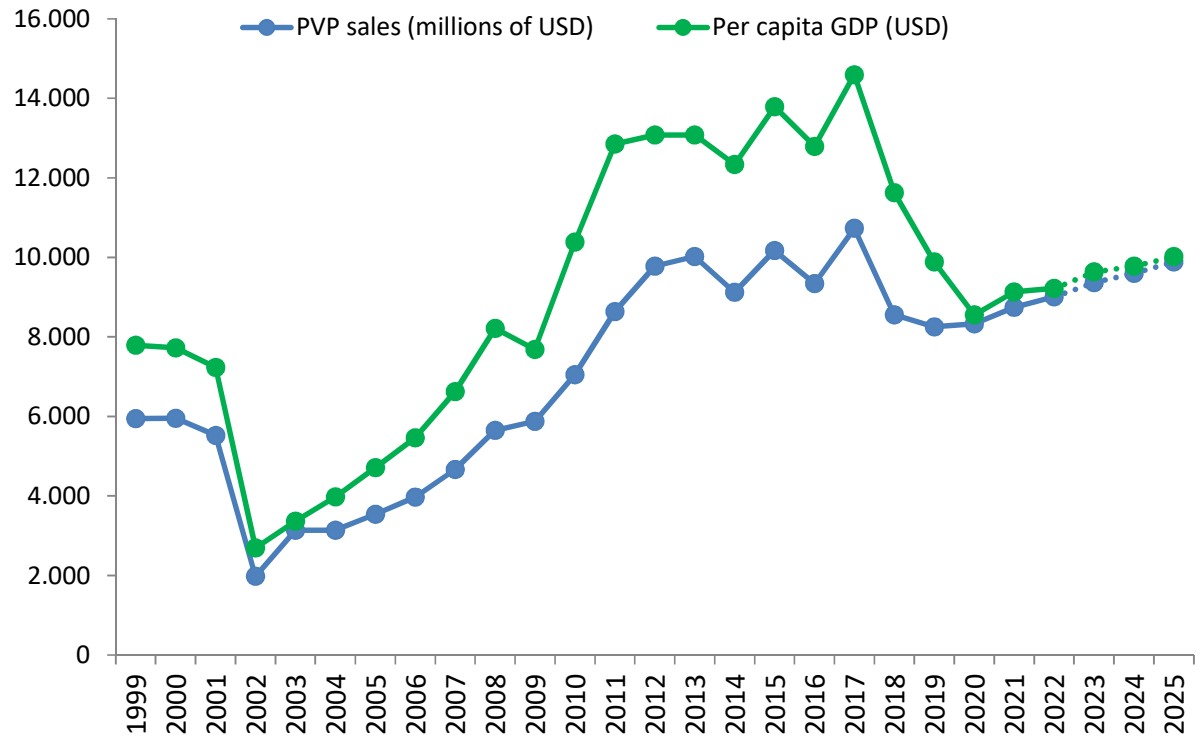
To estimate the domestic sales in dollars, we proceeded to analyze the relationship between the size of the domestic market and different variables, such as the GDP per capita, changes in the level of GDP per capita, and indicators of distribution of income and public spending on health, among others.

Based on that approach, the most consistent relationship was the one between domestic sales, measured in terms of retail prices, and the GDP per capita (both in dollars), since a higher average income level for the

population is expected to result in a higher consumption of pharmaceuticals. The forecast method was based on an econometric regression between both variables, considering the expected per capita GDP outlined before[9].

As per this estimation, the level of sales at retail prices (precios de venta al público, PVP) in the domestic market projected to the year 2025 will be USD 9.89 billion, or 18.7% more than in 2020. The prospects are good considering that this is a period of time that has been affected by the impact of the pandemic.

>Prospect of Domestic Sales (billions of USD) and per capita GDP (USD) 2021-2025



Source: Own elaboration based on IQVIA Argentina, INDEC, IMF.

IV.2.2. Exports Estimation

The dynamics of the pharmaceutical exports in Argentina is determined by the international demand, the real exchange rate and the level of competitiveness of this industrial sector.

For the pharmaceutical exports forecast, a singular relationship between the level of total exports and the sector exports could be observed, which implies that the pace at which the sector penetrates the market could be related to that of the total of assets of the Argentine economy. The relationship between the sector's exports and these products total global sales was also taken into account, since the global market has a direct impact on

[9] From the econometric standpoint, such regression showed a good adjustment between both variables, since R^2=0.94.

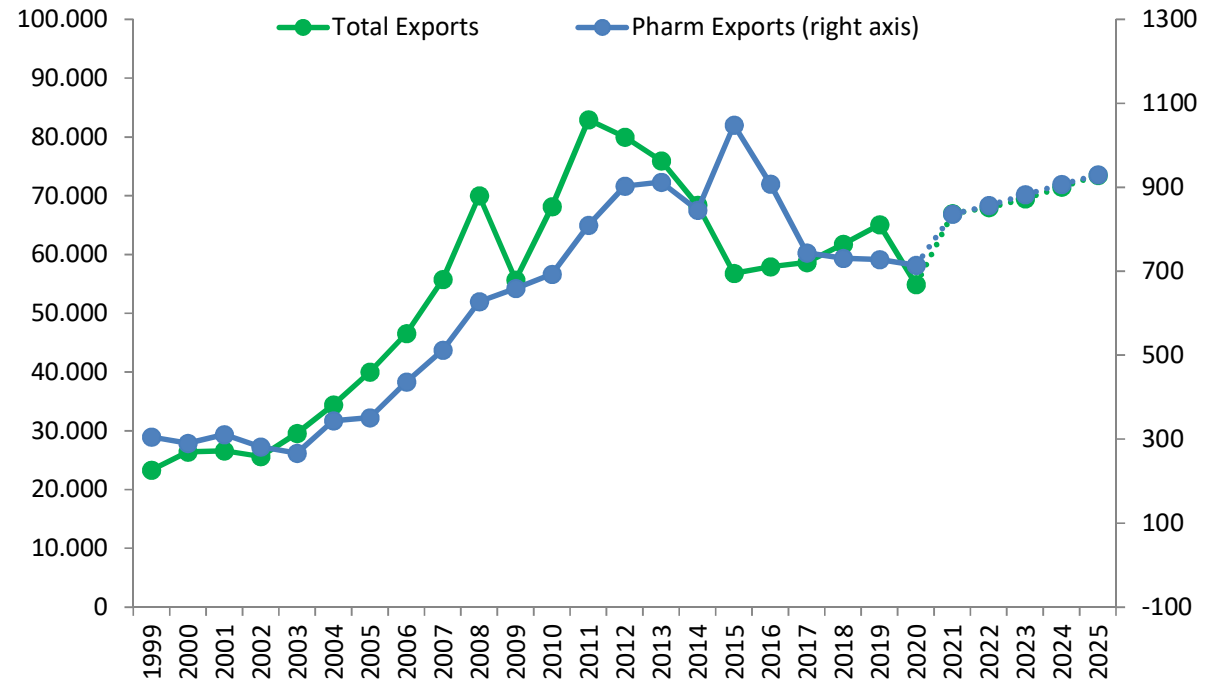
the international trade of these products. Finally, the GDP per capita was used as a control variable, since the total national production per inhabitant is decisive in the country's export possibilities.

The forecast of the industry's future sales abroad considered the structural transformation that the world and the regional pharmaceutical sectors are undergoing, which will most certainly be evidenced in the performance to be displayed in the upcoming years. This effect is related to the process of relocation and concentration of industrial plants that some multinational laboratories are performing.

In any case, the results of this projection show a favorable evolution on the level of exports of pharmaceutical products (Chapter 30 of the Mercosur Common Denominator) which, by 2025, would reach approximately USD 930 million, 30% more than in 2020.

>Forecast of Exports of Chapter 30 of the NCM (pharmaceuticals) 2021-2025

In millions of USD.



Source: Own elaboration based on IQVIA Argentina, INDEC, IMF and TradeMap data.

IV.2.3. Consolidated Turnover Estimations

Taking into account the consolidations of the results outlined and the inertial behavior of the Argentine industry and economy, the turnover of the pharmaceutical sector would amount to more than USD 6.7 billion by the end of the year 2025, as can be inferred from the following chart.

Turnover forecast, broken down in domestic sales and exports 2020-2025

In thousands of USD

	Base Scenario			
Year	**Domestic Sales*** Thousands of USD	**Exports** Thousands of USD	**Total Revenue** Thousands of USD	**Imports** (NCM 3004 and 3002)** Thousands of USD
2001	3,150,000	310,200	3,460,200	455,365
2002	1,128,448	281,100	1,409,548	289,356
2003	1,544,853	266,400	1,811,253	331,780
2004	1,808,103	344,800	2,152,903	361,244
2005	2,039,116	351,408	2,390,524	394,986
2006	2,285,130	436,286	2,721,416	460,344
2007	2,681,153	512,677	3,193,830	532,987
2008	3,241,782	627,664	3,869,446	614,794
2009	3,343,966	659,482	4,003,447	658,846
2010	4,025,862	693,246	4,719,109	794,810
2011	4,923,190	810,162	5,733,352	971,263
2012	5,576,724	903,005	6,479,730	1,129,055
2013	5,712,931	912,328	6,625,259	1,125,995
2014	5,200,517	851,292	6,051,809	1,097,836
2015	5,797,069	1,048,818	6,845,887	1,152,121
2016	5,326,724	907,896	6,234,620	1,221,249
2017	6,117,241	744,200	6,861,441	1,306,736
2018	4,876,724	730,804	5,607,724	1,231,000
2019	4,703,707	728,000	5,432,707	1,276,546
2020	4,747,500	714,700	5,462,200	1,306,137
2021	5,222,250	836,199	6,058,449	1,462,873
2022	5,378,918	857,104	6,236,021	1,521,388
2023	5,540,285	882,817	6,423,102	1,567,030
2024	5,678,792	907,536	6,586,328	1,621,876
2025	5,792,368	930,224	6,722,592	1,678,642

** Ex factory prices.*

*** Finished medicines (lot 3004 of the NCM) at CIF values.*

Source: Own elaboration based on IQVIA Argentina, INDEC, IMF and TradeMap data.

V. CONCLUSION

The national pharmaceutical industry is building a long-term vision, in terms of its expansion and development both in the domestic and the international markets, through the increase in the volume of exports to non-traditional markets as well as by the establishment and consolidation of subsidiaries in the main countries of Latin America and other nations.

The macroeconomic and sector' projections allow us to foresee, after a severe recession due to the pandemic, a recovery of investment, employment and the supply of medicines for the population, which will contribute to promoting a higher accessibility, as well as consolidating the role that this industrial branch has for the country.

The pharmaceutical industry is an industrial branch with highly qualified labor force, and one of the sectors that manufacture high added-value products.

The structure of the Argentine pharmaceutical industry shows that the domestically-owned pharmaceutical laboratories have a more significant presence or share in the market than the multinational companies.

In sum, we consider that the Argentine pharmaceutical sector represents a strategic industry and must become a State policy in order to strengthen the socially-inclusive economy development project, due to the following aspects:

1. The pharmaceutical industrial plants based in the country ensure its population the normal **supply** of **affordable medicines,** their **quality being internationally acknowledged**. In other words, the national industry guarantees the **necessary sanitary autonomy** that the country must have.
2. The existence of locally-owned pharmaceutical companies makes it possible to facilitate the **competition in the market**, thus avoiding the existence of monopoly prices.
3. This is a **highly technological** industry, with a remarkably skilled workforce in terms of technology and education; therefore, the result is high added-value production. There are **43,000 direct jobs** and 120,000 indirect jobs.
4. The 690 million units produced per year by the pharmaceutical industry account for 4.9% of the **industrial added value of this country**.
5. The industry employs Argentine researchers and scientists. Proof of this is the **human health-related biotech and bioengineering developments** that are part of the agenda, and projects from Argentine pharmaceutical laboratories, which add to the **growing generation of human capital** and ensure sustainable development.

6. The **pharmaceutical industry exports** reached USD 714.7 million in 2020 and they are expected to grow in the next years. The commercial activities developed by companies abroad are **diversifying the destination markets** of their products. In fact, exports to non-traditional markets grew more than six times between the years 2003 and 2020.
7. This industry has a **project to increase and expand** its activities in the country and abroad, and it represents the sector with the **highest number of Argentine companies that develop activities with international outreach**.

In sum, the local pharmaceutical industry is able to maintain their development trend and increase the supply of goods and services, as well as its productive employment and exports.