



Primary Growth Drivers

Near-term production growth will be supported by several project start-ups. The recent (and worth noting 'on schedule') starts of the Kizomba Satellites Phase 2 and Block 15/06 West Hub Development projects in 2Q15 are the chief drivers of 300 mbpd of crude growth through 2017. The long-term production outlook will be driven by the ramp from fields in the Kaombo Block 32, and contributions from currently unsanctioned projects (Cameia).

Primary Risks

Geopolitical risks withstanding, the key risks to production in our forecast window include a delay to project start-ups particularly the ramp from the Block 32 fields (projected on stream in 2017), and the delayed sanctioning of several projects including the high profile Cameia project (anticipated late 2015 FID with peak oil production by 2018 of 80 mbpd).

- **Project Delays:** Through 2017, primary risk is in delays to the starts of two key projects: Block 15 NE Hub and the Kaombo Block 32. Although largely in process, there could be limited risk of delays associated with cost reduction efforts in the current environment. Incremental production from the Kaombo fields in Block 32 (2017 target project start) is expected to reach a peak capacity of ~230 mbpd by 2020. Deep water depths, dispersion of fields, and high presence of salt imaging has the potential for increased technical risks.
- **Sanction Delays:** Including Cameia unsanctioned projects represent nearly all the incremental crude production from 2017 to 2020. Cost reduction will be a significant driver of accelerated FID activity; Cobalt is currently estimated Cameia YE15 sanction on estimated development costs of <\$20/bbl and assumed \$2Bn in estimated cost savings.

Figure 71: Key Growth Projects, 2014-2020

Project	IEA Region	Sector	Basin	Operator	Project Type	Dev Status	API	Prod Start Up Yr	Peak Prod Yr	2014-2017 Prod	2018-2020 Prod
Kizomba Satellites Phase 2	Africa	Deepwater	Lower Congo	ExxonMobil	DW	Under Development	22.5	2015	2020	108	177
Block 15/06 NW Hub	Africa	Deepwater	Lower Congo	ENI	DW	Onstream	23.6	2014	2016	83	52
Mafaneira	Africa	Offshore Cabinda	Lower Congo	Chevron	Shallow	Onstream	36	2009	2008	62	44
Block 32 Kaombo	Africa	Ultra Deepwater	Lower Congo	Total	UDW	Under Development	32	2017	2020	40	214
Block 15/06 NE Hub	Africa	Deepwater	Lower Congo	ENI	DW	Under Development	38	2016	2018	39	67
Block 21	Africa	Deepwater	Kwanza	Cobalt International Energy	UDW	Under Development	46	2017	2024	10	100
Block 18 West	Africa	Deepwater	Lower Congo	BP	UDW	Probable Development	32	2019	2025	0	45
Block 31 Southeast	Africa	Ultra Deepwater	Lower Congo	BP	UDW	Probable Development	32.5	2020	2022	0	41
Block 32 Central NE	Africa	Ultra Deepwater	Lower Congo	Total	UDW	Probable Development	35	2020	2022	0	28
Orca	Africa	Deepwater	Kwanza	Cobalt International Energy	DW	Probable Development	36	2020	2022	0	22

Source: Deutsche Bank, Wood Mackenzie