

## Hurricane Effects



As with all natural disasters, separating human tragedy from the economic impact is challenging. Here, we attempt to project the economic and investment effect of the recent trio of hurricanes. Initial damage estimates along with the historical record of past hurricanes offer a wealth of data with which to estimate economic and investment effects.

### Recent Hurricane Economic Data

Harvey will register as the most costly U.S. hurricane ever. Combined with Hurricane Irma, cost estimates range from \$175 billion to \$290 billion.<sup>1</sup> Hurricane Maria could cost Puerto Rico alone \$45 to \$95 billion.<sup>2</sup>

Recent data show that although Harvey/Irma's cost will be greater than the 2005 hurricane set led by Katrina and Rita (see table page 3), it has not had the same national impact.<sup>3</sup> As Houston's mayor, Sylvester Turner, recently noted, "Most of the city is now dry. Houston is open for business. The water system is safe. The transit and airport systems are both up and running."<sup>4</sup>

And while Katrina/Rita interrupted the Fed's interest rate hike process in 2005, the Federal Open Market Committee (FOMC) indicated at the September meeting that they are still on track for their current rate hike process and that the Fed will proceed with the start of its balance sheet normalization, a key economic tightening event.

Interestingly, the immense cost of physical hurricane damage has little negative impact to gross domestic product (GDP) which is the official measure of economic activity in the U.S. Declines in employment and retail spending – both of which negatively impact GDP – are expected to be more than offset by future reconstruction projects.

Today's economy happens to be uniquely positioned to cushion two of the chief hurricane concerns, oil price stability and inflation. Oil price stability is always a concern with major gulf hurricanes, especially after the impact of Katrina. Fortunately, there happens to be plenty of global oil supply at the moment, and early indication of minimal oil price increase.

Inflation can also be a concern following hurricanes. On one hand, the hurricane curbs consumer purchasing in much of the country. On the other hand, the interruption in oil drilling and refinery production makes petroleum-based goods more scarce. When the supply of goods falls, prices rise, increasing inflation. Additionally, government reconstruction projects fuel growth and demand for goods. This will also tend to increase prices and inflation. Once again, however, the economy is in good position to absorb these changes as inflation measures are running below the Fed's target level.

The net effect will likely be a dip in economic activity in the short-term, followed by a boost associated with the recovery and rebuilding efforts.

## History

A review of past hurricane data shows a similar pattern of initial economic and investment hit, followed by recovery almost to the norm. While past natural disasters tended to coincide with short-term economic weakness, economies were, for the most part, able to rebound over the next 6 – 12 months.

We have also learned that certain industries tend to be disproportionately hurt, while others benefit during the recovery more than others. Following the ten costliest U.S. hurricanes, the industries hurt most in the following year were consumer services, health care, auto components, and real estate development. The most consistent beneficiaries in the same period included road and rail, construction and engineering.<sup>5</sup>

As seen in the table below, stocks did not tend to suffer sustained losses following hurricanes. One exception was in the aftermath of Hurricane Ike in 2008. Clearly, there was another “storm” happening at the time, the global financial crisis, which takes credit for that market decline. This list of market returns shows a pattern: a quick and sharp drop followed by a recovery. The average 1-year return following these hurricanes is 7.7%, just short of the 9.5% historical average.<sup>6,7</sup>

In general, we expect the economic and investment impact to be temporary, with declines and recoveries uneven across sectors. This uneven nature of the damage-recovery cycle among industries serves as a reminder of why intelligent portfolio diversification is so critical. By determining which assets are uncorrelated, and combining them in the right proportions, it is possible to construct portfolios which buffer shocks and protect against unpredictable economic events

## S&P 500 Index Returns Following the Most Costly U.S. Hurricanes <sup>6,8</sup>

Hurricane	Cost in 2017 Dollars (billions)	Time after Hurricane		
		1 Month	6 Months	1 Year
1. Dennis/Katrina/Rita/Wilma, Jul – Oct 2005	\$177	3.5%	6.6%	7.2%
2. Charley/Frances/Ivan/Jean, Aug – Sep 2004	\$57	6.0%	13.3%	15.9%
3. Gustav/Ike, Aug – Sep 2008	\$38	-8.0%	-40.3%	-20.4%
4. Andrew, August 1992	\$34	1.9%	7.3%	11.9%
5. Allison, June 2001	\$11	-1.4%	-7.9%	-17.4%
6. Hugo, September 1989	\$9	-0.6%	-3.3%	-12.2%
7. Floyd, September 1999	\$9	-4.9%	10.6%	9.6%
8. Isabel, September 2003	\$7	0.5%	8.0%	7.9%
9. Opal, October 1995	\$7	1.9%	10.2%	20.5%
10. Fran, September 1996	\$5	3.2%	18.4%	39.0%
11. Frederic, September 1979	\$4	-5.0%	-6.1%	15.5%
12. Georges, September 1998	\$4	0.9%	26.0%	27.0%
13. Agnes, June 1972	\$3	-2.1%	8.2%	-3.8%
	<b>Average</b>	<b>-0.3%</b>	<b>3.9%</b>	<b>7.7%</b>

**Notes and Acknowledgements:**

1. \$175 billion is the midpoint of Moody's \$150 - \$200 billion estimate. AccuWeather estimates \$290 billion, September 11, 2017
2. Moody's, September 28, 2017
3. ISIEvercore, September 11, 2017
4. Charles Schwab & Co., Inc., September 11, 2017
5. Strategas Research Partners, September 11, 2017
6. Sharper & Granite LLC Research, based on S&P 500 Index and Dow Jones Industrial Average, 1929 – 2017 data
7. *Stocks for the Long Run*, Fifth Edition, Professor Jeremy J. Siegel, Wharton School of Business at Penn University, 2014
8. Uses date of impact of first hurricane. "The Deadliest, Costliest and Most Intense United States Tropical Cyclones from 1851 to 2010," NOAA/NWS/NCEP/National Hurricane Center Miami