O ISSUE 3 O VOLUME 51 O SEPTEMBER 2022

Puerto Rico

The Economy

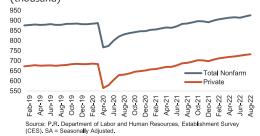
- The quarter ended with an unexpected event in September, that of Hurricane Fiona. Prior to the hurricane, key economic indicators were still on a positive note, with the exception of inflation, in the third quarter. Private employment still expanding, albeit at a slower m/m pace, manufacturing activity and employment still on a positive note, and the banking sector remained on solid ground. In construction, salaried employment rose by 11.0% on an accumulated basis (up to August) from last year.
- The economic implications of Fiona go beyond the damages it caused, as it happened in the midst of a still-going reconstruction process from Hurricane Maria, and when only a small fraction of the federal funds allocated to rebuilding from Hurricane María have been spent so far. In September 2020, FEMA dedicated more than \$9.4 billion in funding for projects to transform the electricity grid.¹
- Fortunately, Fiona did not cause as much damage as María, affecting more heavily the southwest, already suffering the consequences of the earthquakes of January 2021. Much of the tourism sector was spared, for instance.

EMPLOYMENT

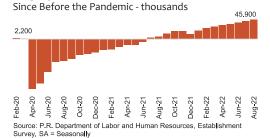
Employment maintained its upward trend during the third quarter (up to August), albeit at a slower m/m change. Nonfarm salaried employment increased 4.4% y/y, as private employment expanded at an annual rate of 6.1%. On an accumulated basis since the onset of the pandemic, the cumulative change in private employment has been a net increase of 46,500 jobs.

On the other hand, the pace of month/month increases in private employment has slowed, to 3,200 new jobs in August, from 8,300 in January.

Private Nonfarm Salaried Employment (thousand)



Cummulative Change in Private Nonfarm Employment



Private employment increased the most in the accommodation and food services, professional and business services, manufacturing, and retail trade sectors, with private employment above its 2019 level.

Changes in Nonfarm Salaried Employment

(by sector, 2019 and August 2022)

Sector	2019	August 2021	August 2022	Aug 2022 /Aug 2021	Change	Change Aug 2022/Year 2019
Nonfarm Wage and salary Employment (SA)	880.5	885.0	926.2	4.7%	41.20	45.733
Mining, Logging, and Construction	27.3	29.4	32.4	10.2%	3,00	5,075
Construction	26.8	28.8	31.8	10.4%	3.00	4.983
Manufacturing	75.1	77.5	83.6	7.9%	6.10	8.542
Trade, Transportation, and Utilities	174.2	179.7	185.9	3,5%	6,20	11,742
Wholesale Trade	30.3	31.8	32.4	1.9%	0.60	2.092
Retail Trade	126.0	128.7	133.0	3.3%	4.30	7.017
Transportation and Utilities	17.9	19.2	19.9	3.6%	0.70	2,033
Information	16.8	15.2	15.4	1.3%	0.20	-1.425
Financial Activities	43.8	44.3	46.7	5.4%	2.40	2.858
Professional & Business Services	123.9	131.9	141.1	7.0%	9,20	17,242
Education & Health Services	119.6	116.4	119.8	2.9%	3.40	0.158
Leisure & Hospitality	79.7	78.6	90.3	14.9%	11.70	10.617
Accommodation & Food Services	75.5	74.6	86.1	15.4%	11.50	10,650
Other Services	18.1	17.4	18.0	3.4%	0.60	-0.117
Government	202.0	195.7	193.6	-1.1%	-2.10	-8.400
Private Employment	678.5	689.3	732.6	6.3%	43.30	54.133
Source: P.R. Department of Labor and Human Resources (2)	022), Establis	ment Surve	v. SA = Seat	onally Adjuste	d	

The unemployment rate in the third quarter (up to August) decreased slightly to 5.8%, from 6.2% in the second quarter. The labor force participation rate, on the other hand, decreased to 42.4%, from 43.5% in the previous quarter.

MANUFACTURING

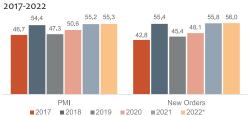
In August, the sector's PMI index increased to its highest level (57.5) since March, when it rose to 63.6, suggesting new expansion in activity in the sector. The increase in August was due to the significant rise in its New Orders component of 33.4% and in Production of 42.7%. On a quarterly basis (up to August), though, the index was 3.0% below its level in same quarter 2021.

As to employment, it maintained its upward trend during the third quarter (up to August), rising to 83,600 jobs, slightly up from the previous quarter, remaining flat since June. On an accumulated basis, employment



increased to 82,600 jobs, above its 2019 level of 75,100 jobs.





PMI Manufacturing

Source: Puerto Rico Institute of Statistics. * Up to August.



Manufacturing Employment



INFLATION¹

Headline inflation remained high in the third quarter (up to August), averaging 6.9%, from 6.6% in the previous quarter. In August it decreased to 6.5%, from 7.2% in July, as energy prices increased but at a slower pace. On the other hand, food and beverage prices rose at an annual average of 9.2% in the third quarter, maintaining their upward trend since January, when they increased 5.9%.

General and Core Inflation

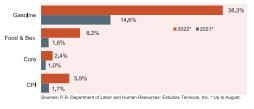


ources: P.R. Department of Labor and Human Resources; Estudios Técnicos, Inc

Core inflation, which excludes food and energy prices, has been increasing too, pointing to the rapid spread of inflation throughout the economy. Indeed, in August, while general inflation decreased to 6.5%, core inflation remained unchanged at 3.0%.

As before, leading inflation are energy and food prices. On an accumulated basis (up to August), while headline inflation rose by 5.9%, gasoline prices increased an average of 38.3%, and food and beverage prices 8.2%. The same pattern in August.

Inflation



FISCAL REVENUES

As of fiscal year 2022, net revenues to the General Fund increased 9.7%, led by increases in Sales and Use Tax (SUT) and income taxes receipts, while those from Law 154 decreased by 10.0%.

Net Revenues to the General Fund and the Sales and Use Tax



In July, net revenues decreased again, by 13.0%, following a third consecutive decrease since May, reflecting mostly the reduction in receipts from Law 154. Those from the SUT also decreased by 4.7%.

Net Revenues to the General Fund



On an accumulated basis since January (up to July), net revenues were up from same period in 2021.

SHORT-TERM OUTLOOK

The new assistance funds for households of \$700.0, plus the additional federal funds for Fiona will provide a short-term stimulus to commercial activity, but investment on infrastructure projects from the federal reconstruction funds from María will provide the main stimulus to local economic growth in the short-term.

High inflation will remain a concern for the balance of the year and into 2023, as businesses continue to make cost adjustments in their operations. Also, consumers will continue to realign their spending patterns and levels, as inflation proceeds, with emphasis on the substitution of higher-costs items by less expensive ones. Increases in energy prices should be expected given the recent announcement by OPEC countries to reduce production, which should impact WTI's prices (West Texas Intermediate) with higher demand.

There is also the concern about the increasing possibilities of a recession in the U.S. economy next year.

The number of bankruptcies filings by individuals rose 8.1% y/y during the first nine months of the year. Expect that number to increase after Fiona.

Economic activity resumed after the hurricane, but it represents an additional negative factor for the economy, at least in the short and medium terms. For one, it can contribute to another wave of emigration to the mainland. It will be some time before the full scale of the damage caused by Fiona is assessed. Much will be riding on the performance of LUMA, the consortium of Atco Ltd. a nd Quanta Services, Inc., with Innovative Management Inc.

OF INTEREST

The conflict in Ukraine has underlined the dependence on certain foreign markets, in particular from Russia, for fuels. In fiscal year 2022 (which include the start of the war in February), although the majority of imported gasoline comes from foreign countries, the share of Russia in the total (quantity) was 14.3%, whereas that of the U.S. in the total was 3.2%. On the other hand, imports of motor fuel from Saudi Arabia represented 4.1%.

Imports of Gasoline and Motor Fuel (not Containing Biodiesel) Fiscal Year 2022

Fuel	Country of Origin	Quantity (BBL)	Value \$	% Dist \$	% Dist Q
Leaded Gasoline	United States (Total)	17,778	\$3,271,522	0.1%	0.2%
	Lithuania	3,010,634	\$285,268,002	17.6%	13.2%
	Netherlands	1,915,239	\$208,876,538	11.2%	9.7%
Unleaded	Finland	1,618,812	\$200,540,875	9.5%	9.3%
Gasoline	Russia	2,015,844	\$179,056,660	11.8%	8.3%
	Other Countries	4,270,249	\$551,081,614	25.0%	25.6%
	Total	12,830,778	\$1,424,823,689	75.0%	66.1%
	Netherlands	1,767,203	\$274,598,903	10.3%	12.7%
	Russia	679,855	\$128,980,871	4.0%	6.0%
Motor Fuel,	Italy	919,917	\$100,722,648	5.4%	4.7%
NESOI	Lithuania	NA	\$65,024,756	NA	3.0%
	Other Countries	893,251	\$158,833,207	5.2%	7.4%
	Total	4,260,226	\$728,160,385	24.9%	33.8%
	Grand Total	17.108.782	\$2,156,255,596	100.0%	100.0%

Source: Puerto Rico Institute of Statistics (2022). External Trade Statistics. NESOI = Not elsewhere specified or indicated. NA: Not available, Motor Fuel: Diesel fuel, aviation fuels, kerosene, but excluding liquefied petroleum gas.

Notes:

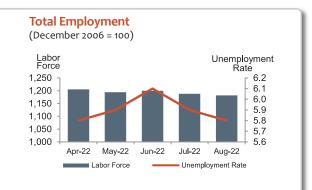
 CNN (2022). Behind the blackout triggered by Hurricane Fiona is a long-embattled history of Puerto Rico's weak and outdated grid (October 2, 2022). At: https://www.cbs58.com/news/behind-theblackout-triggered-by-hurricane-flona-is-a-long-embattled-historyof-puerto-ricos-weak-and-outdated-electrical-grid

Puerto Rico

Economic Indicators

Employment

				Percen	t Change
				Fiscal Year	Accumulated
	Jun-22	Jul-22	Aug-22	2021-2022	year to date
Labor Force (Household Survey, thousands)	1,200	1,188	1,182	-5.6%	4.2%
Employment (Establishment Survey)	913	911	921	-5.6%	5.6%
Private	724	723	729	-7.5%	7.6%
Construction	31	31	32	-8.1%	10.2%
Manufacturing	83	83	83	-6.1%	8.1%
Public Administration	190	187	192	1.1%	-1.2%
Unemployment Rate (Household survey, %)	6.1	5.9	5.8	21.7%	-27.9%



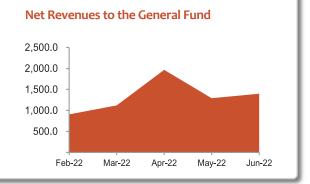
Consumer Price Index

				Percen	t Change
				Fiscal Year	Accumulated
	Jun-22	Jul-22	Aug-22	2021-2022	year to date
All Items	130.7	130.7	122.5	4.8%	5.2%
Food & Beverages	144.3	145.3	134.3	6.3%	7.0%
Housing	120.1	120.3	116.9	3.0%	2.3%
Apparel & Upkeep	85.3	86.1	84.6	-0.7%	0.7%
Transportation	133.2	132.9	116.9	9.0%	10.1%
Medical Care	159.9	159.9	157.3	2.0%	1.4%
Education	117.3	117.7	115.5	2.2%	0.0%
Recreation	121.5	123.7	120.5	2.6%	3.3%
Other Services	129.0	130.5	125.0	1.4%	2.8%



Fiscal Revenues

				Percei	nt Change	
				Fiscal Year	Accumulated	
	Apr-22	May-22	Jun-22	2021-2022	year to date	
- (2 mm &)					40.00/	
I Revenues (Mill.\$)	1,967.4	1,291.7	1,397.5	11.0%	18.6%	
xes	1,912.8	1,063.5	1,245.1	8.7%	15.3%	
ncome Taxes	1,309.8	481.0	739.1	19.4%	33.6%	



Puerto Rico

Economic Indicators

Construction



Retail

	May-22	Jun-22	Jul-22	Percen Fiscal Year 2021-2022	t Change Accumulated year to date	Retail 3,400 -	Sales			3,319	3,311
Total (Dill (t)	2.424	2 240	2 244	65.6%	-0.4%	3,200 -	3,165		3,124		
Total (Bill. \$) Department Stores (Mill. \$)	3,124 1,063	3,319 1,157	3,311 1,235	60.3%	-0.4% -1.3%			2,991			
Supermarkets (Mill. \$)	424	422	409	67.2%	1.7%	3,000 -		2,991			
Used and New Autos (Mill. \$)	333	342	353	63.9%	-6.7%						
Gasoline Stations (Mill. \$)	189	289	203	110.9%	22.3%	2 200					
Restaurants (Mill. \$)	213	206	211	84.8%	14.1%	2,800 -	Mar-22	Apr-22	May-22	Jun-22	Ju l- 22

Exports and Imports

	May-22 Jun-22	Jul-22	Percen Fiscal Year 2021-2022	t Change Accumulated year to date	Exports and Imports 8.0 6.0
Total Exports (Mill. \$)	4.5 6.0	5.5	-33.2%	-72.0%	4.0 -
Foreign Countries	0.0 0.0	0.0	18.6%	15.3%	2.0 - Total Exports (Mill. \$)
Total Imports (Mill.\$)	5.0 4.7	4.2	-37.6%	-85.4%	Total Imports (Mill.\$)
Foreign Countries	0.0 0.0	0.0	18.8%	26.8%	0.0
					Mar-22 Apr-22 May-22 Jun-22 Jul-22

Manufacturing

						Avera	age Ho	ırly Wag	e (\$)			
					t Change	12.9 -				12.9	13.0	
	Jun-22	Jul-22	Aug-22	Fiscal Year 2020-2021	Accumulated year to date	12.8 -		12.8	-			
						12.7 -	12.7		12.8			
Weekly Hours (#)	38.8	38.1	39.0	1.0%	-0.3%	12.6 -						
Average Hourly Wage (\$)	12.8	12.9	13.0	3.4%	5.9%	12.5						,
						12.0	Apr-22	May-22	Jun-22	Jul-22	Aug-22	

United States

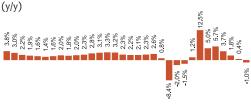
The Economy

- Much has been written recently about whether the U.S. economy has entered a recession. The definition of a recession is not that simple and extends beyond the traditional reference to a contraction of three consecutive quarters.
- As pointed out in the previous edition, by some measures, the U.S. economy would be on the road to a recession, as real GDP in the first quarter of 2022 decreased by -0.4% from Q4-21, after increasing 1.7% q/q in Q4-21, and -0.1% q/q in the second quarter. On a year-to-year basis, though, the economy continued to expand but at a much slower pace, when compared to Q4-21, when real GDP increased by 5.7%. U.S. real GDP declined an average of -0.3% on a quarter-to-quarter basis during the first half of 2021, but on a year-to-year basis it increased an average of 2.7%.
- Inflation continued to remain on the high side, notwithstanding the slight downward movement in July and August, but there remains considerable uncertainty about inflation over this second half of 2022. The interest ratesensitive housing sector continued to weaken, in response to the increases in mortgage rates.
- The panorama remains muddled, though, as economic data changes almost daily, providing a different picture. Still, so far, we can say that the economy does not look that bad, with employment continuing to increase, consumers continued to spend the massive savings accumulated during the pandemic, and other measures of economic activity growing, albeit at a slower pace. Nevertheless, the trend is there, that of a slowing economy.

Quarterly Real GDP Growth (y/y)



Real GDP Growth



• Consumer sentiment continued positive during the third quarter, from a low in June. Notwithstanding higher inflation concerns, and higher interest rates, which dampen spending, the University of Michigan Consumer Sentiment Index rose to 58.6 in September, from 50.0 in June, welcoming the slowdown in inflation in August. Sentiment remained low, though, compared to historic standards. Their long-run outlook remained less optimistic, reflecting continuing concerns on inflation and how it translates into their financial situations. Overall, the index remained, on average, below that for the second quarter, at 56.1, from, 57.9.

U.S. Consumer Sentiment Index



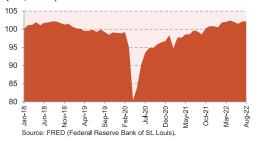
 Looking forward, the recent enactment of the CHIPS Act of 2022 bodes well for the manufacturing sector, in particular the semiconductor sector. It provides \$39.0 billion in financial assistance (72% of the total appropriations) to companies in the sector to build, expand, or modernize domestic facilities and equipment. Already Micron took the first step, announcing a huge investment of \$19.0 billion in a New York state chip making facility.

PRODUCTION - MANUFACTURING

Manufacturing output increased slightly during the third quarter (up to August) 0.2% y/y, and higher than in 2021. Leading sectors in the index (Federal Reserve Index) were machinery, and computer and electronic products.

Capacity utilization for manufacturing remained unchanged on average during the quarter (up to August), moving up by 2.4% y/y in August, from, 2.0% y/y in July.

US Industrial Manufacturing Production Index (2017 = 100)



Activity in the U.S. manufacturing sector slowed in the month of September but still saw continued growth, according to the ISM's PMI index. The index fell to 50.9 from 52.8 in August, but the reading still indicates growth in the sector. The decline by the headline index was largely due to a downturn by new orders, as the new orders index fell to 47.1 in September from 51.3 in August, as a reaction to potential future lower demand.

ISM Index of Manufacturing Activity



Source: Institute for Supply Management. **Note**: A reading above 50 points indicates that the manufacturing economy is generally expanding, and declining when the reading falls below 50 points.

EMPLOYMENT

Total nonfarm employment continued to increase during the third quarter (up to August), with 841,000 jobs created. Monthly increases have been trending downward since February, when 714,000 jobs were added, to the 315,000 jobs in August. Employment gains were in professional and business services, health care, and retail trade.

The unemployment rate averaged 3.6% in the quarter (up to August), unchanged from June, but way below its high of 5.2% in August 2021.

Quarterly Changes in Employment

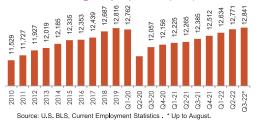




Manufacturing continued to register positive gains in its employment during the third quarter (up to August), increasing to 12.8 million jobs, from 12.8 in the second quarter. Employment is now at the same level as in 2019. Gains were in computer and peripheral equipment, transportation equipment, and chemicals.

Manufacturing Employment (th's)

Source: U.S. BLS, Current Employment Statistics. * Up to Augus



INFLATION

After its high of 9.0% in June, headline inflation (CPI) trended down during the third quarter (up to August), averaging 8.4%. These were welcome news, as inflation concerns prevailed during the quarter. Lower energy prices push down headline inflation. Food prices have been falling at the wholesale level.

Core inflation (which excludes energy and food prices) was up slightly, averaging 6.1%, from 6.0% in the previous quarter, remaining high, meaning that inflation will remain to be a concern.

Annual Percent Change in CPI

(Y/y, seasonally adjusted)



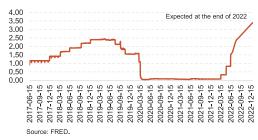
INTEREST RATES

On September 21st the FED announced a new 0.75% hike in its benchmark rate, to 3.15%. With it the FOMC (Federal Open Market Committee) also indicated that it will continue with a fresh round of increases in October and November. The Federal Reserve will raise interest rates as high as 4.6% in 2023 before its fight against soaring inflation, according to its median forecast, and of 3.5% or higher by the end of this year.

The series of big rate hikes are expected to slow down the economy. The Summary of Economic Projections from the Fed showed the unemployment rate is estimated to rise to 4.4% by next year from its current 3.7%. Meanwhile, GDP growth is forecast to decrease to just 0.2% for 2022. Economists expect spending to cool further and for the labor market to soften.

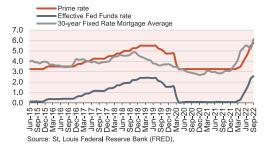
Interest Rates by the FED

(Historic and Expected -in percentage)



Selected Interest Rates

(Monthly averages)



U.S./GLOBAL OUTLOOK

In its most recent economic outlook for the global economy, the Organization for Economic Cooperation and Development (OECD) underlines two key related forces that will continue to impact real GDP growth, slowing the recovery: the Ukrainian war and inflation. As a result, it forecast a more pronounced slowing down of the recovery of the world economy, and inflation, although it will ease will remain

at high levels. Expectations are for lower growth in 2023 compared to previous forecasts, especially in Europe.

The outlook for the U.S. economy varies somewhat but all coincide in lower real GDP growth over the second half of the year and into 2023 of between less than 1.0% and 1.25%., with this year at 1.6%. Although inflation is expected to continue to decelerate, the medium-term outlook is uncertain. A recent poll places the odds of a recession by the end of 2023 at 52.0%.

Annual Real GDP Growth

(Monthly averages)



Sources: U.S. BEA; Federal Reserve Bank of Philadelphia. Survey of Professional Forecasters (August 2022). F = Forecast

Real GDP growth for the global economy and mayor economies have been revised downward for next year, with China still outperforming the other economies albeit at a lower rate.

World Economic Growth: Outlook

		Proje	ctions
	2021	2022	2023
World Real GDP	5.8%	3.0%	2.2%
Euro Zone	5.2%	3.1%	0.3%
U.S.	5.7%	1.5%	0.5%
Argentina	10.4%	3.6%	0.4%
Brazil	4.9%	2.5%	0.8%
Mexico	4.8%	2.1%	1.5%
China	8.1%	3.2%	4.7%
Russia	4.7%	-5.5%	-4.5%
India	8.7%	6.9%	5.7%

Source: OECD (2022). OECD Interim Economic Outlook GDP, September 2022. Table 1.

Notes:

- Technically, a recession is defined by two consecutive quarters with falls in real GDP. But this definition does not take into consideration how economists think about the business cycle, that is, GDP is a measure that can be influenced by factors such as international trade, or government spending.
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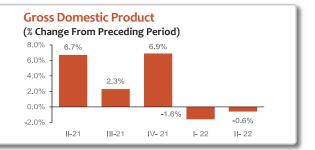


United States

Economic Indicators

GDP

	III- 21	IV- 21	I- 22	II- 22
GDP (% Change From Preceding Period)	2.3	6.9	-1.6	-0.6
Private Consumption	3	3.1	1.3	2
Fixed Investment	-1.1	0.6	4.8	-5
Residential	-7.7	2.2	-3.1	-17.8
Non-Residential	1.7	2.9	7.9	0.1
Government Spending	0.9	-2.6	-2.3	-1.6
Exports	-5.3	22.4	-4.6	13.8
Imports	4.7	17.9	18.4	2.2



Employment

Employees on Non-Farm Payrolls (SA)
(Thousands)
Change (%)
Goods Producing
Change (%)
Service Industries
Change (%)

Jun-22	Jul-22	Aug-22	Sep-22
151,903	152,440	152,755	153,018
0.2%	0.4%	0.2%	0.2%
21,090	21,153	21,188	21,232
0.2%	0.3%	0.2%	0.2%
130,813	131,287	131,567	131,786
0.2%	0.4%	0.2%	0.2%



Consumer Price Index

CPI - All Urban Consumers (1984=100)
Change from preceeding month
Change from preceeding year
CPI - Less Food and Energy
Change from preceeding month
Change from preceeding year

Mar-22	Apr-22	May-22	Jun-22
1.2%	0.3%	1.0%	1.3%
8.6%	8.2%	8.5%	9.0%
0.3%	0.6%	0.6%	0.7%
6.4%	6.1%	6.0%	5.9%



Interest Rates

	Jun-22	Jul-22	Aug-22	Sep-22
Effective Federal Funds	1.21	1.68	2.33	2.56
Three Month Treasury Bill (Constant Maturity Rate)	1.49	2.23	2.63	3.13
Prime Rate	4.38	4.85	5.50	5.73
Ten Year Treasury Bond	3.14	2.90	2.90	3.52
Moody's Seasoned Aaa Rate	4.24	4.06	4.07	4.59
30-Year Conventional Mortgage Rate	5.52	5.41	5.22	6.11

