Petrochina

China, Oil & Gas

Accounting		Climate Assumptions		Audit		Date of analysis: May 4 2021
Judgements	Consistency with other reporting	Visibility	Paris alignment	Visibility in CAMs	Consistency check	Year end: December 2021 Report date: April 29 2021 AGM: June 10 2021
Significant concerns	Significant concerns	Significant concerns	Significant concerns	Significant concerns	Some concerns	CA 100+ company, so seen by investors as key to driving global net zero emissions

Summary view:

- Despite the significant carbon impact of PetroChina and the numerous transition and also physical climate risks that the company faces, the 20-F narrative reporting only briefly considers climate. There is no apparent consideration given to climate issues in the assumptions and estimates used for the audited financial statements.
- The ESG Report has more detailed discussion of climate risks and some disclosures on carbon emissions. However, PetroChina appears to be at an early stage in its thinking on climate change.

Background

The Business

- PetroChina is one of the world's largest oil and gas companies by revenues. It is vertically integrated with significant operations across the following operating segments: Exploration and Production, Refining and Chemicals, Marketing, and Natural Gas and Pipeline. PetroChina's business mix is proportionately biggest in upstream with the company being the largest onshore oil and gas company in China both in terms of proved crude oil and natural gas reserves and in terms of current production and sales.[1]
- PetroChina is incorporated in China with A shares listed in Shanghai and H shares listed on the Hong Kong Stock Exchange. ADRs, representing H shares, are listed on the NYSE. PetroChina is 80.41% owned by the Chinese government through parent company China National Petroleum Corporation (CNPC).
- Exploration and Production accounted for 76% of CAPEX in 2020, with the company guiding 73% for 2021. Refining and Chemicals took 9% of CAPEX in 2020, rising to 16% in 2021. The narrative reporting states that the CAPEX mix has been adjusted in response to changes in oil prices but there is no mention of any influence from the anticipated energy transition. The RMB175bn ($27bn) E&P budget will be spent primarily in China, enhancing the development of unconventional resources such as shale gas and shale oil, and promotion of new energy projects including clean energy alternatives. There will also be investments in overseas operations in the Middle East, Central Asia, America and the Asia Pacific region.
- According to the ESG Report, greenhouse gas emissions for 2020 totalled 167m tonnes of CO_2 equivalent (128m tonnes Scope 1 and 40m tonnes Scope 2). These numbers do not include Scope 3 emissions, which will be much higher for a company operating in this sector.
- PetroChina is facing substantial transition risks particularly as the Chinese government seeks to contain carbon emissions in the medium-term (peak emissions 2030) and achieve carbon neutrality by 2060. Among the measures anticipated are a quota system for carbon emissions and restrictions on certain carbon intensive processes. PetroChina's ESG Report lists many transition risks including: reputational risk; market risk if end-consumers prefer low-carbon alternative fuels and the impact this would have on fossil fuel demand; and policy and regulatory risk, both in China and abroad. There are also physical risks from natural disasters, with damage to corporate assets in coastal areas and water shortage in water-scarce regions being highlighted.

[1] China's 'Big Three' oil companies comprise: CNPC Group (parent company of Hong Kong-listed PetroChina), which is vertically integrated but historically specialised in onshore upstream exploration and production; Sinopec Group (parent company of Hong Kong-listed Sinopec), which is vertically integrated but historically specialised in refining and marketing; and CNOOC (parent company of Hong Kong-listed CNOOC Limited), historically specialised in offshore upstream exploration and production.

Approach to climate change

- The 20-F narrative reporting highlights climate change as a Risk Factor for the company: "China and some other countries in which we operate have adopted, or are considering the adoption of, regulations to reduce carbon emissions. These include adoption of carbon emission quota and trade regimes, carbon taxes, increased efficiency standards, and incentives or mandates for clean energy. The Chinese government has announced that China aims to hit peak emissions before 2030 and realize carbon neutrality by 2060. These policies and measures will bring opportunities to our new energy business, but may lead to an increase in our expenditures for our conventional oil and gas business, make our oil products more expensive and reduce their demand. As a result, we have to adjust our investment plans and change our business strategies, and our results of operations may be adversely affected." However, beyond this statement, there is practically no consideration given to climate.
- The ESG Report considers climate issues – both risks and strategies – in far more detail, although PetroChina still appears to be at a relatively early stage in its thinking on these issues. For example, in 2020, the board and management "conducted discussions and reports on climate and energy transition issues" and "started a research and formulation of green development action plan and green and low-carbon development industry plan".
- The increased focus on climate issues appears to be in response to the announcements from the Chinese government in September 2020 of the goal to reach peak carbon emissions by 2030 and carbon neutrality by 2060. For its part, PetroChina is aiming for "carbon emissions peak around 2025 and "near zero" emissions around 2050".
- PetroChina is also putting emphasis on the transition to natural gas (which already accounted for 48% of output in 2020), with RMB13bn ($2bn) budgeted for CAPEX related to gas. The Chinese government has put in place various fiscal incentives with the overall goal of increasing the proportion of natural gas in the energy mix to 15% by 2030.
- Beyond natural gas, there is general aim to intensify development of new energy sources from 2021-25 with geothermal, solar, wind and hydrogen mentioned. PetroChina states that it also aims to increase use of Carbon Capture, Utilization and Storage (CCUS) but there are no targets. The anticipated growth of electric vehicles is noted, with the Chinese government aiming for pure electric vehicles to account for the majority of vehicle sales by 2035, but it is not clear whether this is seen as a threat or an investment opportunity for PetroChina.

Accounting: judgements and consistency with other reporting

Accounting judgements		Significant concerns

- With overseas listings in Hong Kong and New York, Petrochina reports under IFRS as issued by the IASB.
- There is no reference in the notes to the financial statements that accounting judgements have been impacted by climate-related considerations.
- The notes to the financial statements explain that, in determining impairment of plant, property and equipment, management is required to make estimates of the future trends of international prices of crude oil. However, there is no disclosure of these future price estimates nor any mention of whether climate risk was considered.

Consistency with other reporting		Significant concerns

- The lack of any reference to climate considerations in the financials is at least consistent with the very limited reference to climate risks in the narrative reporting of the 20-F and Annual Report.
- However, PetroChina also produces an ESG Report, published around the same time as the Annual Report. This ESG Report has greater coverage of climate risk, both in terms of disclosures of carbon emissions and in terms of general commitments and targets to reach net zero by 2050. There is, therefore, an inconsistency between this articulation of risks and

responses in the ESG Report and the lack of consideration of these risks in the Annual Report and 20-F.

Climate assumptions in accounts: visibility and Paris alignment

Visibility of climate assumptions in accounts		Significant concerns

- There are no apparent climate-related assumptions. There is thus no sensitivity analysis.

Paris alignment		Significant concerns

- With no visibility, there can be no alignment with the goals of the Paris Agreement.

Audit: visibility in CAMs and consistency check

Audit firm: KPMG Huazhen	Responsible partner: Chung Chuen Choi
Audit standards: PCAOB[2]	

Visibility in Critical Audit Matters		Significant concerns

- There is no reference to climate change in the auditor's report.
- There is one CAM identified: assessment of impairment of oil and gas properties.
- The auditor's report states that one way that this CAM was addressed in the audit was an evaluation of the future selling prices for crude oil and natural gas used in the discounted cash flow forecasts. The audits compared these prices with the company's business plans and forecasts by external analysts. However, there are no disclosures on the selling prices used nor whether there was any consideration given to climate risk.

Consistency check		Some concerns

- PCAOB audit standards require the auditor to read other information that is presented together with financial statements and the auditor's report thereon. The auditor's report is silent on the outcome of the review, which implies that no material inconsistency was identified in the other information within the 10-K.
- The apparent absence of climate considerations in the audited financial statements is at least consistent, in a minimal sense, with the limited discussion of climate issues in the narrative reporting in the annual report.
- There is a footnote reference in the ESG Report stating that "the Company is actively promoting limited independent assurance" but it does not appear that the ESG Report itself has been subject to any kind of assurance.

The Climate Accounting Project is an independent investor-led project to reinforce the statements of the IASB and IAASB that material climate change issues are incorporated within their standards. This analysis seeks to understand the extent to which companies and auditors are delivering against this aspect of these standards and similar local standards.		**Key**
		Good practice
		Few concerns
		Some concerns
		Significant concerns

[2] The auditor's report states that the audits were conducted in accordance with the standards of the PCAOB. However, the PCAOB notes that it does not have access to conduct inspections and investigations of audit work of PCAOB-registered firms in China (https://pcaobus.org/oversight/international/china-related-access-challenges).

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