ENERGY INVESTMENT BANKING / FALL 2020

Midstream Market Observations

September 2020 / Confidential

Jefferies

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Macroeconomic Landscape

Signs Point to the Onset of a Recovery

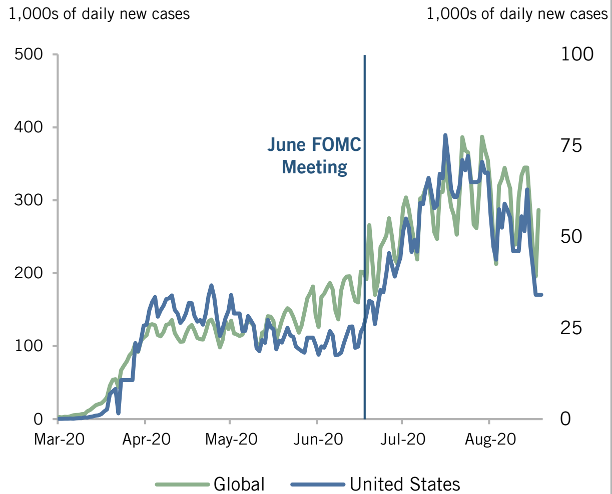
Financial Markets have Rallied but is a Return to Normal In Sight?

Key Points

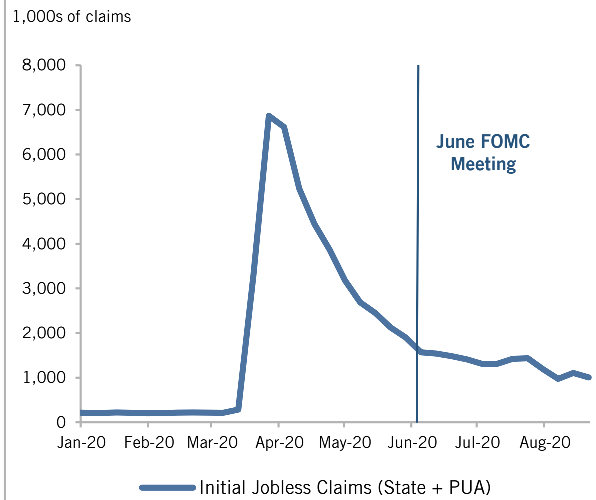
- Following the bottoming-out of the S&P 500 on March 23rd – during the early days of the COVID-19 pandemic – the U.S. Government began an unprecedented program of both fiscal and monetary stimulus to minimize the immediate impact of the resulting economic slump
- The key questions that have emerged are whether sustained government intervention will lead to another asset bubble and whether a sustained "second wave" of COVID infections has the potential to derail the recovery
  - Global and U.S. daily new cases of COVID-19 are beginning to abate
  - While some type of vaccine may be available this year, the logistical challenges of mass production and widespread distribution leave some questioning the prospects of a vaccine's efficacy in materially reducing the spread of the virus
- Notwithstanding the pandemic, markets continue to reach new highs and U.S. initial unemployment claims continue to decline from the late March peak

S&P 500 Performance Since March 23rd

Global & U.S. Daily New Cases of COVID-19



U.S. Initial Unemployment Claims



"…ultimately, the course of the economy is going to depend on the course of the virus, and we're following it very closely."

Federal Reserve Vice Chairman Richard Clarida, July 7, 2020

Source: IHME and Bloomberg.
(1) Ten largest contributors to the S&P 500: AAPL, MSFT, GOOGL, AMZN, FB, BRK.B, JNJ, JPM, V, WMT.

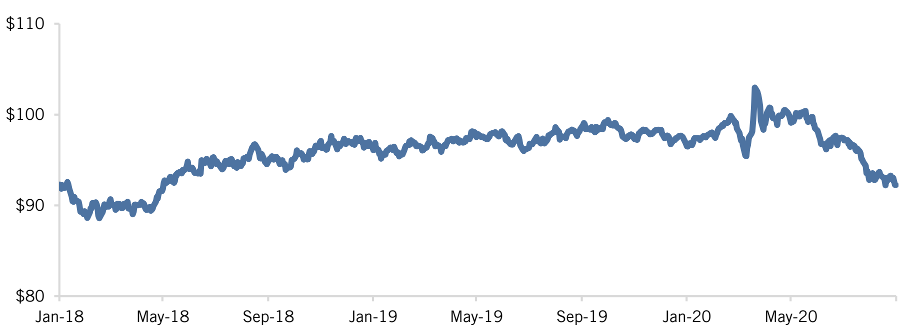
Accommodative Monetary Policy is Likely Here to Stay

Late Summer Policy Statements Indicate Low Rates for the Foreseeable Future

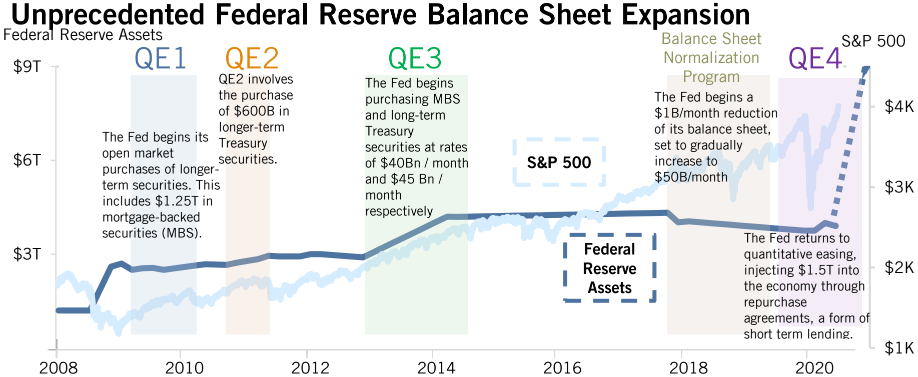
Key Points

- At the July 29th policy meeting, the U.S. Central Bank indicated that rates would remain close to zero; all subsequent Fed commentary in the intervening weeks has supported the thesis that the timeline for any eventual tightening of monetary policy is likely to be measured in years and not months or quarters
- With U.S. Treasury rates remaining at near-zero levels (see detailed commentary on the following page), the U.S. Dollar Index has fallen to its lowest level since the beginning of 2018; this portends a shifting of aggregate demand away from the U.S. and into other developed economies
- The key question as it relates to the health of the U.S. economy is just how much of the post-COVID recovery has been driven by monetary policy, as opposed to strong underlying fundamentals
  - The Federal Reserve's balance sheet – after shrinking slightly in 2018 and 2019 – has expanded to more than double its post-Global Financial Crises book value as the Fed has accelerated its activity in the repo markets and begun openly purchasing corporate debt securities
- However, the most telling announcement from the Fed came in late August when it was announced that the central bank will not raise interest rates simply because unemployment has fallen to a low enough level; rather, they will wait until there is a broad consensus from their various economic modeling tools that inflation is actually materializing (i.e. they will go to great lengths to avoid the Depression-era mistake of tightening too early)

U.S. Dollar Index Showing Pessimism



Unprecedented Federal Reserve Balance Sheet Expansion



Recent Commentary from Senior Federal Reserve Leadership

"…reflects the reality that economic models of maximum employment, while essential inputs to monetary policy, can be and have been wrong. A decision to tighten based solely on a model without any other evidence of excessive cost-push pressure…is difficult to justify given the significant cost to the economy if the model turns out to be wrong."

Vice Chairman Richard Clarida, August 26, 2020

"There's more that we can do, [and] there's more that we will do if we need to."

Vice Chairman Richard Clarida, July 7, 2020

"…the Fed will act forcefully, proactively and aggressively as we deploy our toolkit—including our balance sheet, forward guidance, and lending facilities—to provide critical support to the economy."

Vice Chairman Richard Clarida, June 16, 2020

Source: Refinitiv and Visual Capitalist.

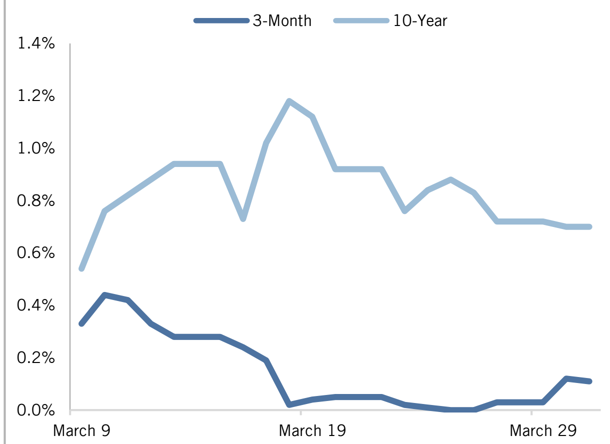
Early Signs of Strain in U.S. Government Bond Market have Softened

The Federal Reserve is Pursuing a Policy of 'Max Liquidity' at all Costs but will the Treasury Market Continue to Show Support?

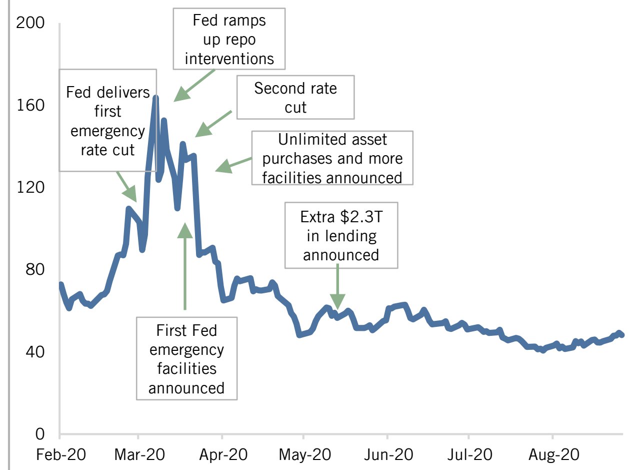
Key Points

- In March – during the early days of the pandemic – "a flight to cash" resulted in a temporary, volatile steepening of the yield curve, contrary to the monetary easing intentions of the Federal Reserve
  - The 10-year jumped to ~1.2% on March 19th, up from its low point of only a few days earlier, implying a monetary tightening or broader market concerns relating to the financing of growing budget deficits
  - Bank balance sheets – which were already bloated from Treasury holdings – likely contributed to the widening bid-ask spread in mid-March as lenders tempered their demand for U.S. government bonds
- However, following two rate cuts in quick succession and the announcement of significant asset purchases by the Fed, the volatility in the Treasury market softened considerably; however, markets could experience additional Treasury-driven uncertainty if significant Federal Reserve support does not continue

Treasury Yields – Early Days of the Pandemic

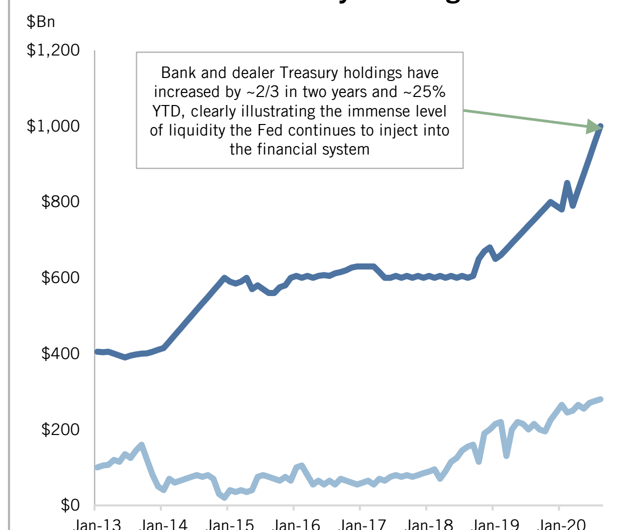


Treasury Market Volatility



10-year Yield – Pre-Pandemic to the Present

Bank and Dealer Treasury Holdings



Source: Refinitiv, Bloomberg, Federal Reserve, New York Fed, TD Securities.

Are Gold Prices Signaling Stormy Weather Ahead

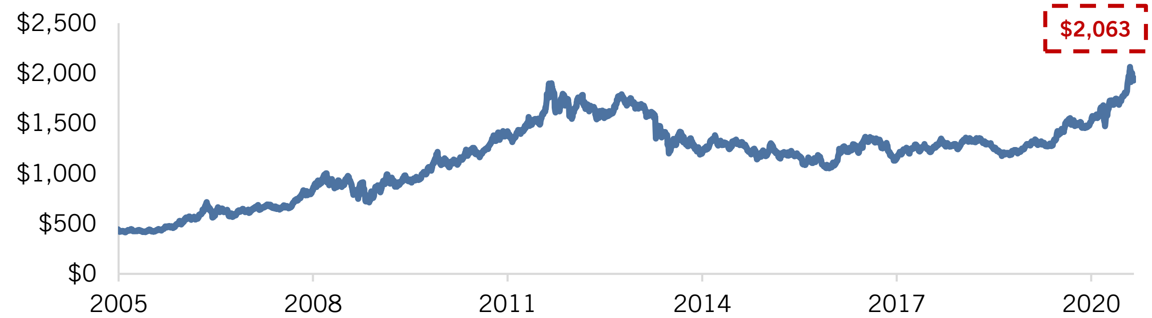
Skyrocketing Gold, Rangebound Crude Oil and a Stabilized Baltic Dry Index are Giving Mixed Signals

Key Points

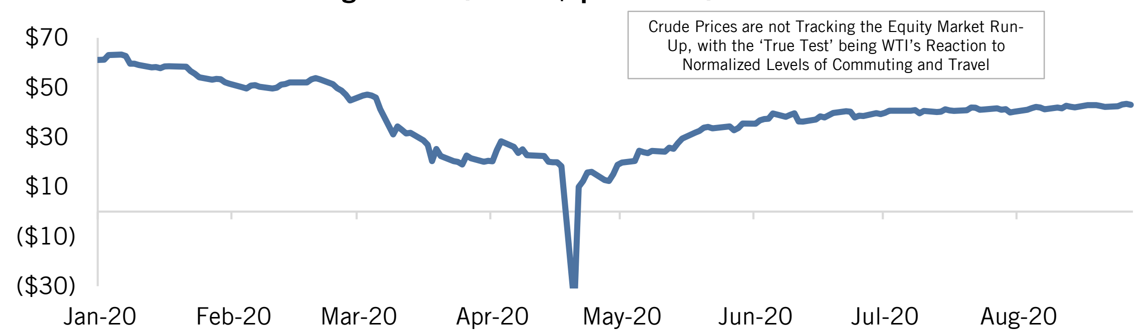
- The comparative movements of gold and oil prices appear to imply that investors are pursuing the "flight to safety" of precious metals just as the lack of a recovery in crude oil prices may suggest economic activity is failing to accelerate
- With historically high levels of "money-printing" amidst the pandemic resulting in limited real returns available on presumably risk-free U.S. Treasuries, the push into gold and lack of resumption in demand for crude suggests that record levels of investor cash are betting on a combination of slower economic growth and significant long-term inflation risk
  - However, with the deflationary impact of the pandemic being so great, governments and central banks had little choice but to aggressively pursue accommodative fiscal and monetary policy in the hopes of potentially avoiding a prolonged recession
- Interestingly, the Baltic Dry Index ("BDI") – a key leading indicator of demand for raw materials and predictor of future economic activity – has stabilized above pre-pandemic levels after a dramatic surge in the early part of the summer, which is a positive sign for industrial production in emerging markets

> "We have long maintained gold is the currency of last resort, particularly in an environment like the current one where governments are debasing their fiat currencies and pushing real interest rates to all-time lows."
>
> ***Goldman Sachs, July 28, 2020***

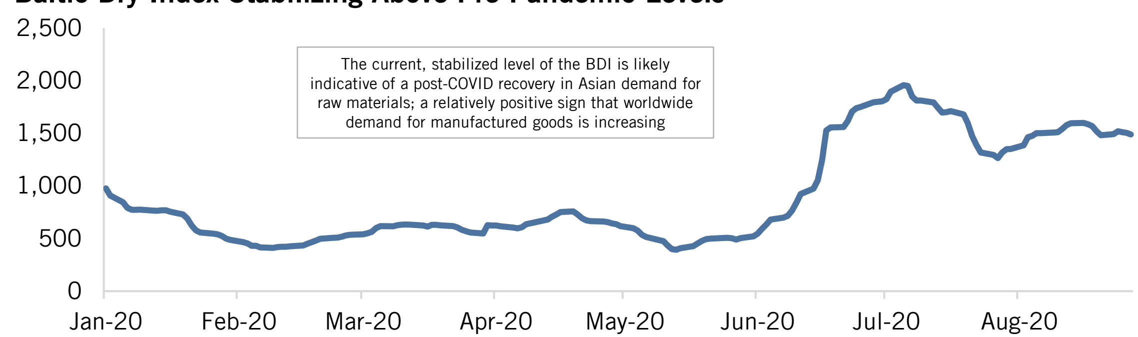
Gold Prices Achieve All-Time High in Early August ($ per Troy Ounce)



Crude Prices Remain Rangebound (WTI – $ per Barrel)



Baltic Dry Index Stabilizing Above Pre-Pandemic Levels



Source: Refinitiv and Bloomberg.

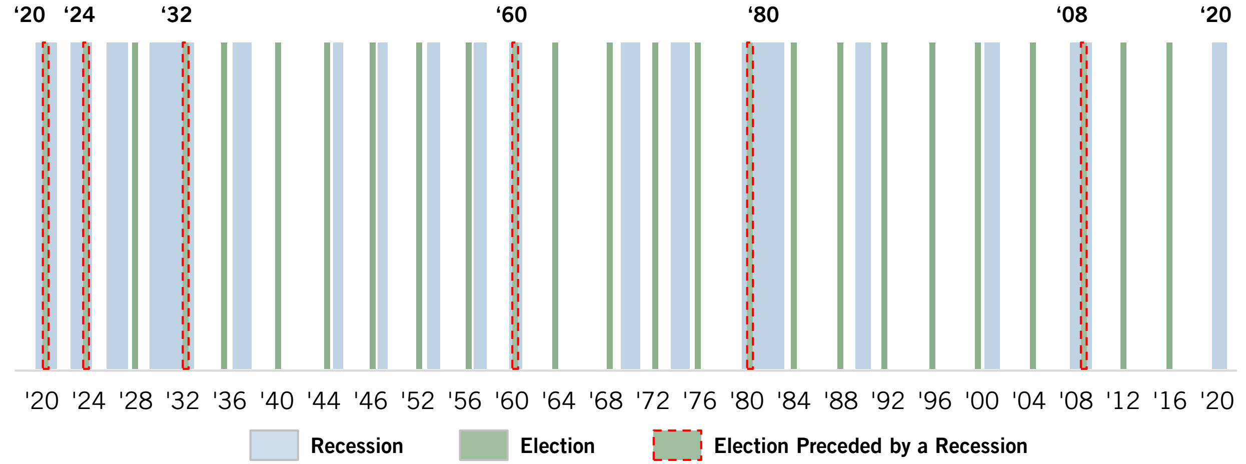
Investors Remain Focused on the U.S. Presidential Election

Elections in the Midst of Recession Do Not Bode Well for the Incumbent Party

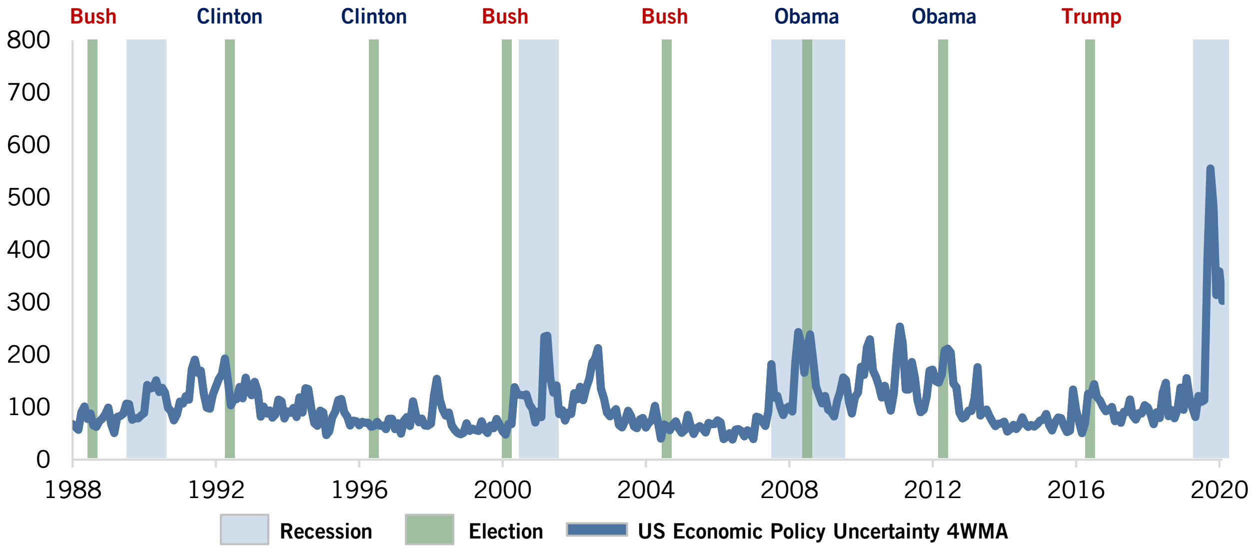
Key Points

- Over the past century, for the six presidential elections immediately preceded by a recession (1920, 1924, 1932, 1960, 1980 and 2008), five resulted in the presidency changing parties – including the last four
  - The only exception was 1924 when incumbent Calvin Coolidge – who took office following the death of Warren Harding the year prior – won re-election with the help of a Progressive Party candidate syphoning significant support from the Democratic nominee
- Despite historical precedent, the looming election will likely take place at the highest level of the U.S. Economic Policy Uncertainty Index in more than 30 years; this, combined with both unprecedented political division and the failure of polling data to accurately forecast the outcome in 2016, is likely to result in a highly uncertain political landscape heading into this Fall's election

U.S. Recessions vs. U.S. Presidential Elections



U.S. Economic Policy Uncertainty Index vs. U.S. Elections



Source: Bloomberg.

Jefferies

Current State of the Oil and Gas Industry

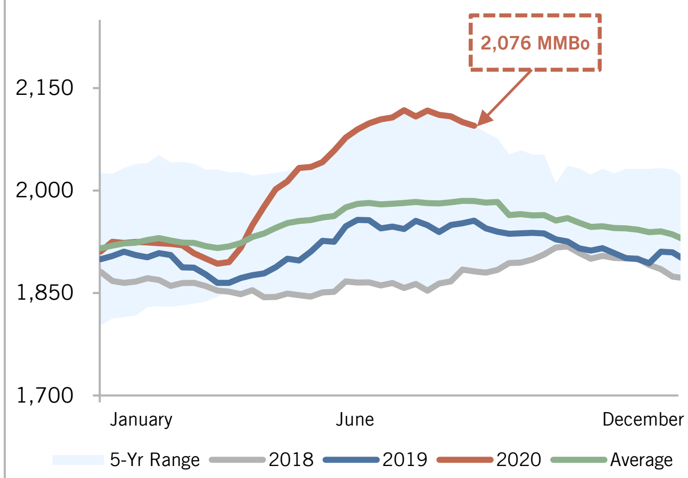
Oil Market Outlook

Brent and WTI Prices Have Rebounded off Spring Lows but Remain Range-Bound as Demand Concerns Due to COVID-19 Linger

Key Points

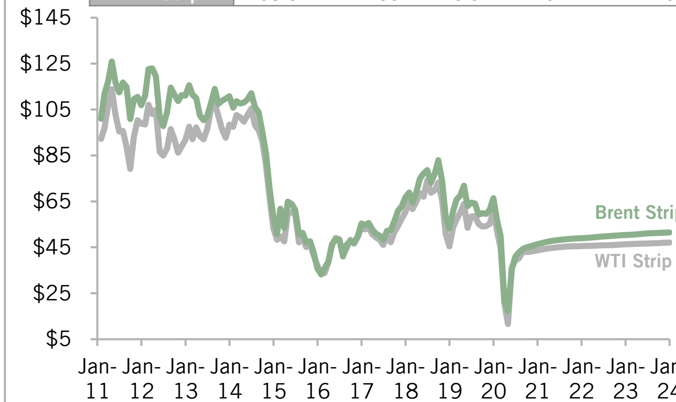
- COVID-19 demand deterioration far exceeded initial estimates of ~1 - 4 MMBbl/d
- Coupled with the Saudi-Russian oil price war, the crisis has created a significant inventory overhang, likely taking several quarters to unwind
- The OPEC+ production cut in May and June, combined with Non-OPEC+ production declines, has helped to stabilize the market
- Brent and WTI have strengthened from Spring lows due to:
  - Increased demand as economic activity increases
  - Continued U.S. crude draws
  - Anticipation for the gradual easing of OPEC+ production cuts and stated desire of Saudi Arabia to increase prices above current levels
- However, spot prices have remained range-bound in the low $40s as demand concerns related to COVID-19 persist
- Longer term, for all parties involved, oil prices in the $20s and $30s are unsustainable
  - Saudi Arabia requires prices closer to $80/Bbl to fund their stated economic reforms
  - Russia, whose estimated fiscal breakevens are ~$40/Bbl, favors prices that keep shale growth at a minimum (~$55/Bbl)

Crude Oil Storage Build (MMBo)

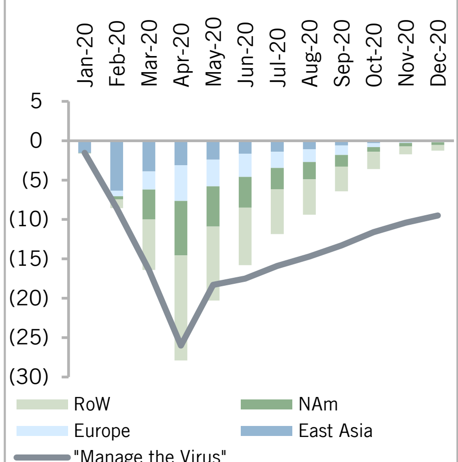


Crude Oil Pricing Trends

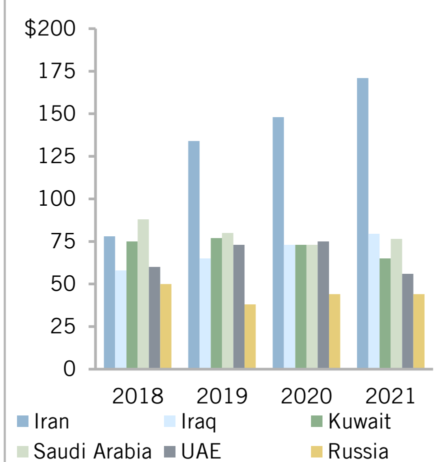
	2020	2021	2022	2023	2024
Brent Strip	$40.93	$48.14	$49.74	$51.01	$52.09
WTI Strip	38.37	44.99	45.91	46.71	47.46



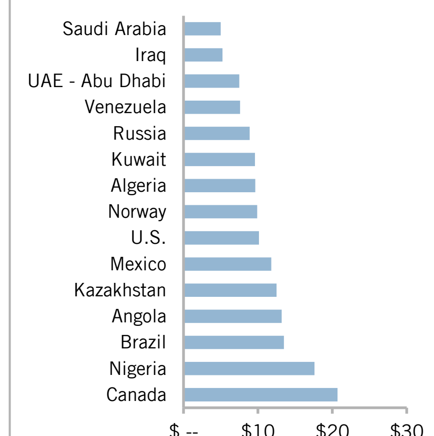
Global Oil Demand Impact by Region (MMBbl/d)(1)



Fiscal Breakeven Prices for Selected Crude Producers ($/Bbl)



Operating Costs by Top 15 Oil Producing Countries ($/Bbl)(2)



Source: Rystad Energy, CapIQ, IEA, EIA, IHS Markit Briefing (March 2020) and Wall Street research. Market data as of 8/28/20.

(1) "Manage the Virus" scenario includes no cultural activity, case isolation / home quarantining and social distancing. "Effective Prevention Scenario" shown in bar chart, which includes the "Manage the Virus" scenario plus a curfew for all non-essential workers and penalties for non-compliance and complete isolation between regions and countries.

(2) Includes production-weighted average for each country. Includes variable and fixed costs but excludes quality-based market differentials. Iran is excluded due to lack of reliable data.

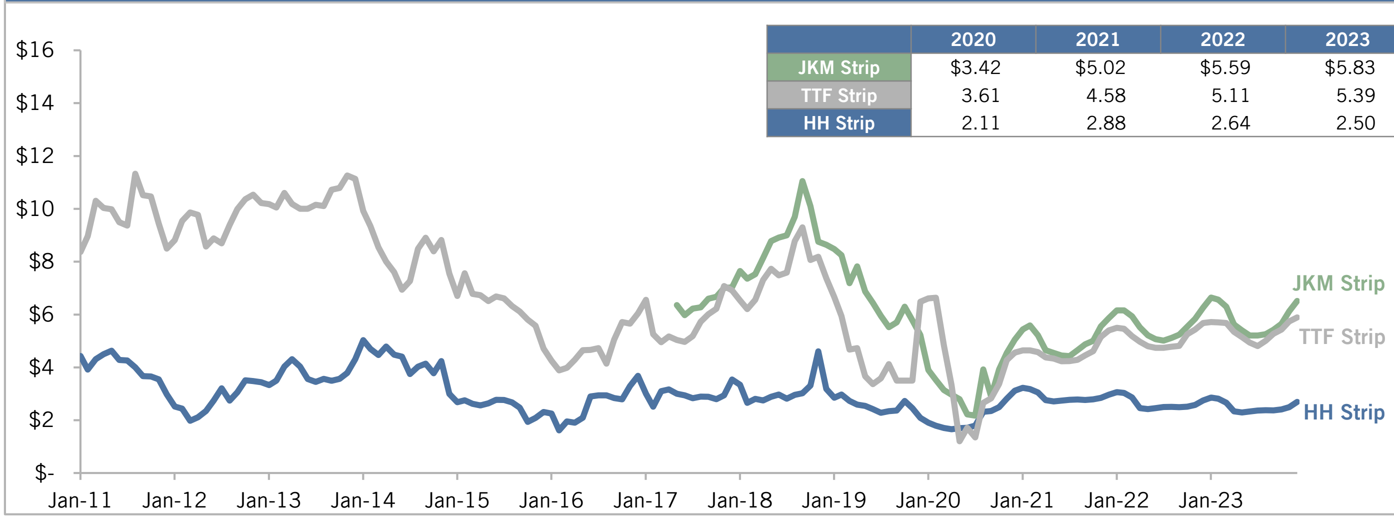
Natural Gas Market Outlook

Natural Gas Prices Have Strengthened Slightly Due to a Pick-Up in LNG Demand

Key Points

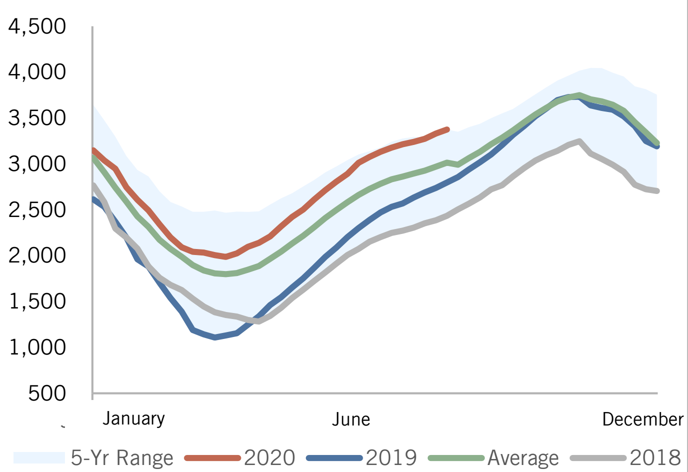
- Henry Hub gas prices are holding steady above $2.00 as decreases in associated gas production, a pickup in LNG demand and increased electricity demand stemming from a warmer-than-expected summer
  - Onshore activity levels may result in 6 Bcf/d decline to exit rate 2020 domestic gas production
  - Market likely to remain supply-driven as operators evaluate whether to resume drilling activity
  - In Asia, COVID-19 allowed legal leeway (i.e., declaration of force majeure) for the world's largest LNG customers to cancel contracted cargo deliveries but key LNG trading markers have shown positive gains in recent weeks
- Additionally, longer-term commodity futures prices are supportive for LNG exports to Asia (JKM) and Europe (TTF)

Natural Gas Pricing Trends ($ per MMBtu)

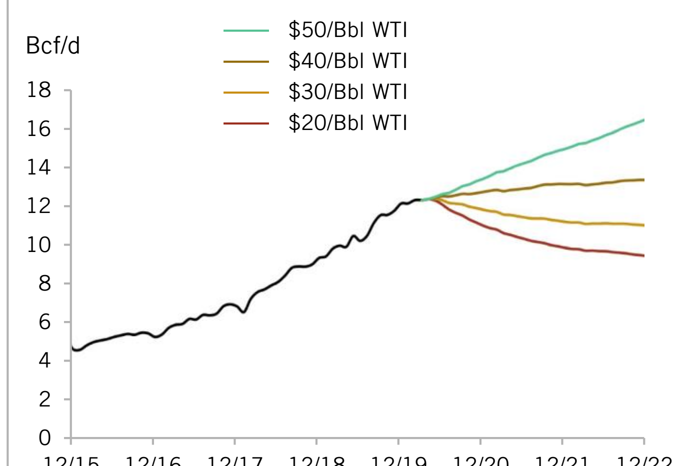


	2020	2021	2022	2023
JKM Strip	$3.42	$5.02	$5.59	$5.83
TTF Strip	3.61	4.58	5.11	5.39
HH Strip	2.11	2.88	2.64	2.50

EIA U.S. Natural Gas Storage (Bcf)



Permian Dry Gas Prod. by Oil Price Scenario



Source: CapIQ, Rystad Energy, Bloomberg, EIA, Wall Street research, IHS Markit, Rystad Energy ShaleWellCube and 2019 Shell LNG Outlook. Market data as of 8/28/20.

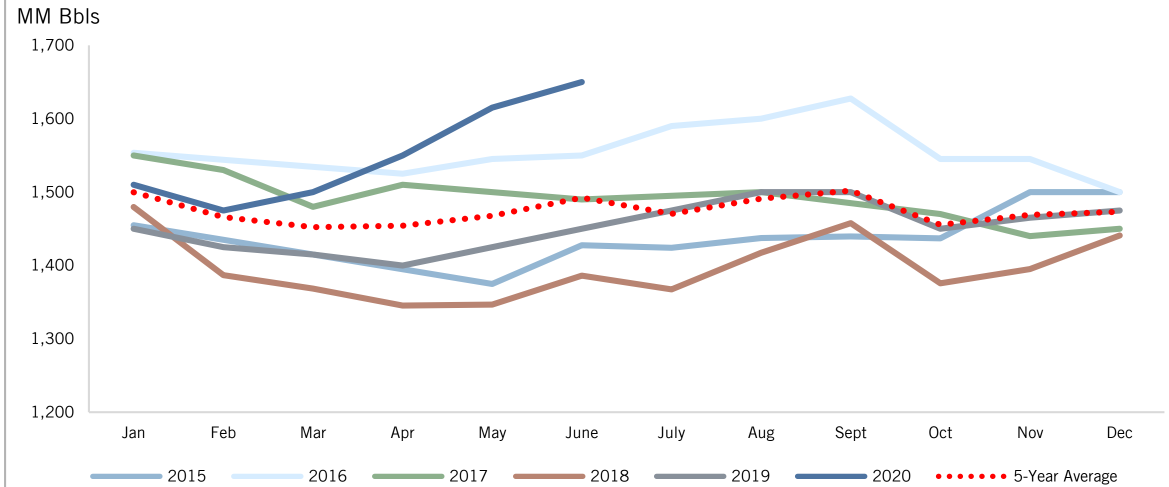
Refined Products Market Outlook

COVID-19 has Resulted in Major Demand Destruction, Causing Significant Dislocations in the Refined Product Market

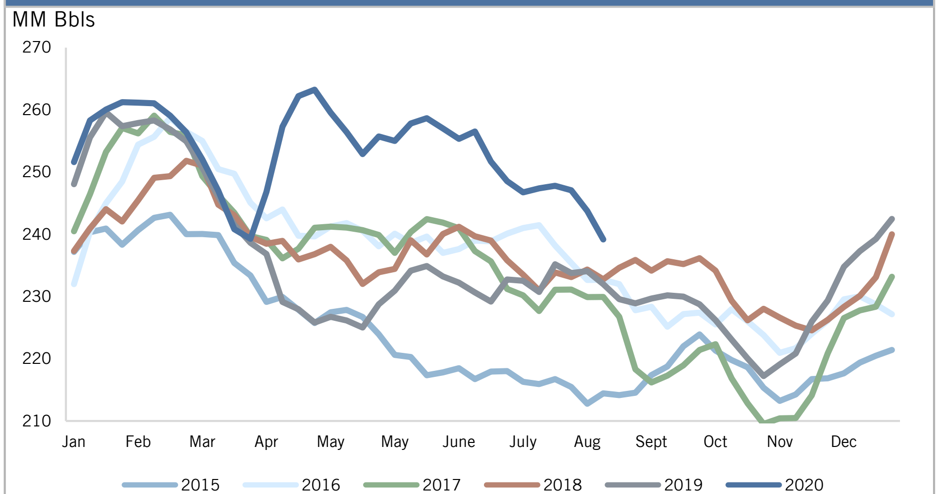
Key Points

- COVID-19 resulted in significant and immediate global demand destruction for refined products
- Petroleum product stocks – including gasoline and distillate – are holding well above their five year averages as the market attempts to re-balance in the wake of the pandemic
- While the resultant 'super contango' has been a boon for operators of refined products storage facilities, the market itself is not likely to come back into balance until increased demand driven by normalized commuting and air travel returns

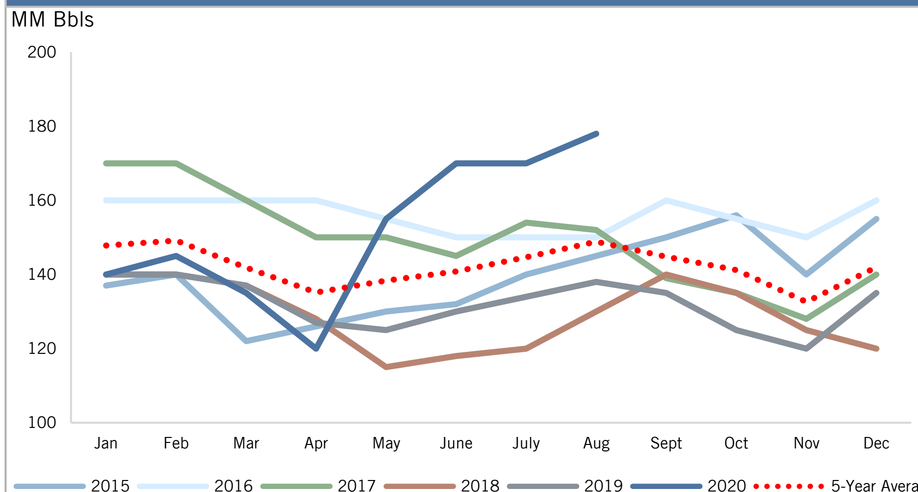
Aggregate Annual Petroleum Product Stocks – 2015 to 2020



Aggregate Annual Gasoline Stocks – 2015 to 2020



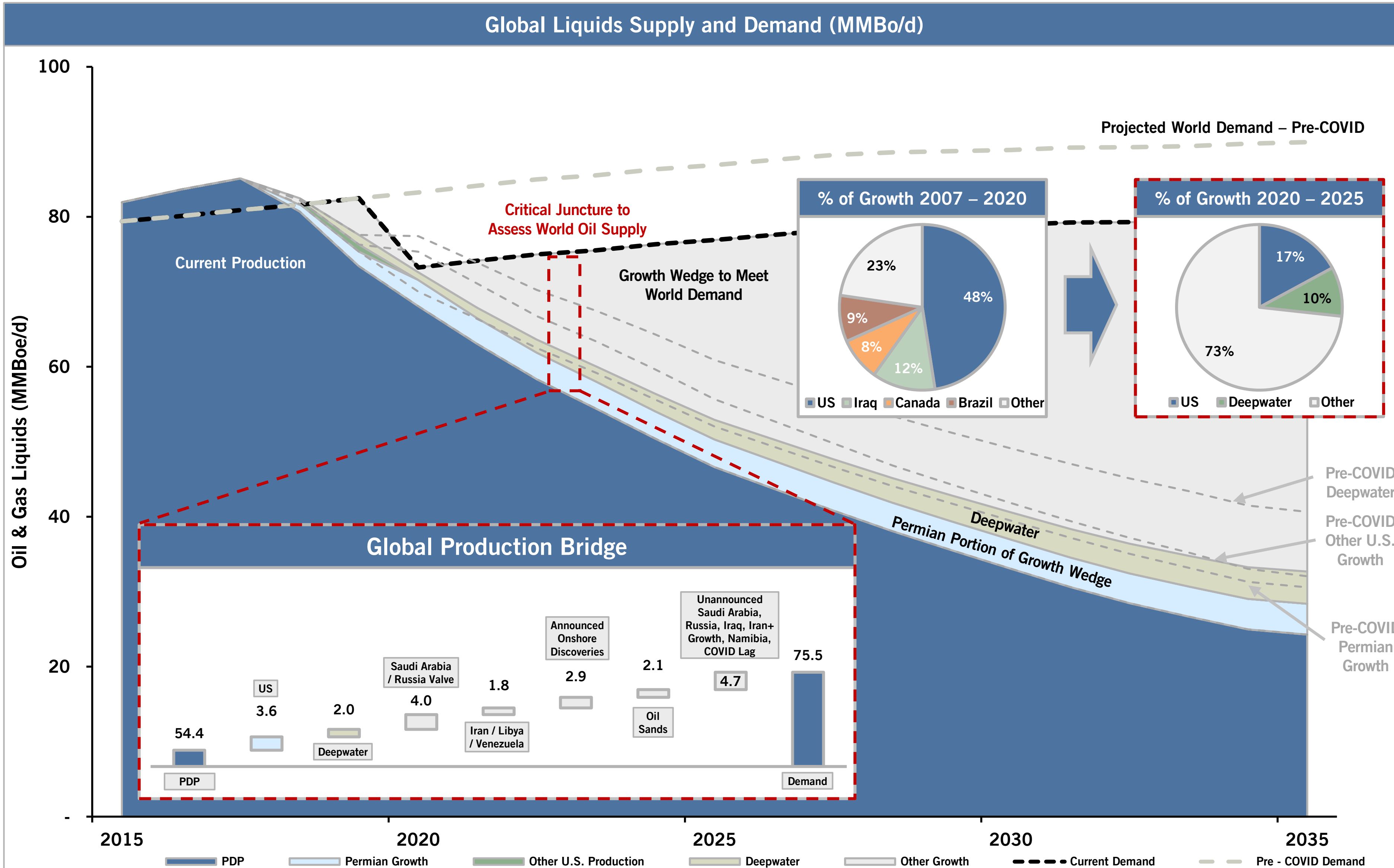
Aggregate Annual Distillate Stocks – 2015 to 2020



Source: IEA and EIA.

Global Supply / Demand Imbalance Has the Potential to Push Hydrocarbon Prices Higher

Lack of U.S. Future Growth Could Create Supply / Demand Imbalance



Source: ExxonMobil and Jefferies estimates.

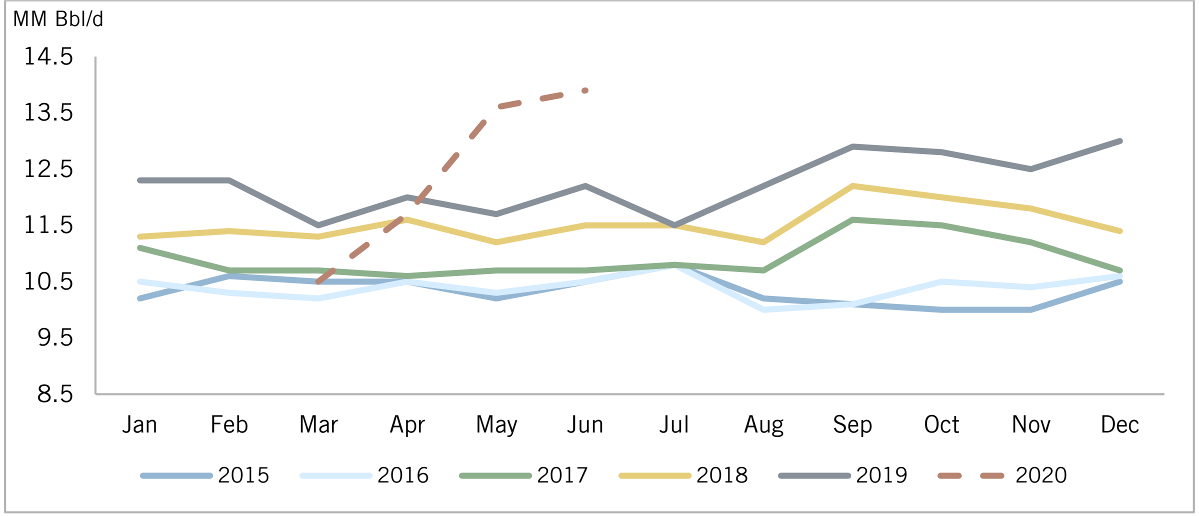
Global Supply / Demand Imbalance Has the Potential to Push Hydrocarbon Prices Higher (Cont'd)

Demand Recovery in Emerging Markets Foreshadows Potential Upward Pressure on Commodity Prices

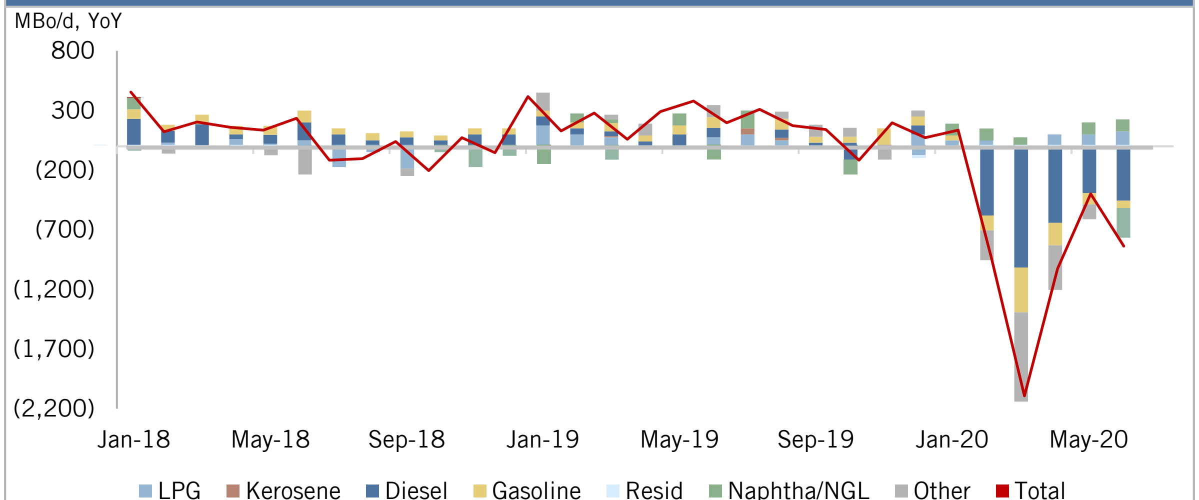
Key Points

- In addition to declining U.S. production driving a potential supply-demand imbalance (with the resulting upward pressure on commodity prices), the world's two most populous countries – China and India – have shown an impressive post-COVID recovery in their consumption of refined products
- If this represents a leading indicator of a broader recovery in consumption trends – which is not inconceivable given that the pace of virus infections seems to have abated across Asia – a subsequent increase of transportation fuel consumption across the developed world will likely push hydrocarbon prices higher
- Another key consideration is a possible shift away from public transportation as private vehicles are viewed as safer (at least from a public heath perspective) than trains, buses and subways
  - If avoidance of mass transit becomes the 'new-normal' – especially in densely-packed cities like New York, London or Tokyo – it is possible that long-term demand for gasoline and distillates will push past all-time highs (with emerging markets, where per capita automobile ownership is comparatively low, most aggressively leading the push from buses and subways to more widespread use of personal cars)

Chinese Refined Products Consumption – 2015 to 2020



Indian Oil Consumption by Product – January 2018 to the Present



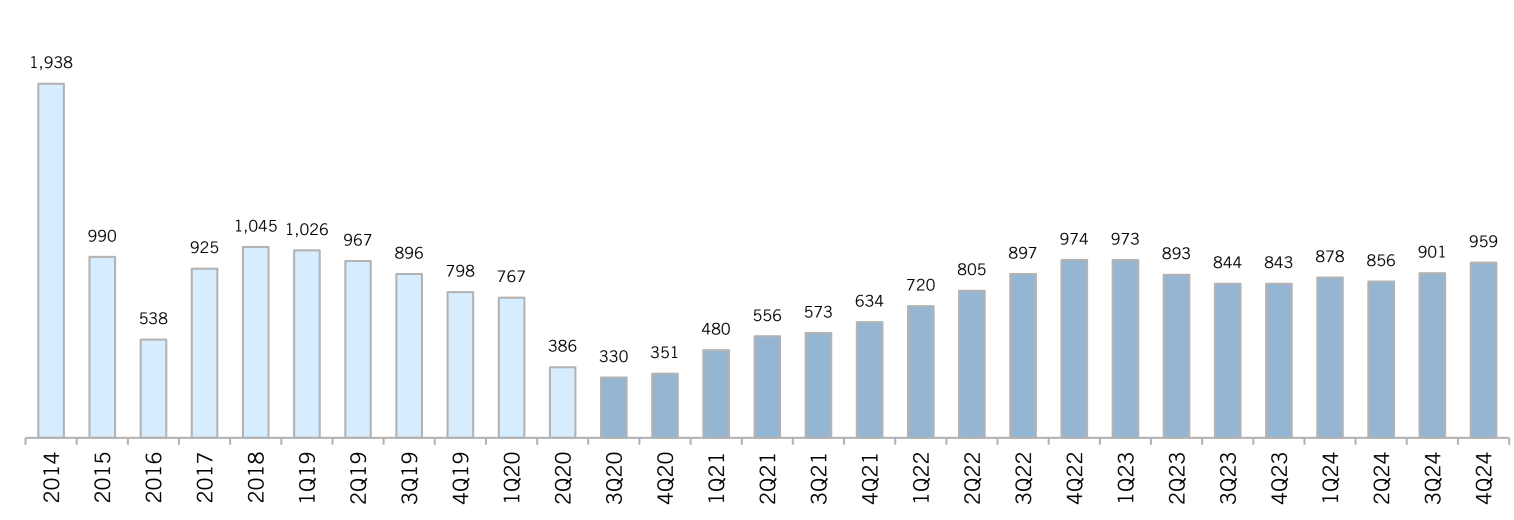
Source: CEIC, BofA Global Research and PPAC.

U.S. Onshore Drilling Rig Outlook

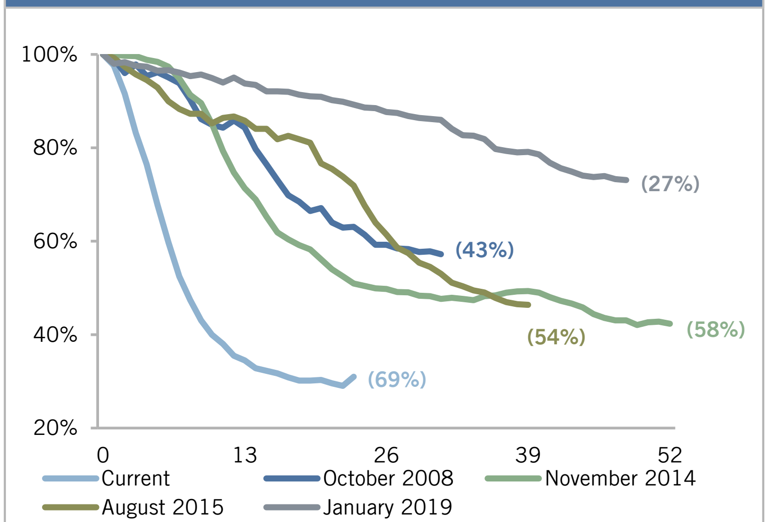
Key Points

- U.S. rig count now stands at 254, dropping nearly 540 rigs since mid-March, which represents the steepest and deepest rig count decline in the unconventional era
- The near-term onshore drilling outlook remains challenged under a range of scenarios
  - The extent of rig count decline has surpassed original downside expectations, with the depth of the trough exceeding the 2015 – 2016 downturn
  - Throughout the previous downturn, gas-directed horizontal rig count outpaced oil rig count; however, gas fundamentals have recently deteriorated more aggressively than in the past

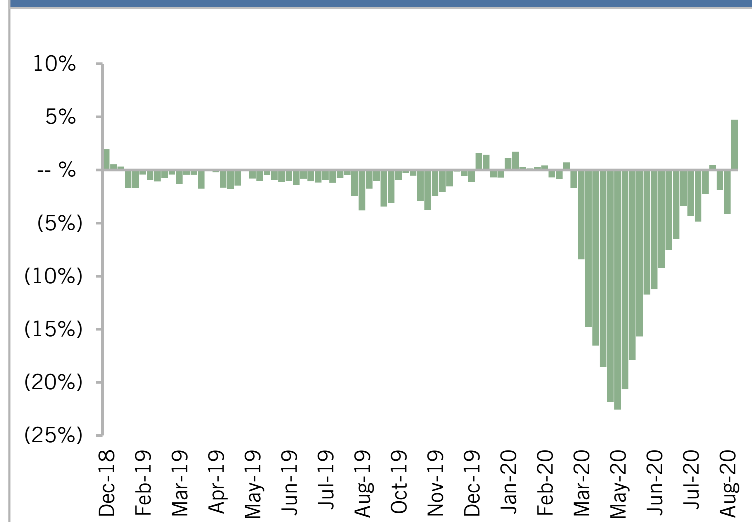
U.S. Onshore Rig Count – Historical and Projected (1)



Comparison of Horizontal Rig Count Declines from Peak



Horizontal Rig Count Rolling 2-Week Percent Change



Source: Rystad Energy ShaleIntel, Baker Hughes, Spears and Associates, company filings and presentations.
(1) Forecast represents Rystad Energy Base Case which includes 2020, 2021, 2022, 2023 and 2024 WTI prices of $36/Bbl, $44/Bbl, $62/Bbl, $62/Bbl and $62/Bbl, respectively.

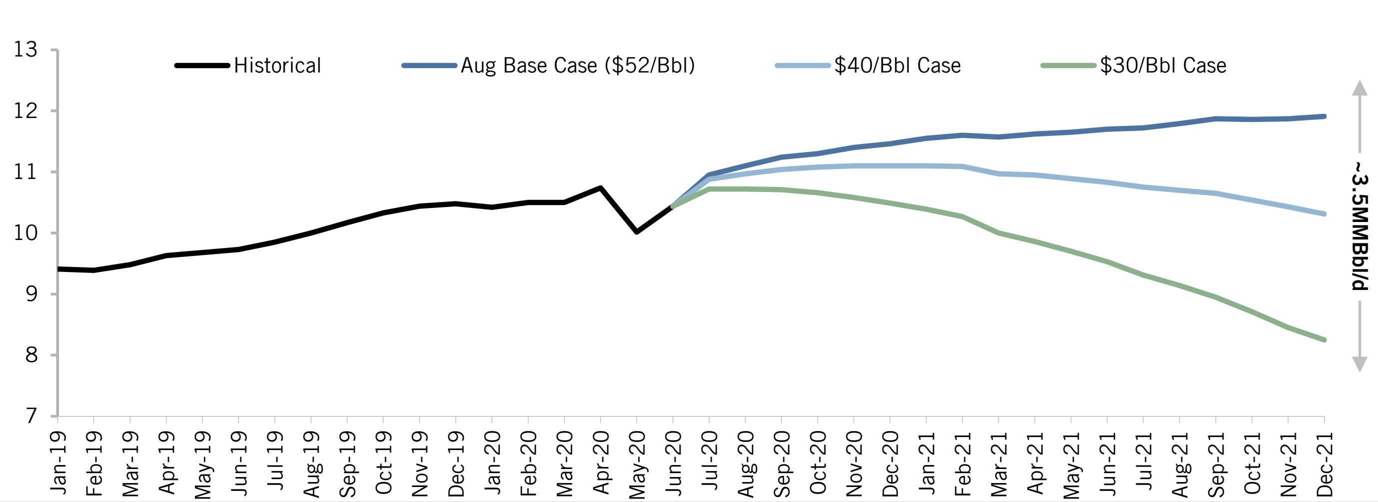
Lower 48 Well Count and Production Outlook

Exit Rate 2021 Oil Production Could Decline by as Much as 3.5MMBbl/d Depending on Operators' Oil Price Realizations

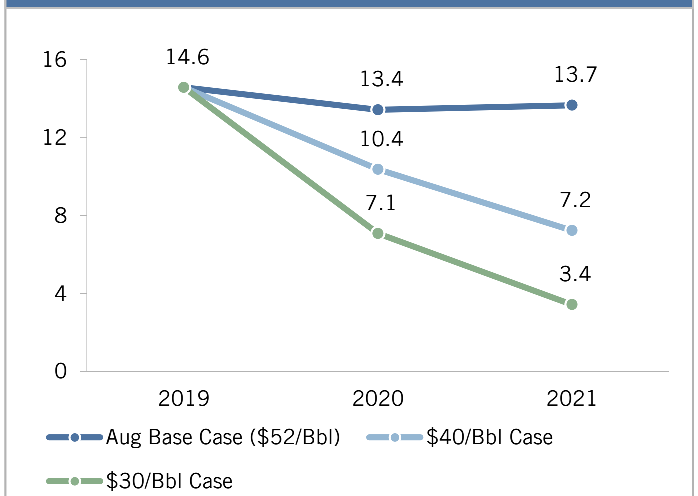
Key Points

- 2020 average Lower 48 production is expected to remain at ~10MMBbl/d in all modeled pricing scenarios
  - Legacy production supported by installed base of ~1 MM producing wells
- However, depressed commodity price environment will result in substantially less new horizontal wells drilled, leading to significant production declines in late 2020
- Potential for E&Ps to complete inventory of 7,600+ DUCs to generate near-term cash flow
  - Go-forward breakevens of ~$20 – $30/Bbl

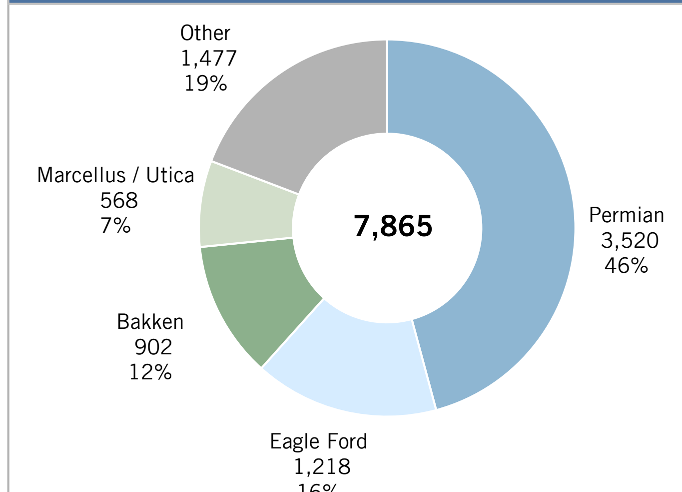
Lower 48 Oil Production by Oil Price Scenario (MMBbl/d)



HZ Wells Drilled by Oil Price Scenario (000s)



Current DUC Count by Region (As of July 2020)

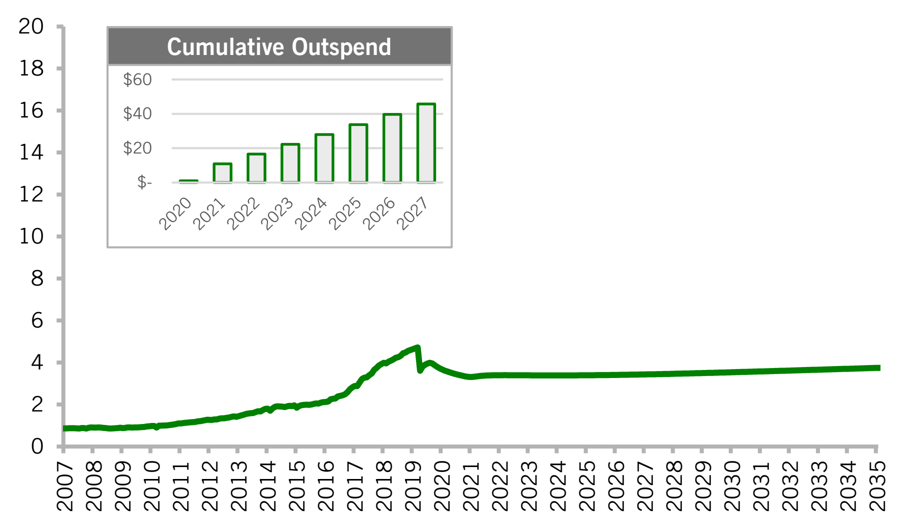


Source: Company filings, Wall Street research, EIA, Spears Drilling & Production Outlook (December 2019) and Rystad Energy ShaleIntel (May 2020).

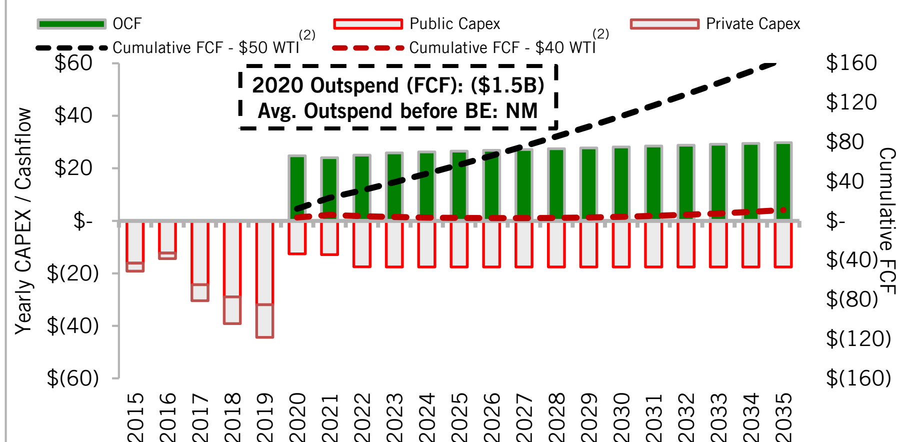
Permian Growth Will Be Stunted as Operators Focus on Cash Flow

Free Cash Flow Growth at $50, But Not at $40

Oil Production (MMBo/d)

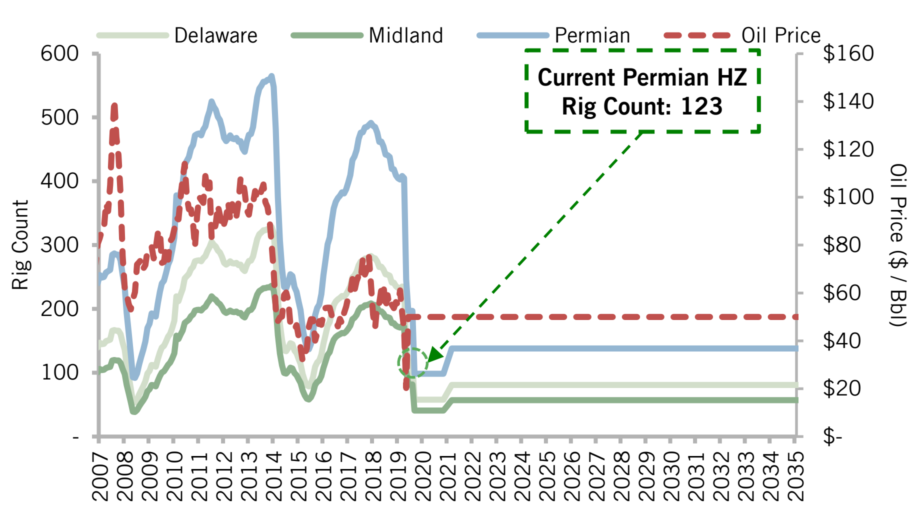


FCF ($Bn) (1)

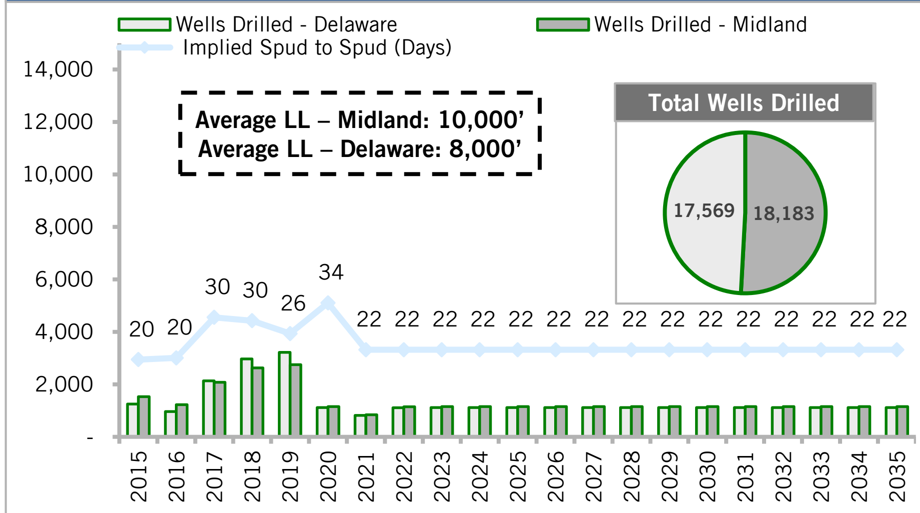


	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Avg. Rigs	276	182	354	465	443	212	101	137	138	138	138	138	138	138	138	138	138	138	138	138	138
Capex / Rig	$69	$79	$86	$84	$100	$106	$112	$112	$112	$112	$112	$112	$112	$112	$112	$112	$112	$112	$112	$112	$112

Rigs Active



Wells Drilled / Completed



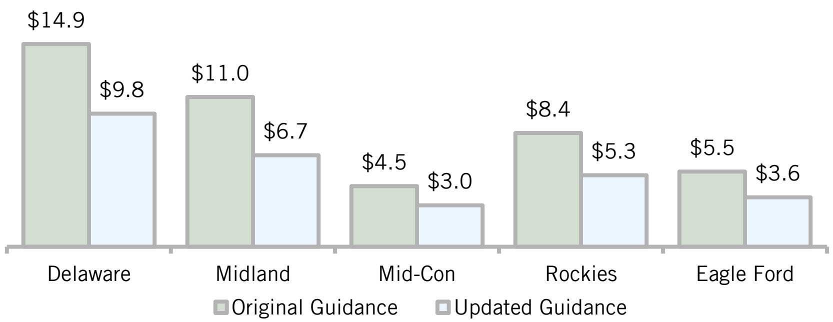
Source: Baker Hughes, Bloomberg, EIA, Rystad Energy.

(1) Assumes average NRI of 75%, LOE of $8.00 / Bbl, $14.00 / Bbl for conventional wells, G&A of $2.50 / Bbl, Debt Service cost of $3.00 / Bbl, STX and Ad Valorem tax of 4.6% and 2.5% respectively. LOE Includes GP&T estimates.

(2) Cumulative FCF calculation begins in 2020.

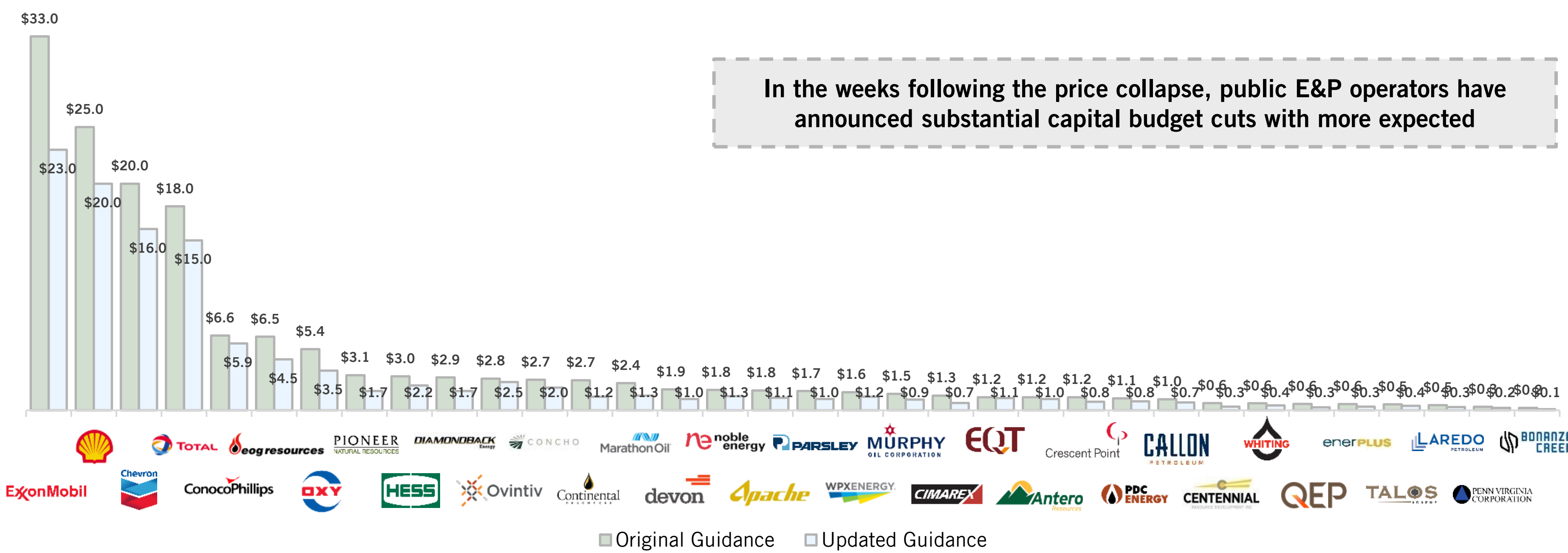
Crude Price Collapse Has Precipitated Drastic Capital Cuts Across E&P Operators

Capital Cuts by Basin ($ Bn)



Total Capex Reduction ($ Bn)				Average % Decline
Basin	Original Guidance	Updated Guidance	Total Reduction	
Total	**$154.9**	**$114.6**	**($40.2)**	**(26%)**
Delaware	$14.9	$9.8	($5.1)	(34%)
Midland	$11.0	$6.7	($4.3)	(39%)
Mid-Con	$4.5	$3.0	($1.5)	(33%)
Rockies	$8.4	$5.3	($3.1)	(37%)
Eagle Ford	$5.5	$3.6	($1.9)	(35%)

Reactionary Capital Cuts to March 9, 2020 Price Collapse ($ Bn)



Note: Estimates per Corporate Guidance and CapIQ. Assumes 2020 guidance capex distribution unless companies disclosed otherwise.

Lender Sentiment Indicates Further Reduction of Exposure Going Forward

As Credit Losses Mount, Balance Sheet Banks are Highly Focused on Reducing the Size of their Energy Lending Books

Key Points

- Recently, certain key lenders into the oil and gas industry have indicated that credit losses are driving a desire for reduced exposure to energy loans over time
  - Moody's and JP Morgan forecast a total reduction of as much as 30% to commercial bank exposure to reserve-based loans, and Jefferies fully expects the pressure to eventually be felt by midstream companies as well [(1)]
- While many regional banks were originally established for the purpose of lending into the sector, they see merit in diversifying as their stock performance has consistently lagged their non-energy banking peers

"… We have been working to reduce the exposure of the energy portfolio, and we'll continue to do so. We're going to get it below the 10% level. I'd like to see it move more towards the mid-single digits over time."

Cullen/Frost Bankers, Inc.

Philip D. Green
Chairman & CEO
Q1 Earnings Call – 4/30/2020

"We put a massive effort in the fourth quarter into reducing particularly distressed energy loans. So that production portfolio dropped by $145 million … So it's -- there's been a massive de-risking of the energy book. We're not done yet. We probably have another $50-or-so-million at least to go in the energy portfolio based upon what we know today. That number could grow if energy prices back up …"

PROSPERITY BANK

Kevin J. Hanigan
President COO & Director
Q4 Earnings Call – 1/29/2020

"However, we also saw a decrease in legacy energy loans of $164 million over the course of 2019. **We expect to continue shrinking our energy book in 2020 … We hit our energy concentration goal of below 5% during 2019. And with the de-emphasis on that type of lending, we are updating our strategic goal to 2% to 4%.**"

HANCOCK WHITNEY

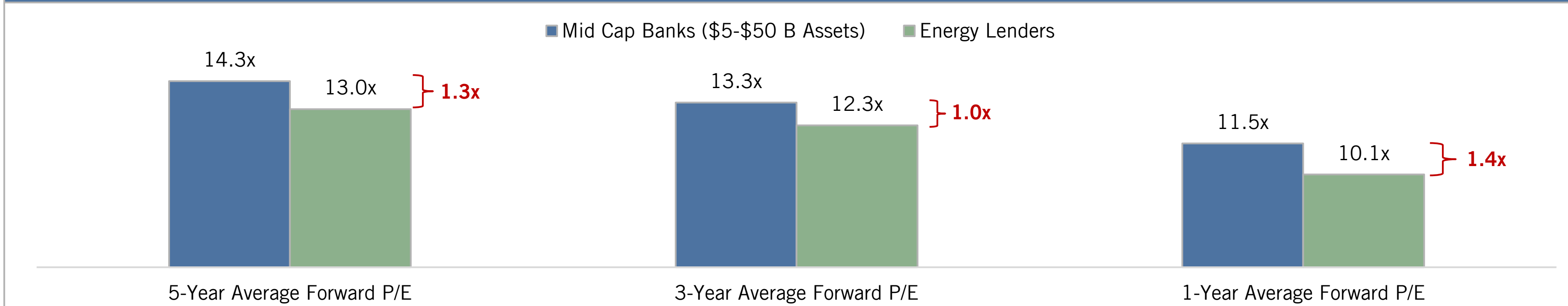
Michael M. Achary
Senior EVP & CFO
Q4 Earnings Call – 1/16/2020

"… **We're imagining, because of the levels of the resource price, that losses given default are substantially worse this time through.** In terms of the migration of performing to nonperforming, I'd say in our own credit loss analysis, we're assuming basically across the board, full notch downgrade … I think we're approaching it in a pretty sober basis"

WELLS FARGO

Charles W. Scharf
President, CEO & Director
Q1 Earnings Call – 4/14/2020

Energy-Focused Regional Bank Lenders Have Historically Underperformed Their Peers



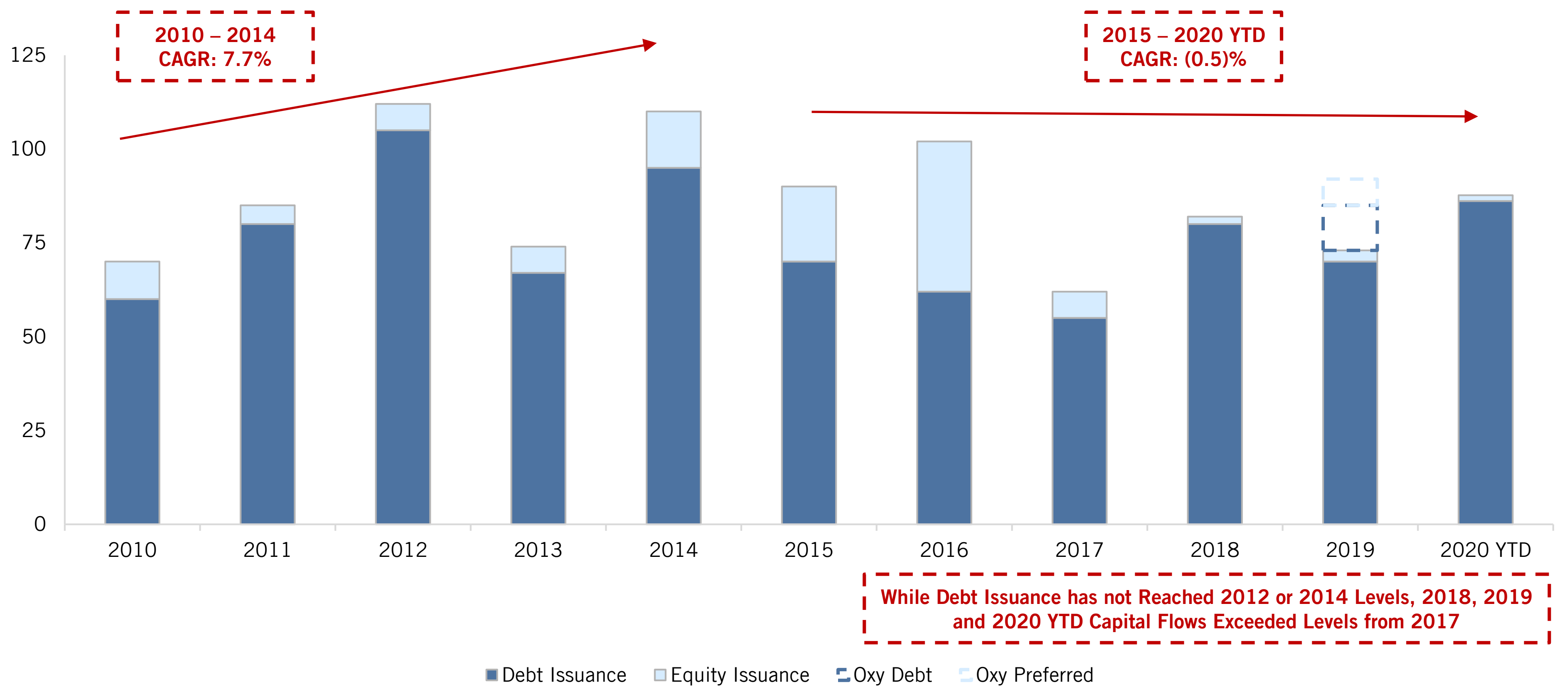
Source: CapIQ.
Note: Energy Lenders includes BOKF, CADE, CFR, CMA, IBKC, PB, RF, TCBI and ZION. Mid Cap Banks includes banks with $5 - $50 billion in assets as of 5/29/20.
(1) Per WSJ article "Banks Cut Shale Drillers' Lifeline as Losses Mount", published on 6/15/20.

Despite Poor Returns for Investors, Capital Continues to Flow into the Oil and Gas Industry

Key Points

- Despite the turmoil in public markets for E&P stocks, with the recent oil price slump and COVID-driven uncertainty only exacerbating the strain, debt markets have remained supportive with significant capital continuing to flow into the sector
  - The key question is what effect this will have on L48 drilling activity; are companies utilizing the proceeds to restructure, extend overall debt tenor and / or retire near-term maturities or are drilling programs being funded that could lead to increased volumes and, by default, downward pressure on commodity prices?

Total Capital Issuances – U.S. Exploration and Production ($ Bn)



Source: Company filings and Wood Mackenzie Corporate Service.
Note: Year to date as of September 1, 2020.

Midstream Market Perspectives

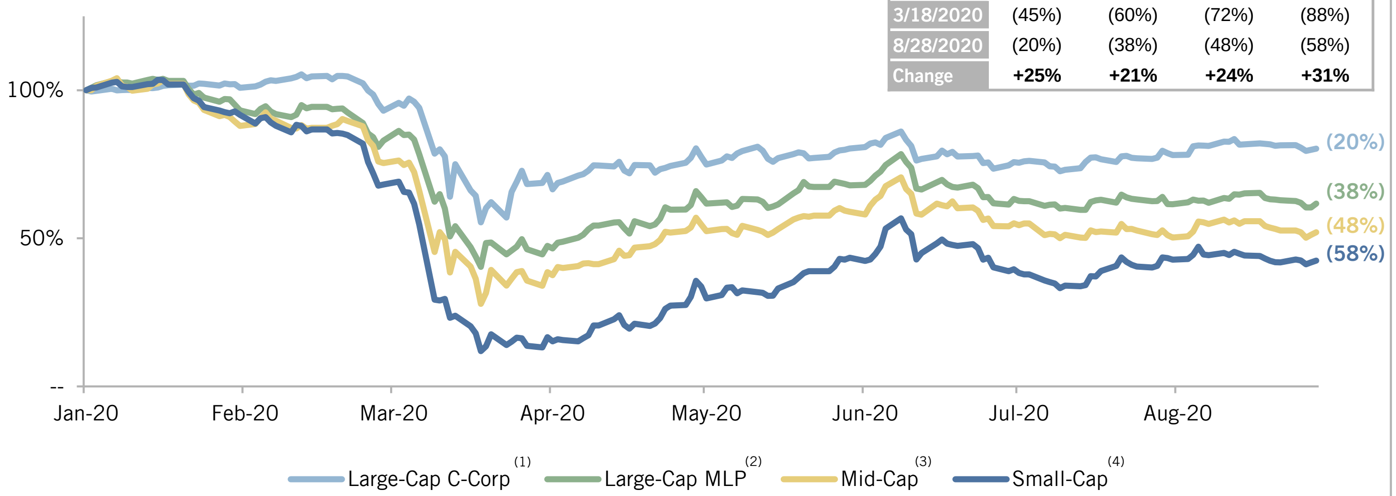
Midstream Equity and Debt Performance Since January 1, 2020

Key Points

- Since the initial onset of the COVID-19 outbreak, the general market and overall energy environment has markedly improved
  - Large-Cap midstream C-Corps have – not surprisingly – outperformed their MLP peers while Mid-Cap and Small-Caps have lagged the entire sector
- While we are far from being 'out of the woods,' the performance of larger-cap strategics – as well as key macroeconomic indices – have shown signs of recovery
- Midstream debt yields, after ballooning across the board when the market bottomed in late March, have since improved
  - Investment-grade, BBB-rated midstream companies are currently yielding less than 2.0% on a YTW basis, representing a minimal spread over government bonds of similar tenor

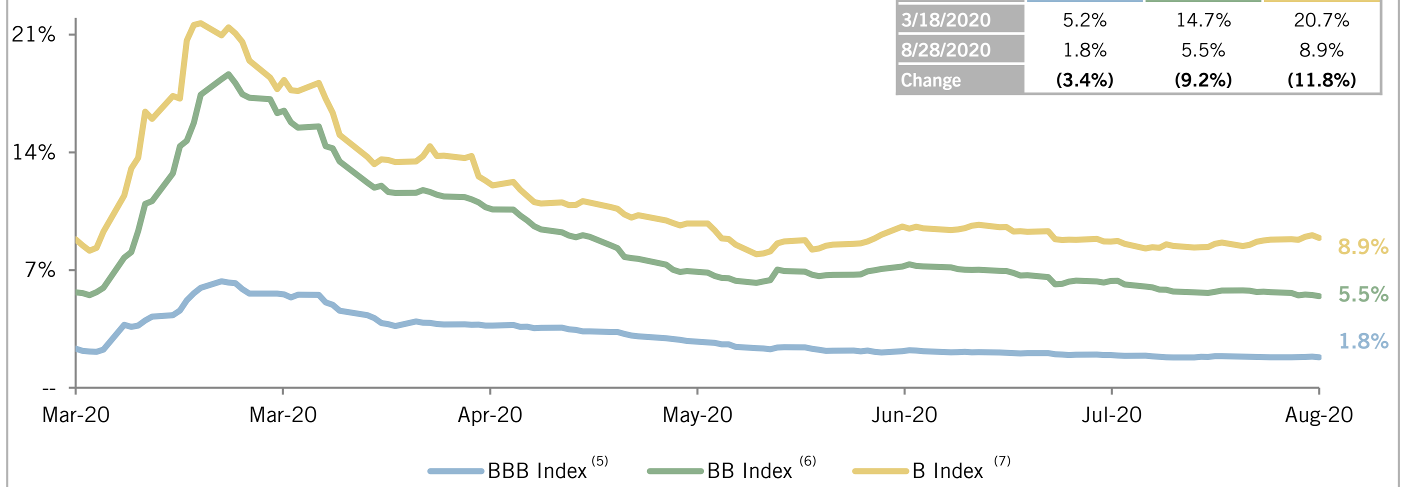
Midstream Equity Performance Since January 1st

	Large-Cap C-Corp	Large-Cap MLP	Mid-Cap	Small-Cap
3/18/2020	(45%)	(60%)	(72%)	(88%)
8/28/2020	(20%)	(38%)	(48%)	(58%)
Change	**+25%**	**+21%**	**+24%**	**+31%**



Midstream Debt Performance Since January 1st

	BBB Index	BB Index	B Index
3/18/2020	5.2%	14.7%	20.7%
8/28/2020	1.8%	5.5%	8.9%
Change	**(3.4%)**	**(9.2%)**	**(11.8%)**



Source: Wall Street research, CapIQ, Bloomberg as of August 28, 2020.
(1) Large-Cap C-Corp index includes: ENB, TRP, OKE, KMI, WMB.
(2) Large-Cap MLP index includes: ET, MMP, MPLX, EPD, PAA.
(3) Mid-Cap index includes: TRGP, NS, DCP, ENBL, ETRN, ENLC, AM, PSXP, WES, TCP.
(4) Small-Cap index includes: NBLX, PBFX, CEQP.
(5) BBB index includes: ENB, TRP, OKE, KMI, ET, MMP, MPLX, EPD, PAA, TCP, ENBL, PSXP.
(6) BB index includes: WES, TRGP, NS, DCP, ETRN, ENLC, PBFX, DKL, CEQP.
(7) B index includes: AM, NGL, GLP, AROC, USAC, GEL.

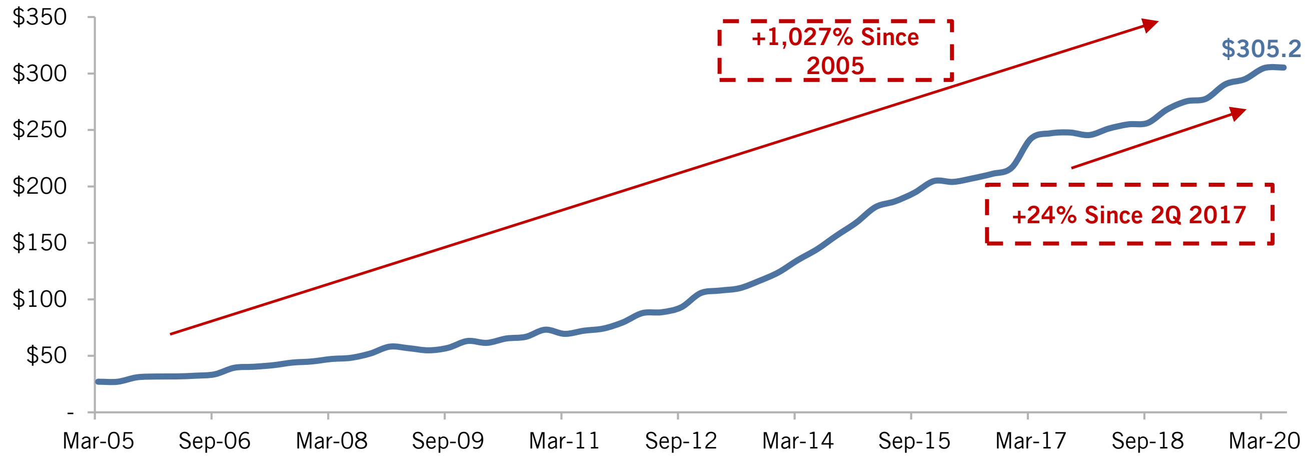
Leverage Levels Continue to Grow Across the Midstream Landscape

For an Industry that Needs to Reduce Leverage, Debt Balances Continue to Grow

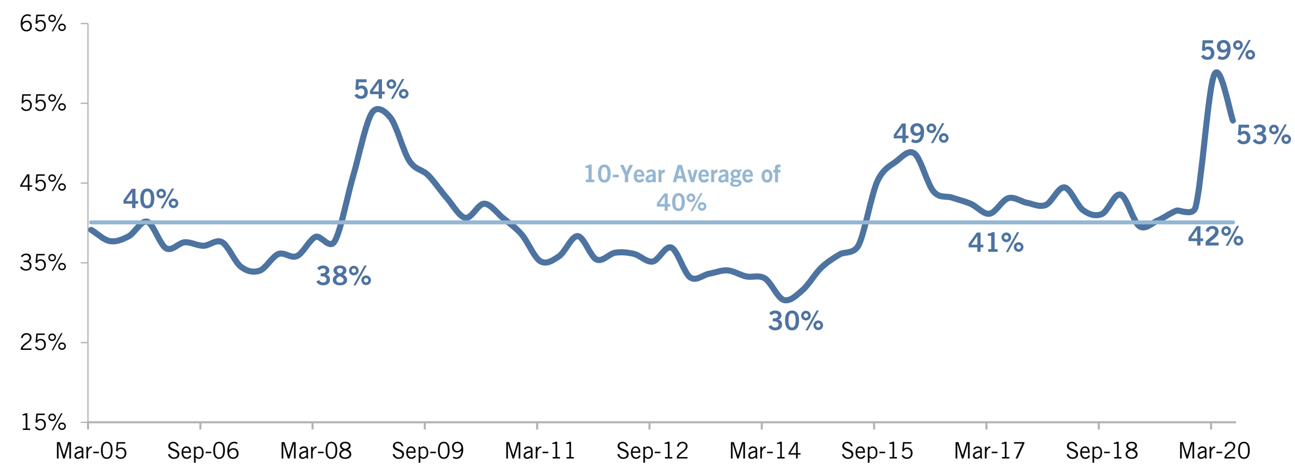
Key Points

- In the graphs at right, Jefferies has analyzed the growth in (A) total aggregate debt and (B) total debt as a percentage of total capitalization for the current Alerian MLP Index constituents [(1)], plus Williams, Kinder Morgan, Targa, ONEOK and Enbridge
- Total debt has increased by >1,000% since 2005 and ~24% in the last three years alone and debt as a portion of total capitalization – which historically had only risen above 50% during the 2008 Global Financial Crises – peaked at ~57% in early 2020 and currently remains at ~53%, well above the average over the previous ten-years of 40%
- Investors have continually emphasized the need for deleveraging and balance sheet maintenance, but there are few signs that the industry is moving to de-lever aggressively in response

Total Midstream Debt ($Bn)



Total Debt as a Percentage of Total Capitalization



Source: CapIQ.
(1) Alerian MLP Index includes BPMP, CQP, CNXM, CEQP, DCP, DKL, ENBL, ET, ENLC, EPD, GEL, GPP, HESM, HEP, MMP, MMLP, MPLX, NGL, NBLX, NS, OMP, PBFX, PSXP, PAA, RTLR, SHLX, TCP, USDP and WES.

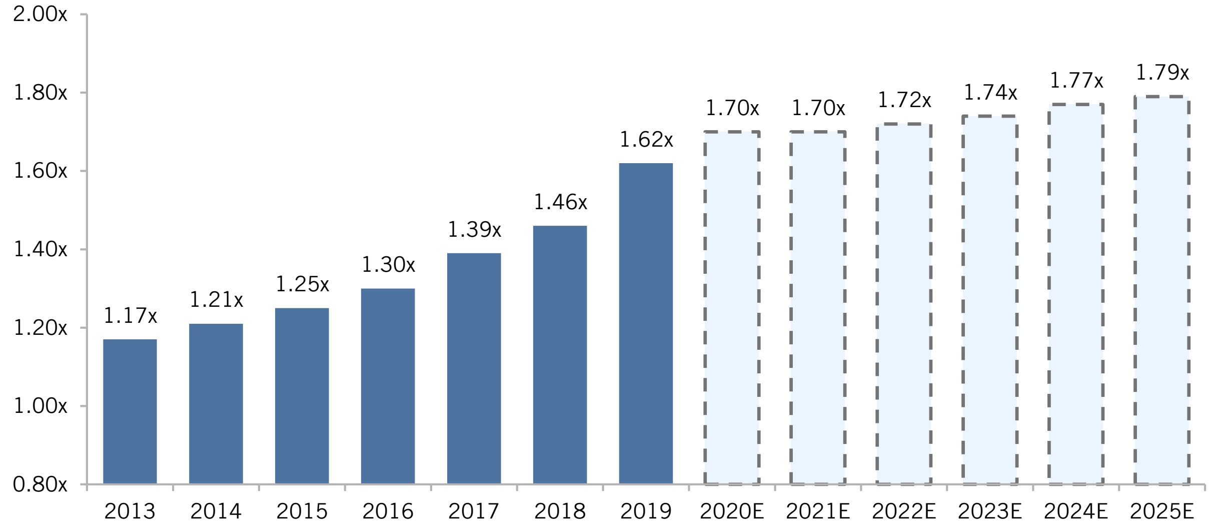
Jefferies

What is the Optimal Target for Coverage and Leverage?

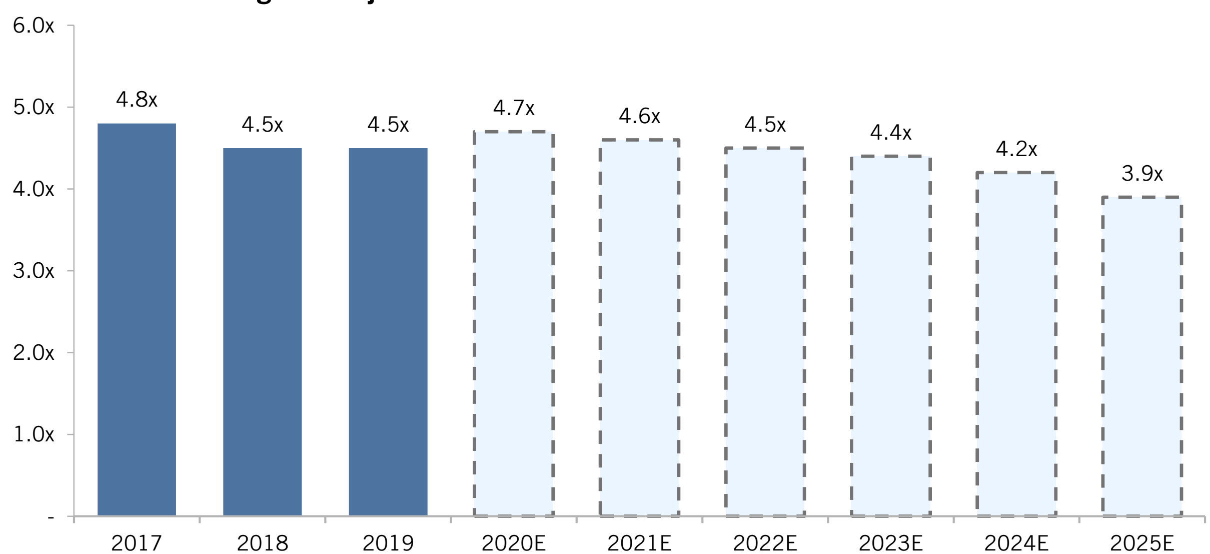
Key Points

- The midstream sector has continued its push away from the full-payout model and towards a broader focus on higher coverage, with less reliance on external capital markets for funding organic growth projects
  - Companies are clearly targeting lower leverage but material debt reductions will be slow to materialize
- While the level of 'optimal' leverage for a mature midstream business is largely up for debate, Jefferies expects those businesses with a clear path towards lower than 4.0x debt / EBITDA to trade at a premium to their higher-levered peers
- Additionally, the market is awarding premium valuations for midstream companies and MLPs with coverage levels exceeding 1.5x; however, for certain entities that have recently reduced payout levels, the market is clearly signaling that higher valuations must be accompanied by line-of-sight to lower leverage

Median Distribution Coverage has Evolved



Sector-Wide Leverage is Projected to Decrease



Source: Wall Street research.

Midstream has Seen Widespread Reductions in Capex Budgets and Dividend Payouts

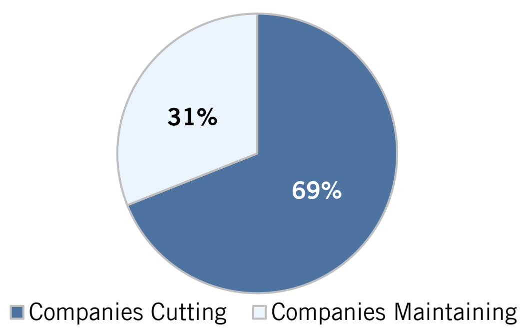
Key Points

- In response to public market pressure and widespread downturn in drilling activity, midstream companies have broadly shifted from a high-capital spend / full-payout model to one more focused on retaining cash to internally finance a less robust capital plan
  - Nearly 70% of public midstream companies have recently announced some level of reduced capex, resulting in an approximate 29% decrease from beginning-of-year guidance (~$8.0 Bn in aggregate capex either delayed or outright cancelled)
  - Of the midstream C-Corps and MLPs that did not reduce their dividends / distributions during the period between January 1, 2018 and March 1, 2020, over 50% have cut in the intervening six months (representing ~$2.2 Bn in annualized payout reductions to investors)
- What remains to be seen is the effect that the capex / payout reductions have on balance sheet repair and, consequently, public market valuations

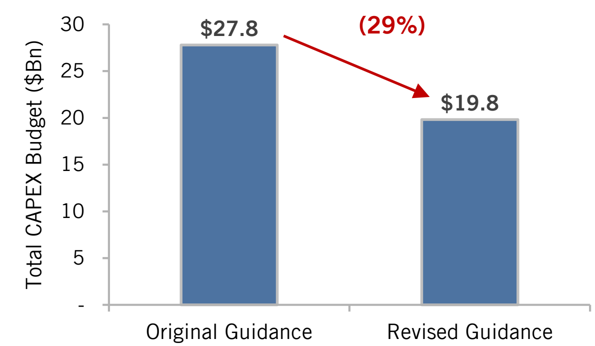
The data below represents the aggregate capex and payout policy adjustments by public midstream companies since the onset of the COVID-driven commodity price downturn in March 2020

Midstream Capex Budget Reductions

% of Public Midstream Companies Reducing Capital Budgets

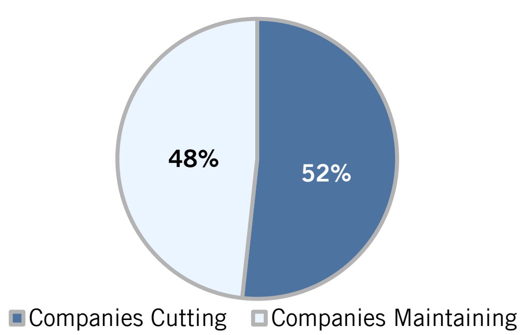


Total Aggregate Capex Reduction from Companies Reducing

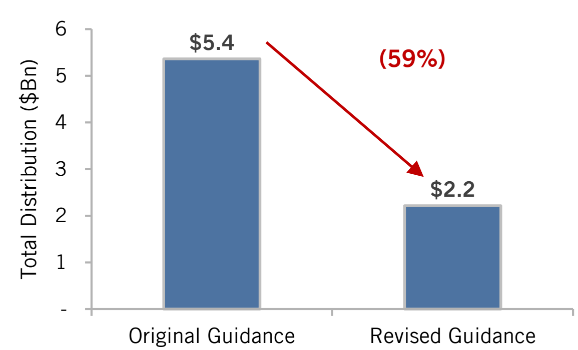


Midstream Distribution / Dividend Reductions

% of Public Midstream Companies Reducing Equity Payout (1)



Average Percentage Reduction (1)



Source: Wall Street research and company press releases.
(1) Excludes midstream companies that reduced their payout policies between January 2018 and March 1, 2020.

Meaningful Consolidation Across the Midstream Space has Yet to Materialize

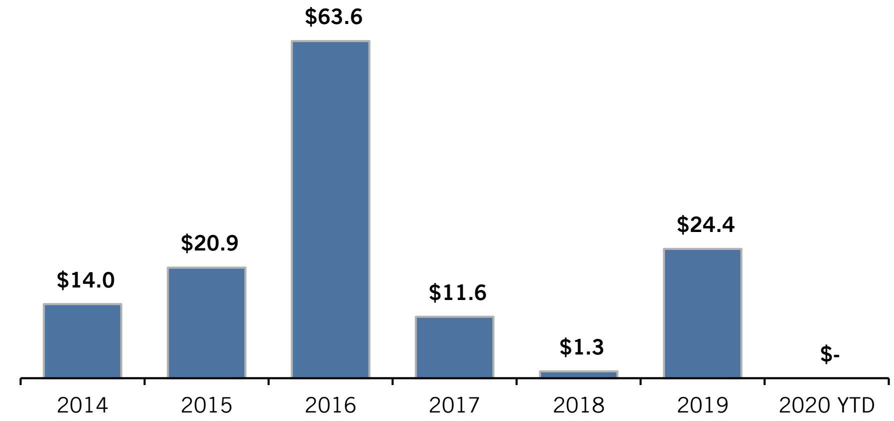
The Consensus is that Midstream is Ripe for Consolidation, but the Scope and Scale of Transactions has been Limited

Key Points

- Midstream M&A activity has been virtually non-existent over the first eight months of 2020, trailing well behind any of the past several years
- Year-to-date, we have yet to see a single 'big-ticket' public merger, asset-level M&A has been anemic and the pace of affiliate transactions / simplifications remains well off the 2018 peak
- Jefferies believes that the lack of M&A is driven by three primary factors: (1) uncertainty on the actual growth profile of less-mature, high-growth assets (2) elevated leverage levels (for both buyers and sellers as well as across both public and private companies) and (3) the reluctance of large strategics to commence any significant asset divestiture campaign before the market has effectively stabilized

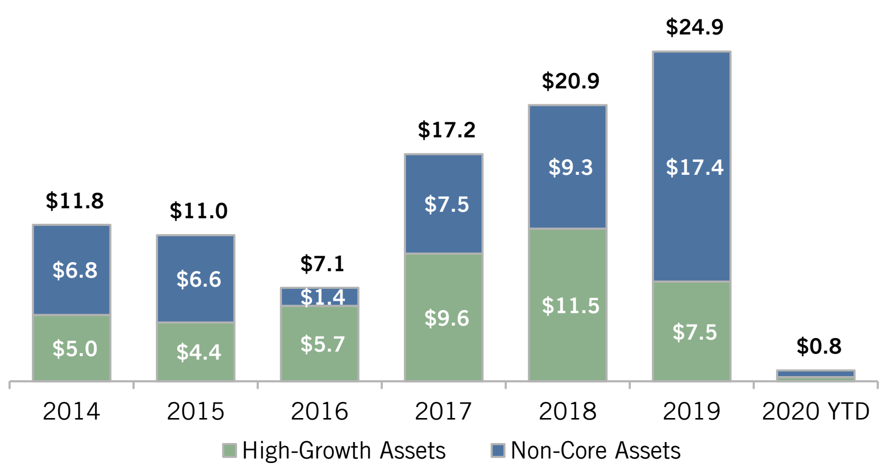
Public Midstream M&A – Total Transaction Value (excl. Drop-Downs)

($ Bn)



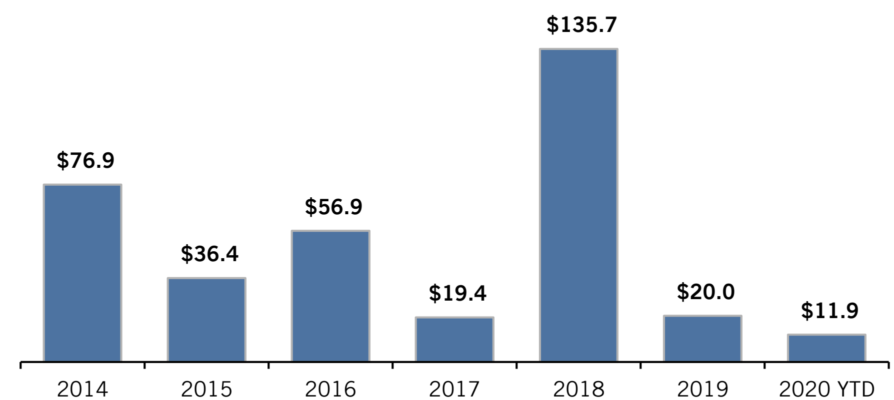
Asset-Level Midstream M&A – Total Transaction Value

($ Bn)



Affiliate M&A / Simplifications – Total Transaction Value

($ Bn)



Source: Public filings, investor presentations, Wall Street research and press releases.

Meaningful Consolidation Across the Midstream Space Yet to Materialize (Cont'd)

Key Points

- Since the beginning of 2020, asset-level M&A – especially transactions involving traditional midstream assets such as G&P and medium-to-long haul pipelines – has been at historically low levels
  - Widespread asset divestiture campaigns have yet to materialize, though many expect this activity to pick up given industry-wide leverage concerns and the inability to address through traditional equity issuances

Year-to-Date Asset-Level Midstream Transactions

Acquiror	Citizen Energy	Black Bear Transmission	Black Bear Transmission	TC Energy	Rattler Midstream	Plains All American Pipeline, L.P.	Black Diamond Gathering	Buckeye Partners, L.P.
Asset	Blue Mountain Midstream (A Subsidiary of Riviera Resources, Inc.)	Third Coast Midstream	Enbridge	TransAlta	**Amarillo Midstream**	Felix Midstream	Magellan Midstream Partners, L.P. **Saddlehorn**	Magellan Midstream Partners, L.P. **Marine Terminals**
Announcement Date	**August 24th**	**June 29th**	**April 1st**	**March 12th**	**February 18th**	**February 4th**	**February 4th**	**January 21st**
Asset Description	Comprehensive gas gathering and processing asset in the SCOOP / STACK / Merge play in Oklahoma	Six intrastate natural gas pipelines in the Southeast U.S. with over 1,400 miles of pipe and 800 MMcf/d of capacity	Sale of Ozark Gas Transmission and Ozark Gas Gathering	~120 km pipeline transports natural gas from the BRC to TransAlta's Keephills and Sundance facilities	50% equity interest in Amarillo Rattler, a 50/50 JV with Amarillo Midstream in the Midland Basin	Felix Energy's oil gathering infrastructure in the Northern Delaware Basin	20% interest in Saddlehorn Pipeline, a DJ Basin to Cushing crude pipeline	Sale of three marine terminals on the East Coast
Transaction Value	**$111 MM**	**Not Disclosed**	**$146 MM**	**C$255 MM**	**Not Disclosed**	**$305 MM**	**$155 MM**	**$250 MM**

Source: Public filings, investor presentations, Wall Street research and press releases.

Private Financing Sources Have Demonstrated their Willingness to Deploy Capital into Midstream

Key Points

- Since the beginning of 2019, several public midstream companies – including NGL Energy Partners, NuStar Energy, Noble Midstream and Summit Midstream – have all raised external capital through privately-financed term loans or preferred equity issuances
- Private financing sources routinely communicate to Jefferies their desire to invest in midstream, which has the potential to provide an alternative capital source for the reduction of indebtedness and / or funding of key growth projects

Company	NGL Energy Partners LP	NuStar	noble MIDSTREAM PARTNERS	SUMMIT MIDSTREAM
Counterparty	APOLLO	OAKTREE	GLOBAL INFRASTRUCTURE PARTNERS	TPG
Date of Announcement	**June 4, 2020**	**April 19, 2020**	**December 30, 2019**	**March 25, 2019**
Security	**Privately-Placed Term Loan**		**Preferred Equity**	
Amount	**$250 MM**	**$750 MM**	**$200 MM**	**$80 MM**
Transaction Overview	▪ Proceeds utilized to re-finance the existing $250 MM bridge term loan facility that was established in July 2019 with TD Securities to finance a portion of the acquisition of Mesquite	▪ $500 MM will be funded at closing to repay existing indebtedness and fund working capital, remaining amount being $250 MM available via a Delayed Draw commitment	▪ $100 MM will be funded during the first quarter of 2019, with the remaining available for one year ▪ Funds buildout related to 30% equity interest in the EPIC Crude Pipeline	▪ $80 MM of redeemable, seven-year preferred issued to a newly-created, unrestricted subsidiary of Summit that indirectly owns a 70% interest in the Double E Pipeline
Summary of Terms	▪ Three-year maturity and is callable after two years at par ▪ Interest rate of LIBOR + 8%, subject to a 1.5% LIBOR floor and includes similar financial covenants as the Partnership's existing revolving credit facility, among other terms	▪ Three-year maturity as well as certain pre-payment penalties to NuStar in the event of early paydown of principle ▪ Interest rate of 12% per annum, with NuStar paying a commitment fee in the amount of 5% per annum on the undrawn amount	▪ Perpetual term with a 6.5% annual dividend rate, payable in cash, with the ability to defer payment during the first two years ▪ Noble Midstream can redeem in whole or in part at any time for cash at a predetermined price	▪ Quarterly distribution rate of 7%, which may be paid in-kind during the construction period for Double E ▪ Accordion feature that allows TPG to purchase up to an additional $60 MM under the same terms and conditions

Source: Public filings, company investor presentations and other publicly available information.

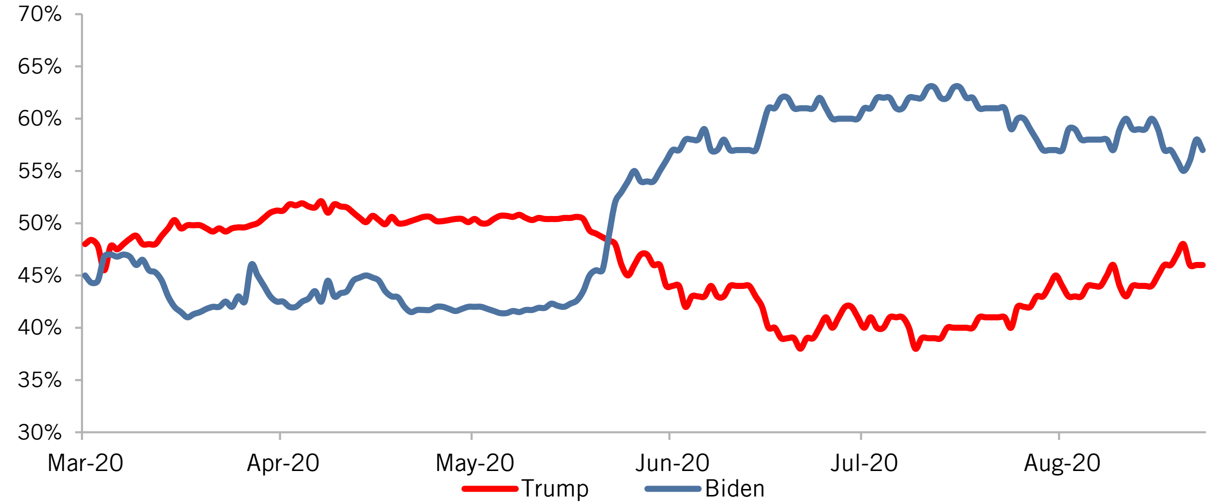
Impact on the Oil & Gas Industry of the Upcoming Election

Oddsmakers are Pointing to a Potential Democratic Sweep in November

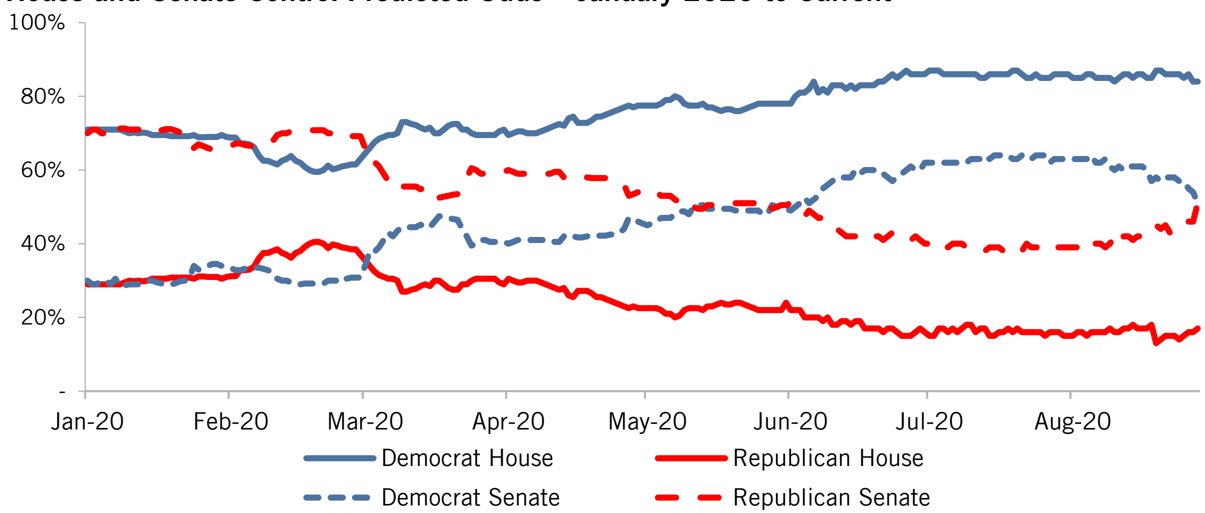
Key Points

- While former Vice President Biden's stock in the presidential race rose considerably in the early days of the pandemic, the race has begun to tighten following both parties' national conventions
- While Biden still leads by a wide margin in most national polls, the memory of the 2016 election – in which a Clinton victory was viewed as a near certainty – supports the thesis that the election is likely to be closer than expected
- Maintaining a Republican majority in the Senate seems likely, although the Republicans' lead in the polls may narrow in the Fall
- While Biden's stance on energy policy was less negative than some of his more progressive opponents in the Democratic primary, the potential remains that a Biden presidency could entail sweeping changes in the regulatory environment for oil & gas

Presidential Election Predicted Odds – March 2020 to Current



House and Senate Control Predicted Odds – January 2020 to Current



Source: Bloomberg, PredictIt.com and realclearpolitics.com.

Impact of Climate Policies on the Energy Industry: Potential Biden vs. Trump Administration

Key Points

- The Trump Administration has been supportive of the oil and gas industry during the first term, and we anticipate that its support would continue if Trump is reelected
- In mid-July, the Biden campaign released its new climate action plan - *The Biden Plan to Build a Modern, Sustainable Infrastructure and an Equitable Clean Energy Future*
  - While clearly less favorable to the oil and gas industry than Trump's policies, the Biden Plan is not as punitive to the industry as the plans of some of the other candidates that were seeking the Democratic nomination
- If Biden is elected, questions remain as to how much of his platform could be implemented both from a legislative support and a technological feasibility perspective
- In our view, natural gas likely becomes increasingly important as a bridge fuel or as a long-term solution if renewable solutions do not materialize at the pace required to adequately serve the power grid

Trump Administration Energy Actions	Proposed Biden Energy Plan
Ended the 'War on Coal' by eliminating Obama-era regulations such as the Stream Protection Rule and the Clean Power Plan	**Target net zero emissions across the U.S. by 2050 and achieve a carbon-free power sector by 2035**
Signed legislation to open up the Alaska National Wildlife Refuge for energy exploration	**Impose ban on new oil and gas leases on federal land and protections for wildlife refuges**
In 2019, the Department of the Interior held 28 onshore oil and gas lease sales, generating a record $1.1 billion in revenue	**Immediately implement aggressive methane limits on the oil and gas industry**
Withdrew from the Paris Climate Agreement	**Rejoin the Paris Climate Agreement**
Approved the Dakota Access Pipeline, the Keystone XL Pipeline and the New Burgos Pipeline	**Impose new, more aggressive fuel economy standards for cars and light-duty trucks**
Signed Executive Orders expediting and removing barriers to energy projects and reforming the process for permitting international pipelines	**Cut carbon footprint of all US buildings by 50% by 2035 and achieve net zero emissions for new commercial buildings by 2030**
Streamlined permitting for Liquefied Natural Gas terminals	**Add 500,000 new public electric vehicle charging outlets and make all school buses electric by 2030**
Moved authority for methane regulation from the EPA to the OMB where they will now be regulated under the Clean Air Act	**Become the first country to achieve net-zero emissions from the agricultural sector**
Pledged to continue deregulatory agenda for the energy industry if re-elected in 2020	**Budget for $400 billion in government spending on clean energy and environmentally-friendly innovation in the power generation sector**

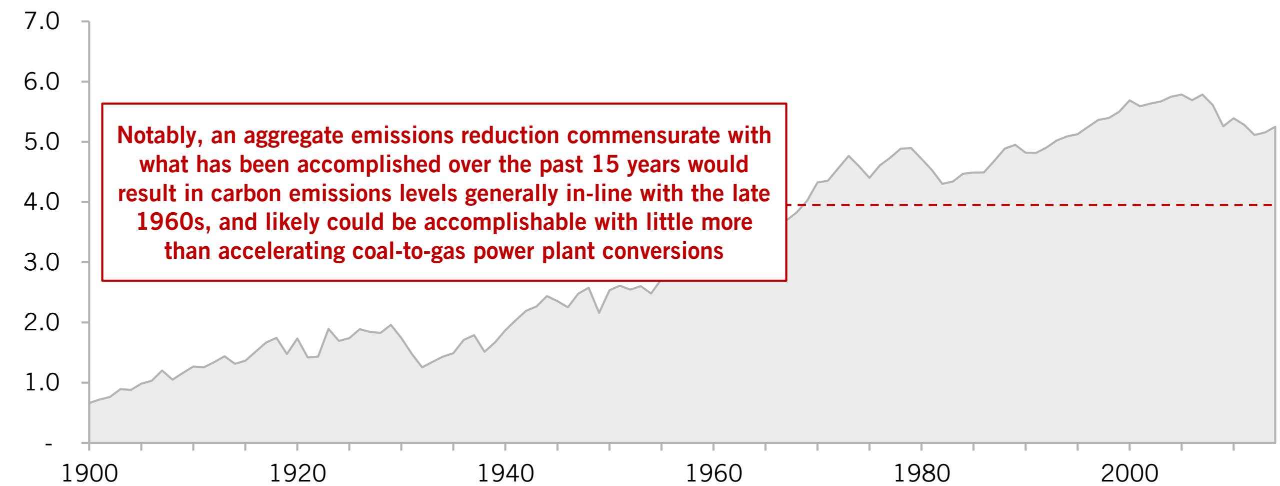
Source: JoeBiden.com and Whitehouse.gov.

'Net Zero' Carbon Economy by 2050

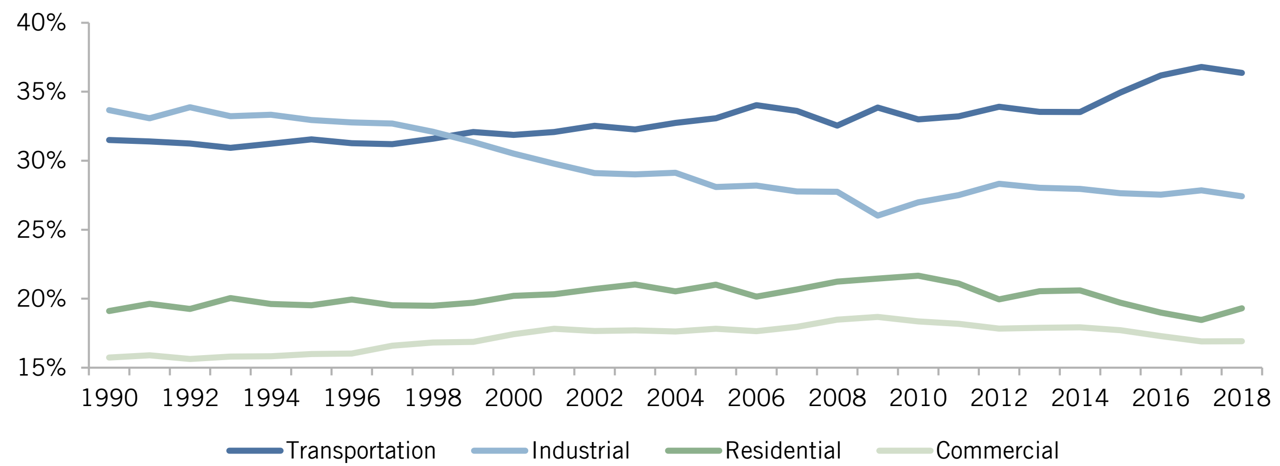
Key Points

- Achieving a net-zero carbon economy by 2050 is a key tenet of the Biden climate plan agenda
- Over the past fifteen years, U.S. carbon emissions have actually fallen by more than 15%, driven primarily by declines in industrial activity (due to the offshoring of manufacturing) as well as widespread coal-to-gas powerplant conversions
- In order to meet the net-zero 2050 goal, substantial emissions will have to be eliminated from various industrial applications; exactly how these emissions will be eliminated from each of the transportation, industrial, residential and commercial sectors is less clear

U.S. Carbon Emissions History [1]



U.S. Carbon Emissions by Sector of the Economy



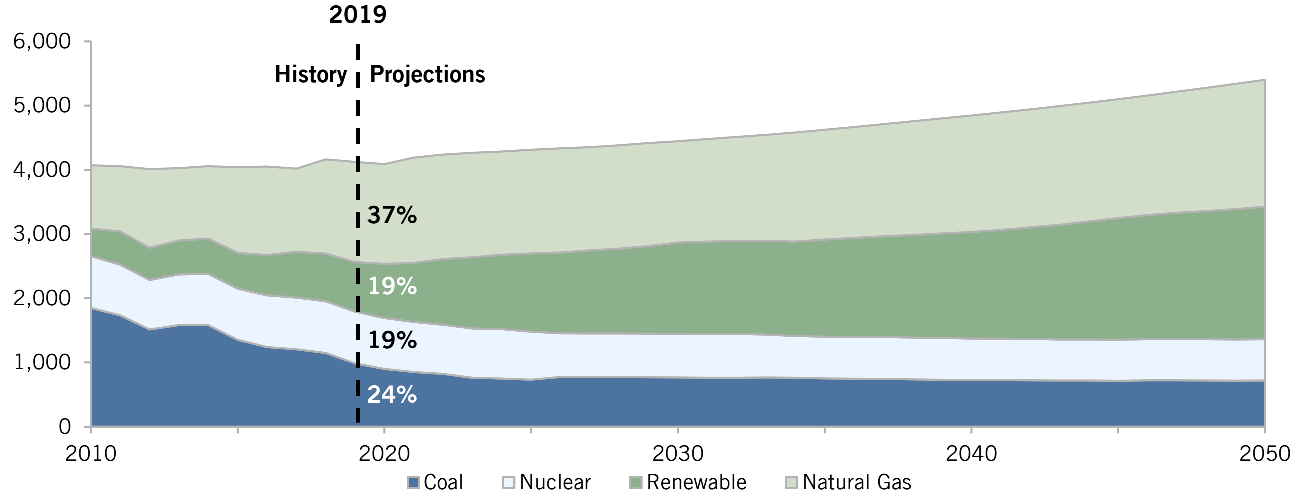
Source: EIA.
(1) Emission volume measured in Gt CO2e per Year.

Conversion to 'Net Zero' or Carbon-Free Electricity Generation

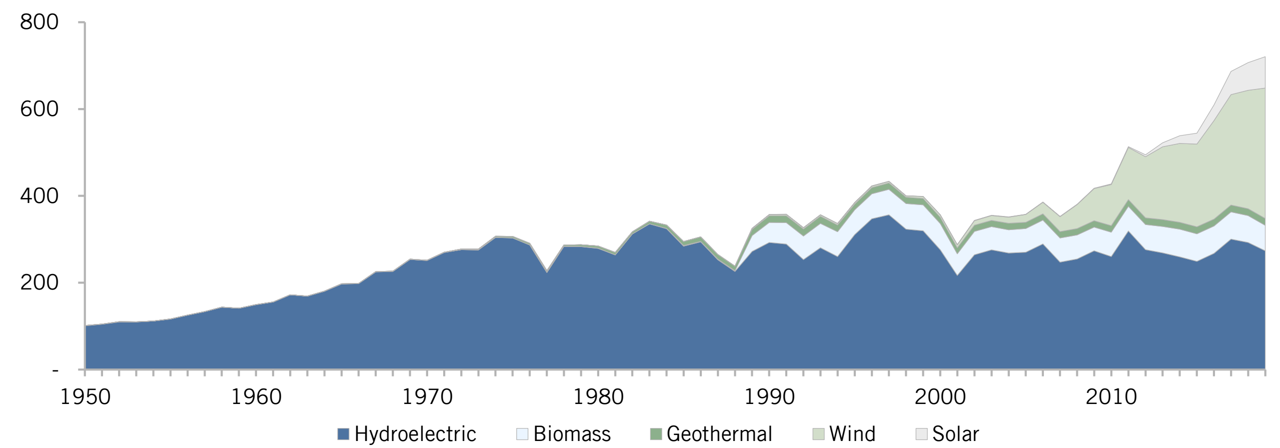
Key Points

- A breakdown of electricity generation sources raises some questions as to how 'Net Zero' or 'Carbon-Free' electricity generation is achievable in the foreseeable future
- The renewables sector shows an undeniable growth profile, but seems unlikely to fully replace coal and natural gas
- Since 2000, solar and, to a lesser extent, wind-generated power has accounted for the bulk of the growth in renewables; however, areas of the country that have begun to rely heavily on renewable electricity sources have suffered from their limitations, with the recent blackouts in California as a notable example

U.S. Electricity Generation from Selected Fuels (Bn kWh)



Historical U.S. Electricity Generation from Renewable Energy Sources (Bn kWh)



Source: EIA.

Case Study: California's Electricity Supply

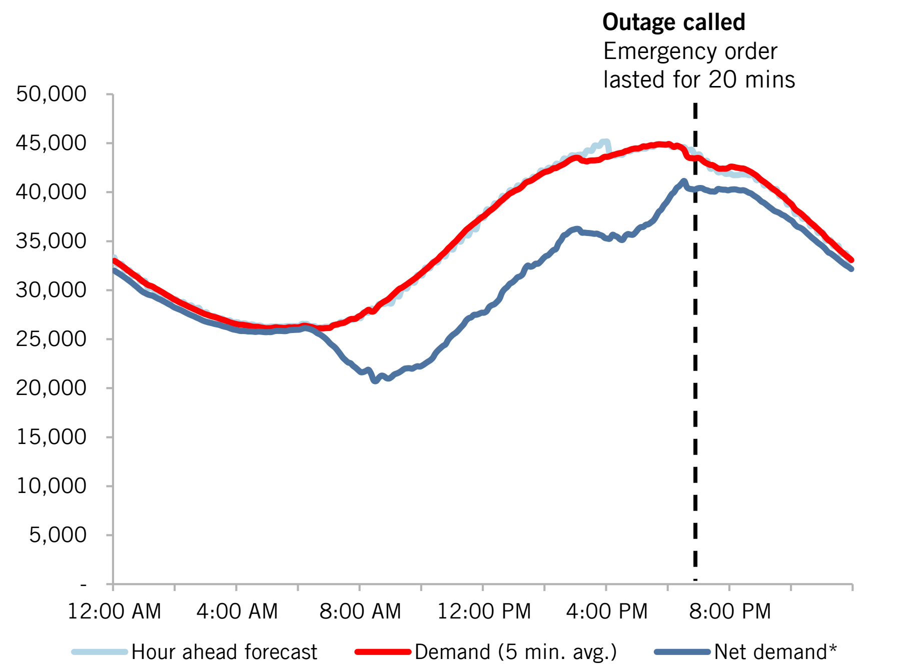
Key Points

- In mid-August, amidst a massive heatwave and forced COVID-driven lockdowns, California indicated the likelihood of rolling blackouts as the State's electricity grid had been unable to handle statewide demand
- The primary cause of the capacity shortfall was the inability of solar and wind-generated sources to keep pace with demand as the sun sets and / or wind gusts die down
- The consequence was a major shift to hydrocarbon-generated electricity coupled with mandatory power outages
- While some have applauded California's embrace of solar and wind (which currently supply ~1/3 of statewide electricity demand) as well as the elimination of coal-fired power plants, the lack of reliability of renewable sources calls the long-term viability of many of these initiatives into question at least for the near-term

"California, in many ways, is the canary in the coal mine. Many of the natural-gas units that some in California would like to see go away have been exactly what's needed to keep the system operating."

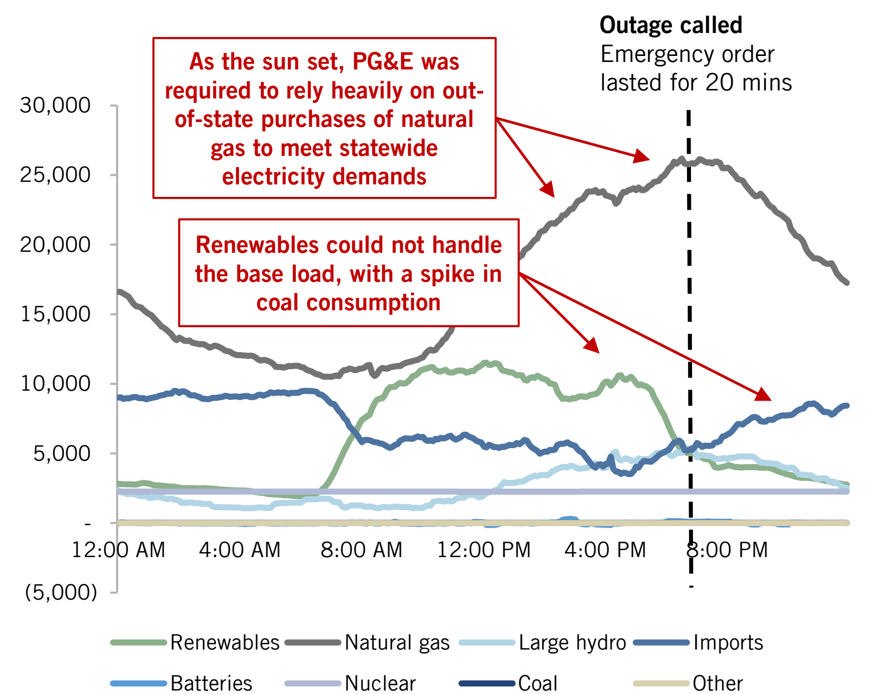
Todd Snitchler, Chief Executive of the Electric Power Supply Association

California Electricity Demand on August 15th – Net of Solar/Wind (MW) (1)



*Demand minus solar and wind

California Electricity Supply on August 15th – All Sources (MW) (1)



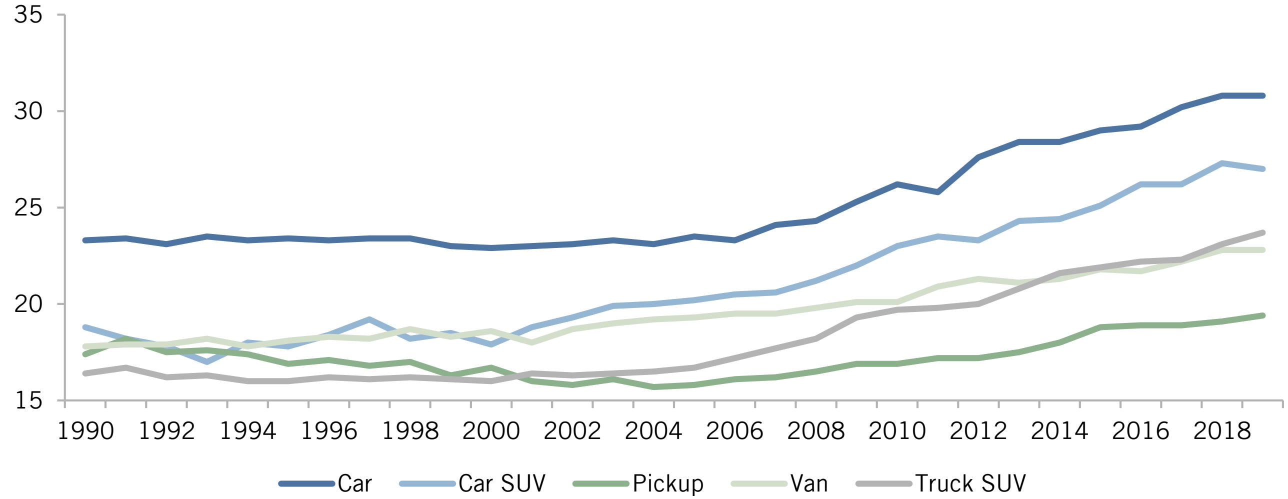
(1) Source: California Independent System Operator.

Vehicle Emissions Standards

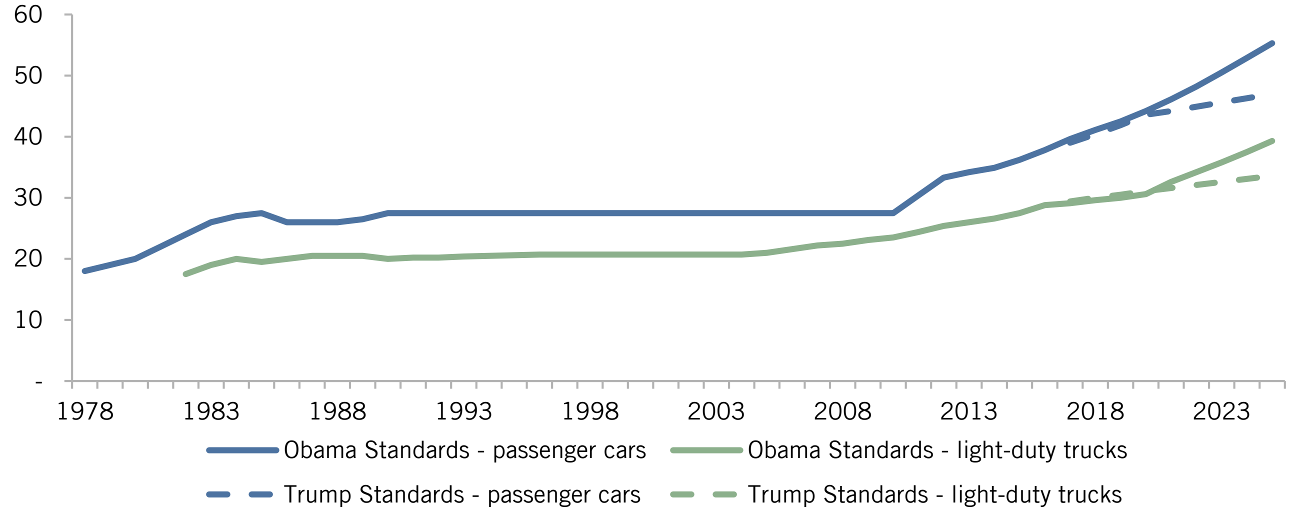
Key Points

- In the latter years of the Obama Administration, efficiency standards for new cars produced in the U.S. increased substantially (up ~100% from 2010 levels), which were subsequently overruled by the Trump Administration
- A Biden Administration would likely revert to Obama-era standards or potentially even create new, stricter standards that align with the net-zero carbon economy of his energy plan; either outcome would likely have a significant impact on U.S. gasoline demand, as well as on automobile manufacturing and maintenance costs

Production-Weighted Fuel Economies of New Domestic and Imported Automobiles (mpg) (1)



Vehicle Fuel Efficiency Standards (mpg) (2)



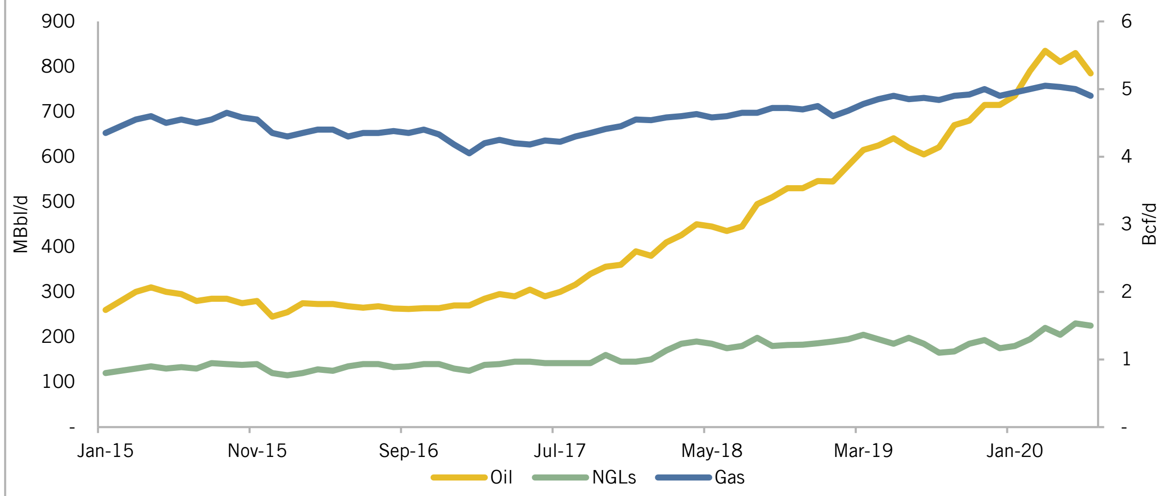
(1) Source: Bureau of Transportation Statistics.
(2) Source: U.S. Department of Energy.

Limitation on Permitting for the Drilling on Government Lands

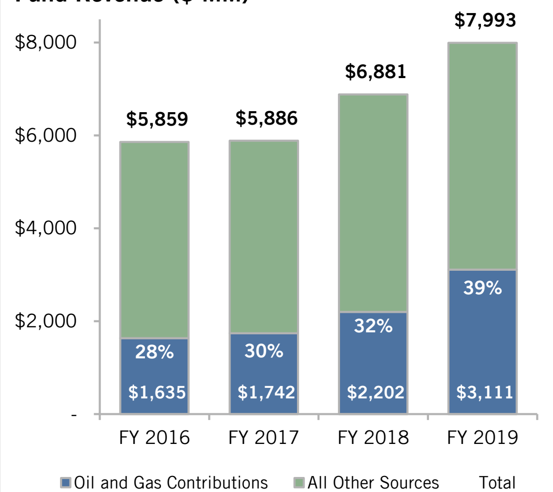
Key Points

- Wyoming, Colorado and New Mexico account for a significant portion of production on L48 Federal lands and – should development on Federal property be legislatively curtailed – we could see aggregate oil and gas production from those states decrease by as much as 25% – 50%
- No state would be more effected by government-restrictions on unconventional development that New Mexico, with ~90% of all drilling on state or federal lands
- In June 2020, the Governor of New Mexico – the third-biggest producer of U.S. oil – was required to cut the state budget by more than $600 MM, freezing pay raises for state workers and eliminating a program designed to provide free in-state community college tuition
- The required cuts to what was the largest budget ever approved in the history of the state was largely driven by the fall in hydrocarbon-related taxes and fees, which have grown to account for ~40% of New Mexico's revenues in recent years

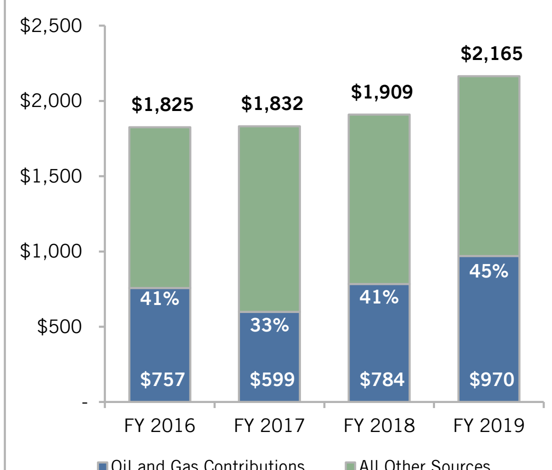
Production on Federal Lands in NM, CO and WY (1)



Oil and Gas Contributions to NM State General Fund Revenue ($ MM) (2)



Oil and Gas Contributions to WY State and Local Revenue ($ MM) (3)



(1) Source: Rystad Energy.
(2) Total economic tax contribution of the oil and gas industry as a portion of state general fund revenues. Source: New Mexico Oil and Gas Association.
(3) Total Severance and Ad Valorem tax revenue as a portion of total Wyoming state and local tax revenue. Source: Census Bureau, Wyoming Department of Revenue.

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