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OIL ANALYST

How Fast Can Gulf Production Recover After Reopening?

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- How fast can Gulf crude oil production, which we estimate to be down by 14.5mbd (or 57%) from pre-war levels (Exhibit 1), recover after the Strait of Hormuz reopens? We find that Gulf production is likely to mostly recover within a few months of reopening assuming 1) no renewed strikes on oil assets and 2) a full and safe reopening of the Strait in coming months. However, we see significant risks that the last leg of the recovery will take significantly longer and may not fully materialize, especially if the Strait were to remain closed for much longer.
- **Transportation and well flow rates are key.** Once the Strait safely re-opens, the key potential constraints on production will likely be the availability of 1) pipeline capacity and empty vessels to destock previously produced oil, and 2) of materials and workers for field workovers, and 3) well flow rates. We estimate that available empty tanker capacity in the Gulf has fallen by around 50% (130mb, #) since the start of the war. We also estimate historical peaks for flows through Hormuz of 23.3mb/d (vs. 20mb/d normal) and for pipeline redirection of 3.5mb/d above normal. Forced curtailments can lead to reservoir complexities in flow rates to varying degrees depending on the reservoir type, requiring intervention and workover jobs prior to opening up wells, to help restore prior production rates as much as possible (Exhibit 2, quotes 1 and 2).
- **The longer the closure, the slower the production ramp.** The longer the Strait is effectively closed, the longer curtailments last, the slower the production recovery is likely to be (Exhibit 2, quotes 2 and 3). This reflects potentially more work on wells, slower procurement of depleted inputs (e.g. drill pipes), and destocking constraining transport capacity for new production for longer.
- **The case for a solid recovery.** We see three reasons why Gulf production is likely to mostly recover within a few months after a full and safe reopening of the Strait:
    a. The publicly reported evidence on physical damage to oil fields remains limited (Exhibit 1) in contrast to LNG assets.
    b. Comments from the Saudi Aramco President and CEO in March suggested that Saudi production is likely to ramp up relatively quickly (Exhibit 2, quote 5).
    c. The history of supply disruptions (Exhibit 5) suggests that Saudi Arabia and

the UAE are likely to deploy available spare capacity (Exhibit 6) to stabilize markets.

- **Risks to long-run production.** We see three reasons why a full recovery may take several quarters and risks that the recovery may be only partial after a prolonged closure.
    a. There are large differences across:
        - Gulf fields in terms of reservoir characteristics, infrastructure sophistication, maintenance, and sanctions risks (e.g. Iran). For instance, the share of country production with relatively low reservoir pressure is estimated to be higher in Iran and Iraq than elsewhere in the Gulf (Exhibit 7).
        - Historical episodes in terms of the speed and extent of production recovery (partly reflecting the differences in causes of curtailments, and recognizing that today's shock is unprecedented) (Exhibit 8).

    b. An average across external forecasts of Persian Gulf production (incl. from EIA, IEA) show recoveries as % of lost production of 70% after 3 months of reopening and of 88% after 6 months (Exhibit 9).

    c. While not our baseline, the risk of large scarring to oil production capacity (we documented for several of the previous five largest oil supply shocks) may pick up if hostilities were to resume.

How Fast Can Gulf Production Recover After Reopening?

Exhibit 1: We Estimate 14.5mb/d of Persian Gulf Crude Production Curtailed in April, Primarily on Precautionary and Stock Management Measures

Estimated Gulf Crude Production in April 2026 (mb/d)				
	Estimated Crude Production Without War	Still Producing	Not Producing Because of Reported Physical Damage	Not Producing for Other Reasons
Total	25.4	11.0	0.3	14.2
Saudi Arabia	10.1	6.1	0.3	3.7
Iraq	4.4	1.4	0	3.0
Iran	3.5	1.0	0	2.5
UAE	3.5	0.8	0	2.7
Kuwait	2.6	1.4	0	1.2
Qatar	1.3	0.2	0	1.0

Under “Estimated Crude Production Without War” we report April 2026 production projections from our GS February 2026 balance. Argus reported on 12 April 2026 that Saudi Arabia’s Energy Ministry said repair work was ongoing at Khurais field, where production capacity had been reduced by about 0.3mb/d, following a strike on one of its East-West pipeline pumping stations. The Ministry said that full restoration would be announced once repairs were completed.

Source: IEA, Goldman Sachs Global Investment Research

Exhibit 2: Insufficient Reservoir Pressure/Flow Rates Following Forced Curtailments May Be a More Persistent Constraint on Production of Some Wells

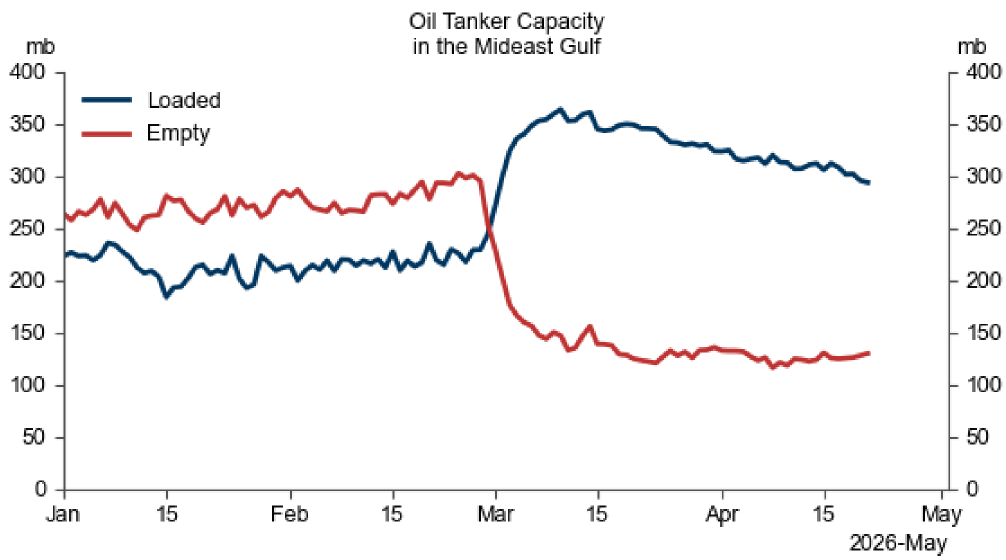
Prospects for Recovery in Upstream Oil Production			
Quote Number	Date	Speaker	Speed of Recovery
1	22-Apr	Girish K. Saligram (CEO of Weatherford International)	When you've also got production that shut in [...] it's not a guarantee that you're going to get back at the **exact same flow rates**.
2	21-Apr	Shannon Slocum (Executive Vice President and Chief Operating Officer of Halliburton)	I'd say the longer they [wells] get shut in, **the more complex that gets**.
3	21-Apr	Jeffrey A. Miller (Chairman of the Board, President and Chief Executive Officer of Halliburton)	The longer things are shut in, typically, **the more complex they are to bring back on**.
4	24-Mar	Sheikh Nawaf (CEO of Kuwait Petroleum Corporation)	Kuwait would take **three to four months** to return output to full production levels even if the war were to end today.
5	10-Mar	Amin Nasser (President and CEO of Saudi Aramco)	We can ramp up in **days**, and not weeks for sure and, to reach whatever, when we talk about, we have an ample spare capacity as well, and in certain areas, we use restriction on wells rather than shutdowns.

Source: Reuters, Saudi Aramco, Halliburton, Weatherford International, Goldman Sachs Global Investment Research

Production Process

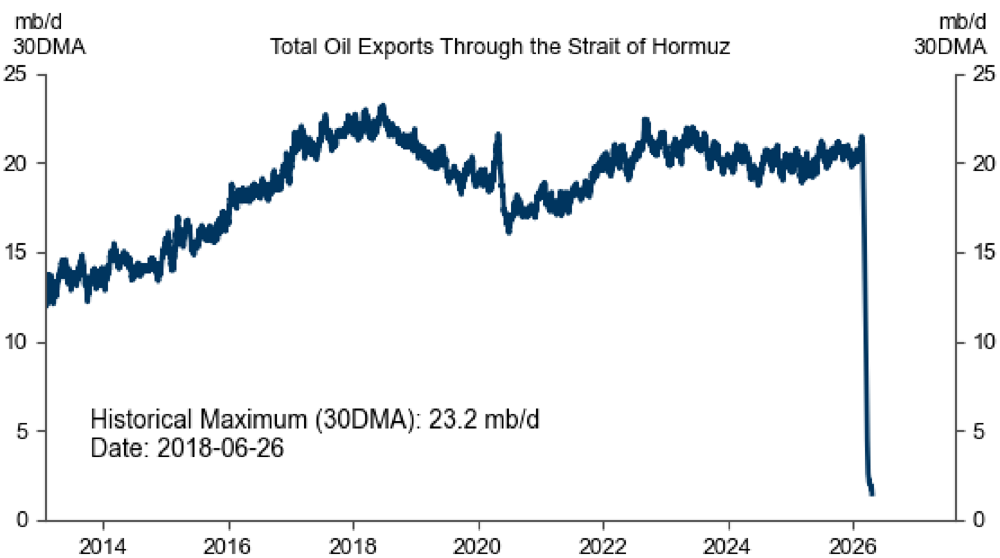
Transportation and Well Flow Rates Are Key Potential Constraints

Exhibit 3: We Estimate that Available Empty Tanker Capacity in the Persian Gulf Has Fallen by Around 130mb (Around 50%)



Source: Kpler, Goldman Sachs Global Investment Research

Exhibit 4: Oil Flows Through the Strait of Hormuz Exceeded Their Normal 20mb/d Pace by Over 3mb/d in mid-2018



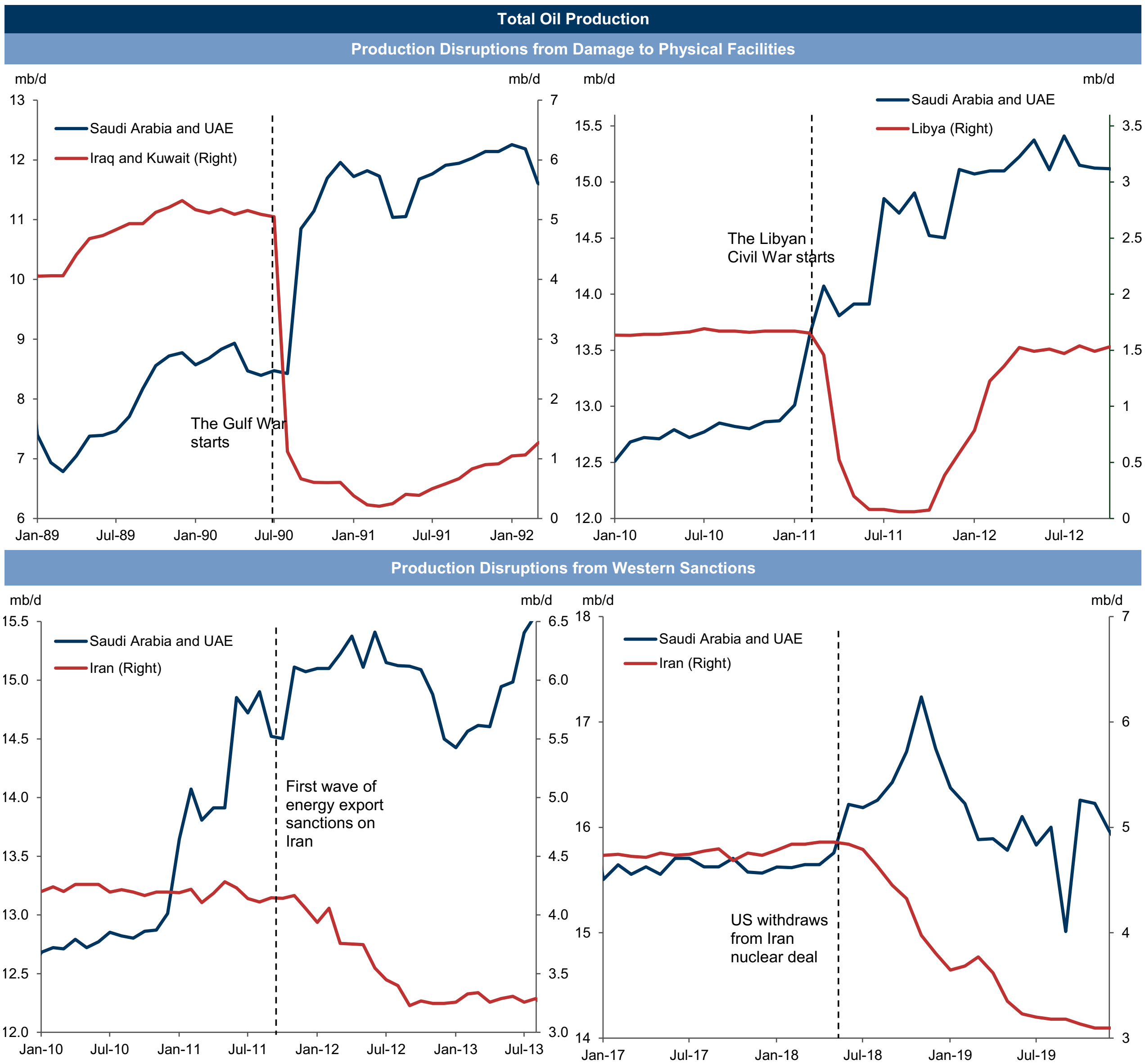
Oil exports includes crude, NGLs, and refined products.

Source: Kpler, Goldman Sachs Global Investment Research

The Case for a Solid Recovery

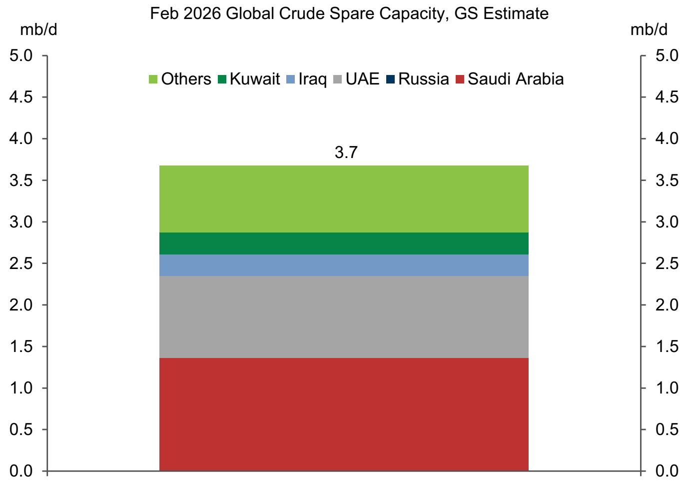
Core OPEC Market Stabilization

Exhibit 5: Saudi Arabia and UAE Production Historically Tends to (Eventually) Offset Much of Disrupted Supply



Source: IEA, Goldman Sachs Global Investment Research

Exhibit 6: We Estimate That Saudi Arabia and UAE Could Deploy Over 2mb/d of Spare Production vs. Pre-War Levels to Stabilize Markets After a Safe and Full Reopening

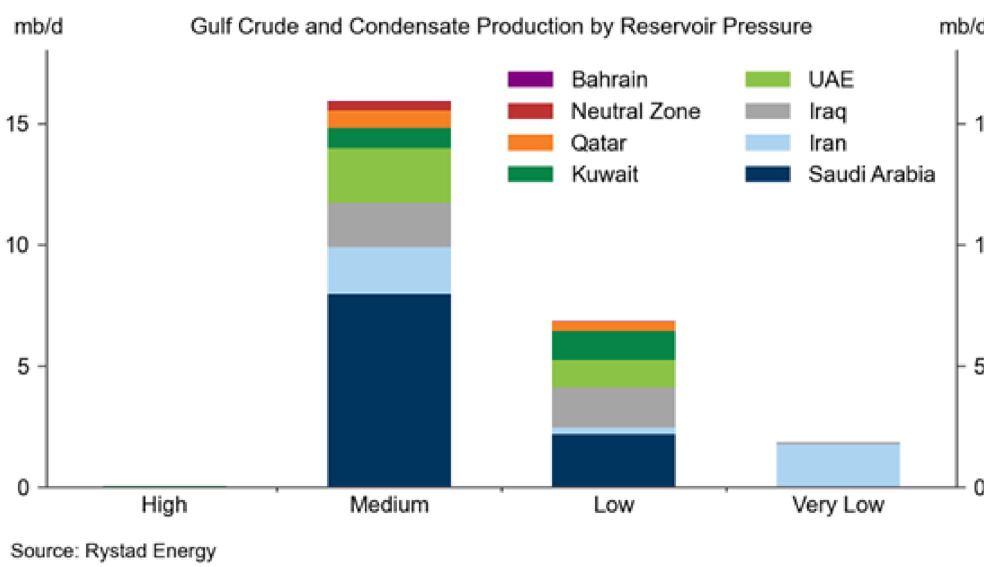


Source: IEA, EIA, Goldman Sachs Global Investment Research

Risks to Long-Run Production

Differences Across Fields and Countries

Exhibit 7: Most of Gulf Reservoirs Are Estimated to Have Medium Pressure, But Nearly Half of Iranian Reservoirs Are Estimated to Have Low Pressure



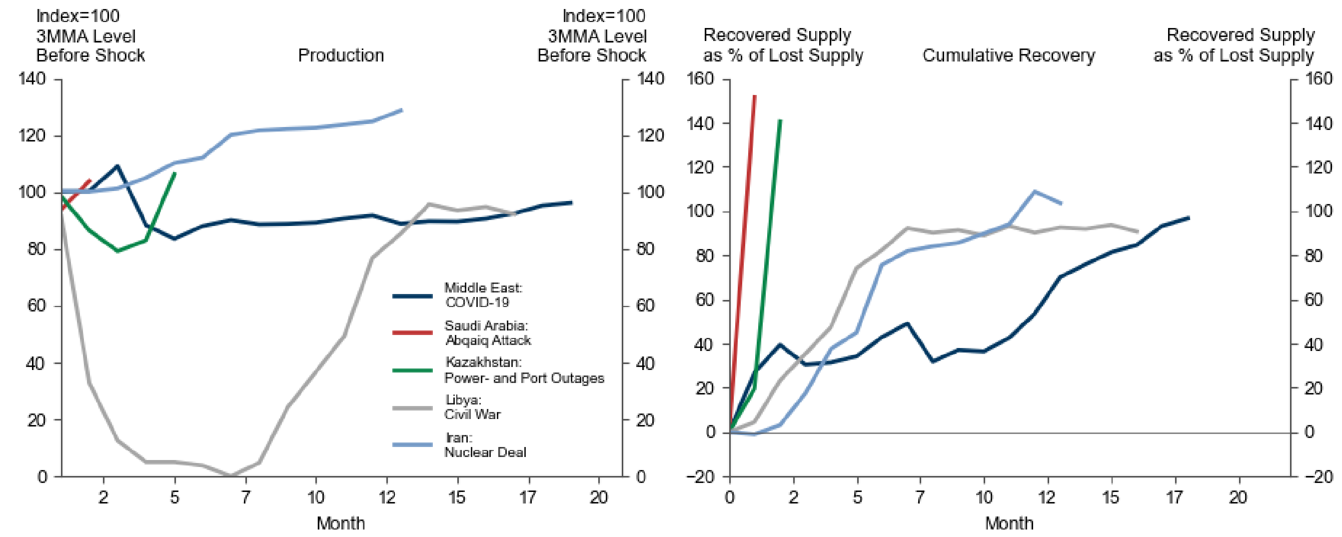
Production is a 2026 annual average projection. Pressure is not a sufficient statistic to predict workovers on wells. Other factors (e.g. sand granularity) play a role too.

Source: Rystad Energy, IEA, Goldman Sachs Global Investment Research

Differences Across Historical Production Recovery Episodes

Exhibit 8: While the Hormuz Shock Is Unprecedented, Our Analysis of Historical Production Recovery Episodes Shows Large Differences in Recovery Paces (Partly Reflecting Different Causes of Curtailments)

Differences Across Historical Crude Production Recovery Episodes



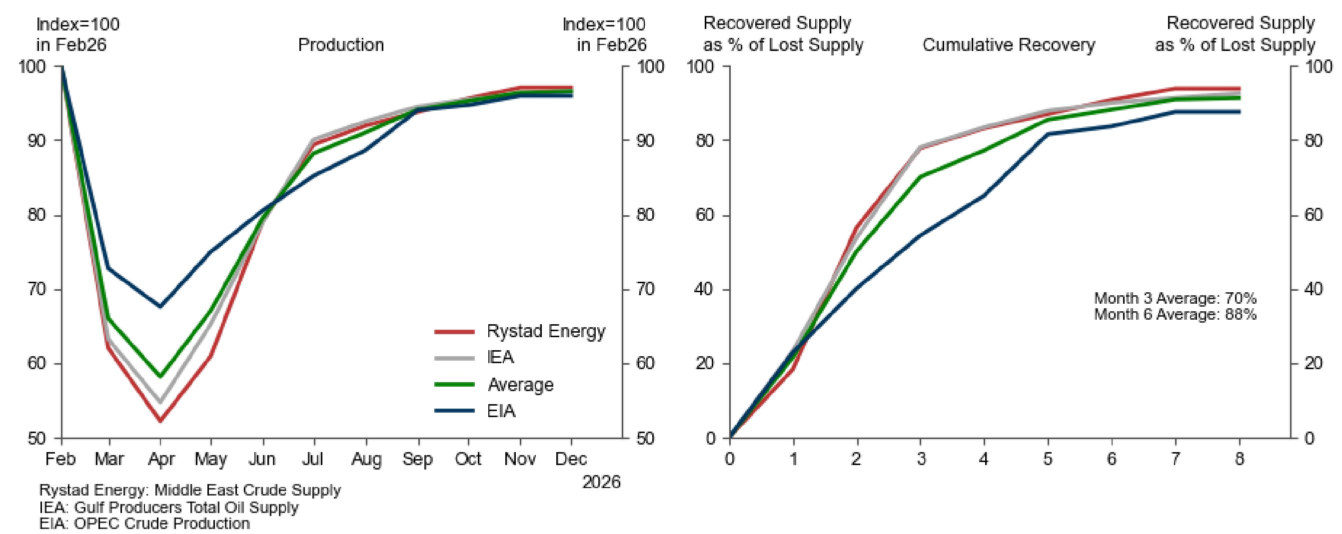
We consider crude production data.

Source: IEA, Goldman Sachs Global Investment Research

Forecasts From Energy Agencies

Exhibit 9: An average Across External Forecasts of Persian Gulf Production in 2026 Shows Recoveries as % of Lost Production of 70% After 3 Months of Reopening and of 88% After 6 Months

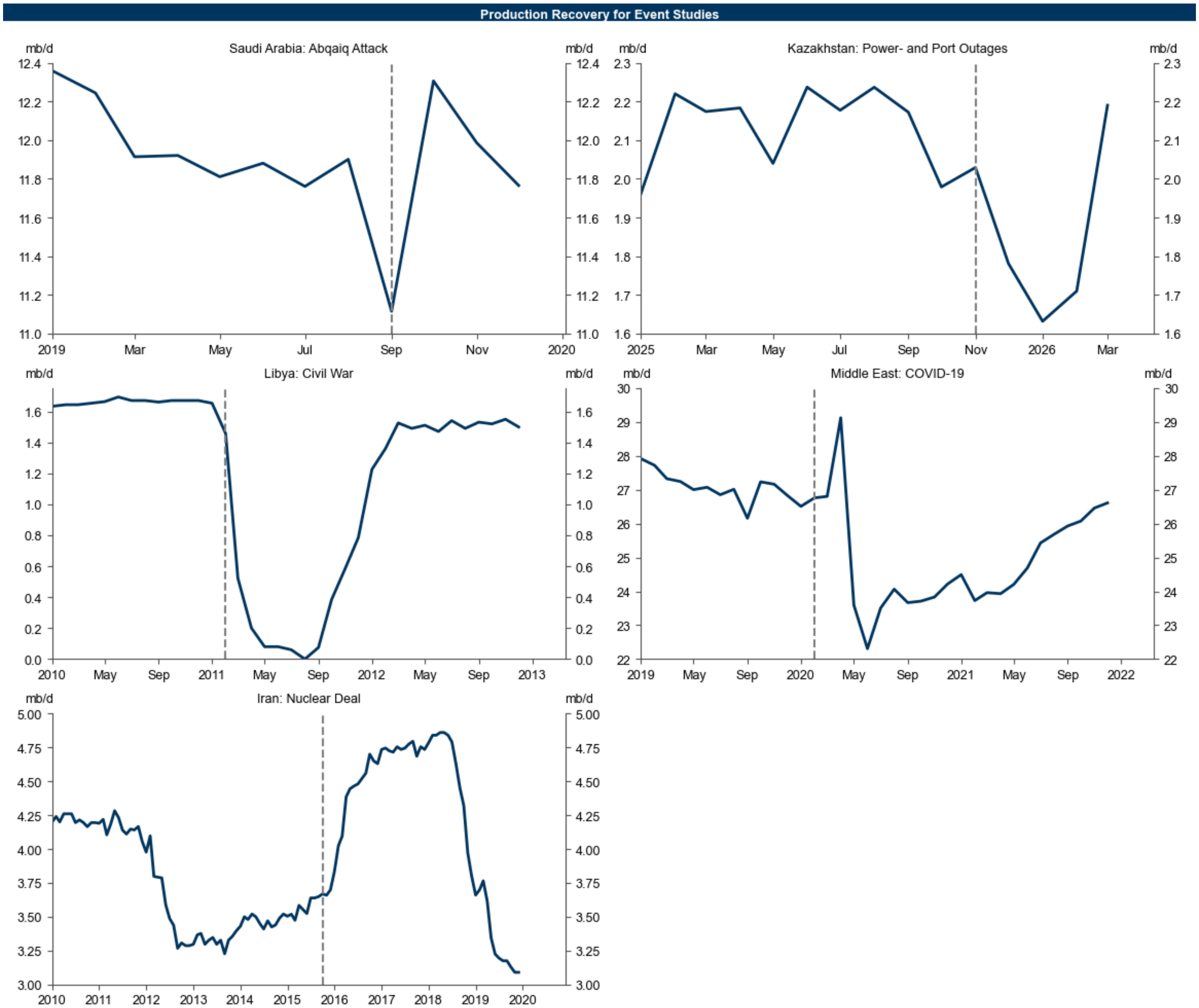
Forecasts Comparison Across Agencies



Source: Rystad Energy, IEA, EIA, Goldman Sachs Global Investment Research

Appendix

Exhibit 10: We Look at Five Historical Episodes of Production Disruptions and Recovery But Ramp-Up Patterns Differ Across the Shocks (Which All Differ in Cause and Nature)



Source: IEA, Goldman Sachs Global Investment Research

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