Adani Ports and Special Economic Zone Limited

Update to credit analysis

Summary
Adani Ports and Special Economic Zone Limited’s (APSEZ) credit profile primarily reflects the company’s strong market position as the largest port developer and operator in India by cargo volume. APSEZ’s credit profile takes into consideration the long-term growth potential of India’s economy as a whole, which is the key driver of strong growth in the volume of traded goods. While APSEZ is operating in a difficult environment, which is characterized by slowing demand for commodities such as coal and an uncertain global trade environment because of trade tensions and the coronavirus pandemic, the company continues to gain market share in containerized cargo because of the capacity constraints at other container ports in India, its acquisition of new ports, and its partnerships and joint ventures with major shipping lines.

APSEZ’s credit quality is also predicated on the company continuing to execute its various projects within time and cost budgets while adhering to regulatory approval processes to minimize the risk of future challenges.

Exhibit 1
APSEZ’s cargo volumes grew by 10.8% in fiscal 2021

We expect APSEZ’s cash interest coverage to be in the 3.5x-4.5x range over the next 12-18 months. Its financial leverage, as measured by funds from operations (FFO)/debt, should be in the 18%-20% range.

Credit strengths
» Strong market position
» Essential role in the coal logistics chain
» Long-term relationships through port service agreements and partnerships with key customers and carriers
» Bilateral tariff negotiation framework, which underpins its ability to cover costs and earn returns on capital

Credit challenges
» Difficult economic environment
» Moderate financial leverage and likelihood of acquisitions, which constrain its credit profile

Rating outlook
The negative rating outlook reflects the negative outlook on India's sovereign rating and the fact that virtually all of the company's business operations are based in India.

Factors that could lead to an upgrade
Given the negative outlook, the rating is unlikely to be upgraded in the near term. The outlook could change to stable if the outlook on the sovereign rating changes to stable from negative.

APSEZ’s rating could be upgraded if the sovereign rating is upgraded; the company continues to improve its operating performance and business mix; and it undertakes permanent leverage reduction, with FFO/debt remaining above 22% on a sustained basis.

Factors that could lead to a downgrade
APSEZ’s rating could be downgraded if the sovereign rating is downgraded; or cargo volumes decline, resulting in the company's financial metrics deteriorating beyond the parameters of its Baa3 rating category. In particular, we would consider downgrading APSEZ’s rating if its FFO/debt falls below 14% on a sustained basis and cash interest coverage below 2.75x-3.00x. A reinstatement of related-party loans could also strain the rating.

Key indicators

Exhibit 2
APSEZ [1] [2]

<table>
<thead>
<tr>
<th></th>
<th>03/31/2021 [1]</th>
<th>03/31/2020</th>
<th>03/31/2019</th>
<th>03/31/2018</th>
<th>03/31/2017</th>
<th>03/31/2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Interest Coverage</td>
<td>4.4x</td>
<td>4.3x</td>
<td>5.2x</td>
<td>5.4x</td>
<td>5.3x</td>
<td>4.2x</td>
</tr>
<tr>
<td>FFO / Debt</td>
<td>21.1%</td>
<td>20.6%</td>
<td>20.2%</td>
<td>22.3%</td>
<td>21.1%</td>
<td>14.2%</td>
</tr>
<tr>
<td>Debt Service Coverage Ratio</td>
<td>2.8x</td>
<td>2.6x</td>
<td>2.8x</td>
<td>2.6x</td>
<td>2.6x</td>
<td>2.0x</td>
</tr>
</tbody>
</table>

[1] The ratios before fiscal 2020 have been adjusted for APSEZ’s guarantee for the outstanding amount of a debt facility to a lender to the Australian entity Mundra Port Pty Ltd.
[2] 2021 financials have not been adjusted for Moody’s standard adjustments.

Source: Moody’s Financial Metrics™

Profile
Adani Ports and Special Economic Zone Limited (APSEZ) is a major private-sector participant in India's logistics chain. It operates 13 port concessions around the country at varying stages of development.

The company's landmark concession is the Mundra port and the special economic zone (SEZ) surrounding the port in Gujarat.

Over the last 12 months, APSEZ acquired the Dighi port for INR71 billion, acquired the balance 25% equity stake in the Krishnapatnam port for INR28 billion to make it a 100% subsidiary, acquired Sarguja Rail Corporation from Adani Group owned companies and is in the process to acquire a 100% stake in Gangavaram Port Limited.

APSEZ is the largest port developer and operator in India by volume having an annual capacity of 562 million tonnes.
Detailed credit considerations

Strong market position

APSEZ increased its market share in India’s overall port volumes to 25.5% in the fiscal year that ended March 2021 (fiscal 2021) from 18.9% in fiscal 2017.

Exhibit 3
APSEZ's market share increased to 25.4% in fiscal 2021
APSEZ cargo volumes and its market share in India over the years

Source: Company

APSEZ’s credit profile reflects, in particular, Mundra’s strong competitive position as the primary container and inbound coal terminal port servicing Gujarat and other states in the northern region of India, as well as its status as the largest port by cargo volume in the country. Because around 60% of the company’s FFO is generated by Mundra, the port’s strong market position should ensure a level of stability in APSEZ’s cash flow. Mundra faces manageable competition from other ports over the next two to three years. PSA International Pte. Ltd. (Aa1 stable) is setting up a terminal at the Jawaharlal Nehru Port in Mumbai with a capacity of 4.8 million twenty-foot equivalent units (TEUs); the first phase of 2.4 million TEUs was commissioned in 2018 and the second phase is likely to be completed by 2022. This could be a source of competition for APSEZ’s ports. At the state level, the port at Kandla is likely to continue to face capacity restrictions over the next few years.

APSEZ’s credit quality factors in an increasing contribution from other ports in the company’s portfolio, particularly Dhamra on the east coast, as they ramp up over time. The ramp-up of newer ports such as Hazira, Dahej, Kandla, Goa, Kattupalli and Ennore will also contribute to APSEZ’s cash flow. APSEZ is currently setting up a liquefied natural gas terminal at Dhamra (in a joint venture) while transforming Dhamra and Kattupalli into multi-cargo ports.

Recent acquisitions of the Krishnapatnam, Dighi and Gangavaram ports have further strengthened APSEZ’s market position and added around 128 million tonnes of cargo handling capacity.

Additionally, APSEZ will be adding new ports to its portfolio over the next few years. In July 2015, the company signed a concession agreement with the Government of Kerala to develop the Vizhinjam International Deepwater Seaport Project, with a capacity of 1.6 million TEUs in the first phase and eventual expansion to three million TEUs. The project is likely to be completed by 2022 at an estimated cost of INR41 billion ($0.6 billion), which includes a viability gap funding of INR16 billion ($0.27 billion). The port at Vizhinjam is positioned as a strategic transshipment hub because of its proximity to the international sea trade routes.

APSEZ’s ports, over the years, have emerged as important destinations for all container ships and its market share in container cargo in India has increased by around 10ppt over last five years. The container terminals service container movements for direct shipping and the transshipment of cargo.
Container volumes have registered a compound annual growth rate of 12.2% over last four years.

APSEZ’s market share has increased to 41.2% in container trade in India.

The likely improvement in earnings diversification over time will strengthen APSEZ’s resilience by improving the company’s geographic and asset diversification, and will further consolidate its position in the national logistics chain. Coastal transshipping will become increasingly important in cargo movement in India because of execution-related challenges in developing land-based logistics infrastructure.

Amid evolving competition, there is a manageable risk of competition from greenfield port development projects because of the long lead times and execution risks faced by project proponents in the country, coupled with the lack of appropriate sites.

**Difficult economic environment**

APSEZ is operating in a difficult global economic environment as a result of the pandemic and continued global trade tensions. The company, however, reported a strong 10.8% cargo growth in fiscal 2021 despite these challenges. The cargo growth was 2.2% in fiscal 2021 after adjusting for the Krishnapatnam acquisition, which contributed 20 million tonnes for a six-month period. We expect APSEZ’s overall volumes to increase by 20%-25% in fiscal 2022, which will be helped by the recent acquisitions of the Dighi and Gangavaram ports.

The uncertain global trade environment and increased focus on renewable energy would be the key challenges for global port traffic over the medium term. The change in the cargo mix of APSEZ over the years is a reflection of the changing dynamics related to both the above-mentioned factors. To diversify its cargo mix, APSEZ has been reducing its dependence on coal for cargo volumes over the past few years. Over the last four years, the company has been able to reduce the share of coal in overall cargo volumes to 32% in fiscal 2021 from 47% in fiscal 2015.

APSEZ reported 8% and 16.5% annual growth in container traffic in fiscal 2020 and fiscal 2021, respectively, as it continued to gain market share from its competitors. As of fiscal 2021, APSEZ had increased the share of containers in overall cargo to 41% from 31% in fiscal 2017. Its container volume is also well-diversified and is not significantly exposed to any particular industry. However, APSEZ is exposed to external shocks, such as an increase in trade tariffs, which affects global trade and thus affects the global movement of goods.
Containers made up most of APSEZ’s cargo volumes in fiscal 2021

32% coal volumes is split between 25% thermal coal and 7% coking coal

Source: APSEZ

**Essential role in the coal logistics chain**

APSEZ’s credit quality takes into consideration the profile and counterparty risk of the main cargoes transported through the ports, particularly thermal coal, which is likely to contribute more than 25%-30% of APSEZ’s revenue over the next two to three years. The overall share of coal in the cargo mix, including coking coal, will be in the range of 30%-35% over the same period. APSEZ is aiming to reduce the share of thermal coal in the total cargo mix to 15%-16% by fiscal 2030 as its share of containers in the cargo mix increases to around 50%.

APSEZ’s ports are well placed to cater to both coal imports and domestic transshipments of coal, mostly from the eastern to the southern ports of India. In fiscal 2021, the company reported an 8.5% annual growth in coal volume. For fiscal 2022, we expect a strong 28%-30% growth in APSEZ’s coal volume, which will be driven mainly by the impact of the recent acquisitions of the Krishnapatnam and Gangavaram ports.

Coal cargo volume grew by 8.5% in fiscal 2021

Source: APSEZ

Over the next few years, we expect a moderation in coal volume growth, given the increasing share of renewables and increasing domestic coal production. Thermal coal demand faces a challenge from the global focus on renewables, given the environmental concerns highlighted in the Conference of Parties (COP 21) in December 2015. India is also looking to increase the share of renewable energy — solar and wind — significantly over the next seven to eight years. Consequently, the Central Electricity Authority expects the share of coal-based power generation to decline to 47% by 2022 from 59% in 2017. This change in energy mix will pose a risk for the likely coal volumes and coal traffic for coal-importing ports, including APSEZ, over the medium to longer term.

Given the current operating environment for coal, we expect the growth in coal volumes over the medium term to be in the low-single-digit percentages, incorporating the risk posed by the increasing domestic coal production, the recent shift of coal volumes on
the western coast to government-owned ports and the stabilization of the growth in electricity demand in Gujarat. This moderation in coal volumes is incorporated into the credit profile of APSEZ.

Credit profile predicated on no increase in related-party exposures
APSEZ’s credit profile is predicated on no increase in the company’s exposure to related parties within the broader Adani group. Any increase in related-party exposures in the future would strain the company’s credit profile.

We understand from management that the main related-party transactions that APSEZ envisages entering into in the future are for the handling of traded cargoes and for the permitted businesses.

We regard the risk posed by the ongoing trading relationships between APSEZ and other Adani Group members as manageable for APSEZ’s credit quality. The main trading relationships are APSEZ’s role in handling coal imports arranged by Adani Enterprises Limited in the latter’s capacity as a coal trader; the handling of imported coal for Adani Power; and the handling of liquefied petroleum gas cargo for Mundra LPG Terminal, which is an Adani Group company.

Moderate financial leverage and likelihood of acquisitions constrain the credit profile
APSEZ’s financial leverage, as measured by FFO/debt, was 19% for fiscal 2021 (unadjusted for our standard adjustments).

After factoring in APSEZ’s planned acquisitions and capital spending program, we expect cash interest coverage to be in the 3.5x-4.5x range and financial leverage to be in the 18%-20% range over the next 12-18 months.

We expect the company’s debt service coverage ratio, which represents its capacity to amortize debt over the terms of its leases, to range between 2.3x and 2.5x over the next three years.

APSEZ’s credit profile also reflects our expectation that any strategic acquisitions will be funded in a manner consistent with the debt incurrence covenant, which requires debt/net worth to remain below 3x.

Credit profile takes into consideration our assumption that the execution of the business plan will not be hindered by further regulatory challenges
APSEZ’s credit profile is predicated on the company continuing to carry out its various projects on time and within budget while adhering to regulatory approval processes to minimize the risk of future challenges. The minimization of any challenge by the authorities is an important factor in reducing the likelihood that various state authorities would terminate concession agreements because of default. Such a situation contributes to the stability of the operating margin and helps attract tenants to the SEZ.

The risk of unforeseen variations from time and cost budgets for APSEZ’s capital spending program is manageable within the company’s credit profile.

As of May 2021, APSEZ has invested $127 million in Myanmar to develop a container terminal at the Yangon port. The container terminal is being developed on the land leased from Myanmar Economic Corporation Limited (MEC). Following the February 2021 military coup in Myanmar, the US has imposed sanctions on MEC. Subsequently, APSEZ has announced that it is in discussion with the US based legal counsels to ensure compliance with Office of Foreign Assets Control (OFAC) sanctions. APSEZ plans to abandon the Myanmar project and write-off the investments in a scenario wherein OFAC opines that the project violate the sanctions. APSEZ’s credit quality will be able to absorb the write-off of its investments in Myanmar in case of this project does not proceed further.

Mundra’s capital spending over the short- to medium term relates to maintenance. However, the capital spending at Hazira, Kattupalli and Dhamra is related to capacity expansions at their terminals. APSEZ is also executing greenfield projects to develop ports in Vizhinjam and Sri Lanka. Over the long term, there are plans to expand Mundra and Kattupalli.

As is the case with other concession-based assets in the portfolio we rate, APSEZ’s credit quality is predicated on above-average recovery rates in the event of early termination as a result of a default by the state.

Long-term relationships through port service agreements and partnerships with key customers and carriers
APSEZ’s credit profile also factors in the company’s practice of forming partnerships in key areas, particularly the operation of container terminals with international container shippers and port operators such as CMA CGM S.A. (B1 positive), MSC Mediterranean Shipping Company S.A. and DP World Limited (Baa3 stable).
Such partnerships benefit the company by securing the cargo flow and associated revenue stream into the port, as well as increasing the likelihood of the partner remaining at the port over the long term.

**Bilateral tariff negotiation framework, which underpins its ability to cover costs and earn returns on capital**

APSEZ’s credit profile is supported by the absence of a heavy-handed regulatory regime for most of its port concessions because there are no tariff caps related to its services, which in turn are negotiated on a bilateral basis with counterparties. This framework supports APSEZ’s operating profile by allowing it to recover increases in operating costs on a timely basis and therefore supports the stability of its margins.

**ESG considerations**

Ports is one of the 22 sectors that face moderate credit exposure to environmental risks.

We expect APSEZ’s moderate exposure to environmental risks to be broadly manageable. The key environmental issues are regulations for the lower carbon emissions of machinery and vessels, the threat of severe weather and rising sea levels. The timing of implementation and the way the carbon regulations are enforced will be important for our credit considerations. Environmental hazards, which can be episodic with intense, localized impact or incremental in nature, pose major credit implications but allow little visibility into their timing. Nonetheless, we expect these risks to develop over the medium to long term, allowing APSEZ to spread out capital spending and build an adequate buffer in its balance sheet to mitigate the overall credit impact.

Around one-third of APSEZ’s cargo volume is from coal imported by Indian power and steel producers. A gradual reduction in demand for thermal coal because of India’s changing energy mix toward more renewables would affect APSEZ’s credit profile. The company has taken steps to increase its share of containers in overall cargo to mitigate this risk. This factor is further discussed in the “Detailed credit considerations” section above. APSEZ has announced that it aims for its port operations to be carbon neutral by 2025.

We regard the pandemic as a social risk under our ESG framework, given the substantial implications for public health and safety. The pandemic is depressing demand, disrupting global supply chains and complicating ongoing trade negotiations. The port sector is affected by the shock, given its exposure to the declining cargo throughput stemming from weakening global trading levels and softer macroeconomic conditions.

Our approach to assessing ESG risks can be found in the cross-sector methodology General Principles for Assessing Environmental, Social and Governance Risks.

**Liquidity analysis**

APSEZ’s liquidity, which is characterized by the accretion of operating cash flow and cash balance of around INR59 billion as of 31 March 2021, will be adequate over the normal course. Over the next 12 months, we expect its operating cash flow to be around INR65 billion-INR70 billion. APSEZ also has undrawn committed facilities of around INR27.3 billion. Over the next 12 months, we expect APSEZ’s cash inflow to cover its capital spending requirements of around INR40 billion, debt payment requirements of around INR14.6 billion and dividend payments.

The cash-generative nature of APSEZ’s assets, its well-spread-out debt maturities and the amortizing nature of most of the debt at the operating company level are the main mitigants to refinancing risk.

**Other considerations**

**Structural subordination risk**

The absence of notching in the rating of the senior unsecured notes reflects the manageable amount of priority debt, expressed as a proportion of assets at APSEZ on a standalone (headstock) basis. Therefore, senior unsecured creditors are unlikely to experience significantly impaired recoveries in an event of default, solely because of the presence of this priority debt.

We focused on APSEZ’s headstock level, given our understanding that the asset-level debt issued by APSEZ’s various subsidiaries is limited recourse at the operating company level and is not guaranteed by APSEZ’s headstock. Consequently, in the event of default either by APSEZ or an operating company, lenders should not have a priority claim on APSEZ’s assets.
We factored in the likelihood that the carrying amount of APSEZ’s fixed-asset base, which is at historical cost in the company’s financial statements, will increasingly fall below the realizable value, against the backdrop of high inflation in India and in particular the long-life nature of infrastructure assets.

Our analysis also recognizes the buffer that should be built in APSEZ’s capital structure over time, as the company’s priority debt amortizes.

**Methodology and scorecard**

The principal methodology used in rating APSEZ was the Privately Managed Ports rating methodology, published in May 2021. Please see the Ratings Methodologies page on www.moodys.com for a copy of this methodology.

While the methodology does not factor in diversification such as SEZ income, the overall rating is constrained by the company’s financial leverage and the risk of further debt-funded acquisitions.

---

**Exhibit 8**

**Rating factors**

Adani Ports and Special Economic Zone Limited

<table>
<thead>
<tr>
<th>Privately Managed Ports Grid [1]</th>
<th>Current FY 03/31/2021</th>
<th>Moody’s 12-18 Month Forward View As of June 2021 [2][3]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Factor 1 : Market Position (30%)</strong></td>
<td>Measure</td>
<td>Score</td>
</tr>
<tr>
<td>a) Diversity and Size (15%)</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>b) Competitive Position and Service Area (15%)</td>
<td>Baa</td>
<td>Baa</td>
</tr>
<tr>
<td><strong>Factor 2 : Business Profile (20%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Ownership and Control of Assets (5%)</td>
<td>Ba</td>
<td>Ba</td>
</tr>
<tr>
<td>b) Revenue Stability (10%)</td>
<td>Baa</td>
<td>Baa</td>
</tr>
<tr>
<td>c) Capital Expenditure Requirements (5%)</td>
<td>Ba</td>
<td>Ba</td>
</tr>
<tr>
<td><strong>Factor 3 : Leverage and Coverage (40%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Cash Interest Coverage</td>
<td>3.0x - 4.5x</td>
<td>Baa</td>
</tr>
<tr>
<td>b) FFO / Debt (10%)</td>
<td>15% - 25%</td>
<td>A</td>
</tr>
<tr>
<td>c) RCF/Debt (10%)</td>
<td>10% - 20%</td>
<td>A</td>
</tr>
<tr>
<td>d) Debt Service Coverage Ratio (10%)</td>
<td>2.0x - 3.0x</td>
<td>Ba</td>
</tr>
<tr>
<td><strong>Factor 4 : Financial Policy (10%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Financial Policy (10%)</td>
<td>Baa</td>
<td>Baa</td>
</tr>
</tbody>
</table>

**Rating:**

| | a) Scorecard-indicated outcome | Baa2 | Baa2 |
| | b) Actual Rating Assigned | Baa3 | Baa3 |

[2] This represents Moody’s forward view, not the view of the issuer, and unless noted in the text, does not incorporate significant acquisitions and divestitures.

Source: Moody’s Investors Service
## Ratings

Exhibit 9

<table>
<thead>
<tr>
<th>Category</th>
<th>Moody’s Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADANI PORTS AND SPECIAL ECONOMIC ZONE LIMITED</td>
<td></td>
</tr>
<tr>
<td>Outlook</td>
<td>Negative</td>
</tr>
<tr>
<td>Issuer Rating</td>
<td>Baa3</td>
</tr>
<tr>
<td>Senior Unsecured</td>
<td>Baa3</td>
</tr>
<tr>
<td>ADANI INT CONTAINER TERMINAL PRIVATE LTD</td>
<td></td>
</tr>
<tr>
<td>Outlook</td>
<td>Negative</td>
</tr>
<tr>
<td>Senior Secured</td>
<td>Baa3</td>
</tr>
</tbody>
</table>

Source: Moody’s Investors Service