INDORAMA VENTURES PLC

RATIONALE

TRIS Rating removes the “CreditAlert” with a “developing” implication placed on the company and issue ratings of Indorama Ventures PLC (IVL) since 9 August 2019. At the same time, TRIS Rating affirms the company rating on IVL and the ratings on IVL’s senior unsecured debentures at “AA−” with a “stable” outlook. TRIS Rating also affirms the rating on IVL’s subordinated capital debentures at “A” with a “stable” outlook.

In addition, TRIS Rating assigns the rating of “A” to IVL’s proposed issue of up to Bt15,000 million in subordinated perpetual debentures (hybrid debentures). The assigned issue rating of two notches below the company rating reflects the subordinated nature of the hybrid debentures and the option of the issuer to defer coupons on a cumulative basis. The proceeds from the proposed hybrid debentures are intended to be used to replace existing hybrid debentures, which the company intends to call on 31 October 2019. The proposed hybrid debentures are consistent with the replacement capital covenant (RCC) clause specified in the outstanding hybrid debentures’ terms and conditions.

The ratings continue to reflect the company's leading position in the polyester value chain. IVL has a competitive edge stemming from its vertical integration of production, and diversification of production locations and customers across Asia, North America, South America, Europe, and Africa. The ratings also take into consideration the management team’s capability and experience, as well as IVL’s access to key technologies. However, the ratings are constrained by the volatile nature of the petrochemical industry.

KEY RATING CONSIDERATIONS

No rating impact from the Huntsman’s assets acquisition

TRIS Rating expects the Huntsman assets acquisition, costing US$2.1 billion to be completed by the beginning of 2020, to push up IVL’s leverage in the short term. In our base case projection, we project the company’s debt to earnings before interest, tax, depreciation, and amortization (EBITDA) ratio to exceed 4 times in 2020 before reverting back to 3-4 times in the following years. Based on this and other key financial indicators, we assess IVL’s overall financial profile to remain commensurate with the assigned ratings.

We expect the acquisition to strengthen IVL’s business profile. It will enable IVL to enter into the integrated oxide and derivatives value chain including the downstream of specialty chemicals. The transaction is expected to add up about US$250-US$300 million (Bt7.9-Bt9.5 billion) per year in EBITDA. The downstream specialty chemicals, such as surfactants and methyl tertiary butyl ether (MTBE), should account for about 65%-70% of expected additional EBITDA. These products have shown a reliable EBITDA of about US$170-US$200 per year during the last three years.

Strength in integrated PET production

IVL is the world’s largest integrated polyethylene terephthalate (PET) producer. At the end of June 2019, IVL’s total capacity was 15.0 million tonnes per annum (MTA), comprising the integrated PET segment (73%), fiber segments (14%), specialty chemicals (7%), olefins segment (4%), and packaging segment (2%). IVL’s strategy is to expand its portfolio along the polyester value chain, from feedstock (paraxylene (PX), purified terephthalic acid (PTA), and monoethylene glycol (MEG)) to derivative products (PET and...
polyester fiber and yarn). IVL has diversified its production base through greenfield investments and acquisitions of non-performing and under performing assets during the last five years. Currently, IVL’s facilities are located in 31 countries across five continents: Asia, North America, South America, Europe, and Africa.

The integrated PET segments are largely located in three main continents comprising North America, Asia, and Europe. As a vertically integrated producer, the company can achieve a number of advantages, including cost competitiveness, production efficiency, as well as geographically diversified production bases and wider market reach.

**The Huntsman acquisition to complete the strategy on integrated olefin value chain production**

IVL entered into the olefin segment since 2012 when it acquired an ethylene oxide and ethylene glycol plant, which produces MEG, a key raw material for PET. IVL’s olefin value chain continued to expand as it acquired a mothball ethane cracker in the United States (US) in 2015. The ethane cracker, currently under commissioning is expected to commence commercial operation by the beginning of 2020. The olefin value chain will be further strengthened when the company completes the acquisition of Huntsman’s assets. This acquisition will bring IVL along the olefin value chain from utilizing ethane cracker output of ethylene and propylene to producing the intermediate products such as ethylene oxide (EO) and propylene oxide (PO) to the derivatives products such as surfactants, ethanolamine, ethylene glycol, MEG, and MTBE. The surfactants and ethanolamine are used in detergents, wetting agents, emulsifiers, and agrochemical. Ethylene glycol and MEG are used mainly in the polyester value chain. MTBE is used to blend with gasoline to boost octane.

**HVA products boost profitability**

A structural shift in IVL’s business portfolio toward high value added (HVA) products improved the company’s overall margins. As HVA products typically have higher margin than necessity products, the HVA products contributed 36% of the company’s EBITDA in 2018, although it represents only 20% of total production volume.

**Geographic diversification efforts bring balance**

Acquisitions over the past five years have balanced IVL’s portfolio from the standpoint of geographic diversification. Other than the well balance of the PET and fiber segments, IVL now has PTA production plants across three regions. The spread between the price of PTA and its raw materials is generally wider in North America and Europe than in Asia. Before 2015, about 78% of IVL’s PTA capacity was in Asia. Currently, about 36% of IVL’s PTA capacity is located in Europe, 35% in Asia, and 29% in America.

**Pursuit of sustainability**

Sustainability is one of IVL’s key strategies. As PET is 100% recyclable, IVL is keen to become one of the leaders in circular economy or full-cycle sustainable plastics sector. IVL had entered into recycling business since 2011, when it made an acquisition of Wellman International (Wellman) in Europe. Since then, the company has commenced the recycling of PET bottles, producing clean PET flake for use in fiber, sheet, and other applications. IVL has also leveraged knowhow from the Wellman to introduce recycling capabilities at its plants in Mexico, USA, and Thailand. Currently, IVL can utilize up to 30% recycled PET flake in its virgin polymerization process, depending on customer requirements. IVL aims to increase its PET recycling capacity to 750 kilo tonnes per annum (KTA) by 2025, from about 230 KTA in 2018.

**Enlarged cash flow from acquisitions**

A rise in production capacity and geographic diversification bases have led to an increase in cash flow. The capacity will increase to about 18.1 MTA in 2020 when it completes the acquisition of Huntsman’s assets. As the production increased, the company’s funds from operations (FFO) increased to Baht37.5 billion in 2018 from Baht9.9 billion in 2014. For the first six months of 2019, the company’s FFO was Baht13.5 billion declined by 27.6% year-on-year. The decrease in FFO was mainly due to the declining price trend of most petrochemical products, MEG plants shut down during February 2019 to April 2019 plus the inventory loss of about Baht3.6 billion from a decrease in price for PX.

**Leverage is expected to increase in the short term**

IVL’s financial leverage is expected to increase in the short-term, mainly due to the acquisition of Huntsman’s assets. The acquisition will add about Baht48 billion in debts. As of 30 June 2019, IVL’s adjusted debt was Baht154.8 billion. The debt to capitalization ratio was 52.4%. Upon the completion of acquisition, the debt to capitalization ratio is projected to increase to about 55%-60% in 2020, before reverting to fall below 55% in 2021. The debt to EBITDA ratio is expected to be over 4 times in 2020, then to drop back to between 3-4 times in 2021-2022.

Although IVL is a growth company focusing on mergers and acquisition (M&As), it employs a mix of funding. Historically, IVL has not funded its investment solely by debt, but has also raised equity to manage financial leverage. IVL raised about Baht17.3 billion of equity in 2011 and a further Baht31.4 billion during 2017-2018. IVL has diversified sources of financing including bank loans, bonds market and equity. In September 2019, IVL has raised US$300 million through issuance of a
5-year US dollar debentures in the international market after the announcement of Huntsman acquisition. TRIS Rating believes that IVL will raise an equity to fund the future acquisitions, if needed, to manage its financial leverage.

**Proposed hybrid debentures qualify for “intermediate” equity content**

The proposed hybrid debentures’ characteristics, including subordination, interest deferral at the discretion of the company, five-year non-call period, and sufficient permanence, qualify for receiving “intermediate” equity content under TRIS Rating’s criteria. TRIS Rating will treat 50% of the outstanding amount of the hybrid debentures as equity and the other 50% as debt when calculating financial ratios. The “intermediate” equity content will fall to “minimal” (or 0% of equity treatment for this issue) at the end of the fifth year from the issuance date. This is because, five years after issuance, the remaining effective tenor of the issue will be less than 20 years. According to TRIS Rating’s criteria, the effective maturity date of the issue will be defined as the date when there is a material step up of the coupon rate (equal to or more than 100 basis points or bps). In this case, the interest spread of the hybrid debentures will step up by 100 bps at the end of the 25th year after the issuing date.

Except for certain events as specified in the terms and conditions (e.g. changes in the tax and accounting treatments of hybrid securities or a change in the rating agency’s criteria used to assess the equity content of the issue), IVL intends (but is not obliged) to replace, redeem, or repurchase the hybrid debentures with an instrument that has similar or higher equity content. TRIS Rating could lower the equity content of the proposed hybrid debentures to “minimal” from “intermediate” if we believe that the company intends to deviate from the replacement capital covenant (RCC).

**BASE-CASE ASSUMPTIONS**

- Huntsman’s assets to be consolidated in the first quarter of 2020.
- EBITDA per tonne to be in the range of US$95-US$100 during 2019-2022.
- EBITDA to be in the range of Bt40-Bt50 billion per year during 2019-2022.
- Capital expenditures (CAPEX) for maintaining, debottlenecking, expanding the current facilities and new acquisitions of IVL are projected at about Bt177.4 billion during the period 2019-2022, including the acquisition of Huntsman’s assets.

**RATING OUTLOOK**

The “stable” outlook reflects TRIS Rating’s expectation that IVL should be able to demonstrate strong cash flow generation from a well-balanced business portfolio. More contribution from HVA products and the integration of supply chain across continents should partly mitigate commodity price risk inherent in the volatile petrochemical industry.

**RATING SENSITIVITIES**

The prospect of a rating upgrade is limited over next 12-18 months. A rating downgrade scenario could arise from a significant deterioration in operating performance, or the expected drop in leverage over the forecast period fails to materialize, or any sizable debt-funded acquisitions that significantly weaken the balance sheet over a long period.

**COMPANY OVERVIEW**

IVL was established by the Lohia family on 21 February 2003. As a holding company, the company invests mainly in businesses along the polyester value chain. IVL was listed on the Stock Exchange of Thailand (SET) on 5 February 2010. As of 30 June 2019, the Lohia family held a 64.7% stake in IVL. The company’s core businesses comprise the production of PET, fiber, and the feedstock. At the end of June 2019, IVL’s total installed capacity was 15.0 MTA.

IVL’s production bases are well diversified geographically. Currently, IVL has 101 plants located in 31 countries across five continents: Asia, Europe, North America, South America, and Africa.
IVL’s Portfolio

Figure 1: IVL’s before and after the acquisition of Huntsman’s assets

Table 1: Financial impact from the Huntsman’s assets acquisition (Pro-forma)

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>IVL 2018</th>
<th>Assets from Huntsman 2018</th>
<th>Acquisition Debt</th>
<th>Post-Acquisition (Pro-forma)</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total assets</td>
<td>Bt. Bil.</td>
<td>379.2</td>
<td>64.4</td>
<td>-</td>
<td>443.6</td>
<td>17.0%</td>
</tr>
<tr>
<td>Reported debt</td>
<td>Bt. Bil.</td>
<td>136.8</td>
<td>-</td>
<td>46.5</td>
<td>183.3</td>
<td>34.0%</td>
</tr>
<tr>
<td>Revenue</td>
<td>Bt. Bil.</td>
<td>347.2</td>
<td>61.0</td>
<td>-</td>
<td>408.2</td>
<td>17.6%</td>
</tr>
<tr>
<td>EBITDA</td>
<td>Bt. Bil.</td>
<td>46.4</td>
<td>11.2</td>
<td>-</td>
<td>57.7</td>
<td>24.2%</td>
</tr>
</tbody>
</table>

Source: IVL
Note: Exchange rate at 31 Bt/ US$
## FINANCIAL STATISTICS AND KEY FINANCIAL RATIOS*

*Unit: Bt million*

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<thead>
<tr>
<th></th>
<th>Jan-Jun 2019</th>
<th>Year Ended 31 December</th>
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<tbody>
<tr>
<td></td>
<td>2018</td>
<td>2017</td>
</tr>
<tr>
<td>Total operating revenues</td>
<td>191,674</td>
<td>348,255</td>
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<td>Operating income</td>
<td>17,022</td>
<td>45,604</td>
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<tr>
<td>Earnings before interest and taxes (EBIT)</td>
<td>8,332</td>
<td>32,053</td>
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<tr>
<td>Earnings before interest, taxes, depreciation, and amortization (EBITDA)</td>
<td>17,035</td>
<td>46,437</td>
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<tr>
<td>Funds from operations (FFO)</td>
<td>13,524</td>
<td>37,476</td>
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<tr>
<td>Adjusted interest expense</td>
<td>3,334</td>
<td>5,149</td>
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<tr>
<td>Capital expenditures</td>
<td>8,967</td>
<td>16,543</td>
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<tr>
<td>Total assets</td>
<td>395,302</td>
<td>379,195</td>
</tr>
<tr>
<td>Adjusted debt</td>
<td>154,848</td>
<td>145,480</td>
</tr>
<tr>
<td>Adjusted equity</td>
<td>140,569</td>
<td>144,418</td>
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### Adjusted Ratios

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<tbody>
<tr>
<td>Operating income as % of total operating revenues (%)</td>
<td>8.88</td>
<td>13.09</td>
<td>11.74</td>
<td>10.68</td>
<td>7.59</td>
</tr>
<tr>
<td>Pretax return on permanent capital (%)</td>
<td>8.44 **</td>
<td>12.41</td>
<td>9.97</td>
<td>8.59</td>
<td>4.97</td>
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<tr>
<td>EBITDA interest coverage (times)</td>
<td>5.11</td>
<td>9.02</td>
<td>7.16</td>
<td>5.53</td>
<td>4.08</td>
</tr>
<tr>
<td>Debt to EBITDA (times)</td>
<td>3.82 **</td>
<td>3.13</td>
<td>3.04</td>
<td>3.96</td>
<td>5.13</td>
</tr>
<tr>
<td>FFO to debt (%)</td>
<td>20.87 **</td>
<td>25.76</td>
<td>29.71</td>
<td>18.82</td>
<td>12.70</td>
</tr>
<tr>
<td>Debt to capitalization (%)</td>
<td>52.42</td>
<td>50.18</td>
<td>47.90</td>
<td>56.72</td>
<td>55.09</td>
</tr>
</tbody>
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*Consolidated financial statements*

**Annualized with trailing 12 months**

## RELATED CRITERIA

- Rating Methodology – Corporate, 26 July 2019
- Hybrid Securities Rating Criteria, 12 September 2018
- Key Financial Ratios and Adjustments, 5 September 2018
**Company Rating:** AA-

**Issue Ratings:**
- **IVL205A**: Bt2,000 million senior unsecured debentures due 2020  
- **IVL206A**: Bt520 million senior unsecured debentures due 2020  
- **IVL20DA**: Bt880 million senior unsecured debentures due 2020  
- **IVL216A**: Bt3,000 million senior unsecured debentures due 2021  
- **IVL21OA**: Bt37 million senior unsecured debentures due 2021  
- **IVL21OB**: Bt3,163 million senior unsecured debentures due 2021  
- **IVL21OC**: Bt300 million senior unsecured debentures due 2021  
- **IVL216A**: Bt3,000 million senior unsecured debentures due 2021  
- **IVL224A**: Bt1,250.5 million senior unsecured debentures due 2022  
- **IVL224B**: Bt2,649.5 million senior unsecured debentures due 2022  
- **IVL225A**: Bt500 million senior unsecured debentures due 2022  
- **IVL22DA**: Bt1,645 million senior unsecured debentures due 2022  
- **IVL236A**: Bt1,100 million senior unsecured debentures due 2023  
- **IVL236B**: Bt3,000 million senior unsecured debentures due 2023  
- **IVL243A**: Bt1,400 million senior unsecured debentures due 2023  
- **IVL256A**: Bt1,000 million senior unsecured debentures due 2024  
- **IVL256A**: Bt1,500 million senior unsecured debentures due 2025  
- **IVL25DA**: Bt1,150 million senior unsecured debentures due 2025  
- **IVL26OA**: Bt1,200 million senior unsecured debentures due 2026  
- **IVL275A**: Bt2,000 million senior unsecured debentures due 2027  
- **IVL27NA**: Bt700 million senior unsecured debentures due 2027  
- **IVL286A**: Bt1,800 million senior unsecured debentures due 2028  
- **IVL28OA**: Bt2,200 million senior unsecured debentures due 2028  
- **IVL295A**: Bt2,000 million senior unsecured debentures due 2029  
- **IVL306A**: Bt5,000 million senior unsecured debentures due 2030  
- **IVL31OA**: Bt2,300 million senior unsecured debentures due 2031  
- **IVL32NA**: Bt1,000 million senior unsecured debentures due 2032  
- **IVL336A**: Bt3,200 million senior unsecured debentures due 2033  
- **IVL14PA**: Bt15,000 million subordinated capital debentures  
- Up to Bt15,000 million subordinated capital debentures  

**Rating Outlook:** Stable