

Exports of Intellectual Property-Intensive Products Are Key Drivers of Puerto Rico GDP

By Sabrina Montes, Aya Hamano, and Garrett Fanning | July 31, 2024

On July 31, 2024, the U.S. Bureau of Economic Analysis (BEA) released new statistics measuring [gross domestic product \(GDP\) for Puerto Rico](#). The [news release](#) includes new statistics for 2022 and updated statistics for 2018–2021. Puerto Rico GDP measures the value of the goods and services produced in Puerto Rico. Puerto Rico's economic activity, as measured by GDP, includes a significant amount of exports generated by intellectual property-intensive industries, particularly by pharmaceutical manufacturers, medical and scientific equipment manufacturers, and computer service providers.

This article provides an update of research that is intended to assist data users in assessing the overall impact of these industries—which include several firms with global operations—on the Puerto Rico economy.¹ For this research, BEA excluded from GDP the exports and imports of pharmaceuticals and organic chemicals, exports and imports of medical and scientific equipment and appliances, exports of computer services including software, inventory investment by chemical manufacturers, and inventory investment by miscellaneous goods manufacturers including medical equipment and supplies manufacturers.

The resulting series (table 1, lines 1–2) are approximations of economic activity excluding the impact of these industries. One important thing to keep in mind is that these measures do not account for all intermediate inputs that are imported by these industries for use in production, such as petroleum and other energy products. These series are not intended to be substitutes for estimates of gross national product (GNP); however, by removing much of the production in Puerto Rico that is associated with nonresident firms, they may exhibit levels and trends that are similar to GNP. In 2022, real GDP less pharmaceuticals, medical and scientific equipment, and computer services increased 2.1 percent (table 1, line 3); in contrast, real GDP, as shown in [table 1.3](#) of the news release, decreased 2.5 percent.

Table 1. GDP and Net Exports Less Pharmaceuticals, Medical and Scientific Equipment, and Computer Services

Line		2012	2013	2014	2015	2016	2017	2018 ^r	2019 ^r	2020 ^r	2021 ^r	2022 ^p
	GDP less pharmaceuticals, medical and scientific equipment, and computer services¹											
1	Millions of dollars	66,742	67,502	67,723	68,597	70,877	68,767	70,225	69,873	66,602	74,690	80,941
2	Millions of chained (2012) dollars	66,742	66,124	65,128	63,748	64,569	62,240	63,026	62,047	58,504	64,797	66,188
3	Percent change from preceding period	...	-0.9	-1.5	-2.1	1.3	-3.6	1.3	-1.6	-5.7	10.8	2.1
	Net exports less pharmaceuticals, medical and scientific equipment, and computer services²											
4	Millions of dollars	-17,245	-16,186	-14,848	-12,571	-10,030	-13,068	-19,756	-17,622	-19,050	-20,642	-22,764

GDP Gross domestic product

p Preliminary

r Revised

... Growth rates are not available in 2012.

1. GDP less exports and imports of pharmaceuticals and organic chemicals, exports and imports of medical and scientific equipment and appliances, exports of computer services including software, inventory investment by chemical manufacturers, and inventory investment by miscellaneous goods manufacturers including medical equipment and supplies manufacturers.
2. Net exports of goods and services less exports and imports of pharmaceuticals and organic chemicals, exports and imports of medical and scientific equipment and appliances, and exports of computer services including software.

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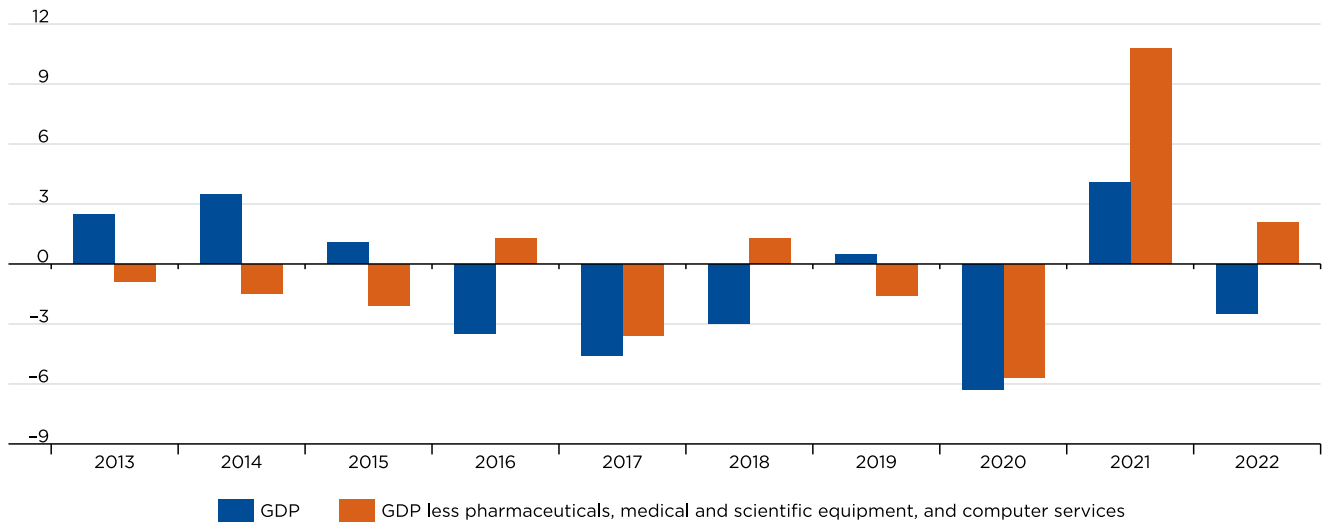
As shown in charts 1, 2, and 3, BEA's analysis reveals different trends in most years for the Puerto Rico economy outside of the industries listed above. Chart 1 shows the growth in real GDP less pharmaceuticals, medical and scientific equipment, and computer services, compared with the growth in real GDP shown in [table 1.3](#).

Chart 2 shows GDP less pharmaceuticals, medical and scientific equipment, and computer services, compared with GDP shown in [table 1.1](#) of the news release.

Chart 3 shows net exports of goods and services less pharmaceuticals, medical and scientific equipment, and computer services; this series was negative for the entire period, compared with the positive trade balance shown in [table 1.1](#) of the news release.

Chart 1. Puerto Rico Real GDP: Percent Change From Preceding Year

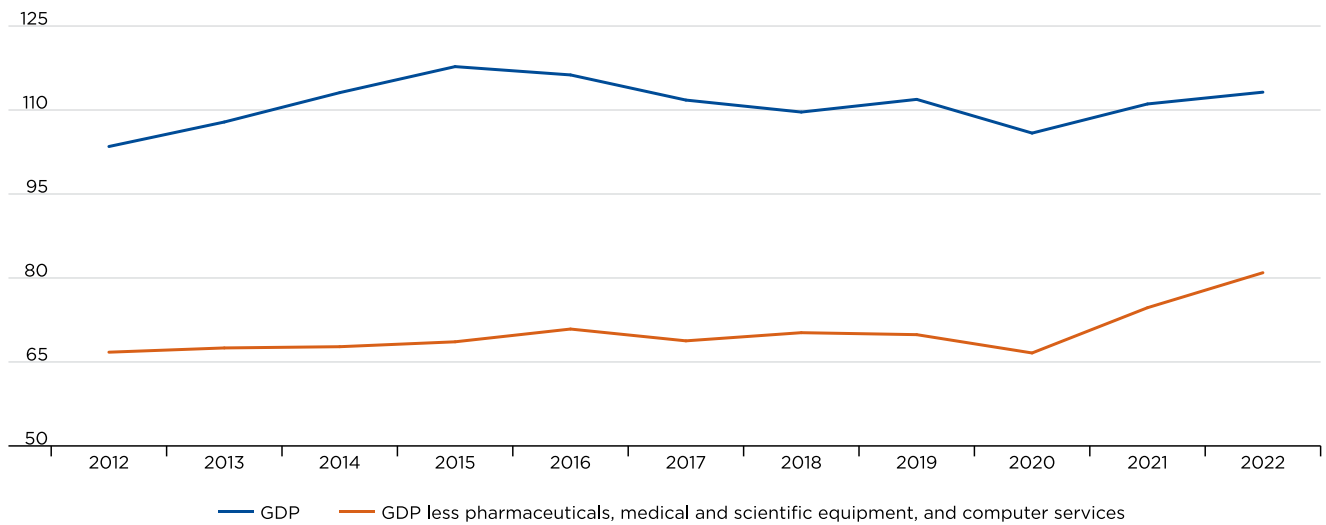
Percent change from preceding year



GDP Gross domestic product
U.S. Bureau of Economic Analysis

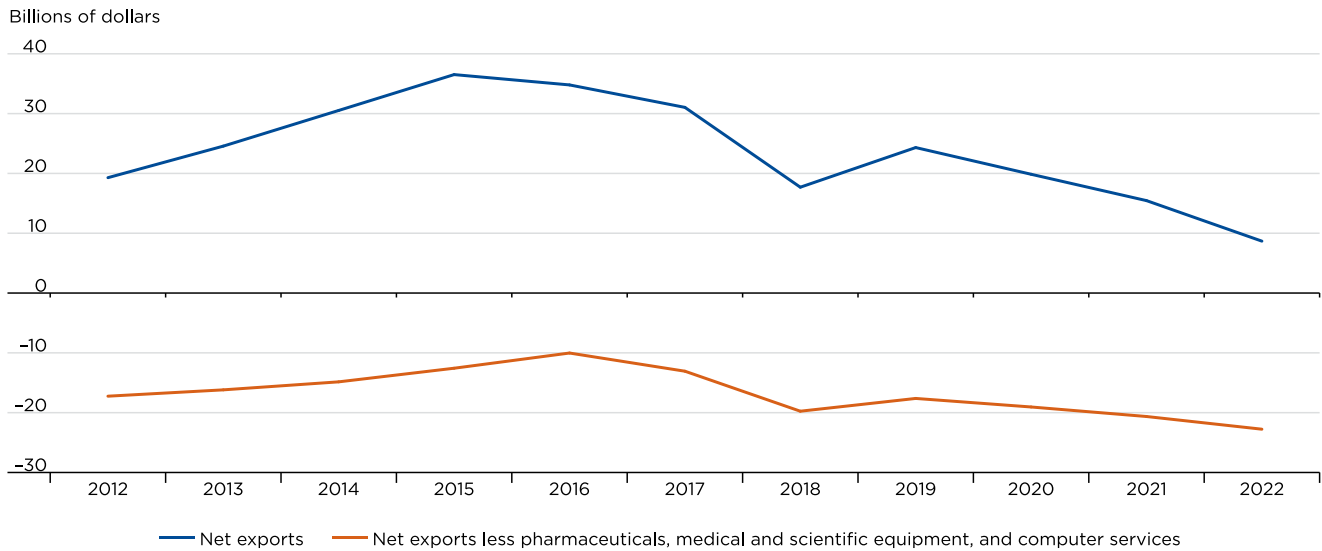
Chart 2. Puerto Rico GDP, 2012-2022

Billions of dollars



GDP Gross domestic product
U.S. Bureau of Economic Analysis

Chart 3. Puerto Rico Net Exports, 2012–2022



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The estimates of GDP and its components include production owned by nonresidents, such as nonresident multinational enterprises. In Puerto Rico, subsidiaries of large nonresident multinational enterprises operate within intellectual-property intensive industries including pharmaceutical manufacturing, medical device manufacturing, and computer services. BEA's updated analysis shows that although real GDP for 2022 decreased, real GDP excluding net exports and private inventory investment of these intellectual property-intensive industries increased.

1. Prior vintages of this research were published alongside earlier GDP releases. See "[Technical Note: GDP for Puerto Rico, 2021](#)" and "[Technical Note: GDP for Puerto Rico, 2020](#)."



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