

Midstream: free cash flow (FCF) is set to increase meaningfully even with oil \$30-40/bbl, as capex drops sharply during 2019-22, with cuts accelerated by COVID. History shows that as growth expectations deflate elsewhere, midstream's durable FCF profile may attract capital rotating out of "growth" and into "value." Below, we compare midstream underperformance in the tech boom of the late 1990s vs. today, and discuss how midstream likely benefitted from the rotation away from tech in the early 2000s.

Natural resources: The combination of global low interest rates and further signs of muted economic recovery continue to improve the outlook for many natural resources industries. Valuations in these economically cyclical sectors are deeply discounted relative to historical averages, closer to COVID lows than midcycle averages. China, the heaviest consumer of key industrial inputs such as copper and steel, continues to emerge from COVID exhibiting stronger than expected demand, further bolstering global resources markets. Below, we examine the causes of the ongoing California power blackouts, and the growing role of renewable power supply in the California power market.

Recent Recurrent Publications

- 1. Download new 2020 white paper here: Recurrent's 2020 Midstream/MLP White Paper.
- 2. Download our 2019 white paper here: Recurrent's 2019 Midstream/MLP White Paper.
- 3. Recurrent's MLP white paper "From Balance Sheet Recession to Balance Sheet Recovery" is available here.
- 4. Recurrent's white paper on the "dispatch curve" that now governs the oil market is here.

August 2020 Performance Summary and Market Commentary

Please find below performance and market commentary for our two strategies – <u>MLP & Infrastructure</u> and <u>Natural Resources</u>. Performance follows at the bottom of the commentary. For additional information, please contact us at (832) 241-6400 or info@recurrentadvisors.com.

MLP & Infrastructure

Performance review

During the month of August 2020, the MLP & Infrastructure Strategy generated net returns of 1.70%, 1.18% better than the 0.52% return of the Alerian MLP Index (AMZ). Since the strategy's July 2017 inception, Recurrent's MLP & Infrastructure Strategy has outperformed the AMZ by +5.74% (annualized, net of fees). Please see the performance section below for more detail.

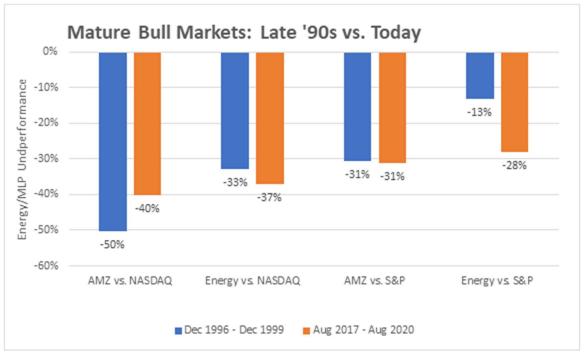
Despite the impacts of COVID, midstream is poised to generate FCF for the first time in 20 years, but fundamental improvements have not stopped capital flight from the sector... yet

For many years, investors expressed frustration about a variety of idiosyncratic weaknesses in pipeline corporate structures and business models. High capital requirements and high dividend payouts caused high debt leverage, and, along with weak corporate governance, alienated investors. A list of the



improvements made by the midstream industry in the last 5 years would seem to remedy these longstanding concerns, implying a bullish outlook for the sector: lower and sustainable dividend payout and debt ratios, declining capital requirements, improved governance as a result of a large-scale transition from an MLP-dominated to a Corp-structured universe, with rapidly growing free cash flow (cash flow in excess of <u>all</u> capital spending).

And yet, as participants in the midstream market of the last 5 years are keenly aware, reality has been very different than fundamental improvements would suggest. Traditional price-to-earnings and book value-based multiples remain at some of the lowest levels in 20 years, with record 2020 YTD outflows from public midstream equity funds (although Recurrent has largely escaped this trend), including a multi-billion dollar forced liquidation of closed-end funds in February and March 2020. At the same time, many allocators have moved from a "market overweight" posture in midstream to an "underweight" or "zero weight" posture in response to weak relative and absolute sector performance, exhausted by price action that seems to ignore a fundamentally improving picture.



Source: Bloomberg, Recurrent research

Above, we see the result of this process, combined with a seemingly relentless upward march of technology stocks: midstream relative underperformance (as measured by the Alerian MLP Index, AMZ) vs. the S&P 500 has been every bit as painful in the last 3 years as it was in the 3 years at the end of the 1990s, back when tech was surging and Time magazine infamously declared "The End of Oil."

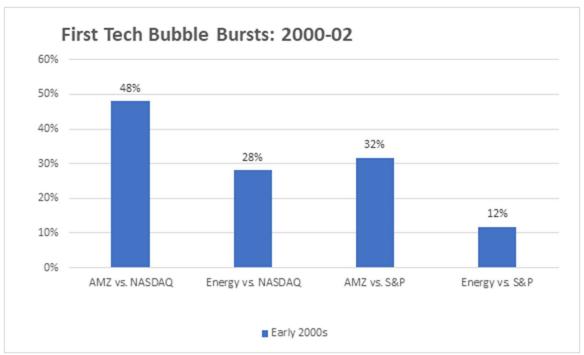
While new capital has avoided midstream in the last 5 years, perhaps volatility in higher-growth securities could provide an external catalyst for midstream performance

As we are fond of pointing out, midstream returns dramatically improved in the early 2000s <u>not</u> because midstream growth rates increased (in fact, higher growth in the "shale era" hurt midstream returns), but instead, midstream benefitted as its low-growth, high-cash flow business model compared favorably to



high-multiple growth-oriented stocks as earnings growth estimates fell in the early 2000s, triggering capital flight from growth-oriented names in search of value opportunities.

The result was almost a complete recoupment of all of the late 1990s underperformance for midstream and energy:



Source: Bloomberg, Recurrent research

While the parallels between the late 1990s and today are not perfect, our key observation remains that midstream stocks, firmly ensconced in the "small-cap value" category of the market today, have delivered significant fundamental improvements in the last several years, and these improvements have not been recognized by improved valuations to date.

An overall market dynamic favoring "growth" stocks has contributed to continued outflows from midstream, as improving fundamental indicators have seemingly been outweighed by capital flight towards sectors with stronger trailing performance. With fundamental improvements driving higher FCF over the next several years, perhaps weakening outlooks in other sectors of the market could provide a potential impetus for midstream stock performance, missing over the last several years.

Natural Resources

Performance Review

In August 2020, the Recurrent Natural Resources Fund rose by 3.74%, outperforming the S&P North American Natural Resources Index's 1.03% return. The portfolio benefited from overweights in copper and aluminum, while stock selection in energy slightly detracted from performance.

Portfolio Discussion



The California power market: a tale of the benefits and shortfalls of increased reliance on renewable power supplies.

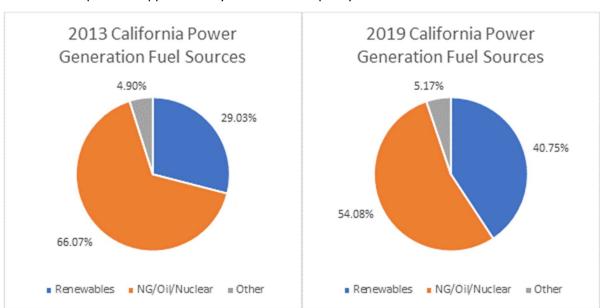
In August, California experienced blackouts which disrupted power to nearly 4 million residents (~10% of CA's population). In the immediate aftermath, many people have tried to understand the causes for the power shortage. While different groups have offered a variety of reasons for the blackout, it is important to outline a few facts which provide insight to the situation.

Surging demand amid a heatwave

California and the Western United States experienced unusually high temperatures, which increased power demand. Temperatures in Death Valley reached 130 degrees Fahrenheit (54 degrees Celsius), and statewide peak power demand on August 18th was nearly 20% higher than August 2020's average daily peak power demand. In most high demand periods, California draws power from surrounding states. Because of the record heat in the entire region, excess power in nearby states was in short supply.

The unique challenges of California's increasingly renewable grid

From a power generation perspective, since 2013 California has taken a leadership role to reduce carbon emissions. A large component of the strategy is moving from nuclear, coal, and natural gas power generation to solar and wind. Since 2013, the total amount of generation capacity in California has not materially changed. However, as you can see in the charts below, the percent change from conventional to renewable power is approximately 12% of total capacity.



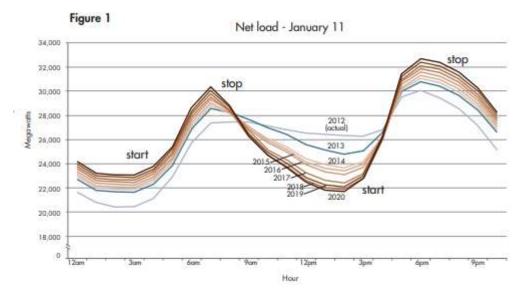
Source: California Independent System Operator (CAISO), Recurrent research

This may not seem like a large change, but there is one crucial aspect of renewable power generation that amplifies its impact: unlike conventional power generation, renewable power is intermittent. In other words, renewable power supply changes in response to weather conditions, not in response to price. The impact of solar power generation on the grid is even more dramatic when we consider the fact that daily power demand typically peaks in the evening, when the sun is setting.



The "duck curve" illustrates the challenges of integrating large intermittent power supply

Below, the California grid operator (CAISO) offers an illustration of the impact of increased solar capacity on the remaining grid. This graph has been colloquially named "the duck curve," in reference to its shape, which depicts the challenges of servicing two peak demand periods – one before solar generation begins, one after. Note that as installed solar capacity increases each year from 2012 through 2020, the need for non-renewable power around midday is declining steadily. However, despite the massive influx of solar capacity, the demand for late afternoon/early evening non-renewable power generation – primarily natural gas - is remaining robust, as the 12% increase in power generation capacity has done effectively nothing to increase morning and evening power supply, with late afternoon/early evening being when demand typically peaks.



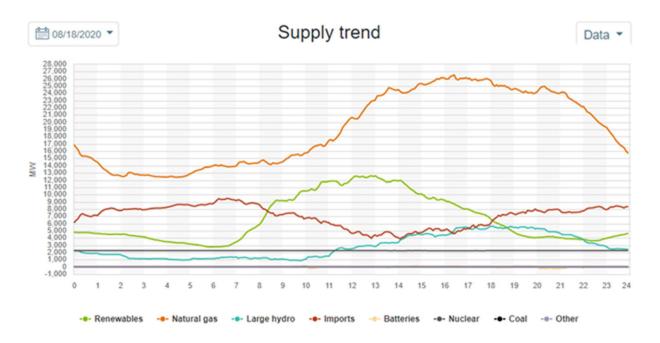
Source: California Independent System Operator (CAISO)

As a result, for a power grid to function effectively, many power grids retain significant natural gas generation capacity, since gas power can turn on quickly, offsetting potential losses in unreliable renewable power around periods of peak demand.

California's shrinking natural gas fleet was unable to cope with surging sunset demand

With the supply/demand dynamics as a backdrop, we can now look at the power market on August 18th. On this day, power demand was particularly high, peaking at 47 MW just before 5 PM. On the below chart, you can see that in the midst of increasing power demand, renewable power generation fell steadily from 2 PM to 6 PM, leaving the grid increasingly dependent on a highly-utilized fleet of natural gas power plants. Ultimately, with temperatures remaining high into the evening, the system was unable to meet market demand in the late afternoon and blackouts ensued until power demand fell after 9 PM.





Source: California Independent System Operator (CAISO)

All told, in the effort to reduce carbon emissions of power generation, California built solar power supply, and took steps to retire natural gas power plants. While the substitution of renewables for fossil fuel generation capacity is often presented as a "1 for 1" exchange, in reality the utilization rates of these plants are very different, with solar generation close to zero during much of the day outside of a 9 AM to 4 PM window. Accordingly, in high demand periods, without sufficient quick-to-respond natural gas power plants, the grid is overwhelmed and blackouts result. In the post-2013 period, had the natural gas plants been merely idled instead of retired, power supply could have met demand. Instead, California's power generation could not meet demand and 10% of the population was impacted by blackouts.

The transition to renewable power generation will continue, supported by the falling cost of solar generation as well as government mandates and tax credits. However, the need for responsive, dispatchable power in the evening – which today can only be supplied on an economic basis by fossil fuel power sources – will remain unfulfilled by an aggressive solar and wind buildout. Accordingly, even as utilities spend heavily on non-dispatchable (primarily solar) resources, fossil fuel generation will remain essential for balancing the grid during periods when sun does not shine, wind does not blow, or our demand for electricity surges.





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