Annual Report and Accounts 2019

Financial statements

Contents

Consolidated income statement

for the year ended 31 March

	Notes	2019 £m	2018* £m
Revenue	4	**885.7**	913.1
Staff costs	7	**(446.4)**	(436.4)
Services and materials		**(71.3)**	(90.1)
Repairs and maintenance		**(48.5)**	(40.7)
Depreciation, amortisation and impairment	6	**(141.7)**	(137.7)
Profit on disposal of non-current assets		**2.1**	-
Other operating charges		**(64.1)**	(57.4)
Other operating income		**6.1**	5.5
Deferred grants released	6	**0.6**	0.7
Net operating costs		**(763.2)**	(756.1)
Operating profit	6	**122.5**	157.0
Share of results of associate and joint ventures	33	**1.6**	(0.9)
Investment income	8	**4.4**	2.0
Fair value movement on financial instruments	9	**(4.9)**	1.3
Finance costs	10	**(25.4)**	(26.6)
Profit before tax		**98.2**	132.8
Tax	11	**(15.9)**	(20.1)
Profit for the year attributable to equity shareholders		**82.3**	112.7

*The group has chosen not to restate comparatives on adoption of IFRS 9 and IFRS 15. See note 35.

Consolidated statement of comprehensive income

for the year ended 31 March

	Notes	2019 £m	2018* £m
Profit for the year after tax		**82.3**	112.7
Items that will not be reclassified subsequently to profit and loss:			
Actuarial (loss)/gain on defined benefit pension scheme	31	**(166.4)**	449.9
Deferred tax relating to items that will not be reclassified subsequently	24	**28.9**	(80.6)
Items that may be reclassified subsequently to profit and loss:			
Change in fair value of hedging derivatives		**0.4**	(0.9)
Transfer to income statement on cash flow hedges		**(1.3)**	(0.7)
Exchange differences arising on translation of foreign operations		**1.8**	(0.3)
Currency translation differences arising on consolidation of equity accounted foreign operations	33	**(0.1)**	0.1
Deferred tax relating to items that may be reclassified subsequently	24	**0.2**	0.2
Other comprehensive (loss)/income for the year, net of tax		**(136.5)**	367.7
Total comprehensive (loss)/income for the year attributable to equity shareholders		**(54.2)**	480.4

* The group has chosen not to restate comparatives on adoption of IFRS 9 and IFRS 15. See note 35.

Consolidated balance sheet

at 31 March

	Notes	2019 £m	2018* £m
Assets			
Non-current assets			
Goodwill	13	**198.3**	198.3
Other intangible assets	14	**567.2**	571.5
Property, plant and equipment	15	**497.0**	478.0
Investment	16	**50.9**	-
Interests in associate and joint ventures	33	**9.4**	9.2
Loans to joint ventures	33	**21.1**	19.7
Retirement benefit asset	31	**-**	110.6
Trade and other receivables	17	**24.3**	20.2
Derivative financial instruments	19	**1.7**	1.2
		1,369.9	1,408.7
Current assets			
Loans to joint ventures	33	**1.4**	-
Trade and other receivables	17	**176.2**	181.3
Current tax assets		**-**	1.5
Short term investments	20	**46.4**	38.3
Cash and cash equivalents	20	**214.6**	269.6
Derivative financial instruments	19	**2.7**	2.0
		441.3	492.7
Total assets		**1,811.2**	1,901.4
Current liabilities			
Trade and other payables	21	**(260.5)**	(213.1)
Current tax liabilities		**(0.7)**	-
Borrowings	18	**(42.7)**	(44.6)
Provisions	23	**(3.8)**	(5.0)
Derivative financial instruments	19	**(13.9)**	(11.0)
		(321.6)	(273.7)
Net current assets		**119.7**	219.0
Non-current liabilities			
Trade and other payables	21	**(181.8)**	(170.2)
Borrowings	18	**(292.2)**	(334.8)
Retirement benefit obligations	31	**(22.1)**	-
Deferred tax liability	24	**(97.8)**	(115.5)
Provisions	23	**(7.4)**	(6.8)
Derivative financial instruments	19	**(110.3)**	(119.5)
		(711.6)	(746.8)
Total liabilities		**(1,033.2)**	(1,020.5)
Net assets		**778.0**	880.9
Equity			
Called up share capital	25	**140.6**	140.6
Share premium account	26	**0.4**	0.4
AESOP reserve		**(0.3)**	(0.3)
Hedge reserve		**0.6**	1.3
Translation reserve		**1.1**	(0.6)
Other reserves		**(34.7)**	(34.7)
Retained earnings		**670.2**	774.1
Equity attributable to the shareholders		**777.9**	880.8
Non-controlling interest	27	**0.1**	0.1
Total equity		**778.0**	880.9

*The group has chosen not to restate comparatives on adoption of IFRS 9 and IFRS 15. See note 35.

The financial statements (Company No. 04138218) were approved by the Board of directors and authorised for issue on 27 June 2019 and signed on its behalf by:

Paul Golby

Paul Golby
Chairman

Nigel Fotherby

Nigel Fotherby
Finance Director

Consolidated statement of changes in equity

for the year ended 31 March

	Equity attributable to equity holders of the group									
	Share capital £m	Share premium account £m	AESOP reserve £m	Hedge reserve £m	Translation reserve £m	Other reserves [1] £m	Retained earnings £m	Sub-total £m	Non-controlling interest £m	Total equity £m
At 1 April 2017 (as previously stated)	140.6	0.4	(0.3)	2.7	(0.4)	(34.7)	349.1	457.4	0.1	457.5
Profit for the year	-	-	-	-	-	-	112.7	112.7	-	112.7
Other comprehensive (loss)/income for the year	-	-	-	(1.4)	(0.2)	-	369.3	367.7	-	367.7
Total comprehensive (loss)/income for the year	**-**	**-**	**-**	**(1.4)**	**(0.2)**	**-**	**482.0**	**480.4**	**-**	**480.4**
Dividends paid	-	-	-	-	-	-	(57.0)	(57.0)	-	(57.0)
At 31 March 2018 (as previously stated)	**140.6**	**0.4**	**(0.3)**	**1.3**	**(0.6)**	**(34.7)**	**774.1**	**880.8**	**0.1**	**880.9**
At 1 April 2018 (as previously stated)	140.6	0.4	(0.3)	1.3	(0.6)	(34.7)	774.1	880.8	0.1	880.9
Adjustment on initial application of IFRS 9 (see note 35)	-	-	-	-	-	-	0.3	0.3	-	0.3
Adjustment on initial application of IFRS 15 (see note 35)	-	-	-	-	-	-	10.0	10.0	-	10.0
At 1 April 2018 (as restated for IFRS 9 and IFRS 15)	**140.6**	**0.4**	**(0.3)**	**1.3**	**(0.6)**	**(34.7)**	**784.4**	**891.1**	**0.1**	**891.2**
Profit for the year	-	-	-	-	-	-	82.3	82.3	-	82.3
Other comprehensive (loss)/income for the year	-	-	-	(0.7)	1.7	-	(137.5)	(136.5)	-	(136.5)
Total comprehensive (loss)/income for the year	**-**	**-**	**-**	**(0.7)**	**1.7**	**-**	**(55.2)**	**(54.2)**	**-**	**(54.2)**
Dividends paid	-	-	-	-	-	-	(59.0)	(59.0)	-	(59.0)
At 31 March 2019	**140.6**	**0.4**	**(0.3)**	**0.6**	**1.1**	**(34.7)**	**670.2**	**777.9**	**0.1**	**778.0**

[1] Other reserves arose on the completion of the PPP transaction in July 2001.

Consolidated cash flow statement

for the year ended 31 March

	Notes	2019 £m	2018 £m
Net cash from operating activities	28	**294.5**	338.0
Cash flows from investing activities			
Interest received on short term investments		**1.9**	1.1
Purchase of property, plant and equipment and other intangible assets		**(156.7)**	(180.7)
Proceeds of disposal of property, plant and equipment		**0.1**	-
Investment in joint venture		**-**	(4.9)
Investment in Aireon		**(51.1)**	-
Changes in short term investments		**(8.1)**	1.1
Dividends received from joint venture and associate		**1.2**	1.1
Loans to joint ventures		**(1.7)**	(3.9)
Net cash outflow from investing activities		**(214.4)**	(186.2)
Cash flows from financing activities			
Interest paid		**(20.6)**	(23.5)
Interest (paid)/received on derivative financial instruments		**(0.2)**	0.2
Repayment of bond principal		**(45.2)**	(47.2)
Repayments of obligations under finance leases		**(0.2)**	(0.2)
Index-linked swap repayments		**(10.1)**	(8.1)
Bank facility arrangement fees		**-**	(0.4)
Dividends paid		**(59.0)**	(57.0)
Net cash outflow from financing activities		**(135.3)**	(136.2)
(Decrease)/increase in cash and cash equivalents during the year		**(55.2)**	15.6
Cash and cash equivalents at 1 April		**269.6**	254.2
Exchange gain/(loss) on cash and cash equivalents		**0.2**	(0.2)
Cash and cash equivalents at 31 March		**214.6**	269.6
Net debt (representing borrowings net of cash and short term investments)		**(73.9)**	(71.5)

Notes forming part of the consolidated accounts

1. General information

NATS Holdings Limited is a private limited company incorporated in England and Wales and domiciled in the United Kingdom and acting under the Companies Act 2006. The address of the registered office is on page 67. The nature of the group's operations and its principal activities are set out in the Report of the directors and in the Strategic report.

These financial statements are presented in pounds sterling because that is the currency of the primary economic environment in which the group operates.

2. Basis of preparation and accounting policies

The financial statements have been prepared on the going concern basis, as explained on page 15, and in accordance with International Financial Reporting Standards (IFRSs) and International Financial Reporting Interpretations Committee (IFRIC) interpretations as endorsed by the European Union (EU). Therefore, the group financial statements comply with Article 4 of the EU IAS Regulation. The financial information has also been prepared in accordance with IFRSs issued by the International Accounting Standards Board (IASB).

Accounting standards adopted in the year

The group has adopted the requirements of IFRS 9: *Financial Instruments* and IFRS 15: *Revenue from Contracts with Customers* from 1 April 2018. The impacts of these standards are set out in note 35.

In addition, the group has adopted IFRIC 22: *Foreign Currency Transactions and Advance Consideration*, an interpretation to a standard, which had no material impact on the consolidated or company financial statements.

Other new and amended standards and Interpretations issued by the IASB have not resulted in any material impact on the financial statements of the group.

Future accounting developments

At the date of authorisation of these financial statements, the following Standards and Interpretations which have not been applied in these financial statements were in issue but not yet effective (and in some cases had not yet been adopted by the EU):

- IFRS 16: *Leases*
- IFRS 3 (amendments): *Definition of a Business*
- IFRS 9 (amendments): *Prepayment Features with Negative Compensation and Clarification regarding the modification of financial liabilities*
- IAS 1 and IAS 8 (amendments): *Definition of Material*
- IAS 19 (amendments): *Plan Amendment, Curtailment or Settlement*
- IAS 28 (amendments): *Long-term Interests in Associates and Joint Ventures*
- IFRIC 23: *Uncertainty over Income Tax Treatments*

IFRS 16: *Leases* has an effective date for annual periods beginning on or after 1 January 2019 and will be adopted by the group from 1 April 2019. IFRS 16 results in lessees accounting for most leases within the scope of the standard in a manner similar to the way in which finance leases are currently accounted for under IAS 17: *Leases*. Lessees will recognise a right of use asset and a corresponding financial liability on the balance sheet. The asset will be amortised over the length of the lease, and the financial liability measured at amortised cost. Lessor accounting remains substantially the same as under IAS 17. The group expects to adopt the standard using a modified retrospective approach where the fair value of right of use assets and the lease liabilities are equal in value on initial application, and comparatives are not restated.

As at 31 March 2019, the group has non-cancellable operating lease commitments of £84.0m as disclosed in note 29. We expect these arrangements will meet the definition of a lease under IFRS 16, and hence the group will recognise an increase to total property, plant and equipment and a corresponding liability in respect of these leases, unless they qualify for exemption as low value or short-term leases upon the application of IFRS 16.

The effect of adoption of IFRS 16 at 1 April 2019 is expected to recognise right of use assets of c£67m and lease liabilities of c£76m, and for prepayments to decrease by c£1m and accruals (relating to the balance of rent free period incentives not recognised on transition) to decrease by c£10m. Over the life of leased assets, there will be no profit impact from adopting IFRS 16 but profit will vary between financial years as interest charges on finance leases are higher at the beginning of the lease term and reduce as the lease principal is repaid. Profit before tax for the year ending 31 March 2020 is expected to be £0.8m lower following adoption of this standard.

The directors do not expect that the adoption of the other standards and interpretations listed above will have a material impact on the financial statements in future periods.

The financial information has been prepared on the historical cost and fair value basis. The principal accounting policies adopted are set out below.

Notes forming part of the consolidated accounts

Basis of consolidation

The consolidated financial statements incorporate the financial statements of the company and entities controlled by the company (its subsidiaries). Control is achieved where the company has the power over the investee, exposure or rights to variable returns from involvement with the investee and the ability to use power over the investee to affect the amount of an investor's returns.

All intra-group transactions, balances, income and expenses are eliminated on consolidation.

Revenue recognition

Revenue is recognised from the transfer of goods or services at an amount that the group expects to be entitled to in exchange for those goods or services. Revenue is recognised based on the satisfaction of performance obligations, which are characterised by the transfer of control over a product or service to a customer. Revenue excludes amounts collected on behalf of third parties.

For the comparative year, revenue was measured at the fair value of the consideration received or receivable. Revenue from the rendering of services was recognised when the outcome could be reliably estimated and then by reference to the stage of completion of the transaction at the balance sheet date and in accordance with NATS (En Route) plc's air traffic services licence (including volume risk sharing, service performance incentives, costs exempt from risk sharing and inflation adjustments) and airport contracts and other contracts. Revenue for the sale of goods was recognised when the goods were delivered and title passed.

Airspace

Airspace services are economically regulated activities which are governed by NATS (En Route) plc's air traffic services licence. These include en route ATC services provided in UK airspace and the eastern part of the North Atlantic, approach services for London airports and an advisory service for helicopters operating in the North Sea. Each of these services has the same pattern of transfer to the customer. Revenue from each service is recognised over time (as the customer simultaneously receives and consumes all of the benefits provided by the group as the group performs).

The revenue which NERL is entitled to generate from each service is governed by licence conditions and is established by periodic regulatory reviews (this process is explained in the section on Our business model within the Strategic report). Revenue allowances are set ex ante based on the regulator's forecasts of air traffic volumes, inflation and defined benefit scheme pension contributions. The regulator also sets targets and incentives for service performance. Variable consideration arises where air traffic volumes, inflation and financial market conditions affecting pension contributions are different to the regulator's forecasts and where the group's service performance results in bonuses or penalties.

The group recognises variable consideration relating to air traffic volumes, inflation and service performance in the financial year in which the service is provided, reflecting its legal entitlement/obligation to recover/rebate this consideration, as it considers that it is highly probable that its inclusion will not result in a significant revenue reversal in the future. This variable consideration is recovered/rebated by way of an adjustment to charges on an 'n+2' basis. Amounts recoverable/payable are discounted at a rate incremental to the party receiving the financing.

The group recognises variable consideration relating to true-ups for the difference between actual pension contributions arising from unforeseen changes in financial market conditions and the regulator's assumption, after review and approval by the regulator and endorsement by the EC. This variable consideration is recovered/rebated by way of an adjustment to charges over a 15-year period. Amounts recoverable/payable are discounted at NERL's regulatory cost of capital.

Also within Airspace, the group provides ATC services to the MOD, including training services. Revenue is recognised over time, as the service is provided. The MOD contract includes variable consideration relating to a gain share term which enables the MOD to share in cost efficiencies relative to the original contract assumption. Amounts due to the MOD for gain share are recognised over time as the service is provided, and settled at future contractual payment dates. Amounts payable are discounted at NERL's regulatory cost of capital to reflect the financing component.

Revenue for assets funded by customers is recognised over the service life of the asset or the remaining contract term, if shorter.

UK airports

The group provides ATC, engineering support and airport optimisation services to UK airport customers. Each of these services represents a distinct performance obligation, but with a consistent pattern of delivery over the life of the contract. Revenue for these services is recognised on a time lapse basis using the work output approach.

Variable consideration for traffic volume risk sharing and service performance incentives is recognised in the financial year in which the service is provided.

Defence services

The group provides ATC, asset provision and engineering maintenance services under the MOD's Project Marshall contract to the Aquila joint venture. These are separate contracts priced on a standalone basis, using a cost plus a margin approach. The ATC and engineering maintenance services represent distinct performance obligations. The asset provision contract contains two performance obligations. In each case, revenue is recognised over time.

Notes forming part of the consolidated accounts

Other UK business

The group provides other services to UK customers including consultancy, training and information. These contracts can contain multiple deliverables that are considered distinct. The transaction price is allocated to each performance obligation based on stand-alone selling prices. Where the transaction price is not directly observable, the prices are estimated based on a cost plus margin. Revenue is recognised in line with costs incurred or labour hours expended for work performed to date, as a proportion of the estimated total contract costs.

International

The group provides ATC and related services (including consultancy, engineering, training and information services) to overseas customers. Revenue is recognised as for similar services described above.

Income from other sources

Rental income from operating leases is recognised on a straight-line basis over the relevant lease term.

Dividend income is recognised when a shareholder's rights to receive payment has been established.

Interest income is recognised on a time proportion basis using the effective interest method. This is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

Operating segments

Operating segments are reported in a manner consistent with the internal reporting provided to the group's Executive team, which is considered to be the chief operating decision maker. An operating segment represents a service line organised by customers who receive common products or services. Operating segment results are reviewed regularly by the Executive team to make decisions about resources to be allocated to the segment and to assess its performance, and for which discrete financial information is available.

Inter-segment transfers or transactions are entered into under the normal commercial terms and conditions that would also be available to unrelated third parties. Segment performance is assessed by service line revenue and contribution. Further information is provided in note 5.

Operating profit

Operating profit is stated after charging restructuring costs but before the group's share of results of joint ventures and associates, investment income, the fair value movement in the index-linked swap contracts, finance costs and taxation.

Goodwill (see note 3)

Goodwill is recognised as an asset and reviewed for impairment at least annually. Any impairment is recognised immediately in the income statement and is not subsequently reversed. For the purpose of impairment testing NATS assesses the carrying value of goodwill against the recoverable amount of the cash generating unit to which goodwill has been allocated. Where the recoverable amount is less than the carrying value, the impairment loss is allocated to goodwill.

Recoverable amount is the higher of fair value less costs of disposal and value in use. Fair value less costs of disposal is assessed by reference to the RAB of the economically regulated activities and costs of disposal. In assessing value in use, the estimated future cash flows (with a RAB terminal value, as a proxy for future cash flows) are discounted to their present value using the pre-tax nominal regulated rate of return. A premium is applied to the RAB, as market precedent transactions indicate economically regulated businesses attract valuations in excess of RAB (currently assumed at the upper end of the range of 5%-6% of RAB).

Leases

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other items are classified as operating leases.

Assets held under finance leases are recognised as assets of the group at their fair value or, if lower, at the present value of the minimum lease payments, each determined at the inception of the lease. The corresponding liability to the lessor is included in the balance sheet as a finance lease obligation. Lease payments are apportioned between finance expenses and the reduction of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability. Finance expenses are recognised immediately in profit or loss, unless they are directly attributable to qualifying assets in which case they are capitalised in accordance with the group's policy on borrowing costs (see below).

Rentals payable under operating leases are charged to income on a straight-line basis over the term of the relevant lease. Benefits received and receivable as an incentive to enter into an operating lease are also spread on a straight-line basis over the lease term.

Notes forming part of the consolidated accounts

Property, plant and equipment

Property, plant and equipment are stated at cost less accumulated depreciation and any provision for impairment in value. The cost of property, plant and equipment includes internal and contracted labour costs directly attributable to bringing the assets into working condition for their intended use. Depreciation is provided on a straight-line basis to write off the cost, less estimated residual value, of property, plant and equipment over their estimated useful lives as follows:

- Freehold buildings: 10-40 years
- Leasehold buildings: over the remaining life of the lease to a maximum of 20 years
- Air traffic control systems: 8-15 years
- Plant and other equipment: 3-15 years
- Furniture, fixtures and fittings: 10 years
- Vehicles: 5 years

Freehold land and assets in the course of construction and installation are not depreciated.

The gain or loss arising on the disposal or retirement of an asset is determined as the difference between the sale proceeds and the carrying amount of the asset and is recognised in income.

Borrowing costs

IAS 23: *Borrowing Costs,* requires costs of borrowings directly attributable to the acquisition, construction or production of a qualifying asset are capitalised as part of the cost of the asset. Qualifying assets are those which take a substantial time to get ready for intended use. These do not include assets which are ready for use when acquired.

For NATS, qualifying assets relate to any additions to new projects that began from 1 April 2009, included in assets under construction.

When funds are borrowed specifically for the purpose of acquiring or constructing a qualifying asset, the amount of borrowing costs eligible for capitalisation is the actual cost of borrowing incurred in the period. IAS 23 requires that where a qualifying asset is funded from a pool of general borrowings, the amount of borrowing costs eligible for capitalisation should be determined by applying an appropriate capitalisation rate (based on the weighted average of borrowing costs applicable to the general outstanding borrowings during the period) to the expenditure during the period, to determine the borrowing costs eligible for capitalisation.

For NATS, the percentage rate for interest capitalisation is calculated as a proportion of the interest costs to the average level of borrowings in the period that relate to qualifying capital expenditure. All qualifying capital expenditure is then inflated by this percentage which has the effect of capitalising related interest costs.

Government grants and other grants

Government grants relating to property, plant and equipment are treated as deferred income and released to the income statement by equal annual instalments over the expected useful economic lives of the related assets. Grants of a revenue nature are credited to income in the period to which they relate (and are reported on the face of the income statement).

In order to benefit airspace users, NERL obtains funding from the EC's Innovation and Network Executive Agency (INEA) for SESAR deployment projects. This is initially deferred on the balance sheet, and reported within contract liabilities. Under EC Regulations, and as required by the CAA as NERL's economic regulator, all of the benefit of INEA funding is passed on to airspace users as a reduction in the unit rate charged by NERL for its UK en route services. Accordingly, INEA funding is recognised as a grant relating to income and reported as other revenue in the income statement, offsetting the cost of amounts passed on to customers through the unit rate adjustment.

Investments in associates and joint ventures

An associate is an entity over which the group is in a position to exercise significant influence, but not control, through participation in the financial and operating policy decisions of the investee. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control over those policies.

The results, assets and liabilities of associates are incorporated in these financial statements using the equity method of accounting.

A joint venture is an arrangement in which two or more parties have joint control. The investors in the joint venture have rights to the net assets of the jointly controlled entity. The results of joint ventures are incorporated in these financial statements using the equity method of accounting.

Investments in associates and joint ventures are carried in the balance sheet at cost as adjusted by post-acquisition changes in the group's share of the net assets of the associate or joint venture, less any impairment in the value of individual investments.

Internally-generated intangible assets – research and development expenditure

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

An internally-generated intangible asset arising from the group's development activities is recognised only if all of the following conditions are met:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- the intention to complete the intangible asset and use or sell it;
- the ability to use or sell the intangible asset;

Notes forming part of the consolidated accounts

- how the intangible asset will generate probable future economic benefits;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

Internally-generated intangible assets are amortised on a straight-line basis over their useful lives, typically over 3 to 12 years. Assets in the course of construction are not amortised until ready for use. Where no internally-generated intangible asset can be recognised, development expenditure is recognised as an expense in the period in which it is incurred.

Impairment of tangible and intangible assets, excluding goodwill

At each balance sheet date, the group reviews the carrying amounts of its tangible and intangible assets, including those in the course of construction, to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment (if any). Where the asset does not generate cash flows that are independent from other assets, the group estimates the recoverable amount of the cash-generating unit to which the asset belongs.

Recoverable amount is the higher of fair value less costs of disposal and the value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using the pre-tax nominal regulated rate of return for NERL (with a RAB terminal value as a proxy for future cash flows) and for NATS Services the weighted average cost of capital.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised as an expense immediately.

Where an impairment loss on an intangible or tangible asset subsequently reverses, the carrying amount of the asset (cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (cash-generating unit) in prior years. A reversal of an impairment loss is recognised in the income statement immediately.

Share-based payments

The group has applied the requirements of IFRS 2: *Share-Based Payments*.

In 2001, the company established an All Employee Share Ownership Plan (AESOP) for the benefit of its employees to hold 5% of the share capital of NATS Holdings Limited. The Plan was initially established through the transfer of shares by the Crown Shareholder at the PPP to NATS Employee Sharetrust Limited (NESL) for £nil consideration. Following financial restructuring in March 2003, further shares were transferred to NESL by AG for £nil consideration and NESL was gifted cash of £279,264 to acquire additional shares to maintain the Plan's interest at 5% of the share capital of NATS Holdings Limited. This amount is reflected in the AESOP reserve. The Plan is administered by NESL, a trustee company. The employee ordinary shares may only be owned by employee shareholders and can only be sold to the trust company.

Shares awarded by the Plan are treated as cash-settled liabilities. A liability is recognised for shares awarded over the period from award to when the employee becomes unconditionally entitled to the shares and are measured initially at their fair value. At each balance sheet date until the liability is settled, as well as at the date of settlement, the fair value of the liability is re-measured based on independent share valuations with any changes in fair value recognised in profit or loss for the year.

In respect of the award schemes, the group provides finance to the NESL to enable the trust company to meet its obligations to repurchase vested or eligible shares from employees.

The costs of running the employee share trust is charged to the income statement.

Taxation

The tax expense represents the sum of the tax currently payable and deferred tax.

Current tax is provided at amounts expected to be paid or recovered using the tax rates and laws that have been enacted or substantively enacted by the balance sheet date.

Deferred tax is the tax expected to be payable or recoverable on differences between the carrying values of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from the initial recognition of goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the tax profit nor the accounting profit.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the balance sheet date. Deferred tax is charged or credited to the income statement, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also dealt with in equity.

Notes forming part of the consolidated accounts

The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current liabilities and when they relate to taxes levied by the same taxation authority and the group intends to settle its current tax assets and liabilities on a net basis.

Under the Finance Act 2016, the corporation tax rate will be reduced to 17% with effect from 1 April 2020. The future main tax rate reductions are expected to have a similar impact on the group's financial statements as outlined above, subject to the impact of other developments in the group's tax position which may reduce the beneficial effect of this in the group's tax rate.

Foreign currency translation

The individual financial statements of each group company are presented in the currency of the primary economic environment in which it operates (its functional currency). For the purpose of the consolidated financial statements, the results and financial position of each group company are expressed in pounds sterling, which is the functional currency of the holding company, and the presentation currency for the consolidated financial statements. For the purpose of presenting consolidated financial statements, the assets and liabilities of the group's foreign operations are translated at exchange rates prevailing at the balance sheet date. Income and expense items are translated at the average rates for the period, unless exchange rates fluctuate significantly during the period, in which case the exchange rate at the date of transactions is used. Exchange differences arising, if any, are recognised in other comprehensive income and accumulated in equity in the Translation reserve (and attributed to non-controlling interests as appropriate).

In preparing the financial statements of the individual companies, transactions in currencies other than pounds sterling are recorded at the rates of exchange prevailing on the dates of the transactions. At each balance sheet date, monetary assets and liabilities that are denominated in foreign currencies are retranslated at the rates prevailing at the balance sheet date. Non-monetary assets and liabilities carried at fair value that are denominated in foreign currencies are translated at the rates prevailing at the date when the fair value was determined. Gains and losses arising on retranslation are included in the income statement for the period.

In order to hedge its exposure to certain foreign exchange risks, the group enters into forward contracts (see below for details of the group's accounting policies in respect of such derivative financial instruments).

Retirement benefit costs

The CAA Pension Scheme is a funded defined benefit scheme. The assets of the scheme are held in a separate trustee administered fund. The cost of providing benefits is determined using the Projected Unit Credit Method, with actuarial valuations being carried out at the end of each reporting period. Remeasurement comprising actuarial gains and losses and return on scheme assets (excluding interest) are recognised immediately in the balance sheet with a charge or credit to the statement of comprehensive income in the period in which they occur. Remeasurement recorded in the statement of comprehensive income is not recycled.

Past service cost is recognised immediately to the extent that the benefits are already vested.

Net interest is calculated by applying the discount rate to the net defined benefit liability or asset. Defined benefit costs are split into three categories:

- current service cost, past service cost and gains and losses on curtailments and settlements;
- net interest expense or income; and
- remeasurement.

The retirement benefit obligation recognised in the balance sheet represents the deficit or surplus in the group's defined benefit scheme. Any surplus resulting from this calculation is limited to the present value of available refunds or reductions in future contributions to the scheme.

Since 2009, the group and Trustees have introduced a number of pension reforms, as explained in note 31. These include: closing the defined benefit scheme to new entrants with effect from 1 April 2009, and establishing a defined contribution scheme for new entrants from 1 April 2009, limiting the rate of increase in pensionable pay and changing the indexation reference rate for future service.

Contributions to the defined contribution pension scheme are expensed as incurred.

Provisions

Provisions are recognised when the group has a present obligation as a result of a past event, and it is probable that the group will be required to settle that obligation. Provisions are measured at the directors' best estimate of expenditure required to settle the obligation at the balance sheet date, and are discounted to present value where the effect is material.

Notes forming part of the consolidated accounts

Financial instruments

Financial assets and financial liabilities are recognised in the group balance sheet when the group becomes a party to the contractual provisions of the instrument. Financial assets are classified as either fair value through profit or loss, fair value through other comprehensive income, or amortised cost. Classification and subsequent re-measurement depends on the group's business model for managing the financial asset and its cash flow characteristics.

The group has financial assets in the categories of fair value through the profit or loss and at amortised cost. The group does not have financial assets at fair value through other comprehensive income. Detailed disclosures are set out in notes 16 to 21.

Financial assets:
Fair value through profit or loss

The group does not have any assets held for trading. The group holds an equity investment in Aireon at fair value through profit or loss. This is carried in the statement of financial position at fair value with changes in fair value recognised in the consolidated income statement in the fair value movement in financial instruments line item.

Amortised cost

These assets arise principally from the provision of goods and services to customers (such as loans and trade receivables), but also incorporate other types of financial assets where the objective is to hold these assets in order to collect contractual cash flows and the contractual cash flows are solely payments of principal and interest. They are initially recognised at fair value and are subsequently carried at amortised cost using the effective interest rate method, less provision for impairment.

Impairment of financial assets

Equity instruments are assessed at each reporting date to determine whether there was objective evidence of impairment. Impairment losses are recognised in the income statement.

Impairment provisions for trade receivables are recognised based on the simplified approach within IFRS 9 using the lifetime expected credit losses. During this process, the probability of the non-payment of trade receivables is assessed. This probability is then multiplied by the amount of the expected loss arising from default to determine the lifetime expected credit loss for the trade receivables. For trade receivables, such provisions are recorded in a separate provision account with the loss being recognised in the income statement. On confirmation that the trade receivable will not be collectable, the gross carrying value of the asset is written off against the associated provision.

In the prior year, impairment losses on trade receivables were recognised using allowance accounts. When a trade receivable was considered irrecoverable, it was written off against the allowance account, any subsequent recoveries were credited to the allowance account. Changes in the allowance account were recognised in the income statement.

Impairment provisions for other receivables are recognised based on a forward looking expected credit loss model. The methodology used to determine the amount of the provision is based on whether at each reporting date, there has been a significant increase in credit risk since initial recognition of the financial asset.

For those financial assets where the credit risk has not increased significantly since initial recognition, 12 month expected credit losses along with gross interest income are recognised. For those for which credit risk has increased significantly, lifetime expected credit losses along with the gross interest income are recognised. For those that are determined to be credit impaired, lifetime expected credit losses along with interest income on a net basis are recognised.

Cash and cash equivalents

Cash and cash equivalents comprise cash on hand and demand deposits and other highly liquid investments (with a maturity of 3 months or less) that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value.

Financial liabilities:

Financial liabilities are classified according to the substance of the contractual arrangements entered into. Financial liabilities are either financial liabilities at fair value through the profit or loss or other financial liabilities.

Fair value through the profit or loss

Financial liabilities at fair value through profit or loss are measured initially at fair value and subsequently stated at fair value, with any resultant gain or loss recognised in the income statement. The net gain or loss recognised in the income statement incorporates any interest paid on the financial liability.

Other financial liabilities: including bank, other borrowings, loan notes and debt securities

Interest-bearing bank loans, other borrowings, loan notes and debt securities are recorded at the proceeds received, net of direct issue costs. Finance charges, including premia payable on settlement or redemption and direct issue costs, are accounted for on an accruals basis in the income statement using the effective interest method and are added to the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.

Notes forming part of the consolidated accounts

Effective interest method

The effective interest method is a method of calculating amortised cost of a financial asset or financial liability and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts the estimated future cash receipts over the expected life of the financial asset.

Equity

Equity instruments are also classified according to the substance of the contractual arrangements entered into. An equity instrument is any contract that evidences a residual interest in the assets of the group after deducting all of its liabilities.

Equity instruments issued by the group are recorded at the proceeds received, net of direct issue costs.

Reserves

The consolidated statement of changes in equity includes the following reserves not otherwise explained in this note:

> Other reserves, which arose on the completion of the PPP transaction in July 2001; and

> Non-controlling interest, which represents the share of equity attributable to the minority investor in NATS Services LLC.

Derivative financial instruments and hedging activities

The group's activities expose it primarily to the financial risks of changes in interest rates, inflation and foreign currency exchange rates. The group uses interest rate and index-linked swap contracts and forward foreign exchange contracts to hedge these exposures. These are disclosed in notes 19 and 20 to the accounts.

As permitted under IFRS 9, the group has elected to continue to apply the existing hedge accounting requirements of IAS 39 for its cash flow hedges until a new macro hedge accounting standard is implemented by the IASB.

Under IFRS derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently measured at their fair value. The method of recognising the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged.

The use of financial derivatives is governed by the group's policies approved by the Board of directors, which provides written principles on the use of financial derivatives. The group documents at the inception of the transaction the relationship between hedging instruments and the hedged items, as well as its risk management objectives and strategy for undertaking various hedge transactions. The group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items.

Changes in the fair value of derivative financial instruments that are designated and effective as hedges of future cash flows are recognised directly in equity (in the Hedge reserve) and the ineffective portion is recognised immediately in the income statement. If a hedge of a forecast transaction subsequently results in the recognition of a financial asset or a financial liability, the associated gains or losses that were recognised directly in equity are reclassified into the income statement in the same period or periods during which the asset acquired or liability assumed affects profit or loss. For hedges that do not result in the recognition of an asset or a liability, amounts deferred in equity are recycled to the income statement in the same period in which the hedged item affects the income statement.

Changes in the fair value of derivative financial instruments that do not qualify for hedge accounting are recognised in the income statement as they arise.

Hedge accounting is discontinued when the hedging instrument expires or is sold, terminated, or exercised, or no longer qualifies for hedge accounting. At that time, any cumulative gain or loss on the hedging instrument recognised in equity is retained in equity until the forecast transaction occurs. If a hedging transaction is no longer expected to occur, the net cumulative gain or loss recognised in equity is transferred to net income or expense for the period.

Derivatives embedded in other financial instruments or other host contracts are treated as separate derivatives when their risks and characteristics are not closely related to those of host contracts and the host contracts are not carried at fair value with unrealised gains or losses reported in the income statement.

3. Critical judgements and key sources of estimation uncertainty

Impairment of goodwill, intangible and tangible assets

In carrying out impairment reviews of goodwill, intangible and tangible assets (including assets in the course of construction), a number of significant assumptions have to be made when preparing cash flow projections and assessing fair values less costs of disposal (see judgement relating to goodwill below). These include air traffic growth, future cash flows, the value of the regulated asset bases, market premia for regulated businesses, NERL's licence period and the outcome of the regulatory price control determinations. The market premium, which is applied to the RAB when determining the carrying value of goodwill, was assessed at the balance sheet date to be at the upper end of the range of 5-6% (2018: 5-6%). The market premium is assessed by reference to both market precedent transactions and internal quantitative models. If the actual outcome should differ or changes in expectations arise, impairment charges may be required which would materially impact operating results. A reduction in market premium of 2.9% would result in the recoverable amount being equal to the carrying amount of goodwill. See notes 13, 14 and 15.

Notes forming part of the consolidated accounts

Estimate of disposal costs made for the fair value less costs of disposal of goodwill

IAS 36 defines the costs of disposal which should be deducted from fair value, as the incremental costs directly attributable to the disposal of the CGU, excluding finance costs and income tax expense. Therefore, in order to consider the costs of disposal, the directors have to contemplate a hypothetical disposal by NERL of its licensed activities and associated disposal costs on the basis that the disposal is being undertaken by a market participant unencumbered by any form of overarching agreement between the shareholders, assuming such goodwill had been acquired in a business combination rather than in the manner in which NERL's goodwill was created.

The specific circumstances of NATS SPA, which recognise the strategic national interest of the Crown, would cause certain disposal costs to be borne directly by the company and others by shareholders. Accordingly, the SPA, between the Crown shareholder, AG (the Strategic Partner) and LHRA, therefore includes as a reserved matter for the approval of these parties, and not for the directors, any material change in the nature or scope of the business, including the transfer or discontinuation of NERL's licence activity. Moreover, a hypothetical transaction for the full or partial disposal of NERL or of its licensed activity, to realise the value of any of NERL's goodwill, would be under the close control of these parties including appointing and bearing the costs of advisors for the sale process.

The remaining, minority NATS shareholder, the employee share trust, is not a party to the SPA, and would not have any right or expectation to control the sale process. The directors have a duty to ensure that the rights and interests of the minority shareholder are not prejudiced by the specific interests of the shareholders who are the parties to the SPA.

For these reasons, in a hypothetical transaction by a market participant to dispose of NERL or its licensed activity, the directors believe that the parties to the SPA would and should directly bear the costs of the disposal with the exception of due diligence costs that the company would bear in order to enable the directors to fulfil their statutory and fiduciary duties. It is expected that the costs parties to the SPA bear would include any commission or advisor fees relating to the sale itself, as well as advisor fees relating to the impact of the sale on each of the parties to the SPA.

Accordingly, the disposal costs that the parties to the SPA would bear directly, have not been included in the disposal costs deducted from fair value because of the specific circumstances of the SPA.

The directors have estimated the disposal costs which the company would bear directly to be around £1m for legal, financial and actuarial due diligence. These are incremental costs which have been deducted from fair value in calculating fair value less costs of disposal.

Retirement benefits

The group accounts for its defined benefit pension scheme such that the net pension scheme position is reported on the balance sheet with actuarial gains and losses being recognised directly in equity through the statement of comprehensive income.

A number of key assumptions have been made in calculating the fair value of the group's defined benefit pension scheme which affect the balance sheet position and the group's reserves and income statement. Refer to note 31 of the notes to the consolidated accounts for a summary of the main assumptions and sensitivities. Actual outcomes may differ materially from the assumptions used and may result in volatility in the net pension scheme position.

Recoverability of/obligation for revenue allowances

The economic regulatory price controls for UK en route services established annual revenue allowances that are recovered through a price based on the economic regulator's forecasts of traffic volumes and inflation made at the start of the price control period. Where traffic volumes or inflation differ from the regulator's forecasts, revenue actually recovered may be higher or lower than the revenue allowance. Where this is the case, the EC Charging Regulation requires an adjustment to be made to the price two years later to reflect any over or under-recovery. At the balance sheet date there were £0.1m of net receivable allowances relating to previous regulatory reference periods (2018: £3.3m net payable allowances) and £139.4m of net payable allowances relating to the current regulatory reference period (2018: £100.4m of net payable allowances). The legal right to recover or the obligation to rebate the revenue adjustments discussed above is provided by the EC Charging Regulation and NERL's air traffic services licence.

Capital investment programme

The group is undertaking a significant capital investment programme to upgrade existing ATC infrastructure. This programme requires the group to enter into substantial contracts for the development of infrastructure assets and information systems. Whilst covered by contractual arrangements, it is in the nature of such complex projects that, from time to time, variations to the original specifications may necessitate the renegotiation of original contract scope or price and affect amounts reported in these accounts. The group also capitalises internal labour where this is directly attributable to the development of assets.

Long term contracts

The group is fulfilling a number of long term contracts, including providing support to its Aquila joint venture which is undertaking Project Marshall. In assessing the amount of revenue to be recognised in respect of these contracts, judgements are made on the extent of contract completion and the proportion that costs incurred to date bear to the estimated total costs of the contract.

Notes forming part of the consolidated accounts

4. Revenue

The group has recognised the following revenue in the income statement:

	2019 £m	2018* £m
Revenue from contracts with customers	**872.2**	909.5
Other revenue: EU funding passed to UK en route customers (see note 4a)	**9.7**	-
Revenue from other sources: rental and sub-lease income	**3.8**	3.6
Total revenue	**885.7**	913.1
Other operating income	**6.1**	5.5
Investment income (see note 8)	**4.4**	2.0
	896.2	920.6

a) Revenue disaggregated by operating segment

The group's Executive team is considered to be the chief operating decision maker as defined by IFRS 8. The segmental analysis is based on the information that the Executive team uses internally for the purposes of evaluating the performance of operating segments and determining resource allocation between segments. The business is organised into service lines, aligned with our customers: Airspace, UK Airports, Defence Services, Other UK Business and International, and the products and services provided to each.

The performance of operating segments is assessed based on service line revenue and contribution. Service line contribution represents the revenue and costs which are directly attributed to a service line. Costs which are not directly attributed to a service line include: costs managed outside of service lines, depreciation and amortisation (net of government grants), goodwill impairment, profit/(loss) on disposal of non-current assets, employee share scheme (costs)/credits, redundancy and relocation costs and R&D expenditure above the line tax credits. A reconciliation of service line contribution to operating profit is set out below.

Principal activities

The following table describes the activities of each operating segment:

Airspace	This includes all of the group's economically regulated activities and encompasses services to en route, oceanic and London Approach customers provided from our Prestwick and Swanwick centres, together with all the supporting communications, navigation and surveillance infrastructure and facilities. Airspace includes air traffic services for helicopters operating in the North Sea, approach services for London airports, infrastructure services to the Ministry of Defence (MOD) for their en route operations and European projects in conjunction with other air traffic organisations.
UK Airports	The provision of air traffic control, engineering support and airport optimisation services to UK airport customers.
Defence Services	The provision of air traffic control, engineering support and other services to the UK MOD and to our joint venture for the UK MOD's Marshall contract.
Other UK Business	Other services provided to UK customers including: consultancy, offering airspace development, capacity improvement and training; and information, providing data to enable future efficiency and flight optimisation.
International	The provision of air traffic control and related services (including consultancy, engineering, training and information services) to overseas customers.

Segment information about these activities is presented below.

* The group has chosen not to restate comparatives on adoption of IFRS 15. See note 35.

Notes forming part of the consolidated accounts

4. Revenue (continued)

	2019			2018*		
	Revenue £m	**Intra-group revenue £m**	**External revenue £m**	Revenue £m	Intra-group revenue £m	External revenue £m
Revenue from contracts with customers						
UK air traffic services:						
Services to UK en route customers	**586.3**	**-**	**586.3**	605.0	-	605.0
London Approach services	**13.2**	**-**	**13.2**	12.7	-	12.7
Infrastructure services to the MOD	**49.4**	**-**	**49.4**	47.6	-	47.6
Services for North Sea helicopters	**8.6**	**-**	**8.6**	8.7	-	8.7
Other income	**2.5**	**-**	**2.5**	6.3	-	6.3
	660.0	**-**	**660.0**	680.3	-	680.3
North Atlantic air traffic services:						
Services to oceanic en route customers	**29.2**	**-**	**29.2**	29.5	-	29.5
Intercompany revenue	**25.5**	**(25.5)**	**-**	25.3	(25.3)	-
Airspace	**714.7**	**(25.5)**	**689.2**	735.1	(25.3)	709.8
UK Airports	**147.0**	**(12.8)**	**134.2**	171.5	(12.3)	159.2
Defence Services	**27.1**	**(0.6)**	**26.5**	20.9	(0.3)	20.6
Other UK Business	**14.5**	**(5.4)**	**9.1**	15.0	(5.3)	9.7
International	**13.2**	**-**	**13.2**	10.2	-	10.2
	916.5	**(44.3)**	**872.2**	952.7	(43.2)	909.5
Other revenue: EU funding passed to UK en route customers						
Airspace	**9.7**	**-**	**9.7**	-	-	-
Revenue from other sources						
Airspace	**4.2**	**(1.1)**	**3.1**	4.2	(1.1)	3.1
UK Airports	**0.5**	**-**	**0.5**	0.3	-	0.3
Other UK Business	**0.2**	**-**	**0.2**	0.2	-	0.2
	4.9	**(1.1)**	**3.8**	4.7	(1.1)	3.6
Total revenue	**931.1**	**(45.4)**	**885.7**	957.4	(44.3)	913.1

UK air traffic services provide en route air traffic services within UK airspace, air traffic services for helicopters operating in the North Sea, approach services for London airports, services to the Ministry of Defence and miscellaneous activity connected to the en route business. North Atlantic air traffic services provide en route air traffic services over the North Atlantic, including an altitude calibration service.

EC Regulations require that European funding for SESAR deployment received by ANSPs should ultimately be passed on to airspace users through a discount in the unit rate charge for UK en route services. Previously, we recorded such funding as deferred income in the accounts. In the financial year ended 31 March 2019, £9.7m (2018: nil) of European funding was passed to airspace users. Accordingly, an equivalent amount was released from contract liabilities to offset the cost of the discount. As a result, the group's revenues from UK en route services reflect the regulatory revenue allowances for which it is entitled for the services provided in the year.

* The group has chosen not to restate comparatives on adoption of IFRS 15. See note 35.

Notes forming part of the consolidated accounts

4. Revenue (continued)

b) Revenue disaggregated based on economic regulation

	2019			2018*		
	Revenue £m	**Intra-group revenue £m**	**External revenue £m**	Revenue £m	Intra-group revenue £m	External revenue £m
Regulated income						
Services to UK en route customers	**586.3**	**-**	**586.3**	605.0	-	605.0
London Approach services	**13.2**	**-**	**13.2**	12.7	-	12.7
Services to oceanic en route customers	**29.2**	**-**	**29.2**	29.5	-	29.5
Revenue from contracts with customers	**628.7**	**-**	**628.7**	647.2	-	647.2
Other revenue: EU funding passed to UK en route customers	**9.7**	**-**	**9.7**	-	-	-
Non-regulated income						
Revenue from contracts with customers	**287.8**	**(44.3)**	**243.5**	305.5	(43.2)	262.3
Revenue from other sources	**4.9**	**(1.1)**	**3.8**	4.7	(1.1)	3.6
	292.7	**(45.4)**	**247.3**	310.2	(44.3)	265.9
	931.1	**(45.4)**	**885.7**	957.4	(44.3)	913.1

c) Revenue disaggregated by timing of recognition

	2019			2018*		
	Revenue £m	**Intra-group revenue £m**	**External revenue £m**	Revenue £m	Intra-group revenue £m	External revenue £m
Over time						
Revenue from contracts with customers	**915.2**	**(44.3)**	**870.9**	950.4	(43.2)	907.2
Other revenue: EU funding passed to UK en route customers	**9.7**	**-**	**9.7**	-	-	-
Revenue from other sources	**4.9**	**(1.1)**	**3.8**	4.7	(1.1)	3.6
	929.8	**(45.4)**	**884.4**	955.1	(44.3)	910.8
At a point in time						
Revenue from contracts with customers	**1.3**	**-**	**1.3**	2.3	-	2.3
	1.3	**-**	**1.3**	2.3	-	2.3
	931.1	**(45.4)**	**885.7**	957.4	(44.3)	913.1

* The group has chosen not to restate comparatives on adoption of IFRS 15. See note 35.

Notes forming part of the consolidated accounts

4. Revenue (continued)

d) Revenue disaggregated by geographical area

The following table provides an analysis of the group's revenue by geographical area based on the location of its customers:

	2019			2018*		
	Revenue £m	**Intra-group revenue £m**	**External revenue £m**	Revenue £m	Intra-group revenue £m	External revenue £m
Revenue from contracts with customers, including Other revenue: EU funding passed to UK en route customers						
United Kingdom	**484.1**	**(44.3)**	**439.8**	505.7	(43.2)	462.5
Other European countries	**130.0**	**-**	**130.0**	138.1	-	138.1
Republic of Ireland	**88.3**	**-**	**88.3**	88.1	-	88.1
United States of America	**86.1**	**-**	**86.1**	85.7	-	85.7
Countries in Asia	**58.4**	**-**	**58.4**	56.9	-	56.9
Germany	**46.1**	**-**	**46.1**	48.9	-	48.9
Other North American countries	**22.3**	**-**	**22.3**	21.7	-	21.7
Countries in Africa	**9.2**	**-**	**9.2**	5.6	-	5.6
Countries in Oceania	**1.2**	**-**	**1.2**	1.3	-	1.3
Countries in South America	**0.5**	**-**	**0.5**	0.7	-	0.7
	926.2	**(44.3)**	**881.9**	952.7	(43.2)	909.5
Revenue from other sources						
United Kingdom	**4.4**	**(1.1)**	**3.3**	4.2	(1.1)	3.1
Other European countries	**0.5**	**-**	**0.5**	0.5	-	0.5
	4.9	**(1.1)**	**3.8**	4.7	(1.1)	3.6
	931.1	**(45.4)**	**885.7**	957.4	(44.3)	913.1

Revenue is attributed to countries on the basis of the customer's country of domicile. Individual countries have not been shown where revenue from these countries of domicile are less than 5% of total revenue.

* The group has chosen not to restate comparatives on adoption of IFRS 15. See note 35.

Notes forming part of the consolidated accounts

4. Revenue (continued)

e) Contract balances

Receivables, contract assets and contract liabilities from contracts with customers are disclosed in notes 17 and 21. Significant changes in the contract assets and the contract liabilities balances during the year are as follows:

	Contract assets 2019 £m	Contract liabilities 2019 £m
At 1 April	20.3	(35.9)
Opening contract assets transferred to trade and other receivables	(15.9)	-
Additional contract asset balances recognised at the balance sheet date	19.4	-
Opening contract liabilities which have now been recognised as revenue	-	11.5
Increases due to cash received, excluding amounts recognised as revenue during the year	-	(69.2)
At 31 March	**23.8**	**(93.6)**

Contract assets and contract liabilities are included within "trade and other receivables" and "trade and other payables" respectively on the face of the balance sheet. The majority of contracts in the Airspace and UK Airports service lines are service contracts that do not result in a contract asset or liability position at each reporting date. Other contracts (including consultancy, engineering, training and information services) may result in a contract asset or liability because the cumulative payments received from customers at each balance sheet date does not necessarily equal the amount of revenue recognised on these contracts.

f) Revenue recognised from performance obligations satisfied in previous periods

For the year ended 31 March 2019, no revenue was recognised for performance obligations satisfied in previous periods.

g) Remaining performance obligations

For the majority of contracts, the group has a right to consideration from the customer in an amount that corresponds directly to the value to the customer of the group's performance completed to date, or the contract has an original duration of one year or less. For such contracts, the practical expedient in paragraph 121 of IFRS 15 applies.

For the remaining contracts, the amount of revenue that will be recognised in future periods in relation to performance obligations that are partially satisfied at 31 March 2019 is approximately as follows:

	Due within one year or less £m	Between one and two years £m	Due between two and five years £m	Due in more than five years £m	Total £m
Airspace	7.6	2.5	1.0	-	11.1
UK Airports	14.8	0.9	-	-	15.7
Defence Services	0.4	-	-	-	0.4
Other UK Business	0.9	0.5	-	-	1.4
International	6.8	1.8	-	-	8.6
	30.5	**5.7**	**1.0**	**-**	**37.2**

The amounts disclosed above do not include variable consideration which is constrained, which principally relates to pension pass through. As permitted under the transitional provisions in IFRS 15, no comparative information for the year ended 31 March 2018 is disclosed.

Notes forming part of the consolidated accounts

4. Revenue (continued)

h) Cash flow hedged revenue

A portion of the group's revenue from the provision of services denominated in foreign currencies is cash flow hedged. Included in revenue is the recycling of the effective amount of foreign currency derivatives that are used to hedge foreign currency revenue. The amount included in revenue is a £1.0m gain (2018: £0.7m gain).

5. Operating segments: Operating profit

Service line contribution represents the revenue and costs which are directly attributed to a service line.

A reconciliation of service line contribution to operating profit is provided below:

	2019 £m	2018 £m
Airspace	**313.8**	345.0
UK Airports	**27.5**	28.7
Defence Services	**1.6**	(6.2)
Other UK Business	**6.8**	6.5
International	**0.8**	(1.1)
Service line contribution	**350.5**	372.9
Costs not directly attributed to service lines:		
Depreciation and amortisation (net of deferred grants released)	**(141.1)**	(137.0)
Profit on disposal of non-current assets	**2.1**	-
Employee share scheme (costs)/credits	**(2.9)**	2.8
Redundancy and relocation costs	**(1.7)**	(3.4)
Foreign exchange gain	**1.9**	-
Other costs not directly attributed to service lines	**(86.6)**	(81.0)
R&D expenditure above the line tax credits	**1.9**	1.8
Less: share of results of associate and joint ventures	**(1.6)**	0.9
Operating profit	**122.5**	157.0

The performances of Airspace and Defence Services include the group share of the results of European Satellite Services Provider SAS (ESSP SAS) and Aquila Air Traffic Management Services Limited respectively. The performance of International includes the group share of the results of FerroNATS Air Traffic Services SA and Searidge Technologies Inc (see note 33). Other costs not directly attributed to service lines include corporate costs providing central support functions.

Notes forming part of the consolidated accounts

5. Operating segments: Operating profit (continued)

Non-current assets additions

Additions to non-current assets are presented by service line below:

	2019 £m	2018 £m
Airspace	**149.9**	180.0
UK Airports	**2.0**	2.3
Defence Services	**2.5**	1.0
Other UK Business	**2.1**	2.3
	156.5	185.6

Geographical segments

The following table provides an analysis of the group's non-current assets (excluding financial assets and, for 2018, retirement benefit assets) by geographical location. An analysis of the group's revenue by geographical location is provided in note 4 d) above.

	Non-current assets	
	2019 £m	2018 £m
United Kingdom	**1,269.8**	1,252.6
United States of America	**50.9**	-
Other North American countries	**5.9**	5.7
Other European countries	**4.5**	5.0
Countries in Asia	**0.1**	-
	1,331.2	1,263.3

Notes forming part of the consolidated accounts

6. Operating profit for the year

Operating profit for the year has been arrived at after charging/(crediting):

	2019 £m	2018 £m
The CAA regulatory charges in respect of NERL's air traffic services licence	**5.3**	4.9
The CAA regulatory charges for safety regulation at airports	**0.1**	2.9
Depreciation of property, plant and equipment	**81.0**	80.3
Impairment of property, plant and equipment	**1.9**	0.9
Amortisation of intangible assets	**55.7**	51.7
Impairment of intangible assets	**3.1**	4.8
Deferred grants released	**(0.6)**	(0.7)
Redundancy costs	**1.5**	3.9
Staff relocation costs (net of credits for revisions to estimates) following site closure	**0.2**	(0.5)
Research and development costs	**8.8**	8.6
R&D expenditure above the line tax credits	**(1.9)**	(1.8)
Auditor's remuneration for audit services (see below)	**0.2**	0.2

The analysis of auditor's remuneration is as follows:

Fees payable to the company's auditor for the audit of the company's annual accounts	**0.1**	0.1
Fees payable to the company's auditor and their associates for other services to the group		
- The audit of the company's subsidiaries	**0.1**	0.1
Total audit fees	**0.2**	0.2

Total non-audit fees of £64,320 (2018: £37,769) include tax services of £nil (2018: £nil) and other services of £64,320 (2018: £37,769).

Total fees payable to the company's auditor for the audit of the subsidiary accounts was £63,724 (2018: £60,366).

A portion of the company's costs are denominated in foreign currencies and are cash flow hedged. Included in operating costs is the recycling of the effective amount of foreign currency derivatives that are used to hedge foreign currency costs. The amount included in operating cost is £0.3m gain (2018: £nil).

Government grants relating to the purchase of property, plant and equipment contributions received are treated as deferred income which is credited to the income statement by equal annual instalments over the expected useful lives of the related assets.

Research and development costs represent internal labour costs incurred in support of research and development activities.

Notes forming part of the consolidated accounts

7. Staff costs

a. Staff costs

	2019 £m	2018 £m
Salaries and staff costs, including directors' remuneration, were as follows:		
Wages and salaries	**362.1**	336.8
Social security costs	**43.5**	40.8
Pension costs (note 7b)	**83.9**	105.9
	489.5	483.5
Less: amounts capitalised	**(43.1)**	(47.1)
	446.4	436.4

Wages and salaries include redundancy costs of £1.4m (2018: £3.9m), share-based payment credits or charges, other allowances and holiday pay.

Pension costs include £0.1m (2018: £nil) for redundancy related augmentation payments which staff elected to receive in lieu of severance payments.

b. Pension costs

	2019 £m	2018 £m
Defined benefit pension scheme costs (note 31)	**66.3**	92.6
Defined contribution pension scheme costs	**17.6**	13.3
	83.9	105.9

The company operates a salary sacrifice arrangement for staff pension contributions. Wages and salaries and pension costs reflect this arrangement.

c. Staff numbers

	2019 No.	2018 No.
The monthly average number of employees (including executive directors) was:		
Air traffic controllers	**1,782**	1,722
Air traffic service assistants	**657**	652
Engineers	**892**	906
Others	**1,133**	1,030
	4,464	4,310

Notes forming part of the consolidated accounts

8. Investment income

	2019 £m	2018* £m
Interest on bank deposits	**1.9**	0.9
Other loans and receivables	**2.5**	1.1
	4.4	2.0

Interest on bank deposits has been earned on financial assets, including cash and cash equivalents and short term investments.

Other loans and receivables includes the effect of unwinding the discount on amounts receivable after more than one year and interest accrued on loans to our joint ventures, Aquila and Searidge.

* The group has chosen not to restate comparatives on adoption of IFRS 15. See note 35.

9. Fair value movement on financial instruments

	2019 £m	2018 £m
(Charge)/credit arising from change in the fair value of derivatives not qualifying for hedge accounting	**(3.0)**	1.3
Change in the fair value of equity investment in Aireon designated as fair value through profit and loss	**(1.9)**	-
	(4.9)	1.3

10. Finance costs

	2019 £m	2018 £m
Interest on bank overdrafts, loans and hedging instruments	**0.6**	0.6
Bond and related costs including financing expenses	**21.3**	23.6
Other finance costs	**3.5**	2.4
	25.4	26.6

Other finance costs includes the effect of unwinding the discount on amounts payable after more than one year.

Notes forming part of the consolidated accounts

11. Tax

	2019 £m	2018* £m
Corporation tax		
Current tax	**7.2**	9.9
Adjustments in respect of prior year	**(2.7)**	(5.3)
	4.5	4.6
Deferred tax (see note 24)		
Origination and reversal of temporary timing differences	**10.2**	12.6
Adjustments in respect of prior year	**1.2**	5.2
Effects of tax rate change on opening balance	**-**	(2.3)
	11.4	15.5
	15.9	20.1

Corporation tax is calculated at 19% (2018: 19%) of the estimated assessable profit for the year.

The charge for the year can be reconciled to the profit per the income statement as follows:

	2019 £m		2018* £m	
Profit on ordinary activities before tax	**98.2**		132.8	
Tax on profit on ordinary activities at standard rate in the UK of 19% (2018: 19%)	**18.7**	**19.0%**	25.2	19.0%
Tax effect of change in corporation tax from 19% to 17% (2018: 19% to 17%)	**(0.2)**	**(0.2%)**	(3.3)	(2.5%)
Patent box	**(1.6)**	**(1.6%)**	(1.5)	(1.2%)
Employee share scheme award of partnership and matching shares	**0.1**	**0.1%**	-	-
Tax effect of prior year adjustments: current tax	**(2.7)**	**(2.7%)**	(5.3)	(4.0%)
Tax effect of prior year adjustments: deferred tax	**1.2**	**1.2%**	5.2	3.9%
Joint ventures and associate	**(0.1)**	**(0.1%)**	-	-
Unrecognised deferred tax assets on overseas subsidiaries	**0.4**	**0.4%**	0.5	0.4%
R&D expenditure increased deductions	**(0.1)**	**(0.1%)**	0.6	0.5%
Other permanent differences	**0.2**	**0.2%**	(1.3)	(1.0%)
Tax charge for year at an effective tax rate of 16.2% (2018: 15.1%)	**15.9**	**16.2%**	20.1	15.1%
Deferred tax (credit)/charge taken directly to equity (see note 24)	**(29.1)**		80.4	

* The group has chosen not to restate comparatives on adoption of IFRS 15. See note 35.

Notes forming part of the consolidated accounts

12. Dividends

Amounts recognised as dividends to equity shareholders in the year:

	2019 £m	2018 £m
First interim dividend of 20.62 pence per share (2018: 19.92 pence per share)	**29.5**	28.5
Second interim dividend of 20.62 pence per share (2018: 19.92 pence per share)	**29.5**	28.5
	59.0	57.0

In May 2019, the Board approved an interim dividend for the year ending 31 March 2020 of 20.97 pence per share, totalling £30.0m, which was paid in May 2019.

13. Goodwill

	£m
Cost	
At 31 March 2019 and 31 March 2018	**351.0**
Accumulated impairment losses	
At 1 April 2017	152.7
Impairment provision recognised in income statement	-
At 31 March 2018	**152.7**
Impairment provision recognised in income statement	-
At 31 March 2019	**152.7**
Carrying amount	
At 31 March 2019	**198.3**
At 31 March 2018	**198.3**
At 1 April 2017	**198.3**

The group tests goodwill annually for impairment, or more frequently if there are indications that goodwill might be impaired.

The recoverable amount of goodwill is determined by reference to the higher of its fair value less costs of disposal and value in use. Fair value less costs of disposal is determined by reference to the value of the regulatory asset bases of UK Air Traffic Services and North Atlantic Air Traffic Services, representing the relevant cash generating units, including opportunities for out-performance of regulatory settlements and market premia for economically regulated businesses (assumed at the upper end of the range of 5%-6%, 2018: 5%-6%) and estimated costs of disposal of £1.0m (see note 3: critical judgements and key sources of estimation uncertainty). The key assumptions for value in use calculations are the discount rate, future cash flows to the end of Reference Period 2 (31 December 2019) for both cash generating units as assumed in the group's business plans, and a terminal value at that date, reflecting the projected regulatory asset bases and a market premium, which is assessed annually. The group's business plans reflect the outcome of the Reference Period 2 price control review and include forecasts of traffic volumes, inflation and pension costs reflecting the current economic environment. The discount rate is a pre-tax nominal rate of 9.05% (2018: 9.05%) for cash flows arising in Reference Period 2. The value of the regulatory asset bases at the balance sheet date were £1,021.6m (2018: £1,006.4m). Goodwill is allocated to the Airspace service line. The carrying value at 31 March 2019 is supported by fair value less costs of disposal using the valuation methodology consistent with the IFRS 13 Level 3 hierarchy.

Notes forming part of the consolidated accounts

14. Other intangible assets

	Operational software £m	Non-operational software £m	Airspace and resectorisation £m	Assets in course of construction £m	Total £m
Cost					
At 1 April 2017	451.0	87.0	46.9	171.8	756.7
Additions internally generated	6.8	0.1	1.5	26.5	34.9
Additions externally acquired	8.1	5.1	-	69.4	82.6
Disposals during the year	-	(1.1)	-	-	(1.1)
Other transfers during the year	20.1	2.9	1.0	(26.2)	(2.2)
At 31 March 2018	**486.0**	**94.0**	**49.4**	**241.5**	**870.9**
Additions internally generated	3.0	1.2	1.2	24.6	30.0
Additions externally acquired	2.6	2.4	0.2	18.0	23.2
Disposals during the year	(0.5)	(2.1)	-	-	(2.6)
Other transfers during the year	6.0	10.1	1.4	(16.1)	1.4
At 31 March 2019	**497.1**	**105.6**	**52.2**	**268.0**	**922.9**
Accumulated amortisation and impairment					
At 1 April 2017	157.5	62.7	23.4	0.4	244.0
Charge for the year	38.8	8.7	4.2	-	51.7
Impairment provision recognised in income statement	-	1.1	-	3.7	4.8
Transfer of impairment provision	3.1	0.1	-	(3.2)	-
Disposals during the year	-	(1.1)	-	-	(1.1)
At 31 March 2018	**199.4**	**71.5**	**27.6**	**0.9**	**299.4**
Charge for the year	42.0	9.5	4.2	-	55.7
Impairment provision recognised in income statement	-	-	-	3.1	3.1
Transfer of impairment provision	0.5	1.2	-	(1.7)	-
Disposals during the year	(0.5)	(2.0)	-	-	(2.5)
At 31 March 2019	**241.4**	**80.2**	**31.8**	**2.3**	**355.7**
Carrying amount					
At 31 March 2019	**255.7**	**25.4**	**20.4**	**265.7**	**567.2**
At 31 March 2018	**286.6**	**22.5**	**21.8**	**240.6**	**571.5**
At 1 April 2017	**293.5**	**24.3**	**23.5**	**171.4**	**512.7**

An annual review is performed to assess the carrying value of other intangible assets, including assets in the course of construction. The accumulated amortisation of assets in the course of construction represents impairment provisions.

Notes forming part of the consolidated accounts

15. Property, plant and equipment

	Freehold land and buildings £m	Improvements to leasehold land and buildings £m	Air traffic control systems, plant and equipment £m	Vehicles, furniture and fittings £m	Assets in course of construction and installation £m	Total £m
Cost						
At 1 April 2017	245.5	46.1	1,393.2	24.7	48.3	1,757.8
Additions during the year	0.4	0.1	7.3	0.4	59.9	68.1
Disposals during the year	-	(0.2)	(1.0)	-	-	(1.2)
Other transfers during the year	0.1	-	14.5	0.4	(12.8)	2.2
At 31 March 2018	**246.0**	**46.0**	**1,414.0**	**25.5**	**95.4**	**1,826.9**
Additions during the year	0.3	0.7	10.4	0.1	91.8	103.3
Disposals during the year	-	-	(1.9)	-	-	(1.9)
Other transfers during the year	0.5	-	15.7	-	(17.6)	(1.4)
At 31 March 2019	**246.8**	**46.7**	**1,438.2**	**25.6**	**169.6**	**1,926.9**
Accumulated depreciation and impairment						
At 1 April 2017	129.4	37.3	1,083.8	17.7	0.7	1,268.9
Provided during the year	7.8	1.3	70.0	1.2	-	80.3
Impairment provision recognised in income statement	-	-	0.8	-	0.1	0.9
Transfer of impairment provision	-	-	0.2	-	(0.2)	-
Disposals during the year	-	(0.2)	(1.0)	-	-	(1.2)
At 31 March 2018	**137.2**	**38.4**	**1,153.8**	**18.9**	**0.6**	**1,348.9**
Provided during the year	7.8	1.3	70.6	1.3	-	81.0
Impairment provision recognised in income statement	-	-	0.1	-	1.8	1.9
Transfer of impairment provision	-	-	0.3	-	(0.3)	-
Disposals during the year	-	-	(1.9)	-	-	(1.9)
At 31 March 2019	**145.0**	**39.7**	**1,222.9**	**20.2**	**2.1**	**1,429.9**
Carrying amount						
At 31 March 2019	**101.8**	**7.0**	**215.3**	**5.4**	**167.5**	**497.0**
At 31 March 2018	**108.8**	**7.6**	**260.2**	**6.6**	**94.8**	**478.0**
At 1 April 2017	**116.1**	**8.8**	**309.4**	**7.0**	**47.6**	**488.9**

The group conducts annual reviews of the carrying values of its property, plant, equipment and intangible assets. During the year, impairment charges of £5.0m (2018: £5.7m) were made in respect of operational assets and assets in the course of construction reflecting a reassessment of certain projects and assets, and the likelihood of benefits being realised in full.

The group has a finance lease for certain network related assets. The fair value of the assets held under finance lease are £1.4m (2018: £1.6m) and are included within the cost for air traffic control systems, plant and equipment above.

Notes forming part of the consolidated accounts

16. Investment in Aireon LLC

In May 2018, NATS paid £51.0m (US$68.75m) to acquire a minority interest in Aireon LLC (Aireon) (subsequently Aireon Holdings LLC upon transfer of shareholding), a limited liability company incorporated in Delaware USA, which provides a space-based air traffic surveillance system for air navigation service providers (ANSPs) through Automatic Dependent Surveillance-Broadcast (ADS-B) receivers on the Iridium NEXT satellite constellation. Aireon is an unquoted company. NATS' investment was made by NATS (USA) Inc, a wholly owned subsidiary. Other investors are Iridium and four other ANSPs: NAV CANADA (Canada), ENAV (Italy), the Irish Aviation Authority (Ireland) and Naviair (Denmark).

The investment in Aireon is in convertible redeemable cumulative 5% preference interests with voting rights of 9.1%. The investment is intended to result in fully diluted common interests (equivalent to ordinary shares) with voting rights of 11.1% by 2 January 2021. NATS is entitled to appoint one of the eleven Board members.

The interests carry a right of conversion to common equity interests until 2 January 2021 or are otherwise mandatorily redeemed in three annual instalments from that date. The dividend is payable on or after 1 January 2021 and accrues from the date of issuance of preference interests until conversion or redemption.

The investment in Aireon meets the definition of a financial asset under international accounting standards. The conversion option and the mandatory redemption characteristics of the investment requires its measurement at fair value through profit or loss.

The valuation technique used to determine fair value is the income approach. The fair value of the investment reflects the present value of dividend projections based on Aireon's most recent long term operating plan (December 2018), performance since that plan and NATS' assessment of underlying plan assumptions. The discount rate assumed for this purpose is 14.3%. The fixed cost nature of Aireon's business makes its plan sensitive to the achievement of management's revenue growth assumptions, which is reflected in the discount rate assumption. A 1% increase in the discount rate would result in a c£4.3m decrease in fair value and a 1% reduction in the discount rate would result in a c£4.9m increase in fair value. A 10% increase in revenue assumed from unsigned sales contracts would result in an increase in fair value of £7.2m and a 10% reduction in revenue assumed from unsigned sales contracts would result in a decrease in fair value of £5.6m. The investment is classified within Level 3 of the fair value hierarchy.

	£m
Fair value at 1 April 2018	-
Investment in preference interests	51.0
Franchise taxes payable on acquisition	0.1
Change in fair value in the period, reported in 'Fair value movements' (see note 9)	(1.9)
Effect of foreign exchange, reported in Other comprehensive income	1.7
Fair value at 31 March 2019	**50.9**

The effect of changes in the rate of foreign exchange arises on consolidation of NATS (USA) Inc, which reports its results in US dollars.

Notes forming part of the consolidated accounts

17. Financial and other assets

The group had balances in respect of financial and other assets as follows:

Trade and other receivables

	2019 £m	2018* £m
Non-current		
Receivable from customers gross (nil provision for impairment)	**15.7**	-
Other debtors	**0.2**	0.2
Prepayments	**8.4**	6.3
Accrued income	**-**	13.7
	24.3	20.2
Current		
Receivable from customers gross	**127.0**	79.3
Less: provision for impairment	**(4.0)**	(5.0)
	123.0	74.3
Amounts recoverable under contracts	**1.6**	1.0
Contract spare parts	**0.5**	0.5
Contract assets	**23.8**	-
Other debtors	**7.0**	4.9
Prepayments	**20.3**	15.8
Accrued income	**-**	84.8
	176.2	181.3

Under IFRS 15, income not yet invoiced relating to revenue from contracts with customers is included within receivable from customers. Income not yet invoiced from other sources is included within other debtors. Under previous accounting standards, these balances were disclosed within accrued income.

The average credit period on sales of services is 30 days (2018: 30 days). Interest is charged by Eurocontrol to UK en route customers at 9.68% (2018: 9.74%) on balances outstanding after more than 30 days. All other balances are non-interest bearing.

Receivables from customers which are non-current include regulatory revenue adjustments for the previous control period, which will be recovered after 31 March 2020. Receivables from customers which are current include unbilled revenue for services provided in March 2019. Prior year accrued income (which has not been restated on adoption of IFRS 15) included unbilled revenue for services provided in March 2018 and regulatory adjustments for the previous control period which were recovered by 31 March 2019.

Contract assets, which are all current, are expected to transfer to receivables from customers by 31 March 2020.

* The group has chosen not to restate comparatives on adoption of IFRS 15. See note 35.

Notes forming part of the consolidated accounts

17. Financial and other assets (continued)

Movement in the impairment provision

	2019 £m	2018* £m
Balance at the beginning of the year (as previously stated)	**5.0**	4.4
Adjustment on initial application of IFRS 9 (see note 35)	**(0.4)**	-
Reclassification of provisions for accrued income	**0.2**	-
Balance at the beginning of the year (as restated for IFRS 9)	**4.8**	4.4
Increase in allowance recognised in the income statement	**-**	0.6
Foreign exchange movement in the year	**(0.1)**	0.1
Amounts recovered during the year	**0.2**	0.1
Amounts written off as irrecoverable	**(0.9)**	(0.2)
Balance at the end of the year	**4.0**	5.0

The group applies the IFRS 9 simplified approach to measuring expected credit losses using a lifetime expected credit loss provision for trade receivables and contract assets. In order to measure the expected credit losses, the credit risk characteristics of trade receivables and contract assets have been considered and a matrix based on the days past due used to summarise historic loss patterns. Contract assets relate to unbilled work in progress and have substantially the same credit risk characteristics as trade receivables for the same types of contracts. The group has concluded that the expected credit loss rates for trade receivables are a reasonable approximation of the expected credit loss rates for contract assets.

At 31 March 2019 the lifetime expected loss provision for trade receivables and contract assets is as follows:

	Receivables - months past due							
	Current	1 month	2-3 months	4-6 months	7-12 months	>12 months	In administration	Total £m
NERL expected credit loss rate (%)	0.2%	6.1%	20.0%	48.6%	63.1%	81.4%	100.0%	
NERL gross carrying amount (£m)	108.5	0.4	0.2	0.2	0.1	0.5	3.1	113.0
NERL lifetime expected credit loss (£m)	**0.2**	**-**	**-**	**0.1**	**0.1**	**0.4**	**3.1**	**3.9**
Other subsidiaries expected credit loss rate (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
Other subsidiaries gross carrying amount (£m)	50.2	2.6	0.3	0.3	-	-	0.1	53.5
Other subsidiaries expected credit losses (£m)	**-**	**-**	**-**	**-**	**-**	**-**	**0.1**	**0.1**
Total expected credit losses (£m)	**0.2**	**-**	**-**	**0.1**	**0.1**	**0.4**	**3.2**	**4.0**

Non-current receivables consists mainly of pension pass through of £9.6m which is being recovered over a 15 year period to 31 December 2030 and amounts recoverable from the SESAR Deployment Alliance of £4.4m which are expected to be recovered by 31 December 2021. None of these receivables have been subject to a significant increase in credit risk since initial recognition and, consequently, the lifetime expected loss provision of 0.2% is applied to these balances at 31 March 2019.

* The group has chosen not to restate comparatives on adoption of IFRS 15. See note 35.

Notes forming part of the consolidated accounts

17. Financial and other assets (continued)

The group has assessed the carrying values of the loans to joint ventures at the balance sheet date and concluded that there should be no provision recorded under the expected credit loss methodology on the basis that there is no historic loss pattern or indicators of impairment.

As at 31 March 2019 trade receivables of £3.2m (2018: £3.6m) had lifetime expected credit losses of the full value of the receivables. These receivables are in administration, receivership or liquidation.

Cash and cash equivalents

Cash and cash equivalents comprise cash held by the group and short term bank deposits with an original maturity of three months or less. The directors consider that the carrying amount of these assets approximates to their fair value.

Overall, the maximum credit risk for the items discussed above and loans to joint ventures, excluding prepayments, VAT receivables and contract spare parts, would be £454.8m (2018: £503.5m).

18. Borrowings

	2019 £m	2018 £m
Secured loans at amortised cost		
£600m 5.25% Guaranteed Secured Amortising Bond due 2026	**336.2**	381.3
Unsecured loans at amortised cost		
Obligations under finance leases (see note 22)	**1.4**	1.6
Gross borrowings	**337.6**	382.9
Unamortised bond issue costs	**(1.4)**	(1.8)
Unamortised bank facility arrangement fees	**(1.3)**	(1.7)
	334.9	379.4
Amounts due for settlement within 12 months	**42.7**	44.6
Amounts due for settlement after 12 months	**292.2**	334.8

The £600m 5.25% Guaranteed Secured Amortising Bond is secured by way of a debenture by which NERL grants its lenders a first legal mortgage over certain properties in England and Wales, a first fixed charge over all other real estate, plant and equipment and a floating charge over all other assets. Any drawings made by NERL under its £400.0m committed bank facilities are similarly secured. Total assets of NERL as at 31 March 2019 were £1,551.3m (2018: £1,652.8m), including goodwill of £198.3m (2018: £198.3m). Further security provisions are also provided by NATS Holdings Limited and by NATS Limited.

Costs associated with the issue of the £600m bond are being amortised over the life of the bond. Costs incurred to refinance bank facilities are being amortised over the facility term. Costs not fully amortised at the date of subsequent refinancing are written off.

Notes forming part of the consolidated accounts

18. Borrowings (continued)

Undrawn committed facilities

	2019 £m	2018 £m
Undrawn committed facilities expire as follows:		
Expiring in more than two years	**400.0**	400.0

At 31 March 2019, NERL had no outstanding drawings against its committed bank facilities. These facilities expire in July 2022.

NATS Services has an uncommitted overdraft facility of £1.0m that was undrawn as at 31 March 2019 and 31 March 2018 and is not included in the table above.

19. Derivative financial instruments

Fair value of derivative financial instruments

	2019 £m	2018 £m
Non-current assets		
Derivative financial instruments in designated hedge accounting relationships		
Forward foreign exchange contracts (cash flow hedges)	**1.7**	1.2
Current assets		
Derivative financial instruments in designated hedge accounting relationships		
Forward foreign exchange contracts (cash flow hedges)	**2.7**	2.0
Current liabilities		
Derivative financial instruments in designated hedge accounting relationships		
Forward foreign exchange contracts (cash flow hedges)	**(1.7)**	(0.8)
Derivative financial instruments classified as held for trading		
Index-linked swap	**(12.2)**	(10.2)
	(13.9)	(11.0)
Non-current liabilities		
Derivative financial instruments in designated hedge accounting relationships		
Forward foreign exchange contracts (cash flow hedges)	**(0.4)**	(0.5)
Derivative financial instruments classified as held for trading		
Index-linked swap	**(109.9)**	(119.0)
	(110.3)	(119.5)

Notes forming part of the consolidated accounts

19. Derivative financial instruments (continued)

Further details on derivative financial instruments are provided in note 20. The index-linked swap is classified under international accounting standards as held for trading as it does not qualify for hedge accounting. The index-linked swap was taken out in August 2003 to hedge against the risk of low inflation and previously qualified as a hedge under UK generally accepted accounting principles prior to the group's adoption of international accounting standards.

Hedge effectiveness is determined at the inception of the hedge relationship and through periodic prospective effectiveness assessments to ensure that an economic relationship exists between the hedged item and hedging instrument. The hedge ratio is established with reference to the cash flows associated with the hedged item and the hedging instrument. Ineffectiveness may arise if the timing of the forecast transaction changes from what was originally estimated, or if there are changes in the credit risk of the hedging instrument counterparties.

20. Financial instruments

Capital risk management

The group manages its capital to ensure that entities in the group are able to continue as going concerns, to ensure that NERL is able to meet its obligations under the air traffic services licence, for NATS Services to meet obligations to its customers, and to fund returns to shareholders.

The capital structure of the group consists of debt as disclosed in note 18, cash and cash equivalents and short term investments, as shown in this note, and equity attributable to shareholders as disclosed in the consolidated statement of changes in equity.

External capital requirements

NERL's air traffic services licence requires the company to use reasonable endeavours to maintain an investment grade issuer credit rating (BBB-/Baa3 or better). Separately, it is the objective of the group to target a credit profile for NERL that exceeds BBB-/Baa3.

As at 31 March 2019, NERL had a corporate rating of A+ from Standard & Poor's (2018: A+) and A2 from Moody's (2018: A2).

Gearing ratio

The group does not seek to maintain a target gearing level at group level but rather sets a gearing target for NERL, the economically regulated subsidiary, based on a ratio of net debt to its regulatory asset base (RAB). In addition, the CAA has set NERL a gearing target of 60% and a cap of 65% of net debt to RAB with a requirement for NERL to remedy the position if this cap is exceeded. NERL's gearing ratio at 31 March 2019 was 25.7% (2018: 27.5%).

Significant accounting policies

Details of the significant accounting policies and methods adopted, including the criteria for recognition, the basis of measurement and the basis on which income and expenses are recognised, in respect of each class of financial asset, financial liability and equity instrument are disclosed in note 2 to the financial statements.

Notes forming part of the consolidated accounts

20. Financial instruments (continued)

Categories of financial instrument

The carrying values of financial instruments by category at 31 March were as follows:

	2019 £m	2018 £m
Financial assets		
Financial assets at fair value through profit or loss		
Equity investment (see note 16)	**50.9**	-
Financial assets at amortised cost		
Loans and receivables, excluding prepayments, VAT and contract spare parts	**193.8**	195.6
Cash and cash equivalents and short term investments	**261.0**	307.9
	454.8	503.5
Derivative financial instruments		
In designated hedge accounting relationships	**4.4**	3.2
	510.1	506.7
Financial liabilities		
Liabilities at amortised cost		
Trade and other payables	**(313.7)**	(257.3)
Borrowings	**(337.6)**	(382.9)
	(651.3)	(640.2)
Derivative financial instruments		
In designated hedge accounting relationships	**(2.1)**	(1.3)
Held for trading at fair value through profit or loss	**(122.1)**	(129.2)
	(124.2)	(130.5)
	(775.5)	(770.7)

Loans and receivables, excluding prepayments, includes balances relating to loans to the joint ventures of £22.5m (2018: £19.7m) and excludes VAT of £nil (2018: £3.0m).

Liabilities at amortised cost includes balances for trade and other payables (excluding contract liabilities £93.6m (2018: £nil), deferred income of £21.2m (2018: £112.5m), taxes and social security liabilities of £13.4m (2018: £13.5m) and VAT of £0.4m (2018: £nil)) and including the bond, bank borrowings (excluding unamortised bond issue costs and bank facility arrangement fees) and finance lease obligations.

The index-linked swap is categorised as held for trading. During the year, £10.1m (2018: £8.1m) was repaid as semi-annual amortisation payments. The charge arising from the change in fair value of £3.0m has been recorded in the income statement in the year (2018: £1.3m credit).

Financial risk management objectives

The group's Treasury function is mandated by the Board to manage financial risks that arise in relation to underlying business needs. The function provides services to the business, co-ordinates access to financial markets and monitors and manages financial risks relating to the operations of the group. The function has clear policies and operating parameters. The Treasury Committee provides oversight and meets at least three times a year to approve strategy and to monitor compliance with Board policy. The Treasury function does not operate as a profit centre and the undertaking of speculative transactions is not permitted. The principal financial risks arising from the group's activities include market risk (including currency risk, interest rate risk and inflation risk), credit risk and liquidity risk. The principal financial risk in these entities is credit risk. Specific policies on interest rate and liquidity risk management apply principally to NERL.

Notes forming part of the consolidated accounts

20. Financial instruments (continued)

Market risk

The group's activities expose it primarily to the financial risks of changes in foreign currency exchange rates, interest rates and inflation rates. These risks are explained below. The group enters into a variety of derivative financial instruments to manage its exposure to these risks, including:

- forward foreign exchange contracts to hedge the exchange risk arising on services provided to UK en route customers that are billed in euro, and purchases from foreign suppliers settled in foreign currencies;
- interest rate swaps to mitigate the risk of rising interest rates; and
- an index-linked swap to mitigate the risk of low inflation.

Foreign currency risk management

The group's principal exposure to foreign currency transaction risk is in relation to UK en route services revenue, accounting for 67% of the group's turnover (2018: 66%). Charges for this service are set in sterling, but are billed and collected in euro by applying a conversion rate determined monthly by Eurocontrol, who administer the UK en route revenue collection. The conversion factor used is the average of the daily closing rates for the month prior to the billing period. To mitigate the risk that exchange rates move between the date of billing and the date on which the funds are remitted to NERL, forward foreign currency contracts are entered into. NERL seeks to hedge 95% of the UK en route income that is forecast to arise by entering into forward foreign exchange contracts on a monthly basis.

The group's international activities account for 1.5% of external revenue (2018: 1.1%). The group trades with and provides finance to its overseas joint ventures and subsidiaries. Where appropriate the transactions are conducted in sterling. The group benefits from natural hedges of its exposure to fluctuations on the translation of its foreign operations into sterling as a result of holding cash reserves in foreign currencies.

The group also enters into contracts for the purchase and sale of goods and services with overseas suppliers and customers who operate in foreign currencies. To mitigate currency risk the contract value is hedged when a firm commitment arises, either through the use of forward foreign currency contracts or by purchasing foreign currency at spot rates on the date the commitment arises or by setting aside already available foreign currency.

The carrying amount of the group's foreign currency denominated monetary assets and monetary liabilities at 31 March was as follows:

	Assets		Liabilities	
Currency	**2019 £m**	2018 £m	**2019 £m**	2018 £m
Euro	**99.8**	102.9	**(15.1)**	(14.2)
Singapore dollar	**4.6**	3.1	**(0.5)**	(0.2)
Hong Kong dollar	**4.2**	1.3	**-**	-
Thai baht	**4.0**	4.2	**(0.1)**	(0.1)
US dollar	**54.7**	1.5	**(1.4)**	(1.8)
Canadian dollar	**2.7**	1.4	**(2.1)**	(1.4)
UAE dirham	**1.7**	1.6	**(0.4)**	(0.2)
Qatari riyal	**1.1**	0.9	**-**	-
Philippine peso	**0.4**	0.4	**-**	-
Kuwaiti dinar	**0.4**	0.3	**-**	-
Omani rial	**0.3**	0.4	**-**	-
Swedish krona	**0.3**	-	**(0.3)**	-
Norwegian krone	**-**	0.2	**-**	-
	174.2	118.2	**(19.9)**	(17.9)

Notes forming part of the consolidated accounts

20. Financial instruments (continued)

Foreign currency sensitivity analysis

The group has assets and liabilities denominated in foreign currencies including: the equity investment in Aireon, loans to associates and joint ventures and cash balances of £12.5m at 31 March 2019 (2018: £6.7m) in euro, US dollars, Canadian dollars, Hong Kong dollars, Singapore dollars, Thai baht, UAE dirham, Qatari riyal, Kuwaiti dinar, Swedish krona and Omani rial. Furthermore, the group has entered into forward foreign currency contracts to hedge exchange risk relating to customer receipts and supplier costs which will arise in future periods.

The following table details the group's sensitivity to a 10% increase or decrease in the value of sterling against relevant foreign currencies. 10% is the sensitivity rate that represents the reasonably possible change in foreign currency exchange rates in a financial year. The sensitivity analysis includes foreign currency cash balances, trade receivables, trade payables and forward foreign exchange contracts and adjusts their translation at the period end for a 10% change in foreign currency rates.

The table below shows the effect of a 10% strengthening of sterling against the relevant currency (to the nearest £0.1m). A positive number below indicates an increase in profit and equity and a negative number a reduction in profit and equity. There would be an equal and opposite impact on profit and equity if sterling devalues by 10% against the relevant currency.

Currency	**2019 Impact £m**	2018 Impact £m
Euro	**0.7**	(0.1)
Singapore dollar	**(0.2)**	0.1
Hong Kong dollar	**(0.4)**	(0.1)
Thai baht	**(0.4)**	0.2
US dollar	**(7.2)**	(3.4)
Canadian dollar	**(0.2)**	(0.2)
UAE dirham	**(0.1)**	(0.1)
Qatari riyal	**(0.1)**	(0.1)
Philippine peso	**(0.1)**	(0.1)
Omani rial	**-**	(0.1)
Swedish krona	**-**	(0.1)
Norwegian krone	**-**	(0.1)
Danish krone	**(0.1)**	(0.1)
	(8.1)	(4.2)

The group's sensitivity to the euro increased during the year reflecting a net decrease in euro denominated monetary assets and a net increase in euro denominated forward contracts. The group's sensitivity to the US dollar has decreased during the year, reflecting a net decrease in US dollar denominated forward contracts taken out to hedge future payments, a net increase in US dollar denominated monetary assets. Exposure to other currencies has remained fairly constant. NATS believes that this sensitivity analysis accurately reflects its inherent foreign exchange risk.

Notes forming part of the consolidated accounts

20. Financial instruments (continued)

Forward foreign exchange contracts

The group entered into forward foreign exchange contracts to sell euro forecast to be received from Eurocontrol in respect of UK en route revenues and to sell other currencies it will receive on its overseas contracts. In addition, the group entered into other forward foreign exchange contracts to fund purchases. The group has designated these forward contracts as cash flow hedges. The following contracts were outstanding at year end:

	2019			2018		
			Average exchange rate			Average exchange rate
Euro sold	**£m**	**€m**		£m	€m	
0-90 days	**143.5**	**164.2**	**0.8744**	149.0	168.4	0.8846
91-365 days	**5.8**	**6.6**	**0.8853**	9.0	10.0	0.9007
> 365 days	**18.0**	**19.6**	**0.9160**	24.3	26.6	0.9136
	167.3	**190.4**	**0.8791**	182.3	205.0	0.8891
Euro bought	**€m**	**£m**		€m	£m	
0-90 days	**14.9**	**13.0**	**0.8696**	22.2	19.8	0.8936
91-365 days	**37.8**	**34.1**	**0.9009**	22.2	19.4	0.8748
> 365 days	**31.8**	**28.4**	**0.8917**	61.9	55.5	0.8956
	84.5	**75.5**	**0.8919**	106.3	94.7	0.8909
US dollar bought	**US$m**	**£m**		US$m	£m	
0-90 days	**8.8**	**6.5**	**1.3461**	25.8	18.3	1.4067
91-365 days	**5.1**	**3.6**	**1.4007**	5.6	3.9	1.4254
> 365 days	**12.5**	**8.5**	**1.4735**	17.8	12.2	1.4658
	26.4	**18.6**	**1.4147**	49.2	34.4	1.4297
Canadian dollar bought	**C$m**	**£m**		C$m	£m	
0-90 days	**0.5**	**0.3**	**1.7064**	1.7	1.0	1.6866
91-365 days	**0.8**	**0.4**	**1.8539**	0.7	0.4	1.8471
> 365 days	**0.8**	**0.5**	**1.7311**	1.3	0.7	1.7921
	2.1	**1.2**	**1.7660**	3.7	2.1	1.7531
Danish krone bought	**DKKm**	**£m**		DKKm	£m	
0-90 days	**1.4**	**0.2**	**8.4320**	1.4	0.2	8.5309
> 365 days	**2.9**	**0.4**	**8.2972**	4.4	0.5	8.3410
	4.3	**0.6**	**8.3410**	5.8	0.7	8.3866
Norwegian krone sold	**£m**	**NOKm**		£m	NOKm	
0-90 days	**-**	**-**	**-**	0.2	1.6	10.4125
91-365 days	**-**	**-**	**-**	0.1	1.6	10.4251
	-	**-**	**-**	0.3	3.2	10.4188

Notes forming part of the consolidated accounts

20. Financial instruments (continued)

	2019			2018		
			Average exchange rate			Average exchange rate
Norwegian krone bought	**NOKm**	**£m**		NOKm	£m	
0-90 days	**1.1**	**0.1**	**11.0369**	3.3	0.3	11.4569
91-365 days	**-**	**-**	**-**	5.6	0.5	11.2597
	1.1	**0.1**	**11.0369**	8.9	0.8	11.3324
Singapore dollar sold	**£m**	**SGDm**		£m	SGDm	
0-90 days	**1.2**	**2.1**	**1.7840**	1.1	2.1	1.8414
91-365 days	**1.1**	**2.1**	**1.8428**	1.5	2.8	1.8202
> 365 days	**-**	**-**	**-**	1.1	2.1	1.8428
	2.3	**4.2**	**1.8129**	3.7	7.0	1.8333
Swedish krona bought	**SEKm**	**£m**		SEKm	£m	
0-90 days	**1.3**	**0.1**	**11.1058**	2.7	0.2	11.2320
91-365 days	**3.3**	**0.3**	**11.0590**	3.3	0.3	11.1875
> 365 days	**-**	**-**	**-**	4.7	0.4	11.0723
	4.6	**0.4**	**11.0723**	10.7	0.9	11.1478
Thai baht sold	**£m**	**THBm**		£m	THBm	
0-90 days	**-**	**-**	**-**	5.8	259.2	44.4514

At 31 March 2019, the aggregate amount of the unrealised gain under forward foreign exchange contracts deferred in the hedge reserve relating to the exposure on these future transactions was £0.8m (2018: £1.7m). The majority of these contracts will mature within the next financial year at which stage the amount deferred in equity will be realised in the income statement.

In addition to the above, NERL has entered into average rate forward agreements with a fixing date after 31 March 2019 to sell euro anticipated to be received in July 2019 in respect of UK en route revenues, for this reason they are not included in the table above. The value of these cash flows is £53.0m (2018: £56.4m). These contracts are also designated as cash flow hedges.

Interest rate risk management

The group is exposed to interest rate risk to the extent that it holds borrowings at fixed, floating and index-linked interest rates. Its interest rate risk management policies, which are kept under continuous review, are specific to NERL. Except for NERL, no other entity within the NATS group had borrowings at 31 March 2019 (2018: none).

The group seeks to minimise NERL's exposure to movements in interest rates by ensuring NERL holds an appropriate balance of fixed, floating and index-linked debt as a percentage of its net debt by the use of interest rate swap contracts and index-linked swap contracts.

The group's exposure to interest rates on financial assets and financial liabilities is detailed in the liquidity risk management section of this note. The group held no interest rate swaps at 31 March 2019 (2018: none).

Notes forming part of the consolidated accounts

20. Financial instruments (continued)

Economic interest rate exposure

The group's cash and short term deposits were as follows:

2019							
	Cash			Short term deposits			
Currency	Amount £m	Economic interest rate %	Average maturity days	Amount £m	Economic interest rate %	Average maturity days	Total £m
Sterling	202.1	0.8	16	46.4	0.9	171	248.5
Euro	3.8	-	1	-	-	-	3.8
US dollar	1.9	-	1	-	-	-	1.9
Canadian dollar	1.3	-	1	-	-	-	1.3
Hong Kong dollar	1.3	-	1	-	-	-	1.3
Singapore dollar	1.2	-	1	-	-	-	1.2
Thai baht	0.9	-	1	-	-	-	0.9
UAE dirham	0.7	-	1	-	-	-	0.7
Qatari riyal	0.5	-	1	-	-	-	0.5
Kuwaiti dinar	0.3	-	1	-	-	-	0.3
Swedish krona	0.3	-	1	-	-	-	0.3
Omani rial	0.3	-	1	-	-	-	0.3
	214.6			**46.4**			**261.0**

2018							
	Cash			Short term deposits			
Currency	Amount £m	Economic interest rate %	Average maturity days	Amount £m	Economic interest rate %	Average maturity days	Total £m
Sterling	262.9	0.4	11	38.3	0.8	181	301.2
Euro	2.9	-	3	-	-	-	2.9
UAE dirham	0.8	-	3	-	-	-	0.8
Hong Kong dollar	0.7	-	3	-	-	-	0.7
US dollar	0.6	-	3	-	-	-	0.6
Thai baht	0.4	-	3	-	-	-	0.4
Kuwaiti dinar	0.3	-	3	-	-	-	0.3
Omani rial	0.3	-	3	-	-	-	0.3
Canadian dollar	0.2	-	3	-	-	-	0.2
Qatari riyal	0.2	-	3	-	-	-	0.2
Danish krone	0.1	-	3	-	-	-	0.1
Singapore dollar	0.1	-	3	-	-	-	0.1
Swedish krona	0.1	-	3	-	-	-	0.1
	269.6			**38.3**			**307.9**

The economic interest rate reflects the true underlying cash rate that the group was paying on its borrowings or receiving on its deposits at 31 March.

Notes forming part of the consolidated accounts

20. Financial instruments (continued)

The economic interest rate exposure of the group's loans is presented below with and without the effect of derivatives, as follows:

Excluding derivatives

	Total £m	Variable rate £m	Inflation rate £m	Fixed rate £m	Economic interest rate %	Weighted average time rate is fixed years
At 31 March 2019						
Sterling:						
5.25% guaranteed secured bonds	336.2	-	-	336.2	5.26%	4.2
Obligations under finance leases	1.4	-	-	1.4	3.10%	3.4
Total	**337.6**	**-**	**-**	**337.6**		
At 31 March 2018						
Sterling:						
5.25% guaranteed secured bonds	381.3	-	-	381.3	5.26%	4.6
Obligations under finance leases	1.6	-	-	1.6	3.10%	3.9
Total	**382.9**	**-**	**-**	**382.9**		

Including derivatives

	Total £m	Variable rate £m	Inflation rate £m	Fixed rate £m	Economic interest rate %	Weighted average time rate is fixed years
At 31 March 2019						
Sterling:						
5.25% guaranteed secured bonds	178.2	-	-	178.2	5.27%	4.2
5.25% guaranteed secured bonds	158.0	-	158.0	-	5.41%	0.5
Obligations under finance leases	1.4	-	-	1.4	3.10%	3.4
Total	**337.6**	**-**	**158.0**	**179.6**		
At 31 March 2018						
Sterling:						
5.25% guaranteed secured bonds	205.3	-	-	205.3	5.27%	4.6
5.25% guaranteed secured bonds	176.0	-	176.0	-	5.25%	0.5
Obligations under finance leases	1.6	-	-	1.6	3.10%	3.9
Total	**382.9**	**-**	**176.0**	**206.9**		

The interest rate payable under the index-linked swap is adjusted semi-annually in line with the movement in RPI.

Notes forming part of the consolidated accounts

20. Financial instruments (continued)

The following table shows the percentage of fixed, index-linked and floating rate debt as a percentage of group net debt. Net debt is defined for this purpose as borrowings net of cash and short term investments, as distinct from the definition used for financial covenants purposes.

	2019 £m	**%**	2018 £m	%
Fixed (net of bond discount and issue costs)	**178.2**	**241.1**	205.1	286.8
Index-linked	**158.0**	**213.8**	176.0	246.2
Floating (net of cash, short term investments and facility costs)	**(262.3)**	**(354.9)**	(309.6)	(433.0)
Net debt	**73.9**	**100.0**	71.5	100.0

At 31 March 2019, NERL had net debt of £168.8m (2018: net debt £207.3m including an intercompany loan of £22.5m), NATS Limited held net cash of £6.1m (2018: £5.7m), NATS Services had cash of £83.0m (2018: £104.0m), NATSNav had cash of £1.1m (2018: £0.7m), NATS (USA) Inc had cash of £0.4m (2018: £0.5m), NATS Services DMCC had cash of £0.2m (2018: £0.1m), NATS Services (Asia Pacific) had cash of £3.5m (2018: £2.0m), NATS Services (Hong Kong) had cash of £0.3m (2018: £nil) and NATS Services LLC had cash of £0.3m (2018: £0.3m).

The following table shows the percentage of fixed, index-linked and floating rate debt as a percentage of NERL net debt, reflecting the application of the interest rate risk management policies that are specific to NERL.

	2019 £m	**%**	2018 £m	%
Fixed (net of bond discount and issue costs)	**178.2**	**105.6**	205.1	98.9
Index-linked	**158.0**	**93.6**	176.0	84.9
Floating (net of cash, short term investments and facility costs)	**(167.4)**	**(99.2)**	(173.8)	(83.8)
Net debt	**168.8**	**100.0**	207.3	100.0

Interest rate sensitivity analysis

The sensitivity analysis below has been determined based on the exposure to interest rates on floating rate assets and liabilities. The analysis is prepared assuming the amount of assets or liabilities at the balance sheet date were in place for the whole year. A 1% increase or decrease is considered to represent a reasonably possible change in interest rates.

The following table shows the effect of a 1% increase in interest rates on the group's cash and floating rate bank loans on profit for the year and on equity. A positive number represents an increase in profit and equity and a negative number a decrease in profit and equity.

	2019 Impact £m	2018 Impact £m
Cash at bank and short term deposits (2019: £261.0m, 2018: £307.9m)	**2.6**	3.1

Overall the group's sensitivity to interest rates is lower than in the prior year, reflecting the net change in cash.

Notes forming part of the consolidated accounts

20. Financial instruments (continued)

Inflation rate risk

The regulatory charge control conditions that apply to NERL's UK en route and North Atlantic services determines a revenue allowance for financing charges that is linked to inflation (now CPI but previously RPI). To achieve an economic hedge of part of this income, in August 2003 coincident with the issue of its £600.0m 5.25% fixed rate bond, NERL entered into an amortising index-linked swap with a notional principal of £200.0m for the period up to March 2017 reducing semi-annually thereafter and expiring in March 2026. As at 31 March 2019 the notional principal had reduced to £158.0m. Under the terms of this swap, NERL receives fixed interest at 5.25% and pays interest at a rate of 3.43% adjusted for the movement in RPI. The index-linked swap cannot be designated as a cash flow hedge under IFRS, although it provides an economic hedge of certain of NERL's inflation-linked revenues.

The value of the notional principal of the index-linked swap is also linked to movements in RPI.

Inflation rate sensitivity analysis

The sensitivity analysis below has been determined based on the exposure to inflation arising from the index-linked swap. The analysis is prepared assuming that the index-linked swap at the balance sheet date was in place for the whole year. A 1% increase or decrease in inflation is considered to represent a reasonably possible change in inflation. An increase in the rate of RPI will increase the future index-linked payments that NERL is required to make under the swap contract and so impacts its mark to market value.

The following table shows the effect of a 1% increase in inflation on the amount of interest payable in respect of this swap and the impact on its value when marked to market. A positive number indicates an increase in profit and equity and a negative number a reduction in profit and equity. There would be a fairly equal and opposite impact on profit and equity if breakeven inflation falls by 1%.

	2019 Impact £m	2018 Impact £m
Change in swap interest and mark to market value	**(9.4)**	(12.1)

The mark to market value of the index-linked swap is also sensitive to the discount rates that are used to determine the net present value of the cash flows under the swap agreement. The discount rate is determined by reference to market yields on interest rate swaps. The effect of a 1% increase in the discount rate would be to increase profit and equity by £5.1m (2018: £6.1m). There would be a fairly equal and opposite impact on profit and equity if discount rates decreased by 1%.

Notes forming part of the consolidated accounts

20. Financial instruments (continued)

Credit risk management

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the group. The group's exposure to credit risk arises from the risk of default by customers on settlement of trade receivables and from the risk of a failure of a financial institution in which funds are invested for return or held for trading purposes or with whom derivative contracts are entered into. The risk of loss from default by customers and the mitigations against this risk are explained in note 17. With regard to funds or contracts held with financial institutions, the group's policy is to transact with counterparties that hold a minimum credit rating as supplied by independent rating agencies: Standard & Poor's, Moody's and Fitch Ratings.

The group's policy is to allocate limits to the value of investments, foreign exchange transactions and interest rate hedging transactions that may be entered into with a bank or financial institution and to allocate an aggregate credit risk limit. The limits are based upon the institution's credit rating with Standard & Poor's and Moody's; the Fitch rating is only used if one of these agencies does not provide a rating. Where there is a difference in the rating then the lowest rating is applied.

Currently, the group's investments take the form of bank time deposits and money market fund investments. Investments in bank time deposits with maturities up to 3 months and between 3 and 6 months are only entered into with institutions holding a long term minimum credit rating of A- and A+ respectively from Standard & Poor's or Fitch Ratings and A3 and A1 respectively from Moody's. However, dependent on market conditions, tighter restrictions on rating requirements and lower limits may be placed on the duration of deposits. Money market fund investments are restricted to AAAm rated liquidity funds.

The table below sets out the investment limits that are applied to each institution based on its credit rating:

Rating (Standard & Poor's)	**Limit per institution £m**
AAA & AAAm	70.0
AA+	56.0
AA	42.0
AA-	28.0
A+	21.0
A	14.0
A-	10.5

The following table shows the distribution of the group's deposits at 31 March by credit rating (Standard & Poor's):

	2019			2018		
Rating (Standard & Poor's)	**Number of institutions**	**£m**	**By credit rating %**	Number of institutions	£m	By credit rating %
AAAm	**7**	**159.6**	**61.1**	6	190.9	62.0
AA-	**3**	**56.8**	**21.8**	3	51.6	16.8
A	**4**	**29.7**	**11.4**	6	55.4	18.0
A-	**1**	**7.5**	**2.9**	1	7.5	2.4
BBB+	**1**	**7.4**	**2.8**	1	2.5	0.8
		261.0	**100.0**		307.9	100.0

The deposits of £7.4m (2018: £2.5m) with a BBB+ rated institution were held in various current accounts that are not subject to the above investment limits.

Notes forming part of the consolidated accounts

20. Financial instruments (continued)

Liquidity risk management

The responsibility for liquidity risk management, the risk that the group will have insufficient funds to meet its obligations as they fall due, rests with the Board with oversight provided by the Treasury Committee. The group manages liquidity by maintaining adequate reserves and borrowing facilities by monitoring actual and forecast cash flows, including contributions to the defined benefit pension scheme, and ensuring funding is diversified by source and maturity and available at competitive cost.

With regard to NERL, the group's policy is to:

a. maintain free cash equal to between one and two months of UK en route services revenues (see below). Free cash is defined as cash and cash equivalents and short term investments, excluding a debt service reserve account of £36.4m used to fund interest, fees and bond amortisation payments scheduled in the next six months and a required liquidity reserve account of £21.3m held to provide liquidity in the event of certain pre-defined circumstances, particularly to ensure compliance with financial covenants;

b. ensure access to bank facilities sufficient to meet 110% of forecast requirements that are not otherwise covered by operating cash flows or other sources of finance through the period of the business plan. At 31 March 2019 NERL had access to bank facilities totalling £400m available until 31 July 2022. The facilities comprise a £350m revolving term loan facility, a £45m revolving credit facility and a £5m overdraft facility;

c. ensure access to long term funding to finance its long term assets. This is achieved in the form of the fixed rate amortising sterling bonds with a final maturity date of 2026;

d. ensure that the ratio of bank funding to total gross borrowings does not exceed 75%; and

e. maintain a portfolio of debt diversified by source and maturity. This is achieved through the issuance of the fixed rate amortising bonds and by having available shorter dated committed bank facilities.

The following table shows the ratio of free cash in NERL to average monthly UK en route services income during the year:

	2019 £m	2018 £m
Average monthly UK en route services income	**48.9**	50.5
Free cash at 31 March	**108.4**	135.0
Ratio of free cash to UK en route services income	**2.2**	2.7

The following table shows the ratio of the group's bank borrowings to its gross borrowings at 31 March:

	2019 £m	2018 £m
Bank borrowings	**-**	-
Gross borrowings	**337.6**	382.9
Bank borrowings as a percentage of gross borrowings	**0%**	0%

It is company policy not to issue new guarantees in respect of the borrowings of subsidiaries or to allow the creation of any new mortgages or other charges over group assets.

Notes forming part of the consolidated accounts

20. Financial instruments (continued)

Maturity of borrowings

The following table sets out the remaining contractual maturity of the group's non-derivative financial liabilities. The tables have been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the group can be required to repay. The table includes both interest and principal cash flows.

	2019				2018			
	Unsecured loans £m	**Secured loans £m**	**Other liabilities £m**	**Total £m**	Unsecured loans £m	Secured loans £m	Other liabilities £m	Total £m
Due within one year or less	**0.2**	**60.8**	**198.3**	**259.3**	0.2	65.3	168.9	234.4
Between one and two years	**0.2**	**56.8**	**67.9**	**124.9**	0.2	60.8	56.6	117.6
Due between two and five years	**0.7**	**156.1**	**42.6**	**199.4**	0.7	164.8	26.3	191.8
Due in more than five years	**0.5**	**138.0**	**4.9**	**143.4**	0.7	187.0	5.5	193.2
	1.6	**411.7**	**313.7**	**727.0**	1.8	477.9	257.3	737.0
Effect of interest, discount and unamortised bond issue and bank facility arrangement fees	**(0.2)**	**(78.2)**	**-**	**(78.4)**	(0.2)	(100.1)	-	(100.3)
	1.4	**333.5**	**313.7**	**648.6**	1.6	377.8	257.3	636.7

Other liabilities above include trade and other payables excluding deferred income of £21.2m (2018: £112.5m), contract liabilities of £93.6m (2018: £nil), taxes and social security liabilities of £13.4m (2018: £13.5m) and VAT of £0.4m (2018: £nil).

In order to manage the liquidity risk arising on the contractual maturity of its borrowings, it is the group's intent to replace bank facilities and bonds with facilities of a similar nature at least 12 months in advance of contractual maturity.

The following table sets out the maturity profile of the group's derivative financial liabilities. Cash flows under the index-linked swap are not fixed and are subject to movements in inflation. Accordingly, the cash flows associated with the index-linked swap have been derived from the group's long term forecasts of inflation as used for business planning purposes. The table shows undiscounted net cash inflows/(outflows) on these derivatives.

	Due within one year or less £m	**Due between one and two years £m**	**Due between two and five years £m**	**Due in more than five years £m**	**Total £m**
2019					
Net settled:					
Index-linked swap payable	(12.2)	(14.9)	(54.0)	(45.3)	(126.4)
Gross settled:					
Foreign exchange forward contract receivables	262.1	48.7	7.0	-	317.8
Foreign exchange forward contract payables	(260.9)	(47.0)	(7.5)	-	(315.4)
	(11.0)	**(13.2)**	**(54.5)**	**(45.3)**	**(124.0)**
2018					
Net settled:					
Index-linked swap payable	(10.2)	(12.6)	(49.7)	(67.5)	(140.0)
Gross settled:					
Foreign exchange forward contract receivables	287.3	42.7	51.4	-	381.4
Foreign exchange forward contract payables	(286.1)	(43.1)	(50.7)	-	(379.9)
	(9.0)	**(13.0)**	**(49.0)**	**(67.5)**	**(138.5)**

Notes forming part of the consolidated accounts

20. Financial instruments (continued)

Foreign exchange forward contract payables due within one year or less include estimates of the payables associated with average rate forward agreements that have fixing rates after 31 March 2019. At 31 March 2019, NERL had entered into such agreements to sell euro in July 2019 in exchange for £53.0m (2018: £56.4m).

Fair value measurements

Set out below is information about how the group determines fair values of various financial assets and financial liabilities.

The following table provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value, grouped into Levels 1 to 3 based on the degree to which the fair value is observable.

> Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities.

> Level 2 fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).

> Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

Fair value measurements recognised on the balance sheet

	2019				2018			
	Level 1 £m	Level 2 £m	Level 3 £m	Total £m	Level 1 £m	Level 2 £m	Level 3 £m	Total £m
Financial assets								
Equity investment	-	-	50.9	50.9	-	-	-	-
Derivative financial instruments in designated hedge accounting relationships	-	4.4	-	4.4	-	3.2	-	3.2
	-	4.4	50.9	55.3	-	3.2	-	3.2
Financial liabilities								
Derivative financial instruments in designated hedge accounting relationships	-	(2.1)	-	(2.1)	-	(1.3)	-	(1.3)
Derivative financial instruments classified as held for trading	-	(122.1)	-	(122.1)	-	(129.2)	-	(129.2)
	-	(124.2)	-	(124.2)	-	(130.5)	-	(130.5)

There were no transfers between individual levels in the year.

Notes forming part of the consolidated accounts

20. Financial instruments (continued)

Valuation techniques and key inputs

The fair value of the financial instrument is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the balance sheet date.

The fair values of the financial instruments held at fair value have been determined based on available market information at the balance sheet date and the valuation methodologies listed below:

> the fair values of forward foreign exchange contracts are calculated with reference to well recognised proprietary financial models used by bank counterparties, and verified using discounted cash flow modelling;

> the fair value of the index-linked swap is provided by bank counterparties using proprietary financial models. This is validated using discounted cash flow modelling based on the latest published inflation index, observable forecasts of inflation and discount rates taken from the observable interest rate swap curve at the reporting date;

> the valuation technique used to determine the fair value of the equity investment in Level 3 of the hierarchy is explained in note 16; and

> the fair value of the fixed rate bond has been derived from its externally quoted price.

Except as detailed in the following table, the directors consider that the carrying amounts of financial assets and financial liabilities recorded at amortised cost in the financial statements approximate their fair values:

	Carrying amount		Fair value	
	2019 £m	2018 £m	**2019 £m**	2018 £m
Financial liabilities				
£600m 5.25% Guaranteed Secured Amortising Bond	**(336.2)**	(381.3)	**(388.9)**	(440.6)

Notes forming part of the consolidated accounts

21. Financial and other liabilities

Trade and other payables

The group had balances in respect of other non-interest bearing financial and other liabilities as follows:

	2019 £m	2018* £m
Current		
Trade payables	**85.3**	18.4
Other payables	**1.8**	44.4
Tax and social security	**13.4**	13.5
Contract liabilities	**45.4**	-
Accruals and deferred income		
deferred grants	**0.5**	0.6
other	**114.1**	136.2
	260.5	213.1
Non-current		
Trade payables	**102.9**	-
Other payables	**0.1**	60.7
Contract liabilities	**48.2**	-
Accruals and deferred income		
deferred grants	**2.6**	3.2
other	**28.0**	106.3
	181.8	170.2
	442.3	383.3

Under IFRS 15, payables relating to contracts with customers are included within trade payables. Under previous accounting standards, these balances were disclosed within other payables.

Trade payables and accruals principally comprise amounts outstanding for trade purchases and ongoing costs. The average credit period taken for trade purchases is 31 days (2018: 34 days). The directors consider that the carrying amount of the trade payables approximates to their fair value.

Trade payables that are non-current also include regulatory adjustments for calendar year 2018, the period January to March 2019 and previous regulatory control periods, which will be repaid after 31 March 2020 through 2020 and 2021 charges. Trade payables that are current include regulatory adjustments for calendar years 2017 and 2018 and previous regulatory control periods, which will be recovered by 31 March 2020 through 2019 and 2020 charges.

* The group has chosen not to restate comparatives on adoption of IFRS 15. See note 35.

Notes forming part of the consolidated accounts

22. Obligations under finance leases

	Minimum lease payments		Present value of minimum lease payments	
	2019 £m	2018 £m	**2019 £m**	2018 £m
Within one year	**0.2**	0.2	**0.2**	0.2
In the second to fifth years inclusive	**0.9**	0.9	**0.8**	0.8
After five years	**0.5**	0.7	**0.4**	0.6
	1.6	1.8	**1.4**	1.6
Less: future finance charges	**(0.2)**	(0.2)	**-**	-
	1.4	1.6	**1.4**	1.6

Analysed as:

	2019 £m	2018 £m
Current	**0.2**	0.2
Non-current	**1.2**	1.4
	1.4	1.6

The group has a finance lease arrangement for certain network equipment. The term of this lease is 10 years, with 6.75 years remaining. For the year ended 31 March 2019, the effective borrowing rate was 3.1%. All leases are on a fixed repayment basis.

The fair value of the group's lease obligations is approximately equal to its carrying amount.

Notes forming part of the consolidated accounts

23. Provisions

	Redundancy £m	Relocation £m	Other £m	Total £m
At 1 April 2018	3.6	0.8	7.4	11.8
Additional provision in the year	1.8	0.6	1.6	4.0
Release of provision in the year	(0.3)	(0.4)	(0.1)	(0.8)
Utilisation of provision	(3.3)	(0.2)	(0.3)	(3.8)
At 31 March 2019	**1.8**	**0.8**	**8.6**	**11.2**

	2019 £m	2018 £m
Amounts due for settlement within 12 months	**3.8**	5.0
Amounts due for settlement after 12 months	**7.4**	6.8
	11.2	11.8

The redundancy provision represents the best estimate of the future cost of redundancy payments to employees that have committed to the redundancy terms at 31 March 2019. The ageing of the provision reflects the expected timing of employees leaving the group.

The relocation provision represents the best estimate of the future cost of relocating staff when the site they work at closes and they are relocated to another site. The ageing of the provision reflects the expected timing of the settlement of relocation costs.

The other provisions represent the best estimate of other liabilities, including property-related costs. The ageing of the provision reflects the best estimate of when these potential liabilities will fall due.

Notes forming part of the consolidated accounts

24. Deferred tax

The following are the major deferred tax assets and liabilities recognised by the group and movements thereon during the current and prior reporting period.

	Accelerated tax depreciation £m	Retirement benefits £m	Financial instruments £m	Other £m	Total £m
At 1 April 2017	95.1	(64.1)	(7.9)	(3.5)	19.6
Charge to income	11.0	2.3	1.8	0.4	15.5
Charge/(credit) to equity	-	80.6	(0.2)	-	80.4
At 31 March 2018	**106.1**	**18.8**	**(6.3)**	**(3.1)**	**115.5**
At 1 April 2018	106.1	18.8	(6.3)	(3.1)	115.5
Charge/(credit) to income	5.8	6.3	0.6	(1.3)	11.4
Credit to equity	-	(28.9)	(0.2)	-	(29.1)
At 31 March 2019	**111.9**	**(3.8)**	**(5.9)**	**(4.4)**	**97.8**

Certain deferred tax assets and liabilities have been offset. The following is the analysis of the deferred tax balances (after offset) for financial reporting purposes.

	2019 £m	2018 £m
Deferred tax liabilities	**(111.9)**	(124.9)
Deferred tax assets	**14.1**	9.4
	(97.8)	(115.5)

Notes forming part of the consolidated accounts

25. Share capital

	Authorised		Called up, allotted and fully paid	
	Number of shares	£m	Number of shares	£m
Ordinary shares of £1 each				
At 31 March 2019 and 31 March 2018	144,100,007	144.1	131,000,007	131.0
Ordinary A shares of 80 pence each				
At 31 March 2019 and 31 March 2018	54,272,594	43.4	12,048,193	9.6
		187.5		**140.6**

Each class of ordinary shares has the same voting rights and rights to dividends.

Special share

The authorised and issued share capital of NATS Holdings Limited includes one special rights redeemable preference share with a nominal value of £1. The share is redeemable at any time after the shareholding of the Crown falls below 25%. This share can only be held by a Minister of the Crown, the Treasury Solicitor or any other person acting on behalf of the Crown. The special shareholder is entitled to attend and speak at meetings. The special share does not carry any rights to vote at general meetings except in the following circumstances:

- alterations to the company's share capital;
- alterations to voting rights of any of the company's shares; and
- the removal of any director appointed by a Crown representative.

If an attempt is made to approve any of these events or to pass a resolution to wind up the company at a general meeting, on an ordinary resolution, the special shareholder will have no less than one vote more than the total number of all other votes cast, and on a special resolution, he shall have no less than one vote more than 25% of the total votes cast.

26. Share premium account

	£m
Balance as at 31 March 2019 and 31 March 2018	**0.4**

27. Non-controlling interest

The non-controlling interest (a 30% ownership interest in NATS Services LLC) recognised at the acquisition date was measured by reference to the fair value of the non-controlling interest and amounted to £0.1m (Omani rial 0.1m).

As at 31 March 2019, a loan to the non-controlling interest amounted to £0.1m (Omani rial 0.1m) and is included in other debtors (see note 17).

Notes forming part of the consolidated accounts

28. Notes to the cash flow statement

	2019 £m	2018 £m
Operating profit from continuing operations	**122.5**	157.0
Adjustments for:		
Depreciation of property, plant and equipment	**81.0**	80.3
Amortisation of intangible assets	**55.7**	51.7
Impairment losses	**5.0**	5.7
Deferred grants released	**(0.6)**	(0.7)
Profit on disposal of property, plant and equipment	**(2.1)**	-
R&D expenditure above the line tax credits	**(1.9)**	(1.8)
Adjustment for pension funding	**(33.7)**	(11.5)
Operating cash flows before movements in working capital	**225.9**	280.7
Decrease/(increase) in trade and other receivables	**5.5**	(14.6)
Increase in trade, other payables and provisions	**62.3**	78.7
Cash generated from operations	**293.7**	344.8
Tax received/(paid)	**0.8**	(6.8)
Net cash from operating activities	**294.5**	338.0

Cash and cash equivalents, which are presented as a single class of asset on the face of the balance sheet, comprise cash at bank and short term highly liquid investments with a maturity of three months or less.

Reconciliation of net financial liabilities

The table below analyses those net financial liabilities for which cash flows arise from financing activities in each of the periods presented.

	2019 £m	2018 £m
Cash and cash equivalents	**214.6**	269.6
Short term investments	**46.4**	38.3
Cash and liquid investments	**261.0**	307.9
Gross debt - fixed interest rates	**(336.2)**	(381.1)
Gross debt - variable interest rates	**1.3**	1.7
Net debt	**(73.9)**	(71.5)
Index-linked swap	**(122.1)**	(129.2)
Net financial liabilities	**(196.0)**	(200.7)

Notes forming part of the consolidated accounts

28. Notes to the cash flow statement (continued)

The table below reconciles the movements in financial assets and financial liabilities arising from financing activities in the period.

	Assets		Liabilities from financing activities (excluding derivatives)				Net debt	Derivatives	Net financial liabilities
	Cash and cash equivalents £m	Short term investments £m	Finance leases £m	£600m 5.25% Guaranteed Secured Amortising Bonds £m	Bank loans (i) £m	Bank overdrafts £m	Sub-total £m	Index-linked swap £m	Total net financial liabilities £m
Net financial liabilities as at 1 April 2017	254.2	39.4	(1.8)	(426.2)	1.7	-	(132.7)	(138.6)	(271.3)
Cash flows	15.6	(1.1)	0.3	47.2	-	-	62.0	8.1	70.1
Bank facility arrangement fees	-	-	-	-	0.4	-	0.4	-	0.4
Foreign exchange adjustments	(0.2)	-	-	-	-	-	(0.2)	-	(0.2)
Fair value movements	-	-	-	-	-	-	-	1.3	1.3
Other non-cash movements (ii)	-	-	(0.1)	(0.5)	(0.4)	-	(1.0)	-	(1.0)
Net financial liabilities as at 31 March 2018	**269.6**	**38.3**	**(1.6)**	**(379.5)**	**1.7**	**-**	**(71.5)**	**(129.2)**	**(200.7)**
Cash flows	(55.2)	8.1	0.2	45.2	-	-	(1.7)	10.1	8.4
Foreign exchange adjustments	0.2	-	-	-	-	-	0.2	-	0.2
Fair value movements	-	-	-	-	-	-	-	(3.0)	(3.0)
Other non-cash movements (ii)	-	-	-	(0.5)	(0.4)	-	(0.9)	-	(0.9)
Net financial liabilities as at 31 March 2019	**214.6**	**46.4**	**(1.4)**	**(334.8)**	**1.3**	**-**	**(73.9)**	**(122.1)**	**(196.0)**

(i) The group has no outstanding drawings on its bank facilities. The amount reported under bank loans represents unamortised bank facility arrangement fees.
(ii) Other non-cash flow movements include finance lease interest charges, amortisation of bond issue costs and bank facility arrangement fees.

Notes forming part of the consolidated accounts

29. Financial commitments

	2019 £m	2018 £m
Amounts contracted but not provided for in the accounts	**67.9**	106.3
Minimum lease payments under operating leases recognised in the income statement	**8.7**	20.1

At the balance sheet date the group had outstanding commitments for future minimum lease payments under non-cancellable operating leases, which fall due as follows:

	2019 £m	2018 £m
Within one year	**9.9**	15.3
In the second to fifth years inclusive	**38.5**	56.3
After five years	**35.6**	60.4
	84.0	132.0

Operating lease payments represent rentals payable by the group for certain properties, equipment used for air navigation and vehicles. Leases are negotiated on varying terms depending on the type of asset leased.

Guarantees

NATS Holdings Limited has given guarantees to the Ministry of Defence in relation to NERL's performance under its Future Military Area Radar Services contract with the MOD.

NATS Services has provided a parent company guarantee to the MOD to secure the performance by Aquila of its obligations under the Project Marshall contract.

NATS Services has provided a parent company guarantee to the sellers of shares in Searidge Technologies Inc, to secure the performance by NATS (Services) Canada Inc under the Share Purchase Agreement for any contingent consideration relating to those shares.

NATS Services has guaranteed all of the obligations of NATS (USA) Inc to Aireon LLC in relation to its status as a member of Aireon LLC.

As part of the tendering process for new contracts, the NATS group may be required to put in place a tender or bid guarantee which expires once the contract is awarded. Where tenders are successful, contractual terms may also require performance or advance payment guarantees. These guarantees vary in length depending on the life of the contract and may run until the expiry of the contract. The total guarantees provided in these respects at 31 March 2019 was £8.4m (2018: £7.8m).

Notes forming part of the consolidated accounts

30. Share based payments

The company operates an All-Employee Share Ownership Plan for the benefit of employees to hold 5% of the share capital of the company. The plan is administered by NATS Employee Sharetrust Limited. The scheme allows for free shares, dividend shares, partnership shares and matching shares to be awarded to employees. The free shares and matching shares have a vesting period of three years from date of award and may be cash-settled from this date. The shares may be forfeited if the employee leaves within three years of the date of the award, depending on conditions of departure.

A liability is recognised for the current fair value of shares in issue at each balance sheet date. Changes in fair value of the liability are charged or credited to the income statement. The number of shares outstanding at the balance sheet date was:

Date of share awards	No. shares awarded to employees	No. employee shares outstanding at 31 March 2019	No. employee shares outstanding at 31 March 2018
Free share awards			
21 September 2001	3,353,742	**256,923**	284,317
20 October 2003	2,459,000	**241,384**	265,886
10 September 2004	1,966,000	**360,957**	396,957
11 January 2008	1,071,840	**285,717**	314,859
18 September 2009	963,200	**314,557**	351,657
Partnership shares			
1 March 2011	694,783	**288,096**	325,365
26 September 2012	714,959	**367,007**	422,365
30 May 2014	496,738	**386,500**	406,176
31 October 2016	530,303	**471,506**	495,273
31 October 2018	635,048	**622,117**	-
Matching shares			
1 March 2011	694,783	**287,127**	325,624
26 September 2012	714,959	**364,656**	421,028
30 May 2014	496,738	**386,575**	406,176
31 October 2016	530,303	**471,506**	495,273
31 October 2018	635,048	**622,117**	-
		5,726,745	4,910,956
Dividend shares issued on 28 June 2005	247,017	**30,625**	33,701
Total employee shares in issue at 31 March		**5,757,370**	4,944,657

Notes forming part of the consolidated accounts

30. Share based payments (continued)

The movement in the number of employee shares outstanding is as follows:

	Movement in the no. of shares during the year ended 31 March 2019	Movement in the no. of shares during the year ended 31 March 2018
Balance at 1 April	**4,944,657**	5,655,376
Granted during the year	**1,270,096**	-
Forfeited during the year	**(15,206)**	(7,350)
Exercised during the year	**(442,177)**	(703,369)
Balance at 31 March	**5,757,370**	4,944,657

These shares are valued every six months by independent valuers using discounted cash flow and income multiple methods of valuation. As at 31 March 2019 the price of an employee share was valued at £3.90 (2018: £3.40). A valuation at 30 June 2018 valued the shares at £3.75. The liability for the employee shares at 31 March 2019 was £19.1m (2018: £16.1m) included in other accruals and deferred income. The income statement includes a charge of £2.9m (2018: £2.8m credit). The payments made to employees for the shares they exercised during the year was £1.6m (2018: £2.4m).

31. Retirement benefit schemes

Defined contribution scheme

The group provides a defined contribution scheme to all qualifying employees who are not members of the defined benefit scheme. The assets of the scheme are held separately from those of the group in funds under the control of a board of Trustees.

The group operates a salary sacrifice arrangement whereby employees sacrifice an element of their salary in favour of contributions to the scheme in a ratio of 2:1, up to a maximum employer contribution of 18%. For the year ended 31 March 2019 employer contributions of £11.4m (2018: £8.7m), excluding employee salary sacrifice contributions of £6.2m (2018: £4.6m), represented 15.0% of pensionable pay (2018: 14.7%).

The defined contribution scheme had 1,680 members at 31 March 2019 (2018: 1,343).

Notes forming part of the consolidated accounts

31. Retirement benefit schemes (continued)

Defined benefit scheme

NATS Limited (formerly National Air Traffic Services Limited), the company's wholly-owned subsidiary, entered into a deed of adherence with the CAA and the Trustees of the Civil Aviation Authority Pension Scheme (CAAPS) whereby the company was admitted to participate in CAAPS from 1 April 1996. CAAPS is a fully funded defined benefit scheme providing benefits based on final pensionable salaries. At 31 March 2001, the business of NATS was separated from the CAA. As a consequence, NATS became a 'non associated employer' which requires the assets relating to the liabilities of NATS active employees at 31 March 2001 to be separately identified within the CAAPS. CAAPS was divided into two sections to accommodate this, namely the CAA section and the NATS section, and a series of common investment funds was established in which both sections participate for investment purposes. The assets and membership of the scheme prior to transfer were allocated between these sections in accordance with Statutory Instrument 2001 Number 853, Transport Act 2000 (Civil Aviation Authority Pension Scheme) Order 2001. The assets of the scheme are held in a separate trustee administered fund. CAAPS is governed by a board of Trustees which is responsible for implementing the funding and investment strategy. The board comprises six employer (NATS and the CAA) and six member-nominated trustees, as well as an independent chair.

During 2009 the group introduced a number of reforms to manage the cost and risk of pensions. The defined benefit pension scheme was closed to new joiners with effect from 31 March 2009. In addition, from 1 January 2009, annual increases in pensionable salaries were limited to a maximum increase in the retail prices index (RPI) plus 0.5%. A defined contribution scheme was also introduced for new joiners (see above). Finally, pension salary sacrifice arrangements were introduced with effect from 1 April 2009.

During 2013 the group consulted on further pension reforms to mitigate rising pension costs. These included a change to the limit on increases in pensionable salaries to a maximum of the consumer prices index (CPI) plus 0.25%. In addition, the Trustees consulted members of the scheme on a change to the indexation of future service at CPI, rather than RPI. These reforms were agreed by staff.

The defined benefit scheme had the following membership at 31 March:

	2019 No.	2018 No.
Active members	**1,990**	2,089
Deferred members	**1,064**	1,072
Pensioners	**2,728**	2,669
	5,782	5,830

Notes forming part of the consolidated accounts

31. Retirement benefit schemes (continued)

Trustees' funding assessment

A Trustees' funding assessment of the NATS' section is prepared at least every three years by the pension scheme actuary at the request of the Trustees in order to establish the financial position of the NATS' section and to determine the level of contributions to be paid by NATS in the future.

The last Trustees' funding assessment of the NATS' section was carried out at 31 December 2017 and used the projected unit credit method. The assumptions which have the most significant effect on the liabilities assessed at the valuation and hence the contribution requirement are those relating to the rate of return on investments, the rate of increase in salaries, the rate of increase in pensions and life expectancy.

The market value of the NATS' section's assets as at 31 December 2017 was £4,540.4m. For the purpose of the Trustees' funding assessment assets were taken at market value. The shortfall of assets relative to the value of benefits that had accrued to existing members was £270.4m, corresponding to a funding ratio of 94.4%.

The 2017 valuation showed that, based on long term financial assumptions, the contribution rate required to meet future benefit accrual and expenses was 47.6% of pensionable pay (41.8% employers and 5.8% employees). The employer contribution includes an allowance to cover administration costs, including the Pension Protection Fund (PPF) levy.

Contributions to the pension scheme

Following the 2017 valuation, NATS and the Trustees agreed a recovery plan which would see the funding deficit repaid by 2026. Under the schedule of contributions, normal contributions will continue to be paid at 31.8% of pensionable pay until 31 December 2019, increasing to 41.7% payable from 1 January 2020 onwards. The NATS group paid deficit recovery contributions of £40.8m in the 2018 calendar year and will pay £41.8m in 2019. From 1 January 2020 to 31 December 2023, deficit recovery contributions will be paid at £25.4m in 2020 and increase annually by 2.37% for 2021 to 2023. No contributions will be paid in 2024. Further deficit recovery contributions will be paid in 2025 and 2026 of £2.3m per year.

During the year the group paid cash contributions to the scheme of £100.0m (2018: £104.1m). This amount included £8.9m (2018: £9.7m) of wages and salaries sacrificed by employees in return for pension contributions. Excluding the effect of salary sacrifice and past service costs, employer cash contributions were paid at a rate of 58.0% (2018: 55.3%) of pensionable pay.

The estimated contributions expected to be paid to the scheme during the financial year ending 31 March 2020 is £98.8m, including salary sacrifice contributions estimated at £8.7m.

Contributions to the scheme are ultimately funded by NATS' two principal operating subsidiaries: NERL and NATS Services, in proportion to their pensionable payrolls.

Company's accounting valuation under international accounting standards

For the purpose of accounting for the scheme in these financial statements, the company obtains an updated valuation from a qualified independent actuary that is prepared in accordance with IAS 19: *Employee Benefits*.

This valuation differs from the Trustees' funding assessment explained above in a number of critical respects, including for example, differences in timing and frequency as well as in valuation assumptions. The Trustees' last funding assessment was prepared as at 31 December 2017, whereas the company's accounting valuation is prepared annually at 31 March. As a result, at each valuation date, the market conditions on which the assumptions are based will be different. Also, the assumptions adopted for the Trustees' funding assessment are set by the Trustees and include appropriate margins for prudence, whereas those adopted for the company's accounting valuation are prescribed by international accounting standards and reflect best estimates.

If an accounting valuation reveals a surplus at the balance sheet date, this is recognised in full to the extent that it can be realised in full by the company.

Notes forming part of the consolidated accounts

31. Retirement benefit schemes (continued)

An actuarial valuation for IAS 19 purposes was carried out at 31 March 2019 (based on 31 December 2018 membership data). The major assumptions used by the actuary for the purposes of the IAS 19 figures at the relevant year ends are set out in the table and narrative below:

	2019	2018	2017
RPI inflation	**3.10%**	3.00%	3.10%
CPI inflation	**2.00%**	1.90%	2.00%
Increase in:			
- salaries	**2.00%**	1.90%	2.00%
- deferred pensions	**3.10%**	3.00%	3.10%
- pensions in payment	**3.10%**	3.00%	3.10%
Discount rate for net interest expense	**2.45%**	2.65%	2.55%

The mortality assumptions have been drawn from actuarial tables 97% S2PMA light and 102% S2PFA light (2018: 97% S2PMA light and 102% S2PFA light) with future improvements in line with CMI 2016 (2018: CMI 2016) projections for male/female members, subject to a long term improvement of 1.5% p.a. (2018: 1.5% p.a.). These tables assume that the life expectancy, from age 60, for a male pensioner is 29.0 years and a female pensioner is 29.6 years. Allowance is made for future improvements in longevity, such that based on the average age of the current membership (46), when these members reach retirement, life expectancy from age 60 will have increased for males to 30.2 years and for females to 30.9 years.

The principal risks to the financial performance of the group arising from the scheme are in respect of:

a. asset volatility: for accounting purposes, scheme liabilities are determined using a discount rate set by reference to high quality corporate bond yields. If scheme assets under-perform relative to this yield, this will create a deficit. As explained below, NATS and Trustees are reviewing measures to de-risk the scheme by investing more in assets which better match the liabilities.

b. changes in bond yields: a decrease in the yield on high quality corporate bonds will increase scheme obligations, although this is partly mitigated by an increase in the value of the scheme's holdings of bonds.

c. inflation risk: the scheme's benefit obligations are linked to inflation, and higher inflation will lead to higher liabilities. As discussed further below, the scheme has implemented a liability driven investment programme to partially protect the funding position from changes in inflation. Furthermore, some of the scheme's assets (such as equities) are real in nature and so provide some additional inflation protection, but overall, an increase in inflation will adversely impact on the funding position.

d. life expectancy (mortality): the majority of the scheme's obligations are to provide benefits for the life of a member, so an increase in life expectancy will result in an increase in the scheme's obligations.

Notes forming part of the consolidated accounts

31. Retirement benefit schemes (continued)

Sensitivities regarding the principal assumptions used to measure the scheme liabilities are set out below:

Assumption	Change in assumption	Impact on scheme liabilities
Discount rate (bond yields)	Increase/decrease by 0.5%	Decrease by 10.3%/increase by 12.0%
Rate of inflation	Increase/decrease by 0.5%	Increase by 11.6%/decrease by 10.1%
Rate of pensionable salary growth	Increase/decrease by 0.5%	Increase by 2.6%/decrease by 2.5%
Rate of mortality	1 year increase in life expectancy	Increase by 3.3%

Each sensitivity above is based on changing one assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to variations in significant actuarial assumptions, the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as for calculating the liability recognised on the balance sheet.

The directors consider that the criteria for recognition of a pension surplus under IFRIC 14 are met.

Notes forming part of the consolidated accounts

31. Retirement benefit schemes (continued)

Amounts recognised in income, in the staff costs line item, in respect of the defined benefit scheme are as follows:

	2019 £m	2018 £m
Current service cost	(67.6)	(81.9)
Past service cost	(1.0)	-
Net interest expense	4.2	(7.6)
Administrative expenses	(1.9)	(3.1)
Components of defined benefit costs recognised within operating profit	(66.3)	(92.6)

Remeasurements recorded in the statement of comprehensive income are as follows:

	2019 £m	2018 £m
Return on plan assets (excluding amounts included in net interest expense)	180.5	36.5
Actuarial gains and losses arising from changes in financial assumptions	(311.3)	214.2
Actuarial gains and losses arising from changes in demographic assumptions	-	162.4
Actuarial gains and losses arising from experience adjustments	(35.6)	36.8
	(166.4)	449.9

The amount included in the consolidated balance sheet arising from the group's obligations in respect of its defined benefit scheme is as follows:

	2019 £m	2018 £m
Present value of defined benefit obligations	(4,789.8)	(4,375.0)
Fair value of scheme assets	4,767.7	4,485.6
(Deficit)/surplus in scheme	(22.1)	110.6

Notes forming part of the consolidated accounts

31. Retirement benefit schemes (continued)

Movements in the present value of the defined benefit obligations were as follows:

	2019 £m	2018 £m
At 1 April	**(4,375.0)**	(5,786.3)
Current service cost	**(67.6)**	(81.9)
Past service cost	**(1.0)**	-
Interest expense on defined benefit scheme obligations	**(114.4)**	(132.1)
Actuarial gains and losses arising from changes in financial assumptions	**(311.3)**	214.2
Actuarial gains and losses arising from changes in demographic assumptions	**-**	162.4
Actuarial gains and losses arising from experience adjustments	**(35.6)**	36.8
Benefits paid	**115.1**	1,211.9
At 31 March	**(4,789.8)**	(4,375.0)

The average duration of the scheme's liabilities at the end of the year is 21.6 years (2018: 22.1 years). The present value of the defined benefit obligation can be analysed by member group as follows:

	2019 £m	2018 £m
Active members	**(1,945.0)**	(1,749.5)
Deferred members	**(516.9)**	(457.0)
Pensioners	**(2,327.9)**	(2,168.5)
	(4,789.8)	(4,375.0)

Movements in the fair value of scheme assets during the year were as follows:

	2019 £m	2018 £m
At 1 April	**4,485.6**	5,435.5
Interest income on scheme assets	**118.6**	124.5
Return on plan assets (excluding amounts included in net interest expense)	**180.5**	36.5
Contributions from sponsoring company	**100.0**	104.1
Benefits paid	**(115.1)**	(1,211.9)
Administrative expenses	**(1.9)**	(3.1)
At 31 March	**4,767.7**	4,485.6

Notes forming part of the consolidated accounts

31. Retirement benefit schemes (continued)

The major categories of scheme assets were as follows:

	2019 £m	2018 £m
Cash and cash equivalents	**31.5**	154.4
Equity instruments		
- UK	**-**	132.1
- Europe	**-**	36.0
- North America	**-**	106.1
- Japan	**-**	14.8
- Pacific (excluding Japan)	**-**	40.9
- Emerging markets	**145.4**	130.7
- Global	**813.6**	889.6
	959.0	1,350.2
Bonds		
- Fixed income	**1,633.0**	1,092.6
- Index-linked gilts over 5 years	**1,550.4**	1,394.7
	3,183.4	2,487.3
Other investments		
- Property	**247.0**	245.5
- Hedge funds	**225.4**	223.5
- Private equity funds	**125.8**	125.6
	598.2	594.6
Derivatives		
- Futures contracts	**(4.4)**	(100.9)
	4,767.7	4,485.6

The scheme assets do not include any investments in the equity or debt instruments of group companies or any property or other assets used by the group.

Virtually all equity and debt instruments have quoted prices in active markets. Investments are well diversified, such that the failure of any single investment would not have a material impact on the overall level of assets. A large portion of the assets consist of equities and bonds, although the scheme also invests in property, cash and investment (private equity and hedge) funds.

Notes forming part of the consolidated accounts

31. Retirement benefit schemes (continued)

NATS and Trustees implemented a liability driven investment (LDI) programme in 2012 in order to hedge the impact of changes in inflation and interest rates on the value of the scheme's obligations, which are sensitive to inflation and movements in yields in the gilt market. The strategy includes establishing trigger levels which define the rates of interest and inflation rates at which hedging transactions will be executed. In addition, and as an acceleration of the existing strategy, NATS and Trustees agreed during 2014 to increase the level of hedging of interest rates and inflation to 50%, as measured on the Trustee funding basis. During 2018 it was agreed to further increase the level of hedging of interest rates and inflation to 65%, as measured on the Trustee funding basis. Swap transactions are executed with carefully scrutinised banks and collateral is provided in the form of index-linked gilts to protect against the unlikely event of default by a counterparty bank.

During 2018, NATS and the Trustees also agreed changes to the asset allocation to make the portfolio more efficient by reducing the overall level of risk whilst continuing to support the valuation assumptions agreed for the 2017 funding valuation and therefore having no impact on the level of contributions payable. This included a reduction in the allocation to equities in favour of a more diversified portfolio with a higher allocation to liquid debts.

Derivative instruments are used by investment managers to reduce risk or gain exposure to investment classes without the requirement to hold the underlying investment. Trustees monitor derivative positions to ensure that, when combined with the underlying physical position, the aggregate falls within specified investment guidelines.

The actual return on scheme assets for the year ended 31 March 2019 was £299.1m (2018: £161.0m).

32. Related party transactions

The NATS group has four shareholders - the Crown, The Airline Group Limited (AG), LHR Airports Limited and the NATS Employee Sharetrust Limited. During the year transactions with the Crown have taken place with the Meteorological Office, the Department for Transport (DfT) and the Ministry of Defence (MOD). In addition there have been transactions with LHR Airports Limited and AG.

AG is a consortium of British Airways plc, Deutsche Lufthansa AG, easyJet Airline Company Limited, the Pension Protection Fund, Thomas Cook Airlines Limited, TUI Airways Limited, Virgin Atlantic Airways Limited and USS Sherwood Limited. AG has a 42% stake in NATS Holdings Limited. The directors of NATS Holdings Limited are satisfied that the eight members of AG have not exercised undue influence on the group either acting individually or in concert and therefore the individual transactions with each member of AG have not been disclosed in this set of accounts.

Contractual arrangements existed during the year between LHR Airports Limited and NATS Services in relation to air navigation services provided at Heathrow Airport.

Transactions between the company and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this note. Transactions between the company and its subsidiaries are disclosed in the subsidiary companies' financial statements.

Transactions between the company and its joint ventures and associate, which are related parties, are disclosed below.

Notes forming part of the consolidated accounts

32. Related party transactions (continued)

Trading transactions

During the year, group companies entered into the following transactions with related parties.

	Sales		Purchases		Amounts owed by related parties		Amounts owed to related parties	
	Year ended 31 March 2019 £m	Year ended 31 March 2018 £m	**Year ended 31 March 2019 £m**	Year ended 31 March 2018 £m	**Year ended 31 March 2019 £m**	Year ended 31 March 2018 £m	**Year ended 31 March 2019 £m**	Year ended 31 March 2018 £m
LHR Airports Limited	**55.5**	59.2	**0.4**	8.3	**10.3**	6.0	**-**	-
Ministry of Defence (MOD)	**47.7**	47.0	**4.0**	4.7	**5.7**	5.5	**28.4**	19.5
The Airline Group Limited (AG)	**-**	-	**0.2**	0.2	**-**	-	**-**	-
Department for Transport (DfT)	**0.9**	0.9	**-**	-	**0.1**	-	**-**	-
Meteorological Office	**0.3**	-	**1.0**	1.1	**-**	-	**0.2**	0.1
European Satellite Services Provider SAS	**0.1**	0.1	**-**	-	**-**	-	**-**	-
FerroNATS Air Traffic Services SA	**0.4**	0.4	**-**	-	**-**	-	**-**	-
Aquila Air Traffic Management Services Limited	**26.3**	17.2	**0.1**	0.2	**2.5**	0.8	**-**	0.2
Searidge Technologies Inc	**0.1**	-	**0.9**	0.9	**-**	-	**-**	-

Sales are made to related parties at the group's usual rates and purchases at market prices. The amounts outstanding are unsecured and will be settled in cash. No guarantees have been received. No provisions (2018: £nil) have been made for doubtful debts in respect of amounts owed by related parties.

Remuneration of key management personnel

The remuneration of key management personnel of the group, is set out below in aggregate for each of the categories specified in IAS 24: *Related Party Disclosures*. Key management includes the Board of directors of the company and the group's principal subsidiaries. Further information about the remuneration of individual directors is provided in the audited part of the Remuneration Committee report.

	2019 £m	2018 £m
Short term employee benefits	**6.7**	7.4
Post-employment benefits	**0.2**	-
Other long term benefits	**2.8**	0.6
	9.7	8.0

Notes forming part of the consolidated accounts

33. Subsidiaries, joint ventures and associates

The group's principal subsidiaries at 31 March 2019, all of which have been consolidated in these accounts were:

Name of company	Principal activity	Proportion of ordinary shares and voting rights held	Country of registration	Country of operation
Direct holding:				
NATS Limited*	Corporate services	100%	England and Wales	United Kingdom
Indirect holding:				
NATS (En Route) plc*	En route air traffic services	100%	England and Wales	United Kingdom
NATS (Services) Limited*	Airport air traffic services	100%	England and Wales	United Kingdom
NATS Solutions Limited*	Airport and airfield air traffic services	100%	England and Wales	United Kingdom
NATSNav Limited*	Satellite-based navigation	100%	England and Wales	United Kingdom
NATS Employee Sharetrust Limited*	Corporate trustee of employee share plan	100%	England and Wales	United Kingdom
NATS Services DMCC, *Suite 1201, Platinum Tower, Plot No. PH1-I2, Jumeirah Lake Towers, PO Box 392497, Dubai, United Arab Emirates*	ATM consultancy	100%	UAE	UAE
NATS Services LLC, *PO Box 533, Ruwi, PC 112, Muscat, Sultanate of Oman*	ATM consultancy	70%	Oman	Oman
NATS Services (Asia Pacific) Pte. Limited, *3 Raffles Place, #06-01 Bharat Building, Singapore 048617*	Airport and ATM consultancy	100%	Singapore	Singapore
NATS Services (Hong Kong) Limited, *31F Tower Two, Times Square, 1 Matheson Street, Causeway Bay, Hong Kong*	Airport and ATM consultancy	100%	Hong Kong	Hong Kong
NATS (USA) Inc, *The Corporation Trust Company, 1209 Orange Street, Wilmington, New Castle County, Delaware, United States*	Engineering and ATM consultancy	100%	USA	USA
NATS (Services) Canada Inc, *100 King Street West, Suite 6200, 1 First Canadian Place, Toronto, Ontario, M5X 1B8, Canada*	Digital airport air traffic services	100%	Canada	Canada

* The registered office address of the entities registered in England and Wales is: 4000 Parkway, Whiteley, Fareham, Hampshire, PO15 7FL, United Kingdom.

Notes forming part of the consolidated accounts

33. Subsidiaries, joint ventures and associates (continued)

The group had one associate and three joint ventures as at 31 March 2019, details are as follows:

Name of company	Principal activity	Date of acquisition	Proportion of ordinary shares held	Country of incorporation
European Satellite Services Provider SAS, *18, Avenue Edouard Belin - BPI 602, 31 401 Toulouse Cedex 9, France*	Satellite-based navigation	1 September 2008	16.67%	France
FerroNATS Air Traffic Services SA, *Calle Principe de Vergara, 135, 28002, Madrid, Spain*	Airport air traffic services	28 January 2011	50.00%	Spain
Aquila Air Traffic Management Services Limited, *2 Dashwood Lang Road, The Bourne Business Park, Addlestone, Surrey, KT15 2NX, United Kingdom*	Asset provision and ATM services to UK MOD	9 October 2014	50.00%	United Kingdom
Searidge Technologies Inc, *19 Camelot Drive, Nepean, Ontario, K2G 5W6, Canada*	Digital airport air traffic services	28 April 2017	50.00%	Canada

The associate and joint ventures are indirectly held by NATS Holdings Limited. The investment in ESSP is held by NATSNav Limited, investments in FerroNATS and Aquila are held by NATS (Services) Limited and the investment in Searidge Technologies is held by NATS (Services) Canada Inc.

Summarised financial information relating to the associate and joint ventures

European Satellite Services Provider SAS (ESSP)

In September 2008, the group acquired 16.67% of the issued share capital of ESSP for cash consideration of €0.2m (£0.1m).

The associate is accounted for using the equity method. Pursuant to the shareholder agreement, the group has the right to cast 16.67% of the votes at shareholder meetings. The financial year end is 31 December 2018. For the purposes of applying the equity method of accounting, the financial statements of ESSP for the year ended 31 December 2018 have been used. These financial statements have been adjusted for a final dividend of €0.4m (£0.3m) declared by ESSP at its AGM on 20 March 2019. No other adjustments are required to be made for the effects of significant transactions between the 31 December 2018 and 31 March 2019.

Although the group holds less than 20% of the equity shares of ESSP, the group exercises significant influence by virtue of representation on the Board of directors, participation in policy making decisions of ESSP and the provision of essential technical information to ESSP.

Summarised financial information in respect of ESSP is set out below. These amounts have been prepared in accordance with French GAAP and converted from the euro, ESSP's functional currency.

FerroNATS Air Traffic Services SA

In January 2011, the group acquired 50% of the issued share capital of FerroNATS Air Traffic Services SA (FerroNATS) for a cash consideration of €0.1m (£0.1m). In June 2011, the group purchased an additional €0.4m (£0.3m) of share capital, maintaining a 50% holding of the issued share capital. FerroNATS is a joint venture with Ferrovial Servicios SA.

FerroNATS draws up its accounts to 31 December. For the purpose of these financial statements management accounts have been used to derive its performance as at 31 March 2019.

FerroNATS prepares its accounts in accordance with Spanish GAAP and its functional currency is the euro.

Notes forming part of the consolidated accounts

33. Subsidiaries, joint ventures and associates (continued)

Aquila Air Traffic Management Services Limited

In October 2014, the group acquired 50% of the issued share capital of Aquila Air Traffic Management Services Limited (Aquila) for a cash consideration of £0.1m. Aquila provides air traffic management services at military airfields in the delivery of Project Marshall for the Ministry of Defence. Aquila draws up its accounts to 31 March and therefore these accounts have been used to determine its performance for the financial year. It prepares its accounts under IFRS and its functional currency is pounds sterling.

The group has recognised £0.5m as the carrying value of its investment in Aquila. This is less than a 50% share of Aquila's net assets of £5.1m at 31 March 2019. The difference is a result of impairment charges recognised due to differences in accounting policies and the uncertainty surrounding future profit forecasts.

During the year, Aquila drew down loan finance of £1.4m (net) (2018: £2.8m) from the group. At 31 March 2019, the loan (including interest) outstanding was £21.1m (2018: £18.6m).

Searidge Technologies Inc

On 26 April 2017, NATS (Services) Limited incorporated a 100% subsidiary entity, NATS (Services) Canada Inc. On 28 April 2017, NATS (Services) Canada Inc. acquired 50% of the voting equity interest of Searidge Technologies Inc. (Searidge). Searidge works with airports around the world, providing technology that helps reduce delays, increase efficiency, and overall safety. This includes the delivery of digital tower solutions, which see air traffic controllers managing aircraft from remote facilities instead of in traditional airport towers.

Details of the purchase consideration, the net assets acquired and goodwill are as follows:

	C$m	£m
Purchase consideration:		
Cash paid	7.9	4.7
Acquisition-related costs	0.3	0.2
Contingent consideration	1.5	0.9
Total purchase consideration	**9.7**	**5.8**

Additional consideration is payable if the joint venture meets a cumulative EBITDA threshold of C$4.17m for the period 1 September 2017 to 31 August 2020, up to a maximum of C$1.5m at cumulative EBITDA of C$4.92m. The potential undiscounted amount payable under the agreement is C$nil for EBITDA below C$4.17m and C$1.5m for EBITDA above C$4.92m over that period. Every C$1 of EBITDA above C$4.17m earns C$2 of contingent consideration, up to the cap of C$1.5m.

The fair value of the contingent consideration is estimated to be the maximum amount payable of C$1.5m.

The carrying value of goodwill recorded at cost less any provisions for impairment is as follows:

	C$m	£m
Goodwill recognised on acquisition	9.2	5.5
Exchange differences	-	(0.4)
At 31 March 2018	9.2	5.1
Exchange differences	-	0.2
At 31 March 2019	**9.2**	**5.3**

Notes forming part of the consolidated accounts

33. Subsidiaries, joint ventures and associates (continued)

Searidge prepares its accounts in accordance with Canadian GAAP and its functional currency is the canadian dollar.

Searidge draws up its accounts to 31 August. For the purpose of these financial statements management accounts to 28 February 2019 have been used. No adjustments are required to be made for the effects of significant transactions between 1 March 2019 and 31 March 2019. The Searidge management accounts include unrealised tax losses of C$3.4m (£1.9m) that cannot be recognised in accordance with Canadian GAAP. The group has recognised a deferred tax asset of C$0.5m (£0.3m) on consolidation as the group considers that these losses will be set off against future taxable profits.

An impairment review of the goodwill recognised on consolidation has been performed based on the latest business plan. No impairment provision is considered necessary at 31 March 2019.

During the year, Searidge drew down loan finance of C$0.4m (£0.2m) from the group (2018: C$2.0m, £1.1m). At 31 March 2019, the loan (including interest) outstanding was C$2.5m (£1.4m) (2018: C$2.0m, £1.1m).

Notes forming part of the consolidated accounts

33. Subsidiaries, joint ventures and associates (continued)

The summarised financial information above is reconciled to the carrying amount recognised in the consolidated financial statements as follows:

	2019				2018			
	Associate ESSP £m	**Joint venture FerroNATS £m**	**Joint venture Aquila £m**	**Joint venture Searidge £m**	Associate ESSP £m	Joint venture FerroNATS £m	Joint venture Aquila £m	Joint venture Searidge £m
Non-current assets	**2.2**	**0.2**	**1.9**	**1.0**	0.9	0.1	1.7	0.5
Current assets	**29.2**	**7.5**	**71.8**	**3.5**	29.1	7.0	52.9	3.7
Current liabilities	**(21.0)**	**(3.3)**	**(52.7)**	**(1.9)**	(18.1)	(2.3)	(38.0)	(1.7)
Non-current liabilities	**(1.6)**	**-**	**(15.9)**	**(3.1)**	(1.4)	-	(12.6)	(2.5)
Net assets of associate/joint ventures	**8.8**	**4.4**	**5.1**	**(0.5)**	10.5	4.8	4.0	-
Group share	**1.4**	**2.2**	**2.5**	**(0.3)**	1.7	2.4	2.0	-
Goodwill on acquisition of joint venture	**-**	**-**	**-**	**5.5**	-	-	-	5.5
Exchange difference on goodwill since acquisition	**-**	**-**	**-**	**(0.2)**	-	-	-	(0.4)
Other adjustments	**-**	**-**	**-**	**0.3**	-	-	-	(0.1)
Impairment provision brought forward	**-**	**-**	**(2.0)**	**-**	-	-	-	-
Impairment provision recognised in income statement	**-**	**-**	**-**	**-**	-	-	(1.9)	-
Carrying amount of the group's interest in associate/joint ventures	**1.4**	**2.2**	**0.5**	**5.3**	1.7	2.4	0.1	5.0
Revenue	**54.3**	**13.7**	**101.4**	**7.2**	51.2	11.9	71.7	2.9
Profit/(loss) after tax for the year	**3.2**	**1.1**	**1.0**	**0.1**	2.9	1.2	0.9	(0.8)
Group share	**0.5**	**0.6**	**0.5**	**0.1**	0.4	0.6	0.4	(0.4)
Impairment provision recognised in income statement	**-**	**-**	**(0.1)**	**-**	-	-	(1.9)	-
Group share of profit/(loss) after tax and impairment	**0.5**	**0.6**	**0.4**	**0.1**	0.4	0.6	(1.5)	(0.4)
Dividends received	**(0.8)**	**(0.7)**	**-**	**-**	-	(0.8)	-	-
Other comprehensive (loss)/ income	**-**	**(0.1)**	**-**	**-**	-	0.1	-	-

Notes forming part of the consolidated accounts

34. Ultimate controlling party

There is no ultimate controlling party of NATS Holdings Limited. Under the shareholders' agreement, The Airline Group Limited and the Crown have similar reserve rights in respect of material decisions affecting the company.

35. Changes in accounting policies

As indicated in note 2 above, the group has adopted IFRS 9: *Financial Instruments* and IFRS 15: *Revenue from Contracts with Customers,* which have resulted in changes in accounting policies and to the amounts recognised in the financial statements. The group has chosen not to restate the comparative year.

a) IFRS 9: *Financial Instruments*

IFRS 9 has replaced IAS 39: *Financial Instruments: Recognition and Measurement.* IFRS 9 introduces new requirements for (i) the classification and measurement of financial assets and liabilities, (ii) impairment for financial assets and (iii) general hedge accounting. The adoption of IFRS 9 has not had an impact on the group's approach to hedge accounting. The impact on the group is in relation to the impairment of trade receivables and contract assets as detailed below.

In relation to the impairment of financial assets measured at amortised cost (such as trade and other receivables), IFRS 9 requires an expected credit loss model as opposed to an incurred credit loss model under IAS 39. The expected credit loss model requires the group to account for expected losses and changes in those expected losses at each reporting date to reflect changes in credit risk since initial recognition of the financial assets. In other words, it is no longer necessary for a credit event to have occurred before credit losses are recognised.

The group has trade receivables and contract assets that are subject to IFRS 9's new expected credit loss model across all of its service lines. The group has revised its impairment methodology under IFRS 9. The impact of the change in impairment methodology on the group's retained earnings and equity is disclosed below.

As at 1 April 2018, the directors of the group reviewed and assessed the group's existing trade receivables for impairment using reasonable and supportable information that is available without undue cost or effort in accordance with the requirements of IFRS 9 to determine the credit risk of these at the date they were initially recognised. This has resulted in a reduction in the credit loss allowance from that previously reported of £0.4m (£0.3m net of tax) as at 1 April 2018, due to a change in the measurement of the loss allowance relating to each financial asset.

The group applied the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables and contract assets.

In order to measure the expected credit losses, the risk characteristics of the trade receivables and contract assets have been considered and a matrix based on the days past due used to summarise the historic loss patterns. The contract assets relate to unbilled work in progress and have substantially the same credit risk characteristics as the trade receivables for the same types of contracts. The group has concluded that the expected credit loss rates for trade receivables are a reasonable approximation of the expected credit loss rates for the contract assets. For contract assets, the assessment of expected credit loss rates is made separate from, and following, the assessment of risks of contract performance.

Notes forming part of the consolidated accounts

35. Changes in accounting policies (continued)

The reduction in the impairment is primarily a result of the risk profile of the UK en route receivables within NERL, partially offset by an increase in impairment losses for other subsidiaries within the group due to the risk profile of International receivables. The loss allowance as at 1 April 2018 was determined as follows for both trade receivables and contract assets:

As at 1 April 2018:	Receivables - months past due							
	Current	1 month	2-3 months	4-6 months	7-12 months	>12 months	In administration	Total £m
NERL expected credit loss rate (%)	0.2%	7.6%	23.9%	48.7%	68.0%	80.8%	100.0%	
NERL gross carrying amount (£m)	119.7	0.4	0.2	0.2	0.1	0.6	3.7	124.9
NERL lifetime expected credit loss (£m)	**0.2**	**-**	**0.1**	**0.1**	**0.1**	**0.5**	**3.7**	**4.7**
Other subsidiaries expected credit loss rate (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
Other subsidiaries gross carrying amount (£m)	43.6	4.7	2.7	0.5	0.2	0.2	0.1	52.0
Other subsidiaries expected credit losses (£m)	**-**	**-**	**-**	**-**	**-**	**-**	**0.1**	**0.1**
Total expected credit losses (£m)	**0.2**	**-**	**0.1**	**0.1**	**0.1**	**0.5**	**3.8**	**4.8**

A reconciliation of the loss allowance as at 31 March 2018 to the opening loss allowance as at 1 April 2018 is provided in note 17.

The group has chosen not to restate comparatives on adoption of IFRS 9 and therefore this reduction (net of tax) has been recognised against retained earnings and presented in the statement of changes in equity for the year ended 31 March 2019.

Impact of application of IFRS 9 for the year ended 31 March 2019

The loss allowances decreased by a further £0.8m during the year ended 31 March 2019. The decrease under the IAS 39 incurred loss model would have been £1.0m.

b) IFRS 15: *Revenue from Contracts with Customers*

IFRS 15 has replaced IAS 18: *Revenue* and IAS 11: *Construction Contracts* as well as various Interpretations previously issued by the IFRS Interpretations Committee. The two main impacts of IFRS 15 are the timing of recognition of revenue relating to the recovery (or rebate) of the difference in pension contributions paid and those assumed by the economic regulator ('pension pass through') in the national performance plan for the reference period, where the difference arises from unforseen changes in financial market conditions; and recharges to airport customers of property related costs and safety regulation charges.

The major part of the group's revenue is derived from service contracts which include performance obligations which are satisfied over time, as customers simultaneously receive and consume the benefits provided by the group's performance as the group performs, or which include enforceable rights to payment for performance completed to date. These revenues mainly relate to NERL's economically regulated Airspace services, provided to the licence customer base, and to UK Airport ATC contracts.

Notes forming part of the consolidated accounts

35. Changes in accounting policies (continued)

Airspace services include variable consideration for traffic volume risk sharing, inflation adjustments, service performance incentives, financing components and pension pass through. UK Airport services include variable consideration for traffic volume risk sharing and service performance incentives. Under IAS 18, the recovery of pension pass through incurred in regulatory Reference Period 1 (RP1, calendar years 2011-2014), was recognised in the period that it was being recovered from airline customers which is the 15 year period starting from January 2016.

Airspace: defined benefit pension scheme pension contributions not subject to risk sharing with customers ('pension pass through')

For the reasons explained above, pension pass through gives rise to variable consideration. It is subject to regulatory scrutiny and approved by the CAA and the EC after the end of a regulatory reference period. Amounts are then recovered in subsequent reference periods as an adjustment to the unit charge.

IFRS 15 requires variable consideration for a performance obligation which has been fulfilled to be recognised to the extent that it is not subject to a significant risk of reversal. The directors consider that there is a significant risk pension pass through may be restricted by either the CAA or the EC. For this reason, the group expects to recognise pension pass through in the financial year in which it is approved, rather than in the year the difference arises. As at 1 April 2018, a residual balance of pension pass through of £11.7m (£9.5m net of tax) relating to RP1, which had been approved but had not been recovered through the unit charge, was recognised in retained earnings. Any pension pass through relating to Reference Period 2 (RP2, calendar years 2015-2019) will be recognised, after approval, in the early part of Reference Period 3 (RP3, calendar years 2020-2024). Overall, the impact of IFRS 15 is the earlier recognition of variable consideration relating to pension pass through.

UK Airports: property related costs and safety regulation charges

A number of UK Airport ATC contracts require the group to rent the airport control tower building from the airport operator and to recover this and other property costs through the fee charged to the airport operator for ATC services.

The fees for recovering property costs amounted to £17.0m for the year ended 31 March 2018 and £7.4m for the year ended 31 March 2019. For reporting under IAS 18, the recovery of these costs was recognised as revenue. Under IFRS 15 the provision of the air traffic control tower is not considered to be distinct from the provision of ATC services. For the year ended 31 March 2019 these fees have been reported as an offset against rental charges in operating costs. This change has no impact on the group's result or its retained earnings on the initial application of IFRS 15.

The group also recharges to airport customers the cost of the CAA's safety regulation charges for those airports. Fees for recovering these costs amounted to £2.8m for the year ended 31 March 2018 and £3.0m for 31 March 2019. For reporting under IAS 18 for the year ended 31 March 2018, the recovery of these costs was recognised as revenue. Under IFRS 15, the group is not satisfying a performance obligation in the provision of this service and, for the year ended 31 March 2019, the fees will be offset against the CAA's safety regulation charges in operating costs. This change has no impact on the group's result or its retained earnings on the initial application of IFRS 15.

Other impacts

Other impacts arising from the adoption of IFRS 15 were to: a) accelerate the recognition of revenue relating to a UK Airport ATC contract, resulting in the recognition of £0.9m (net of tax) in retained earnings and an increase in revenue for the year ended 31 March 2019 of £0.3m; and b) the allocation of the transaction price of the Project Marshall asset provision contract to the performance obligations in the contract, which resulted in a reduction in retained earnings of £0.4m (net of tax) and a decrease in revenue for the year ended 31 March 2019 of £0.1m.

Transition

The group has taken advantage of the following transitional exemption: when identifying satisfied and unsatisfied performance obligations, determining the transaction price and allocating the transaction price to performance obligations, the company has considered the aggregate effect of all contract modifications made before 1 April 2018.

The group has chosen not to restate comparatives on adoption of IFRS 15 and, therefore, these changes have been reflected at the date of initial application, and presented in the statement of changes in equity for the year ended 31 March 2019.

Notes forming part of the consolidated accounts

35. Changes in accounting policies (continued)

c) Adjustments to retained earnings on initial application at 1 April 2018

The following table shows the adjustments to retained earnings and to financial statement line items made on initial application of IFRS 9 and IFRS 15:

	Explanatory notes	Carrying amount at 31 March 2018 as previously reported under IAS 18 and IAS 39 £m	Reclassification £m	Remeasurements £m	Carrying amount at 1 April 2018 under IFRS 9 and IFRS 15 £m	Retained earnings effect at 1 April 2018 £m
Trade and other receivables						
Non-current						
Receivable from customers (gross)	(i) (iii) (vi)	-	12.8	1.2	14.0	1.2
Accrued income	(vi)	13.7	(13.7)	-	-	-
Other debtors	(vi)	0.2	0.9	-	1.1	-
Current						
Receivable from customers (gross)	(vi)	79.3	63.3	-	142.6	-
Provision for impairment of trade receivables	(v)	(5.0)	(0.2)	0.4	(4.8)	0.4
Contract assets	(iv) (vi)	-	20.8	(0.5)	20.3	(0.5)
Accrued income	(vi)	84.8	(84.8)	-	-	-
Other debtors	(vi)	4.9	0.5	-	5.4	-
Current tax assets	(vii)	1.5	(1.5)	-	-	-
Trade and other payables						
Non-current						
Contract liabilities	(vi)	-	(21.9)	-	(21.9)	-
Other payables	(vi)	(60.7)	(5.4)	-	(66.1)	-
Accruals and deferred income - other	(i) (vi)	(106.3)	24.5	10.4	(71.4)	10.4
Current						
Contract liabilities	(vi)	-	(14.0)	-	(14.0)	-
Other payables	(vi)	(44.4)	(0.3)	-	(44.7)	-
Accruals and deferred income - other	(i) (vi)	(136.2)	17.5	1.2	(117.5)	1.2
Current tax liabilities	(vii)	-	1.5	(2.4)	(0.9)	(2.4)
						10.3

Explanatory notes:

(i) the change in timing of recognition of Airspace revenue relating to pension pass through, as explained under b) above.
(ii) the change in recognition of UK Airports revenue relating to property costs and safety regulation charges, as explained under b) above.
(iii) the change in timing of recognition of revenue on UK Airport contracts, as explained under b) above.
(iv) the change in timing of recognition of Defence Services revenue relating to the asset provision part of the Project Marshall contract. Under IFRS 15, the company recognises revenue based on two distinct performance obligations, as explained under b) above.
(v) the effects of the adoption of IFRS 9, as explained under a) above.
(vi) the reclassification of balances previously reported from accrued income to trade receivables, contract assets and other receivables; and from deferred income to other payables or contract liabilities.
(vii) the tax impact of the adjustments in (i) - (vi).

Notes forming part of the consolidated accounts

35. Changes in accounting policies (continued)

d) Impact of application of IFRS 9 and IFRS 15 for the year ended 31 March 2019

The following table shows the financial statement line items as they would have been shown under previous accounting standards and the effect of adjustments necessary to give the balances under IFRS 9 and IFRS 15. Financial statement lines items not shown below have not been impacted by the adoption of IFRS 9 and IFRS 15.

Consolidated income statement

	Explanatory notes	Under previous accounting standards £m	Effect of reporting under IFRS 9 and IFRS 15 £m	As reported under IFRS 9 and IFRS 15 £m
Revenue	(i) (ii) (iii) (iv)	898.1	(12.4)	885.7
Operating costs	(ii) (v)	(773.4)	10.2	(763.2)
Operating profit		124.7	(2.2)	122.5
Investment revenue	(i)	3.3	1.1	4.4
Share of results of associate and joint ventures		1.6	-	1.6
Other finance costs		(30.3)	-	(30.3)
Profit before tax		99.3	(1.1)	98.2
Tax	(vii)	(16.1)	0.2	(15.9)
Profit for the year attributable to equity shareholders		**83.2**	**(0.9)**	**82.3**

Explanatory notes:

(i) the change in timing of recognition of Airspace revenue relating to pension pass through, as explained under b) above.
(ii) the change in recognition of UK Airports revenue relating to property costs and safety regulation charges, as explained under b) above.
(iii) the change in timing of recognition of revenue on UK Airport contracts, as explained under b) above.
(iv) the change in timing of recognition of Defence Services revenue relating to the asset provision part of the Project Marshall contract. Under IFRS 15, the company recognises revenue based on two distinct performance obligations, as explained under b) above.
(v) the effect of the adoption of IFRS 9, as explained under a) above.
(vi) the reclassification of balances previously reported from accrued income to trade receivables, contract assets and other receivables; and from deferred income to other payables or contract liabilities.
(vii) the tax impact of the adjustments in (i) - (vi).

Notes forming part of the consolidated accounts

35. Changes in accounting policies (continued)

Consolidated balance sheet

	Explanatory notes	Under previous accounting standards £m	Effect of reporting under IFRS 9 and IFRS 15 £m	As reported under IFRS 9 and IFRS 15 £m
Non-current assets				
Trade and other receivables				
- Receivable from customers (gross)	(vi)	-	15.7	15.7
- Accrued income	(vi)	15.7	(15.7)	-
- Other trade and other receivables		8.6	-	8.6
Trade and other receivables		24.3	-	24.3
Other non-current assets		1,345.6	-	1,345.6
		1,369.9	-	1,369.9
Current assets				
Trade and other receivables				
- Receivable from customers (gross)	(vi)	73.0	54.0	127.0
- Provision for impairment of trade receivables	(v)	(4.1)	0.1	(4.0)
- Contract assets	(vi)	-	23.8	23.8
- Accrued income	(iii) (iv) (vi)	76.9	(76.9)	-
- Other trade and other receivables		29.4	-	29.4
Trade and other receivables		175.2	1.0	176.2
Current tax assets	(vii)	1.5	(1.5)	-
Other current assets		265.1	-	265.1
Total assets		1,811.7	(0.5)	1,811.2
Current liabilities				
Trade and other payables				
- Contract liabilities	(vi)	-	(45.4)	(45.4)
- Accruals and deferred income - other	(i) (vi)	(170.1)	56.0	(114.1)
- Other trade and other payables		(101.0)	-	(101.0)
Trade and other payables		(271.1)	10.6	(260.5)
Current tax liabilities	(vii)	-	(0.7)	(0.7)
Other current liabilities		(60.4)	-	(60.4)
		(331.5)	9.9	(321.6)
Net current assets		110.3	9.4	119.7
Non-current liabilities				
Trade and other payables				
- Contract liabilities	(vi)	-	(48.2)	(48.2)
- Accruals and deferred income - other	(vi)	(76.2)	48.2	(28.0)
- Other trade and other payables		(105.6)	-	(105.6)
Trade and other payables		(181.8)	-	(181.8)
Other non-current liabilities		(529.8)	-	(529.8)
Total liabilities		(1,043.1)	9.9	(1,033.2)
Net assets		768.6	9.4	778.0
Equity				
Called up share capital		140.6	-	140.6
Share premium account		0.4	-	0.4
AESOP reserve		(0.3)	-	(0.3)
Hedge reserve		0.6	-	0.6
Translation reserve		1.1	-	1.1
Other reserves		(34.7)	-	(34.7)
Retained earnings	(i) (iii) (iv) (v) (vii)	660.8	9.4	670.2
Equity attributable to the shareholders		768.5	9.4	777.9
Non-controlling interest		0.1	-	0.1
Total equity		768.6	9.4	778.0

Notes forming part of the consolidated accounts

36. Events after the reporting period

In May 2019, the Board approved an interim dividend for the year ending 31 March 2020 of 20.97 pence per share, totalling £30.0m, which was paid in May 2019.

Company balance sheet

at 31 March

	Notes	2019 £m	2018 £m
Assets			
Non-current assets			
Investments	4	**141.0**	141.0
Net assets		**141.0**	141.0
Equity			
Share capital	5	**140.6**	140.6
Share premium account	5	**0.4**	0.4
Retained earnings		**-**	-
Total equity		**141.0**	141.0

As permitted by section 408 of the Companies Act 2006 the company has elected not to present its own income statement for the year. For the year ended 31 March 2019 the company recognised a profit of £59.0m (2018: £57.0m).

The financial statements (Company No. 04138218) were approved by the Board of directors and authorised for issue on 27 June 2019 and signed on its behalf by:

Paul Golby
Chairman

Nigel Fotherby
Finance Director

Company statement of changes in equity

for the year ended 31 March

	Share capital £m	Share premium £m	Retained earnings £m	Total £m
At 1 April 2017	140.6	0.4	-	141.0
Profit for the year	-	-	57.0	57.0
Other comprehensive income for the year	-	-	-	-
Total comprehensive income for the year	**-**	**-**	**57.0**	**57.0**
Dividends paid	-	-	(57.0)	(57.0)
At 31 March 2018	**140.6**	**0.4**	**-**	**141.0**
At 1 April 2018	140.6	0.4	-	141.0
Profit for the year	-	-	59.0	59.0
Other comprehensive income for the year	-	-	-	-
Total comprehensive income for the year	**-**	**-**	**59.0**	**59.0**
Dividends paid	-	-	(59.0)	(59.0)
At 31 March 2019	**140.6**	**0.4**	**-**	**141.0**

Notes forming part of the company accounts

1. Cash flow statement

No cash flow statement has been provided because the company does not maintain a bank account or have any cash transactions. Dividends were transacted by the company's subsidiary NATS Limited.

2. Significant accounting policies

The separate financial statements of the company are presented as required by the Companies Act 2006. As permitted by that Act, the separate financial statements have been prepared in accordance with International Financial Reporting Standards as adopted by the EU.

The financial statements have been prepared on the historical cost and fair value basis. The principal accounting policies are the same as those set out in note 2 to the consolidated financial statements.

Investments in subsidiaries are designated as held to maturity and stated at cost less, where appropriate, provisions for impairment. Income from subsidiaries is recognised when received.

3. Profit for the year and dividends

Profit for the year has been arrived at after charging:

	2019 £m	2018 £m
Staff costs	**-**	-
Auditor's remuneration	**-**	-

	2019 No.	2018 No.
Executive directors	**2**	2
Non-executive directors	**10**	9
	12	11

The company incurred no charge to current or deferred taxes in the year (2018: £nil).

Dividends

Amounts recognised as distributions to equity holders in the period:

	2019 £m	2018 £m
First interim dividend of 20.62 pence per share (2018: 19.92 pence per share)	**29.5**	28.5
Second interim dividend of 20.62 pence per share (2018: 19.92 pence per share)	**29.5**	28.5
	59.0	57.0

Notes forming part of the company accounts

4. Investments

	Investments in subsidiary undertakings £m
Investments at 31 March 2019 and 31 March 2018	141.0

The company's investments in subsidiary undertakings are as set out in note 33 to the consolidated financial statements.

Pursuant to a loan agreement entered into by NERL, the company has granted a legal mortgage and fixed charge over its shares in NATS Limited, NERL's parent company, and a floating charge over all other assets.

5. Share capital and share premium accounts

These items are disclosed in the consolidated statement of changes in equity and notes 25 and 26 of the consolidated financial statements.

6. Financial instruments

The company held no financial instruments at 31 March 2019 (2018: none).

7. Ultimate controlling party

There is no ultimate controlling party of NATS Holdings Limited. Under the shareholders' agreement, The Airline Group Limited and the Crown have similar reserve rights in respect of material decisions affecting the company.

8. Events after the reporting period

In May 2019, the Board approved an interim dividend for the year ending 31 March 2020 of 20.97 pence per share, totalling £30.0m, which was paid in May 2019. The company recognised a dividend in May 2019 of £30.0m from its subsidiary, NATS Limited.

Abbreviations and definitions

2018	Financial year ended 31 March 2018
2019	Financial year ended 31 March 2019
2020	Financial year ending 31 March 2020
3Di	3 Dimensional Flight Inefficiency Metric
ACOG	Airspace Change Organising Group
ADS-B	Automatic Dependent Surveillance-Broadcast
AESOP	All-Employee Share Ownership Plan
AG	The Airline Group Limited
AIM	Aeronautical Information Management
AIREON	Aireon LLC, subsequently Aireon Holdings LLC
AMPRPS	Annual Management Performance Related Pay Scheme
ANSP	Air Navigation Service Provider
AQUILA	Aquila Air Traffic Management Services Limited
ATC	Air Traffic Control
ATFM	Air Traffic Flow Management
ATM	Air Traffic Management
CAA	Civil Aviation Authority
CAAPS	Civil Aviation Authority Pension Scheme
CANSO	Civil Air Navigation Services Organization
CDSB	Climate Disclosure Standards Board
CEO	Chief Executive Officer
CP3	Control Period 3 (2011-2014)
CPI	Consumer Prices Index
CPNI	Centre for the Protection of National Infrastructure
DB	Defined Benefit Pension Scheme
DC	Defined Contribution Pension Scheme
DfT	Department for Transport
DNV GL	DNV GL is a quality assurance and risk management company
DSESAR	Deploying Single European Sky ATM Research
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortisation
EC	European Commission
ESSP	European Satellite Services Provider SAS
EU	European Union
ExCDS	Extended Computer Display System
FerroNATS	FerroNATS Air Traffic Services SA
FRC	Financial Reporting Council
GAAP	Generally Accepted Accounting Principles
GDP	Gross Domestic Product
GDPR	General Data Protection Regulation
GHG	Green house gas
HMG	Her Majesty's Government
HMRC	Her Majesty's Revenue & Customs
IAS	International Accounting Standard
IASB	International Accounting Standards Board
ICAO	International Civil Aviation Organization
IFRIC	International Financial Reporting Interpretations Committee
IFRS	International Financial Reporting Standards
INEA	Innovation and Networks Executive Agency
ISO	International Organisation for Standardisation
iTEC	Interoperability Through European Collaboration
KPI	Key Performance Indicator
LAMP	London Airspace Modernisation Project
LHRA	LHR Airports Limited
LIBOR	London Interbank Offered Rate
LTIP	Long Term Incentive Plan
MOD	Ministry of Defence
NATS	NATS Holdings Limited and its subsidiaries, together the NATS group
NATS Services	NATS (Services) Limited
NERL	NATS (En Route) plc
NESL	NATS Employee Sharetrust Limited
NHL	NATS Holdings Limited
NPP	National Performance Plan
PLAS	Prestwick Lower Airspace Systemisation
PPP	Public Private Partnership
R&D	Research and Development
RAB	Regulatory Asset Base
RAT	Risk Analysis Tool
RP1	Reference Period 1 (2012-2014)
RP2	Reference Period 2 (2015-2019)
RP3	Reference Period 3 (2020-2024)
RP4	Reference Period 4 (2025-2029)
RPAS	Remotely Piloted Aircraft Systems
RPI	Retail Prices Index
SEARIDGE	Searidge Technologies Inc
SES	Single European Sky
SESAR	SES ATM Research
SMS	Safety Management System
SPA	Strategic Partnership Agreement
STEM	Science, technology, engineering and mathematics
TANS	Terminal Air Navigation Services
TBS	Time Based Separation
TC	Terminal Control
USS	USS Sherwood Limited
UTM	Unmanned Traffic Management

Explanatory notes

1 Single European Sky ATM Research: a programme to modernise Europe's airspace structure and air traffic management technologies.

References in this document to Deploying SESAR relate to NERL's investment programme which implements a number of SESAR compliant technologies and methodologies, rather than the European Sky ATM Research programmes that are defining and driving the deployment of technologies and methodologies at the European-wide level.

2 An Airprox is a situation in which, in the opinion of a pilot or controller, the distance between aircraft as well as their relative positions and speeds have been such that the safety of the aircraft involved was or may have been compromised. The severity of these incidents is assessed periodically by the UK Airprox Board, an independent body, in the interests of enhancing flight safety.

3 Electronic flight strips replace the paper strips for recording aircraft movements previously used in Terminal Control. This represents a stepping stone towards the use of controller electronic tool interfaces as part of the Deploying SESAR programme.

4 Aireon LLC provides a space-based air traffic surveillance system with global coverage capable of tracking and monitoring aircraft in real-time. This improves ATC and surveillance over regions with limited or no radar coverage and backup surveillance for regions with full radar coverage. Aireon is a private company whose investors are Iridium Communications, NAV CANADA, ENAV, IAA, Naviair and NATS.

5 Project Marshall is a 22 year contract awarded to the Aquila joint venture to transform the military's terminal Air Traffic Control technical services. It was initiated by the MOD to modernise ATM for over 100 MOD locations, of which over 60 are airfields or ranges, including overseas. It provides the foundation to deliver efficient and cost effective terminal ATM services and ensures that this capability keeps pace with modern regulatory demands and Single European Sky standards. NATS provides services to Aquila to enable it to deliver Project Marshall.

6 The severity of ground and airborne incidents is scored against six criteria: minimum separation achieved; rate of closure; detection of potential conflict; plan to achieve required separation; execution of the plan; and recovery when separation is lost.

7 Impact score is a measure of delay placing greater weight on long delays and departures in the morning and the evening peaks.

8 Variability score is a daily excess delay score based on weighted delays exceeding pre-determined thresholds on a daily basis.

9 3Di score measures airspace efficiency with reference to the deviation from the preferred profile to the actual radar track of each flight in UK airspace.

10 Link to Customer Report: https://www.nats.aero/news/customer-report/

11 Link to Gender Pay Report: https://www.nats.aero/wp-content/uploads/2019/03/NATS-Gender-Pay-Report-2018.pdf

12 Link to NATS Slavery and Human Trafficking statement 2019: https://www.nats.aero/wp-content/uploads/2019/01/Modern_Slavery_Act-Statement_Jan_2019.pdf

13 Link to NATS CDP Report: https://www.cdp.net/en/responses?utf8=%E2%9C%93&queries%5Bname%5D=nats CDP, formerly the Carbon Disclosure Project, runs a global disclosure system on behalf of investors that enables companies and cities to measure and manage their environmental impacts.

14 Swanwick Combined Operations will establish the common operational environment which will ensure that NATS can provide one ATC operation across two Centres.