Permian Basin Outlook

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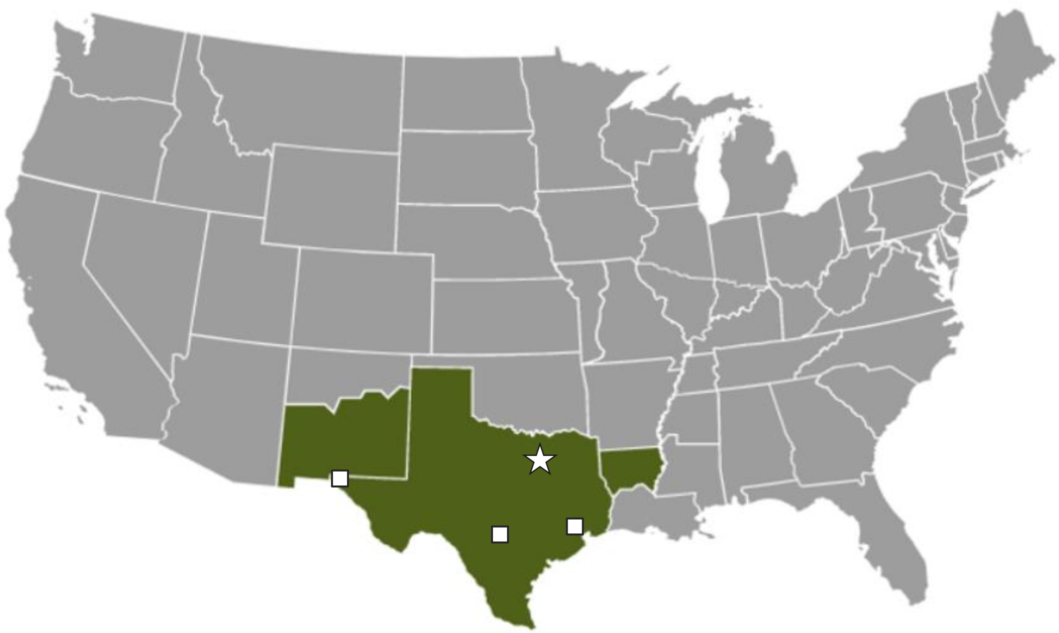
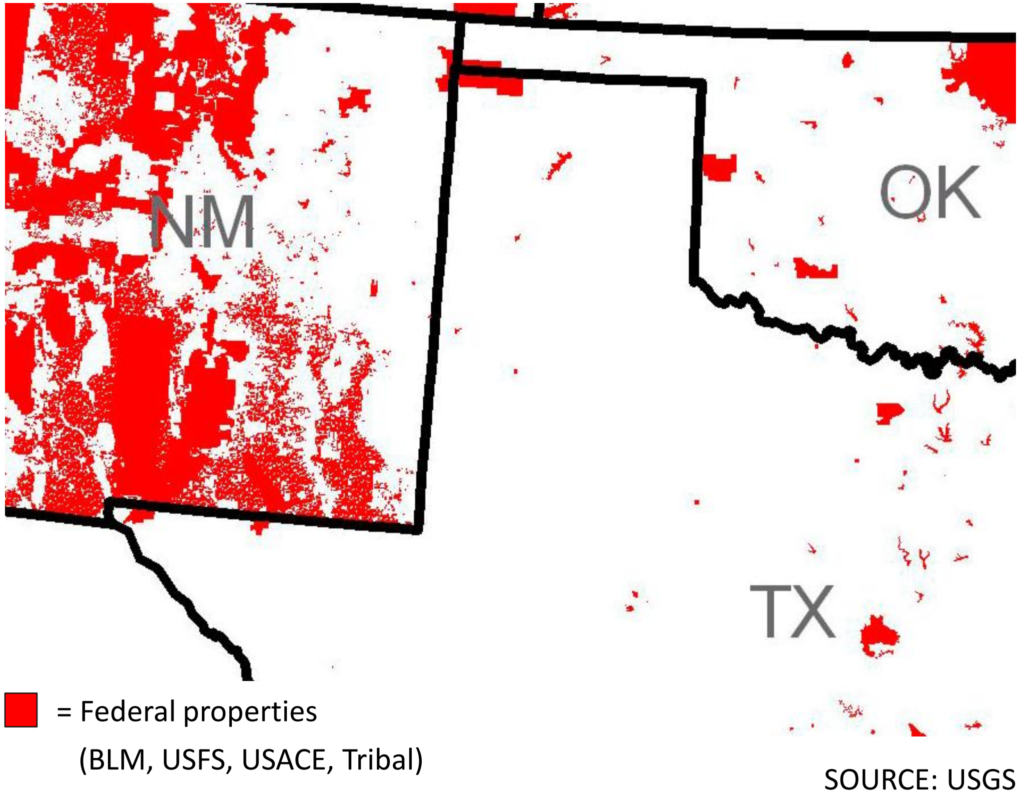


Federal Proposals

- January 20, 2021: Secretary of Interior Order paused all federal oil and gas permitting for 60 days unless authorized by senior DOI officials
  - This included pipeline rights-of-way and routine permit modification
  - Later clarified to exclude Native American lands
  - In late March field offices were re-granted authority to issue permits
  - Permit applications and approvals have accelerated since the moratorium ended
- January 27, 2021: Executive Order indefinitely paused new federal oil and gas leasing "pending completion of a comprehensive review and reconsideration of federal oil and gas permitting and leasing practices"
  - Public forums have been held and an initial report is expected in early summer
  - On June 15 a federal judge issued a preliminary injunction blocking plans to pause future lease sales; on August 24 the Biden administration announced a Gulf of Mexico auctions will resume in January and onshore sales will commence in December

Federal Lands in the Permian

- Half of NM oil production is on federal lands; virtually all TX activity is on private and state lands
- The Delaware Basin generally contains more productive acreage than the Midland Basin, but wells also have higher gas content
- Federal royalty rates are 12.5% while most private owners receive 18-20%. Texas University Lands receive 25%.
- Many companies on NM federal lands accept the higher regulatory burden in exchange for lower costs and higher well productivity



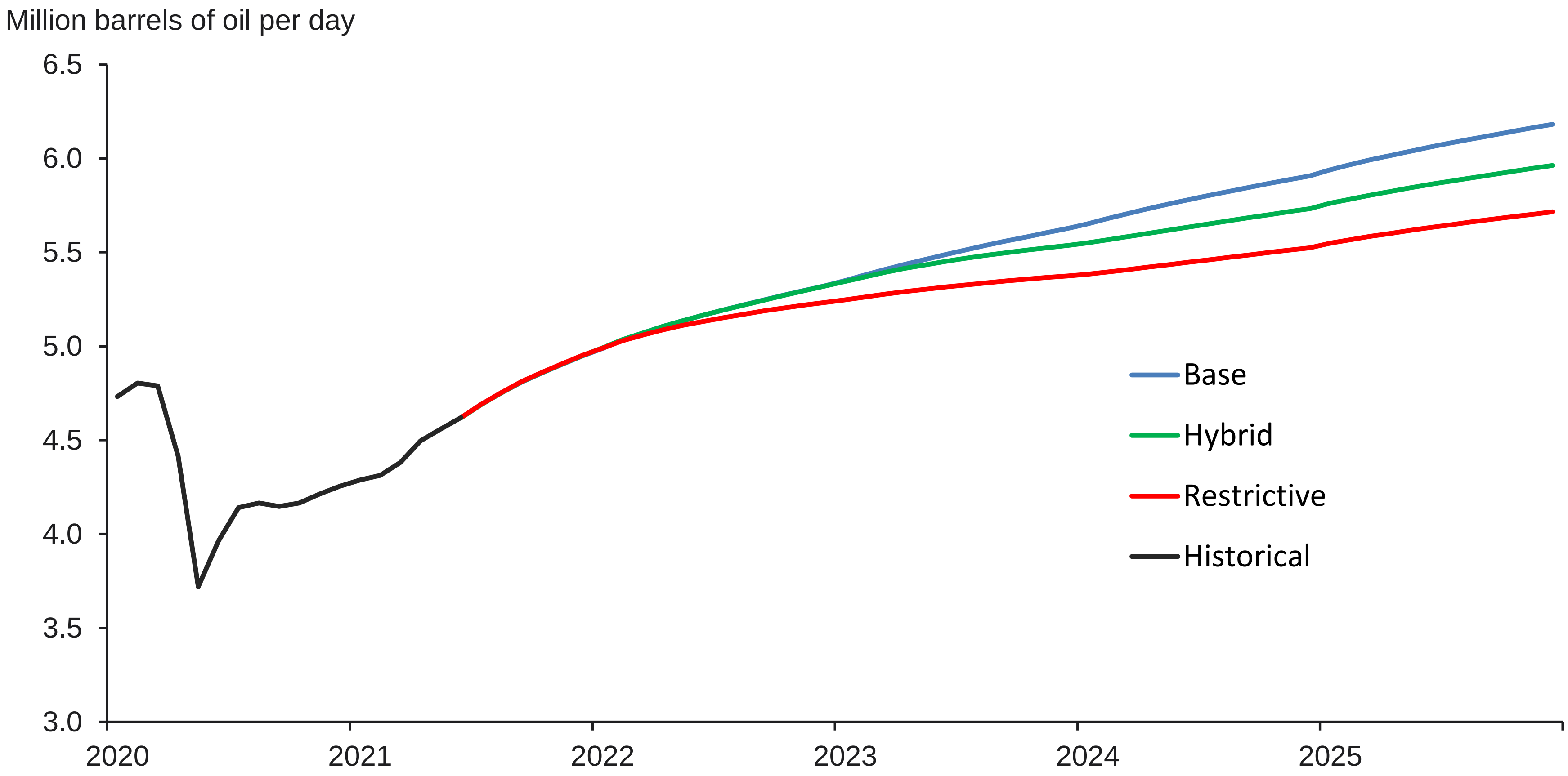
SOURCE: USGS

Assumptions & Methodology

- We conducted outreach with oil and gas producers, environmental groups, and trade associations to gauge the likely outcomes of the permitting pause and leasing review
- Our discussions led to us evaluate three scenarios:
  1. A Reference Case where drilling and completion activity continues at its June 2021 pace
  2. A Hybrid Case where federal oil and gas leasing ends but drilling permits on existing leases are issued
  3. A Restrictive Case where federal leasing ends and permit extensions are not granted for existing leases starting in 2024
- We used our existing Permian Basin production model to split drilling and completion rates between Texas and New Mexico based on the above scenarios
- We assume federal permitting slows in 2022 due to increased scrutiny of applications and changes to the NEPA process
- Some drilling rigs and frac spreads relocate from New Mexico to Texas under both regulatory scenarios
- For field employment estimates we assume 240 workers are required on a standard 3-well pad (construction, drilling, completion)

Permian Production Forecasts

Chart 1
Forecast Scenarios for Total Permian Basin Production Under Greater Federal Limits

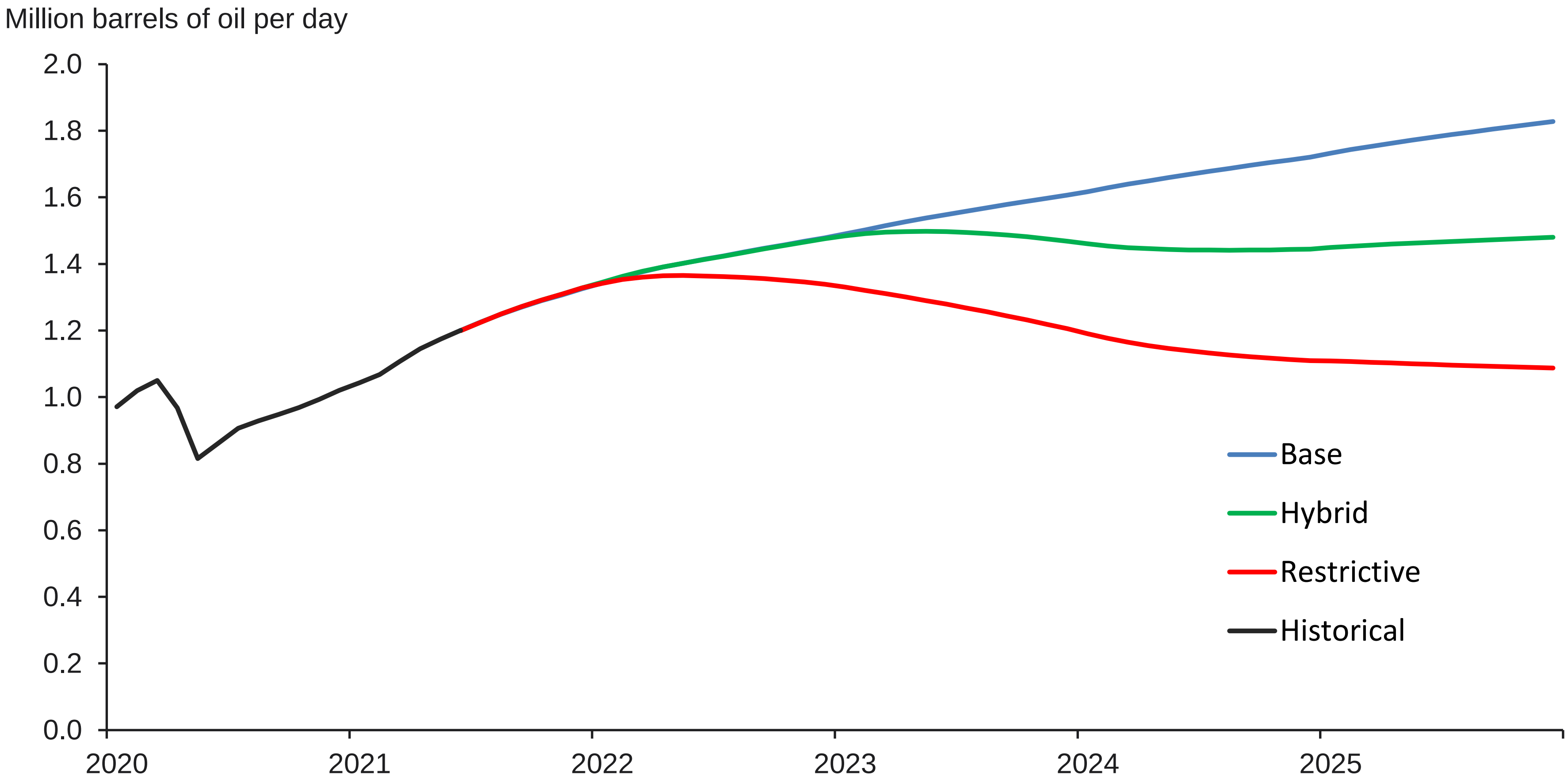


SOURCES: Kayrros; WellDatabase; Federal Reserve Bank of Dallas estimates.

NM Production Forecasts

Chart 2

Forecast Scenarios for New Mexico Permian Basin Production Under Greater Federal Limits



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Employment Impacts

- Between June 2021 and the December 2025, New Mexico will require between 4,780 and 6,800 fewer rig and frac crew workers in the Hybrid and Restrictive Cases, respectively
- The job projections do not include additional service needs – tank batteries, gathering systems, water hauling, etc. – that would also shift from NM and TX
- The overall jobs impact is much larger due to the industry's multiplier effect. Retail, hospitality, and construction sectors would likely see the most impact from these shifts in drilling activity and employment.

Other Impacts

State Revenues

- New Mexico received $2.6 billion directly from oil and gas industry taxes, royalties, and fees in 2019; $809 million of this figure came from royalties on federal lands
- Regulatory scenarios result in an eventual cap and decline in federal royalties

Environmental

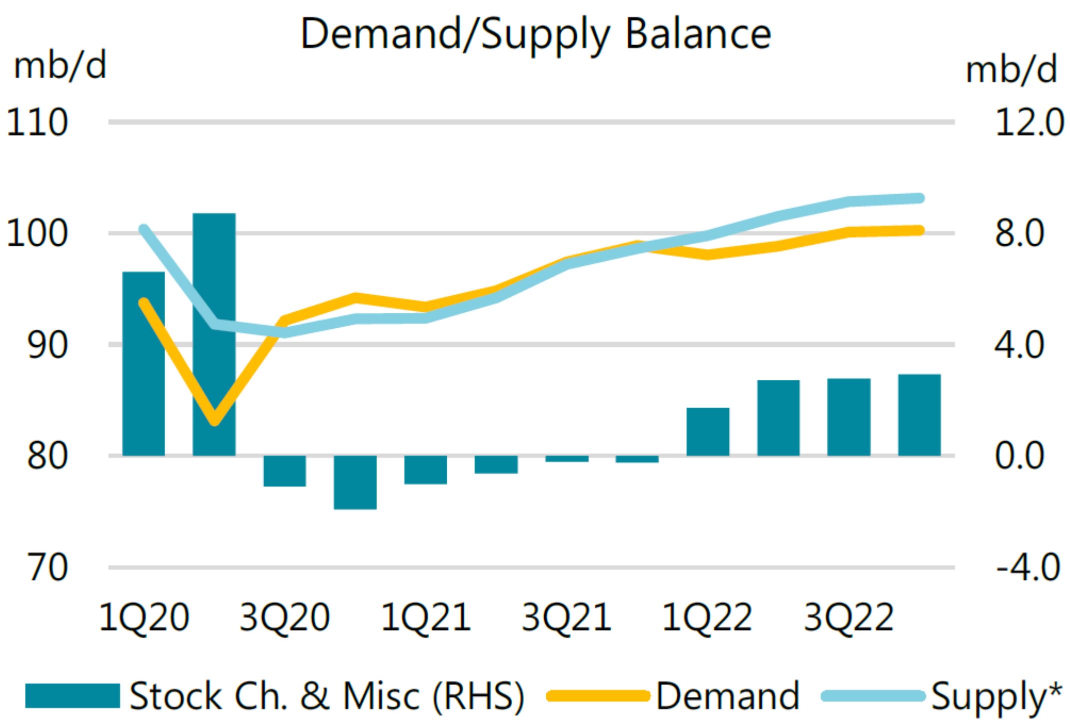
- Each drilling pad requires 1,200 heavy truck trips on average; New Mexico would see a drop in this traffic while Texas will experience more
- New Mexico is implementing stringent flaring rules while Texas is doing little on this front; production shifting into Texas may cause higher pollution from flaring

Downstream

- Gulf Coast refineries invested heavily to take more light crude from the Permian; assuming steady demand, higher imports from West Africa and the Arabian Gulf will be needed
- Likewise, ports have expanded loading capacity for the export market; foreign customers would need to replace Permian barrels with others

Market Fundamentals

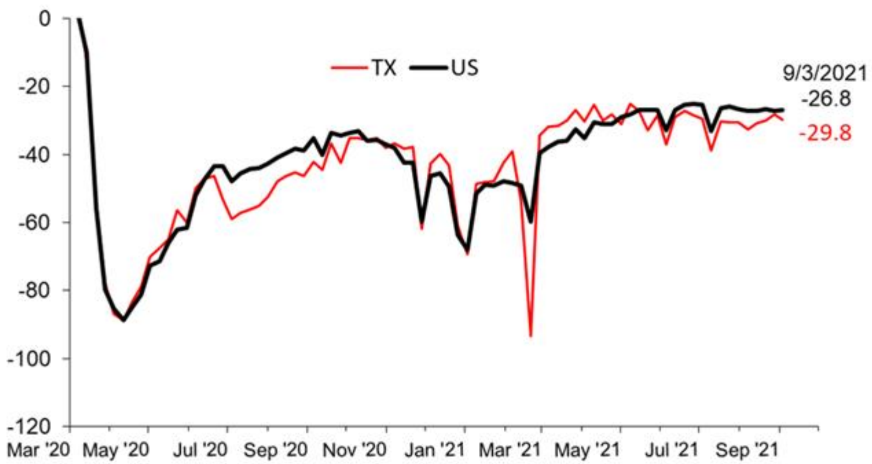
- IEA (chart) assumes OPEC+ increases supply through September 2022
- EIA expects OPEC+ to ease cuts with market conditions
- Balances looks loose for 1H22 under current demand setup but tightening through year-end
- Biggest sticking points among analysts are the trajectory of jet fuel demand and U.S. production in 2022
- Odds of Iran deal (+1.5 mb/d) appear to be falling



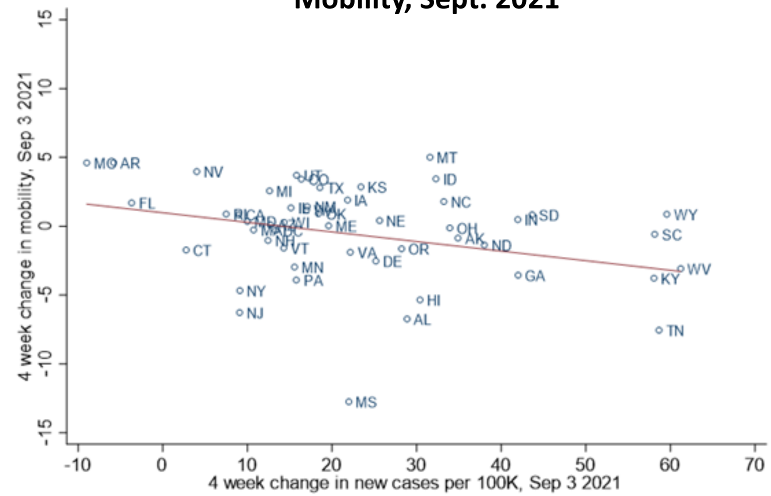
* Assumes OPEC+ unwinds cuts by September 2022. Iran under sanctions.

COVID & Mobility

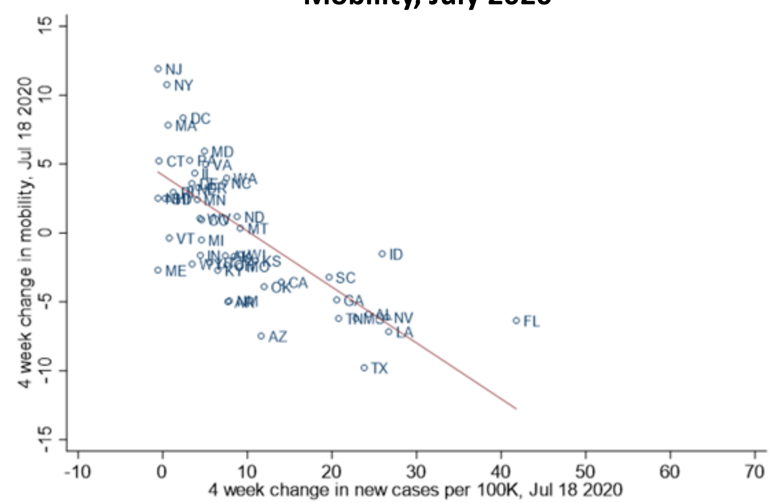
Google Mobility Data



COVID Cases and Mobility, Sept. 2021



COVID Cases and Mobility, July 2020



- Mobility, and by extension, oil demand leveled off with Delta variant – but it did not reverse
- Demand expectations split by up to 2.0 mb/d in 4Q22; permanent changes to consumer behavior, work-from-home, new variants remain difficult to predict

Questions

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