



# Resiliency: Lessons learned from downstream energy's past

by Heather Killough | January 2021

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## Bouncing back

The world is experiencing a global pandemic, and the energy industry has seen the hardships. We have weathered so many different events and anomalies that they are hard to catalog.

But we've been here before.

To state the obvious: our industry has been through some serious trials over time. But like in the past, we will emerge from the challenges of 2020 smarter and stronger.

Major local and world events make selling fuel difficult. We've endured more than our share of hurricanes, a financial crisis or two, and now COVID-19. And while it's tempting, I'm going to steer clear of the change in U.S. presidential administration and its potential impacts on our industry. But we've been through a host of those changes too, some good and some bad.

The energy market has reacted and recovered in the face of numerous anomalies. The big ones may signal clues regarding what 2021 holds and how long our recovery could last before "normal" returns.



## Historical oil power shifts & valuable go-forward lessons

The Organization of the Petroleum Exporting Countries (OPEC) was founded in 1960, ironically, to protect the member countries' resources from over-harvest and provide stability for the world oil supply. Things evolved, and OPEC began to flex its muscle. In 1973, OPEC subjected U.S. consumers to the power it could wield over their economy.

In October 1973, OPEC placed an embargo on oil exports destined for the United States. This was a politically-charged decision by OPEC, designed to punish the United States for supporting Israel during the Yom Kippur War.

This caused what is known historically as the first "oil shock." Oil rose from \$3 per barrel to \$12 per barrel in six months. (A second oil shock would occur in 1978 and continue into 1979 with the Iranian Revolution.)

The embargo led to gasoline shortages, triggering gasoline rationing here in the United States. Some readers will remember gasoline restrictions. Gasoline purchase was allowed only on certain days, based on whether your license plate ended in an odd or even number.

Though OPEC remains dominant over the global oil market today, we learned a valuable lesson.

Oil producers and governments acted swiftly to moderate OPEC's ability to strike again. Those embargoes and OPEC's other actions ultimately led to the creation of the Strategic Petroleum Reserve (SPR). By creating the SPR, influential global leaders eliminated the possibility that the United States could be drastically disabled by OPEC again.

Today, roughly 72 million barrels of oil are produced daily, refined and sold by literally thousands of oil companies. As an industry, we still hinge on OPEC production announcements, but in fact, six of the world's largest oil-producing countries are not members of OPEC, thus dampening the impact of a production shift by the organization.

Although OPEC controls 40% of the global oil supply, we still survive and thrive by staying on top of our markets, and we do it at a granular level. Think of all the data access you have today that was fueled by competition.

We track two crude oil benchmarks globally (WTI and Brent) because the United States began producing enough of its own crude to require a benchmark. We track spot and rack prices for all liquid commodities. We use analysis tools to suggest arbitrage between markets and for calculating real-time cost and margin. All of this data has become available as the competitive landscape has matured in downstream energy, and as the result of hardships we have overcome that left us smarter.



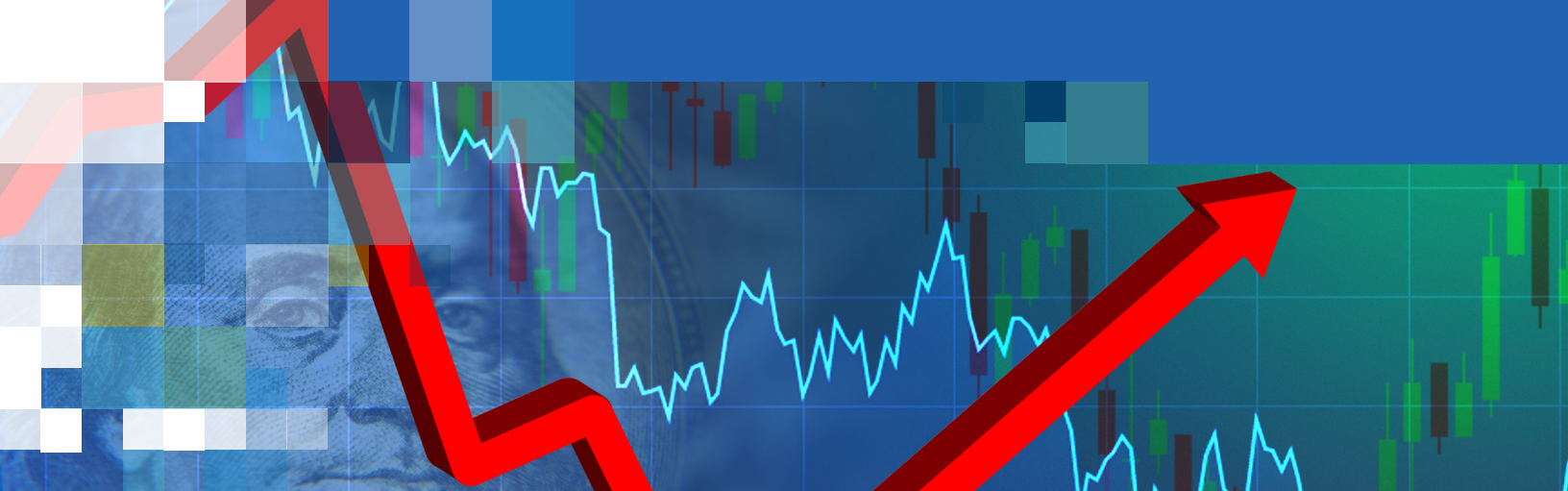
## 9/11 & COVID-19

The 2001 terrorist attacks on the United States destroyed jet fuel demand and were a key factor in pushing the U.S. economy into a deep recession. U.S. jet fuel demand would plunge over 11% before that fateful September was over. Jet registered annual declines for two years afterward, -4%, -2.1%, and -2.7% from 2001 to 2003, before finally returning to year-on-year growth in 2004. It took more than 30 months for travelers around the globe to feel confident in flying again, and it cost the aviation industry \$55 billion and 160,000 jobs (Source: Centre for Aviation, 2011).

What can 9/11 tell us about the recovery from coronavirus? The economy is recovering slower after 2020 than 9/11 (which managed to expand by the end of the fourth quarter of 2001). No one will ever forget 9/11, but the event also made us smarter. Even the problem of mobile phone service failure during the attacks caused most of us to employ comprehensive business continuity plans.

In early December 2020, in Bank of America's 2021 Energy Outlook, they said oil could potentially reach \$60 per barrel in 2021, and Brent will average ~\$50 per barrel (WTI ~\$47). As of December 2020, oil demand was down just 6% YOY.

Energy is recovering. Ahead of the pandemic — on January 6, 2020 — WTI was trading at its highest level of the year at \$63.27 (Brent just above \$65). The average WTI price from January 2 to March 10 (the unofficial beginning of COVID impacts on fuel markets) was \$53 per barrel. Today, as I type, Brent has reached \$50 per barrel after recovering from the \$19 low in April.



## 2008 – the great recovery

The 2008 financial crisis was the deepest economic recession since the Great Depression. Crude fell from \$147 a barrel in July 2008 to \$33 a barrel in February 2009. As loan policies tightened and the availability of borrowed capital became constricted, the housing bubble collapsed, and unemployment soared to 10%.

U.S. fuel demand tumbled and took nearly a decade to recover. According to the Federal Highway Administration, after a record high of more than three trillion vehicle miles traveled in November 2007, the figure plunged to a seven-year low. In fact, it didn't return to 2007 levels until a solid eight years later in 2015.

How did the Great Recession change us? It prompted extreme consolidation in the downstream market. Margins were pinched so tightly that companies went out of business. The industry saw the closure of 2,042 stores in the two years following the crash.

Sustained economic recovery did not happen for nearly five years – long after the recession technically ended in June 2009. But recover, we did. Growth in gasoline consumption – despite many infringing factors – grew 3.36% through 2019 and an incremental 115K bpd (Source: The Energy Information Administration).

We streamlined and operated smarter and leaner than before.

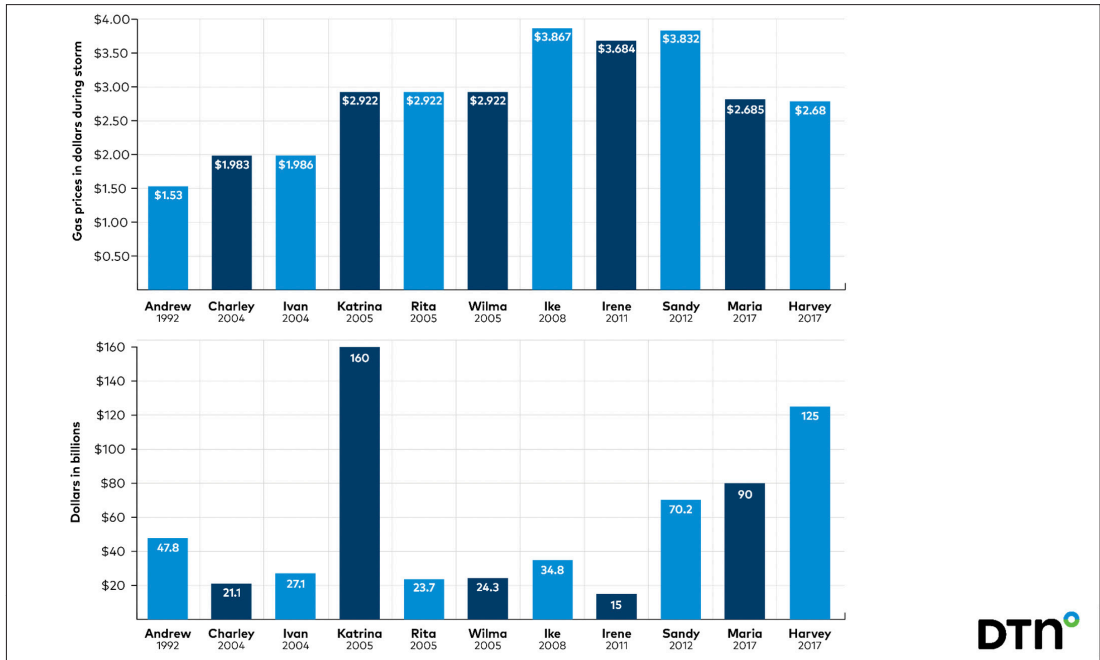


## Natural disasters vs. COVID-19

The industry has dealt with historic storms causing lost supply, logistical disruptions, and sharp price spikes. In addition to 2020's many hardships, it also now holds the record for the most active Atlantic hurricane season on record.

COVID-19 is catastrophic, but storms are arguably more disruptive, frequent, and costly. Interestingly, the costliest storms in terms of damage have no correlation to fuel price levels during and after the storm. What might this mean? A storm's size and intensity don't necessarily signal more expensive fuel due to higher acquisition and transportation costs.

You could infer that our industry was better prepared for some storms and not others. The numbers (see chart on the next page) suggest that as an industry, we have improved our ability to get fuel in place ahead of and immediately following tropical events (Hurricanes Maria and Harvey, 2017).



The impact of notable hurricanes on gas prices.

Think for a minute about productivity. What has changed in your business? In most cases, are you not just a bit surprised at how resilient you are? Sales teams working remotely was de rigueur, but now operations, client success, and technical teams are working remotely. In the past, we would have considered remote work not only impractical but impossible with any level of success. Look at us now.

We are also reaching historic margins, some with higher volumes and finishing the best year they've ever recorded.





## 2020 – the imperfect storm

The timing of COVID-19 and the resulting shutdowns could not have been worse. As a dangerous pathogen escaped from China and quickly spread across the globe, oil demand crumbled in the wake of no-travel orders – not even from home to the store for a short time.

As proof of the “things could always be worse” school of thought, Saudi Arabia and Russia engaged in a five-week oil volume war that led to steep contango for oil and its products.

This entire situation unfolded as the industry shifted from winter to summer grade gasoline. The Environmental Protection Agency (EPA) and states had to quickly respond with waivers because storage was at capacity with stranded winter product. Adjustments were made, and fortunately, the immediate crisis passed with surprising speed.

COVID-19, international oil feuds, and summer RVP change. What an imperfect storm.



## When does “normal” return?

“Normal” is in the eye of the beholder. COVID-19 recovery will be unique and perhaps unpredictable. The energy industry has recovered each time in the past from every anomaly it faced.

As an oil company in the wake of COVID-19, you can take away four valuable lessons that historical events have taught us.

### 1. Mitigate risk

Where does risk exist in your business? Think beyond hedging for financial risk. Consider the costs associated with failure to forecast demand accurately, failure to load over administrative issues, and lost business due to lack of price intelligence.

### 2. Compete like a champion.

Determine your greatest areas of strength. These could be favorable supplier relations yielding the ability to optimize your inventory. Perhaps also, your access to comprehensive market intelligence.

### 3. Make targeted plans.

From continuity planning to sales forecasting, plan in detail how you will reach the finish line. Use data to strengthen your plans and forecasts.

### 4. Be agile, be lean.

Identify the areas of the enterprise that are less efficient and understand why. Act now to reduce your internal costs and improve your bottom line. Consider the places in your workflows that could be automated, making your people more productive and your records and transactions more accurate.

Downstream energy is resilient and succeeds in spite of adversity. Take advantage of major changes to be more efficient and profitable. This environment is unprecedented, and so is our ability to thrive.



Heather Killough is an energy technologist and leader with more than 20 years of experience in the world of transportation fuels. As the senior vice president of energy at DTN, she serves as the voice of the customer, ensuring that solutions deliver operational intelligence across the fuel supply chain and improve decision-making processes.