



FOR IMMEDIATE RELEASE

12 March 2019

CAIRN ENERGY PLC (“Cairn”)

Full Year Results Announcement

For the year ended 31 December 2018

Simon Thomson, Chief Executive Officer, Cairn Energy PLC said:

“Cairn plans a material exploration programme in 2019 targeting a billion barrels of gross resources, supported by cash flow from our production base. With active development projects within the portfolio, we look forward to additional sustained production and cash flow generation over the long term.

Cairn offers shareholders multiple catalysts for value creation. Our financial flexibility and continued focus on capital discipline ensure that the company remains strongly positioned to deliver an active programme.”

2018 Summary

- Combined net production averaged ~17,500* boepd
- Oil and gas sales revenue US\$396m, average realised price US\$68 boe**; average production cost US\$20.5 per mboe
- Net cash inflow from oil and gas production US\$229m
- Capital expenditure: cash outflow of US\$252m***, remaining cash outflows post year end US\$30m
- Year end Group cash US\$66m; US\$85m drawn under US\$575m RBL facility
- Operating loss US\$182m from the impairment of Kraken following downward revision in reserves; net loss after tax US\$1.1bn resulting principally from write down of Cairn’s investments in India

2019 Outlook

- Estimated net production of 19,000 to 22,000 bopd*; average production cost US\$20/bbl
- Forecast capital expenditure US\$300m***
- Senegal – SNE field development first phase on schedule. Targeting first oil 2022, gross production 100,000 bopd
- Norway – Nova field development on schedule. Targeting first oil 2021, peak gross production 50,000 bopd
- UK and Norway – up to four exploration wells (three Cairn operated) planned, targeting ~500 mboe. The first well in the programme, Presto, spudded on March 1
- Mexico – three exploration wells (two Cairn operated) planned targeting ~500mboe
- Hearings for Cairn’s arbitration claim against India concluded in 2018; drafting of the award by the Tribunal is ongoing

*Before FlowStream's production entitlement of ~1,360 bopd in 2018; expected to be 1,350 to 1,575 bopd in 2019

**Before hedging costs of US\$1.34 boe

***Net of Norwegian tax refund

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Webcast

There will be a live audio webcast of the results presentation available to view on the website (www.cairnenergy.com) at 9am GMT. This can be viewed on PC, Mac, iPad, iPhone and Android mobile devices.

An 'on demand' version of the webcast will be available on the website as soon as possible after the event. This can be viewed on PC, Mac, iPad, iPhone and Android mobile devices.

Presentation

The results presentation slides will be available on the website from 7:00am GMT.

Conference call

You can listen to the results presentation by dialling in to a listen only conference call at 9am GMT using the below dial-in details.

Dial-in details:

UK, local: +44 (0)330 336 9125

Code: 9227829

Transcript

A transcript of the results presentation will be available on the website as soon as possible after the event.

Operational review

Reserves

Group 2P reserves increased during the year by 2.5 mmboe from 53.8 mmboe to 56.3 mmboe.

Production during the year depleted reserves by 6.4 mmboe and a downward revision of 6.8 mmboe (19%) in the Kraken reserve estimates was offset by Nova which was sanctioned during the year adding 15.2 mmboe.

Production

Catcher

Gross production from the Catcher Area (Cairn 20% WI) (comprising the Catcher, Varadero and Burgman fields) averaged 43,000 boepd in 2018. This reflected the field's ramp-up to plateau production rates in May following gas export commissioning and significantly increased plant availability during the second half of the year. Oil production from the Catcher FPSO continues to exceed nameplate capacity (60,000 bopd) and the JV has agreed with the FPSO provider to increase production from 60,000 bopd to 66,000 bopd (gross) on a reasonable endeavours basis. Reservoir performance to date has been good and analysis at year end 2018 has resulted in a slight increase in 2P reserves.

Cairn is working with the rest of the Catcher JV to optimise further investment in the Catcher area, including consideration of in-fill drilling and near-field opportunities to extend plateau production. A firm commitment has been made to drill an additional Varadero producer in 2020, with additional optional rig slots available for two further wells.

Kraken

Gross production from Kraken (Cairn 29.5% WI) averaged 30,300 boepd in 2018, which was below expectations. Production levels were most significantly affected by production system outages on the FPSO, weather-related incidents and higher water-cut than originally expected. Cairn is working with the field operator and FPSO contractor to achieve improvements in the uptime of the FPSO and a planned shut-down is scheduled later in 2019. Reservoir performance has been evaluated and at year end, Cairn's estimation of Kraken 2P reserves has been reduced to reflect current performance. This has resulted in an impairment of US\$166.3m in the carrying value of the Kraken asset. The JV is evaluating further investment opportunities in the Kraken area to provide new drilling opportunities in 2020.

The DC4 subsea infrastructure was successfully installed in H2 2018. The three-well DC4 drilling programme is ongoing and remains on schedule with production onstream from the first DC4 well.

Developments

Senegal – SNE

In 2018 substantial progress was made on the SNE field multi-phase development (Cairn 40% WI) with a number of key milestones achieved. Our partner Woodside has now assumed the role of operator, as planned, and the JV is targeting a final investment decision in mid-2019 and first oil in 2022.

The SNE development concept is a stand-alone FPSO vessel facility with a capacity of ~100,000 bopd, with 23 subsea wells and supporting subsea infrastructure. It will be designed to allow subsequent SNE development phases, including options for gas export to shore and for future subsea tiebacks from other reservoirs and fields.

In January 2019, the JV received approval in principle for the technical basis of the SNE Development and Exploitation Plan and confirmation that the licence covering the SNE development area would be extended to allow for the conclusion of FEED and to mature financing activities during 2019 prior to Exploitation Licence award. Separately, the JV has submitted a request to the government for an extension of the licence area covering the FAN and SNE North/Spica exploration areas to undertake further evaluation.

The Environmental and Social Impact Assessment (ESIA) was submitted in 2018 and approved in January 2019.

Project finance has been successfully launched with detailed work underway on financing structures for the JV.

FEED activities for the subsea contract and for the FPSO facility have been awarded to Subsea Integration Alliance and MODEC International Inc, respectively. The FEED work involves undertaking activities required to finalise the costs and technical definition for the development to enable a final investment decision.

The JV is now planning to undertake a 3D high bandwidth seismic survey in Q2/3 2019. It is expected that the survey will improve reservoir definition to support development well placement.

Norway – Nova

The Nova (Cairn 20% WI) development in Norway is on schedule with first oil targeted in 2021 and expected to deliver peak production of 50,000 bopd (10,000 net to Cairn).

Cairn participated in the discovery of the Nova field in 2012, at the time known as Skarfjell. The field development is located in the Norwegian North Sea ~17km south west of the existing Gjøa field and is estimated to contain recoverable resources of ~80 mmboc.

The Plan for Development and Operation (PDO) was submitted by operator Wintershall to the Norwegian Ministry of Petroleum and Energy and approved in H2 2018.

Hydrocarbons from the Nova reservoir will be developed with a subsea tie-back connecting two templates to the nearby Gjøa platform for processing and export. Development execution activities are expected to commence mid-year 2019 for the initial modification work on the Gjøa platform.

Exploration

In 2019 we have a programme of material exploration drilling opportunities across mature, emerging and frontier locations in Europe, West Africa and Latin America. We are planning up to seven wells targeting total gross volume of more than one billion barrels. In 2018 we acquired several new country interests in Suriname, Côte D'Ivoire and Mauritania adding further high impact volume potential to our asset base.

Mexico

Cairn holds three licences offshore Mexico, in Block 7 (Cairn 35% WI), Block 9 (Cairn operator 65% WI) and Block 15 (Cairn operator 50% WI) covering a total acreage position of 2,080 km² in a highly prolific, yet under-explored region.

The first well in our Mexico programme will be drilled on Block 7, operated by ENI. The Operator is progressing all required permits. A site survey will complete shortly and well selection and preparations are well advanced to commence drilling in Q3 2019. An additional well is planned on Block 7 in 2020.

The second well will be on Block 9 and operated by Cairn. The exploration plan has been approved and a rig contract is in place with Maersk for the Maersk Developer Semi-Submersible Drilling Rig and a group services package with Schlumberger for onshore and supply base operations. Drilling operations are expected to commence in Q3 2019 targeting the Alom prospect, followed by an additional well targeting the Bitol prospect in Q4 2019 (also Cairn operated). This will be the third well in our Mexico programme.

On Block 15, the exploration plan was submitted in Q4 2018 and an environmental baseline survey completed in Q1 2019. Further evaluation of the block is ongoing.

UK & Norway

Cairn participated in four exploration wells in the UK & Norway region in 2018: PL682 (Cairn 30% WI) targeting the Tethys prospect in Q1, PL790 (Cairn 25% WI) containing the Raudåsen prospect in Q2, P2184 (Cairn operator 45% WI) targeting the Ekland prospect in Q4 and P1763 (Cairn 50% WI) containing the Agar discovery and Plantain prospect also in Q4.

Agar is estimated by the operator to hold recoverable resources of 15-50 mboe. Further evaluation of the development options and broader exploration potential is ongoing. Cairn has the option to take over operatorship of future activity on the area.

Cairn was awarded three new licences in the Norwegian Petroleum Directorate's APA 2017 announced in Q1 2018, all non-operated with material equity positions, and one new non-operated licence in the APA 2018, PL418B. Cairn was also awarded five new licences, three as operator, in the UK Oil & Gas Authority's 30th Offshore Licensing Round in Q2 2018.

Plans are in place for four exploration wells in the UK/Norway region in 2019, three of which will be operated by Cairn. The first well in the programme, operated by Equinor, is Presto (Cairn 30% WI) which has commenced operations with the Transocean Spitsbergen rig on PL885 in the Norwegian North Sea.

The second well in the programme is expected to be Lynghaug, Cairn's first operated well in Norway. Lynghaug (Cairn 50% WI), licence PL758, is expected to spud in Q3 2019. Success in this well could lead to follow on exploration opportunities along the Nordland Ridge. Lynghaug will be drilled by the Transocean Arctic drilling rig.

The third well in the programme is Godalen (Cairn 40% WI) in licence PL842, Cairn's second operated well in Norway, which is expected to spud in Q4 2019. Godalen will also be drilled by the Transocean Arctic.

The fourth well in the programme is Chimera (Cairn 60% WI) in licence P2312 in the UK North Sea, Cairn's second operated well in the UK, which is expected to spud in Q4 2019. In Q4 2018, Cairn agreed to farm out a 40% WI in this licence to Suncor Energy UK.

Suriname

In 2018 Cairn was awarded an exploration agreement (Cairn operator 100% WI) on the largest block offshore Suriname by Staatsolie, the State Oil Company of Suriname. The licence covers an area of ~13,000 km² in the Demerara plateau in the Guyana-Suriname basin which has a conjugate margin to the SNE field in Senegal.

In December 2018, Cairn's ESIA was submitted and approved ahead of our initial planned 2D seismic acquisition commitment of 4,150km. 85% of this seismic programme has now been successfully completed with the remaining 15% expected to complete by the end of Q2 2019. Data processing will be ongoing for the remainder of this year.

Mauritania

In Mauritania, Cairn has an option agreement with Total to enter block C7, targeting a turbidite fan play in a large offshore exploration block in a proven oil province. Cairn has a right to acquire a 30% WI (Total operator 60% WI and Societé Mauritanienne des Hydrocarbures 10% WI), subject to government and partner approvals. A ~7,000km² seismic programme was completed in 2018 with final interpretation of data expected in H1 2019 after which a well decision will follow.

Côte d'Ivoire

In Côte d'Ivoire, Cairn has entered into the continental rift play with Tullow Oil. Cairn has agreed a farm-in for a 30%, non-operated, interest in all seven of Tullow's onshore licences (CI -301, CI-302, CI-518, CI-519, CI-520, CI-521 and CI-522), subject to obtaining the necessary government approvals. Tullow completed a full tensor gravity gradiometry survey covering 8,600 km² in H1 2018, following which a 2D seismic survey is planned for 2019.

Republic of Ireland

In the Republic of Ireland, Cairn has an acreage position in the Porcupine Basin with an interest in two licences and two licence options over an area of ~4,000km². Processing of the 3D seismic data set acquired in 2017 across LO 16/19 (Cairn operator 70% WI) and the adjacent LO 16/18 (Cairn 100% WI) is now complete.

India

Cairn commenced proceedings against India in 2015 following retrospective taxation actions undertaken by the Indian Income Tax Department ("IITD") in 2014. Final merits hearings for the arbitration concluded during 2018. Cairn's claim under the Treaty is for monetary compensation of ~US\$1.4 billion, the sum required to reinstate the Company to the position it would have been in, but for the actions of the IITD since January 2014. The arbitration Panel is expected to issue a binding and internationally-enforceable award, and Cairn continues to have a high level of confidence in the merits of its claims in the arbitration.

Now that the merits submissions and hearings have concluded, the arbitration Panel is preparing its final award with respect to Cairn's claim under the Treaty. The Panel had originally guided the arbitration parties that it expected to issue an award expeditiously following the conclusion of the main merits hearings in The Hague held in August 2018.

When the parties appeared before the Tribunal in December 2018, the Panel advised that it had not been able to advance the award as expected due to the number of procedural matters that had been brought before it since the August hearings, and that it is was not in a position at that time to give guidance to the parties on the expected timing of the issuance of the award.

Cairn subsequently wrote to the Panel in February 2019 asking if it was then able to provide any guidance on timing, and the Panel has now responded that although it remains mindful of Cairn's need for a swift decision, given its workload and the number of matters before it, it is still unable to provide specific guidance on timing. As a result of this, Cairn expects that the timetable for issuing the award will be more protracted than originally anticipated and is unlikely to be before late 2019.

The Panel has said it will keep the parties updated regarding its progress.

To date, the IITD has seized dividends due to Cairn from its shareholding in Vedanta Limited (VL) totalling approximately US\$164m and it has offset a tax rebate of US\$234m due to Cairn as a result of overpayment of capital gains tax on a separate matter. During the year, the IITD seized proceeds from a 4.9% sale of Cairn's shareholding in VL, together with redemption proceeds on the VL preference shares, totalling US\$713m. Following these sales, Cairn's retained holding in VL is now 0.1%.

Board changes

Jackie Sheppard retired as a non-executive director of the Company at the year-end having served on the Board since 2010. Alexander Berger, non-executive director, has served on the Board for nine years and has advised the Company that he will not be seeking re-election at the Annual General Meeting in May 2019. He will therefore retire from the Company on that day.

Cairn would like to thank both Jackie and Alexander for their excellent contributions to the Board during their years of service to Cairn. The Company is currently engaged in a recruitment process to appoint two non-executive directors, at least one of whom will be female.

Outlook

Cairn looks forward to a number of potentially material near-term exploration drilling opportunities, supported by established cashflows from producing assets and sustained by assets entering the development phase. The Company is fully funded for all committed expenditure, and continues its focus on delivering value for its stakeholders within the constant of a responsible and safety focused strategic offering.

Principal risks and uncertainties

Managing the Group's key risks and associated opportunities is essential to Cairn's long-term success and sustainability. The Group endeavours to pursue investment opportunities which offer an appropriate level of return whilst ensuring the level of associated political, commercial and technical risk remain within the defined risk appetite of the Group.

The Group's risk management framework provides a systematic process for the identification and management of the key risks and opportunities which may affect the delivery of the Group's strategic objectives. Key Performance Indicators are set annually and determining the level of risk the Group is

willing to accept in the pursuit of these objectives is a fundamental component of the Group's risk management framework.

Overall responsibility for the system of risk management and internal control and reviewing the effectiveness of such systems rests with the Board. Principal risks, as well as progress against key risk projects, are reviewed at each Board meeting and at least once a year the Board undertakes a risk workshop to review the Group's principal risks. This integrated approach to risk management has been and continues to be critical to the delivery of strategic objectives

Responding to Changing Risks during 2018

Cairn has assessed the principal risks and uncertainties at the end of 2018 and concluded that the principal risks identified at H1 2018 remain relevant. The principal risks are:

- Lack of exploration success
- Volatile oil and gas prices
- Securing new venture opportunities
- Delay in Senegal development plan approval
- Kraken and Catcher operational and project performance
- Reliance on JV operators for asset performance
- Health, safety, environment and security
- Fraud, bribery and corruption
- Inability to secure or repatriate value from India
- Political and fiscal uncertainties
- Access to debt markets

The Group has also considered the potential impacts from Brexit and concluded that Cairn is unlikely to be materially affected. The Group recognises that there are a number of uncertainties around Brexit, including the potential impact on EU nationals employed by the Cairn Group. The Group continues to monitor the situation closely.

Financial Review

Key Statistics

	2018
Production – net working interest share (boepd) ¹	17,533
Sales volumes (boepd) ²	15,946
Average price per boe – pre hedging (US\$) ³	67.99
Revenue from production (US\$m)	395.7
Average production costs per boe (US\$) ⁴	20.49
Depletion and amortisation costs per boe (US\$)	26.75
Net cash inflow from oil and gas production	228.9
Net cash inflow from operating activities	209.0

¹ Based on 29.5% of Kraken production during the period and 20% of Catcher production during the period, before deducting FlowStream's entitlement to Kraken volumes during the year of 1,360 boepd

² Working interest share of cargoes sold during the period, net of FlowStream entitlement

³ Excluding hedging costs of US\$1.34/boe

⁴ Production costs include cost of sales plus finance lease repayments on the Kraken FPSO

Production

2018 marked the first full year of production from the Group's two UK North Sea producing assets. Production on Kraken commenced in June 2017 and Catcher came on stream late December 2017. During 2018, daily gross production volumes on both assets have increased significantly, with Kraken averaging 30,300 boepd and Catcher 43,000 boepd across the year. Combined production for 2019 is expected to average 19,000 – 22,000 boepd net to Cairn, before adjusting for the FlowStream entitlement.

Revenue

Revenue from the sale of oil and gas was US\$387.9m for the year ending 31 December 2018, after adjusting for hedging transactions. Release of deferred revenue of US\$21.2m and royalty income in Mongolia of US\$1.2m, gives total revenue to US\$410.3m.

At 31 December, Cairn had hedged ~2.7 mmbbls of forecast production through 2019 using collar structures with a weighted average floor of US\$67.1 per bbl and an average ceiling of US\$83.1 per bbl and a further ~0.5 mmbbls of 2020 forecast production with a floor and ceiling of US\$67.5 and US\$87.5 per bbl respectively. With a year end oil price of US\$50.7 per bbl, the fair value of the hedge options held by Cairn has increased significantly at the year end giving rise to financial assets of US\$44.4m at the balance sheet date with unrealised gains of US\$43.9m recorded through other comprehensive income, offset by losses on settled options.

Cost of sales

Total production costs of US\$131.4m include US\$59.5m of operating and variable lease payments on the Catcher and Kraken FPSOs respectively. All Catcher lease payments are charged direct to production costs as operating lease charges. Following acceptance of the Kraken FPSO in H2 2018, lease payments are separated into variable and fixed components, with the latter being calculated based on minimum charges in the lease agreement and being deducted against the lease liability on the Balance Sheet. If all lease payments are included as operating costs, production costs were US\$20.49/boe. Effective 1 January, Cairn will adopt IFRS 16 resulting in recognition of Catcher minimum lease commitments as an asset and liability on the Balance Sheet, aligning the accounting with that of the Kraken FPSO.

Movements in oil inventory and underlift positions, measured at market value, of US\$7.7m were charged against cost of sales in the period. The Group's accounting for revenue and the classification and measurement of underlift is unaffected by the implementation of IFRS 15.

Depletion and amortisation charges in the year were US\$171.2m calculated on a unit-of-production basis on closing year end reserve estimates.

Net cash inflow from operating activities and cash generated from oil and gas production

Net cash inflow from operating activities for the year of US\$209.0m reflects net cash generated from oil and gas sales after deducting administrative costs and pre-award costs. Adding back these expenses leads to a net cash inflow from oil and gas production of US\$228.9m in the year.

Net cash outflow for the Year

	US\$m
Opening cash at 1 January 2018	86.5
Net cash inflow from operations ¹	228.9
Pre-award costs	(24.0)
Exploration expenditure ²	(120.8)
Pre-development expenditure ²	(58.6)
Development expenditure ³	(104.8)
Tax refund	36.8
Administration expenses and corporate assets	(31.6)
Net finance costs and equity transactions	(32.0)
Net drawings under Exploration Finance Facility	0.3
Foreign exchange movements	0.6
Closing net debt from cash and long-term borrowings at 31 December	
2018⁴	(18.7)

¹Net cash flow from operations includes cash flows from sale of oil and gas and includes all lease payments (including US\$7.4m repayment of the Kraken FPSO lease liability) and excludes the tax refund on operating activities.

²Exploration expenditure represents investing cash outflow of US\$188m excluding US\$58.6m of pre-development spend on Nova and SNE assets disclosed separately and offset by US\$3.6m exploration asset disposal proceeds and US\$5m of other operating income.

³Development expenditure includes investing cash outflows of US\$109.5m net of finance lease reimbursements of US\$4.7m.

⁴Cash balances of US\$66.3m less drawings under the Reserve-Based Lending facility of US\$85m

Cairn had net debt of US\$18.7m at 31 December 2018, representing a net cash outflow of US\$105.2m over the year. Borrowings under the Group's RBL facility at 31 December 2018 were US\$85m, all drawn in the year, before adjusting for unamortised facility fees and accrued interest for disclosure in the Financial Statements. Closing net cash and long-term borrowings presented above exclude US\$26.2m drawn under the Norwegian Exploration Finance Facility which are advances secured against tax refunds due from the Norwegian government and are not a true reflection of the Group's long-term indebtedness.

In December 2018, Cairn completed the extension of the maturity of the Group's US\$575m RBL facility to 2025, increasing the borrowing base to include the Nova development in Norway. Though the terms of the extended facility are consistent with that of the original, under IFRS 9 the extension is accounted for as an extinguishment of the original financial liability and the recognition of a new financial liability due to the extended period over which the facility is available. Arrangement fees associated with the original facility, which was put in place in 2014, have been fully amortised in the year. The Exploration Finance Facility in Norway was also extended in December 2018, but the application of IFRS 9 has no material impact.

Cash outflows on exploration expenditure in the year included UK & Norway costs of US\$41.3m relating to the Tethys, Raudåsen and Agar-Plantain wells in Norway and US\$26.1m of pre-development activities on Nova prior to approval of the development plan and subsequent transfer of costs to development assets. Senegal costs of US\$38.1m include US\$32.5m of pre-development exploitation costs. Transfer of operatorship of the Senegalese licences to Woodside concluded in December.

Development and producing asset cash outflows in the year related to costs on Kraken, Catcher and Nova.

Oil and Gas Assets

	US\$m
Opening oil and gas assets at 1 January 2018	1,825.9
Exploration and appraisal additions	98.2
Pre-development additions	50.2
Development additions	56.5
Exploration and appraisal disposals – UK & Norway	(8.2)
Unsuccessful exploration costs – UK & Norway	(62.6)
Unsuccessful exploration costs – International	14.4
Depletion and amortisation – UK & Norway	(171.2)
Impairment charge	(166.3)
Leased asset revision	(11.5)
Foreign exchange movements	(7.4)
Closing oil and gas assets at 31 December 2018	1,618.0

Analysis of additions by region is as follows:

	US\$m
Senegal	4.2
UK & Norway	76.3
International	17.7
Exploration and appraisal additions	98.2
Senegal	24.3
Nova costs pre-transfer	25.9
Pre-development additions	50.2
Norway - Nova	13.6
UK - Catcher and Kraken	42.9
Development additions	56.5

Pre-development additions relate to the SNE asset currently classified in exploration and appraisal assets and Nova which was transferred to development/producing assets during the year. These costs are included in exploration and appraisal additions though they relate to work on the exploitation plan and development of the field. Costs are only included within development and producing assets in the Financial Statements once the field development plan has been approved.

In the UK & Norway, costs incurred in the year on the Tethys, Raudåsen, Ekland and Agar-Plantain wells were US\$58.2m with a further US\$18.1m of additions across the remaining exploration licences in the portfolio.

Total costs of US\$39.5m were incurred on the Nova field during the year. US\$25.9m are included in exploration and appraisal assets and a further US\$13.6m in development and producing assets after formal approval of the development plan was received.

Remaining development and producing asset additions in the year of US\$42.9m on Kraken and Catcher include the release of accruals for rig costs relating to Kraken of US\$23.0m following renegotiation of the rig contract early in 2018.

Impairment charge

At year end, Cairn has reviewed its exploration and appraisal and its development and producing assets for indicators of impairment and performed impairment tests where indicators were identified. With up to 18 months of performance history now available, the remaining oil and gas reserves and production profiles have been reassessed, resulting in an impairment charge of US\$166.3m arising on the UK Kraken asset. No impairment charge has been recognised in relation to the Catcher asset.

The Group's oil price assumptions remain based on the Brent forward curve for the first three years of the forecast period, followed by US\$70 per barrel long term. Sensitivity analysis included in the Financial Statements includes down-side oil price sensitivities across all development and producing assets and down-side production volume sensitivities run on the Kraken asset.

Results for the year – Other operating income and expense

Other operating income and costs, administrative expenses and net finance costs

	Year ended 31 December 2018 US\$m	Year ended 31 December 2017 US\$m
Pre-award costs	(25.4)	(43.8)
Net unsuccessful exploration costs	(48.2)	(60.7)
Administrative expenses and other income/costs	(49.9)	(30.3)
Related tax credits	41.1	25.4
Net operational and administrative expenses	(82.4)	(109.4)
Finance income net of provision	19.2	(27.7)
Finance costs	(37.8)	(10.4)
Net finance costs	(18.6)	(38.1)

Pre-award costs reflect the increase in Cairn's portfolio of assets, with further acreage added in the UK & Norway and new country entries agreed in Cote D'Ivoire, Mauritania and Suriname.

Unsuccessful exploration costs of US\$63.6m, primarily relating to the UK & Norway region, include costs written off on Tethys, Raudåsen and Ekland unsuccessful wells of US\$50.4m and US\$8.0m on the Sunbeam licence where the commitment for an exploration well has been transferred and no further exploration activities are planned. These were offset by a US\$15.4m credit following the release of accruals relating to relinquished licences in Morocco.

Higher administrative costs resulted principally from increased costs relating to the Indian tax arbitration, brought under the UK-India Bilateral Investment Treaty, for which the final hearings took place in The Hague during the year. Total costs, charged to the Income Statement, associated with the India tax arbitration were US\$22.9m and included legal fees for submissions and the hearings as well as associated costs (2017 Indian tax arbitration costs were US\$8.1m, principally relating to legal costs for pre-hearing submissions made in that year). Remaining administrative costs of US\$27.5m have increased by US\$2.9m year-on-year, giving total administrative costs of US\$50.4m for the year.

Finance income includes exchange gains in the current year of US\$17.2m. Finance costs in the period include loan interest and facility fees on the Group's RBL facility and Exploration Financing Facility of US\$24.4m and finance lease interest of US\$7.8m.

Related tax credits reflect Norwegian current tax refunds receivable on qualifying exploration and administrative expenses.

Gains and losses on Financial Asset – investment in Vedanta Limited

The sale of the Group's shares in Vedanta Limited in the year, instructed by the IITD, resulted in a loss on derecognition of US\$713.1m following seizure of the proceeds. The resulting tax liability on the sale, for which Cairn remains liable, has been sheltered by available losses. Cairn retains an immaterial shareholding in Vedanta Limited, with a value of US\$6.9m at 31 December 2018.

Dividends declared by Vedanta Limited and due to Cairn in the period of US\$67m, which were also seized by the IITD, are not recorded in the results for the year. Total dividends seized by the IITD are now US\$164.2m.

Following the adoption of IFRS 9 "Financial Instruments" Cairn's investment in Vedanta Limited is now classified as a financial asset at fair value through profit or loss and therefore all periodic fair value gains and losses are reflected through the Income Statement rather than other comprehensive income. In the current year, a fall in the market value of Vedanta Limited has resulted in a US\$352.2m charge to the Income Statement. Comparative results, including a 2017 full year gain of US\$449.1m, have been restated to reflect adoption of the new standard.

Under the UK-India Bilateral Investment Treaty, Cairn is seeking compensation for losses resulting from the seizure by India in 2014 of Cairn's investment in Cairn India Limited (which subsequently became the investment in Vedanta Limited).

Taxation

During 2018, Cairn made a UK ring fence profit in the period which was fully offset by brought forward losses. At 31 December 2018, Cairn had total UK ring fence losses of US\$928.3m. US\$810.3m of ring fence tax losses are recognised as deferred tax assets (at the applicable tax rate of 40%) to fully offset deferred tax liabilities of US\$243.1m. The remaining ring fence tax losses of US\$118.0m, available supplementary charge tax losses of US\$855.9m and the deferred tax impact of the decommissioning liability represent an unrecognised deferred tax asset of US\$168.0m at 31 December 2018.

A cash tax refund is receivable in Norway in respect of 78% of qualifying exploration and overhead spend. US\$32.8m of tax refunds are recorded for amounts receivable relating to the current period. Norwegian deferred tax liabilities at 31 December 2018 of US\$66.5m reflect timing differences on the carrying value of exploration assets where either a tax refund has been claimed or an uplift is available on capital spend.

The sale of the majority of the Group's interest in Vedanta Limited, instructed by the IITD, has not led to a taxable capital gain either in India or the UK at the price range achieved. The reduction in the Vedanta Limited shareholding, together with movements in the share price have led to a full reversal of US\$89.4m of the opening deferred tax liability in respect of the shareholding.

Glossary

bbbl	barrel of oil
bn	billion
boe	barrels of oil equivalent
boepd	barrels of oil equivalent per day
bopd	barrels of oil per day
ESIA	Environmental and Social Impact Assessment
FEED	front-end engineering design
FPSO	floating production storage and offloading facility
JV	joint venture
m	million
mmbbls	million barrels of oil
mmboe	million barrels of oil equivalent
RBL	Reserves Based Lending facility
WI	working interest

Cairn Energy PLC

Group Income Statement

For the year ended 31 December 2018

	Note	2018 US\$m	2017 (restated) US\$m
Continuing operations			
Revenue	2.1	410.3	33.3
Cost of sales	2.1	(131.4)	(5.9)
Depletion and amortisation	2.3	(171.2)	(20.8)
Gross profit		107.7	6.6
Pre-award costs		(25.4)	(43.8)
Unsuccessful exploration costs	2.2	(48.2)	(60.7)
Loss on disposal of intangible exploration/appraisal assets		(4.5)	-
Other operating income		5.0	2.4
Administrative expenses	4.2	(50.4)	(32.7)
(Impairment)/Reversal of impairment of property, plant & equipment - development/producing assets	2.3	(166.3)	23.0
Operating loss		(182.1)	(105.2)
Loss on derecognition of financial assets at fair value through profit or loss	3.1	(713.1)	(33.0)
(Loss)/Gain on financial assets at fair value through profit or loss	3.1	(352.2)	449.1
Finance income		19.2	77.0
Exceptional provision against finance income receivable		-	(104.7)
Finance costs		(37.8)	(10.4)
(Loss)/Profit before taxation from continuing operations		(1,266.0)	272.8
Taxation			
Tax credit/(charge)	5.2	130.5	(55.0)
(Loss)/Profit for the year attributable to equity holders of the Parent		(1,135.5)	217.8
(Loss)/Profit per ordinary share – basic (cents)		(195.59)	37.72
(Loss)/Profit per ordinary share – diluted (cents)		(195.59)	36.84

Group Statement of Comprehensive Income

For the year ended 31 December 2018

		2018 US\$m	2017 (restated) US\$m
(Loss)/Profit for the year		(1,135.5)	217.8
Other Comprehensive Income – items that may be recycled to the Income Statement			
Fair value on hedge options	3.6	36.1	(2.9)
Hedging loss recycled to the Income Statement	2.1	7.8	-
Currency translation differences		(15.6)	76.1
Other Comprehensive Income for the year		28.3	73.2
Total Comprehensive (Expense)/Income for the year attributable to equity holders of the Parent		(1,107.2)	291.0

Cairn Energy PLC

Group Balance Sheet

As at 31 December 2018

	Note	2018 US\$m	2017 (restated) US\$m
Non-current assets			
Intangible exploration/appraisal assets	2.2	595.1	619.4
Property, plant & equipment – development/producing assets	2.3	1,022.9	1,206.5
Intangible assets – goodwill		125.8	128.2
Other property, plant & equipment and intangible assets		7.9	10.8
Financial assets at fair value through profit or loss	3.1	-	1,072.2
Derivative financial instruments	3.6	7.7	-
		1,759.4	3,037.1
Current assets			
Inventory	2.1	8.2	10.4
Financial assets at fair value through profit or loss	3.1	6.9	-
Cash and cash equivalents	3.2	66.3	86.5
Trade and other receivables	3.5	91.2	83.1
Derivative financial instruments	3.6	36.7	-
Income tax asset	5.3	32.8	38.4
		242.1	218.4
Total assets		2,001.5	3,255.5
Current liabilities			
Loans and borrowings	3.3	26.2	29.8
Finance lease liability	3.4	18.5	1.5
Derivative financial instruments	3.6	-	1.4
Trade and other payables	3.7	103.1	197.8
Deferred revenue	3.8	22.0	24.3
Provisions – other		2.8	2.8
		172.6	257.6
Non-current liabilities			
Provisions – decommissioning	2.4	119.1	121.1
Loans and borrowings	3.3	75.5	-
Finance lease liability	3.4	146.9	168.2
Deferred revenue	3.8	30.8	49.7
Deferred tax liabilities	5.4	66.5	164.4
		438.8	503.4
Total liabilities		611.4	761.0
Net assets		1,390.1	2,494.5
Equity attributable to equity holders of the Parent			
Called-up share capital		12.6	12.5
Share premium		489.7	488.0
Shares held by ESOP/SIP Trusts		(19.6)	(10.2)
Foreign currency translation		(190.5)	(174.9)
Capital reserves – non-distributable		40.8	40.8
Merger reserve		255.9	255.9
Hedge reserve		41.0	(2.9)
Retained earnings		760.2	1,885.3
Total equity		1,390.1	2,494.5

Cairn Energy PLC

Group Statement of Cash Flows

For the year ended 31 December 2018

	Note	2018 US\$m	2017 (restated) US\$m
Cash flows from operating activities			
(Loss)/Profit before taxation from continuing operations		(1,266.0)	272.8
Adjustments for non-cash income and expense and non-operating cash flow:			
Release of deferred revenue		(21.2)	(3.0)
Unsuccessful exploration costs		48.2	60.7
Depreciation, depletion and amortisation		174.9	23.4
Share-based payments charge		14.7	17.5
Impairment/(Reversal of impairment) of property, plant & equipment - development/producing assets		166.3	(23.0)
Loss on derecognition of financial assets at fair value through profit or loss		713.1	33.0
Loss/(Gain) on financial assets at fair value through profit or loss		352.2	(449.1)
Loss on disposal of intangible exploration/appraisal assets		4.5	-
Finance income		(19.2)	(77.0)
Exceptional provision against finance income receivable		-	104.7
Finance costs		37.8	10.4
Adjustments for cash flow movements in assets and liabilities:			
Income tax refund received relating to operating activities	5.3	20.4	2.8
Inventory movement		2.2	(10.4)
Trade and other receivables movement	3.5	(41.6)	(10.5)
Trade and other payables movement	3.7	22.7	2.5
Deferred revenue received	3.8	-	74.6
Net cash flows from operating activities		209.0	29.4
Cash flows from investing activities			
Expenditure on intangible exploration/appraisal assets	2.2	(188.0)	(186.6)
Expenditure on property, plant & equipment - development/producing assets	2.3	(109.5)	(145.6)
Proceeds on disposal of intangible exploration/appraisal assets		3.6	-
Income tax refund received relating to investing activities	5.3	16.4	27.6
Purchase of other property, plant & equipment and intangible assets		(2.9)	(7.9)
Interest received and other finance income		2.0	15.3
Net cash flows used in investing activities		(278.4)	(297.2)
Cash flows from financing activities			
Debt arrangement fees	3.3	(10.4)	-
Other interest and charges		(12.6)	(8.9)
Proceeds from borrowings	3.3	117.4	29.2
Repayment of borrowings	3.3	(31.2)	-
Proceeds from issue of shares		1.7	-
Cost of shares purchased		(13.6)	(3.9)
Finance lease payments	3.4	(7.4)	-
Finance lease reimbursements	3.4	4.7	1.4
Net cash flows from financing activities		48.6	17.8
Net decrease in cash and cash equivalents		(20.8)	(250.0)
Opening cash and cash equivalents at beginning of year		86.5	334.9
Foreign exchange differences		0.6	1.6
Closing cash and cash equivalents	3.2	66.3	86.5

Cairn Energy PLC

Group Statement of Changes in Equity

For the year ended 31 December 2018

	Equity share capital and share premium US\$m	Shares held by ESOP/ SIP Trusts US\$m	Foreign currency translation US\$m	Merger and capital reserves US\$m	Hedge reserve (restated) US\$m	Available- for-sale reserve (restated) US\$m	Retained earnings (restated) US\$m	Total equity US\$m
At 1 January 2017	500.4	(10.2)	(250.1)	296.7	-	272.1	1,381.0	2,189.9
Change in accounting policy*	-	-	-	-	-	(272.1)	272.1	-
At 1 January 2017 (restated)*	500.4	(10.2)	(250.1)	296.7	-	-	1,653.1	2,189.9
Profit for the year	-	-	-	-	-	-	217.8	217.8
Fair value on hedge options	-	-	-	-	(2.9)	-	-	(2.9)
Currency translation differences recycled on disposal of subsidiary	-	-	(0.9)	-	-	-	0.9	-
Currency translation differences	-	-	76.1	-	-	-	-	76.1
Total comprehensive income	-	-	75.2	-	(2.9)	-	218.7	291.0
Share-based payments	-	-	-	-	-	-	17.5	17.5
Shares issued for cash	0.1	(0.1)	-	-	-	-	-	-
Cost of shares purchased	-	(3.9)	-	-	-	-	-	(3.9)
Cost of shares vesting	-	4.0	-	-	-	-	(4.0)	-
At 31 December 2017 (restated)*	500.5	(10.2)	(174.9)	296.7	(2.9)	-	1,885.3	2,494.5
Loss for the year	-	-	-	-	-	-	(1,135.5)	(1,135.5)
Fair value on hedge options	-	-	-	-	36.1	-	-	36.1
Hedging loss recycled to the Income Statement	-	-	-	-	7.8	-	-	7.8
Currency translation differences	-	-	(15.6)	-	-	-	-	(15.6)
Total comprehensive expense	-	-	(15.6)	-	43.9	-	(1,135.5)	(1,107.2)
Share-based payments	-	-	-	-	-	-	14.7	14.7
Shares issued for cash	0.1	(0.1)	-	-	-	-	-	-
Cost of shares purchased	-	(13.6)	-	-	-	-	-	(13.6)
Exercise of employee share options	1.7	-	-	-	-	-	-	1.7
Cost of shares vesting	-	4.3	-	-	-	-	(4.3)	-
At 31 December 2018	502.3	(19.6)	(190.5)	296.7	41.0	-	760.2	1,390.1

* See notes 1.1b and 1.3 for details of changes in accounting policy as a result of the adoption of IFRS 9.

Section 1 – Basis of Preparation

1.1 Significant Accounting Policies

a) Basis of preparation

Cairn prepares its Financial Statements on a historical cost basis, unless accounting standards require an alternate measurement basis. Where there are assets and liabilities calculated on a different basis, this fact is disclosed either in the relevant accounting policy or in the notes to the Financial Statements. The Financial Statements comply with the Companies Act 2006 as applicable to companies using International Financial Reporting Standards ('IFRS').

The financial information contained in this announcement does not constitute statutory accounts as defined in Section 434 of the Companies Act 2006. However, the Financial Statements contained in this announcement are extracted from audited statutory accounts for the financial year ended 31 December 2018, which will be delivered to the Registrar of Companies. Those accounts have an unqualified audit opinion.

The Group's Financial Statements are prepared on a going concern basis.

b) Accounting standards

Cairn prepares its Financial Statements in accordance with applicable IFRS, issued by the International Accounting Standards Board ('IASB') as adopted by the EU, and interpretations issued by the International Financial Reporting Interpretations Committee ('IFRIC'), and Companies Act 2006 applicable to companies reporting under IFRS. The Group's Financial Statements are also consistent with IFRS as issued by the IASB as they apply to accounting periods ended 31 December 2018.

Effective 1 January 2018, Cairn has adopted the following amendments to standards:

- Amendments to IAS 28 'Investments in Associates and Joint Ventures'
- Amendments to IFRS 2 'Share Based Payments'
- IFRS 9 'Financial Instruments'
- IFRS 15 'Revenue from Contracts with Customers'

In addition, Cairn has early adopted the following interpretation issued by IFRIC:

- IFRIC 23 'Uncertainty over Income Tax Treatments'

The following standard, issued by the IASB and endorsed by the EU has yet to be adopted by the Group:

- IFRS 16 'Leases' (effective 1 January 2019)

IFRS 9 'Financial Instruments'

The adoption of IFRS 9 'Financial Instruments' on 1 January 2018 resulted in the re-classification of the Group's available-for-sale financial assets as financial assets held at fair value through profit or loss. Fair value gains and losses on the financial assets are now reflected through the Income Statement rather than Other Comprehensive Income. IFRS 9 also required the change in fair value relating to the time value of an option, designated for hedge accounting, to be recorded in Other Comprehensive Income; previously Cairn had recorded such movements through the Income Statement. Both these changes have been applied fully retrospectively and result in the restatement of comparative information, details of which can be found in note 1.3.

Other standards and amendments effective 1 January 2018

The other changes to IFRS effective 1 January 2018, including the adoption of IFRS 15 'Revenue from Contracts with Customers', have no significant impact on Cairn's Financial Statements. Relevant accounting policies have been reviewed and updated to reflect adoption of IFRS 15 but given that Cairn's customers are clearly identified, the performance obligations easily identifiable and the price readily determinable, the changes to policies have no impact on the resulting accounting.

IFRIC 23 'Uncertainty over Income Tax Treatments'

Cairn has chosen to adopt IFRIC 23 in advance of its effective date of 1 January 2019. This interpretation provides guidance on how uncertain tax treatments should be addressed and requires an entity to assess the probability of an uncertain tax position being accepted by the relevant taxation authority. The interpretation has been applied in calculating Cairn's unused tax losses disclosed in the notes to the Financial Statements. The prior year impact of adoption is not material and comparative disclosure has not been amended.

IFRS 16 'Leases'

IFRS 16 introduces a single lessee accounting model and requires a lessee to recognise assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. A lessee is required to recognise a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments.

Section 1 – Basis of Preparation (continued)

1.1 Significant Accounting Policies (continued)

b) Accounting standards (continued)

In assessing the impact of IFRS 16, Cairn has identified the following assets where right-of-use assets and lease liabilities will be recognised on adoption:

- Accounting for the FPSO on the UK Catcher development/producing asset; and
- Accounting for non-cancellable leases of the Group's office premises in Edinburgh, London, Stavanger and Mexico City.

All other leases are either for periods of less than one year or have less than one year remaining on the date of adoption or are for low-value items which have no material impact on the Group's Financial Statements. Additional disclosure will be provided in the 2019 Financial Statements relating to these leases where material.

The Catcher FPSO is classified as an operating lease under the current accounting standard. Under IFRS 16 Cairn will recognise a right-of-use asset and lease liability for the vessel based on the minimum lease commitment over the expected charter period. On initial adoption of IFRS 16, Cairn will recognise a lease liability of US\$147.5m and a corresponding right-of-use asset. Forecast minimum lease payments of US\$33.9m in 2019 will reduce the lease liability rather than be charged against profit as a lease charge. Forecast finance lease interest charges on the Catcher FPSO for 2019 are US\$7.2m. Variable lease charges in excess of the minimum commitment will continue to be charged against profit. The right-of-use asset will be amortised on a unit-of-production basis consistent with the Group's other development/producing assets. In the Cash Flow Statement, minimum lease payments relating to the Catcher FPSO will be classified as financing cash flows; currently they are included in operating cash flows. Variable lease payments shall remain in operating cash flows.

There is no change in accounting for the Kraken FPSO which is currently accounted for as a finance lease.

The Group's leasehold property will be measured based on the lease liability remaining on adoption of IFRS 16. The Group expects to recognise lease liabilities of US\$10.0m and corresponding right-of-use assets for the same amount. The assets will be amortised on a straight-line basis over the remaining life of the lease. Again, cash flows will be re-classified as financing rather than operating cash flows.

Cairn are continuing to assess accounting for leases held through joint operations, particularly where the operator enters into a lease agreement on behalf of the joint operation but where the joint operators are not direct parties to the lease agreement. Assessing whether such contracts will be treated as a lease by Cairn, as a non-operator, is likely to be highly judgemental with assumptions and other considerations based on the right of substitution by the operator and the reasonable certainty of leases being extended beyond an initial period.

Details of current finance leases can be found in note 3.4, while current operating lease commitments are disclosed in notes 2.1, 2.5 and 4.2 as they relate to operating costs, intangible exploration/appraisal assets and property, plant & equipment – development/producing assets, and administrative expenses respectively. A reconciliation of operating lease commitments at 31 December 2018 to the opening lease liabilities on adoption of IFRS 16 is as follows:

	Production costs US\$m	Exploration/ Appraisal assets US\$m	Development/ Producing assets US\$m	Administrative expenses US\$m	Total US\$m
Operating lease commitments	171.6	21.2	13.4	11.5	217.7
Attributable to:					
Leases yet to commence	-	(20.7)	(9.5)	-	(30.2)
Short-term leases	-	(0.5)	(3.9)	-	(4.4)
Lease of low value items	-	-	-	(0.3)	(0.3)
Gross lease liability	171.6	-	-	11.2	182.8
Interest implicit in lease	(24.1)	-	-	(1.2)	(25.3)
Opening lease liability	147.5	-	-	10.0	157.5

Section 1 – Basis of Preparation (continued)

1.1 Significant Accounting Policies (continued)

c) Annual report and accounts

Full accounts are due to be made available on the Company's website in April 2019 and will be available at the Company's registered office, 50 Lothian Road, Edinburgh, EH3 9BY. The Annual General Meeting is due to be held on Friday 17 May 2019 at 12 midday.

1.2 Going Concern

The Directors have considered the factors relevant to support a statement of going concern.

In assessing whether the going concern assumption is appropriate, the Board and Audit Committee considered the Group cash flow forecasts under various scenarios, identifying risks and mitigants and ensuring the Group has sufficient funding to meet its current commitments as and when they fall due for a period of at least 12 months from the date of signing these Financial Statements.

The Directors have a reasonable expectation that the Group will continue in operational existence for this 12-month period and have therefore used the going concern basis in preparing the Financial Statements.

Section 1 – Basis of Preparation (continued)

1.3 Restatement of Comparative Financial Statements on Adoption of IFRS 9

Year ended 31 December 2017	Issued Financial Statements US\$m	IFRS 9 restatement – financial assets US\$m	IFRS 9 restatement – hedge options US\$m	Restated 31 December 2017 US\$m
Income Statement				
(Loss)/Gain on derecognition of financial assets	402.6	(435.6)	-	(33.0)
Gain on fair value of financial assets	-	449.1	-	449.1
Finance costs	(13.3)	-	2.9	(10.4)
Profit before taxation from continuing operations	256.4	13.5	2.9	272.8
Tax credit/(charge)	6.7	(61.7)	-	(55.0)
Profit for the year attributable to equity holders of the Parent	263.1	(48.2)	2.9	217.8
Profit per ordinary shares – basic (cents)	45.58	(8.37)	0.51	37.72
Profit per ordinary shares – diluted (cents)	44.52	(8.17)	0.49	36.84
Group Statement of Comprehensive Income				
Profit for the year	263.1	(48.2)	2.9	217.8
Surplus on valuation of financial assets	449.1	(449.1)	-	-
Deferred tax charge on valuation of financial assets	(96.5)	96.5	-	-
Surplus on valuation recycled to the Income Statement	(435.6)	435.6	-	-
Deferred tax charge on surplus on valuation recycled to the Income Statement	34.8	(34.8)	-	-
Fair value on hedge options	-	-	(2.9)	(2.9)
Other Comprehensive (Expense)/Income for the year	27.9	48.2	(2.9)	73.2
Total Comprehensive Income for the year	291.0	-	-	291.0
Balance Sheet				
Hedge reserve	-	-	(2.9)	(2.9)
Available-for-sale reserve	223.9	(223.9)	-	-
Retained earnings	1,658.5	223.9	2.9	1,885.3
Total equity	2,494.5	-	-	2,494.5
Opening balances at 1 January 2017				
	Issued Financial Statements US\$m	IFRS 9 restatement – financial assets US\$m	IFRS 9 restatement – hedge options US\$m	Restated 1 January 2017 US\$m
Balance Sheet				
Available-for-sale reserve	272.1	(272.1)	-	-
Retained earnings	1,381.0	272.1	-	1,653.1
Total equity	2,189.9	-	-	2,189.9

At 1 January 2017, the opening available-for-sale reserve has been transferred to retained earnings following the change in accounting policy for financial assets. The adoption of IFRS 9 has no other impact on the assets or liabilities recorded and presented in the Group's 2016 year end Balance Sheet.

Section 2 – Oil and Gas Assets and Operations

2.1 Gross Profit: Revenue and Cost of Sales

	2018 US\$m	2017 US\$m
Oil sales	393.2	19.9
Gas sales	2.5	-
Loss on hedge options	(7.8)	-
Release of deferred revenue (see note 3.8)	21.2	3.0
Revenue from oil and gas sales	409.1	22.9
Royalty income	1.2	10.4
Revenue	410.3	33.3
Production and other costs	(64.2)	(15.3)
Oil inventory and underlift adjustment	(7.7)	16.4
Variable and operating lease charges	(59.5)	(7.0)
Cost of sales	(131.4)	(5.9)
Depletion and amortisation (see note 2.3)	(171.2)	(20.8)
Gross profit	107.7	6.6

Revenue

Cairn receives revenue from its producing assets in the UK North Sea, Kraken and Catcher. Both assets commenced production during 2017. On Kraken, where only oil is sold, Cairn takes a full lifting of crude on a scheduled basis to reflect the Group's working interest. On Catcher, Cairn receives its working interest percentage share of each lifting of crude and the Group's working interest share of gas sales. Payment terms are within 30 days.

Sales volumes during the year averaged ~16,000 boepd for the two assets combined, realising an average sales price of US\$67.99/bbl.

Commodity price hedging

During 2018, Cairn realised losses on hedge options of US\$8.0m through the first 10 months of the year as the oil price exceeded the ceiling on several hedge contracts. This was offset by gains of US\$0.2m as the oil price fell back in November and December below the US\$60/bbl floor on one hedging contract. Hedging losses are recycled to the Income Statement from Other Comprehensive Income when the option matures.

Details on the Group's hedging position at 31 December can be found in note 3.6.

Cost of sales

Inventory of oil held at the year end is recorded at a market value of US\$8.2m (2017: US\$10.4m). Underlift adjustments on Kraken production volumes were US\$0.1m (2017: US\$5.6m) at 31 December 2018. Variable finance lease costs on the Kraken FPSO of US\$22.7m (2017: US\$6.0m), see note 3.4, are charged to the Income Statement with US\$36.8m (2017: US\$1.0m) of operating lease charges on the Catcher FPSO.

Operating lease commitment

At the year end, Cairn had the following operating lease commitment relating to the Catcher FPSO:

	2018 US\$m	2017 US\$m
Production costs – operating lease charges		
Not later than one year	33.9	33.9
After one year but no more than five years	114.7	124.0
After five years	23.0	47.4
	171.6	205.3

Following adoption of IFRS 16 on 1 January 2019, accounting for the Catcher FPSO will change with a lease liability and right-of-use asset being recorded on the Balance Sheet. See note 1b for further detail.

Section 2 – Oil and Gas Assets and Operations (continued)

2.2 Intangible Exploration/Appraisal Assets

	Senegal US\$m	UK & Norway US\$m	International US\$m	Total US\$m
Cost				
At 1 January 2017	330.3	172.6	32.7	535.6
Foreign exchange	-	12.0	0.7	12.7
Additions	104.2	33.7	63.1	201.0
Unsuccessful exploration costs	-	(8.1)	(59.1)	(67.2)
At 31 December 2017	434.5	210.2	37.4	682.1
Foreign exchange	-	(0.6)	-	(0.6)
Additions	28.5	102.2	17.7	148.4
Disposals	-	(8.2)	-	(8.2)
Transfer to development/ producing assets	-	(115.7)	-	(115.7)
Unsuccessful exploration costs	-	(62.6)	14.4	(48.2)
At 31 December 2018	463.0	125.3	69.5	657.8
Impairment				
At 1 January 2017	-	43.9	20.4	64.3
Foreign exchange	-	4.2	0.7	4.9
Unsuccessful exploration costs	-	-	(6.5)	(6.5)
At 31 December 2017 and 2018	-	48.1	14.6	62.7
Net book value				
At 31 December 2016	330.3	128.7	12.3	471.3
At 31 December 2017	434.5	162.1	22.8	619.4
At 31 December 2018	463.0	77.2	54.9	595.1

Senegal

All costs relating to Cairn's exploration and appraisal drilling in Senegal remain capitalised within intangible exploration/appraisal assets pending the Final Investment Decision expected during 2019.

Additions in the year, all funded through cash and working capital, include US\$24.3m on exploitation and pre-development costs, with the remaining US\$4.2m relating to exploration activities. The phased Field Development and Exploitation Plan has been submitted to the Government of Senegal, with first production targeted in 2022. Woodside have assumed the role of development operator as planned.

UK & Norway

In October 2018 approval was received, from the Norwegian Ministry of Petroleum and Energy, for the development and operation plan ('PDO') for the Nova development. Costs of US\$115.7m were transferred from intangible exploration/appraisal assets to property, plant & equipment – development/producing assets during the year.

Additions in the current year of US\$102.2m include US\$25.9m incurred on Nova pre-development activities prior to re-classification as a development asset. Well costs incurred in the year were US\$18.2m for the P1863 Agar-Plantain well and US\$16.7m for the P2184 Ekland well in the UK North Sea. In the Norwegian North Sea US\$17.1m was incurred for the PL682 Tethys well and US\$6.2m for the PL790 Raudåsen well. Further costs of US\$18.1m were incurred across the Group's other licences in the UK & Norway region. Total additions funded through cash and working capital were US\$104.9m, offset by a release of US\$2.7m of provisions for well abandonment costs.

The Tethys, Ekland and Raudåsen wells were unsuccessful and related costs of US\$27.5m, US\$14.6m and US\$8.3m respectively were charged to the Income Statement in 2018. Remaining unsuccessful costs of US\$12.2m include US\$8.0m relating to the P2077 Sunbeam licence where the well commitment has been transferred and the joint operators plan to relinquish.

Portfolio turnover in the UK & Norway during the year has resulted in the addition of three new licences in Norway, with three relinquished and one disposed of; and six new licences in the UK, with two relinquished. Cairn has also entered into a farm-out agreement for a 40% non-operated interest in Licence P2312 containing the Chimera prospect. This is conditional upon regulatory consent.

The net book value of exploration/appraisal assets remaining capitalised at the year end of US\$77.2m includes costs of US\$35.9m relating to discovered resource across two fields: the current year Agar discovery (US\$18.2m) and the Laverda discovery (US\$17.7m), both in the UK North Sea. The remaining US\$41.3m of costs have been incurred across further exploration licences in the UK and Norwegian North Sea, the Norwegian Sea and the Barents Sea.

Section 2 – Oil and Gas Assets and Operations (continued)

2.2 Intangible Exploration/Appraisal Assets (continued)

International

All additions in the year were funded through cash and working capital.

Ireland

During 2018 exploration additions of US\$6.1m were incurred principally across two licences; LO16/18 and LO16/19. Unsuccessful costs of US\$0.9m were incurred on other licences in Ireland. Total costs capitalised at the year end were US\$14.8m.

Mexico

Three exploration wells are planned in shallow water in the Gulf of Mexico commencing in the second half of 2019. Two wells are planned in Block 9, with costs of US\$11.9m incurred in 2018. The third well is planned to be drilled in Block 7, with costs of US\$3.4m incurred during the year. A further US\$2.6m was incurred on Block 15 during 2018. Total costs capitalised in Mexico were US\$31.0m at the balance sheet date.

Western Sahara

Following the close out of licences, remaining accruals for US\$15.4m have been released and are credited against additions and reverse prior-years' unsuccessful exploration costs charges. No costs remain capitalised.

Others

The remaining additions and carrying value within International assets of US\$9.1m relates to licence acquisition and seismic costs on new licences.

Impairment review

At the year end, Cairn reviewed its intangible exploration/appraisal assets for indicators of impairment. Indicators were identified where future exploration plans remain uncertain or where the carrying value of assets relating to discovered resource may not be fully recovered through future development and production. Subsequent impairment tests performed did not identify any impairment.

2.3 Property, Plant & Equipment – Development/Producing Assets

	UK & Norway US\$m	UK & Norway leased asset US\$m	Total US\$m
Cost			
At 1 January 2017	756.1	-	756.1
Foreign exchange	81.6	8.9	90.5
Additions	212.5	204.9	417.4
Re-measurement of right-of-use leased asset	-	(36.4)	(36.4)
At 31 December 2017	1,050.2	177.4	1,227.6
Foreign exchange	(6.8)	-	(6.8)
Additions	56.5	-	56.5
Transfer from exploration/appraisal assets	115.7	-	115.7
Re-measurement of right-of-use leased asset	-	(11.5)	(11.5)
At 31 December 2018	1,215.6	165.9	1,381.5
Depletion, amortisation and impairment			
At 1 January 2017	21.0	-	21.0
Foreign exchange	2.2	0.1	2.3
Depletion and amortisation	17.4	3.4	20.8
Reversal of impairment	(23.0)	-	(23.0)
At 31 December 2017	17.6	3.5	21.1
Depletion and amortisation	153.0	18.2	171.2
Impairment charge	166.3	-	166.3
At 31 December 2018	336.9	21.7	358.6
Net book value			
At 31 December 2016	735.1	-	735.1
At 31 December 2017	1,032.6	173.9	1,206.5
At 31 December 2018	878.7	144.2	1,022.9

Section 2 – Oil and Gas Assets and Operations (continued)

2.3 Property, Plant & Equipment – Development/Producing Assets (continued)

Exploration/appraisal costs relating to Nova were transferred to development assets after testing for impairment – see note 2.2. During Q4 further development costs of US\$13.6m were incurred in relation to the field.

The UK Kraken and Catcher fields ramped up production during 2018 with gross production of 30,300 and 43,000 boepd respectively. Combined depletion charges for the year were US\$153.0m (2017: US\$17.4m).

Kraken additions represent development activity spend of US\$31.8m (2017: US\$100.0m), all funded through cash and working capital, which was offset by a US\$23.0m reversal of accruals following the successful renegotiation of the development drilling rig contract. During 2017, there was a further US\$9.6m of non-cash decommissioning asset increases. The decommissioning asset remains unchanged in 2018.

On Catcher, additions funded through cash and working capital during the year were US\$28.8m (2017: US\$83.9m) with further non-cash additions of US\$5.3m (2017: US\$19.0m) relating to the increase in the Catcher decommissioning asset.

Leased assets

During 2017, US\$200.8m, the net present value of future minimum lease payments was recorded on the Balance Sheet for the Kraken FPSO, as a right-of-use producing asset. Further additions in 2017 of US\$4.1m represent the recognition of a decommissioning asset associated with the FPSO. Subsequent to initial recognition, the lease agreement was amended which reduced the finance lease liability by US\$36.4m and a corresponding reduction to the leased production asset.

In the second half of 2018, the lease agreement was further amended resulting in a reduction of the lease liability and right-of-use asset by US\$11.5m – see note 3.4.

Amortisation of US\$18.2m (2017: US\$3.4m) was charged against the FPSO in the year.

Impairment review

At the year end, impairment tests were conducted on the Group's UK & Norway development/producing assets, resulting in an impairment charge of US\$166.3m on the UK Kraken producing asset. No impairment arose on either Catcher or Nova. Sensitivity analysis on the Group's impairment charge can be found in note 2.6. The impairment on Kraken reflects performance of the field to the balance sheet date that is below expectations and has led to a reserves downgrade at the year end.

During 2017, impairments of US\$23.0m were reversed due to an increase in the volume of oil reserves estimated to be recoverable through production on Catcher. All previous impairments recorded on the Catcher development/producing asset have been fully reversed.

2.4 Provisions – Decommissioning

	Exploration well abandonment US\$m	Development/ producing assets US\$m	Total US\$m
At 1 January 2017	5.3	74.3	79.6
Foreign exchange	0.4	7.7	8.1
Unwinding of discount	-	2.2	2.2
(Released)/Provided in the year	(1.5)	32.7	31.2
At 31 December 2017	4.2	116.9	121.1
Foreign exchange	(0.2)	(6.7)	(6.9)
Unwinding of discount	-	2.3	2.3
(Released)/Provided in the year	(2.7)	5.3	2.6
At 31 December 2018	1.3	117.8	119.1

The decommissioning provisions represent the present value of decommissioning costs related to the Kraken and Catcher development/producing assets. The provisions are based on operator cost estimates, subject to internal review and amendment where considered necessary and are calculated using assumptions based on existing technology and the current economic environment, with a discount rate of 2% per annum (2017: 2%). The reasonableness of these assumptions is reviewed at each reporting date to take into account any material changes required. No provision is required at the year end for development activities undertaken on Nova.

The decommissioning provisions represent management's best estimate of the obligation arising based on work undertaken at the balance sheet date. Actual decommissioning costs will depend upon the prevailing market conditions for the work required at the relevant time.

Section 2 – Oil and Gas Assets and Operations (continued)

2.4 Provisions – Decommissioning (continued)

During the year, the decommissioning estimate for Catcher increased by US\$5.3m. The Kraken decommissioning estimate remained unchanged.

The decommissioning of the Group's development/producing assets is forecast to occur between 2026 and 2040.

2.5 Capital Commitments

	31 December 2018 US\$m	31 December 2017 US\$m
Oil and gas expenditure:		
Intangible exploration/appraisal assets	146.1	63.2
Property, plant & equipment – development/producing assets	80.1	120.8
Contracted for	226.2	184.0

Capital commitments represent Cairn's share of obligations in relation to its interests in joint operations. These commitments include Cairn's share of the capital commitments of the joint operations themselves.

The capital commitments for intangible exploration/appraisal assets include US\$35.5m for operations in the UK & Norway. The remaining US\$110.6m includes US\$38.7m of commitments in Senegal and US\$71.9m on International assets, predominantly relating to Mexico.

The capital commitments for property, plant & equipment – development/producing assets relate principally to Nova and exclude the costs of the Kraken FPSO finance lease obligations, which are disclosed in note 3.4.

Cairn enters into operating leases both at a corporate level and together with partners through its interests in joint operations. Operating lease costs for items directly attributable to oil and gas exploration and development activities, such as drilling rigs, are capitalised within intangible exploration/appraisal assets or property, plant & equipment – development/producing assets as appropriate.

At the year end, Cairn had the following operating lease commitments relating to oil and gas exploration, appraisal and development activities including commitments for leases that are yet to commence. These amounts are also included in total capital commitments above and exclude operating lease commitments relating to producing activities.

	31 December 2018 US\$m	31 December 2017 US\$m
Intangible exploration/appraisal assets		
Not later than one year	20.3	3.1
After one year but no more than five years	0.9	-
	21.2	3.1
Property, plant & equipment – development/producing assets		
Not later than one year	3.9	34.5
After one year but no more than five years	9.5	10.3
	13.4	44.8

The Group has no further material capital expenditure committed at the balance sheet date.

Section 2 – Oil and Gas Assets and Operations (continued)

2.6 Impairment Testing Sensitivity Analysis

UK & Norway

At 31 December 2018, impairment tests were conducted on the Group's development/producing assets, on goodwill and on certain exploration/appraisal assets where indicators of impairment were identified.

The recoverable amount for all assets is based on fair value less costs of disposal estimated using discounted cash flow modelling. The key assumptions used in determining the fair value are often subjective, such as the future long-term oil price assumption, or the operational performance of the assets. With Cairn's two North Sea producing assets completing their first full year of production, reserve estimates have been updated to reflect the performance of fields to the balance sheet date, which have either been in line or exceeded pre-drill estimates for the Catcher asset but have been below expectations for the Kraken asset where performance issues with the FPSO have led to lower than expected daily production volumes. Following a downgrade of recoverable reserves in place at the year end, an impairment charge has been recorded on the Kraken asset of US\$166.3m.

Cairn has run sensitivities on its long-term oil price assumption of US\$70/boe, using alternate long-term price assumptions of US\$65/boe and US\$60/boe and a long-term assumption equal to the forward curve price at the end of the Group's three-year short-term assumption period (US\$66.3/boe). These are considered to be reasonably possible changes for the purposes of sensitivity analysis.

There was no impairment of the Group's exploration/appraisal assets under any of the sensitivities run. The impact of these changes on the impairment recorded on the Group's development/producing assets together with the impairment that would arise on goodwill at the balance sheet date is summarised below:

Reduction in long-term oil price assumption to:	Forward Curve US\$m	US\$65 US\$m	US\$60 US\$m
Impairment of development/producing assets	(205.9)	(218.6)	(272.7)
Impairment of goodwill	(18.5)	(23.0)	(42.6)
Total impairment	(224.4)	(241.6)	(315.3)

All impairment arising on development/producing asset sensitivities relates to the Kraken asset and the numbers above would replace the current impairment charge of US\$166.3m.

The Group's proved and probable and contingent reserve estimates are based on P50 probabilities. P10 and P90 estimates are also produced but would not provide a reasonable estimate to be used in calculating the fair value of the Group's assets. The reserve estimates are incorporated into production profiles which include assumptions on the performance of the asset. Cairn's current assumptions imply a maximum uptime for producing assets of 85%-90%.

Further sensitivity analysis was performed on the Kraken asset reducing forecast production volumes and associated operating costs by 5% and 10%, as an approximation of a reduction in the uptime of the asset, which are seen as reasonably possible alternatives. With this reduced production, the following impairment charges would arise on development/producing assets (no impairment arises on goodwill):

Reduction in production volumes:	5% reduction in production US\$m	10% reduction in production US\$m
Impairment of development/producing assets	(219.9)	(271.3)

No sensitivities have been performed on Catcher production volumes where performance has been either in line or ahead of expectations. Therefore there is no evidence to suggest that reduced production levels would be a reasonably possible alternative assumption to apply.

Senegal

The Group's exploration assets in Senegal have been tested for impairment as a single cash generating unit. No impairment was recorded. Downside sensitivity analysis performed on reasonably possible changes in assumptions, including the Group's oil price assumption using the sensitivities above, did not identify any impairment.

Section 3 – Financial Assets, Working Capital and Long-term Liabilities

3.1 Financial Assets at Fair Value through Profit or Loss

	Listed equity shares US\$m	7.5% Redeemable preference shares of INR10 US\$m	Total US\$m
Fair value			
At 1 January 2017	656.1	-	656.1
Surplus on valuation of Cairn India Limited shares prior to merger	163.6	-	163.6
Disposal of shares in Cairn India Limited on merger	(819.7)	-	(819.7)
Addition of shares in Vedanta Limited on merger	671.8	114.9	786.7
Surplus on valuation of Vedanta Limited shares after merger	279.7	5.8	285.5
	951.5	120.7	1,072.2
At 31 December 2017			
Deficit on valuation of Vedanta Limited shares	(335.8)	(16.4)	(352.2)
Derecognition of shares in Vedanta Limited	(608.8)	(104.3)	(713.1)
	6.9	-	6.9
At 31 December 2018	6.9	-	6.9

Following adoption of IFRS 9 on 1 January 2018, fair value movements during the period are recognised in the Income Statement and comparative information has been restated accordingly, see note 1.3. There is no change to the valuation of the asset following the adoption of IFRS 9.

In April 2017, Cairn India Limited underwent a merger with Vedanta Limited as a result of which the Group held both equity shares and redeemable preference shares in Vedanta Limited. Prior to that date the Group held a 9.8% stake in Cairn India Limited via equity shares, the market value of which at the time of the merger was US\$819.7m. The market value of the Vedanta shares on the merger date was US\$786.7m, resulting in a loss on derecognition of financial assets of US\$33.0m.

Between May and October 2018 the IITD instructed sales of 99% of Cairn's equity shareholding in Vedanta Limited and seized the proceeds of US\$608.8m. Shares were sold in multiple transactions at prices ranging from INR 286.83 (US\$4.25) per share down to INR 229.68 (US\$3.23) per share. The IITD also seized the proceeds of US\$104.3m on the redemption of the preference shares in October 2018. Cairn is currently restricted from selling its remaining shares in Vedanta Limited. See note 5.5.

The remaining listed equity shares held at 31 December 2018 in the ordinary share capital of Vedanta Limited, listed in India, have by their nature no fixed maturity or coupon rate. These listed equity securities present the Group with an opportunity for return through dividend income and trading gains and are Level 1 assets measured at fair value.

3.2 Cash and Cash Equivalents

	31 December 2018 US\$m	31 December 2017 US\$m
Cash at bank	9.1	24.7
Money market funds	57.2	19.5
Short-term bank deposits	-	24.0
Tri-party repurchase transactions	-	18.3
Cash and cash equivalents	66.3	86.5

Cash and cash equivalents earn interest at floating rates. Short-term investments are made for varying periods ranging from instant access to unlimited, but generally not more than three months depending on the cash requirements of the Group.

Cairn invests surplus funds into high-quality liquid investments, including money market funds, short-term bank deposits and tri-party repurchase transactions ('repos'). Cairn limits the placing of such funds and other investments to banks or financial institutions that have ratings of A- or above from at least two of Moody's, Standard & Poor's or Fitch, unless a sovereign guarantee is available from a AAA-rated government. The counterparty limits vary between US\$50.0m and US\$200.0m depending on the ratings of the counterparty. No investments are placed with any counterparty with a five-year credit default swap exceeding 250 bps. Investments in money market liquidity funds are only made with AAA rated liquidity funds and the maximum holding in any single fund is 5% of total investments. Where investments are made in repos, collateral is fixed income debt securities with a minimum rating of BBB- which is managed by Euroclear. No adjustment is made to the counterparty credit rating to reflect the collateral held when assessing investment options. The Group's Treasury function manages the credit risk associated with such investments.

Section 3 – Financial Assets, Working Capital and Long-term Liabilities (continued)

3.3 Loans and Borrowings

Cairn has two loan facilities at the year end; the Reserve-Based Lending ('RBL') facility available to several Group companies and the Norwegian Exploration Finance Facility ('EFF').

	2018 US\$m	2017 US\$m
Reconciliation of opening and closing liabilities to cash flow movements:		
Opening liability	29.8	-
Loans advanced recognised in the Cash Flow Statement:		
RBL advances in the year	85.0	-
EFF advances in the year	32.4	29.2
	117.4	29.2
Loans repaid recognised in the Cash Flow Statement:		
EFF repayments in the year	(31.2)	-
	(31.2)	-
Debt arrangement fees	(10.4)	-
Foreign exchange differences	(3.9)	0.6
Closing liabilities	101.7	29.8
Amounts due less than one year:		
Exploration Financing Facility	26.2	29.8
Amounts due greater than one year:		
Reserve-Based Lending facility	75.5	-
	101.7	29.8

Debt arrangement fees relate to both the RBL (US\$9.5m) and the EFF (US\$0.9m). Foreign exchange differences related entirely to the EFF.

RBL

The Group's RBL facility had cash drawings of US\$85.0m at 31 December 2018, all advanced in the year.

Cairn has signed an extension to its existing RBL facility with a syndicate of international banks. The extension became effective on 20 December 2018 and brought the Nova asset into the borrowing base. Interest on outstanding debt is charged at the appropriate LIBOR for the currency drawn plus an applicable margin. The facility remains subject to bi-annual redeterminations, has a market standard suite of covenants and is cross-guaranteed by all Group companies' party to the facility. Debt is repayable in line with the amortisation of bank commitments over the period from 1 July 2022 to the extended final maturity date of 31 December 2025.

Under IFRS 9, the extension of the facility to December 2025 constitutes substantially different terms from the original and as such the financial liability relating to the original facility was extinguished on the date of the extension and replaced with a new liability based on the revised terms. This resulted in the acceleration of the amortisation of borrowing costs relating to the previous facility, resulting in a charge of US\$15.1m to the Income Statement in the year.

Total commitments remain unchanged at US\$575.0m under the revised facility, but an accordion feature permits additional future commitments of up to US\$425.0m. The maximum available drawdown is currently forecast to be US\$478.0m during the life of the facility. The facility can also be used for general corporate purposes and may also be used to issue letters of credit and performance guarantees for the Group of up to US\$250m.

EFF

As at 31 December 2018, US\$27.1m (NOK 233.8m) was drawn under the Norwegian EFF. The maximum available amount is currently forecast to be US\$59.0m (NOK 446.3m). During the year, US\$32.4m was drawn under the facility and US\$31.2m repaid following receipt of the tax refund.

Section 3 – Financial Assets, Working Capital and Long-term Liabilities (continued)

3.3 Loans and Borrowings (continued)

Cairn signed an extension to its existing EFF in December 2018. The extension became effective 31 December 2018 and increased total commitments to NOK 700.0m, with an accordion feature permitting additional future commitments of up to NOK 300.0m. The extension of this facility has no material impact on the results for the year.

Interest on outstanding debt is charged at the appropriate NIBOR plus an applicable margin. Debt is repayable by the final maturity date, which is now the earlier of 31 December 2022 or the date of receipt of the tax refund relating to exploration spend for 2021.

3.4 Finance Lease Liability

	Minimum lease payments		Present value of minimum lease payments	
	31 December 2018 US\$m	31 December 2017 US\$m	31 December 2018 US\$m	31 December 2017 US\$m
Not later than one year	18.9	1.6	18.5	1.5
After one year but no more than five years	88.7	88.5	76.9	77.2
After five years	100.6	130.5	70.0	91.0
Total future minimum rentals payable	208.2	220.6	165.4	169.7
Less future finance charges	(42.8)	(50.9)		
Present value of minimum lease payments	165.4	169.7		
Reconciliation of opening and closing liability to cash flow movements:			2018 US\$m	2017 US\$m
Opening liability			169.7	-
Leases commenced and revisions to leases in the year:				
Finance lease liability recognised on commencement			-	200.8
Revision to finance lease liability			(11.5)	(36.4)
			(11.5)	164.4
Finance lease payments in Cash Flow Statement:				
Lease payments			(30.1)	(6.0)
Variable lease payments through cost of sales (note 2.1)			22.7	6.0
			(7.4)	-
Finance lease reimbursements in Cash Flow Statement:				
Reimbursements received from lessor			4.7	1.4
Other non-cash finance lease movements:				
Reimbursement due transferred to other receivables			2.1	1.4
Finance lease interest			7.8	2.5
			9.9	3.9
Closing liability			165.4	169.7

Section 3 – Financial Assets, Working Capital and Long-term Liabilities (continued)

3.4 Finance Lease Liability (continued)

On 20 December 2013, the Group entered into a bareboat charter agreement with Armada Kraken PTE Limited (a subsidiary of Bumi Armada) for the lease of an FPSO vessel for the Kraken field. The lease agreement became effective on commencement. This agreement is considered to be a finance lease and commenced on the date of first oil production on 23 June 2017.

Subsequent to initial recognition, the lease agreement was amended to incorporate an interim production period, commencing in November 2017 and which concluded on commencement of a second amendment agreement in September 2018. During this interim period, minimum lease payments were reduced to nil, with all lease payments dependent upon the availability and performance of the FPSO. The second amendment agreement provided additional compensation to the joint venture partners for ongoing performance issues with the FPSO and also introduced a zero hire rate effective after 72 hours of a period of shutdown.

Amounts due to Cairn from the lessor of US\$3.0m (2017: US\$1.4m) have been offset by the lessor against outstanding invoices disputed by the operator. Cairn fully expects to recover this amount, and the receivable is recognised within other receivables.

3.5 Trade and Other Receivables

	31 December 2018 US\$m	31 December 2017 US\$m
Trade receivables	39.0	0.2
Other receivables	12.7	12.7
Accrued income – underlift (see note 2.1)	0.1	5.6
Prepayments	4.4	18.8
Joint operation receivables	35.0	45.8
	91.2	83.1

Trade receivables are measured at amortised cost. Revenue is recognised at the point in time where title passes to the customer and payment becomes unconditional.

Following the draw-down on the RBL facility in 2018, facility fees of US\$15.1m held in prepayments at 31 December 2017, were netted against the loan balance and then amortised over the useful life of the loan. See note 3.3.

US\$50.6m of dividends receivable from Cairn India Limited were accrued to 31 December 2016. In April 2017, on the merger of Cairn India Limited with Vedanta Limited, a further dividend of US\$52.4m was declared, which increased the total due to Cairn to US\$104.7m, after exchange adjustments. Post declaration of the April 2017 dividend, the IITD has seized the funds due to Cairn from Vedanta Limited in part-settlement of the assessment order issued relating to the disputed retrospective tax demand. See note 5.5. Consequently, a loss allowance was recognised in 2017 against the dividends receivable. No further dividend income due to Cairn, but seized by the IITD, has since been recognised. As at 31 December 2018, following the declaration of further dividends, the total of dividends receivable by Cairn, seized by the IITD is US\$164.2m.

Where material Cairn has assessed the recoverability of trade and other receivables and no further loss allowance is recognised for expected credit losses on all financial assets held at the balance sheet date.

	2018 US\$m	2017 US\$m
Reconciliation of opening and closing receivables to cash flow movements:		
Opening trade and other receivables	83.1	113.7
Closing trade and other receivables	(91.2)	(83.1)
(Increase)/Decrease in trade and other receivables	(8.1)	30.6
Movements in joint operation receivables relating to investing activities	(20.8)	11.3
Movements in prepayments and other receivables relating to other non-operating activities	(12.4)	(53.9)
Foreign exchange	(0.3)	1.5
Trade and other receivables movement recorded in operating cash flows	(41.6)	(10.5)

The movements in joint operation receivables relating to investing activities relate to the Group's share of the receivables of joint operations in respect of exploration, appraisal and development activities. Movements relating to production activities are included in amounts through operating cash flows.

Section 3 – Financial Assets, Working Capital and Long-term Liabilities (continued)

3.5 Trade and Other Receivables (continued)

Other non-operating cash flow movements for 2018 primarily relate to the release of prepaid facility fees. The 2017 non-cash movement mainly relates to the loss allowance recognised on the dividends receivable from Vedanta Limited.

The increase in trade and other receivables movements through operating cash flows primarily reflects the increase in trade receivables held at the year end.

3.6 Derivative Financial Instruments

	31 December 2018 US\$m	31 December 2017 US\$m
Non-current assets		
Financial assets – hedge options maturing after one year	7.7	-
Current assets		
Financial assets – hedge options maturing within one year	36.7	-
Current liabilities		
Financial liabilities – hedge options maturing within one year	-	(1.4)
	44.4	(1.4)

Cairn currently has an active commodity price hedging programme in place to protect debt capacity and support committed capital programmes. Mark-to-market gains on oil price hedge options are recorded as financial assets at 31 December 2018.

At 31 December 2018 the Group had hedged ~2.7m barrels of 2019 Kraken and Catcher oil production, using collar structures. The weighted average floor and ceiling prices are US\$67.07/bbl and US\$83.08/bbl respectively (all prices quoted relate to dated Brent). In addition, at 31 December 2018, the Group had hedged ~500,000 barrels of 2020 oil production using a collar with floor and ceiling prices of US\$67.50/bbl and US\$87.50/bbl respectively. Further hedging of 2020 production has continued post the balance sheet date.

The collar structures have been designated as hedges for hedge accounting. Hedge effectiveness is assessed at commencement of the option and prospectively thereafter. At the year end, the closing Brent oil price was US\$50.70/bbl, below the floor price of all collars entered into. Fair value movements on the cost of the option are recorded in the Statement of Comprehensive Income in the year, with fair value gains of US\$43.9m being offset by a loss of US\$7.8m (2017: nil) on options that matured in the year (2017 restated: fair value loss of US\$2.9m). The loss on matured options is recycled to the Income Statement.

Effects of hedge accounting on financial position and loss for the year

	31 December 2018	31 December 2017 (restated)
Volume of oil production hedged	3.2mmbbls	1.4mmbbls
Weighted average floor price of options	US\$67.14	US\$57.30
Weighted average ceiling price of options	US\$83.81	US\$67.50
Maturity dates	January 2019 – March 2020	January 2018 – December 2018
	US\$m	US\$m
Financial assets	44.4	-
Financial liabilities	-	(1.4)
Hedging gains/(loss) recorded in Other Comprehensive Income	36.1	(2.9)
Hedging loss recycled to Income Statement	7.8	-
Hedging loss recorded in Income Statement against revenue (note 2.1)	(7.8)	-

Sensitivity analysis has been performed on equity movements that would arise from changes in the year end oil price forward curve and the resulting impact on the fair value of open hedge options at the year end. The sensitivity analysis considers only the impact on line items directly relating to hedge accounting (being financial assets and fair value gains through Other Comprehensive Income) and not the impact of the change of other balance sheet items where valuation is based on the year end oil price, such as inventory.

Section 3 – Financial Assets, Working Capital and Long-term Liabilities (continued)

3.6 Derivative Financial Instruments (continued)

	Increase/ (decrease) in equity US\$m
Change in year end oil price forward curve	
Decrease of 10%	15.3
Decrease of 20%	31.5
Increase of 10%	(13.5)
Increase of 20%	(25.4)

3.7 Trade and Other Payables

	31 December 2018 US\$m	31 December 2017 US\$m
Trade payables	9.7	6.9
Other taxation and social security	1.4	2.5
Accruals and other payables	30.9	22.6
Joint operation payables	61.1	165.8
	103.1	197.8

Joint operation payables include US\$16.4m (2017: US\$68.8m), US\$24.3m (2017: US\$82.8m) and US\$20.4m (2017: US\$14.2m) relating to exploration/appraisal assets, development/producing assets and production costs respectively. The reduction in payables for exploration/appraisal assets includes the release of accruals relating to Western Sahara of US\$15.4m (see note 2.2) and US\$34.1m settlement of liabilities relating to Senegal following the 2017 drilling campaign. Joint operation payables on development/producing assets have reduced reflecting the completion of development activities on Kraken and Catcher and includes the release of rig accruals of US\$23.3m.

	2018 US\$m	2017 US\$m
Reconciliation of opening and closing payables to cash flow movements:		
Opening trade and other payables	(197.8)	(123.0)
Closing trade and other payables	103.1	197.8
(Decrease)/Increase in trade and other payables	(94.7)	74.8
Movement in joint operation payables relating to investing activities	111.7	(67.1)
Movement in trade payables relating to investing activities	4.3	1.6
Movements in accruals and other payables relating to non-operating activities	(0.9)	1.2
Foreign exchange	2.3	(8.0)
Trade and other payables movement recorded in operating cash flows	22.7	2.5

Movements above for investing activities relate to exploration, appraisal and development activities through the Group's joint operations. Movements relating to production activities are included in amounts through operating cash flows.

The movement in trade and other payables recorded in the Cash Flow Statement through operating cash flows primarily arise on production activities in the UK North Sea.

Section 3 – Financial Assets, Working Capital and Long-term Liabilities (continued)

3.8 Deferred Revenue

FlowStream deferred revenue	Note	2018 US\$m	2017 US\$m
Opening deferred revenue		74.0	-
Fair value of proceeds received		-	74.6
Released during the year	2.1	(21.2)	(3.0)
Foreign exchange differences		-	2.4
<hr/>			
Closing deferred revenue		52.8	74.0
<hr/>			
Amounts expected to be released within one year		22.0	24.3
Amounts expected to be released after one year		30.8	49.7
<hr/>			
		52.8	74.0
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Deferred revenue of US\$52.8m relates to the stream agreement with FlowStream. Under the initial stream agreement, Cairn received US\$74.6m in June 2017 with FlowStream receiving 4.5% of future Kraken production. FlowStream's entitlement to Kraken production reduces to 1.35% after FlowStream achieves a 10% return and would further reduce to 0.675% if FlowStream achieves a 15% return.

Section 4 – Income Statement Analysis

4.1 Segmental Analysis

The segment results for the year ended 31 December 2018 are as follows:

	Senegal US\$m	UK & Norway US\$m	International US\$m	Other Cairn Energy Group US\$m	Group adjustment for segments US\$m	Total US\$m
Revenue	-	409.1	-	1.2	-	410.3
Cost of sales	-	(131.4)	-	-	-	(131.4)
Depletion and amortisation	-	(171.2)	-	-	-	(171.2)
Gross profit	-	106.5	-	1.2	-	107.7
Pre-award costs	-	(6.8)	(11.4)	(7.2)	-	(25.4)
Unsuccessful exploration costs	-	(62.6)	14.4	-	-	(48.2)
Loss on disposal of intangible exploration/appraisal assets	-	(4.5)	-	-	-	(4.5)
Other operating income	-	-	5.0	-	-	5.0
Depreciation	-	(0.4)	-	(0.6)	-	(1.0)
Amortisation of other intangible assets	-	(0.4)	-	(2.3)	-	(2.7)
Other administrative expenses	-	(1.7)	(0.6)	(44.4)	-	(46.7)
Impairment of property, plant and equipment – development/producing assets	-	(166.3)	-	-	-	(166.3)
Operating (loss)/profit	-	(136.2)	7.4	(53.3)	-	(182.1)
Loss on derecognition of financial assets	-	-	-	(713.1)	-	(713.1)
Loss on fair value of financial assets	-	-	-	(352.2)	-	(352.2)
Interest income	0.1	0.1	-	1.5	-	1.7
Other finance income and costs	-	(21.9)	-	1.6	-	(20.3)
Profit/(Loss) before taxation	0.1	(158.0)	7.4	(1,115.5)	-	(1,266.0)
Tax credit	-	41.1	-	89.4	-	130.5
Profit/(Loss) for the year	0.1	(116.9)	7.4	(1,026.1)	-	(1,135.5)
Capital expenditure	28.5	147.7	17.7	0.9	-	194.8
Total assets	470.5	1,532.7	82.4	82.2	(166.3)	2,001.5
Total liabilities	16.9	585.6	4.6	170.6	(166.3)	611.4
Non-current assets	463.0	1,228.0	54.9	5.8	-	1,751.7

All revenue in the UK & Norway segment is attributable to the sale of oil and gas in the UK. 48.7% of the Group's sales of oil and gas are to a single customer that markets the crude on Cairn's behalf and delivers it to the ultimate buyers.

Cairn has a cash pooling arrangement which is used to offset overdrafts in some subsidiaries with cash balances in other subsidiaries. For segmental disclosure, the overdraft in each segment is shown as a liability and the offset is shown in the Group adjustment column.

All transactions between the segments are carried out on an arm's length basis, other than where inter-group loans are made interest-free or at interest rates below market value.

Section 4 – Income Statement Analysis (continued)

4.1 Segmental Analysis (continued)

The segment results for the year ended 31 December 2017 after restatement (see note 1.3) were as follows:

	Senegal US\$m	UK & Norway US\$m	Internation al US\$m	Other Cairn Energy Group US\$m	Group adjustment for segments US\$m	Total US\$m
Revenue	-	22.9	10.4	-	-	33.3
Cost of sales	-	(5.9)	-	-	-	(5.9)
Depletion and amortisation	-	(20.8)	-	-	-	(20.8)
Gross (loss)/profit	-	(3.8)	10.4	-	-	6.6
Pre-award costs	-	(30.2)	(8.5)	(5.1)	-	(43.8)
Unsuccessful exploration costs	-	(8.1)	(52.6)	-	-	(60.7)
Depreciation	-	(0.6)	-	(0.5)	-	(1.1)
Amortisation of other intangible assets	-	-	-	(1.5)	-	(1.5)
Other operating income	-	-	-	2.4	-	2.4
Administrative expenses	-	(2.2)	0.3	(28.2)	-	(30.1)
Reversal of impairment of oil and gas assets	-	23.0	-	-	-	23.0
Operating loss	-	(21.9)	(50.4)	(32.9)	-	(105.2)
Loss on derecognition of financial assets	-	-	-	(33.0)	-	(33.0)
Gain on fair value of financial assets	-	-	-	449.1	-	449.1
Interest income	0.1	0.6	-	3.2	-	3.9
Other finance income and costs	(0.7)	0.7	-	62.7	-	62.7
Exceptional provision against finance income receivable	-	-	-	(104.7)	-	(104.7)
(Loss)/Profit before taxation	(0.6)	(20.6)	(50.4)	344.4	-	272.8
Tax credit	-	34.4	-	(89.4)	-	(55.0)
(Loss)/Profit for the year	(0.6)	13.8	(50.4)	255.0	-	217.8
Capital expenditure	104.2	416.8	63.1	8.6	-	592.7
Total assets	463.3	1,674.2	40.3	1,145.4	(67.7)	3,255.5
Total liabilities	34.6	592.4	26.5	175.2	(67.7)	761.0
Non-current assets	434.5	1,499.4	22.8	8.2	-	1,964.9

All revenue in the UK & Norway segment was attributable to the sale of oil and gas in the UK. 100% of the Group's sales of oil and gas were to a single customer that marketed the crude on Cairn's behalf and delivered it to the ultimate buyers.

Revenue in the international segment related to royalty interests receivable from producing fields in Mongolia.

Section 4 – Income Statement Analysis (continued)

4.2 Administrative Expenses

	2018 US\$m	2017 US\$m
Administrative expenses – recurring departmental expenses and corporate projects	27.5	24.6
Administrative expenses – Indian tax arbitration costs (see note 5.5)	22.9	8.1
	50.4	32.7

Operating lease commitments

Administration costs include operating lease charges for land and buildings representing the costs of Cairn's head office in Edinburgh and subsidiary offices globally. Operating lease commitments at the year end shown below are disclosed prior to recovery of costs through the Group's timewriting recharges.

	31 December 2018 US\$m	31 December 2017 US\$m
Administrative costs - land and buildings		
Not later than one year	2.9	1.8
After one year but no more than five years	8.6	5.5
After five years	-	2.0
	11.5	9.3

Section 5 – Taxation

5.1 Tax Strategy and Governance

The Group's tax strategy is fully aligned with its overarching business objectives and principles. In its approach to tax Cairn aims to be a good corporate citizen, managing its tax affairs in a transparent and responsible manner in all the jurisdictions in which it operates. Cairn is committed to having open and constructive relationships with all tax authorities.

For the past several years, the Group's UK activities have been focused on assets at exploration, appraisal and development stages with no production; but from 2017, receipt of production income recommenced. Due to the level of costs incurred in developing the fields which came on-stream in 2017, there are no taxable profits in 2018 and it is unlikely that any taxable profits will be realised for several years. Taxable profits in other jurisdictions, where Cairn's assets are at various stages of the value creation cycle, are also minimal and as a result there were no cash payments of corporation taxes made during the year (2017:US\$nil).

Cairn undertakes tax planning that supports the business and reflects commercial and economic activity. The Group's policy is to not enter into any artificial tax avoidance schemes but to build and maintain strong collaborative working relationships with all relevant tax authorities based on transparency and integrity. The Group aims for certainty in relation to the tax treatment of all items; however, it is acknowledged that this will not always be possible, for example where transactions are complex or there is a lack of maturity in the tax regime in the relevant jurisdiction in which the Group is operating. In such circumstances Cairn will seek external advice where appropriate and ensure that the approach adopted in any relevant tax return includes full disclosure of the position taken.

5.2 Tax (Credit)/Charge on (Loss)/Profit for the Year

Analysis of tax (credit)/charge on (loss)/profit for the year

	2018 US\$m	2017 (restated) US\$m
Current tax:		
Norwegian tax refunds receivable	(35.5)	(39.9)
	(35.5)	(39.9)
Deferred tax (credit)/charge:		
Norwegian deferred tax (credit)/charge	(5.6)	9.0
Deferred tax on valuation of financial assets at fair value through profit or loss	(89.4)	96.5
Deferred tax liability on recognition of financial assets at fair value through profit or loss	-	(7.1)
Release of provision on carried interests due to change in tax rate	-	(0.7)
UK deferred tax credits realised	-	(2.8)
Total deferred tax (credit)/charge	(95.0)	94.9
Total tax (credit)/charge on (loss)/profit	(130.5)	55.0

The tax charge for 2017 has been restated following the adoption of IFRS 9 (see note 1.3) which has resulted in tax previously included in Other Comprehensive Income now included in the tax charge in the Income Statement.

The Norwegian deferred tax (credit)/charge includes a charge of US\$4.4m (2017: charge of US\$12.4m) on temporary differences in respect of non-current assets and a credit of US\$10.0m (2017: credit of US\$3.4m) on losses and other temporary differences.

Deferred tax movements through the Income Statement on the recognition and valuation of financial assets represent the deferred tax impact of movements in the year in respect of the shares that the Group holds in Vedanta Limited (Cairn India Limited prior to April 2017) detailed in note 3.1. The credit on the valuation of financial assets of US\$89.4m results in a closing deferred tax liability of US\$nil (2017: US\$89.4m) relating to the financial assets held at 31 December 2018.

Section 5 – Taxation (continued)

5.2 Tax (Credit)/Charge on (Loss)/Profit for the Year (continued)

Factors affecting tax (credit)/charge for the year

A reconciliation of the income tax (credit)/charge applicable to the (loss)/profit before income tax to the UK statutory rate of income tax is as follows:

	2018 US\$m	2017 (restated) US\$m
(Loss)/Profit before taxation	(1,266.0)	272.8
(Loss)/Profit before tax multiplied by the UK statutory rate of corporation tax of 19% (2017: 19.25%)	(240.5)	52.5
Effect of:		
Special tax rates and reliefs applying to oil and gas activities	(62.9)	(50.3)
Temporary differences not recognised	46.8	40.8
Disposal of financial assets held at fair value through profit or loss	135.5	-
Impact of exceptional provision against finance income	-	20.1
Other	(9.4)	(8.1)
Total tax (credit)/charge on (loss)/profit	(130.5)	55.0

The reconciliation shown above has been based on the average UK statutory rate of corporation tax for 2018 of 19% (2017: 19.25%).

The UK main rate of corporation tax is currently 19% (20% prior to 1 April 2017).

The applicable UK statutory tax rate applying to North Sea oil and gas activities is 40% (2017: 40%).

The applicable Norwegian rate applying to oil and gas activities is 78% (2017: 78%).

The effect of special tax rates and reliefs applying to oil and gas activities of US\$62.9m (2017: US\$50.3m) comprises US\$52.0m (2017: US\$38.1m) in respect of differences between the average UK statutory rate and the special rates applying to oil and gas activities in the UK & Norway, US\$9.5m (2017: US\$12.2m) in respect of the UK ring fence expenditure supplement ('RFES') claimed in the year, and US\$1.4m (2017: US\$nil) in respect of the uplift in Norway on capital development expenditure.

The effect of temporary differences not recognised of US\$46.8m (2017: US\$40.8m) includes:

- a US\$58.7m (2017: US\$28.3m) movement in the year in respect of the unrecognised deferred tax asset on UK ring fence trading losses and the deferred tax liability on UK Ring Fence temporary differences in respect of non-current assets; and
- a US\$2.4m (2017: US\$(3.4)m) movement in respect of the carry forward of, or the use in the year of brought forward UK non-trading losses on which no deferred tax asset was recognised.

These are offset by

- a US\$11.6m (2017: US\$(5.8)m) movement in the unrecognised deferred tax asset brought forward at the start of the year in respect of the shares that the Group held in Vedanta Limited (previously Cairn India Limited); and
- a US\$2.7m (2017: US\$(10.1)m) movement in respect of unsuccessful exploration costs on which future tax relief is available but the expenditure has been expensed through the Income Statement.

5.3 Income Tax Asset

The income tax asset of US\$32.8m (2017: US\$38.4m) relates to cash tax refunds due from the Norwegian authorities on the tax value of exploration and other qualifying expenses incurred in Norway during the year. This refund will be received in 2019.

During 2018, a cash tax refund of US\$36.8m (2017: US\$30.4m) was received on prior year qualifying expenditure on exploration activities, new venture costs and administrative expenses. US\$20.4m (2017: US\$2.8m) of the refund is allocated against operating activities in the Cash Flow Statement where it relates to pre-award and administrative costs and the remaining US\$16.4m (2017: US\$27.6m) included as a refund in investing activities where it relates to costs initially capitalised within intangible assets – exploration/appraisal assets.

Section 5 – Taxation (continued)

5.4 Deferred Tax Assets and Liabilities

Reconciliation of movement in deferred tax assets/(liabilities):

	Temporary difference in respect of non- current assets US\$m	Losses US\$m	Other temporary differences US\$m	Total US\$m
Deferred tax assets				
At 1 January 2017	(205.6)	205.6	-	-
Exchange differences arising	(27.5)	27.5	-	-
Deferred tax credit through the Income Statement	(112.4)	115.9	-	3.5
Deferred tax movement on additions to development assets in respect of carried interests	(3.5)	-	-	(3.5)
At 31 December 2017	(349.0)	349.0	-	-
Deferred tax credit through the Income Statement	105.9	(105.9)	-	-
At 31 December 2018	(243.1)	243.1	-	-
Deferred tax liabilities				
At 1 January 2017	(74.3)	11.6	-	(62.7)
Exchange differences arising	(3.9)	0.6	-	(3.3)
Deferred tax charge through the Income Statement (restated)	(101.7)	3.1	0.2	(98.4)
At 31 December 2017	(179.9)	15.3	0.2	(164.4)
Exchange differences arising	5.1	(1.9)	(0.3)	2.9
Deferred tax credit through the Income Statement	85.0	8.5	1.5	95.0
At 31 December 2018	(89.8)	21.9	1.4	(66.5)

	31 December 2018 US\$m	31 December 2017 US\$m
Deferred tax liabilities analysed by country		
India	-	(89.4)
Norway	(66.5)	(75.0)
Total deferred tax liability	(66.5)	(164.4)

There is an unrecognised deferred tax asset of US\$0.9m at the year end in respect of the shares the Group holds in Vedanta Limited, as a result of the disposal/redemption of part of the shares, combined with the fall in the share price. In 2017 there was a deferred tax liability in respect of the shares of US\$89.4m.

Recognised deferred tax assets

As at the balance sheet date, no net deferred tax asset or liability has been recognised in the UK (2017: no net deferred tax asset or liability recognised) as other temporary differences and tax losses are only recognised to the extent that they offset the UK deferred tax liability arising on business combinations and carried interests attributable to UK Ring-Fence trading activity, as it is not considered probable that future profits will be available to recover the value of the asset given the detrimental change in market conditions continuing to impact the oil and gas industry.

A deferred tax asset has been recognised in respect of Norwegian tax losses of US\$21.9m (2017: US\$15.3m) against a Norwegian deferred tax liability arising from business combinations and expenditure on assets for which current tax refunds have been claimed.

Section 5 – Taxation (continued)

5.4 Deferred Tax Assets and Liabilities (continued)

Unrecognised deferred tax assets

No deferred tax asset has been recognised on the following as it is not considered probable that it will be utilised in future periods:

	31 December 2018 US\$m	31 December 2017 US\$m
UK fixed asset temporary differences	383.2	386.5
UK Ring Fence Corporation Tax trading losses	118.0	138.0
UK Supplementary Charge Tax trading losses	855.9	138.0
UK other Ring Fence temporary differences	117.8	116.9
UK non-Ring-Fence trading losses	3.7	3.7
UK non-Ring-Fence pre-trade losses	2.9	3.3
UK excess management expenses	318.7	66.3
UK non-trade deficits	52.7	297.7
UK temporary differences on share-based payments	10.6	33.9
UK other temporary differences	0.1	0.1
Senegal fixed asset temporary differences	5.3	3.2
Temporary differences on financial assets held at fair value through profit or loss	0.9	-
Greenlandic tax losses	1,088.3	1,143.1

The applicable UK statutory tax rate applying to North Sea oil and gas activities of 40% is made up of Ring Fence Corporation Tax ('RFCT') of 30% and Supplementary Charge Tax ('SCT') of 10%. At the balance sheet date the Group has US\$928.3m RFCT losses which can be offset against RFCT of 30% on future Ring Fence trading profits and US\$855.9m SCT losses which can be offset against SCT of 10% on future Ring Fence trading profits.

In 2017 the Group had US\$1,010.5m of both RFCT and SCT losses carried forward to offset against RFCT and SCT on future Ring Fence trading profits.

A deferred tax asset has been recognised in respect of US\$810.3m of the RFCT losses and none of the SCT losses, offsetting in full a deferred tax liability on Ring Fence temporary differences in respect of non-current assets. No deferred tax asset has been recognised on RFCT losses of US\$118.0m, any of the SCT losses of US\$855.9m, or on other ring fence temporary differences of US\$117.8m (2017: US\$116.9m) relating to decommissioning liabilities as it is not considered probable that these amounts will be utilised in future periods.

In 2017 a deferred tax asset was recognised in respect of US\$872.5m of both RFCT and SCT losses, offsetting in full the deferred tax liability on Ring Fence temporary differences in respect of non-current assets. No deferred tax asset was recognised in 2017 on the remaining RFCT and SCT losses of US\$138.0m.

The deferred tax liability recognised on UK Ring Fence fixed asset temporary differences of US\$243.1m (2017: US\$349.0m) includes temporary differences in respect of investment allowances (previously field allowances) of US\$759.5m (2017: US\$759.5m) on the Catcher and Kraken developments which will reduce future Ring Fence profits subject to supplementary charge.

5.5 Contingent Liability – Indian Tax Assessment

In January 2014 Cairn UK Holdings Limited ('CUHL'), a direct subsidiary of Cairn Energy PLC, received notification from the Indian Income Tax Department that it was restricted from selling its shareholding in Cairn India Limited ('CIL'); at that time the shareholding was approximately 10% and had a market valuation of INR 60bn (US\$1.0bn). In that notification, the IITD claimed to have identified unassessed taxable income resulting from certain intra-group share transfers undertaken in 2006 (the '2006 Transactions'), such transactions having been undertaken in order to facilitate the IPO of CIL in 2007. The notification made reference to retrospective Indian tax legislation enacted in 2012, which the IITD was seeking to apply to the 2006 Transactions. Following the merger in April 2017 of CIL and Vedanta Limited, CUHL's shareholding in CIL was replaced by a shareholding of approximately 5% in Vedanta Limited issued together with preference shares.

In addition to attaching CUHL's shares in Vedanta Limited, the IITD seized dividends due to CUHL from those shareholdings totalling INR 11.4bn (US\$164.2m). The IITD has also notified Cairn that a tax refund of INR 15.9bn (US\$249.0m) due to CUHL as a result of overpayment of capital gains tax on a separate matter in 2011, has been applied as partial payment of the tax assessment of the 2006 Transactions. This tax refund was previously classified in Cairn's accounts as a contingent asset where the inflow of economic benefits was considered less than probable.

Section 5 – Taxation (continued)

5.5 Contingent Liability – Indian Tax Assessment (continued)

The IITD holds CUHL as an assessee in default in respect of tax demanded on the 2006 transactions, and as such has pursued enforcement against CUHL's assets in India. To date these enforcement actions have included attachment of CUHL's shareholding in Vedanta Limited and sale of 181,764,297 shares and seizure of the proceeds, seizure of the proceeds from the redemption of the preference shares, seizure of the US\$164.2m dividends due to CUHL as described above, and offset of a US\$249.0m tax refund due to CUHL in respect of another matter. To date 99% of CUHL's shareholding has been liquidated by the IITD (see note 3.1). The assessment by the IITD of principal tax due on the 2006 Transactions is INR 102bn (US\$1.6bn), plus applicable interest and penalties. Interest is currently being charged on the principal at a rate of 12% per annum from February 2017, although this is potentially subject to the IITD's Indian court appeal that interest should be back-dated to 2007. Penalties are currently assessed as 100% of the principal tax due, although this is subject to appeal by CUHL that penalties should not be charged given the retrospective nature of the tax levied.

The Group has legal advice confirming that the maximum amount that could ultimately be recovered from Cairn by the IITD, in excess of the assets already seized, is limited to the value of CUHL's assets, principally the remaining ordinary shares in Vedanta Limited.

In March 2015 Cairn filed a Notice of Dispute under the UK-India Bilateral Investment Treaty in order to protect its legal position and seek restitution of the value effectively seized by the IITD in and since January 2014. Cairn's principal claims are that the assurance of fair and equitable treatment and protections against expropriation afforded by the Treaty have been breached by the actions of the IITD, which is seeking to apply retrospective taxes to historical transactions already closely scrutinised and approved by the Government of India. The IITD has attached and seized assets to try to enforce such taxation. Cairn's plea is therefore that the effects of the tax assessment should be nullified and that Cairn should receive recompense from India for the loss of value resulting from the 2014 attachment of CUHL's shares in CIL and the withholding of the tax refund, which together total approximately US\$1.4bn.

The Treaty proceedings formally commenced in January 2016 following agreement between Cairn and the Republic of India on the appointment of a panel of three international arbitrators under the terms of the Treaty. Cairn's statement of claim was submitted to the arbitral tribunal in June 2016 and the Republic of India submitted its statement of defence in February 2017. Further submissions and document production took place in 2017 and 2018. The main evidentiary hearing of Cairn's claim under the Treaty took place in August 2018 in The Hague with a final hearing in December 2018. All formal hearings and submissions have now been made and the tribunal is in the process of drafting its award.

Based on detailed legal advice, Cairn remains confident that it will be successful in this arbitration and accordingly no provision has been made for any of the tax or penalties assessed by the IITD.