Research Update:

Leviathan Bond Ltd.'s Senior Secured Notes Affirmed At 'BB-'; Outlook Stable

July 29, 2021

Rating Action Overview

- The operations underlying Leviathan Bond Ltd. (Leviathan or the project) have completed the first year and a half, with solid performance.
- In addition, global gas prices through 2021 have rebounded from unusually low levels in 2020, supporting Leviathan's long-term financial position.
- We are affirming our 'BB-' rating on Leviathan Bond's senior secured notes, with the recovery rating remaining at '1', indicating our expectation of 90% recovery (down from 95%) in the event of a default.
- The stable outlook reflects our expectation of solid operational performance coupled with stable exports to Egypt and Jordan.

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Project Description And Key Credit Factors

The Leviathan field is an offshore gas field located in the eastern Mediterranean, discovered in 2010, and is the largest natural gas reserve in Israel. Situated offshore Israel, approximately 120 kilometers (km) West of Haifa with a water depth of 1.7 km; currently supplying gas to Israel, Egypt, and Jordan. According to a reserve report prepared by the independent engineering consultant, Netherland, Sewell, & Associates Inc. (NSAI), the field has proven developed producing reserves (1P) totaling 12,111.1 billion cubic feet (BCF) of gas and 26.6 million barrels (MMbbl) of condensate oil as of March 31 2021, and an annual capacity of 12 billion cubic meters (BCM).

The rights to explore and produce petroleum and gas in the Leviathan field were granted, proportionally, to Delek Drilling (45.34%), Chevron Mediterranean Ltd. (Chevron Mediterranean; 39.66%), and Ratio Oil Exploration (15.00%) under a production lease until February 2044, which may be extended by up to an additional 20 years in case the partners continue to produce from the Leviathan field. (The Chevron Mediterranean contract was originally signed with Dolphinus Holding Ltd., and it was novated in favor of Blue Ocean Energy June 26, 2020.) The operations and associated infrastructure are defined under a joint operating agreement (JOA) among the three parties in the respective proportions in the Leviathan lease. The operations of the field are performed by Chevron Mediterranean under the terms defined in the Leviathan lease and JOA.

Given these unique characteristics, we rate the project based on our Principles Of Credit Ratings. In particular, we have assessed the cash flow coverage according to Delek Drilling's 45.34% working interest and the JOA. The latter defines that operating committee proposals need to reach at least a 60% approval by the vote of two non-affiliate partners. Whereas there's no majority control by any party, we view the risk of Delek Drilling having a non-controlling stake as mitigated by this voting procedure, because decisions can't be made without its vote. As such, the repayment of the notes will consist of the pro rata revenue stream from the sale of gas and condensate produced at the field. We also acknowledge the risk of having Delek Drilling as part of the project under the sponsor loan. But we don't limit the rating on the notes to the credit quality of Delek Drilling, since we see cross-default mitigation in the project's structure and the risk of default under the JOA as remote at this stage.

The Leviathan field closed long-term gas sales purchase agreements (GSPA) totals approximately 10 BCM per year (85% of production capacity) until around 2035. Currently, 50%-55% of the Leviathan field's gas sales in 2021 are expected to be for National Electric Power Co. (Nepco) in Jordan and to Blue Ocean Energy in Egypt, and the rest in Israel. However, we expect under our base case that sales to Egypt and Jordan will increase as a share of total gas sales.

Strengths

- The Leviathan field has minimal resource risk, with 1P reserves sufficient to cover production capacity for over 30 years, according to information provided under a reserve report prepared by NSAI.
- An experienced and global player will undertake the operations of the asset. Chevron Mediterranean has been operating a similar project in the adjacent field (Tamar) successfully since 2013, which we view as credit positive. This underlines our view of stable production and low operating cost (below 10% of revenue).

Risks

- Despite a high contracted revenue base, we expect the project will remain exposed to market risk, which introduces some cash flow volatility. About 85% of the gas sales benefit from long-term GSPA with minimum take-or-pay volumes at a fixed price, floor price, and escalating price depending on Brent or the domestic electricity production tariff (depending on the type of agreement). Nevertheless, because we assess the credit quality of only 40% of the contracted capacity, for the remaining 60%, we assume that gas is sold in the merchant market throughout the project's life, making expected cash flows available for debt service more volatile throughout the debt's term.
- Each note series has a bullet payment for the respective maturities in 2023, 2025, 2027, and 2030, increasing the refinancing risk to the project. This risk is partly offset, in our view, by the debt payment fund and the principal reserve fund, which starts to be funded 12 months before the maturity of each series, and is limited at $150 million and the very long reserve tail.
- Default by Delek Drilling under the JOA might cause an interruption of cash flows to the project, if not cured. We assess this risk as remote because our analysis of the base- and downside-case scenarios considers that Delek Drilling has already performed all required payments in respect of the current stage of development of the Leviathan project and does not have any material outstanding liabilities.

Rating Action Rationale

Natural gas prices continue to rebound from unusually low levels in 2020. Economic reopening and strong global liquefied natural gas (LNG) demand have led to a rebound of global natural gas prices. We are revising our long-term assumption on the uncontracted gas sales for Leviathan--which is lower than the current contracted prices and current prices elsewhere in the region--to $3.0 per million British thermal unit (/MMBTU) from $2.5/MMBTU.

Leviathan has successfully completed the first year and a half in operation. Leviathan delivered its first gas to the Israeli domestic market in December 2019 and has exported to Egypt and Jordan since it started operating. Since then, operations have been stable and in line with expectations, despite the challenges brought by the pandemic and armed conflict at Gaza.

We view exports to Egypt and Jordan as the main risk. We view the Egyptian and Jordanian markets as key for the Leviathan's economic feasibility, since the project, in our view, cannot switch its gas supply to other countries. Israel became a gas exporter when Leviathan started operating and, absent a material increase in local demand, which would take years, could not absorb the gas that Leviathan currently sells to Egypt and Jordan. Israel does not have liquefaction plants to export gas directly, and the current pipeline networks connect Israel only with Egypt and Jordan. For this reason, our rating in Leviathan is limited by the weighted average long-term rating on Egypt ('B') and Jordan ('B+') plus two notches.

Higher gas production in East Mediterranean could increase market competition over the long-term. The start of Leviathan's operations converted Israel into a gas exporter. In addition, and over the long term, potential new developments in the East Mediterranean, or increased production capacity of existing projects could potentially convert the region into a gas export hub. Egypt already benefits from relevant gas field developments that could increase in the future, and Jordan has some oil shale reserves. We factor this risk into our rating by assuming in our base case a $3.0/MMBTU price for uncontracted sales, which is well below the current contracted price.

We assume that 60% of gas produced will be dispatched in the market. We lack visibility on the quality of this cash flow because around 60% of the offtakers (we exclude all volume sold to Blue Ocean Energy under its respective contract) are not rated or do not publicly share sufficient financial information for us fully assess their credit standing. As such, we only consider the GSPA of 40% of the contracted capacity to the offtakers that we were able to assess (including the portion sold to Nepco), and view the remainder as exposed to market risk under our analysis.

Outlook

The stable outlook reflects our assessment that Leviathan's operations are unlikely to encounter substantial setbacks, and that the project has contracted a reasonable proportion of its production capacity with floor prices. Given the bullet nature of the notes, we expect the project to generate debt service coverage ratios (DSCRs) above 3.0x in the next two years. The stable outlook reflects our expectation of stable gas exports to Jordan and Egypt.

Downside scenario

We could lower the rating if operations come up against production issues, resulting in lower uptime and higher operating costs, reducing the minimum DSCR below 1.4x. In addition, we could revise our gas price assumption if conditions in the oil and gas industry deteriorate, complicating the project's ability to sell its production capacity at favorable prices, leading to lower cash flows and higher refinancing risk. We could also lower the rating if gas exports to Egypt or Jordan were not stable or at risk of disruption. A negative rating action could be triggered by a decline in the weighted average rating on Egypt and Jordan.

In addition, we could lower the rating if the partners of the field were to engage in aggressive expansion commitments, which could reduce the net cash flows for the repayment of the notes, and result in extraordinary obligations of Delek Drilling to pay its participating interest in related joint account expenses.

Upside scenario

We view an upgrade as unlikely, since that would require substantial strengthening of Leviathan's stand-alone profile (SACP) coupled with an improvement on the creditworthiness of the counterparties that currently cap the rating. We could revise upward our SACP assessment if the project sells its remaining capacity to counterparties of stronger creditworthiness, reducing its market risk exposure and enhancing the blended-average credit quality of its revenue stream, which could reduce risks and might raise the minimum DSCR toward 1.70x.

Performance Update

Operational performance has remained solid since the beginning of operations. The project started operating in December 2019, and has posted strong performance since then--with operational uptime in 2021 of about 99%.

Total Natural Gas Reserves (100%) In The Petroleum Asset (Gross)

Scenario	Type	As of Dec. 31, 2019	As of June 30, 2020	As of Dec. 31, 2020	As of March 31, 2021
1P (proved) reserves	Natural gas (BCF)	11,577.3	11.38	11,269.6	12,111.1
	Condensate (MMbbl)	20.8	20.4	24.8	26.6
Total 2P (proved + probable) reserves	Natural gas (BCF)	13,486.2	13,282.2	13,087.6	13,560.4
	Condensate (MMbbl)	24.2	23.9	28.8	29.8

Source: Netherland, Sewell & Associates Inc. (NSAI). BCF--Billion cubic feet. MMbbl--Millions of barrels.

Noble Inc. is now a wholly owned subsidiary of Chevron Corp. On Oct. 5, 2020, Chevron Corp. announced the completion of the merger with Noble Energy Inc., the parent company of Noble Energy Mediterranean Ltd., the operator of Leviathan. Noble Energy Mediterranean Ltd. changed its name to Chevron Mediterranean Ltd. June 28, 2020.

Base Case

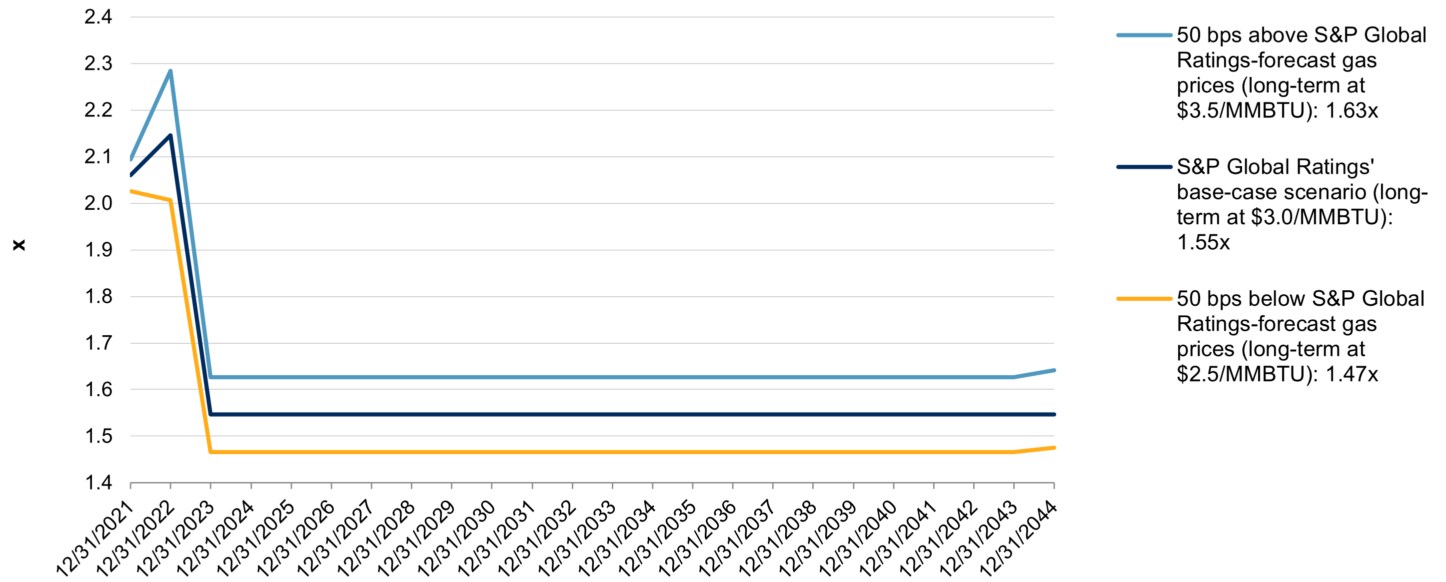
Assumptions

- Annual sales of 12BCM, 40% of which is under a GSPA with Nepco and some offtakers in Israel, and the remainder at competitive market prices.
- Prices under GSPAs with rated third parties modelled as per the terms of the GSPAs.
- With regards to gas sales we treat as uncontracted under our analysis, we assume the following prices, which are lower than the current contracted prices and current prices in the region: $3.50/MMBTU in 2021, $3.25 per MMBTU in 2022, and $3.0 per MMBTU for 20222 onwards.
- Operations and maintenance (O&M) costs in line with historical performance of the operator, adjusted to U.S. inflation, including variable cost of $0.5 per one thousand cubic feet and operating expenses of around $80 million per year for 100% of the field.
- Budgeted capital expenditure of around $240 million in 2021 and $270 million to contribute to the construction of the new gas pipeline between Ashkelon and Ashod, and other improvements such as a new well at the gas field.
- Refinancing of each bullet series at a 200 basis-points higher spread, with an amortizing loan until 2044, five years before we expect the equipment asset life will end.

Key metrics

- Minimum DSCR of 1.55x in 2025 and average DSCR of 1.59x until the refinancing period ends.

Leviathan--ADSCR Under Our Base-Case Scenario And Sensitivities



ADSCR--Annual debt-service coverage ratios. MMBTU--Million British thermal units. bps--Basis points.
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Downside Case

Assumptions

- 10% lower annual production.
- 10% stressed gas market prices, and floor prices under the GSPA.
- 5% lower availability of the field.
- 10% higher variable and fixed operating costs, including stress over insurance.
- 20% higher capital expenditure.
- 10% increase on the levy taxes.

Key metrics

- A minimum DSCR of 0.75x in 2044.

We factor into our downside-case scenario the project's ability to mitigate the impact on cash flows from operating risks, such as lower production, and higher operating and maintenance

expenses, among other costs. Cash flows could also fall due to external events such as Brent reference prices, inflation rates, and insurance costs, especially considering the project's single-asset nature.

We assess the project's resilience in a stress case as neutral to the transaction because it would be able to maintain timely debt-service payments for four years before completely depleting the reserve provisions.

Rating Score Snapshot

Construction phase SACP (Senior Debt)

- Not under construction

Operations phase SACP (Senior Debt)

- Operations phase business assessment: 8 (on a scale of '1' [lowest risk] to '12' [highest risk])
- Preliminary SACP: bb-
- Downside impact on preliminary SACP: 'bb' (no impact)
- Liquidity: Neutral
- Comparative analysis assessment: Neutral
- Adjusted preliminary operations phase SACP: bb-
- Operations counterparty ratings adjustment: Capped at bb-
- Operations phase SACP: bb-

Modifiers (Senior Debt)

- Parent linkage: de-linked
- Structural protection: neutral
- Sovereign rating limits: Capped at bb
- Senior debt issue rating: BB-

Operations phase SACP

Our operations phase SACP reflects our view of the operating risk typical of a gas field, which we view as relatively moderate ('4' in scale of '1-lowest' to '10 - highest'). We incorporate our view of the project's exposure to market risk and the offtaker's credit quality as a key factor for the debt rating.

We assess the operations phase SACP as 'bb-' based on:

- The project's operations phase business assessment (OPBA) as '8'.
- Minimal exposure to resource risk, since 1P reserve amounts are sufficient to cover more than 50 years of production.
- Market risk exposure, with potential volatility of cash flows of 15%-30%. Even though the project has 90% of production contracted under long-term GSPAs with minimum take or pay and at a fixed price, underpinning relatively stable and predictable cash flows, we only assume

contracted capacity for 40% because we cannot determine the credit quality of the cash flows from 60% of these contracts.

- The downside resilience is supported by the cash-funded $100 million debt payment fund, at the same time that it is exposed to refinancing risk on each of the bullet maturity dates. Whereas there is a principal reserve to accumulate funds to repay each maturity, it only starts to receive cash flows from operations 12 months in advance of each maturity and is limited to a ceiling of $150 million.
- As a result, the operations phase SACP is driven by a minimum DSCR of 1.55x in 2023.

Operations counterparties

We view the offtakers of the GSPAs as material counterparties. As such, we limit the project's operations phase SACP at 'bb-' that is the blended average credit quality of the rated offtakers considered in our base case.

Our counterparty analysis of Nepco mirrors the ratings on its parent, Jordan (B+/Stable/B), because it provides a timely guarantee for the due payment of Nepco's obligations under the GSPA. We also included some of the Israeli offtakers, namely Paz Ashdod Refinery Ltd. (ilAA-/Negative/--), ICL Group Ltd (formerly Israel Chemicals Ltd. BBB-/Stable/--), and Israel Electric Corp Ltd. (BBB/Stable/--).

We view Chevron Mediterranean (a wholly owned subsidiary of Chevron Corp.) as an irreplaceable O&M counterparty. Despite the existence of other operators that could perform the same services, we view the unique characteristics of the lease agreement and JOA as tied to the obligations devoted to Chevron Mediterranean as the operator under these contracts. In addition, absent of O&M reserve account, we don't view financial flexibility for replacement.

The account bank will be the Tel Aviv branch of HSBC Bank PLC. The documented replacement language is not consistent with our financial counterparty criteria. However, our 'A+' rating on the counterparty assessed in line with our criteria applicable to bank branches doesn't currently pose a constraint to the rating on the notes.

Liquidity

- We assess the project's liquidity as neutral given a cash-funded $100 million debt payment fund. Even though this is not a standard debt-service reserve account, the resources are sufficient to cover more than one semiannual interest payment of the all series of the notes.
- Additionally, the issuer accumulates cash one year ahead of any scheduled principal repayment, under the principal reserve fund, which it will use along with the debt payment fund and the cash flows to repay the bullet notes as they become due. The principal reserve fund is limited to a $150 million maximum amount.

The project is not subject to financial covenants, which could cause an event of default or an acceleration of the notes payment. The transaction structure has a forward-looking distribution lock-up test, based on 1.5x NPV10/net debt test (remaining net present value discounted at 10%, according to the reserve consultant report, however based on lower Brent prices). Whereas we typically expect a lock-up mechanism within the next 12 months of operations to allow for seasonality and volatile cash flows, and to effectively preserve additional cash to meet project liquidity needs, we view the lock-up mechanism as neutral.

Recovery Analysis

Assumptions

- We believe that lenders would achieve the greatest recovery amounts through reorganization of the project, rather than liquidation, given consistent demand for gas in the region.
- The '1' recovery rating indicates that we expect almost full recovery (90%) in this default scenario.
- We value the asset using the net present value of future cash flows of the field's expected remaining life through 2044, when the lease agreement ends.

Simulated default assumptions

- Simulated default year: 2023
- We simulate a reduction for revenues for USD 100 million coupled with $50 million of unexpected cash outflows due to capital expenditure.
- Our hypothetical default contemplates deterioration of the oil and gas industry in 2023, when the project is expected to refinance the first series of the new notes. Inability to place new notes would be the trigger point for a potential financial default.
- Our recovery forecast assumes there would continue to be a viable business model fueled by the continued demand for gas in the region and the company's track record of operations, supporting its ability to protect the existing GSPAs.
- We discount the cash flow over the remaining life of the charter at a 12% rate, and deduct 5% of administrative expenses, to arrive at the net value.
- We add six months of prepetition interest to the estimated debt at the time of default.

Simplified waterfall

- Debt outstanding at the hypothetical default (including 6-months interest): $2.2 billion
- Estimated Net Recovery: $2.0 billion
- Recovery expectations: Rounded to 90% (recovery rate of '1').

Related Criteria

- Criteria | Structured Finance | General: Counterparty Risk Framework: Methodology And Assumptions, March 8, 2019
- General Criteria: Methodology For National And Regional Scale Credit Ratings, June 25, 2018
- General Criteria: Guarantee Criteria, Oct. 21, 2016
- Criteria | Corporates | Recovery: Methodology: Jurisdiction Ranking Assessments, Jan. 20, 2016

- Criteria | Corporates | Project Finance: Project Finance Framework Methodology, Sept. 16, 2014
- Criteria | Corporates | Project Finance: Key Credit Factors For Oil And Gas Project Financings, Sept. 16, 2014
- Criteria | Corporates | Project Finance: Project Finance Transaction Structure Methodology, Sept. 16, 2014
- Criteria | Corporates | Project Finance: Project Finance Operations Methodology, Sept. 16, 2014
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Ratings Above The Sovereign--Corporate And Government Ratings: Methodology And Assumptions, Nov. 19, 2013
- Criteria | Corporates | Project Finance: Project Finance Construction And Operations Counterparty Methodology, Dec. 20, 2011
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011

Related Research

- Transaction Update: Presale: Leviathan Bond Ltd., July 30, 2020

Ratings List

Ratings Affirmed	
Leviathan Bond Ltd.	
Senior Secured	BB-/Stable
Recovery Rating	1(90%)

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. A description of each of S&P Global Ratings' rating categories is contained in "S&P Global Ratings Definitions" at https://www.standardandpoors.com/en_US/web/guest/article/-/view/sourceId/504352 Complete ratings information is available to subscribers of RatingsDirect at www.capitaliq.com. All ratings affected by this rating action can be found on S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column. Alternatively, call one of the following S&P Global Ratings numbers: Client Support Europe (44) 20-7176-7176; London Press Office (44) 20-7176-3605; Paris (33) 1-4420-6708; Frankfurt (49) 69-33-999-225; Stockholm (46) 8-440-5914; or Moscow 7 (495) 783-4009.

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