

Credit investors, rating agencies and climate: Exhibit 1

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Do investments exclusions matter? What is the role of rating agencies in climate mitigation? As a brief comment to these questions, we highlight that S&P recently downgraded North Queensland Export Terminal¹ from BB+ to BB- (negative outlook).² The decision was mainly motivated by the inability of ADAABB to refinance an upcoming USD140mn bond, ADAABB 5.43 09/21 (FIGI: BBG00PM1XW82). It seems credit investors are not keen on the risk. S&P writes:

-- Exposure to refinancing risk given increasing reluctance of capital providers to finance coal-related assets.

-- Some headline environmental, social, and governance (ESG) risk given linkages to the Carmichael Mine as one of the users. [...]

We believe widening of credit margins could remain a persistent feature for future refinancing, owing to ESG-related considerations over coal assets in general as well as this project itself."

Figure 1. ADAABB USD4.45 12/2022 bond spread before/after rating downgrade.



We opine that this is a very clear sign of the the basic dynamics of climate focused investing in fixed income. First, investors not wanting to take on exposure to coal makes it difficult to access needed capital for the coal entities through the primary market effect. It is not a “one’s seller is another’s buyer” environment. When institutional investors step out from something like ADAABB, it really means tougher financing conditions and wallet-felt higher cost-of-capital for the issuer.

Second, this also illustrates a traditional role for credit rating agencies to operate in the climate transition. It may not be the direct risks of physical events or even policy changes that drive credit rating downwards due to climate risks, but the risks around refinancings. The former factors are hard to model and agencies may be wary to do so given model uncertainty, whereas refinancing risks and costs are fundamental credit risk factors going into any ratings decisions.

Finally, this highlights the recursiveness (and power) of fixed income climate engagement. A lack of refinancing drives credit ratings down, which increases funding costs again. Following the rating downgrade, ADAABB implied bond funding costs rose by more than 50%. Of course, the internal rates of returns now required in order to continue with the Carmichael project must be adjusted upwards due to higher capital costs. This increases the probability of a cancellation of the project.

¹ The company was formerly known as Adani Abbot Point, and is still trading under the ticker ADAABB. The analysis below shows how the company is linked to the Adani Group in general and benchmark USD bond issuer Adani Ports (ADSEZ) in particular.

² “[Research Update: North Queensland Export Terminal Rating Lowered to ‘BB-’ on Refinancing Risks; Outlook Negative](#)”, S&P Global Ratings, 29 Mar 2021.

Earlier analysis

The Anthropocene Fixed Income Institute has written around ADAABB and its parent Adani Ports in a number of pieces, where “[Global investors and the Carmichael mega-mine](#)” provides an in depth analysis of ADAABB and the corporate structure it operates in. We provide a reprint of the relevant parts of that article on the following pages.

“[Coal, coup, CDP and credit: Adani Ports update](#)” provides a more recent update on the parent company Adani Ports.

Further financing discussions around the Carmichael mine: “[State Bank of India + Coal Mega-Mine? Not so fast please](#)” and follow up pieces.³

For more analysis around other Australian facilities for coal exports – as the main coal exporter of the world, this is matters for climate impact activities - please refer to “[Lipstick on a pig: NAB’s sustainability loan to coal](#)” (Port of Newcastle, 160Mtpa), “[Brookfield: Coal and ESG mix like oil and water](#)” (Dalrymple Bay, 80Mtpa), and related pieces further hyperlinked in those documents.

³ “[SBI \(potential\) Carmichael loan: Key financing transaction parties](#)”, “[How green bonds are \(not\) supposed to work](#)”, “[Having State Bank Carmichael \(HSBC\) exposure](#)”, “[Zero new coal mine financing? EQT infrastructure investors and Carmichael](#)”

Background: Carmichael and Abbot Point

The Carmichael coal mine was given clearance to commence construction by the Queensland authorities in June, 2019. The decision was commented on as [“The World’s Most Insane Energy Project Moves Ahead”](#) (Rolling Stone magazine, 14 June, 2019).

Officially, the planned output of Carmichael has been reduced from originally 50-80 million tonnes (MT) per annum to a mere 10MT, albeit with some question marks around the sincerity of the latter plan.⁴ However, **the logistics chain for Carmichael enables tapping of the Galilee basin, Figure 3, which is one of the world’s biggest untapped coal fields in the world**, with estimated 7bn tonnes of coal deposits.⁵ Extraction and incineration of that would be equivalent to around 20-30 gigatonnes of CO₂ emissions, or approximately 5-10% of the remaining carbon budget for the Paris 1.5C target.⁶

The logistics chain is presented in Figure 2, where the Abbot Point terminal connects the railway system with shipping. **BlackRock (BLK), criticized German engineering group Siemens (SIEGR) earlier this year for their involvement as a supplier of railway signaling to this project,**⁷ highlighting the controversy around the infrastructure enabling the mine.

“The world’s largest asset manager said on Thursday that one of Germany’s largest industrial companies had failed to fully consider the ‘breadth of risks’ of an infrastructure deal at the A\$2bn Carmichael coal mine in Queensland.” (Financial Times, 6 Feb 2020)

A critique of the broader Adani Group’s involvement in the mine can be found [“The World’s Most Controversial Mine Is In A Hole”](#) (Bloomberg Quint, 28 May, 2020). Further controversies are discussed in the final section on ESG rating evaluation, and includes conflicts with aboriginal populations, and attempted miscellaneous legal actions against protesters.⁸

Figure 3. Coal deposits and mines in Australia. Galilee basin in circle. Source: Geoscience Australia,

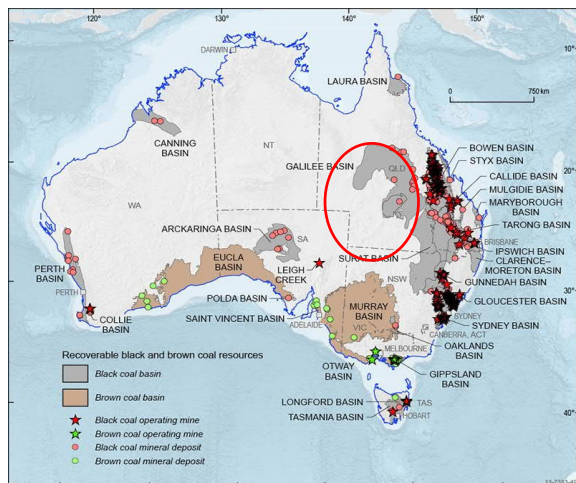
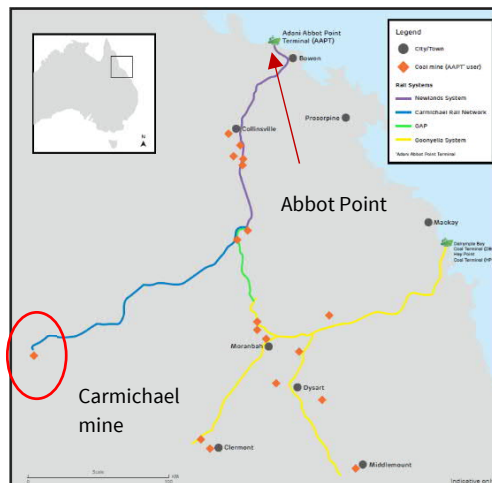


Figure 2. The Carmichael mine and related logistics points. Source: Adani Australia, AFII



⁴ See [“Adani executive talks up bigger coal mine in leaked video”](#) (ABC News, 18 March, 2020).

⁵ See [“Australian In Situ Coal Resources 2012”](#) (Geoscience Australia).

⁶ Estimates vary, see e.g. a meta-analysis in [“How much ‘carbon budget’ is left to limit global warming to 1.5C?”](#) (Carbonbrief, 9 April 2018). A general description of the broader implications is available through [“One of the world’s largest untapped coal reserves to be mined”](#) (Financial Times, June 13, 2019).

⁷ [“BlackRock rebukes Siemens on its environmental record”](#), (Financial Times, 5 Feb, 2020)

⁸ The website www.stopadani.com covers some of these conflicts from the activists’ perspective.

Adani Abbot Point (ADAABB): Funding train wreck

Given the controversy around the mine, finding **funding for Adani Abbot Point (ADAABB) as a stand-alone appears to have been difficult**.⁹ ADAABB was downgraded to sub investment grade ("junk") by S&P/Moody's/Fitch during 2020H1, as a consequence of the cancellation of a planned USD debt issue scheduled for March and syndicated by what we would consider a weak set of lead banks. We note that the activist movements appear to have been effective in dissuading a number of financial and insurance institutions from providing services to ADAABB,¹⁰ see for example "[Investec ditches Adani over climate change](#)" (Australian Financial Review, 19 June 2020), making alternatives to bond financing less likely to take place.

From a financing standpoint, we note that a number of bank facilities and smaller loans have been due during 2020.¹¹ According to reports, these repayments have been or will be made by parent Adani Group. Next maturity is an AUD170mn bank facility falling due on 28 Nov 2020, also indicated to be covered by Adani Group. **We believe the recent penalty ordered by the Queensland Supreme Court of AUD0106mn puts further pressure on the cash flow situation for ADAABB.**¹²

The remaining bond curve and financing hurdles that we are aware of ADAABB is shown in Table 1. First on the curve, ADAABB has a 5.43% private placement of USD143mn maturing in Sept 2021. A private placement is a small bond issue generally sold to a small number of investors, a 'club', and this one appears to be owned by a set of US insurance and reinsurance companies, with Massachusetts Mutual Life, RGA Reinsurance and Connecticut General Life Insurance appearing as key investors. **We believe refinancing of the 5.43% will be extremely relevant for understanding the potential of refinancing the slightly longer 4.45% bond.**

Going to that, **the main financing hurdle is the USD500mn 4.45% bond maturing in Dec, 2022.** The bond is currently trading (**Error! Reference source not found.**) in the low 90s, with a yield to maturity of 8.4% ⇔ z-spread of 815bp which as a rough approximation indicates an implied probability of default of around 25%. The bond is a constituent of the Bloomberg Barclays US HY index (BEJKTRUU) and with few conc-entrated positions although some of the investor names are interesting from an ESG perspective.

Table 1. Adani Abbot Point outstanding bonds. [Dated Aug 2020].

Bond	ADAABB 5.43 2021	ADAABB 4.45 2022
Coupon	5.43	4.45
Maturity	22-Sep-2021	15-Dec-2022
Issue date	n.a.	30-Nov-2017
ISIN 144a	AZ4207934	US00653GAB05
ISIN REGS	(private placement)	USQ0102FAD70
Amount issued (USD mn)	143	500
Current price (ind)	n.a.	89.85
Spread vs govt bmark (ind)	n.a.	G+925
Spread vs govt at issuance	n.a.	n.a.
Leads	n.a.	Haitong, Investec, Stifel

⁹ See e.g. "[Adani Group to fully fund troubled Carmichael coal mine in Australia](#)" (Reuters, 29 Nov 2018).

¹⁰ See e.g. "[Adani Carmichael Contractor Risks](#)", (IEEFA, 16 Aug 2019).

¹¹ See e.g. "[Fitch downgrades Adani Abbot Point Terminal to 'BB+'; Ratings on RWN](#)" (Fitch, 31 Mar 2020)

¹² See "[Adani ordered to pay \\$106mn over port dispute](#)" (Australian Financial Review, 27 Aug 2020).

The Carmichael, Adani Mining, Abbot Point and Ports links

Figure 4 illustrates the ownership structure of Adani Group according to the company's own presentation material. Adani Group controls approximately 63% of the equity in ADSEZ, and ADAABB is a fully owned subsidiary by the Group. Gautam Adani is Chairman and Managing director of ADSEZ as well as Adani Group, and holds a 39% direct equity share of ADSEZ.

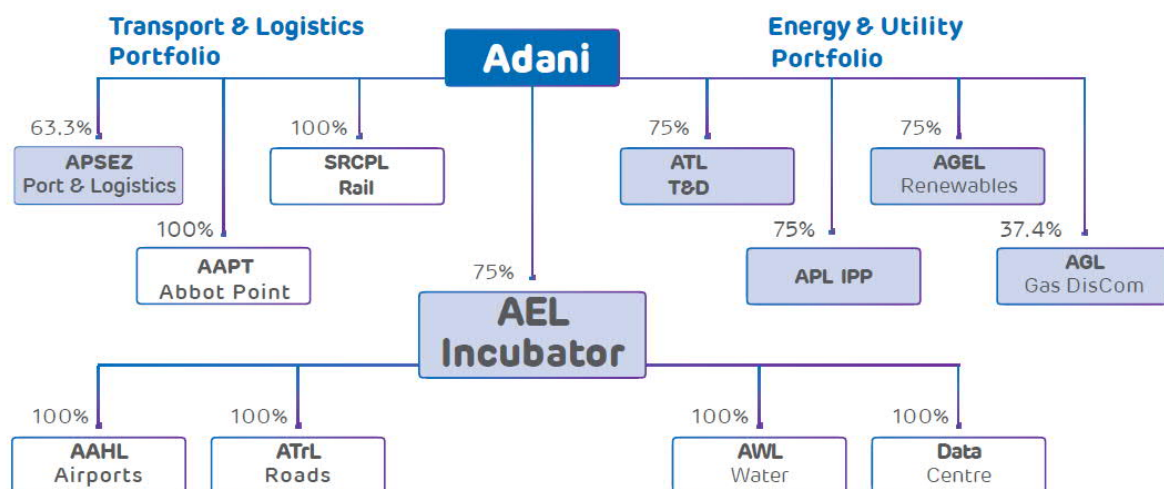
With regards to the controlling power of Adani Group in the Australian activities for both ADAABB and ADSEZ, we refer to the recent ruling by the Queensland Supreme Court¹³ (our highlighting and bracketing):

[184] "As the negotiations [...] show, the officeholders of the applicant [ADAABB] do not necessarily make the decisions of the applicant. **Significant decisions are made by other corporate entities in the Adani Group, or by the chairman Mr Gautam Adani. The owner of the terminal [ADAABB], its operator [ADSEZ], and AMPL [Adani Mining], a future user of the terminal, are likely to act in the best interests of the Adani Group, not their individual corporate entities.**"

For context ADSEZ is a logistics group: "India's largest integrated ports and logistics company." In 2019, the company handled 68MT (33%) coal, 27MT (13%) crude oil, 84MTeqv (41%) container and 29MT (14%) other bulk cargo, according to company filings. Given this, it seems reasonable to assume that ADSEZ will handle a fair amount of coal from Carmichael. As the CFO of the Adani Group was quoted: "Carmichael [...] is now a support business for Adani Power", (Reuters, 6 Aug 2020). We discussed Adani Power and its then hypothetical relationship to Carmichael in our earlier piece [Top coal, top ESG?](#) (4 August 2020).

We believe it is likely that ADSEZ, owning among other things the world's largest coal terminal, is integral to Adani Group's plan for developing the world's biggest greenfield coal project and to use that coal when operating India's largest private coal utility company.

Figure 4. Adani corporate structure as presented in [Debt Investor Presentation](#), dated May 2020. We believe ADSEZ is reflected in the "APSEZ Port & Logistics" box, ADAABB in the "AAPT Abbot Point" box, Adani Power in the "APL IPP" box.



¹³ Adani Abbot Point Terminal Pty Ltd v Lake Vermont Resources Pty Ltd & Ors [2020] QSC 260.

Given the significantly higher funding costs for ADAABB it would theoretically make sense to raise capital in sister company ADSEZ instead, and/or operate capital intensive projects related to Carmichael through ADSEZ subsidiaries rather than ADAABB.

We specifically illustrate the structure of Adani Group's Australia/Carmichael related entities in Figure 5 (courtesy of Energy Resource Insights). It is challenging to understand in full, with some material also being hard to access. However, we would like to highlight four points with regards to further a hypothesis of ADSEZ participating actively in the Carmichael project chain:

- i) **ADSEZ has clear direct subsidiary operations at Abbot Point through the Abbot Point Operations Pty Ltd (*APO*¹⁴)** which is a "100% subsidiary of the Company and engaged in the business of Port Operation".¹⁵ *APO* has operated the Abbot Point Terminal since 2016.¹⁶ This is not to be confused with Adani Abbot Point Terminal Pty Ltd which is the name of the issuing entity for ADAABB. The relationship between ADAABB and Adani Group runs through a number of Singaporean and Cayman Island registered companies. For purposes of the court case quoted above, the judge makes an explicit mention of no differentiation between ADAABB and ADSEZ subsidiary *APO*.¹⁷
- ii) **A number of re-registrations at the Australian Securities and Investments Commission in the past week (see box below) again suggest coordinated activity between ADAABB and ADSEZ.** The ADAABB issuing entity is renamed with prefix "North Queensland Export Terminal" and the ADSEZ subsidiary Mundra Port Pty¹⁸ (*MPT*) is renamed with prefix "NQXT" where we see it safe to assume that the acronym stands for "North Queensland Export Terminal".

Current name	New name	Related purpose
Adani Abbot Point Terminal Holdings Pty	North Queensland Export Terminal Holdings Pty Ltd	ADAAAB
Adani Abbot Point Terminal Pty Ltd	North Queensland Export Terminal Pty Ltd	Management/operations of the Abbot Point coal terminal
Mundra Port Pty Ltd	NQXT Port Pty Ltd	ADSEZ
Mundra Port Holdings Pty Ltd	NQXT Holdings Pty Ltd	Holdings of the lease of the Abbot Point coal terminal

¹⁴ Entity acronyms in italics refer to the acronyms used in the Company's annual report 2019. They are not equivalent to corporate tickers as used on, for example, the Bloomberg system.

¹⁵ Source: Company annual report, 5 May 2020, Notes to the consolidated financial statement, 1.xxvi.

¹⁶ See "[Abbot Point Operations](#)" (Adani Australia presentation, Sep 2019)

¹⁷ [12] "[...] *Except where it is necessary to distinguish between APO and APB [ADAABB] (Chapter IV), I will simply refer to the operator after 2016 as the Adani operator.*" [2020] QSC 260.

¹⁸ For reference, the physical Mundra Port is located in the Gujarat province in India and features the world's biggest coal terminal. It is one of the key operational assets of ADSEZ.

- iii) **Recent announcements indicate that the ADSEZ subsidiary Bowen Rail Company has started operations, forming part of the crucial logistics chain for Carmichael output.**¹⁹ Further ADSEZ subsidiaries are Abbot Point Bulkcoal Pty Ltd, Adani Abbot Port Pty Ltd, Bowen Rail Operations Pty Ltd and Bowen Rail Company Pty Ltd.²⁰ For reference, Bowen is the city located just south-east of the Abbot Point terminal, and the Bowen subsidiaries were incorporated in December, 2019. It shall be noted that the Bowen subsidiaries were listed as inactive ("Names of subsidiaries which are yet to commence operations") in the ADSEZ' annual report for 2019, but as per the link now are starting operations.
- iv) **Carmichael Rail and Singapore Rail and Port (CRPSH) can receive capital through discretionary dividends from MPT/ADSEZ, while ADSEZ still retains voting control over MPT.** There exists a preference shareholder relationship between the ADSEZ subsidiary Mundra Port Pty (MPT) and Abbot Point Port Holding Pte Ltd (APPHS, Singapore). APPHS is owned ultimately by the Adani Group, but through a subsidiary called Carmichael Rail and Port Singapore Holdings Pte Ltd (CRPSH). ADSEZ holds the ordinary shares of MPT where the APPHS holds 98.9% of the preference shares. As a reminder, a preference share is a share that has no voting rights, but has senior dividend rights. Such preference share dividend payments, if they were to happen, could be construed to not be in the interest of minority shareholders of ADSEZ. Hypothetically, further repayments of the ADAABB loans coming due over the next year and a half would be cheaper for Adani Group if made through the financing capacity of ADSEZ, not only through lower interest rates but also as there would be dilution of the capital cost through minority owners' share of it.

¹⁹ "[New rail company recruiting for Bowen haulage business](#)" (Industry Queensland, 18 Aug 2020). The Bowen Rail Company does not list any association on its web with the Adani Group, however, what appears to effectively be the CEO is listed as an employee of Adani Australia on social media.

²⁰ Ibid, notes 1.xxvi, 1.xxxii, 1.xxxiv [sic], 1.xxxv, 1.xxxxii, 1.xxxxii. Numerals as per report.

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