Primary Growth Drivers

Near-term oil production growth will be challenged as most mega project starts and expansions (Kashagan restart expected mid 2017 with Tengiz and Pearl contributions anticipated post 2020) are anticipated later this decade. We model a 2.5% decline rate for the base assets; as recent investment in recovery methods in ACG (Chirag Oil Project) and in Tengiz (Capacity and Reliability project) are expected to partially offset declines.

Primary Risks

In our view, the primary risks to the 2015-2020 production outlook for the Caspian Sea include delays to unsanctioned projects amid lower crude prices as well as increased operational delays associated with the restart of the Kashagan oil field.

1. Delays to Unsanctioned Projects: The region's most capital-intensive project is Tengiz (Wood Mackenzie estimated peak production of ~240 mbpd aggregate for the WPMP and FGP projects) at ~$37 Billion. Local content requirements and high export taxes delayed the scheduled FID from 2014 to 1H2015 yet with only 10% of the project's required capital invested as of YE14, there is significant risk to further project slippage. Woodmac anticipates a further delay in FID to 4Q15 with first oil production at FGP not expected until 2021 vs. the initial 2017 target date. FID decisions surrounding Kashagan Phase II (est peak production of 630 mbpd in 2030) and Pearls (est peak production of 50 mbpd in 2024) do not impact our forecast window but will have an impact on production sustainability in the country.

2. Operational Delays to the Restart of Kashagan: Operational-related delays to the restart of the Kashagan oil field) would represent another material risk in the outlook (with ~$50Bn in sunk costs, the project is not materially levered to lower crude prices). Following the start of Phase One in September of 2013, the field was soon shut-in following leaks in the gas pipelines that carried sour gas onshore. Following a full replacement of the oil and gas pipelines production is expected to ramp to ~400 mboe/d. Completion of pipeline replacement work is targeted for 2H2016 with Wood Mackenzie anticipated first oil production by mid-2017, reaching ~ 300 mboe/d by 2019.

Figure 87: Key Growth Projects, 2014-2020

Project	IEA Region	Country	Sector	Operator	Project Type	Dev Status	API	Prod Start Up Yr	Peak Prod Yr	2014-2017 Prod	2014-2020 Prod
Kashagan Contract Area	FSU	Kazakhstan	Offshore	North Caspian Operating Co	Shallow	Onstream	45	2013	2029	83	329
Cheleken Contract Area	FSU	Turkmenistan	South Caspian Basin	Dragon Oil	Shallow	Onstream	34	1972	2021	17	35
Gum Deniz-Bahar	FSU	Azerbaijan	Azerbaijan Offshore	Bahar Energy Operating Company	Shallow	Onstream	38	1965	2021	7	11
Umid	FSU	Azerbaijan	Azerbaijan Offshore	SOCAR	Shallow	Onstream	40	2012	2022	3	7
Shah Deniz	FSU	Azerbaijan	Azerbaijan Offshore	BP	Shallow	Onstream	42	2006	2022	2	32
Tengizchevroil Area	FSU	Kazakhstan	Precaspian Basin	Tengizchevroil	Onshore	Onstream	47	1991	2023	2	94
Emba Area (Post contract)	FSU	Kazakhstan	Precaspian Basin	Government of Kazakhstan	Onshore	Onstream	31	1911	2022	0	28

Source: Deutsche Bank, Wood Mackenzie