Association of International Wealth Management of India

Credit Research Challenge 2017-18

Team 149

vedanta

Executive Summary

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Business Risk – Good

- The businesses are fairly diversified both geographically and in terms of product offering
- Compliance with the changing policies regarding environmental and legal aspects
- Ability to maintain, retain and acquire new mining licenses across different metals

Solvency – Good

- Paid up a significant amount of its debt recently and increased its D-to-E from 0.63 to 0.48
- Operating current ratio has also improved from 0.45 to 0.52
- Ability to meet debt payments as DSCR has increased from 2.19 to 3.53

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Distance to Default – Good

- Vedanta has a probability of default of 4%, which has increased in the recent 2-3 years. However, it still seems under control
- Debt Covenants:

  Debt/EBITDA = 1.17 < 3.75

  EBITDA/ Interest Expense = 3.64 > 3

  NA / Debt = 3.18 > 1.4

Outlook – Stable

- Steady capital expenditure to increase capacity and aim to reduce the debt in the future
- Recent acquisition of Cairn to bring in fresh revenues and improve diversification
- Strong Corporate Governance policy (UK CG Code since 2014)

Our Agenda

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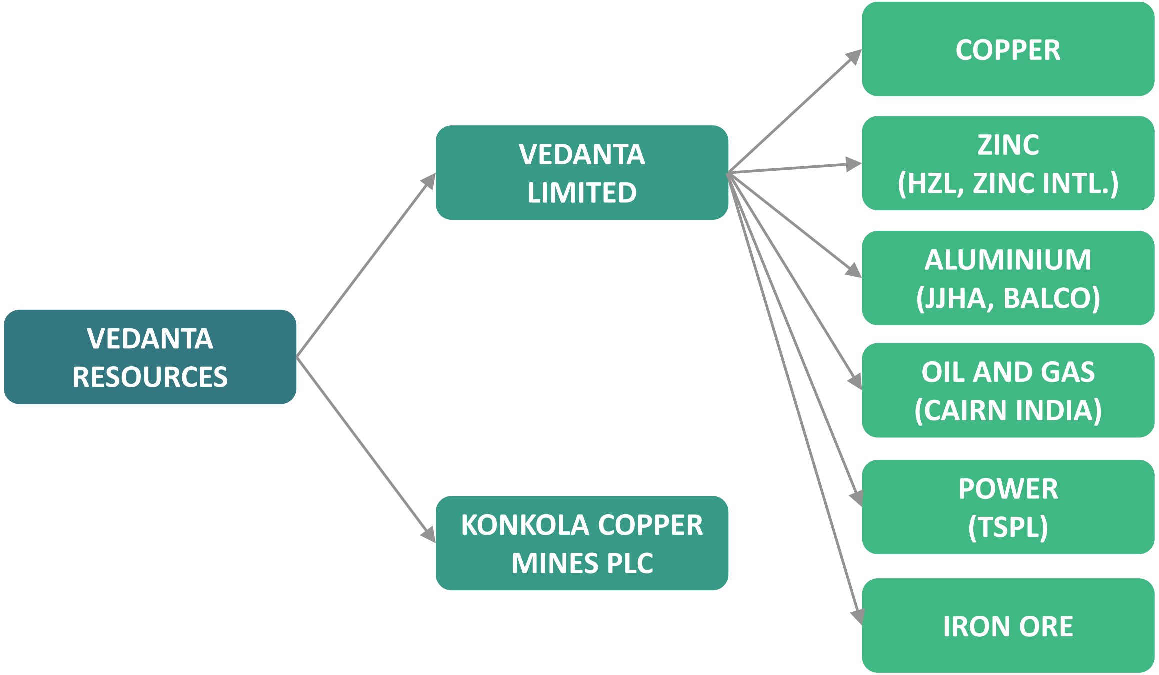
- Business Description
- Industry Overview & Competitive Positioning
- Investment Summary
- Management and Corporate Governance
- Capital Structure
- Liquidity Analysis
- Financial Analysis
- Credit Rating Matrix and KMV Model

Business Description

Vedanta Limited is a subsidiary of Vedanta Resources (50.1% stake) and is into 6 diversified businesses



- Vedanta Resources' Copper, Iron ore, Power and Aluminum sites in Jharsuguda and Lanjigarh are directly under Vedanta Limited
- A part of Aluminum operations are being operated under BALCO
- Talwandi Saboo, a wholly owned subsidiary also holds a part of the power business
- Vedanta Limited also operates the recently merged zinc business of Vedanta Resources under HZL and Zinc International in South Africa and Namibia respectively

Business Description

Vedanta Limited is a leading player in Copper, Zinc and Aluminium Industries in India

COPPER – 28% revenue
- Largest copper rod producer of India
- Lowest global net cost of copper conversion
- 160 MW plant to convert by products into Sulphuric and Phosphoric acid
- Owns a few mines in Australia – Under maintenance since July 2014

ZINC – 26% revenue
- HZL - Largest Zinc producer in the world
- Serves 6% of the Global Zinc market
- Serves 72% of India's Zinc Market
- Acquired Anglo American Plc Zinc operation in Namibia, South Africa and Ireland - Increase in production capacity and diversification of risk

ALUMINIUM – 19% revenue
- $4.8 billion expansion of aluminum business
- BALCO & Vedanta - 50% Indian market share
- Vedanta converts Bauxite supplied by BALCO into Alumina for a conversion fee
- Refining capacity of 6000 KTPA – 33% utilized
- Smelting capacity 1750 KTPA – 70% utilized

OIL & GAS – 14% revenue
- Merger of Cairn India in March 2017
- Cairn operates in India, Sri Lanka, S.Africa
- Rajasthan block's production sharing valid till 2020 – GOI expected to renew
- Low oil prices have been a strong source of cash flows and profit but an expected increase in oil prices is a major risk

POWER – 7% revenue
- Sub-critical coal-based power plants with a capacity of 2,400 MW in Jharsuguda and 106.5 MW in Mettur, Tamil Nadu
- New power plant of 1980 MW capacity established in Talwandi Sabo, Punjab
- Long term power purchase agreement with GRIDCO and Punjab Electricity Board

IRON ORE – 6% revenue
- Exports from Goa, Mangalore and Krishnapatnam - Captive fleet of 33 barges
- Mining issues in Karnataka and Goa relaxed in favor of Vedanta
- Sold 2.7mn tone in 2017 - Quota for increased to 4.5mn tone per annum

Industry Overview & Competitive Positioning

Copper

- Demand for the domestic copper market is dependent on the **electrical (34%)**, construction (8%), automobiles (11%), consumer durables segment (8%)
- Domestic demand of refined copper is expected to increase at a **CAGR of ~ 4.2%** reaching at the levels of 560.25 MMT by 2020
- Aluminum is expected to continue replacing copper demand from the electrical which is likely to cap the demand for copper
- Hindalco: 50%
- Vedanta (40%), HCL (10%)

Zinc

- Zinc is predominantly used by the global steel industry for the purpose of galvanizing.
- Correlation between Zinc and Steel Demand is **0.96**
- Galvanizing and die-casting alloy sector will increase at a **modest pace** between FY18 and FY21
- Demand from the other end-user segments: zinc oxides/chemicals, brass and the dry cell industry is expected to increase at a marginally slower pace
- Vedanta: 72%
- NALCO, HCL (small fragmented)

Aluminium

- Primary user segment is **Electronics** sector followed by automotive, construction, packaging, consumer durables, industrial
- Production stood at 2.8 M MT in FY17 and it is estimated to reach 3.33 M MT per annum in FY20
- Demand of aluminum in India is expected to grow at **17-18 %** per annum
- The pricing power is limited because of regulatory structure and margins are fixed.
- Hindalco: 60%
- Together with Nalco & Balco: 95%

Oil & Gas

- Threat from substitutes is medium to low as the search for alternates is still in infancy.
- Domestic LNG demand is expected to grow at a **CAGR of 16.89 %** to 306.54 MMSCMD by 2021
- The country's gas production is expected to touch 90 Billion Cubic Meters (BCM) in 2040 from 21.3 BCM in 2017-2018 (Apr-Nov)
- IOCL, ONGC, BPCL, HPCL, OIL, GAIL, Reliance, Shell, BP & Cairn India

Investment Summary

Acquisition of Cairn India is a positive sign, will help in stabilizing revenues, access to huge cash pile

Increased production capacity in existing assets

-Zinc production capacity to reach 1.2mn tonnes by 2020
-Aluminum production capacity to reach 1.6mn tonnes by 2018
-Iron ore : Additional 2.6mn tonnes capacity acquired in Goa

Capital expenditure in expansion projects

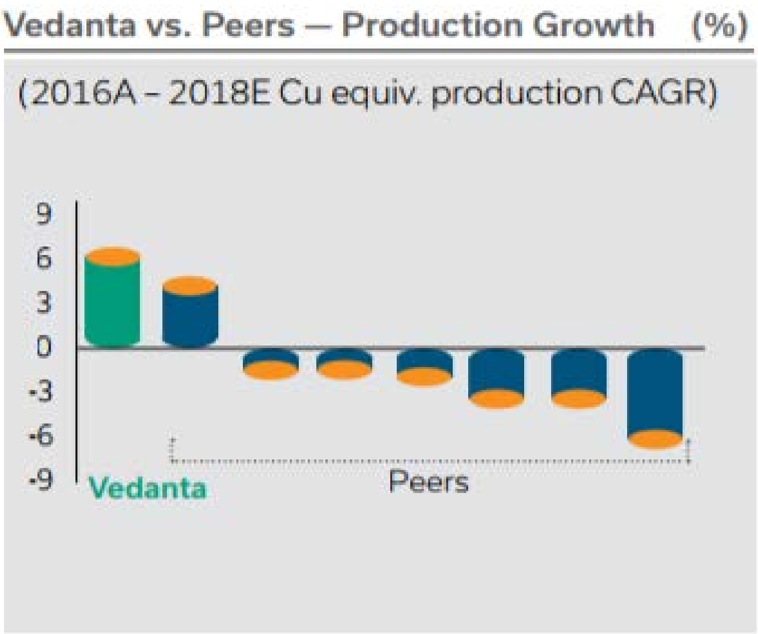
-Acquired Cairn India to venture into Oil and Gas Industry
-Capital expenditure in copper projects at Lanjigarh & Tuticorin

Short-term investment strategy

-Ramp up production in Aluminium, Zinc, Power and Iron ore
-Repay long term debt to lower interest payments and D/E
-Invest in achieving operational efficiencies

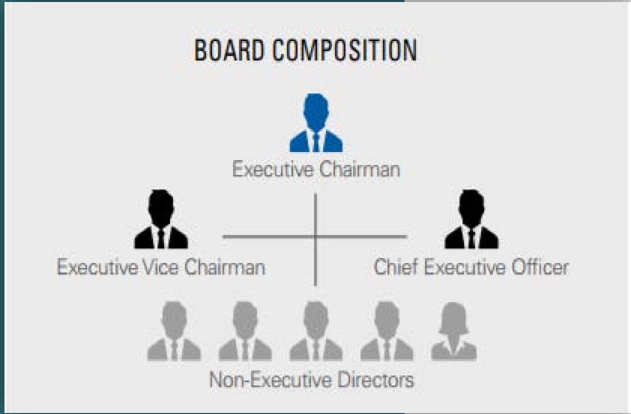
Long-term investment strategy

-High cash flows and low debt/equity : Vedanta has more appetite for faster expansion especially in the oil and gas



Management & Corporate Governance

8 board members at the end of Financial Year 2017



❑ **Adopted principles of the UK Corporate Governance Code during FY2017**

- Re-election for other members in next financial year as there is eligibility of only one year
- Setup an Audit committee to meet the requirements of UK Corporate Governance Code
- Shows commitment of senior management to have a strong corporate governance

❑ **High participation of board members in meetings - Approx. 100%**

❑ **Compensation of board members linked to company's performance**

Competence

- Highly experienced in diverse sectors
- International experience
- Gender Diversity

Integrity

- High attendance
- Re-election every year

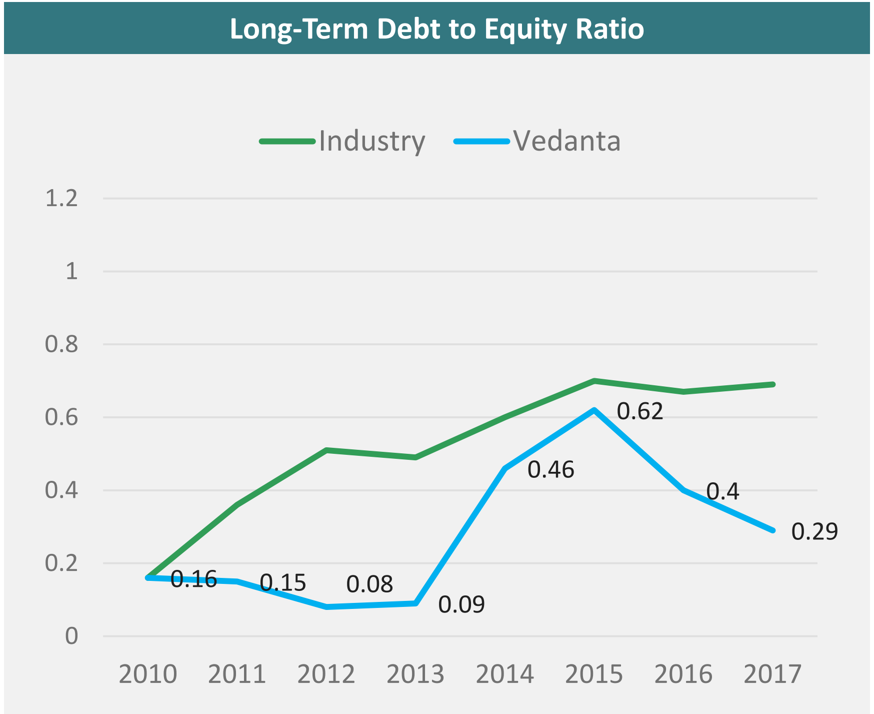
Risk Appetite

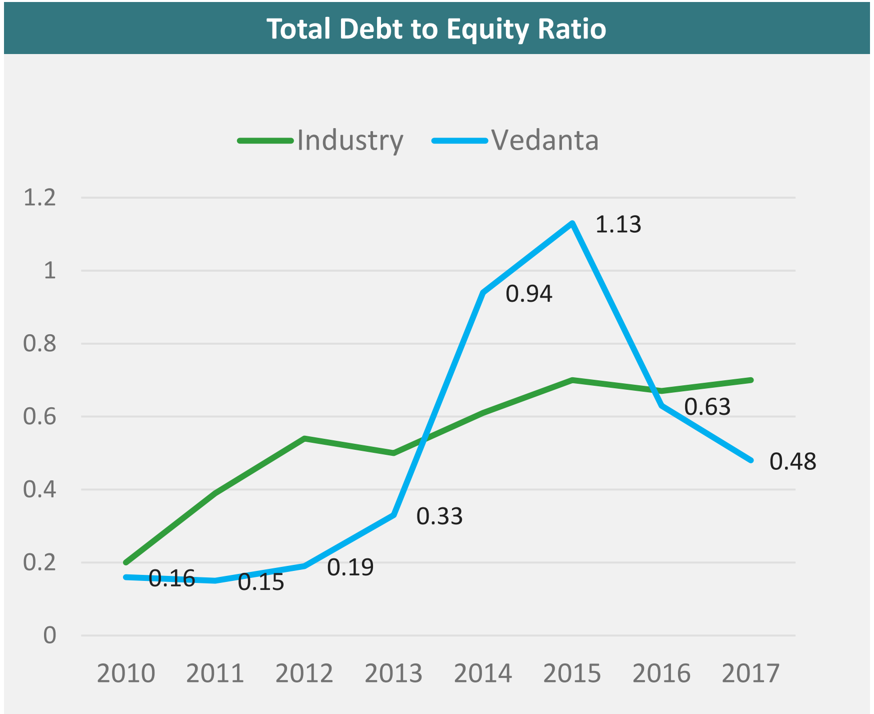
- Acquired Cairn India
- Multi expansion projects

Overall

Capital Structure

High Total D/E in '14-16 because of debt funded acquisition of Cairn India and business lines

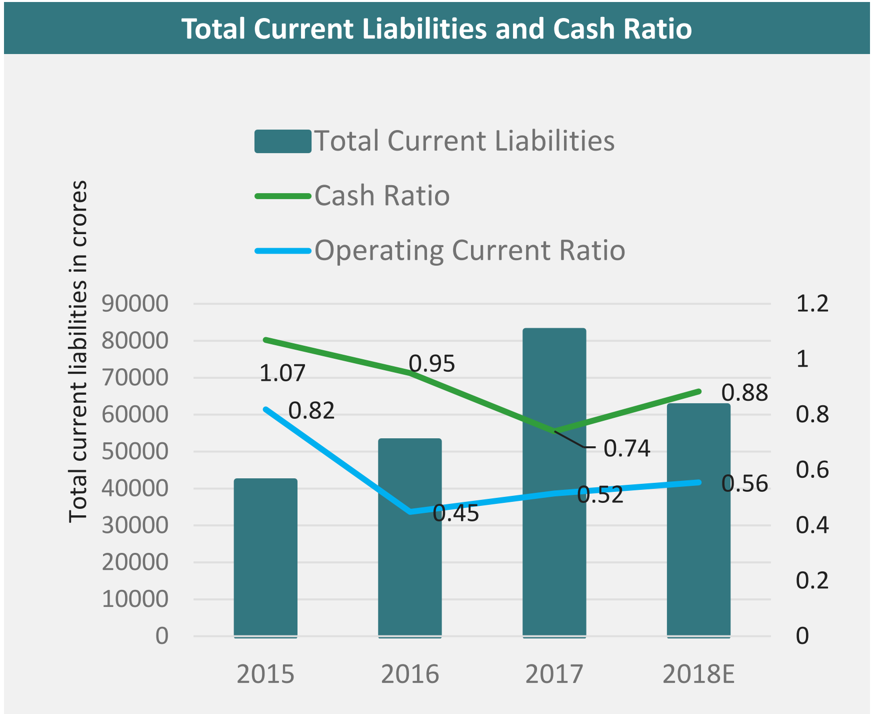




Lower D/E ratio than Industry – Improved in 2017 and is expected to improve further as firm aims to pay off its debt

Liquidity Analysis

Healthy liquidity but needs monitoring regarding ability to pay short term borrowings & trade payables



- Cash ratio has declined as compared to the previous year and has fallen below 1 – Not a cause of concern as this is mainly due to a one-off increase in short term borrowings and trade payables
- Cash ratio has declined despite an increase in cash and marketable securities because current liabilities have increased significantly
- Decline in Current ratio from 1.26 in 2016 to 0.93 in 2017 due to an increase in Current Liabilities - Ratio is still healthy
- Negative working capital due to a significant increase in trade payables - Highlights the increase in bargaining power of the company
- Operating Current Ratio has improved marginally from 0.45 in the previous year to 0.52

Cash Ratio = Cash + Marketable Securities/Current Liabilities
Operating Current Ratio = (Cash – Investments) / (Current Liabilities – Short Term Debt)

Financial Analysis

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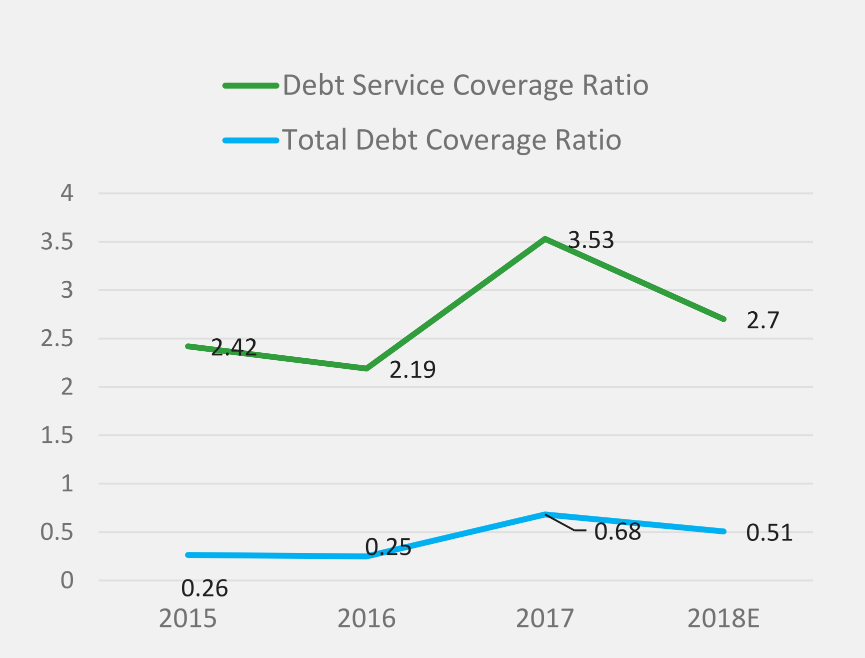
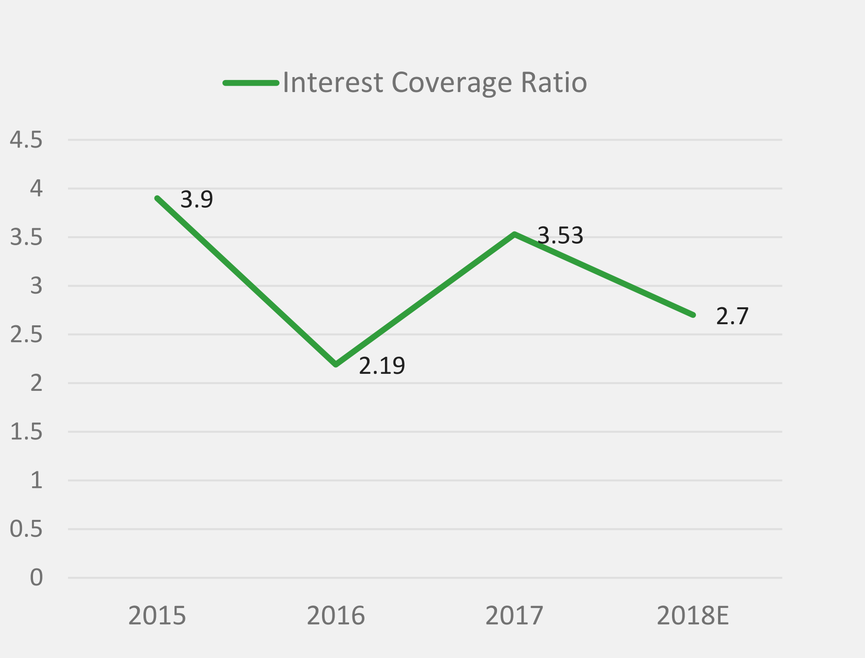
Debt Service Coverage Ratio has increased in 2017 which is a good indicator but expected to decrease
Interest coverage ratio has also increased in 2017 which shows the ability of the firm to repay

Debt Service Coverage Ratio



Interest Coverage Ratio



Debt Service Coverage Ratio = FCFF / (Principal + Interest)
Total Debt Coverage Ratio = FCFF / (Total Long Term + Short Term Borrowings)
Interest Coverage Ratio = EBITDA/ Interest Payment

Profitability & Operating Performance

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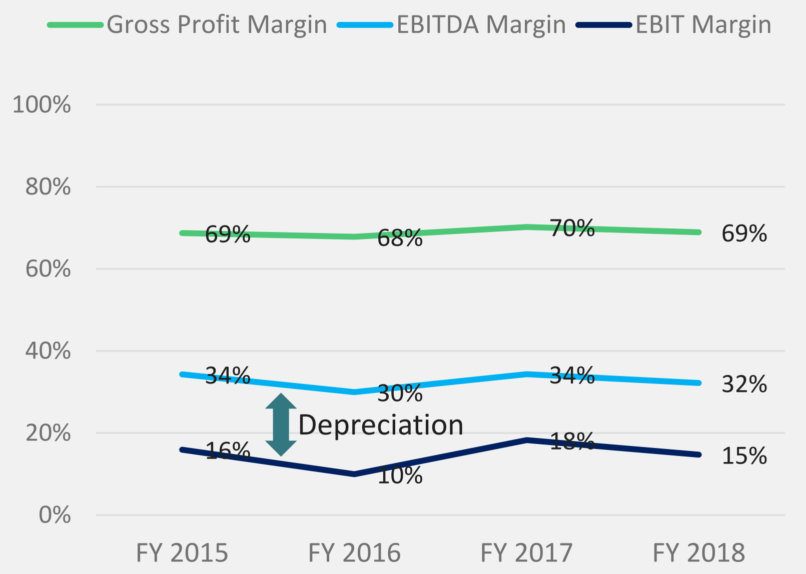
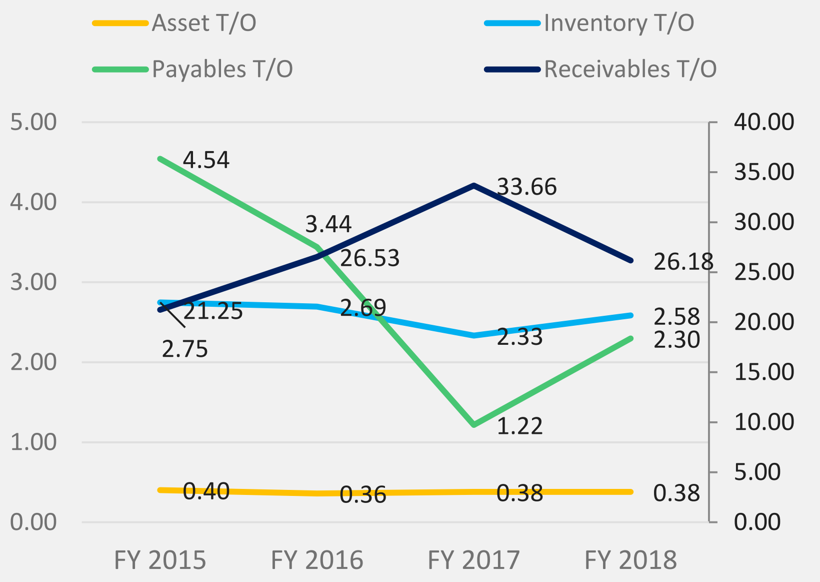
Gross Profit Margins have been stable stating stable material costs.
Operating cycle has improved on account of decrease in receivables and increase in payables

Profitability Margins



Turnover Ratios



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Credit Rating Matrix

Rating methodology to assign the final credit crating

SCALE-20%

1. Used to gauge the ability of the company to overcome the volatility of the industry with good revenue forecasts
2. The Revenue forecast for Vedanta Ltd. is 78.217 Cr- AAA rating

COVERAGE RATIOS-15%

1. Interest Coverage Ratio of 3.34 for the upcoming year leads us to rate Vedanta Ltd. A on this metric
2. Debt Service Coverage Ratio of 2.7 is significantly better than the acceptable limit of 2 thus AAA rated

BUSINESS PROFILE-20%

1. Assessed based on Geographical and Industry Diversification
2. Operations in US, South Africa, etc. and diversified business portfolio solicits AAA rating

NET SCORE:
2.5- AA+

PROFITABILITY & EFFICIENCY-15%

1. EBITDA Margin for Vedanta Ltd. is expected to be 32% and rated AAA
2. EBITDA/ Net Tangible Assets is 22% appreciably high in the industry context, thus rated AAA

LEVERAGE RATIOS-20%

1. Debt/ EBITDA ratio of 1.32 has been given AA+ rating
2. The Capital Structure of the firm is leveraged at 51% debt majorly because of recent acquisition of Cairn India, thus Vedanta Ltd. is A rated on this metric

FINANCIAL POLICY-10%

1. The recent acquisition of Cairn India demonstrates the aggressive intent of the management
2. Yet, the managements' commitment to reach back to lower debt levels is evident from the decline in LT debt

Probability of Default (KMV)

Distance to default

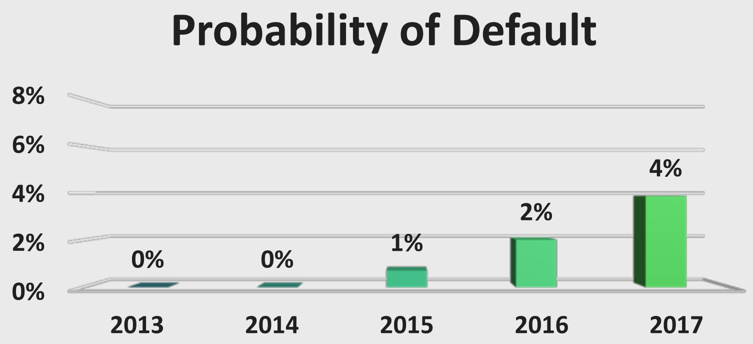
Probability of default – 4%

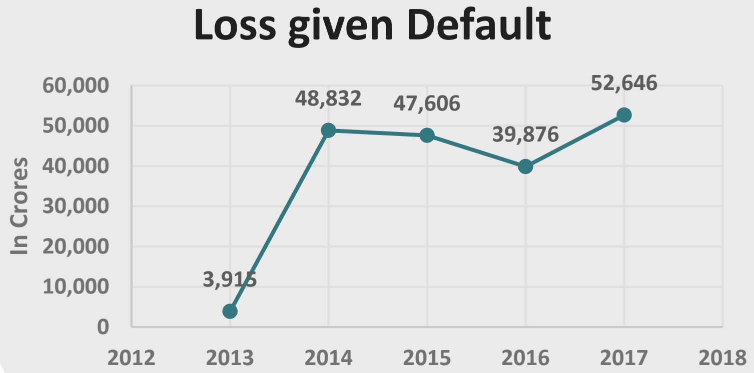
Its Probability of Default has also increase over the past 5 years

Loss Given Default – 52,645 cr.

The company took significant debt in FY 2013-14 which increased its Loss Given Default

Date	ST Debt (cr.)	LT Debt (cr.)	Equity (cr.)	Distance to Default	Recovery Rate
2013	41314	30255	81440	1.77	0.85
2014	18399	49378	26653	2.05	1.62
2015	25727	52025	56166	2.45	2.09
2016	25600	54966	55722	4.46	2.05
2017	3660	1179	13528	5.90	4.18





The company's shares has picked up almost drastically after the strong dip in 2015-16 due to legal troubles and the talks about merger with Cairn.

Thank You

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