JOINT ECONOMIC COMMITTEE

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ECONOMIC CONSEQUENCES OF HURRICANE KATRINA

Local Effects. On Monday, August 29, 2005, Hurricane Katrina slammed into southeast Louisiana and the Mississippi Gulf Coast. On the following day, three levees that protect New Orleans, most of which lies below sea level, were breeched. Lake water inundated about 80 percent of the city. The hurricane and the subsequent flood caused catastrophic losses of life and property.

On September 2, 2005, Risk Management Solutions estimated property losses would be about $100 billion, one-half of which would be directly attributable to Katrina and the remainder attributable to the subsequent flooding. Severe flooding damage has made approximately 150 thousand structures uninhabitable, most of which may need to be razed.

On September 5, 2005, the Army Corps of Engineers patched key breeches on failed levies and restarted some of the pumping stations that keep New Orleans dry. However, it may take up to three months to remove all lake water from the city. Once the city dries, decontamination from the toxic wastes left by the flood will take months.

Consequently, many of the people who evacuated New Orleans may not be able to return to large parts of the city for six to twelve months. Given this significant lag, many New Orleans residents may secure new jobs and new homes elsewhere and may not return when the city becomes habitable.

Macroeconomic Effects. Katrina will have significant, but transitory effects on the overall U.S. economy. According to the Congressional Budget Office, Katrina will cause a one-time loss of about 400,000 jobs in the affected region. Katrina will slow real GDP growth by between ½ and 1 percentage point below previous forecasts during the second half of 2005. In 2006, however, recovery-related construction activities are likely to increase both real GDP growth and employment above previous forecasts.

Transportation and Trade Effects. The Port of South Louisiana, which stretches along the Mississippi River from Baton Rouge to below New Orleans, ranks as the busiest port in the United States and the fifth busiest port in the world. The Port of South Louisiana also ranks first in terms of U.S. agricultural exports.

Significant progress has been made in resuming normal trade flows. The Mississippi River and Mobile Bay have reopened for daylight navigation. Both waterways remain closed for night navigation until the Coast Guard can replace lost light buoys. The Gulf Intercoastal Waterway has also reopened.

Most south Louisiana port facilities are on high ground and received only minor damage. Upriver docks have generally reopened. By September 7, 2005, 63 percent of grain export facilities had resumed operations. However, New Orleans' docks will remain closed to commercial traffic through September 14, 2005, to allow the U.S. armed forces and relief agencies to use these facilities for unloading supplies.

The ports of Mobile and Pascagoula have reopened, but the ports of Biloxi and Gulfport remain closed.

About 23.5 percent of U.S. oil imports flow through ports in Alabama, Louisiana, and Mississippi. The Louisiana Offshore Oil Port has reopened, is currently operating at 75 percent of its capacity, and is expected to resume full operations by the end of the week.

Energy Effects. The Gulf of Mexico region is critical to U.S. energy supplies. The

Gulf of Mexico accounts for 28.5 percent of U.S. oil production and 19.2 percent of U.S. natural gas production. Moreover, states along the Gulf of Mexico hold 47.4 percent of total U.S. refinery capacity.

The hurricane and the subsequent flooding interrupted the production and distribution of oil, petroleum products, and natural gas. At its peak, Katrina shut down **95.2 percent** of oil production and **88.0 percent** of natural gas production in the Gulf of Mexico. The Capline, Colonial, and Plantation pipelines lost electricity, slashing oil and gasoline deliveries to the East and Midwest.

Inevitably, these disruptions caused energy prices to increase. The spot oil price peaked at $69.82 per barrel on August 30, 2005; the spot unleaded gasoline price peaked at $3.14 on September 1, 2005; and the spot natural gas price peaked at $12.65 per million British thermal units on August 31, 2005.

Higher wholesale prices for crude oil and gasoline drove up retail gasoline prices. The Department of Energy reported that the average retail price for gasoline climbed by 46 cents per gallon to $3.07 per gallon from the week before Katrina to the week after Katrina.

Oil and natural gas production is gradually resuming in the Gulf of Mexico. On September 8, 2005, the production shut down rates fell from the much higher levels noted earlier to **60.1 percent** for oil and **40.4 percent** for natural gas.

On the same day, nineteen refineries with a capacity of 4.45 million barrels per day or 26.2 percent of total U.S. capacity had returned to full production.[1] Four refineries with a capacity of 0.75 million barrels per day or 4.4 percent of total U.S. capacity were restarting. However, six refineries with a capacity of 1.16 million barrels per day or about 6.8 percent of total U.S. capacity remained shut. The Capline, Colonial, and Plantation pipelines are operating again at full capacity.

In its *Short Term Energy Outlook* released on September 7, 2005, the Energy Information Agency (EIA) forecast that all oil and natural gas production and distribution facilities should resume normal operations by December 2005.

On September 2, 2005, the International Energy Agency declared an emergency and directed its twenty-six member countries, including the United States, to release 2 million barrels per day over the next 30 days from their oil and petroleum product reserves. Consequently, the U.S. government lent crude oil from the Strategic Petroleum Reserve (SPR) to refiners and offered to sell up to 30 million barrels of crude oil from the SPR. The U.S. government allowed foreign ships to transport crude oil and petroleum products between U.S. ports and issued a nationwide waiver on the requirements for summer gasoline and low-sulfur diesel.

Collectively, these actions have alleviated this supply shock and put downward pressure on spot prices. By September 8, 2005, the spot oil price declined by 7.6 percent to $64.50 per barrel; the spot unleaded gasoline price dropped by 30.8 percent to $2.17 per gallon; and the spot natural gas price fell by 12.9 percent to $10.95 per million British thermal units.

The EIA expects falling wholesale prices for crude oil and gasoline to reduce retail gasoline prices in coming months. The EIA forecasts that the average retail price for gasoline should decline to an average of $2.42 per gallon in the first quarter of 2006.

Conclusion. Katrina will temporarily reduce economic and employment growth through the end of 2005, but economic and employment growth is likely to rebound in 2006. Despite significant infrastructure damage, maritime commerce is being restored. Oil and natural gas production are continuing to recover from severe disruptions. The U.S. economy has displayed remarkable resilience in absorbing the effects of this catastrophe.

[1] This includes mid-west refineries that depend on crude oil deliveries from the region.