



The Perryman Group

Economic Costs of Hurricane Ian Include an Estimated \$36.7 Billion Net Loss in US Output

September 2022

On September 28, Hurricane Ian made landfall along the southwest Florida coast causing severe wind damage and flooding. The loss of life and human suffering is of paramount importance and should be the primary concern, as well as enormous emotional losses. In addition, the storm will have a significant impact on the economy, which could rise if there is significant additional damage in South Carolina.

Damages are only a part of the economic implications of the hurricane. Any economic stimulus, whether positive or negative, leads to additional responses and multiple rounds of business activity. Business operations have been interrupted, causing lost revenue and profits even beyond the damage to facilities. In many cases, these revenues cannot be recouped. Productivity has also been affected as workers are either absent due to problems with their homes and property or less effective on the job as they deal with those issues. On the other hand, the act of repairing buildings and infrastructure damaged by wind and water leads to an increase in spending in the construction sector. Suppliers of the goods and services needed to get things back to normal will see additional opportunities due to Ian. Replacing personal items, vehicles,

furniture, and everything else will increase retail activity in the region. These benefits partially offset the overall losses, but with the supply chain still strained due to the COVID-19 pandemic and labor shortages affecting many industries, losses from the storm will be even higher than they would be in normal times.

Based on the modeling system that we have developed over the past 40 years and used to assess numerous natural disasters and current property damage estimates, when multiplier effects and the various positive and negative aspects of the economics of the storm are considered, the net impact of Hurricane Ian could include economic losses for the United States (which would be observed over an extended period of time) of \$84.5 billion in total expenditures and \$36.7 billion in gross product, with about \$62.0 billion in total expenditures and \$27.0 billion in gross product in Florida.

In addition to the enormous human costs, Hurricane Ian will have a significant net negative impact on the economy. However, the area will recover over time and likely resume its prior pattern of expansion in the future.

Preliminary Estimate of Economic Harm from Hurricane Ian

Region	Expenditures	Gross Product	Personal Income
State of Florida	\$62.045 b	\$26.989 b	\$17.859 b
United States	\$84.461 b	\$36.740 b	\$24.311 b

Source: US Multi-Regional Impact Assessment System, The Perryman Group

Notes: Based on preliminary damage estimates and The Perryman Group's measurement of associated multiplier effects across the economy. Monetary values given in billions of 2022 dollars.

METHODOLOGY

In order to offer an early perspective on potential losses, The Perryman Group's US Multi-Regional Impact Assessment System and econometric models were used to measure the dynamic effects of Hurricane Ian on the economy based on the most current preliminary estimates of damages and losses. The Impact Assessment System essentially measures the economic responses to a stimulus; in other words, it counts the successive rounds of business activity set off by the initial activity (in this case, the hurricane). The system has been in use for more than 40 years (with updates and refinements) and

has been utilized on hundreds of occasions by clients ranging from large government agencies to private sector firms; it has also been peer reviewed. In this analysis, estimated property losses were translated into likely long-term losses in business activity (including the offsetting net effects of the subsequent rebuilding activity and the best information available regarding insurance coverage) using techniques previously developed by Dr. M. Ray Perryman, founder and president of the firm, and used in the assessment of prior storms (including Hurricanes Ike, Rita, Katrina, Harvey, Maria, Florence, Irma, and Ida).

Total expenditures (or total spending) measures the change in the dollars changing hands as a result of the economic stimulus. Gross product (or output) is production of goods and services lost in the area as a result of the hurricane; this measure is parallel to the gross domestic product numbers commonly reported by various media outlets and is a subset of total expenditures. Personal income is dollars that end up in the hands of people in the area; the vast majority of this aggregate derives from the earnings of employees, but payments such as interest and rents are also included.

THE PERRYMAN GROUP



The Perryman Group is a focused team of analysts who know how to address complex economic information tasks and present our findings effectively.

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We help clients analyze and communicate complex information in common-sense terms through comprehensive, objective analyses and clear, concise expert reports and presentations.

FORECASTING

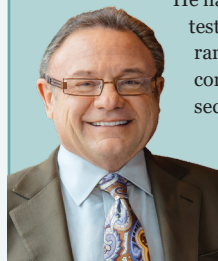
We are at the cutting edge of econometrics and other advanced statistical methods and have provided innovative approaches for many complex applications.

SPEECHES


Dr. Perryman addresses dozens of audiences throughout the world every year, catering to a wide variety of events.


M. RAY PERRYMAN, PH.D.


Dr. Perryman is the President and CEO of the Perryman Group and Distinguished Professor of Economic Theory and Method at the International Institute for Advanced Studies. Over the past 40 years, Dr. Perryman has helped recruit corporations providing tens of thousands of jobs through economic development work, resolved billion-dollar legal issues, and revamped public policy through impact assessments and other studies. His firm has measured economic impacts for corporate locations and expansions involving billions in investments, and his economic forecasts are used by corporations and government agencies alike.




He has provided economic analysis and expert testimony for civil litigation across a wide range of practice areas including antitrust and competition, intellectual property disputes, securities, and commercial and complex litigation. His work combines strong expertise in economic damages calculation, asset valuation, market analysis, and statistical methods and econometrics.


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